August 23, 2022

Ninth & Lenora LLC
c/o: Elton Lee
455 Market St #1920
San Francisco, CA 94105

Ecology Site Manager
c/o: Sonia Fernandez
Washington State Department of Ecology
PO Box 330316
Shoreline, Washington 98133-9716

Re: CLEANUP ACTION REPORT AMENDMENT, Lenora Building Site - FINAL
Facility/Site #91413494 and Cleanup Site ID #1802
Project No. 170291

This Cleanup Action Report Amendment letter is in response to Washington State Department of Ecology's (Ecology) "Opinion on Proposed Cleanup of a Property Associated with a Site" letter[1] dated August 9, 2021 (2021 Ecology Letter, see Appendix A) and subsequent communications between Aspect Consulting LLC (Aspect) and Ecology. Aspect submitted a Cleanup Action Report to Ecology dated March 26, 2020[2] (Aspect 2020 CAR, see Appendix B) on behalf of our client, Ninth and Lenora LLC, for the property located at 820 Lenora Street[3] (herein referred to as the Subject Property). The purpose of this letter is to amend the Aspect 2020 CAR based on a request in the 2021 Ecology Letter and as determined by communications between Glynis Carrosino (Ecology), Sonia Fernandez (Ecology), and Dave Cook (Aspect).

With this Cleanup Action Report Amendment letter, Aspect is requesting a written opinion as it relates to the acquisition of a Property-specific no further action (NFA) determination, discussed in the following sections. Ecology's Voluntary Cleanup Program (VCP) Request for Opinion Form is included in Appendix C of this letter. We also acknowledge an Environmental Covenant (EC) will be required for an NFA determination for this Subject Property. The EC, with requested supporting documentation and appendices, will be submitted under separate cover.

Background

As outlined in the Aspect 2020 CAR, the Subject Property was enrolled in Ecology's VCP on June 8, 2015 (Facility/Site No. 91413494, Cleanup Site ID: 1802, and VCP Project No. NW2980).

[1] Ecology, 2021. RE: Opinion on Proposed Cleanup of a Property Associated with a Site, Site Name: Lenora Building, Site Address: 2101 9th Avenue and 2118 Westlake Avenue, Seattle, Washington 98121, Facility/Site No.: 91413494, Cleanup Site ID No.: 1802, VCP Project No.: NW3277. August 9.

[2] Aspect, 2020. CLEANUP ACTION REPORT, Lenora Building Site (aka Stratus Apartments), 820 Lenora Street, Seattle, Washington Facility/Site #91413494, Cleanup Site ID: 1802, Prepared for: Ninth and Lenora LLC. March 26.

[3] Formerly 2101 9th Avenue

GeoEngineers, Inc., (GeoEngineers) prepared a Remedial Investigation/Feasibility Study[4] and Cleanup Action Report[5], which were submitted to Ecology in 2016 (2016 RI/FS and 2016 CAR, respectively). Dave Cook, who is currently operating as the Principal in Charge and project manager at Aspect for Ninth and Lenora LLC, was the lead author of both the 2016 RI/FS and 2016 CAR while at GeoEngineers. Ecology issued a Property-specific NFA determination in November 2017 based on the information presented in the 2016 RI/FS and the 2016 CAR. In 2018, it was discovered that the Subject Property boundaries legally extended to the centerline of the adjacent roadways on 9th Avenue and Lenora Street as depicted in Figure 2 of the Aspect 2020 CAR (Appendix B) and shown as an attachment to this report.

It is important to note that Figure 2 appears to show the off-Property-sourced gasoline-contaminated soil extending into or beneath the new apartment building. This is not the case. Because the aerial photograph was taken at an angle (rather than top down) this skews the reality that the contamination is confined within 9th Avenue and does not encroach onto the Property. This is more evident in plan-view maps provided in the Aspect 2020 CAR.

The adjusted Subject Property boundary had implications for the Property-specific NFA that Ecology issued in 2017, as detailed in the Aspect 2020 CAR, due to a limited volume of petroleum- and polycyclic aromatic hydrocarbon (PAH)-contaminated soil beneath portions of 9th Avenue and Lenora Street (now within the Subject Property boundary), and in a limited portion of the alley (outside the Subject Property).

Aspect met with Ecology on July 23, 2019, to provide a project update. Between July 2019 and May 2020, the updated Aspect 2020 CAR was completed and submitted to Ecology under a new VCP package dated May 22, 2020. Ecology accepted the new VCP package on June 12, 2020.

2021 Ecology Letter Review and Requirements

Between June 2020 and August 2021, Ecology reviewed the new VCP submittal and Aspect 2020 CAR that reflected the new understanding of the legal Subject Property boundaries. On August 9, 2021, Ecology issued an opinion letter (2021 Ecology Letter) determining that, upon completion of the proposed cleanup action and recorded EC, no further remedial action would likely be necessary to clean up contamination at the Subject Property. The 2021 Ecology Letter states that the "cleanup and proposed EC would constitute the final actions for the Property", but that the completed cleanup and proposed EC "constitute only an '**interim action**' for the Site as a whole."

Aspect understands that the cleanup actions conducted, in tandem with an EC, will be sufficient for reissuance of a Property-specific NFA. The Ecology 2021 Letter identified a list of requirements that will need to be addressed as part of the EC production. Aspect is assisting the Client's Attorney with production of the EC.

Following the discussion of the EC, the Ecology 2021 Letter states "[T]he March 2020 Cleanup Action Report is in need of editing and updating prior to completion of a final EC document. For

[4] GeoEngineers, Inc., 2016. Remedial Investigation and Feasibility Study, Ninth and Lenora Development, 2101 9th Avenue, Seattle, Washington, Facility/Site #91413494, Cleanup Site ID: 1802, VCP Project No. NW2980. March 24, 2016.

[5] GeoEngineers, Inc., 2016. Cleanup Action Report, Ninth and Lenora Development, 2101 9th Avenue, Seattle, Washington, Facility/Site #91413494, Cleanup Site ID: 1802, VCP Project No. NW2980. March 25, 2016.

example, the DCA section references the 2016 RI/FS. The complete analysis needs to be included in the final CAR with appropriate bar charts and tables."

Communications between Dave Cook and Glynis Carrosino in September 2021 were beginning to focus on a standalone amendment document to address the statement above regarding the Aspect 2020 CAR, prior to Ms. Carrosino's retirement. In email communication between Dave Cook and Sonia Fernandez on May 13, 2022, it was determined that Aspect would submit a "Revised CAR with request for opinion" to be placed on the waiting list for a new Ecology Site Manager. This step would be completed in the interim to obtain a new Ecology Site Manager and updated opinion while the EC is being completed. This document represents the intent of the May 13, 2022 conversation.

Complete Disproportionate Cost Analyses – 2016 RI/FS and Aspect 2020 CAR

This section presents key sections from the 2016 RI/FS detailing the Evaluation and Selection of Alternatives as defined in the 2016 Ecology Toxics Cleanup Program Feasibility Study Checklist[6] and as requested in the 2021 Ecology Letter (i.e., "The complete analysis needs to be included in the final CAR with appropriate bar charts and tables").

The 2016 RI/FS cleanup action evaluation included an analysis of three alternatives: (1) Engineering and Institutional Controls, (2) Remedial Excavation to MTCA Method A, and (3) Chemical Oxidation *In-Situ* Remediation to MTCA Method A Cleanup Levels. Because this analysis was performed with the prior understanding of the legal Subject Property boundaries, the residual contamination beneath Lenora Street was incorrectly referenced as "Off-Property" in the 2016 RI/FS but is now known to be a part of the Subject Property. The residual contamination in the "Alley" remains part of the Site but is consistent with the prior Off-Property designation. However, the alternative analysis (including disproportionate cost analysis/charts) and remedial action selection remains consistent for the identified Subject Property contamination formerly present within the current building footprint, Subject Property residual contamination beneath Ninth Avenue and Lenora Street, and the Off-Property residual contamination beneath Alley.

A complete copy of the Feasibility Study (FS) completed as part of the 2016 RI/FS, including all cost estimate and alternative ranking tables, is included in Appendix D.

[6] Ecology, 2016. Feasibility Study Checklist, Toxics Cleanup Program, Publication No. 16-09-007. May 2016

Presented below: 2016 RI/FS, Section 5.1.2, Cleanup Action Evaluation (2016 RI/FS pages 11 and 12)

5.1.2. Cleanup Action Evaluation

Based on the results of RI activities performed at the Site (summarized in Section 4.0), soil primarily contaminated with petroleum hydrocarbons, PAHs and to a lesser extent with gasoline-range hydrocarbons, benzene, xylenes, (associated with the USTs) and/or lead (observed at two locations in fill soil) at concentrations exceeding cleanup levels needed remediation to achieve protection of human health and the environment. There were two approaches to remediation at this Site:

1. Excavation within the bounds of the subject property, and
2. Engineering and institutional controls off-property.

Subject Property. The construction excavation at the subject property consisted of excavation of the entire subject property to approximately 80 feet bgs (approximate Elevation 7 feet) which resulted in removal of all contaminated soil from the subject property. The redevelopment excavation encompassed all of the soil contamination within subject property; therefore, the cleanup actions for the subject property consisted of remedial excavation and off-site permitted disposal of contaminated soil. Due to the extent of the redevelopment excavation, and because contamination was not documented in groundwater beneath the subject property at concentrations exceeding MTCA Method A Cleanup levels and the lack of other pathways of concern, evaluation of additional cleanup action alternatives were not necessary in this FS for the subject property.

Site/Off-Property. A limited volume of Petroleum (gasoline- and heavy oil-range hydrocarbons) and PAHs-contaminated soil remains in two small areas; the first extending beyond the south subject property boundary beneath the Lenora Street sidewalk and the second extending beyond the west subject property beneath the alley. This residual contaminated soil cannot be removed because:

- **Lenora Street.** Contaminated soil is located approximately 24 feet deep (in Lenora Street) which requires significant shoring for excavation, a multitude of utilities are present, and closure of Lenora Street will have a significant adverse impact on downtown traffic that would likely not be permitted by City of Seattle Department of Transportation (SDOT).
- **Alley.** Presence of infrastructure elements in the alley associated with the triangular parcel shoring wall and an underground parking garage structural and foundation elements (concrete footings and walls) that also supports the Lenora Street stability.

Presented below: 2016 RI/FS, Section 5.4, MTCA Disproportionate Cost Analysis (2016 RI/FS pages 17 and 18)

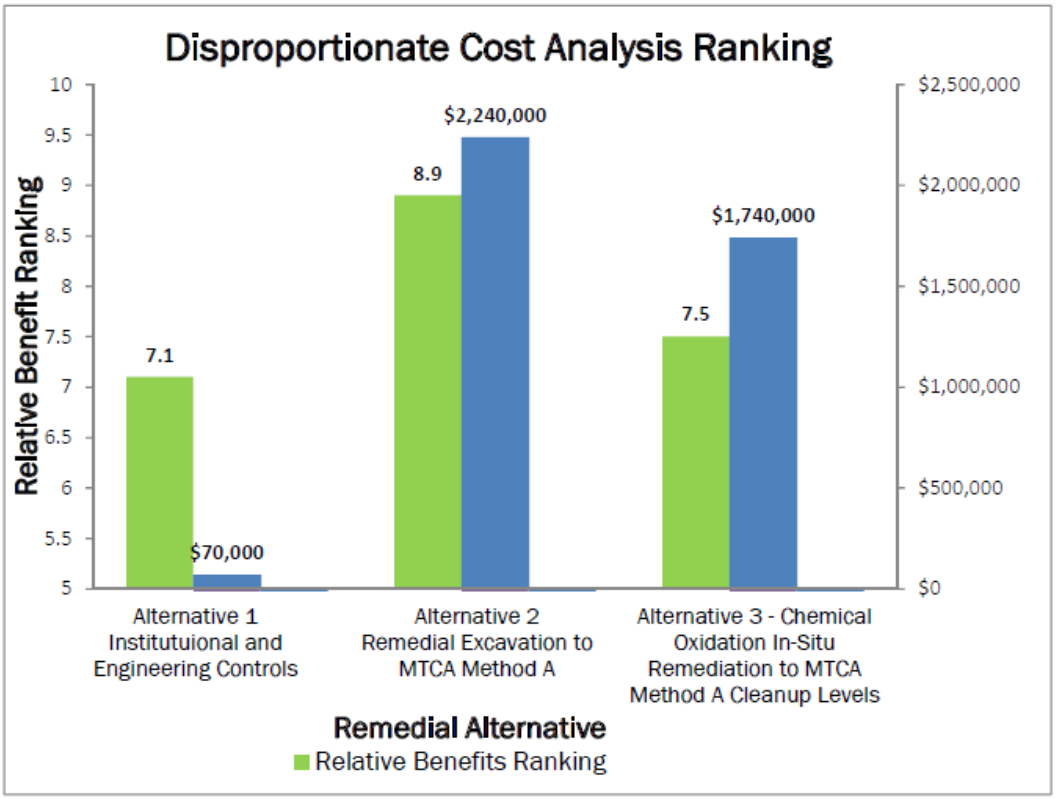
5.4. MTCA Disproportionate Cost Analysis

A MTCA DCA is used to determine if a cleanup alternative is permanent to the maximum extent practicable and meets the criteria in WAC 173-340-360(F)(i – vii) and discussed in Section 5.2.3.

The remedial Alternatives (capping, excavation, in-situ chemical oxidation treatment) were evaluated based on the relative benefits ranking factors of the DCA. Using a numeric scoring scale of 1 (lowest) to 10 (highest) and the methodology described above in Section 5.2.3 and in Table 7, each individual criterion is evaluated based on how it applies to each alternative. Costs for the remedial alternatives are based on similar projects GeoEngineers has performed as well as cost estimates provided by a qualified contractor. A cost analysis for each Alternative is presented in the Remedial Excavation Scenarios – Cost Estimates, dated December 28, 2015, attached in Appendix C. Table 7 presents the results of this analysis, including the total scores for each alternative and the determination of disproportionate cost.

All of the alternatives developed in this FS for off-property, remaining contaminated soil meet each of the four MTCA threshold requirements described for cleanup actions: protection of human health and the environment, compliance with cleanup standards, compliance with applicable state and federal regulations and provision for compliance monitoring.

- Alternative 1 (Capping) is the most practicable and implementable remedial alternative. It does not remove any of the residual contaminated soil (no additional source removal). Engineering and institutional controls are utilized to protect human health and the environment (i.e. the cap prevents human direct contact of contaminated soil and groundwater).
- Alternative 2 (Excavation) is the most invasive and difficult to implement. It utilizes soil removal, resulting in removal of soil exceeding the most restrictive cleanup levels (MTCA Method A) throughout the site. Alternative 2 is thus the most permanent solution and forms the baseline cleanup action alternative [WAC 173-340350(8)(c)(ii)(A) and 173-340-360(3)(e)(ii)(B)].
- Alternative 3 (In-Situ Treatment) is a more permanent solution than Alternative 1, because injection of chemical oxidation products increase the breakdown of petroleum contaminated soil exceeding the site-specific MTCA Method A cleanup levels, rather than maintaining the existing "cap" and implementing institutional controls. However, this remedial approach is not implementable. Injection is a very invasive and difficult remedy to implement because of: (1) the logistical factors outlined in Section 5.1.2 and (2) the presence of highly consolidated glacial soils have very poor radius of influence for chemical injection, and (3) the likely damage to subsurface utilities present in Lenora Street due to corrosive injections.



Based on the relative benefits ranking element of the DCA, the highest ranking, yet very costly and difficult to implement, cleanup action alternative is Alternative 2 (excavation). The high relative benefits rankings of Alternatives 2 (excavation) and 3 (in-situ remediation) compared to Alternative 1 (capping) are largely due to the contaminant mass removal achieved through removal or treatment of soil. However, because of the much higher incremental cost for Alternatives 2 and 3 (higher costs associated with permitting, design, and implementation costs relative to a small amount of contaminated soil to be removed), the costs associated with Alternatives 2 and 3 were determined to be disproportionate to the increased level of permanence achieved relative to Alternative 1. As a result, Alternative 1 emerges as the recommended alternative even though it had a slightly lower ranking when compared to the ranking of Alternatives 2 or 3.

Presented below: 2016 RI/FS, Section 5.5 Preferred Remedial Alternative (2016 RI/FS page 19)

5.5. Preferred Remedial Alternative

Based on the DCA, remedial Alternative 1 – Capping (Institutional and Engineering Controls) is the preferred alternative for residual off-property impacted soil because it meets the minimum thresholds and other requirements as follows:

- **Uses permanent solutions to the maximum extent practicable** [WAC 173-340-360(2)(b)(i)] as demonstrated by the disproportionate cost analysis.
- **Provides a reasonable restoration time frame** [WAC 173-340-360(2)(b)(ii)]. The cap(s) already exist as paved sidewalks and/or city streets or alleys.
- **Considers Public Concerns**. For VCP sites, there is no direct opportunity for the public to comment on planned cleanup actions. However, information is available to the public through Ecology's Site Register, and the public could comment on any planned actions. In addition, significant coordination with the City of Seattle is ongoing as a part of the redevelopment process.

Although Alternatives 2 and 3 provide a higher degree of permanence, they do so at a much higher cost (more than 10 to 11 times higher) than Alternative 1, without a proportional incremental increase in environmental benefits. Although a limited volume of weathered petroleum contaminants are left in place above the most restrictive MTCA Method A cleanup levels with Alternative 1, exposure to these contaminants is very unlikely because this contamination is capped by a city sidewalk, significant utilities and street improvements in downtown Seattle. In addition, Alternatives 2 and 3 are not implementable.

While the Ninth Avenue residual contamination is not detailed as part of the then "Off-Property" analysis in the 2016 RI/FS, it is included and evaluated in the Aspect 2020 CAR. Specifically, Section 11 ("Analysis of Impracticability for Soil Removal") was included to demonstrate that Alternative 2 (remedial excavation) from the 2016 RI/FS is both impractical and would add additional significant costs to an alternative that was previously determined to be disproportionate to the relative environmental benefits. Similarly, given the consistent composition and depth of the contamination beneath both Lenora Street and Ninth Avenue, similar disproportionate incremental costs relative to environmental benefit would apply to Alternative 3 (ISCO). The inclusion of Ninth Avenue into the legal Subject Property boundary in relation to the three remedial alternatives presented in the 2016 RI/FS adds significant costs to Alternatives 2 and 3, while Alternative 1 (institutional and engineering controls) does not incur additional disproportionate costs relative to the environmental benefit; Alternative 1 remains the selected alternative with the inclusion of the updated Subject Property boundary.

Conclusions

It is Aspect's opinion that the analysis and remedial alternative evaluation presented in the 2016 RI/FS and Aspect's 2020 CAR is applicable and consistent with the request for a Property-specific NFA.

Aspect also understands that an EC will be necessary for an NFA determination for the Subject Property. The 2021 Ecology Letter describes the requirements that will need to be addressed as part of the EC production.

Aspect is requesting that an opinion be provided on whether the completed remedial action meets the substantiative requirements of the Model toxics Control Act (MTCA) as detailed in the Aspect 2020 CAR and clarified in this Cleanup Action Report Amendment letter. The 2017 Property-specific NFA was issued based on the analysis of the then Off-Property residual TPH and PAH contamination beneath Lenora Street and the "Alley", with Ecology concurrence that institutional and engineering controls were the preferred remedy.

The Aspect 2020 CAR reflected the updated understanding of the legal Property boundaries, including additional analysis of residual contamination beneath Ninth Avenue. The residual TPH and PAH contamination beneath Ninth Avenue is consistent with respect to distribution and potential exposure pathway to the Lenora and Alley documented residual contamination, with engineering and institutional controls (EC) adequately protective of human health and the environment.

Aspect suggests that reissuance of a Property-specific NFA is consistent with the prior remedial alternative analyses and remedial action selection presented in the 2016 RI/FS. Alternative 1 (engineering and institutional controls) remains the selected alternative with the inclusion of the currently understood Subject Property boundary in conjunction with an EC.

Limitations

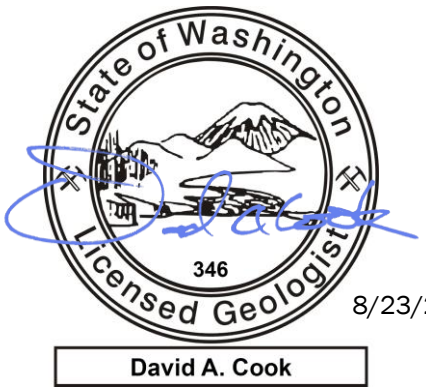
Work for this project was performed for the Ninth and Lenora LLC (Client), and this letter was prepared in accordance with generally accepted professional practices for the nature and conditions of work completed in the same or similar localities, at the time the work was performed. This letter does not represent a legal opinion. No other warranty, expressed or implied, is made.

All reports prepared by Aspect Consulting for the Client apply only to the services described in the Agreement(s) with the Client. Any use or reuse by any party other than the Client is at the sole risk of that party, and without liability to Aspect Consulting. Aspect Consulting's original files/reports shall govern in the event of any dispute regarding the content of electronic documents furnished to others.

Please refer to Appendix D titled "Report Limitations and Guidelines for Use" for additional information governing the use of this report.

Sincerely,

Aspect consulting, LLC



Dave Cook, LG, CPG
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Matthew Eddy, EIT
Project Engineer
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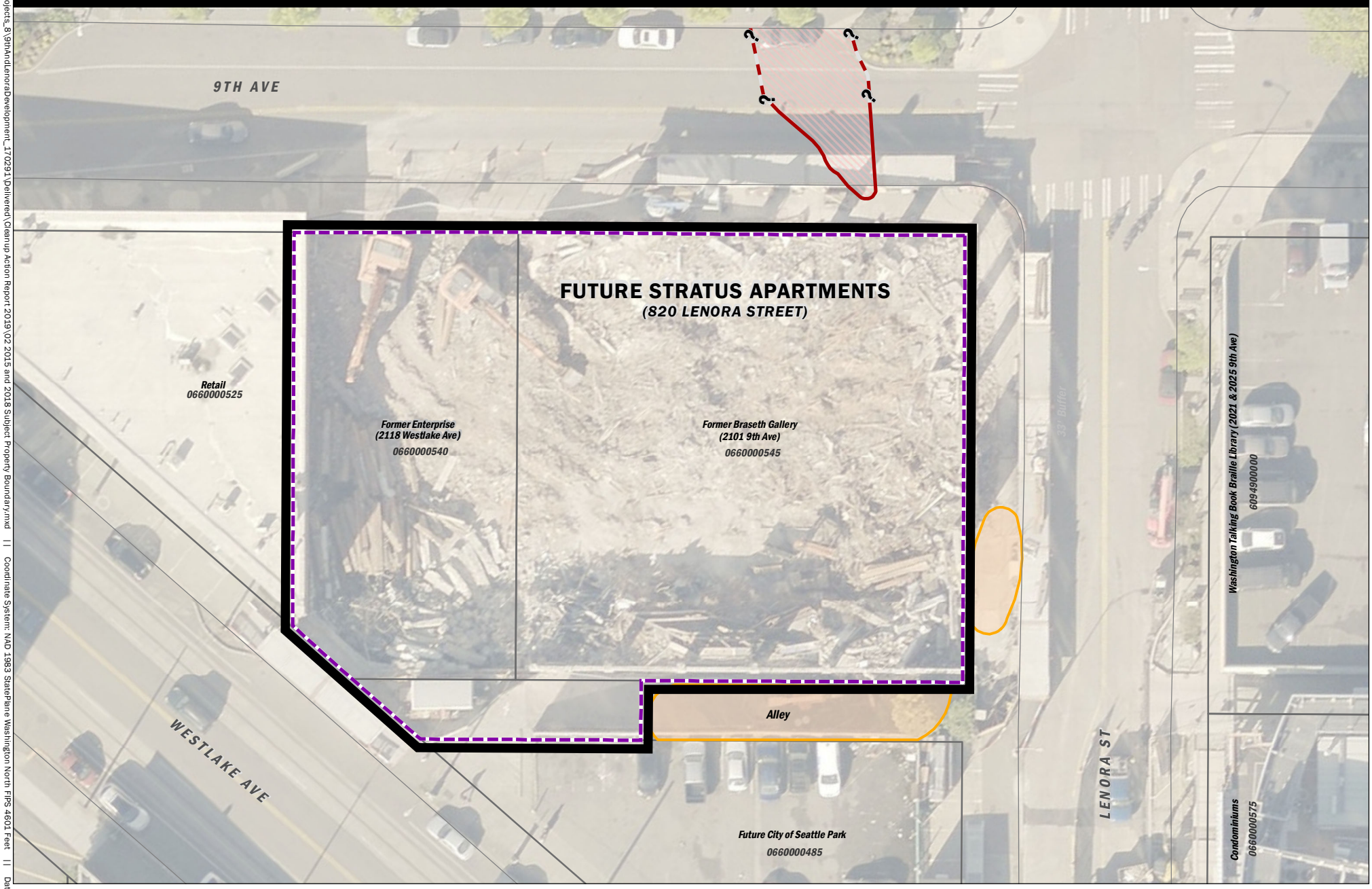
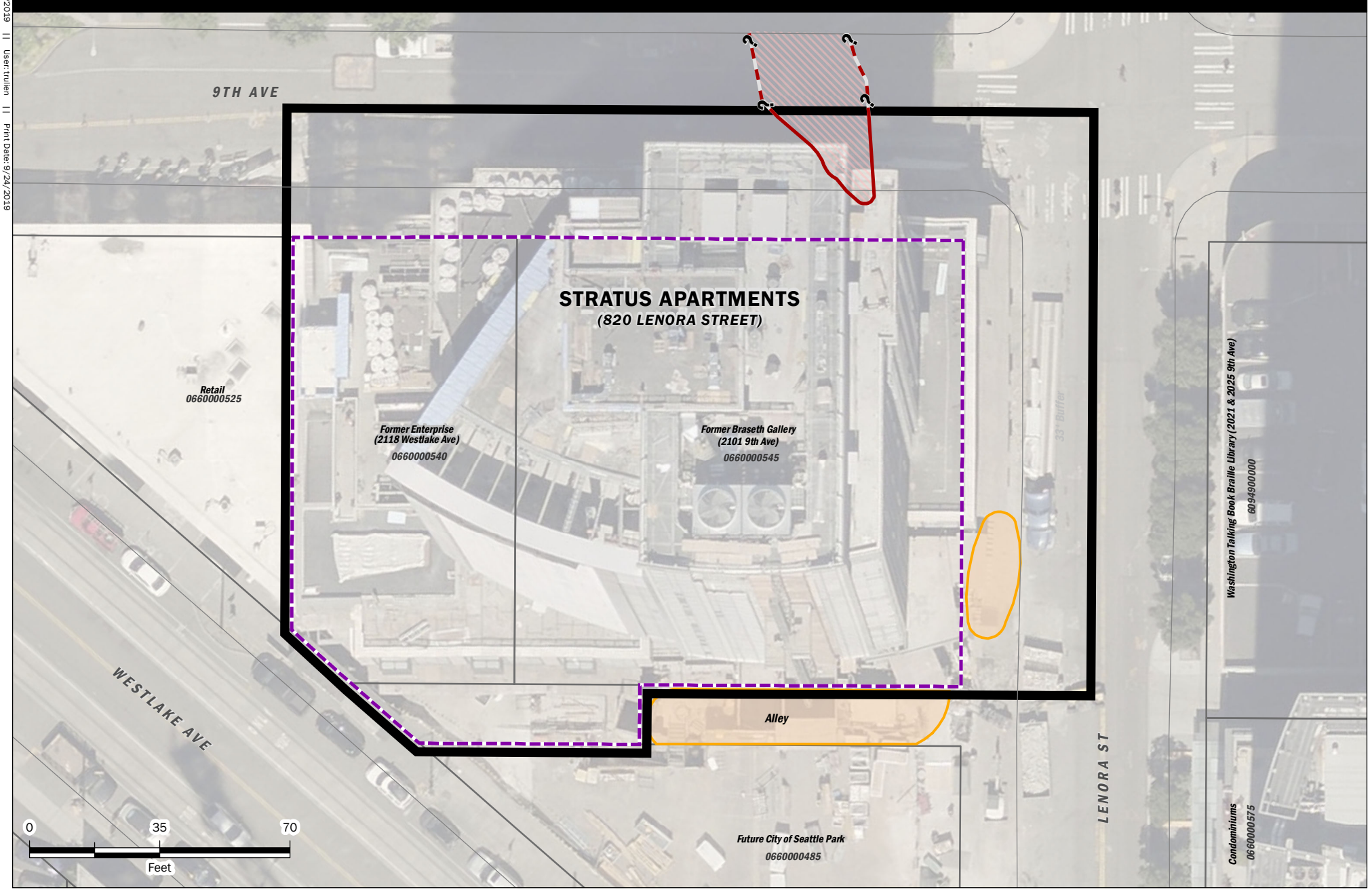
Attachments:
Figure – Figure 2 of the Aspect 2020 CAR (Appendix B)
Appendix A – Ecology 2021 Letter
Appendix B – Aspect 2020 CAR
Appendix C – Ecology Request for Opinion Form
Appendix D – GeoEngineers 2016 FS
Appendix E – Report Limitations and Guidelines for Use

FIGURE

2015 Subject Property



2018 Subject Property



Mass excavation limits

Approximate known extent of residual PAHs and/or petroleum-contaminated soil with MTCA exceedance

Interpreted extent of gasoline and benzene contaminated soil with MTCA exceedance at Subject Property from an off property source

Subject Property

King County Parcel

0660000545 Parcel Number

MTCA: Model Toxics Cleanup Control Act
PAH: Polycyclic aromatic hydrocarbons

2015 and 2018 Subject Property Boundary

Cleanup Action Report
820 Lenora Street
Seattle, Washington

Aspect Consulting	SEP-2019	BY: FK / KES	FIGURE NO. 2
	PROJECT NO. 170291	REVISED BY: TDR	

Basemap Layer Credits || Pictometry International Corp., Pictometry, King County

GIS Path: T:\projects_8\9thAndLenoraDevelopment_170291\Delivered\Cleanup Action Report 2019\02 2015 and 2018 Subject Property Boundary.mxd || Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet || Date Saved: 9/24/2019 || User: trulen || Print Date: 9/24/2019

APPENDIX A

Ecology 2021 Letter

Electronic Copy

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
Northwest Regional Office • PO Box 330316 • Shoreline, Washington 98133-9716 • (206) 594-0000
711 for Washington Relay Service • Persons with a speech disability can call 877-833-6341

August 9, 2021

Elton Lee
Ninth and Lenora LLC
455 Market Street, Suite #1810
San Francisco, CA 94105
(elee@gid.com)

Re: Opinion on Proposed Cleanup of a Property associated with a Site:

- **Site Name:** Lenora Building
- **Site Address:** 2101 9th Avenue and 2118 Westlake Avenue, Seattle, Washington 98121
- **Facility/Site No.:** 91413494
- **Cleanup Site ID No.:** 1802
- **VCP Project No.:** NW3277

Dear Elton Lee:

The Department of Ecology (Ecology) appreciates your decision to clean up the **Lenora Building** facility (Site) independently. Thank you for submitting documentation regarding your remedial cleanup strategy and assessment for preparing an Environmental Covenant (EC) for the Property for review by Ecology under the Voluntary Cleanup Program (VCP). This letter provides our opinion. We are providing this opinion under the authority of the Model Toxics Control Act (MTCA), Chapter 70(A)-305 RCW.

Issues Presented and Opinion

1. Upon completion of the proposed Property cleanup and management of the EC, will further remedial action likely be necessary to clean up contamination at the Site?

   NO. Ecology has determined that, upon completion of your proposed cleanup and recorded EC, no further remedial action will likely be necessary to clean up contamination at the Property.

2. Upon completion of the proposed cleanup, will further remedial action likely still be necessary elsewhere at the Site?

Yes, Ecology has concluded that **further remedial action** under MTCA is still necessary **elsewhere at the Site.** In other words, while your cleanup and proposed EC would constitute the final actions for the Property, they constitute only an **"interim action"** for the Site as a whole.

This opinion is based on an analysis of whether the remedial action meets the substantive requirements of MTCA, Chapter 70.105D RCW, and it's implementing regulations, Chapter 173-340 WAC (collectively "substantive requirements of MTCA"). The analysis is provided below.

Description of the Property and the Site

This opinion applies only to the Property and the Site described below. This opinion does not apply to any other sites that may affect the Property. Any such sites, if known, are identified separately below.

1. Description of the Property.

The Property includes the following tax parcels in King County, which were affected by the Site and will be addressed by your cleanup:

- 0660000540
- 0660000545

The Property includes the centerline of the right-of-way easements for two adjacent roadways: Lenora Street and 9th Avenue.

Enclosure A includes a legal description of the Property. **Enclosure B** includes a diagram of the Site that illustrates the location of the Property within the Site.

2. Description of the Site.

The Site is defined by the nature and extent of contamination associated with the following release:

- Gasoline-range petroleum hydrocarbons (TPH-G), diesel-range petroleum hydrocarbons (TPH-D), oil-range petroleum hydrocarbons (TPH-O), benzene, xylenes, lead, and carcinogenic PAHs (cPAHs) into the Soil.

Enclosure B includes a detailed description and diagrams of the Site, as currently known to Ecology.

3. Identification of Other Sites that may affect the Property.

Please note a parcel of real property can be affected by multiple sites. At this time, we have limited information that the Property is affected by another, unknown site. This opinion does not apply to the contamination determined to be present in the soil beneath a limited portion of 9th Avenue.

There is one area east of the Stratus Apartments within 9th Avenue where gasoline contaminated soil was identified during utility installation. This soil is attributable to an upgradient source, and therefore, not part of the Site (**Figure 7**).

Basis for the Opinion

This opinion is based on the information contained in the following documents:

1. GeoEngineers, Inc., *Remedial Investigation/Feasibility Study, Ninth and Lenora Redevelopment, 2101 9th Avenue, Seattle, Washington, VCP Project No. NW2980,* dated March 24, 2016.

2. GeoEngineers, Inc., *Cleanup Action Report, Ninth and Lenora Redevelopment, 2101 9th Avenue, Seattle, Washington, VCP Project No. NW2980,* dated March 24, 2016.

3. Aspect Consulting, *Cleanup Action Report, Lenora Building Site (aka Stratus Apartments), 820 Lenora Street, Seattle, Washington, VCP Project No. NW3277,* dated March 26, 2020.

A number of these documents are accessible in electronic form from the Site webpage[1]. The complete records are stored in the Central Files of the Northwest Regional Office of Ecology (NWRO) for review by appointment only. Visit our Public Records Request page[2], to submit a public records get more information about the process. If you require assistance with this process, you may contact the Public Records Officer at publicrecordsofficer@ecy.wa.gov or 360-407-6040.

This opinion is void if any of the information contained in those documents is materially false or misleading.

Analysis of the Cleanup

1. Cleanup of the Property located within the Site.

Ecology has concluded that, upon completion of your proposed cleanup in conjunction

[1] https://apps.ecology.wa.gov/gsp/Sitepage.aspx?csid=1802
[2] https://ecology.wa.gov/About-us/Accountability-transparency/Public-records-requests

with a recorded Environmental Covenant (EC), **no further remedial action** will likely be necessary at the Property to clean up contamination associated with the Site. That conclusion is based on the following analysis:

Based on review of the supporting documentation listed above, Ecology has determined that MTCA Method A soil and groundwater cleanup levels and MTCA Method B sub-slab soil vapor screening levels and indoor air cleanup levels are appropriate.

a. Characterization of the Site.

Ecology has determined your characterization of the Site is sufficient to establish cleanup standards for the Site and select a cleanup for the Property. The Site is described above and in **Enclosure B**.

Your characterization of the Property, presented in the 2020 Cleanup Action Report (CAR), determined that impacts to soil, perched groundwater and soil gas beneath the Property occurred as a result of releases from prior on-Site tenant activities and underground storage tanks (USTs).

Ecology requires that the impacted areas that comprises the Site, both on- and off-Property, and all media of concern, be fully characterized. Complete Site characterization is a necessary prerequisite for determining an appropriate cleanup action and cleanup standards for the Site. Ecology requires current, representative data in order to evaluate Site conditions and make a determination as to the appropriateness and adequacy of cleanup actions.

Changes to the Property boundaries on the east side to include the centerline of the 9th Avenue ROW and south side to include the centerline of the Lenora Street ROW initiated this new VCP application and Cleanup Action Report submittal in 2020.

A limited volume of weathered petroleum (gasoline-and heavy oil-range hydrocarbons) and PAH-contaminated soil remains in two small areas; the first extending within the south property boundary at depth under Lenora Street and the second extending beyond the west subject property beneath the alley. Since the centerline of the Lenora Street ROW is now part of the adjusted Property boundaries, a Property NFA and EC for the Lenora Building VCP Project (NW3277) is now under consideration.

b. Establishment of cleanup standards for the Site.

Ecology has determined the cleanup levels and points of compliance you established for the Site meet the substantive requirements of MTCA.
All contaminated soil associated with the releases were removed from the Property, and

the shallow groundwater was fully removed throughout the Property boundary upon completion of the building construction and redevelopment.

Soil

Cleanup Levels

The Site is located in a mixed residential and commercial area. The Site does not meet the MTCA definition of an industrial property; therefore, soil cleanup levels suitable for unrestricted land use are appropriate. For unrestricted land use, through protection of direct contact, and protection of leaching to groundwater, either Method A or Method B cleanup levels can be used for the contaminants of concern. MTCA Method A cleanup levels were selected for TPH-G, TPH-D, TPH-O, benzene, xylenes, lead, and carcinogenic PAHs (cPAHs).

The following potential exposure/risk pathways were appropriate to consider:

- Human health protection from direct soil contact pathway exposure
- Human health protection from soil-to-air pathway exposure
- Terrestrial ecological protection

Soil cleanup levels protective of terrestrial ecological receptors are not necessary because the Site meets the initial Terrestrial Ecological Evaluation exclusion criteria (WAC 173-340-7481 (1)(c)(i)). There are less than 1.5 acres of contiguous undeveloped land on or within 500 feet of any area of the Site.

Point of Compliance:

For soil cleanup levels based on the protection of direct contact, and based on the protection of ground water, the point of compliance is defined as Site wide throughout the soil profile and may extend below the water table. This is the appropriate point of compliance for the Site.

Groundwater

Cleanup Levels:

Appropriate groundwater cleanup levels are the WAC 173-340 Method A Table 720-1 values. Information was gathered during a 2015 subsurface assessment order to verify current Site conditions and to evaluate the soil to groundwater pathway. The investigation in 2016 explored for Site groundwater to a maximum depth of 55 feet below the ground surface (bgs) and confirmed that the soil to groundwater pathway was not complete. The data indicate that a contaminant migration pathway to groundwater is not present at this Site.

c. Selection of cleanup for the Property.

The selected cleanup action must meet applicable minimum requirements for cleanup actions stipulated in WAC 173-340-360: protect human health and the environment, comply with cleanup standards, use permanent solutions, and provide for reasonable restoration time frames.

Ecology has determined the cleanup action you selected for the Property meets the substantive requirements of MTCA. The cleanup meets minimum cleanup requirements and does not exacerbate conditions or preclude reasonable cleanup alternatives elsewhere at the Site.

The selected cleanup consisted of the excavation and removal of approximately 14,550 tons of petroleum-contaminated soil (contaminated with the contaminants of concern (COCs) TPH-G, PAHs, benzene, xylenes, and lead), and which were transported off-Site to a regulated facility. The cleanup also consisted of the removal of a previously closed-in-place petroleum UST with fill ports and piping; a hydraulically operated steel elevator shaft and a concrete vault; and an undocumented heating oil tank. Confirmation soil samples confirmed that all petroleum-contaminated (PCS) was excavated and removed from the heating oil tank location.

Specifically:

- Excavation and removal of approximately 14,550 tons of petroleum-contaminated soil which were transported off-Site to the Waste Management (WM) transfer station in Seattle for rail haul and permitted disposal at the WM subtitle D landfill in Arlington, Oregon.

- The lateral and vertical extent of petroleum-impacted soil was adequately defined upon the completion of Site investigation, cleanup action, and confirmation soil sampling. Soil analytical results of confirmation samples were below MTCA Method A cleanup levels for the contaminants of concern. Groundwater (perched or regional) was not encountered during mass excavation associated with redevelopment of the Property.

- A hydraulically-operated steel elevator shaft and a concrete vault that housed a hydraulic hoist were removed during Property redevelopment and construction between June and August 2015. Confirmation samples confirmed that soil below the former elevator shaft and vault was not impacted.

- A gasoline UST (UST#1) was removed from the Property in 2002. A closed-in-place steel diesel tank (UST #2), along with associated piping and petroleum-contaminated soil were removed from the south portion of the Property.

Confirmation soil samples confirmed that all petroleum-contaminated soil was excavated and removed from within the Property boundaries.

- An undocumented heating oil tank (UST #3) was discovered during Property redevelopment and construction. The UST was excavated and removed along with petroleum-contaminated soil between June and August 2015. Confirmation soil samples confirmed that all petroleum-contaminated soil was excavated and removed from the former UST #3 location.

- Based on confirmation soil sampling data, residual contaminated soil remains capped in-place in two areas now determined to be within the Property boundaries. Details for each location includes:

  - 9th Avenue: Residual gasoline-range hydrocarbons and benzene-contaminated soil is present in an area measuring approximately 20 feet long (north-south) by 10 feet wide (east-west) and 9-feet thick (between approximate depths of 15 feet bgs and 24 feet bgs (elevations 72 feet and 63 feet amsl) (**Figures 8 and 9**). Note that the 9th Avenue surface elevation is 87 feet amsl.

  - Lenora Street: Residual gasoline- and heavy oil-range hydrocarbons, toluene- and PAH-contaminated soil is present in an area measuring approximately 40 feet long (east-west) by 8 feet wide (north-south) and 8- feet thick (between approximate depths of 24 feet bgs and 36 feet bgs (corresponding approximate Elevations 63 and 55 amsl) (**Figures 8 and 9**). Note that the Lenora Street surface elevation is 87 feet amsl.

  - Residual petroleum-contaminated soil (exceeding MTCA Method A cleanup levels) remains in place outside the west Property boundary in a limited portion of an alley owned by the City of Seattle. Alley details: Residual heavy oil-range hydrocarbons and PAH-contaminated soil is present in an area measuring approximately 60 feet long (north-south) by 10 feet wide (east-west) and 8-feet thick (between approximate depths of 6 feet bgs and 14 feet bgs [corresponding elevation 63 to 55 feet amsl] (**Figures 8 and 9**). Note that the alley surface elevation is 69 feet amsl.

  - Regional groundwater was determined to be 53 to 55 feet bgs (elevation 14 to 16 feet above mean sea level (msl)) based on the results of groundwater monitoring well MWG-1 which was installed prior to Property redevelopment and construction activities. Groundwater was determined to be uncontaminated above COC MTCA Method A cleanup levels based on the analytical results of groundwater samples collected from on-Property monitoring well MWG-1 and from on off-Property monitoring well MW-5 which was screened from 42 to 58 feet below the ground surface (bgs) **(Figure 11).** These well locations are considered representative of

groundwater on the Site. Perched groundwater was encountered in localized, discontinuous locations during subsurface explorations, but was not encountered during excavation related to mass construction of the Property.

Based on the estimated depth of regional groundwater, the estimated extent of vertical separation (greater than 40 feet) between contaminated fill soil and regional groundwater and groundwater sampling data, the soil to groundwater pathway for contaminant migration is most likely incomplete. The potential source of contaminated shallow ground water (the petroleum-contaminated soil) was excavated and removed from the Property; regional groundwater is not contaminated.

- Per Ecology's 2019 request, a post-cleanup assessment was conducted to evaluate the potential risk for VI in the newly constructed Stratus Apartments building relative to the residual petroleum- and PAH-contaminated soil remaining on the Site.

  The soil vapor to inhalation pathway is considered incomplete under current conditions at the Site because:

  - The nature and extent, as well as the concentrations of residual petroleum- and PAH-contaminated soil impacts pose a low risk for VI. In addition, the construction of the Stratus building which includes underground parking with an HVAC ventilation system adequately mitigates any potential VI pathway.

  - There are no volatile compounds in groundwater, and no groundwater impacts are in contact with the building foundation.

  - The Site has not changed relative to the soil, perched water, and groundwater quality, geological and hydrogeological conditions, and location, nature, and extent of residual petroleum- and PAHs-contaminated soil. The alteration is the clarification of the east and south boundaries of the Property (which extends to the centerline of 9th Avenue and the centerline of Lenora Street respectively).

These actions meet the minimum requirements in WAC 173-340-360(2) because they are protective of human health and the environment, comply with the selected cleanup standards, comply with applicable state and federal laws and provide for compliance monitoring. The selected cleanup action used permanent solutions to the maximum extent practicable (source removal and off-Site disposal) and provided a reasonable restoration time frame.

2. Cleanup of the Site as a whole.

Ecology has concluded that **further remedial action** will still be necessary elsewhere at the Site upon completion of your proposed cleanup. In other words, while your proposed cleanup may constitute the final action for the Property, it will constitute only an **"interim action"** for the Site as a whole.

In order for Ecology to issue a No Further Action determination for this VCP Project, placement of an Environmental Covenant on the Property will be necessary due to the following:

Documentation has been provided which specifies that the east and south boundaries of the Property (which extends to the centerline of 9th Avenue and the centerline of Lenora Street) are confirmed to have a limited volume of petroleum- and PAH-contaminated soil.

The residual petroleum- and PAHs-contaminated soil located outside the footprint of the 42-story residential Stratus Apartments building, in the 9th Avenue and Lenora Street (within the Property), and in the alley (outside the Property) which is owned by the Seattle Parks Department, are inaccessible and cannot be excavated due to the presence of structural impediments. The residual petroleum- and PAH-contaminated soil in these three areas remains capped beneath asphalt pavements that serve to prevent direct contact. In-situ treatment of soil was evaluated and found to be neither technically feasible nor cost effective for heavy oil-range petroleum hydrocarbons and PAHs in the vadose zone above the water table.

- Lenora Street: Soil contaminated with TPH-G, TPH-D, TPH-O, benzene, xylenes, lead, and cPAHs above MTCA Method A is located approximately 24 feet bgs (under the street). Several utility corridors are present in Lenora Street that precluded further investigation.
- Alley: Utilities and additional infrastructure elements (concrete footings and walls) are present in the alley.
- In a regional aquifer underlying the Site, groundwater occurs at 53 to 55 feet bgs; (near elevations 14 to 16 feet above msl).
- Lenora Street and the alley are currently capped with asphalt so there is some control of surface water and the infiltration of precipitation.

Environmental Covenant Requirements:

A Draft EC must be prepared and submitted to Ecology for Ecology's consideration of a final NFA opinion for the Property.

The EC on the Property will be required for a No Further Action (NFA) determination to assure selected cleanup actions remain protective of human health and the environment.

The EC must include an operation and maintenance (O&M) plan exhibit, and for the building, a foundation inspection checklist, as well as the results of the vapor intrusion assessment. Annual report submittals will be required. A contingency plan outline will also be an exhibit to the EC. The EC text will present that all practicable measures to clean up contamination on the Property have been implemented.

Also, if the current building is remodeled in any manner that could change vapor intrusion conditions, or if the garage HVAC system is altered, an updated vapor intrusion assessment must be conducted.

Information on how to prepare an Environmental Covenant can be found in the Uniform Environmental Covenants Act (UECA), Chapter 64.70 RCW, and WAC 173-340-440 of the Model Toxics Cleanup Act (MTCA) Cleanup Regulation).

Draft the covenant using the boilerplate document available on the VCP web site (https://fortress.wa.gov/ecy/publications/SummaryPages/1509054.html). Please note that any changes to the boilerplate language in the covenant must be approved by the Attorney General's Office.

The Draft EC document needs to contain the following exhibits:

- Legal Description
- Title Search documentation
- Appropriate Site Figures
- Site Map with GPS Coordinates of the contaminated area 4 corners of the area)
- Subordination Agreements
- O& M Plan with building foundation inspection requirements
- Annual report timeline
- Contingency Plan Outline

For your information, before Ecology can issue a final opinion concerning the Site, the draft EC must have the following completed:

1. Conduct a title search to identify all persons holding a prior interest in the real property subject to the covenant. Generally, Ecology will not sign the EC unless all prior interest holders are willing to sign on as grantors or subordinate their interests.

2. Submit the draft covenant for review and comment to the appropriate land use planning authority in your jurisdiction. When requesting such review, please do the following:
   - Send me a copy of your written request.
   - Provide the authority with my contact information.
   - Request that the authority send me a copy of any written response.

Ecology will not approve the covenant unless the authority has been adequately consulted. Upon completing your consultations with the local land use planning authority, you would then submit to Ecology any comments provided by the planning authority or, if none were provided, documentation of your consultation.

3. Upon completing your consultations with the local land use planning authority, and submittal of any comments provided by the planning authority, Ecology will review and consider the draft EC. Please have the land use authority provide an email, or letter summarizing their review.

4. Upon completion of any Ecology edits or changes, obtain the signatures of all grantors of the EC and obtain subordination agreements with any persons holding a prior interest in the real property subject to the covenant who are not signing the covenant as a grantor.

5. Upon obtaining the signatures of the grantors and any necessary subordination agreements, submit the EC to Ecology for its signature as the grantee.

6. Please note as stipulated by Chapter 65.04 RCW:

   - Property owners are the first signatory to the Environmental Covenant (EC)
   - The EC then is delivered to Ecology for management signature
   - The EC then goes back to King County to record (after adequate consultation with County)
   - Upon recording, return the signed and recorded covenant to Ecology (original paperwork) and provide a copy of the recorded covenant to the following persons:

     - Each person that signed the covenant.
     - Each person holding a recorded interest in the real property subject to the covenant.
     - Each person in possession of the real property subject to the covenant at the time the covenant is executed.
     - Each municipality or other unit of local government in which real property subject to the covenant is located.
     - Any other persons Ecology requires.

   - The copy must be legible and the recording number must be evident.

The March 2020 Cleanup Action Report is in need of editing and updating prior to completion of a final EC document. For example, the DCA section references the 2016 RI/FS. The complete analysis needs to be included in the final CAR with appropriate bar charts and tables.

Electronic submittal of all sampling data into Ecology's electronic *Environmental Information Management* (EIM) database is a requirement in order to receive a final Ecology opinion for this Site. Note that all data must be uploaded into the Ecology EIM system upon submission of each report to Ecology. This allows the Ecology Site Manager to access data to check results or perform additional analyses with those data. Gaylen Sinclair (email gaylen.sinclair@ecy.wa.gov, or via telephone at 360-407-6496) is Ecology's contact and resource on entering data into EIM. For questions regarding EIM, please see the Ecology web page: https://ecology.wa.gov/Research-Data/Data-resources/Environmental-Information-Management-database.

Decommissioning of Site Resource Protection Wells

When resource protection wells associated with the Site are no longer to be used for their intended purposes, these wells must be decommissioned in accordance with Chapter 173-160 WAC, Minimum Standards for Construction and Maintenance of Wells: WAC 173-160-460 (http://apps.leg.wa.gov/wac/default.aspx?cite=173-160-460). Per WAC 173-160-410 (http://apps.leg.wa.gov/wac/default.aspx?cite=173-160-410), resource protection wells include monitoring wells, observation wells, piezometers, spill response wells, remediation wells, environmental investigation wells, vapor extraction wells, ground source heat pump boring, grounding wells, and instrumentation wells.

Appendix C of the March 2020 Cleanup Action Report provides well decommissioning documents for wells G-1 and MW-01. The well monuments were left in place after decommissioning.

Limitations of the Opinion

1. Opinion does not settle liability with the state.

Liable persons are strictly liable, jointly and severally, for all remedial action costs and for all natural resource damages resulting from the release or releases of hazardous substances at the Site. This opinion **does not**:

- Resolve or alter a person's liability to the state.
- Protect liable persons from contribution claims by third parties.

To settle liability with the state and obtain protection from contribution claims, a person must enter into a consent decree with Ecology under RCW 70A.305.040(4).

2. Opinion does not constitute a determination of substantial equivalence.

To recover remedial action costs from other liable persons under MTCA, one must demonstrate that the action is the substantial equivalent of an Ecology-conducted or

Ecology-supervised action. This opinion does not determine whether the action you performed is substantially equivalent. Courts make that determination. *See* RCW 70.105D.080 and WAC 173-340-545.

3. Opinion is limited to proposed cleanup.

This letter does not provide an opinion on whether further remedial action will actually be necessary at the Property upon completion of your proposed cleanup. To obtain such an opinion, you must submit a report to Ecology upon completion of your cleanup and request an opinion under the VCP.

4. State is immune from liability.

The state, Ecology, and its officers and employees are immune from all liability, and no cause of action of any nature may arise from any act or omission in providing this opinion. *See* RCW 70A.305.170.

Contact Information

Thank you for choosing to clean up the Site under the Voluntary Cleanup Program (VCP). Ecology appreciates your initiative in conducting independent remedial action and requesting technical consultation under the VCP. As the cleanup of the Site progresses, you may request additional consultative services under the VCP, including assistance in identifying applicable regulatory requirements and opinions regarding whether remedial actions proposed for or conducted at the Site meet those requirements.

For more information about the VCP and the cleanup process, please visit our web site: https://ecology.wa.gov/Spills-Cleanup/Contamination-cleanup/Cleanup-process/Cleanup-options/Voluntary-cleanup-program. If you have any questions regarding this opinion, please feel free to contact me by phone at (425) 495-5436, or email me at glynis.carrosino@ecy.wa.gov.

Sincerely,

Glynis A. Carrosino, Project Manager
Toxics Cleanup Program, NWRO

Enclosures (1): A – Legal Description of the Property
B – Description and Diagrams of the Site

cc: Fasih Khan, Aspect Consulting LLC, (fkhan@aspectconsulting.com)
Dave Cook, Aspect Consulting LLC, (dcook@aspectconsulting.com)
Sonia Fernandez, VCP Coordinator, Ecology, (sonia.fernandez@ecy.wa.gov)

Enclosure A

Legal Description of the Property

BELL HEIRS OF S A 2ND ADD E OF WESTLAKE BLVD
Plat Block 24
Plat Lot 10

BELL HEIRS of S A 2nd ADD

Enclosure B

Description and Diagrams of the Site (including the Property)

Site Description

This section provides Ecology's understanding and interpretation of Site conditions, and is the basis for the opinions expressed in the body of the letter.

Site: The Site is defined by the release of gasoline-range (TPH-G), diesel-range petroleum hydrocarbons (TPH-D), oil-range petroleum hydrocarbons (TPH-O), benzene, xylenes, lead, and carcinogenic PAHs (cPAHs) to soil at 2101 9th Avenue, in Seattle, Washington (Property). The Site is associated with historical boiler and furnace/heating systems of the former property buildings, Underground Storage Tanks (USTs), and historic Property uses.

Area and Property Description: The Property consists of two King County tax parcels encompassing approximately 0.49 acres. The north parcel is King County Parcel # 0660000540, and the south parcel is King County Parcel #0660000545. The Property boundaries legally extends to the centerline of the 9th Avenue right-of-way (ROW) and to the centerline of the Lenora Street ROW. The Property does not include the adjacent alley right-of-way located south and west of the Lenora Building Property.

The Property is located in the Denny Triangle neighborhood and bounded to the north by retail properties, 9th Avenue to the east, Lenora Street to the south, and a public alley to the west in downtown Seattle, Washington. The Property is currently developed with a 42-story residential tower (Stratus Apartments) with ground level retail and six levels of subgrade parking. Land use surrounding the Site includes commercial businesses, residential apartments and condominiums.

The Property was enrolled in Ecology's Voluntary Cleanup Program (VCP) in 2015 (Facility/Site No. 91413494, Cleanup Site ID: 1802, and VCP Project No. NW2980). A Remedial Investigation/Feasibility Study (RI/FS) and Cleanup Action Report (CAR) was prepared and submitted to Ecology in 2016. Subsequently, Ecology issued a Property-specific No Further Action (NFA) determination in November 2017 based on the information presented in the 2016 RI/FS and the 2016 CAR. In 2018, it was discovered that the Property boundaries legally extended to the centerline of the adjacent roadways, which had implications for the Property-specific NFA that Ecology issued in 2017. This 2020 Cleanup Action Report (CAR) supersedes the 2016 CAR and presents updated information. The Site was re-enrolled into the Voluntary Cleanup Program (VCP). The objective of this 2020 CAR is to obtain a Property-Specific NFA for the correctly defined Property through Ecology's VCP.

Property History and Current Use: Early use of the Property was as a wood yard, printing facility, metal shop and a vehicle servicing/auto restoration garage. Additional historic facilities were identified including: a former boiler room, chimney and furnace systems, former car wash area, printing facility and metalwork shops. USTs located on the Property consisted of one former petroleum UST, (which was removed in 2002), one closed-in-place petroleum UST with fill ports and piping, and a heating oil UST.

Based on the historic fire insurance (Sanborn) maps, the north parcel (Parcel #0660000540) was undeveloped in 1905. A small structure and parking were present on the parcel in 1936. Later, a single-story office building with a basement was constructed between 1946 and 1948 and was used by a vehicle company for car sales, storage and repair. A boiler house was also present on the parcel and the building was heated by hot water and an oil burner. In 1980, an underground tunnel was constructed in order to provide access to the basement of the single-story building from the underground parking garage located on parcel #0660000485. Westlake Chevrolet Company owned the north parcel from 1946 until the mid-1980s (for car sales and possibly auto repair).

The parcel was occupied by a used car sales office until 1990s and the prior owner indicated that fill from an unknown source may have been brought to the parcels during the construction of the building.

Based on the historic fire insurance (Sanborn) maps and tax assessment records, the south Parcel (Parcel # 0660000545) was undeveloped from at least 1893 until approximately 1905 when a "wood yard" was located on the parcel. This parcel was owned by a lumber company from 1905 to 1924. A two-story office/retail building on the parcel was constructed in 1924 as a garage. The building was originally heated by an oil burner. The parcel was used as an auto repair facility between the 1940s and the 1970s. Later, the parcel was used as a printing facility during the 1980s and 1990s, and included a camera area, dark room and bindery area. A metal shop is shown in the west corner of the basement in 1998 building plans. Cornish College of Arts then owned the parcel until 2003.

The north parcel was the former location of an Enterprise car rental company facility. The south parcel was the former location of a two-story office/warehouse building with a garage below.

In 2018, it was discovered that the Property boundaries legally extended to the centerline of the adjacent roadways, which had implications for the property-specific NFA that Ecology issued in 2017. The 2017 NFA will remain in effect until the EC is negotiated and finalized.

The current use of the Property is a 42-story residential apartment tower with six levels of underground parking.

Contaminant Source and History: Sources of contamination include historical boiler and furnace/chimney systems of the former property buildings, USTs (UST#1 was removed in 2002; UST#2 with associated piping was closed in place; and UST#3 was a previously undocumented heating oil tank), and historic property uses such as a wood yard, printing facility, metal shops, and former vehicle servicing/washing/restoration facility, and undocumented fill that was imported to the Property. Because of the sloping nature of the Site from 9th Avenue down to the alley at the west side of the Property, the construction excavation extended from starting elevations of about 87 feet above mean sea level (msl) (high side near 9th Avenue) to 69 feet above msl (low side near the alley) to a bottom construction excavation of about elevation 7 feet

above msl. Soil contaminated with diesel and oil occurred within the upper 20 feet of fill soil at the Property.

The construction excavation at the Property extended from a starting surface elevation of approximately 87 feet above mean sea level (amsl) at the highest side of the Property near 9th Avenue and Lenora Street down to a bottom construction excavation elevation of about 7 feet amsl. 14,550 tons of contaminated soil (generally located in the upper 20 feet) was excavated from the Property and disposed of at the Subtitle D landfill in Arlington, Oregon. Shallow perched groundwater was fully removed throughout the Property boundary upon completion of the remedial excavation conducted as part of the redevelopment. Low permeability glacially-consolidated vadose zone soil (approximate thickness 39 feet) that is uncontaminated separates the residual petroleum- and PAHs-contaminated soil from the deeper regional groundwater beneath the Site.

Physiographic Setting: The Property is located within the Puget Lowland physiographic province, a broad, low-lying region situated between the Cascade Range to the east and the Olympic Mountains to the west. The Property grades drop about 10 feet from southeast to northwest. The alley along the west side of the Property historically provided access to the lowest level of the former building and slopes down near Westlake Avenue to the entrance of the former 2101 9th Avenue building. The alley does not extend through to Lenora Street. A permanent slope currently exists between the end of the alley and Lenora Street.

Surface/Storm Water System: Lake Union is located approximately 3,000 feet north of the Property. Elliott Bay is located approximately 3,000 feet southwest of the Property.

Ecological Setting: The Property is covered with a building (exterior is completed). Land surrounding the Site is primarily covered with buildings, asphalt and concrete with small landscaped areas.

Geology: The Property is underlain by relatively shallow fill overlying recent deposits and competent glacially consolidated soils. Fill generally consists of loose to medium dense silty sand with variable gravel and cobble content and occasional brick, charcoal or wood debris. Based on historical research, the block is located on the eastern edge of the 1928 to 1930 Denny Regrade, and portions of this area are reported to have up to 25 feet of fill added as part of the historical regrading process. The thickness of fill encountered in the explorations completed at the Site ranged from approximately 6 to 15 feet.

The recent deposits consist of soft to hard silt and clay with occasional sand interbeds and variable gravel content or medium dense to dense sand with variable silt and gravel content. The glacially consolidated soils encountered below the fill and recent deposits were till deposits, which consist of very dense silty sand.

Groundwater: Perched groundwater was encountered intermittently in some of the Site characterization explorations completed during remedial investigations. No perched water was

encountered within the mass excavation limits at the Property. The static groundwater level associated with the regional aquifer was measured in former monitoring well MWG-1 in 2013 and 2014. The measured depths ranged from approximately 53.30 to 55.39 feet bgs (approximate elevations 16 and 14 feet above msl) respectively, at the MWG-1 location. **(Figure 3).**

Water Supply: Seattle Public Utilities (SPU) provides drinking water to the building. The Cedar and the South Fork Tolt River Watersheds in eastern King County are the two sources for potable water supplied by SPU.

Release and Extent of Soil and Groundwater Contamination:
Petroleum hydrocarbons (TPH-G, TPH-D, and TPH-O), Benzene, Xylenes, Lead, and cPAHs were present in soil at the Property. Confirmation soil samples demonstrated that all identified soil contaminated above MTCA Method A cleanup levels was removed from the Property, and that a limited volume of contaminated soil exceeding MTCA Method A cleanup levels remain in two small areas beneath 9th Avenue and Lenora Street. The contaminated soil is located approximately 15 feet deep beneath the 9th Avenue surface and 24 feet deep beneath the Lenora Street surface, w

Based on confirmation soil sampling data, residual petroleum-and PAH-contaminated soil exceeding MTCA Method A cleanup levels remains capped in-place under hard pavements in three separate, localized areas:

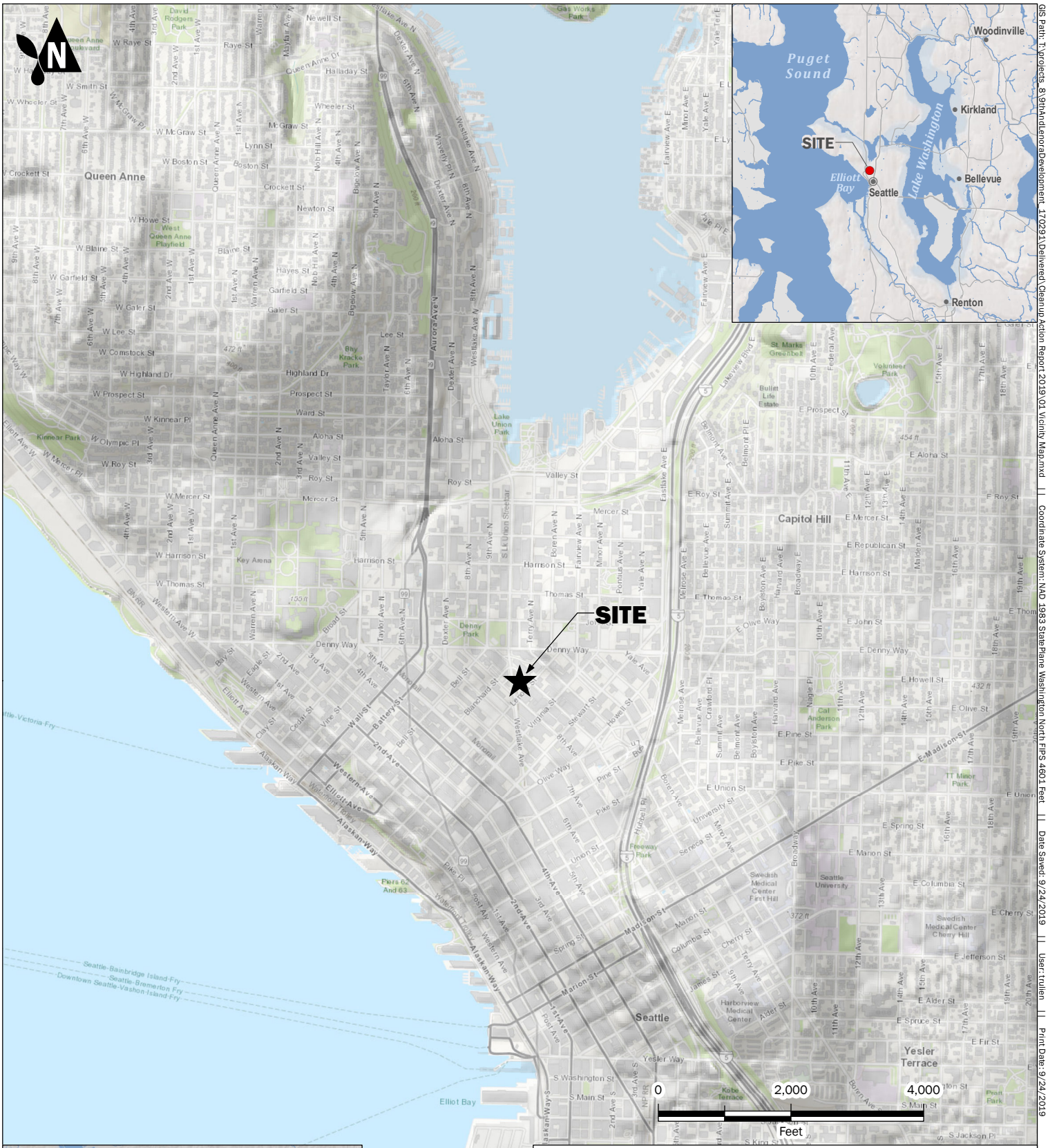
(1) 9th Avenue (within the Subject Property),
(2) Lenora Street (within the Subject Property), and
(3) The alley (outside the Subject Property) owned by City of Seattle Department of Parks and Recreation **(Figure 7).**

The contaminated soil in these areas is inaccessible and cannot be excavated due to the presence of structural impediments.

During remedial excavation activities, shallow groundwater was encountered at depths of 18 to 18.5 feet bgs, was intermittent and did not yield significant quantities of recoverable water. This perched groundwater, which did not constitute a continuous water-bearing zone, was fully removed throughout the Property upon completion of the excavation during redevelopment. Based on soil borings, the depth of the regional groundwater on the Property is approximately 55 to 75 feet bgs.

Groundwater samples obtained and tested from a former on-Property monitoring well (G-1) and an off-Property well (MW-5), screened within the regional aquifer showed no petroleum impacts and metals were detected at concentrations below MTCA Method A cleanup levels.

Site Diagrams



Vicinity Map

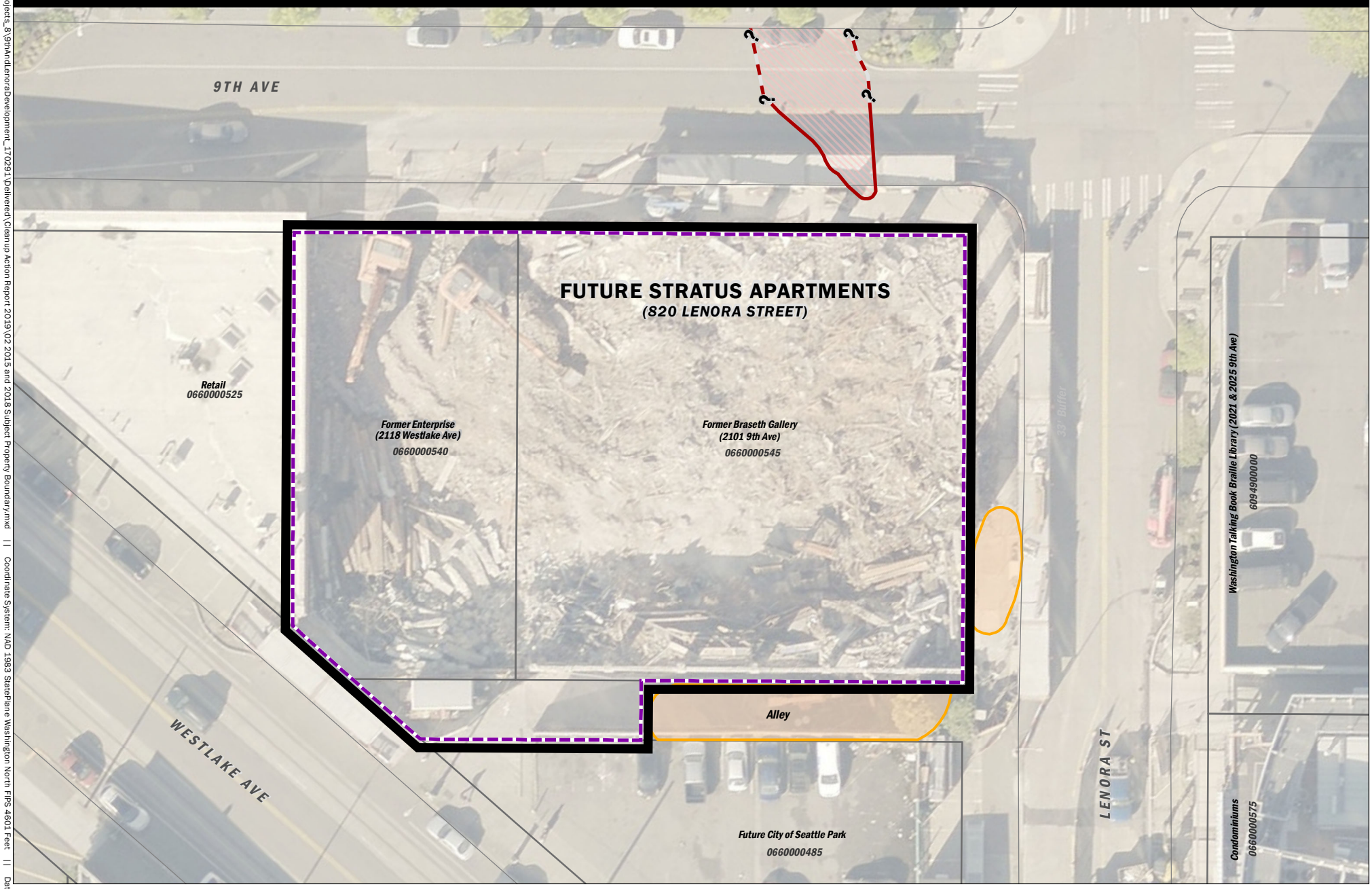
Cleanup Action Report
820 Lenora Street
Seattle, Washington

Aspect Consulting	SEP-2019	BY: FK / TDR	FIGURE NO. 1
	PROJECT NO. 170291	REVISED BY: ---	

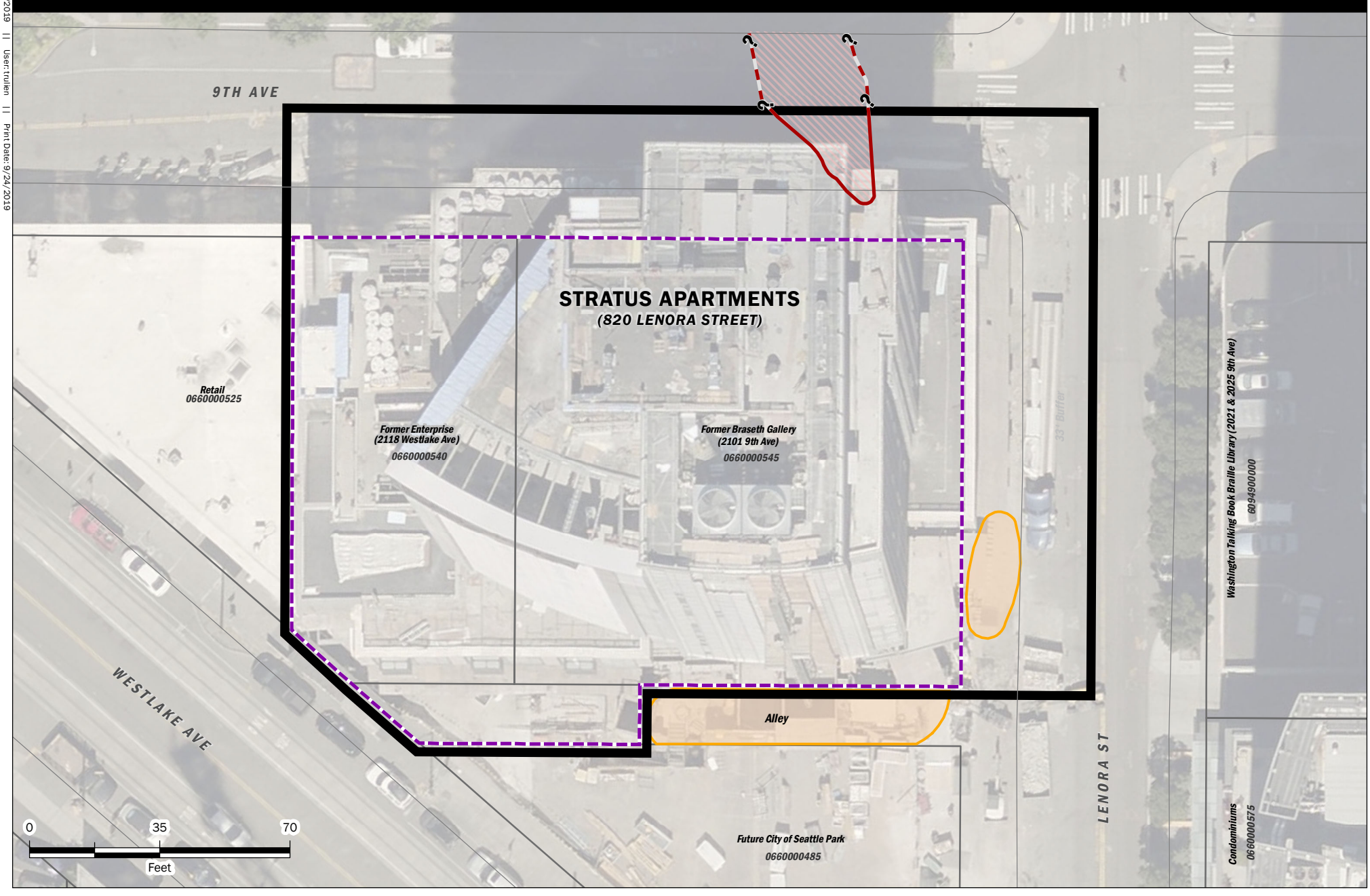
GIS Path: T:\projects_8\9thAndLenoraDevelopment_170291\Delivered\Cleanup Action Report 2019\01 Vicinity Map.mxd || Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet || Date Saved: 9/24/2019 || User: trullen || Print Date: 9/24/2019

Basemap Layer Credits || Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community
Copyright:(c) 2014 Esri

2015 Subject Property



2018 Subject Property



Mass excavation limits

Approximate known extent of residual PAHs and/or petroleum-contaminated soil with MTCA exceedance

Interpreted extent of gasoline and benzene contaminated soil with MTCA exceedance at Subject Property from an off property source

Subject Property

King County Parcel

0660000545 Parcel Number

MTCA: Model Toxics Cleanup Control Act
PAH: Polycyclic aromatic hydrocarbons

2015 and 2018 Subject Property Boundary

Cleanup Action Report
820 Lenora Street
Seattle, Washington

Aspect Consulting	SEP-2019	BY: FK / KES	FIGURE NO. 2
	PROJECT NO. 170291	REVISED BY: TDR	

Basemap Layer Credits || Pictometry International Corp., Pictometry, King County

GIS Path: T:\projects_8\9thAndLenoraDevelopment_170291\Delivered\Cleanup Action Report 2019\02 2015 and 2018 Subject Property Boundary.mxd || Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet || Date Saved: 9/24/2019 || User: trulen || Print Date: 9/24/2019

GIS Path: T:\projects_8\9thAndLenoraDevelopment_170291\Delivered\Cleanup Action Report 2019\03 Pre-Cleanup Soil Conditions in Mass Excavation Limits.mxd || Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet || Date Saved: 9/24/2019 || User: trullen || Print Date: 9/24/2019

Whole Foods

8729740000

Condominiums

Social Security Administration (901 Lenora St)
0660001310

9TH AVE

Utility Excavation for Deep Sewer

STRATUS APARTMENTS
(820 LENORA STREET)

MW-1

G-1

Retail
0660000525

Former Enterprise
(2118 Westlake Ave)
0660000540

Former Braseth Gallery
(2101 9th Ave)
0660000545

Former UST 2

MW-5

Alley

Washington Talking Book Braille Library (2021 & 2025 9th Ave)
6094900000

WESTLAKE AVE

LENORA ST

Future City of Seattle Park
0660000485

Condominiums
0660000575

Retail
0660000500

0 30 60
Feet

Note:

1. The Subject Property boundary is based on the Plat Map of the Second Addition to the Town of Seattle. The Plat Map was filed for record on December 14, 1875 and can be obtained from King County Records Office or a title company.
2. Soil conditions in mass excavation limits sourced from GeoEngineers, 2016.

Zone 1: Area of impacted fill to an approximate depth of 10 feet bgs (Elev. 60)

Zone 2: Estimated extent of contaminated fill to an approximate depth of 6 feet bgs (Elev. 63)

Zone 3: Estimated extent of contaminated fill to an approximated depth of 18 feet bgs (Elev. 51)

Former Monitoring Well

Mass excavation limits

Subject Property

King County Parcel

0660000545 Parcel Number

bgs: Below ground surface
UST: Underground Storage Tank

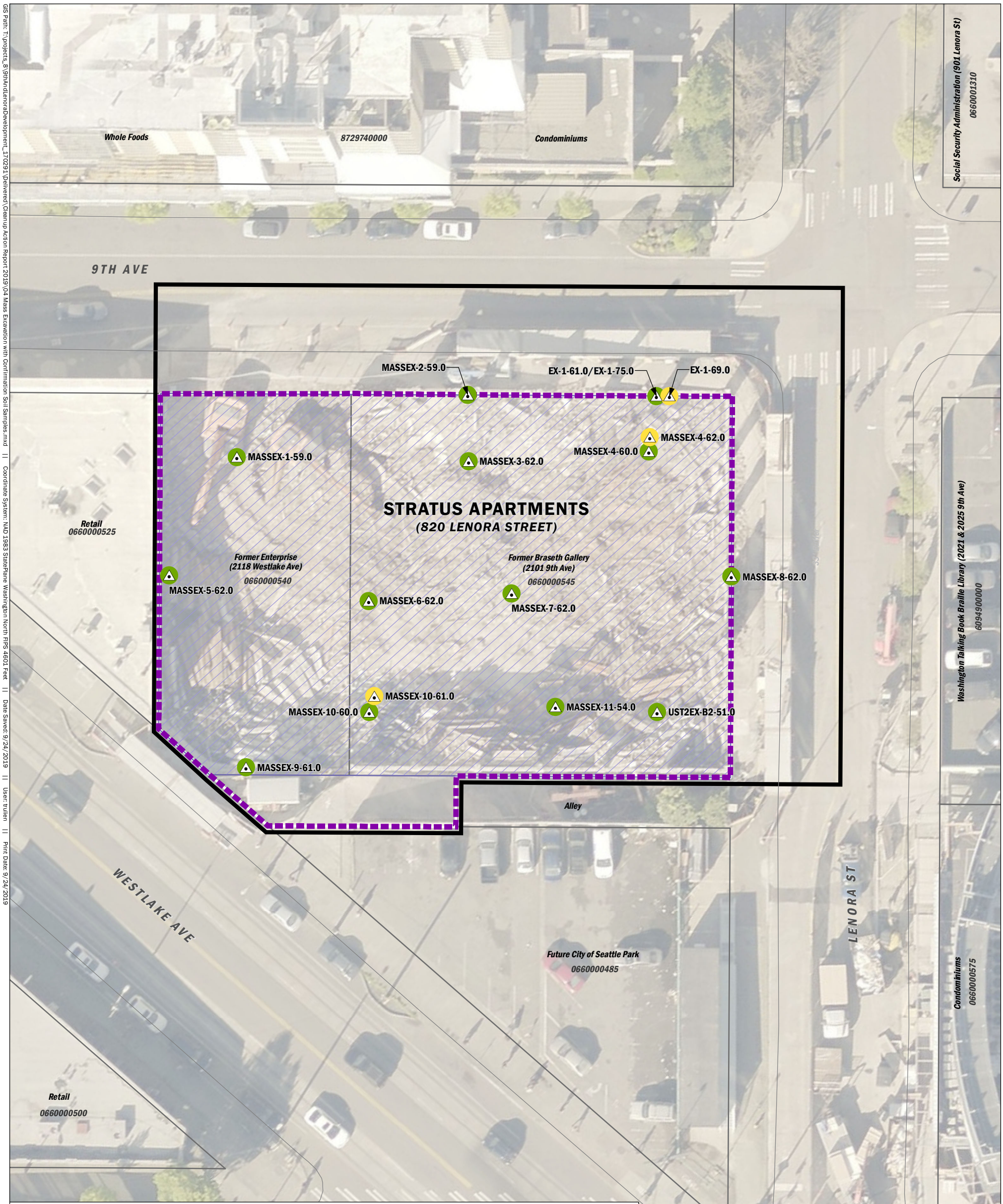
Pre-Cleanup Soil Conditions in Mass Excavation Limits

Cleanup Action Report
820 Lenora Street
Seattle, Washington

Aspect Consulting	SEP-2019	BY: FK / KES	FIGURE NO. 3
	PROJECT NO. 170291	REVISED BY: TDR	

Basemap Layer Credits || Pictometry International Corp.

GIS Path: T:\projects_8\9thAndLenoraDevelopment_170291\Delivered\Cleanup Action Report 2019\04 Mass Excavation with Confirmation Soil Samples.mxd || Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet || Date Saved: 9/24/2019 || User: trulien || Print Date: 9/24/2019



Note:

1. The Subject Property boundary is based on the Plat Map of the Second Addition to the Town of Seattle. The Plat Map was filed for record on December 14, 1875 and can be obtained from King County Records Office or a title company.

Sample elevation in feet

MASSEX-9-61.0

Sample name

0 30 60

Feet

Characterization soil sample location. Diesel- and heavy oil-range hydrocarbons and/or cPAHs were detected at concentrations below MTCA Method A Cleanup Level. Soil represented by this sample was subsequently excavated and transported from the site to Waste Management's Landfill for permitted disposal.

Confirmation soil sample location. Diesel- and heavy oil-range hydrocarbons and cPAHs were not detected.

Mass Excavation for removing contaminated and/or impacted fill soil.

Soil Sample

Mass excavation limits

Subject Property

King County Parcel

0660000545 Parcel Number

MTCA: Model Toxics Cleanup Control Act
cPAH: Carcinogenic polycyclic aromatic hydrocarbons

Mass Excavation with Confirmation Soil Samples

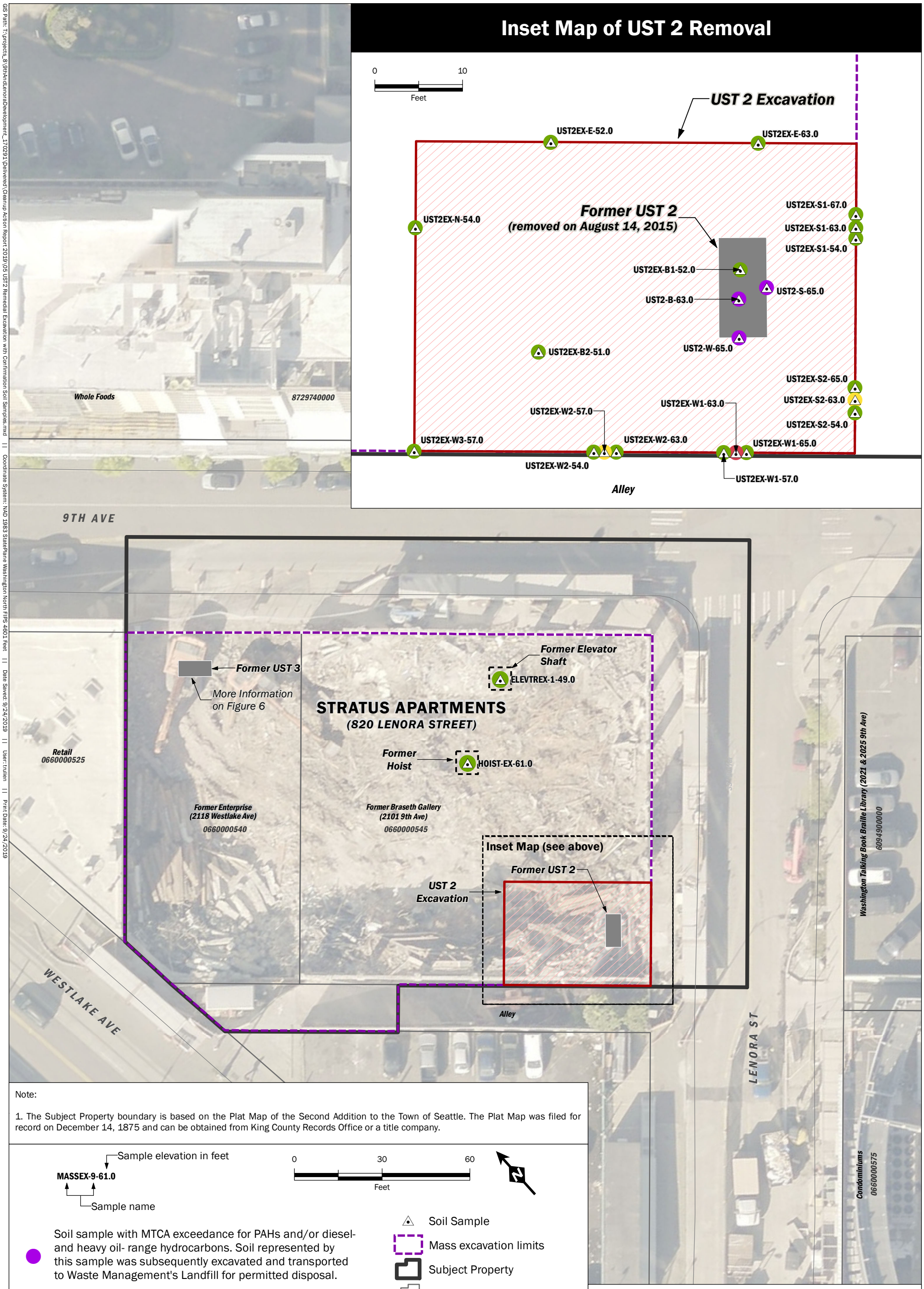
Cleanup Action Report
820 Lenora Street
Seattle, Washington

Aspect Consulting	SEP-2019	BY: FK / KES	FIGURE NO. 4
	PROJECT NO. 170291	REVISED BY: TDR	

Basemap Layer Credits || Pictometry International Corp.

GIS Path: T:\projects_8\9thAndLenoraDevelopment_170291\Delivered\Cleanup Action Report 2019\05 UST2 Remedial Excavation with Confirmation Soil Samples.mxd || Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet || Date Saved: 9/24/2019 || User: trullen || Print Date: 9/24/2019

Inset Map of UST 2 Removal



Note:

1. The Subject Property boundary is based on the Plat Map of the Second Addition to the Town of Seattle. The Plat Map was filed for record on December 14, 1875 and can be obtained from King County Records Office or a title company.

Sample elevation in feet
MASSEX-9-61.0
Sample name

0 30 60
Feet

N

- Soil sample with MTCA exceedance for PAHs and/or diesel- and heavy oil- range hydrocarbons. Soil represented by this sample was subsequently excavated and transported to Waste Management's Landfill for permitted disposal.

Represents Soil Conditions at the Final Limits of Excavation

- Confirmation soil sample with MTCA exceedance for heavy oil- range hydrocarbons and PAHs.
- Confirmation soil sample in which diesel- and heavy oil-range hydrocarbons and PAHs were detected at concentrations below MTCA Method A Cleanup Levels.
- Confirmation soil sample with no detections of petroleum hydrocarbons and PAHs.

- Soil Sample
- Mass excavation limits
- Subject Property
- King County Parcel
- 0660000545 Parcel Number

MTCA: Model Toxics Cleanup Control Act
PAH: Polycyclic aromatic hydrocarbons
UST: Underground Storage Tank

UST2 Remedial Excavation with Confirmation Soil Samples

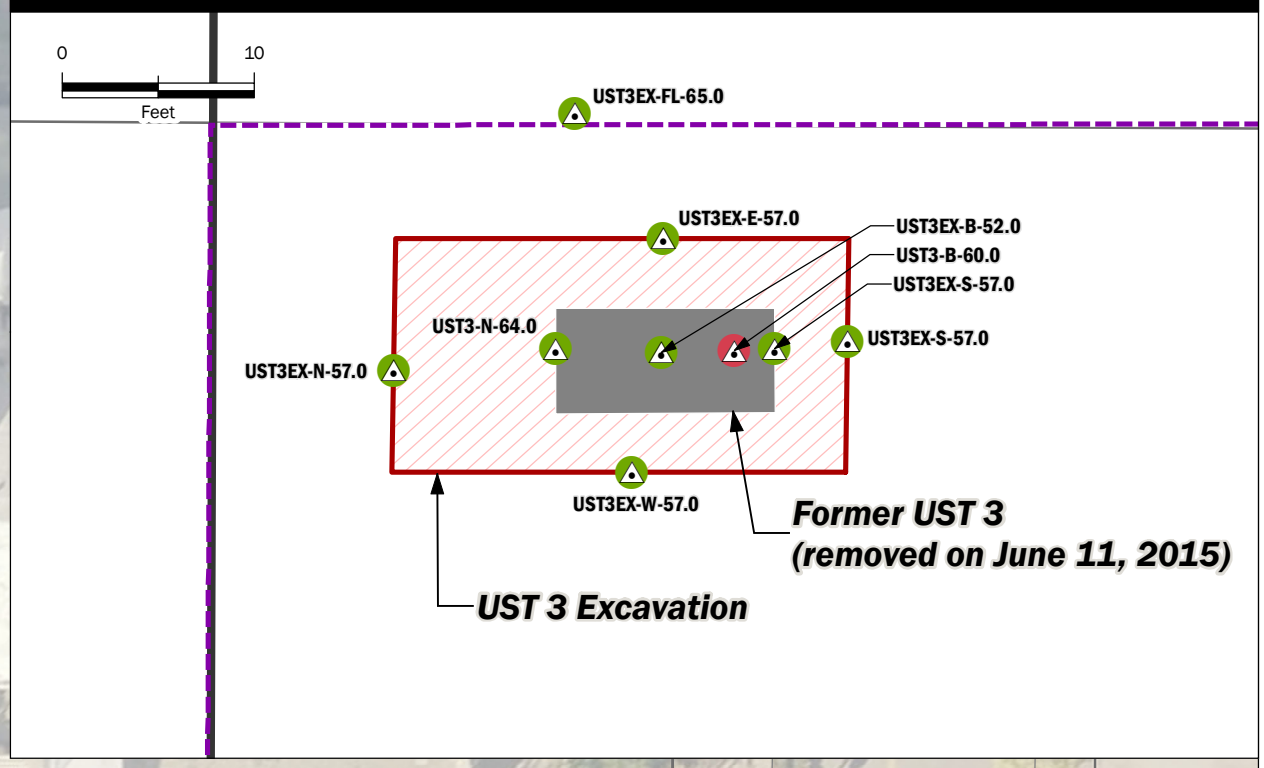
Cleanup Action Report
820 Lenora Street
Seattle, Washington

Aspect Consulting	SEP-2019	BY: FK / KES	FIGURE NO. 5
	PROJECT NO. 170291	REVISED BY: TDR	

Basemap Layer Credits || Pictometry International Corp.

GIS Path: T:\projects_8\9thAndLenoraDevelopment_170291\Delivered\Clean up Action Report 2019\06 UST3 Remedial Excavation with Confirmation Soil Samples.mxd || Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet || Date Saved: 9/24/2019 || User: trullen || Print Date: 9/24/2019

Inset Map of UST 3 Removal



Whole Foods

8729740000

Condominiums

9TH AVE

Inset Map (see above)

Former UST 3

UST 3 Excavation

STRATUS APARTMENTS
(820 LENORA STREET)

Retail
0660000525

Former Enterprise
(2118 Westlake Ave)
0660000540

Former Braseth Gallery
(2101 9th Ave)
0660000545

Former UST 2

More Information on Figure 5

Washington Talking Book Braille Library (2021 & 2025 9th Ave)
6094900000

WESTLAKE AVE

Alley

LENORA ST

Future City of Seattle Park
0660000485

Condominiums
0660000575

Note:

1. The Subject Property boundary is based on the Plat Map of the Second Addition to the Town of Seattle. The Plat Map was filed for record on December 14, 1875 and can be obtained from King County Records Office or a title company.

Sample elevation in feet
MASSEX-9-61.0
Sample name

0 30 60
Feet

Soil sample with MTCA exceedance for diesel-range hydrocarbons. Soil represented by this sample was subsequently excavated and transported to Waste Management's Landfill for permitted disposal.

Confirmation soil sample with no detections of diesel- and heavy oil- range hydrocarbons. Represent soil conditions at the final excavation limits.

Soil Sample

Mass excavation limits

Subject Property

King County Parcel

0660000545 Parcel Number

MTCA: Model Toxics Cleanup Control Act
UST: Underground Storage Tank

UST3 Remedial Excavation with Confirmation Soil Samples

Cleanup Action Report
820 Lenora Street
Seattle, Washington

Aspect Consulting	SEP-2019	BY: FK / KES	FIGURE NO. 6
	PROJECT NO. 170291	REVISED BY: TDR	

Basemap Layer Credits || Pictometry International Corp.

GIS Path: T:\projects_8\9thAndLenoraDevelopment_170291\Delivered\Cleanup Action Report 2019\07 Post Cleanup Soil Conditions.mxd || Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet || Date Saved: 9/24/2019 || User: trullen || Print Date: 9/24/2019

Whole Foods

8729740000

Condominiums

Social Security Administration (901 Lenora St)
0660001310

9TH AVE

A'

A

B

B'

UTL9-E
Benzene: 0.06 (15 ft)
GRO: 50 (18 ft)

B-1
Benzene: 0.23 (18 ft)

UTL9-N

UTL9-S

EX-1

STRATUS APARTMENTS
(820 LENORA STREET)

Retail
0660000525

Former Enterprise
(2118 Westlake Ave)
0660000540

Former Braseth Gallery
(2101 9th Ave)
0660000545

B-2
GRO: 2400 X (24 ft)
ORO: 18000 (24 ft)
Toluene: 11 (24 ft)

DP-5

UST2EX-W1
Benzo(a)pyrene: 0.11 (24 ft)
cPAH TEQ: 0.1501 (24 ft)
ORO: 19000 (24 ft)

DP-2
cPAH TEQ: 0.125 (8 ft)
DRO: 2900 (8 ft)
ORO: 15000 (8 ft)

UST2EX-S1

DP-4

MW-5

UST2EX-B1

UST2EX-W3

DP-3

Alley

GEI-1

DP-1
Benzo(a)pyrene: 0.22 (4 ft)
cPAH TEQ: 0.2941 (4 ft)

Washington Talking Book Braille Library (2021 & 2025 9th Ave)
6094900000

WESTLAKE AVE

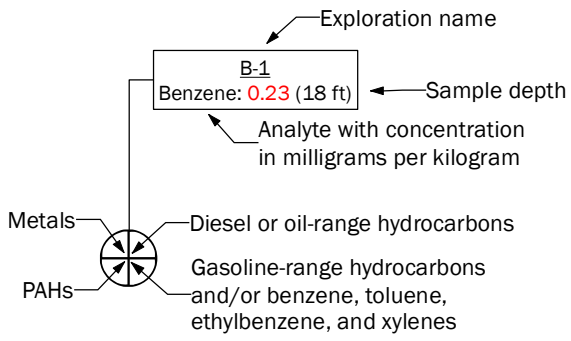
LENORA ST

Future City of Seattle Park
0660000485

Condominiums
0660000575

Note:

1. The Subject Property boundary is based on the Plat Map of the Second Addition to the Town of Seattle. The Plat Map was filed for record on December 14, 1875 and can be obtained from King County Records Office or a title company.



0 30 60
Feet

PAH: Polycyclic aromatic hydrocarbons
MTCA: Model Toxics Cleanup Control Act
GRO: Gasoline-range organics
DRO: Diesel-range organics
ORO: Oil-range organics

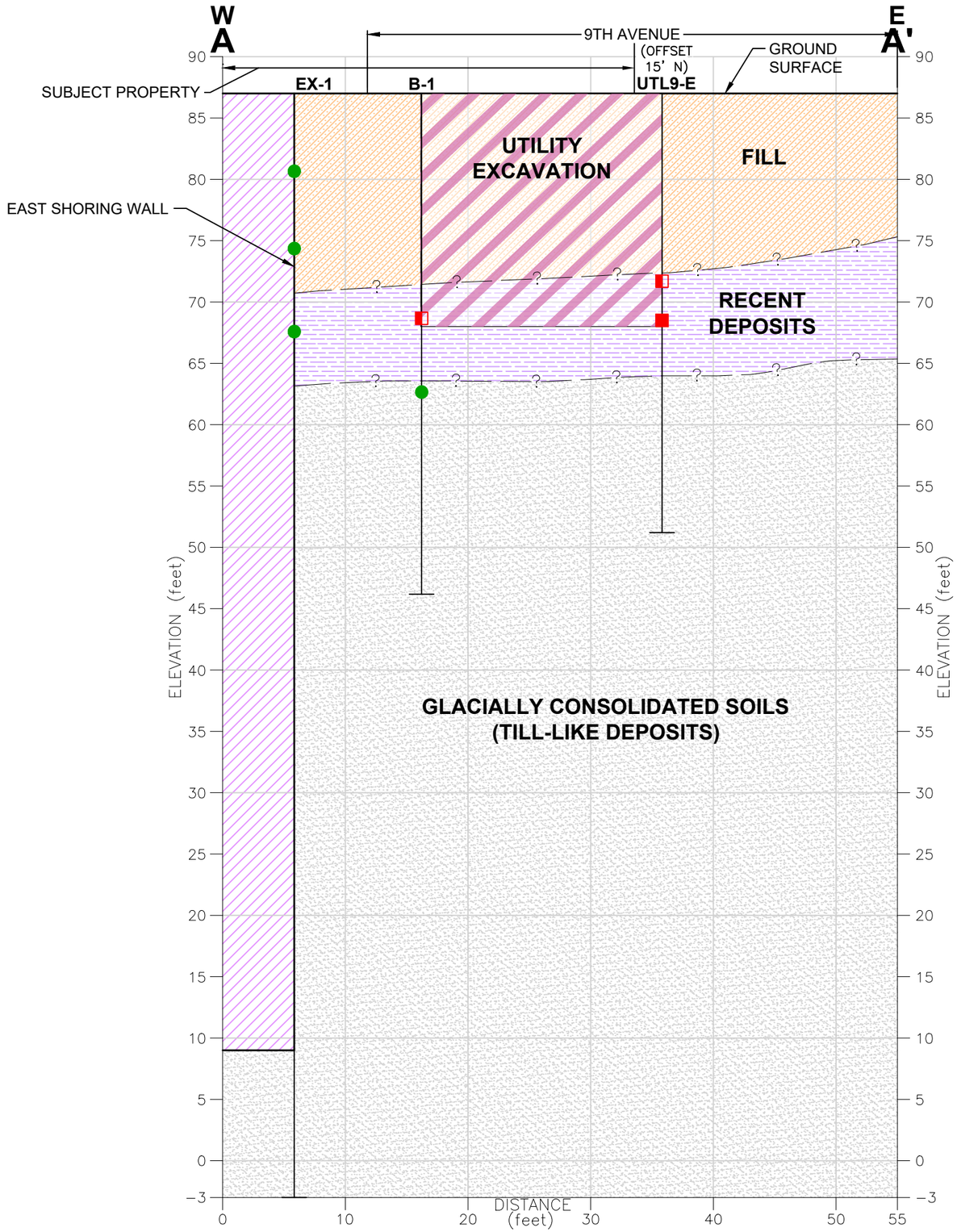
- Contaminant concentration greater than the MTCA Method A Cleanup Level
- Contaminant concentration less than the MTCA Method A Cleanup Level
- Contaminant not detected
- Sample not submitted for analyte testing
- Soil Sample
- Soil Boring
- Former Monitoring Well
- Approximate extent of utility excavation
- Mass excavation limits
- Approximate known extent of residual PAHs and/or petroleum-contaminated soil with MTCA exceedance
- Interpreted extent of gasoline and benzene contaminated soil with MTCA exceedance at Subject Property from an off property source
- Cross Section
- Subject Property
- King County Parcel
- 0660000545 Parcel Number

Post-Cleanup Soil Conditions at the Subject Property and Alley

Cleanup Action Plan
820 Lenora Street
Seattle, Washington

Aspect Consulting	SEP-2019	BY: FK / KES	FIGURE NO. 7
	PROJECT NO. 170291	REVISED BY: TDR	

Basemap Layer Credits || Pictometry, King County



EXPLANATION:

- Benzene and Gasoline Detected at a concentration greater than the MTCA Method A Cleanup Level
- Benzene Detected at a concentration greater than the MTCA Method A Cleanup Level
- Gasoline and Benzene not detected

MTCA Model Toxics Control Act

(OFFSET 15' N) **UTL9-E** Sample number and approximate location

Soil contact

- Fill
- Recent deposits
- Glacially consolidated soils (till–like deposits)
- Soil at the Subject Property was excavated to an approximate elevation of 9 feet during mass excavation
- Deep sewer utility excavation

0 10 20
Feet

Notes:

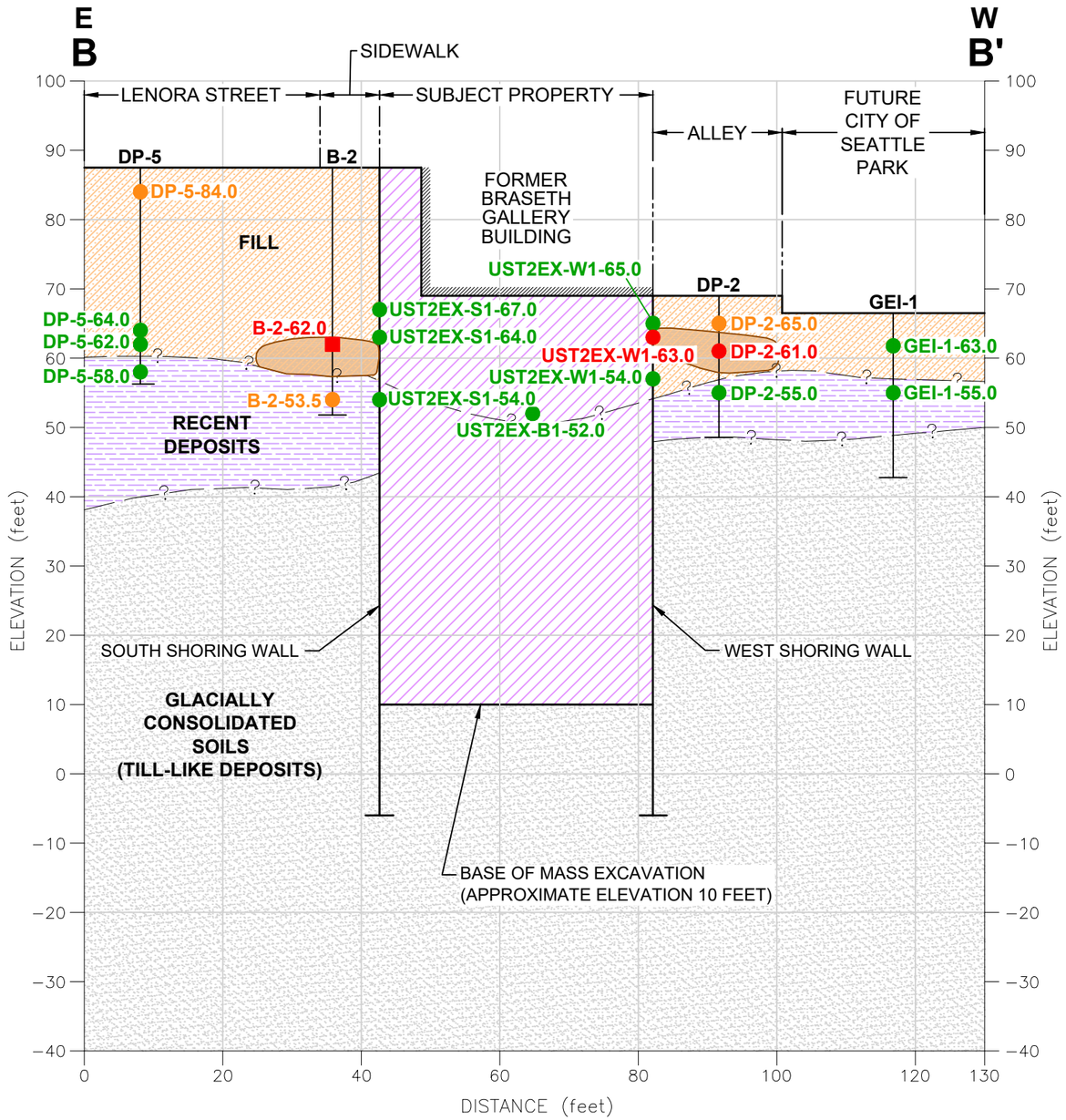
1. The subsurface conditions shown are based on interpolation between widely spaced explorations and should be considered approximate; actual subsurface conditions may vary from those shown.
2. Refer to Figure 7 for location of Cross Section.
3. This figure is for informational purposes only. It is intended to assist in the identification of features discussed in a related document. Data were compiled from sources as listed in this figure. The data sources do not guarantee these data are accurate or complete. There may have been updates to the data since the publication of this figure.
4. Figure sourced from GeoEngineers, Cross Section C-C' Figure 7, 2016.

Cross Section A-A'

Cleanup Action Report
820 Lenora Street
Seattle, Washington

Aspect CONSULTING	SEP-2019	BY: FK / TDR	FIGURE NO. 8
	PROJECT NO. 170291	REV BY: ---	

GIS Path: T:\Templates\1117_Landscape.mxd || Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet || Date Saved: 6/2/2014 || User: ecrumbaker || Print Date: 6/9/2014



Notes:

1. The subsurface conditions shown are based on interpolation between widely spaced explorations and should be considered approximate; actual subsurface conditions may vary from those shown.
2. Refer to Figure 7 for location of Cross Section.
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4. Figure sourced from GeoEngineers, Cross Section A-A' Figure 6, 2016.

Legend

- Soil sample with gasoline- and heavy oil-range hydrocarbons and toluene detections greater than MTCA Method A Cleanup Levels
- Soil sample with MTCA exceedance for diesel- and heavy oil-range hydrocarbons and PAHs
- Soil sample with petroleum hydrocarbons and PAHs detections less than MTCA Method A Cleanup Levels
- Soil sample non-detect for petroleum hydrocarbons and PAHs

MTCA Model Toxics Control Act

PAHs Polycyclic aromatic hydrocarbons

DP-2 Exploration and approximate location

Soil contact

Approximate thickness of residual MTCA exceeding petroleum- and PAHs- contaminated soil

Fill

Recent deposits

Glacially consolidated soils (till-like deposits)

Former Braseth Gallery building was demolished and soil at the subject property was excavated to an approximate Elevation of 7 feet, NAVD88, during mass excavation

0 20 40
Feet

Cross Section B-B'

Cleanup Action Report
820 Lenora Street
Seattle, Washington

Aspect Consulting	SEP-2019	BY: FK / TDR	FIGURE NO. 9
	PROJECT NO. 170291	REV BY: ---	

GIS Path: T:\Templates\1117_Landscape.mxd || Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet || Date Saved: 6/2/2014 || User: ecrumbaker || Print Date: 6/9/2014

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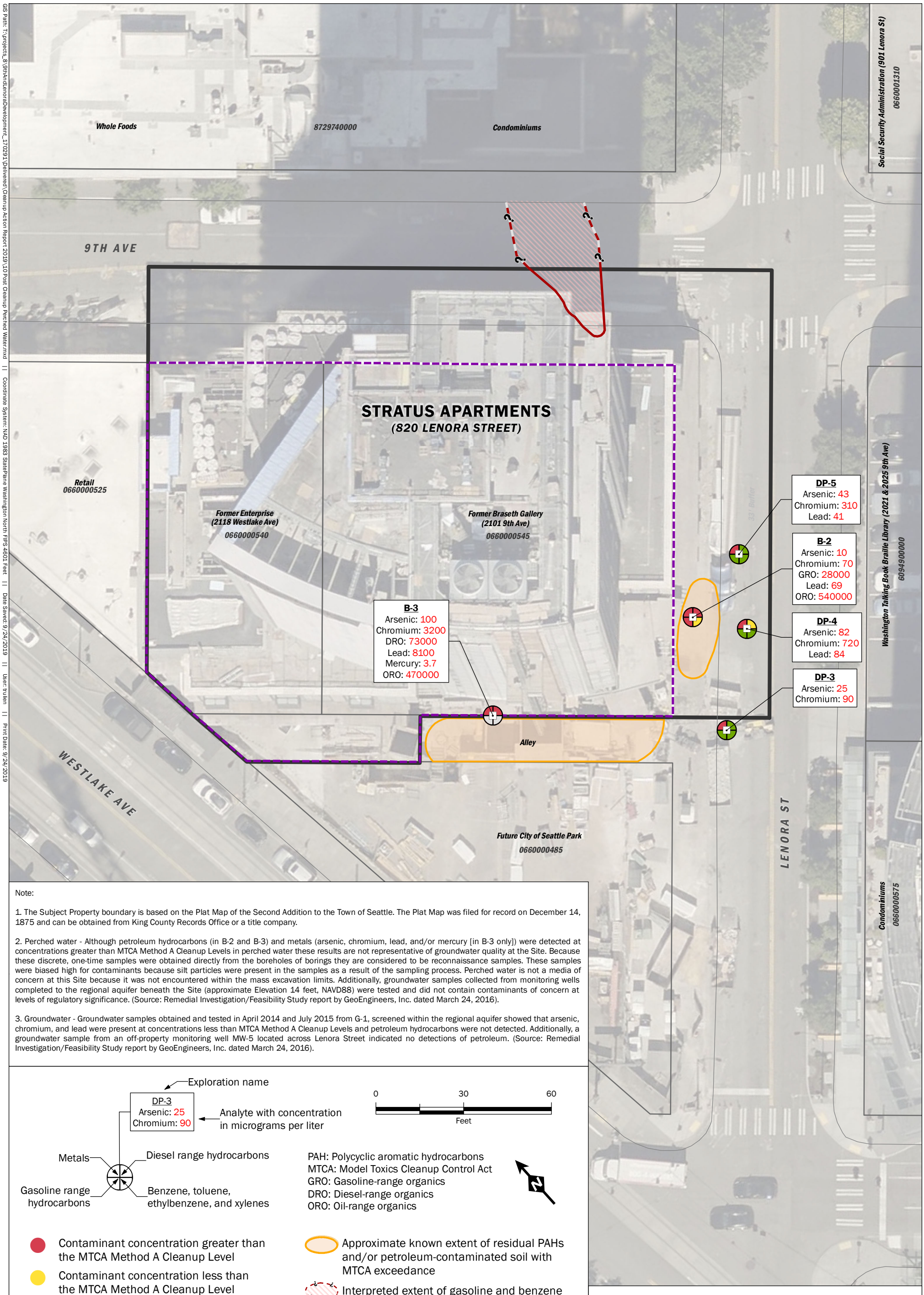


Note:

1. The Subject Property boundary is based on the Plat Map of the Second Addition to the Town of Seattle. The Plat Map was filed for record on December 14, 1875 and can be obtained from King County Records Office or a title company.

2. Perched water - Although petroleum hydrocarbons (in B-2 and B-3) and metals (arsenic, chromium, lead, and/or mercury [in B-3 only]) were detected at concentrations greater than MTCA Method A Cleanup Levels in perched water these results are not representative of groundwater quality at the Site. Because these discrete, one-time samples were obtained directly from the boreholes of borings they are considered to be reconnaissance samples. These samples were biased high for contaminants because silt particles were present in the samples as a result of the sampling process. Perched water is not a media of concern at this Site because it was not encountered within the mass excavation limits. Additionally, groundwater samples collected from monitoring wells completed to the regional aquifer beneath the Site (approximate Elevation 14 feet, NAVD88) were tested and did not contain contaminants of concern at levels of regulatory significance. (Source: Remedial Investigation/Feasibility Study report by GeoEngineers, Inc. dated March 24, 2016).

3. Groundwater - Groundwater samples obtained and tested in April 2014 and July 2015 from G-1, screened within the regional aquifer showed that arsenic, chromium, and lead were present at concentrations less than MTCA Method A Cleanup Levels and petroleum hydrocarbons were not detected. Additionally, a groundwater sample from an off-property monitoring well MW-5 located across Lenora Street indicated no detections of petroleum. (Source: Remedial Investigation/Feasibility Study report by GeoEngineers, Inc. dated March 24, 2016).

PAH: Polycyclic aromatic hydrocarbons
MTCA: Model Toxics Cleanup Control Act
GRO: Gasoline-range organics
DRO: Diesel-range organics
ORO: Oil-range organics

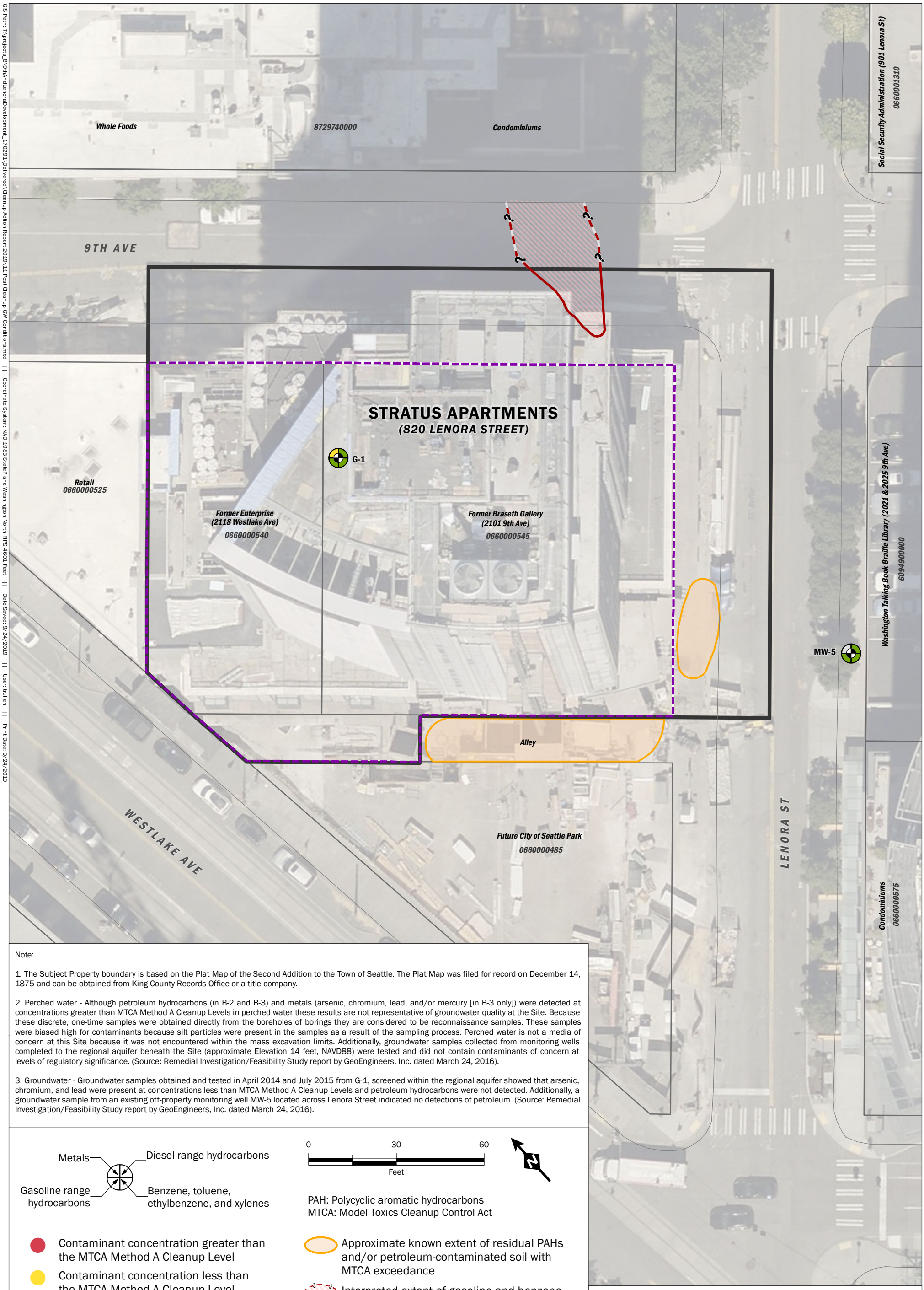
- Contaminant concentration greater than the MTCA Method A Cleanup Level
- Contaminant concentration less than the MTCA Method A Cleanup Level
- Contaminant not detected
- Sample not submitted for analyte testing
- Perched Water Sample from Soil Boring
- Mass excavation limits
- Approximate known extent of residual PAHs and/or petroleum-contaminated soil with MTCA exceedance
- Interpreted extent of gasoline and benzene contaminated soil with MTCA exceedance at Subject Property from an off property source
- Subject Property
- King County Parcel
- 0660000545 Parcel Number

Post-Cleanup Perched Water Conditions at the Subject Property and Vicinity

Cleanup Action Report
820 Lenora Street
Seattle, Washington

Aspect Consulting	SEP-2019	BY: FK / KES	FIGURE NO. 10
	PROJECT NO. 170291	REVISED BY: TDR	

Basemap Layer Credits || Pictometry, King County



Note:

1. The Subject Property boundary is based on the Plat Map of the Second Addition to the Town of Seattle. The Plat Map was filed for record on December 14, 1875 and can be obtained from King County Records Office or a title company.

2. Perched water - Although petroleum hydrocarbons (in B-2 and B-3) and metals (arsenic, chromium, lead, and/or mercury [in B-3 only]) were detected at concentrations greater than MTCA Method A Cleanup Levels in perched water these results are not representative of groundwater quality at the Site. Because these discrete, one-time samples were obtained directly from the boreholes of borings they are considered to be reconnaissance samples. These samples were biased high for contaminants because silt particles were present in the samples as a result of the sampling process. Perched water is not a media of concern at this Site because it was not encountered within the mass excavation limits. Additionally, groundwater samples collected from monitoring wells completed to the regional aquifer beneath the Site (approximate Elevation 14 feet, NAVD88) were tested and did not contain contaminants of concern at levels of regulatory significance. (Source: Remedial Investigation/Feasibility Study report by GeoEngineers, Inc. dated March 24, 2016).

3. Groundwater - Groundwater samples obtained and tested in April 2014 and July 2015 from G-1, screened within the regional aquifer showed that arsenic, chromium, and lead were present at concentrations less than MTCA Method A Cleanup Levels and petroleum hydrocarbons were not detected. Additionally, a groundwater sample from an existing off-property monitoring well MW-5 located across Lenora Street indicated no detections of petroleum. (Source: Remedial Investigation/Feasibility Study report by GeoEngineers, Inc. dated March 24, 2016).

PAH: Polycyclic aromatic hydrocarbons
MTCA: Model Toxics Cleanup Control Act

- Contaminant concentration greater than the MTCA Method A Cleanup Level
- Contaminant concentration less than the MTCA Method A Cleanup Level
- Contaminant not detected
- Sample not submitted for analyte testing
- Groundwater Sample from Former Monitoring Well
- Mass excavation limits
- Approximate known extent of residual PAHs and/or petroleum-contaminated soil with MTCA exceedance
- Interpreted extent of gasoline and benzene contaminated soil with MTCA exceedance at Subject Property from an off property source
- Subject Property
- King County Parcel
- 0660000545 Parcel Number

Post-Cleanup Groundwater Conditions at the Subject Property and Vicinity

Cleanup Action Report
820 Lenora Street
Seattle, Washington

Aspect Consulting	SEP-2019	BY: FK / KES	FIGURE NO. 11
	PROJECT NO. 170291	REVISED BY: TDR	

Basemap Layer Credits || Pictometry, King County

GIS Path: T:\projects_8\9thAndLenoraDevelopment_170291\Delivered\Cleanup Action Report 2019\11 Post Cleanup GW Conditions.mxd || Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet || Date Saved: 9/24/2019 || User: trullen || Print Date: 9/24/2019

GIS Path: T:\projects_8\9thAndLenoraDevelopment_170291\Delivered\Cleanup Action Report 2019\12 Environmental Covant Areas.mxd || Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet || Date Saved: 9/24/2019 || User: trullen || Print Date: 9/24/2019

Whole Foods

8729740000

Condominiums

Social Security Administration (901 Lenora St)
0660001310

9TH AVE

STRATUS APARTMENTS
(820 LENORA STREET)

Retail
0660000525

Former Enterprise
(2118 Westlake Ave)
0660000540

Former Braseth Gallery
(2101 9th Ave)
0660000545

33' Buffer

Washington Talking Book Braille Library (2021 & 2025 9th Ave)
6094900000

Alley

WESTLAKE AVE

LENORA ST

Future City of Seattle Park
0660000485

Condominiums
0660000575

Retail
0660000500

Note:

1. The Subject Property boundary is based on the Plat Map of the Second Addition to the Town of Seattle. The Plat Map was filed for record on December 14, 1875 and can be obtained from King County Records Office or a title company.

- Mass excavation limits
- Approximate known extent of residual PAHs and/or petroleum-contaminated soil with MTCA exceedance
- Interpreted extent of gasoline and benzene contaminated soil with MTCA exceedance at Subject Property from an off property source
- Subject Property
- King County Parcel
- 0660000545 Parcel Number

0 30 60
Feet

MTCA: Model Toxics Cleanup Control Act
PAH: Polycyclic aromatic hydrocarbons

Subject Property- Environmental Covenant Areas

Cleanup Action Report
820 Lenora Street
Seattle, Washington

Aspect Consulting	SEP-2019	BY: FK / KES	FIGURE NO. 12
	PROJECT NO. 170291	REVISED BY: TDR	

Basemap Layer Credits || Pictometry, King County

APPENDIX B

Aspect 2020 CAR

CLEANUP ACTION REPORT

Lenora Building Site (aka Stratus Apartments), 820 Lenora Street, Seattle, Washington
Facility/Site #91413494
Cleanup Site ID: 1802

Prepared for: Ninth and Lenora LLC

Project No. 170291 • March 26, 2020 FINAL

Aspect CONSULTING

earth + water

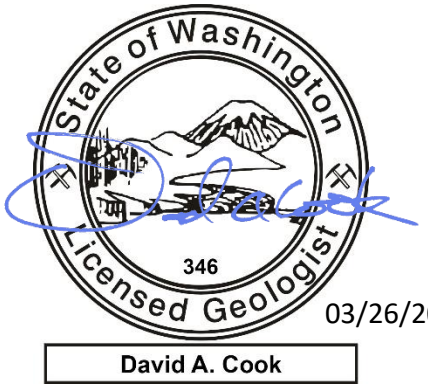
CLEANUP ACTION REPORT

Lenora Building Site (aka Stratus Apartments), 820 Lenora Street, Seattle, Washington
Facility/Site #91413494
Cleanup Site ID: 1802

Prepared for: Ninth and Lenora LLC

Project No. 170291 • March 26, 2020 FINAL

Aspect Consulting, LLC



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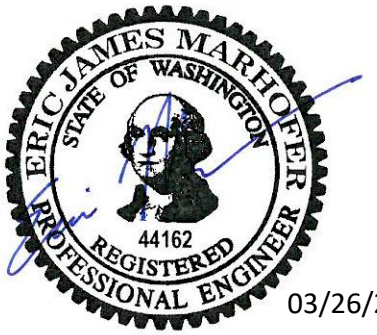

03/26/2020

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Executive Summary

This report summarizes a cleanup action successfully completed at the Ninth and Lenora development property (now known as the Stratus Apartments) to the maximum extent practicable in compliance with applicable Washington State Model Toxics Control Act (MTCA) requirements. The Ninth and Lenora development property is located at 820 Lenora Street (formerly 2101 9th Avenue) in Seattle, Washington (herein referred to as the "Subject Property," Figure 1).

Regulatory Background

The Subject Property was enrolled in the Washington State Department of Ecology's (Ecology) Voluntary Cleanup Program (VCP) on June 8, 2015 (Facility/Site No. 91413494, Cleanup Site ID: 1802, and VCP Project No. NW2980). A Remedial Investigation/Feasibility Study (RI/FS) and Cleanup Action Report (CAR) was prepared by GeoEngineers, Inc., (GeoEngineers) and submitted to Ecology in 2016. Subsequently, Ecology issued a property-specific no further action (NFA) determination in November 2017 based on the information presented in the 2016 RI/FS and the 2016 CAR.

In 2018, it was discovered that the Subject Property boundaries legally extended to the centerline of the adjacent roadways, which had implications for the property-specific NFA that Ecology issued in 2017. Aspect met with Ecology on July 23, 2019, to provide a project update. This 2019 cleanup action report prepared by Aspect Consulting, LLC (Aspect) on behalf of Ninth and Lenora LLC (Subject Property owner) supersedes the 2016 cleanup action report (GeoEngineers, 2016b) and presents new information for the following elements that were requested by Ecology during the July 2019 meeting:

- A map showing the new Subject Property boundary (shown in attached Figure 2).
- Analysis to demonstrate that vapor intrusion from the residual petroleum- and PAH-contaminated soil is not a risk (see Section 10)
- Impracticability Analysis to demonstrate that it is infeasible to excavate residual petroleum- and PAH-contaminated soil at the Site (see Section 11)
- Re-enrollment of the Site into the Voluntary Cleanup Program (VCP)

The objective of this 2019 Cleanup Action Report (CAR) is to obtain a Property-Specific NFA for the "newly-defined" Subject Property through Ecology's VCP. Also, per Ecology's request, a new VCP application is being presented separately along with this CAR.

This 2019 Cleanup Action Report is stamped by a Washington State licensed engineer to satisfy Ecology's request for an engineering analysis of the impracticability to excavate residual petroleum- and PAH-contaminated soil at the Site.

RI Results

Based on the results of the RI, petroleum hydrocarbons (diesel-, and heavy oil-range) and polycyclic aromatic hydrocarbons (PAHs) were the primary contaminants of concern with localized areas of gasoline-range hydrocarbons, benzene (near decommissioned tanks in south portion of the property) and/or lead (observed at only two locations) in fill soil, at the Subject Property (Figure 3). Groundwater is not impacted.

Sources of contamination included historical boiler and furnace/chimney systems of the former Subject Property buildings, underground storage tanks (UST1, removed in 2002, and UST2 that was closed-in-place), and historical property uses such as a wood yard, printing facility, metal shops, and former vehicle servicing/washing/restoration facility, and undocumented fill that was imported to the Subject Property.

Site Definition

Based on the RI data, the "Site" includes the Subject Property and a limited portion of an adjacent alley to the west.

There is one area east of the new Stratus Apartments within 9th Avenue where gasoline contaminated soil was identified during utility installation. Although this contamination currently falls within the "newly identified" property boundary (which now includes part of the 9th Avenue right of way), this soil is attributable to an upgradient source, and therefore, not part of the "Site" (see Section 4.0 and Figure 7).

2015 Independent Cleanup – Successful Remedial Excavation

A cleanup action was conducted concurrent with Subject Property redevelopment of a 42-story residential tower with six levels of underground parking between June 2015 and August 2015. The construction excavation at the Subject Property extended from a starting surface elevation (Elevation)[1] of about 87 feet above mean sea level (amsl) at the highest side of the Subject Property near 9th Avenue and Lenora Street down to a bottom construction excavation Elevation of about 7 feet amsl. The contaminated soil (generally located in the upper 20 feet) was excavated and disposed of in accordance with a Construction Contingency Plan that was prepared and submitted to Ecology in December 2014, prior to construction.

The following is a summary of the 2015 Cleanup Action:

- As part of a much larger mass construction excavation, all accessible contaminated/impacted soil (14,550 tons) was excavated from the Subject Property and disposed of at Waste Management's subtitle D landfill in Arlington, Oregon (Table 1 and Figure 4).
- A hydraulically operated steel elevator shaft and a concrete vault that housed a hydraulic hoist were discovered and subsequently removed during construction between June 2015 and August 2015. Confirmation samples indicate soil below the former shaft and vault locations was not impacted (Table 2 and Figure 5).

[1] North American Vertical Datum 1988.

- A closed-in-place steel diesel tank (UST2) along with associated piping and petroleum-contaminated soil was removed from south portion of the Subject Property. Confirmation samples indicate that all petroleum-contaminated soil was successfully excavated from within the mass excavation limits at the Subject Property (Table 3 and Figure 5).

- An unknown heating-oil tank (UST3) was discovered and subsequently removed along with petroleum-contaminated soil during construction between June 2015 and August 2015. Confirmation samples indicate that petroleum-contaminated soil was successfully excavated from the UST3 location (Table 4 and Figure 6).

Post-Remedial Excavation Conditions

- **Capped Residual Contaminated Soil**. Based on confirmation soil sampling data, residual petroleum-and PAH-contaminated soil exceeding MTCA cleanup levels remains capped in-place under hard pavements in three limited areas: (1) 9th Avenue (within the Subject Property), (2) Lenora Street (within the Subject Property), and (3) the alley (outside the Subject Property) owned by City of Seattle Department of Parks and Recreation (Figure 7). The contaminated soil in these areas is inaccessible and cannot be excavated due to the presence of structural impediments. Analysis of the infeasibility of excavating the residual petroleum- and PAH-contaminated soil within the Property is presented in detail below in the Impracticability Analysis at Section 11. Details for each location includes:

    - **9th Avenue**. Residual gasoline-range hydrocarbons and benzene-contaminated soil is present in an area measuring approximately 20 feet long (north-south) by 10 feet wide (east-west) and 9-feet thick (between approximate depths of 15 feet below ground surface (bgs) and 24 feet bgs [Elevations 72 feet and 63 feet amsl]) (Figures 8 and 9). Note that the 9th Avenue surface Elevation is 87 feet amsl.

    - **Lenora Street**. Residual gasoline- and heavy oil-range hydrocarbons, toluene- and PAH-contaminated soil is present in an area measuring approximately 40 feet long (east-west) by 8 feet wide (north-south) and 8-feet thick (between approximate depths of 24 feet bgs and 36 feet bgs [corresponding approximate Elevations 63 and 55 amsl]) (Figures 8 and 9). Note that the Lenora Street surface Elevation is 87 feet amsl.

    - **Alley**. Residual heavy oil-range hydrocarbons and PAH-contaminated soil is present in an area measuring approximately 60 feet long (north-south) by 10 feet wide (east-west) and 8-feet thick (between approximate depths of 6 feet bgs and 14 feet bgs [corresponding Elevation 63 to 55 feet amsl]) (Figures 8 and 9). Note that the alley surface Elevation is 69 feet amsl.

- **Regional Groundwater Quality Meets MTCA.** Regional groundwater is deep (53.30 feet and 55.39 feet bgs [Elevations 16 and 14 feet amsl]) based on measurements from a former groundwater monitoring well (G-1) at the Subject Property in 2014 and 2015. Groundwater samples tested from G-1 and from an

off-property well (MW-5) in July 2015 (Table 6 and Figure 11) demonstrated that:

  - Arsenic, chromium, and lead were present at concentrations less than MTCA Method A Cleanup Levels, and
  - Petroleum hydrocarbons (gasoline-, diesel-, and heavy oil-range hydrocarbons) including BTEX were not detected.

- **Perched Water Discontinuous or Not Present.** Perched water was encountered in localized, discontinuous locations (for example in well MW-01 groundwater was occasionally observed at 18 feet bgs and then also was dry in 2014 and 2015). (Table 5 & 6 and Figure 10 & 11). No perched groundwater was encountered within the mass excavation footprint during construction in 2015 at the Subject Property.
- **Vapor Intrusion Pathway Incomplete.** The assessment of potential risk for vapor intrusion (VI) (VI Assessment, Section 10) demonstrates that the soil vapor to inhalation pathway is incomplete under current conditions at the Site.

Regulatory Closure and Request for Property Specific NFA

The residual petroleum- and PAH-contaminated soil does not represent a threat to human health or the environment because the soil-to-direct contact pathway, the soil leaching to groundwater pathway, and soil vapor to inhalation pathways are incomplete at the Site. Additionally, our engineering analysis demonstrates that residual petroleum and PAH-contaminated soil is impracticable to remediate, and an environmental covenant will be placed on the Subject Property. The following summarizes our conclusions for regulatory closure:

- **Contaminated soil has been removed to the maximum extent practicable and capped where impracticable to remove.**
- **No contaminants of concern were detected at concentrations above MTCA Method A Cleanup Levels in groundwater at the Site. In addition, there is significant separation between the water table and remaining residual contaminated soil (over 39 feet).**
- **The VI Assessment demonstrates that the soil vapor to inhalation pathway is incomplete under current conditions at the Site (see Section 10).**
- **The Remediation Impracticability Analysis demonstrates that remediation of the limited residual petroleum- and PAH-contaminated soil that remains capped at three separate localized areas is infeasible and impractical (see Section 11).**
- **Environmental Covenant.** An environmental covenant will be recorded in accordance with Washington Administrative Code (WAC) 173-340-440, to implement institutional controls in areas where residual petroleum- and PAH-contaminated soil is present at the Subject Property (portions of 9th Avenue and Lenora Street) to ensure the integrity of the cap and prevent exposure to hazardous substances at the Property (Figure 12).

Based on the evaluation of Site conditions and remedial options described in the RI/FS, and the results of the cleanup action on the Subject Property documented in this Cleanup Action Report, a property-specific NFA determination for the Subject Property is warranted.

This Executive Summary should be used only in the context of the full report for which it is intended.

1 Introduction and Property Conditions

This report prepared by Aspect Consulting, LLC (Aspect) summarizes a 2015 Independent Washington State Model Toxics Control Act (MTCA) Cleanup Action successfully completed at the Ninth and Lenora development property to the maximum extent practicable in compliance with applicable MTCA requirements. This Cleanup Action Report (CAR) supersedes and updates the 2016 CAR because of new information that has since been obtained about the extent of the Subject Property boundary.

This 2019 report does not change any of the technical results from the 2016 cleanup action report (written by the same authors as this report). Additional details related to the purpose of this CAR are presented in Section 1.1.

The Ninth and Lenora development property located at 820 Lenora Street (formerly 2101 9th Avenue) in Seattle, Washington (herein referred to as the "Subject Property") is situated in the Denny Triangle neighborhood and currently owned by Ninth and Lenora LLC.

The Subject Property location is shown relative to surrounding physical features in the attached Figure 1. For the purpose of this report, Aspect assigned the following geographic directions for the Subject Property and surrounding area:

- North – Retail building (cell phone repair store, espresso shop, bar)
- South – Lenora Street
- East – 9th Avenue
- West – Public park fronting Westlake Avenue

The Subject Property consists of two parcels (North Parcel [King County Parcel 0660000540] and South Parcel [King County Parcel 0660000545] encompassing approximately 0.49-acres and a 0.025-acre portion of an alley.

Based on a historical plat map recorded on December 14, 1875 (two decades after the City of Seattle [City] was founded in 1851) and property ownership research, it was discovered that the property boundary locations are unique in this part of downtown Seattle. The east and south boundaries of the Subject Property extend to the center line of 9th Avenue and Lenora Street respectively. This is uncommon because in most instances the property boundary extends to sidewalk or to the edge of the public right of way, or street. The approximate extent of the Subject Property is shown in the attached Figure 2.

With regard to ownership of the alley that separates the Subject Property from the City of Seattle Department of Parks and Recreation (Parks Department) public park, the Seattle City Council has approved an alley vacation which will result in Ninth and Lenora LLC owning the north half of the alley, while the Parks Department owns the south half (0.032 acre). Final fee transfer of the alley land is expected within the next six months.

The Parks Department also owns the triangular parcel located west of the Subject Property (across the alley). The Parks Department-owned portion of the alley and the triangular parcel was redeveloped as a public park during the redevelopment of the Subject Property.

The 2015 Independent MTCA Cleanup Action at the Subject Property consisted of the following:

- Removal of fill soil primarily contaminated with petroleum hydrocarbons (diesel- and heavy oil-range) and polycyclic aromatic hydrocarbons (PAHs), and to a lesser extent with benzene, toluene, xylenes, (near decommissioned tanks in south portion) and/or lead (observed at only two locations in fill soil) from within the mass excavation limits.
- Removal of a hydraulically controlled elevator shaft, a concrete vault housing a hydraulic hoist, two underground storage tanks (USTs) containing diesel and heating oil, respectively; removal of petroleum contaminated soil associated with the USTs; as well as excavation and removal of petroleum and PAHs-contaminated/impacted fill soil from within the mass excavation limits.

The cleanup action details are presented in later sections of this report.

Following completion of the 2015 cleanup action, the Subject Property was redeveloped with a mixed-use 42-story building (Stratus Apartments) consisting of 6 sub-grade parking levels, retail at-grade, and residential apartments above.

1.1 Regulatory Status

The cleanup action was completed in 2015 at the Subject Property (Figure 2). Based on the information available at the time, GeoEngineers, Inc., (GeoEngineers) prepared a Remedial Investigation/Feasibility Study (RI/FS) report dated March 24, 2016 (GeoEngineers, 2016a) and a Cleanup Action Report (CAR) dated March 25, 2016 (GeoEngineers, 2016b) on behalf of Ninth and Lenora LLC to document the assessment and cleanup activities performed at the Subject Property. These reports were authored by Fasih Khan and Dave Cook, now at Aspect.

These reports were submitted to the Washington State Department of Ecology (Ecology) in 2016 when the Subject Property was enrolled in the Voluntary Cleanup Program (VCP Project No. NW2980) administered by Ecology.

Because residual petroleum-contaminated soil with MTCA exceedance was present following redevelopment activities only in three areas (within 9th Avenue, Lenora Street, and the alley), Ecology issued a property-specific no further action (NFA) determination via an opinion letter dated November 14, 2017. Based on the information available at the time, these three areas of residual petroleum-contaminated soil were mapped outside the Subject Property boundaries (Figure 2).

A copy of Ecology's NFA opinion letter is presented in attached Appendix A.

In 2018, new information regarding the Subject Property boundaries was discovered by Ninth and Lenora LLC that indicated the east and south boundaries of the Subject Property extended to the center line of 9th Avenue and Lenora Street, respectively.

Based on the new information, the areas of residual petroleum-contaminated soil present in 9th Avenue and Lenora Street are now mapped inside the Subject Property (Figure 2).

Representatives of Ninth and Lenora LLC's legal counsel (Joyce Ziker Parkinson PLLC) and environmental consultant (Aspect Consulting, LLC) met with Ecology on July 23, 2019, to discuss the change in Subject Property boundaries and regulatory status of the 2017 Property-Specific NFA. Based on the discussion during the meeting, Ecology requested the following:

1. Re-enroll the Subject Property in the VCP.
2. Submit an analysis completed by a Washington State Licensed Professional Engineer to establish the impracticality of removal of the inaccessible residual petroleum contaminated soil present beneath 9th Avenue and Lenora Street due to structural/utility/road improvement features.
3. Re-evaluate the vapor intrusion (VI) pathway relative to the presence of residual petroleum-contaminated soil.
4. Submit a new cleanup action report containing information for the above listed items.

The requested elements #2 and #3 are included in this report in Sections 10 and 11. A new VCP application is being submitted separately along with this Cleanup Action Report to satisfy elements #1 and #4.

1.2 Purpose and Objective

This 2019 Cleanup Action Report (CAR) supersedes the 2016 cleanup action report (GeoEngineers, 2016b). This 2019 CAR has been prepared to summarize the 2015 cleanup action and addresses the issues arising from the recently identified change in property boundaries, which includes the following additional information requested by Ecology during the July 2019 meeting:

- A map showing the new Subject Property boundary (Figure 2).
- Vapor Intrusion Analysis to demonstrate that vapor intrusion from the residual petroleum- and PAH-contaminated soil is not a risk (Section 10).
- Impracticability Analysis to demonstrate that it is infeasible to excavate residual petroleum- and PAH-contaminated soil at the Site (Section 11).

The objective of this CAR is to obtain a property-specific NFA for the Subject Property through a new enrollment in Ecology's VCP.

A completed VCP Application, VCP Agreement, Agency Determination Checklist, and Request for Opinion Form dated October 3, 2019 are presented separately along with this report.

1.3 Report Organization

The remaining sections of this report have been organized as follows:

- **Section 2—Environmental Background** summarizes the previous studies completed at the Site.
- **Section 3—Site Definition**
- **Section 4—Contamination in 9th Avenue** summarizes the rationale for exclusion of 9th Avenue soil contamination in the Site definition.
- **Section 5—Contaminants of Concern and Cleanup Levels** summarizes the chemicals of concern, affected media, and the cleanup levels (Cleanup Levels).
- **Section 6—Terrestrial Ecological Evaluation** presents the criteria for exclusion from terrestrial ecological evaluation.
- **Section 7—Selection of Preferred Cleanup Remedy** presents a summary of rationale and criteria utilized for selecting the preferred cleanup remedy and describes the preferred cleanup remedy.
- **Section 8—Pre-Cleanup Activities** summarizes the activities completed in preparation of the Cleanup Action.
- **Section 9—Cleanup Action** summarizes the various activities completed during the cleanup including mass excavation, removal of USTs and other historical features, confirmation soil and/or groundwater sampling/testing, and disposal of contaminated/impacted soil.
- **Section 10—Post-Cleanup Assessment of Potential Risk for Vapor Intrusion** summarizes Aspect's 2019 VI assessment for the existing new Stratus building at the Subject Property.
- **Section 11—Analysis of Impracticability for Soil Removal** presents the results of Aspect's analysis regarding the impracticability of removal of residual contaminated soil at the Site.
- **Section 12—Conclusions**
- **Section 13—References**
- **Section 14—Limitations**

2 Environmental Background

Several environmental investigations and a UST removal/decommissioning action were completed by others at the Subject Property between 2002 and 2014. The following is a summary of the 2002 UST removal/decommissioning and remedial investigation findings based on Aspect's review of the 2016 RI/FS report (GeoEngineers, 2016a).

2.1 2002 Tank Removal and In-Place Decommissioning

Based on our review of a 2002 Environmental Tank Services (ETS; ETS, 2002) report during the 2007 Phase I ESA, two 1,000-gallon steel USTs were located in the southwest portion of the former two-story office/retail building (South Parcel). The two USTs were stacked on top of one another. The first/upper UST (UST1) and associated contaminated soil was successfully removed in 2002 by ETS.

The second/lower UST (UST2) was not removed in 2002 because of structural obstructions. UST2 was decommissioned-in-place by filling the tank with controlled density fill (CDF). The approximate location of UST2 is shown in attached Figure 3.

According to the ETS report, diesel- and heavy oil-range hydrocarbons, naphthalenes, benzene, and xylenes were detected at concentrations exceeding respective MTCA Method A Cleanup Levels from a soil sample obtained at a depth of 3 feet from the top of UST2. Soil characterized by this sample was not over-excavated in 2002 because of the presence of a structural column, hoist pad, and building foundations.

Ecology issued a NFA determination dated January 28, 2003 for the South Parcel (Parcel #0660000545) based on the 2002 tank removal/decommissioning activities. The NFA stated that if future development occurs at the Site, then a plan to test and manage the soil in accordance with MTCA cleanup requirements and best management practices must be prepared and Ecology must be notified.

2.2 Remedial Investigation Summary

The following is a brief summary of the remedial investigation results based on Aspect's review of the 2016 RI/FS report (GeoEngineers, 2016a). All depths indicated in the below paragraphs were reportedly measured from the respective local ground surfaces at the time the explorations were completed. Please refer to the GeoEngineers RI/FS report (GeoEngineers, 2016a) for details.

2.2.1 Soil Conditions

- Several geotechnical and environmental explorations were completed by others at the Subject Property and immediate vicinity to evaluate subsurface conditions. Twenty-six soil borings were completed to depths ranging from approximately 7 to 86.5 feet below ground surface (bgs) to evaluate subsurface conditions.
- According to the explorations completed by others, soils encountered at the site consisted of relatively shallow fill overlying recent deposits and competent glacially consolidated soils.

  - Fill (approximately 6 to 15 feet thick) generally consisted of loose to medium dense silty sand with variable gravel and cobble content and occasional brick, charcoal or wood debris.
  - The recent deposits typically consisted of soft to hard silt and clay with occasional sand interbeds and variable gravel content or medium dense to dense sand with variable silt and gravel content.
  - The glacially consolidated soils underlying the recent deposits were typically till-like deposits, which consisted of very dense silty sand with gravel and variable cobble and boulder content with isolated layers of hard silt and clay.

- Fill soil primarily contaminated with petroleum hydrocarbons (diesel-, and heavy oil-range) and PAHs; and to a lesser extent with gasoline-range hydrocarbons, benzene, xylenes, (associated with the decommissioned USTs) and/or lead (observed at two locations in fill soil) was identified at concentrations exceeding MTCA Method A Cleanup Levels in areas where historic sources of contamination and/or imported fill exist at the subject property. Contaminated soil also was identified in a limited portion of the adjacent Lenora Street and the alley.

2.2.2 Perched Water Conditions

- Perched water was intermittently observed at an approximate elevation of 63 feet above mean sea level (amsl on the North American Vertical Datum 1988 [NAVD88]; hereafter "Elevation amsl" used in this report refers to this datum) in RI explorations completed at the Subject Property and nearby area. However, perched water was not encountered within the mass excavation limits during the 2015 cleanup action.

- Petroleum hydrocarbons (gasoline-, diesel-, and heavy oil-range) and metals (arsenic, chromium, lead, and/or mercury) were detected at concentrations greater than MTCA Method A Cleanup Levels in perched water during the RI. However, GeoEngineers demonstrated in the 2016 RI/FS (GeoEngineers, 2016a) and Ecology concurred in the 2017 Property-Specific NFA (Ecology, 2017a), that these perched water results are not representative of groundwater quality at the Subject Property based on the following reasons:
  - The discrete, one-time perched water samples were obtained directly from the boreholes of soil borings in 2002 and were considered reconnaissance samples.
  - These samples are biased high for contaminants because silt particles were inherently present in the samples as a result of the sampling process.
  - Perched water was not encountered within the mass excavation limits during the 2015 cleanup action.
  - Groundwater samples collected from monitoring wells completed to the regional aquifer beneath the Site — depth-to-groundwater was

approximately 53-55 bgs at approximately Elevation 16 to 14 feet amsl (see Section 2.2.3 below)—were tested and did not contain contaminants of concern at levels of regulatory significance as discussed below.

2.2.3 Groundwater Conditions

- Two monitoring wells (MW-01 and G-1) were completed to approximate depths of 18 and 86.5 feet bgs, respectively; to evaluate groundwater quality beneath the Subject Property between 2002 and 2014.
- The former shallow monitoring well MW-01 located at the Subject Property was observed dry on the days of groundwater sampling.
- The static groundwater table associated with the regional aquifer was measured on December 27, 2013 and July 1, 2014 in the former monitoring well G-1 located at the Subject Property. The measured depth-to-groundwater was approximately 53.30 feet bgs and 55.39 feet bgs (approximate Elevations 16 and 14 feet amsl) respectively; below the local Subject Property ground surface at G-1 location (approximate Elevation 69 feet amsl).
- Groundwater samples obtained and tested in April 2014 and July 2015 from G-1, screened within the regional aquifer showed that arsenic, chromium, and lead were present at concentrations below the MTCA Method A Cleanup Levels and petroleum hydrocarbons were not detected.
- Additionally, a September 1993 groundwater sample from a former off-property monitoring well MW-5 located on the south sidewalk Lenora Street indicated no petroleum detections. MW-5 was completed by GeoEngineers in 1993 to an approximate depth of 60 feet bgs for a different project located opposite to the Subject Property, across Lenora Street.

2.2.4 Soil Vapor Conditions

Soil vapor conditions were not evaluated prior to the 2015 cleanup action at the Subject Property because the planned construction excavation depth of approximately 80 feet bgs (approximate Elevation 7 feet amsl) resulted in the removal of all source material within the mass excavation limits.

Per Ecology's 2019 request, Aspect evaluated the potential risk for VI into the existing new building due to the presence of a limited amount of petroleum- and PAHs-contaminated soil outside the footprint of the existing building at the Subject Property. The result of the VI risk assessment is discussed in Section 10 of this report.

2.3 Additional Characterization in 9th Avenue

Prior to the mass excavation for construction, an excavation measuring approximately 25 feet long (north-south) by 15 feet wide (east-west) with a maximum depth of 18 feet bgs (approximate Elevation 69 feet) associated with installation of a deep sewer utility was performed in 9th Avenue by Gary Merlino Construction, the utility excavation and installation contractor for the redevelopment project.

This utility-related excavation was performed outside the mass excavation footprint, but, within the Subject Property (Figure 3). GeoEngineers obtained soil samples from this excavation to evaluate whether soil exceeding MTCA Method A Cleanup Level for benzene in boring B-1 was a localized condition or extended into the mass excavation footprint at the Subject Property.

According to the soil sampling and testing results from the utility excavation in southeast portion of the Subject Property (9th Avenue):

- Gasoline-range hydrocarbons were detected at concentration exceeding the MTCA Method A Cleanup Level of 30 milligrams per kilogram (mg/kg) in 1 (east most) of the 9 samples, and
- Benzene was detected at a concentration exceeding the MTCA Method A Cleanup Level of 0.03 mg/kg in 2 (east most and west most) of the 9 samples.
- Gasoline-range hydrocarbons and benzene were not detected in the 3 samples obtained from the southeast portion of the mass excavation.

Gasoline-range hydrocarbons and benzene exceeded the MTCA Method A Cleanup Level in a localized area only in the samples obtained from the east sidewall of the utility excavation (slightly outside the Subject Property boundary). The west sidewall of the utility excavation extended laterally to the former boring B-1 location where MTCA exceedance of benzene was historically documented. Benzene was not detected in the soil samples obtained from the southeast limits of mass excavation located further west of former boring B-1. It is typical of gasoline sites for the downgradient plume to be benzene-dominated because benzene is the most soluble and most mobile of the chemicals that compose gasoline.

Based on the chemical analytical data and above rationale, the gasoline- and benzene-contaminated soil encountered in a limited portion of the 9th Avenue during deep sewer installation is a result of contamination migration from an off-property source and has been sufficiently characterized to support remedy selection as demonstrated in the 2016 RI/FS (GeoEngineers, 2016a). Ecology concurred with this conclusion in the 2017 property-specific NFA opinion (Ecology, 2017a). The recently identified change in property boundaries does not affect this conclusion.

The approximate footprint of the utility excavation in 9th Avenue is shown in attached Figures 3 and 7.

3 Site Definition

For this project, the "Site[2]" is those areas where hazardous substances have come to be located above applicable cleanup levels as a result of a release of hazardous substances related to historic Subject Property uses. For purposes of this report, the Site consists of the following:

- the two Subject Property parcels (Parcel Nos. 0660000540 and 0660000545),
- the portion of Lenora Street (right-of-way) that is owned by the Subject Property owner, and
- a limited south portion of the alley owned by the Parks Department and located beyond the west Subject Property boundary.

Lenora Street and Alley (Included in "Site"). Based on the Site characterization data, residual gasoline- and heavy oil-range hydrocarbons, toluene-, and/or PAH-contaminated soil is present in a limited area beneath the Lenora Street sidewalk (portion owned by the Subject Property owner) and in the adjacent alley owned by the Parks Department (located outside the west boundary of the Subject Property). This residual contaminated soil remains capped beneath the hard surfaces (concrete/asphalt) of Lenora Street and the alley.

The results of the VI Assessment demonstrate that the soil vapor to inhalation pathway due to the presence of petroleum- and PAH-contaminated soil is incomplete at the Site (Section 10).

Furthermore, excavation of the residual contaminated soil from beneath the Lenora Street and the alley is considered impracticable due to the presence of structural impediments (Section 11).

As demonstrated by the 2016 RI/FS (GeoEngineers, 2016a), Ecology concurred that the Site has been sufficiently characterized (Ecology, 2017a). The recently identified change in Subject Property boundaries does not affect the Site definition.

[2] The "Site" as defined by Ecology's MTCA (Chapter 173-340) means "any building, structure, installation, equipment, pipe or pipeline (including any pipe into a sewer or publicly owned treatment works), well, pit, pond, lagoon, impoundment, ditch, landfill, storage container, motor vehicle, rolling stock, vessel, or aircraft; or any site or area where a hazardous substance, other than a consumer product in consumer use, has been deposited, stored, disposed of, or placed, or otherwise come to be located

4 Contamination in 9th Avenue (Not part of the Site but present at the Subject Property)

9th Avenue. Based on the chemical analytical results of soil samples obtained from the 9th Avenue utility excavation, gasoline-and benzene-contaminated soil exceeding MTCA Method A cleanup levels is present beneath a limited portion of 9th Avenue (portion owned by Subject Property owner). These impacts are attributed to a release from an off-property source that migrated to a limited portion of the Subject Property (capped beneath 9th Avenue) and not considered to be a part of the Site (Section 3) based on the following (Figure 7):

- Gasoline-range hydrocarbons and benzene exceeded the MTCA Method A Cleanup Level in a localized area only in the samples obtained from the east sidewall of the utility excavation (slightly outside the Subject Property boundary);
- The west sidewall of the utility excavation extended laterally to the former boring B-1 location where MTCA exceedance of benzene was historically documented. Benzene was not detected in the soil samples obtained from the southeast limits of mass excavation located further west of former boring B-1;
- It is typical of gasoline sites for the downgradient plume to be benzene-dominated because benzene is the most soluble and most mobile of the chemicals that compose gasoline; and
- No potential historical sources of gasoline were identified in the southeast portion of the Subject Property near the utility excavation.

Although the contamination in 9th Avenue is not part of the Site, appropriate mitigation measures were evaluated during the cleanup action to address this contamination because of its presence within the Subject Property boundaries. In addition, the contamination in 9th Avenue was analyzed as part of the VI Assessment (Section 10) and the Impracticability Analysis (Section 11).

The results of the VI Assessment demonstrate that the soil vapor to inhalation pathway due to the presence of petroleum- and PAH-contaminated soil in 9th Avenue is incomplete at the Site (Section 10).

Furthermore, excavation of the residual contaminated soil from beneath the 9th Avenue, is considered impracticable due to the presence of structural impediments (Section 11).

5 Contaminants of Concern and Cleanup Levels

Based on the chemical analytical results, the following are the contaminants of concern relative to the affected media at the Site[3]:

- **Soil**. Petroleum hydrocarbons (gasoline-, diesel-, and heavy oil-range) and PAHs are the primary contaminants of concern. Because benzene, toluene, xylenes, and lead were detected at concentrations exceeding the MTCA Method A cleanup levels only in one or two soil samples from localized areas at the Subject Property, these analytes are considered secondary contaminants of concern.
- **Perched Water**. Petroleum hydrocarbons (gasoline-, diesel-, and heavy oil-range) and metals (arsenic, chromium, lead, and/or mercury).

Confirmation samples were submitted for chemical analyses of one or more of the above mentioned primary and/or secondary contaminants of concern. The soil and groundwater chemical analytical results were evaluated relative to MTCA Method A Cleanup Levels for soil and groundwater applicable to Unrestricted Land Use.

The respective cleanup levels are summarized in attached Tables 1 through 5.

[3] Ecology concurred with these contaminants of concern for the affected media at the Site (Ecology, 2017a). The recently identified change in property boundaries does not affect this conclusion.

6 Terrestrial Ecological Evaluation

Aspect completed a Terrestrial Ecological Evaluation (TEE) for the Site in accordance with MTCA. The Site qualifies for an exclusion from the TEE under (WAC 173-340-7491[c]) because there is "less than 1.5 acres of contiguous undeveloped land on or within 500 feet of any area of the site." Therefore, no further evaluation relative to the TEE is necessary. Based on this exclusion, MTCA Method A Cleanup Levels were used for the remedial excavation completed at the Site. Ecology concurred (Ecology, 2017a). The recently identified change in property boundaries does not affect this conclusion.

A copy of the TEE Exclusion Form is presented in Appendix B.

7 Selection of Preferred Cleanup Remedy

The objectives of the cleanup action at the Subject Property were to:

- Remove the contamination source.
- Prevent direct human contact with soil containing contaminant concentrations greater than the MTCA Method A cleanup levels for unrestricted land use and protection of groundwater.
- Obtain a written opinion from Ecology stating that no further remedial action is necessary at the Subject Property (Property-Specific NFA Determination).

An evaluation of feasible cleanup alternatives which included a disproportionate cost analysis (DCA) was performed and described in the 2016 RI/FS report for the Subject Property (GeoEngineers, 2016a).

The following discusses the rationale and criteria used to select a preferred remedy for the cleanup based on Site characterization data (GeoEngineers, 2016a), Ecology's 2017 Model Remedy Guidance (Ecology, 2017b) and the new 2018 information regarding the Subject Property boundaries.

The preferred cleanup remedy selected for the Site is consistent with Ecology's Model Remedy 3[4] and consisted of:

1. Excavation and off-site disposal of contaminated soil to the maximum practicable extent at the Subject Property (mass excavation limits)
2. Capping of residual contaminated soil by the existing rights-of-way pavement (concrete/asphalt)
3. Recording of an Environmental Covenant (subject to City of Seattle [City] agreement) in accordance with WAC 173-340-440 to implement applicable institutional controls.

The preferred cleanup remedy selected for the Site complies with applicable MTCA requirements for the following reasons:

- The selected cleanup remedy meets all of the "minimum requirements for cleanup actions" (WAC 173-340-360(2)). Specifically, the selected cleanup remedy:
    - Could be completed within a relatively short period of time,
    - Meets threshold requirements described by MTCA (e.g., protects human health and the environment, complies with the cleanup standards, complies with state and federal laws and provides for compliance monitoring),

[4] Model Remedies for Sites with Petroleum Contaminated Soils, Toxics Cleanup Program, Publication No. 15-09-043, dated September 2015 and revised in December 2017.

  - Is expected to be more effective than other available methods in achieving concentrations that are protective of human health and the environment within a reasonable restoration timeframe,
  - Is permanent to the maximum extent practicable, and
  - Considers public concerns.

- Excavation and transport off site of contaminated soil for permanent treatment or disposal at a permitted waste facility was the most permanent and cost-effective cleanup option for the Subject Property since excavation was necessary for Subject Property redevelopment.
- The limited volume of petroleum- (gasoline- and heavy oil-range hydrocarbons, benzene, and toluene) and PAHs-contaminated fill soil remaining in two small areas on the Subject Property (beneath the 9th Avenue and Lenora Street) and outside the Subject Property (beneath the adjacent alley) cannot be removed because:
  - **9th Avenue and Lenora Street**. Contaminated soil is located approximately 15 feet deep beneath 9th Avenue surface and 24 feet deep beneath Lenora Street surface, which requires significant and costly shoring for excavation. Supplemental factors that preclude excavation of contaminated soil involves the presence of a multitude of utilities, adjacent underground parking garage structural and foundation elements (concrete footings and walls) that also support the Lenora Street stability, and closure of these rights-of-way will have an adverse and unacceptable impact on downtown traffic.
  - **Alley.** Presence of infrastructure elements in the alley associated with the triangular parcel shoring wall and adjacent underground parking garage structural and foundation elements (concrete footings and walls of the 42-storied Stratus building) that also support the Lenora Street stability preclude excavation.
- Groundwater samples obtained and tested from a former on-property monitoring well (G-1) and an off-property well (MW-5), screened within the regional aquifer showed no petroleum impacts and metals were detected at concentrations below MTCA Method A Cleanup Levels as follows:
  - Site characterization data demonstrated that deep regional groundwater was encountered in a former monitoring well (G-1) at approximately 53-55 bgs at approximately Elevation 14 to 16 feet (see Section 2.2.3) and the residual petroleum- and PAHs-contaminated soil is present at Elevations ranging from 63 to Elevation 54 feet (soil is not contaminated at Elevation 54 feet), at the Site.
  - The vertical separation between the lowest level of contaminated soil (Elevation 54 feet amsl) and the highest static groundwater table (Elevation 16 amsl) is 38 feet at the Site.

    - Additionally, clean glacially competent, lower permeability soil exists below the residual petroleum- and PAHs-contaminated soil at the Site.

- Because of the above-mentioned reasons, capping of petroleum contaminated soil under hard pavements is an acceptable remedy under MTCA.

8 Pre-Cleanup Activities

The following activities were completed by GeoEngineers prior to the cleanup in 2014 and early-2015.

8.1 Construction Contingency Plan (CCP)

A Construction Contingency Plan (CCP) dated December 12, 2014, was prepared by GeoEngineers (GeoEngineers, 2014) to guide the contractor in handling and disposing of contaminated soil discovered at the Subject Property in accordance with applicable regulations. The CCP included confirmation soil sampling and testing measures. Additionally, the CCP included communication protocol if USTs and/or undocumented potentially contaminated soil was discovered by the earthwork contractor during construction excavation.

The CCP (GeoEngineers, 2014) was submitted to Ecology in order to satisfy notification requirement of the intent to remove additional contaminated soil in accordance with the requirement specified by Ecology in a No Further Action (NFA) opinion letter dated January 28, 2003. The 2003 NFA letter was related to the removal of one tank (UST1) and decommissioning in-place of a second tank (UST2). Background regarding the 2003 NFA was discussed earlier in Section 3.1 of this report.

8.2 Well Decommissioning

Two groundwater monitoring wells (G-1 and MW-01) present within the mass excavation footprint were decommissioned by Cascade Drilling, a Washington state licensed driller, prior to construction for the redevelopment project. The approximate location of the former monitoring wells is shown in attached Figure 3. Well decommissioning documents are presented in Appendix C.

9 Cleanup Action

Sellen Construction (Sellen) was the general construction contractor of the project. CTI Contractors (CTI) was the earthwork contractor subcontracted to Sellen. Gary Merlino Construction (Gary Merlino) was the utility excavation and installation contractor subcontracted to Sellen, and Donald B. Murphy Contractors, Inc. (DBM) was the shoring installation contractor subcontracted to Sellen.

The cleanup action consisted of remedial excavation of contaminated fill soil, removal of the closed-in-place tank (UST2) in south portion, and removal of another tank (UST3) that was discovered in north portion during construction activities, excavation and removal of contaminated soil associated with historic releases from the tanks, and confirmation soil/groundwater sampling and testing from final limits of remedial excavations.

The contaminated soil excavation and handling/disposal activities were completed in accordance with the CCP (GeoEngineers, 2014) that was submitted to Ecology in December 2014, prior to construction (discussed in Section 7.1 above).

The product/soil/groundwater samples were submitted to OnSite Environmental Laboratory in Redmond, Washington, an Ecology-accredited chemical analytical laboratory for chemical analysis of one or more of the following: gasoline-range hydrocarbons by Ecology Method NWTPH-Gx. diesel- and heavy oil-range hydrocarbons by Ecology Method NWTPH-Dx, BTEX (benzene, toluene, ethylbenzene, and xylenes) by United States Environmental Protection Agency (EPA) Method 8021B, and PAHs by EPA Method 8270D and/or 8270D/SIM,

A photo log of the cleanup action prepared by GeoEngineers is presented in Appendix D. A copy of the laboratory reports for the product/soil/groundwater samples analyzed during the Cleanup Action is presented in Appendix E.

The remainder of this section provides a summary of the various excavations (Shoring Installation/Duct Bank excavation; Mass Excavation of Fill Soil; Elevator Shaft/Hoist; and UST Removals) and confirmation soil/groundwater testing that was completed as part of the construction project.

9.1 Shoring Installation and Power Duct Bank Excavation

Soil cuttings generated from the deep shoring wall installed at the north, south, east, and west property boundaries for facilitating mass excavation were temporarily stockpiled on plastic sheets (Visqueen) by DBM and CTI at the Subject Property. Soil excavated from the Lenora Street sidewalk for installing a power duct bank was combined with the shoring wall soil cuttings and stockpiled at the Site.

The excavation for the power duct bank measured approximately 25 feet long (east-west) by 4 feet wide (north-south) with a maximum depth of 20 feet below local ground surface (approximate Elevation 66 feet amsl). The residual petroleum-contaminated soil is present beneath the power duct bank excavation in Lenora Street sidewalk at Elevations ranging from 63 to 54 feet amsl.

Based on field screening results (slight to moderate to heavy sheen, mild petroleum odor, and less than 1 parts per million [ppm] headspace vapor reading) and visual observations (black stained soil with wood and charcoal chips, and brick and concrete debris), the stockpiled soil (cuttings from shoring installation and soil excavated for the power duct bank) was considered contaminated and/or impacted.

Eight 3-point composite soil samples (SS-1 through SS-8) were obtained from the stockpiles during shoring installation and power duct bank excavation. All samples were submitted for chemical analysis of diesel- and heavy oil-range hydrocarbons and carcinogenic PAHs (cPAHs) to OnSite laboratory in Redmond, WA.

According to the chemical analytical data, diesel- and heavy oil-range hydrocarbons and cPAHs were detected at concentrations that were either greater than and/or less than respective MTCA Method A cleanup levels. Sample SS-5 was additionally analyzed for gasoline-range hydrocarbons and BETX as this soil was generated during shoring installation and power duct bank excavation (west sidewalk of Lenora Street) in south portion of the Subject Property where these contaminants were potentially present due to release(s) from the former USTs. Gasoline-range hydrocarbons and BETX were not detected.

CTI loaded the soil into truck and trailer combinations (T&Ts) and transported it to Waste Management's Seattle transfer station for permitted disposal.

Chemical analytical results of the stockpile samples are summarized in attached Table 1. A copy of the laboratory reports is presented in Appendix E.

9.2 Mass Excavation of Fill Soil

Based on the RI data, observations during shoring installation, and chemical analytical results of soil stockpile samples (Section 8.1 above), contaminated and/or impacted fill soil was identified extending from beneath the slab of the former building (approximate Elevation 69 feet amsl) to approximate depths ranging from 6 to 18 feet below local Subject Property ground surface (approximate Elevations ranging from 63 to 51 feet amsl). Hence, the mass excavation area at the Subject Property was classified into three soil management zones that consisted of:

- **Zone 1**. Impacted fill soil defined as soil with concentrations of chemicals of concern less than MTCA cleanup levels, generally located on the east portion of the Subject Property and extending to an approximate depth of 10 feet bgs;
- **Zone 2**. Contaminated fill soil defined as soil with concentrations of chemicals of concern greater than MTCA cleanup levels, generally located on the west portion of the Subject Property and extending to an approximate depth of 6 feet bgs; and
- **Zone 3**. Contaminated fill in the area of the former USTs in the southwest portion of the Subject Property and extending to an approximate depth of 18 feet bgs.

The approximate extent of each zone is shown in the attached Figure 3.

CTI excavated all impacted and contaminated fill soil from within the mass excavation limits between July 2015 and August 2015. Excavated fill soil was either temporarily stockpiled on-site over plastic sheets (Visqueen) or directly loaded into truck and trailer combinations (T&Ts) and transported to Waste Management's Seattle transfer station for permitted disposal.

Field screening results of underlying native soil yielded no sheen, no odor, and less than 1 parts per million (ppm) headspace vapor readings. GeoEngineers obtained 11 confirmation soil samples at approximate depths ranging between 7 to 15 feet below local Subject Property ground surface (approximate Elevations ranging between 62 and 54 feet amsl) for chemical testing.

According to the chemical analytical data, diesel- and heavy oil-range hydrocarbons and cPAHs were not detected in any of the samples except two. Heavy oil-range hydrocarbons were detected at a low concentration of 61 mg/kg and 66 mg/kg in samples MASSEX-4-7.0 (approximate Elevation 62 amsl) and MASSEX-10-8.0 (approximate Elevation 61 feet amsl), respectively.

Soil represented by these samples was over-excavated and transported to Waste Management's Seattle transfer station for permitted disposal. GeoEngineers obtained samples MASSEX-4-9.0 (approximate Elevation 60 feet amsl) and MASSEX-10-9.0 (approximate Elevation 60 feet amsl) from the over-excavated area. Heavy oil-range hydrocarbons were not detected in the two samples thus demonstrating that all impacted soil (exceeding and/or below MTCA cleanup levels) was removed from the mass excavation limits at the Subject Property.

The mass excavation confirmation samples were not tested for lead because:

1. Lead was only detected in fill soil in two of 14 remedial investigation samples at concentrations exceeding MTCA Method A cleanup levels.
2. Lead (which was located at only two discrete locations) was considered a secondary contaminant of concern because its concentrations were captured within the more extensive petroleum and PAH contamination that was removed.
3. The entire fill soil body was excavated from within the mass excavation limits and no other Site contaminants were detected in any of the mass excavation confirmation soil samples.

Field screening and chemical analytical results of the mass excavation confirmation samples are presented in Table 1. The approximate locations of mass excavation confirmation samples are shown in Figure 4.

A copy of the laboratory results is presented in Appendix E.

9.3 Elevator Shaft and Hydraulic Hoist Removal

A hydraulically operated steel elevator shaft and a concrete vault that housed a hydraulic hoist were discovered in August 2015 during construction activities in east portion of the Subject Property. The shaft and the concrete vault were observed partially filled with a petroleum product. GeoEngineers obtained product samples from the elevator shaft

(ELVTR-Product) and hoist (HOIST-Product). The product samples were analyzed by Ecology Method NWTPH-HCID, for characterization.

According to the chemical results of the product samples, diesel- and heavy oil-range hydrocarbons were detected. Gasoline range hydrocarbons were not detected. Filco, a licensed tank decommissioner, vacuumed hydraulic oil from the shaft and vault on August 14, 2015. Based on field observations, the shaft and the vault did not leak.

Confirmation soil samples obtained from the locations of shaft (ELEVTR-1-20.0) at an approximate depth of 20 feet below local Subject Property ground surface (approximate Elevation 55 feet amsl) and the hoist (HOIST-EX-7.0) at an approximate depth of 7 feet below local Subject Property ground surface (approximate Elevation 62 feet amsl) indicated no detections of diesel- and heavy oil-range hydrocarbons.

Chemical analytical results of the product samples and the confirmation soil samples are summarized in attached Table 2. The shaft and hoist remedial excavations along with confirmation soil samples are shown in attached Figure 5.

9.4 Underground Storage Tanks Removal and Remedial Excavation

The following describes the removal of two underground storage tanks (UST2 and UST3) and remedial excavation of associated contaminated soil during the 2015 cleanup action.

9.4.1 Diesel tank (UST2)

CTI removed overburden soil to expose the top surface of the known 1,000-gallon steel diesel tank (UST2) in southwest portion of the Subject Property on August 14, 2015. Field screening results of overburden soil yielded moderate sheen, mild petroleum odor and less than 1 ppm headspace vapor reading. These observations were anticipated because this was the location where former tank UST1 was located and removed in 2002. During the 2002 tank removal, UST2 was found beneath UST1, but UST2 could not be removed due to structural elements related to the former building and was decommissioned in-place by filling it with control density fill (CDF).

When the UST2 was exposed during the 2015 construction project, approximately 1.5-feet of free product was observed on top of the CDF within the tank. According to the chemical results of a product sample (SW-UST-Product) that was obtained from UST2 during tank removal, diesel- and heavy oil-range hydrocarbons were detected, while gasoline-range hydrocarbons were not detected.

On August 14, 2015, Filco, a licensed UST removal contractor, vacuumed the product from the tank and triple rinsed the tank. A Marine Chemist with Sound Testing, Inc. inerted UST2 and the tank was approved for removal by a Fire Marshall with City of Seattle Fire Department. CTI removed UST2 with a track hoe and transported it off site for disposal. GeoEngineers observed the physical condition of UST2 after it was removed, and two small holes were observed at the base of the tank.

The UST2 removal documents are presented in Appendix F.

After UST2 was removed, GeoEngineers field screened soil in the tank pit, obtained characterization soil samples, and submitted the soil samples for chemical testing. The three characterization soil samples obtained from the base (UST2-B-24.0), south (UST-S-22.0) and west (UST-W-22.0) sidewalls of the tank pit at approximate depths of 24, 22, and 22 feet below the Lenora Street ground surface (approximate Elevations, 63, 65, and 65 feet amsl) were chemically analyzed for diesel and heavy oil-range hydrocarbons and PAHs. According to the chemical analytical results, diesel- and heavy oil-range hydrocarbons, and PAHs were detected at concentrations exceeding MTCA Method A Cleanup Levels in the three characterization samples.

GeoEngineers then observed CTI, who excavated MTCA contaminated soil from the UST2 pit area until field screening yielded no evidence of petroleum contamination. GeoEngineers obtained 18 confirmation soil samples (two base samples and 16 sidewall samples) at depths ranging from 22 to 36 feet below the Lenora Street ground surface (approximate Elevations from 65 to 51 feet amsl) from the UST2 remedial excavation.

Confirmation samples were chemically analyzed for petroleum hydrocarbons (gasoline-, diesel-, and heavy oil-range), BTEX, and/or PAHs. Gasoline-range hydrocarbons and BTEX were added to the analysis to verify that no residual impacts remained within the Subject Property boundary from former UST1.

According to the chemical analytical results of the confirmation samples, petroleum hydrocarbons, BTEX, and PAHs either were not detected or were detected at concentrations less than the MTCA Method A Cleanup Level in each of the confirmation samples except one. Heavy oil-range hydrocarbons, naphthalenes, and cPAHs were detected at concentrations exceeding MTCA Method A Cleanup Levels in one sample (UST2EX-W1-24.0) obtained from the west shoring wall at an approximate depth of 24 feet below the Lenora Street ground surface (approximate Elevation 63 feet amsl).

This sample represents localized residual petroleum-contaminated soil that remains outside the west Subject Property boundary in the portion of alley owned by the Parks Department. As demonstrated in the 2016 RI/FS (GeoEngineers, 2016a) and discussed in section 6.0 of this report, excavation of contaminated soil located outside the Subject Property was not feasible to be removed from a cost-to-benefit standpoint due to disproportionate cost for the returned environmental benefit.

The final limits of the UST2 remedial excavation measured approximately 50 feet long (north-south) by 40 feet wide (east-west) with a maximum depth of 36 feet below the Lenora Street ground surface (approximate Elevation 51 feet amsl). Based on field screening and chemical testing, all petroleum-contaminated soil from within the mass excavation limits was successfully excavated from the UST2 location and transported to Waste Management's transfer station in Seattle, Washington for permitted disposal.

The field screening and chemical analytical results of the product sample, soil characterization samples, and remedial excavation confirmation samples are summarized in attached Table 3. The approximate final limits of the UST2 remedial excavation along with confirmation samples are shown in attached Figure 5.

A copy of the laboratory reports is presented in Appendix E.

9.4.2 Heating Oil Tank (UST3)

The following is based on Aspect's review of a UST Removal report prepared by GeoEngineers (GeoEngineers, 2015).

An undocumented 1,750-gallon steel tank (UST3) was discovered with some product at the 2118 Westlake Avenue property (North Parcel 0660000540) in June 2015 during construction activities. The tank (UST3) likely was associated with the former Subject Property facilities that were present in that area through the late 1950s.

According to the chemical analytical results of a product sample, diesel fuel #2 (heating oil) was identified as the product in the tank. Gasoline- and heavy oil-range hydrocarbons were not detected in the product sample.

Four soil samples were obtained from the tank pit and/or fuel line area by GeoEngineers and submitted for chemical analysis. According to the chemical analytical results, one of these samples UST3-B-7.0 obtained from the base of UST3 pit at an approximate depth of 7 feet below the local subject property ground surface (approximate Elevation 61 feet, amsl) had heating oil-range concentrations that exceeded MTCA cleanup levels.

CTI excavated heating oil-contaminated soil represented by the sample (UST3-B-7.0) in August 2015 during the mass construction excavation. GeoEngineers obtained five confirmation samples (one from the base and one each from the four sidewalls) from the final limits of the remedial excavation. Sidewall samples were obtained at an approximate depth of 10 feet below local Subject Property ground surface (approximate Elevation 57 feet amsl) and the base sample was obtained at an approximate depth of 15 feet below local Subject Property ground surface (approximate Elevation 52 feet amsl).

According to the chemical analytical results, diesel- and heavy oil-range hydrocarbons were not detected in any of the confirmation samples. The final limits of the UST3 remedial excavation measured approximately 20 feet long (north-south) by 10 feet wide (east-west) with an approximate depth of 15 feet below local Subject Property ground surface (approximate Elevation 52 feet amsl). Based on field screening and chemical testing, all petroleum-contaminated soil was successfully excavated from the UST3 location and transported to Waste Management's transfer station in Seattle, Washington for permitted disposal.

The field screening and chemical analytical results of the characterization and remedial excavation confirmation samples are summarized in Table 4. The approximate final limits of the UST3 remedial excavation along with confirmation samples are shown in Figure 6.

A copy of the laboratory report is presented in Appendix F.

9.5 Capped Residual Petroleum Contaminated Soil

The contaminated/impacted soil was excavated to the maximum practicable extent during the construction excavation in 2015. A limited quantity of petroleum-and PAHs-contaminated soil remained capped by hard surfaces in three localized and separate areas beneath 9th Avenue, Lenora Street, and the alley. Excavation of this soil was not feasible and impractical because:

- **9th Avenue**. Residual gasoline-range hydrocarbons and benzene-contaminate soil is present in an area measuring approximately 20 feet long (north-south) by 10 feet wide (east-west) and 9-foot thick (between approximate depths of 15 feet bgs and 24 feet bgs [approximate Elevations 72 feet amsl and 63 feet amsl]). Note that the 9th Avenue surface elevation is 87 feet amsl.

  Excavation would require significant and costly shoring for excavation and closure of 9th Avenue would have an adverse and unacceptable impact on downtown traffic. A multitude of utilities beneath 9th Avenue also make excavation infeasible. Furthermore, the contaminated soil is capped under the hard pavement (asphalt) of 9th Avenue.

- **Lenora Street**. Residual gasoline- and heavy oil-range hydrocarbons, toluene- and PAH-contaminated soil is present in an area measuring approximately 40 feet long (east-west) by 8 feet wide (north-south) and 8-foot thick (between approximate depths of 24 feet bgs and 36 feet bgs [corresponding approximate Elevations 63 feet amsl and 55 feet amsl]). Note that the Lenora Street surface Elevation is 87 feet amsl.

  Excavation would require significant and costly shoring for excavation and closure of Lenora Street would have an adverse and unacceptable impact on downtown traffic. A multitude of utilities in the way also make excavation infeasible. Furthermore, the contaminated soil is capped under the hard pavement (concrete) of Lenora Street sidewalk.

- **Alley**. Residual heavy oil-range hydrocarbons and PAH-contaminated soil is present in an area measuring approximately 60 feet long (north-south) by 10 feet wide (east-west) and 8-foot thick between approximate depths of 6 feet bgs and 14 feet bgs [corresponding Elevation 63 to 55 feet amsl]. Note that the alley surface Elevation is 69 feet amsl.

  Presence of infrastructural impediments in the alley associated with the triangular parcel shoring wall that also support the Lenora Street stability and adjacent underground parking garage structural and foundation elements of Stratus building preclude excavation. Furthermore, the contaminated soil is capped under the hard pavement (asphalt) of the alley.

The chemical analytical results of the residual petroleum-and PAHs-contaminated soil samples at the Subject Property (9th Avenue and Lenora Street), and in the adjacent alley are summarized in attached Table 7. A graphical summary of the chemical data along with approximate extent of the residual petroleum- and PAH-contaminated soil is shown in Figures 7, 8, and 9.

Furthermore, residual petroleum- and PAH-contaminated soil located in 9th Avenue and Lenora Street (within the Subject Property) and in the alley (outside the Subject Property) is inaccessible and cannot be excavated due to the presence of structural impediments (Section 11).

9.6 Groundwater

Although perched water was encountered in localized, discontinuous locations in some of the RI explorations (Table 5 and Figure 10), perched water was not encountered in the mass excavation limits during construction in Summer of 2015. Groundwater in a former deep monitoring well G-1 (completed to an approximate depth of 86.5 feet below local Subject Property ground surface and screened within the regional aquifer) was observed at approximate depths of 53 to 55 feet bgs (approximate Elevations 16 to 14 feet amsl) in 2014 and 2015.

Groundwater samples tested from G-1 in July 2015 showed that arsenic, chromium, and lead were present at concentrations less than MTCA Method A Cleanup Levels and petroleum hydrocarbons (gasoline-, diesel-, and heavy oil-range hydrocarbons), and BTEX were not detected.

Also, a former off-property monitoring well (MW-5) that was located on the south sidewalk of Lenora Street was completed by GeoEngineers in 1993 to an approximate depth of 58 feet below Lenora Street ground surface and screened within the regional aquifer for a different project. Groundwater in MW-5 was observed at an approximate depth of 48 feet below the Lenora Street ground surface (approximate Elevation 28 feet amsl). Chemical analytical results of a groundwater sample obtained and tested from MW-5 in 1993 indicated no petroleum impacts.

Additionally, clean low permeability glacially consolidated vadose zone soil maintains significant vertical separation (39 feet) between remaining residual inaccessible petroleum-contaminated soil and the static groundwater table beneath the Subject Property.

Therefore, based on groundwater sample results from G-1 and MW-5 and presence of clean low permeability glacially consolidated vadose zone soil, the soil-to-groundwater pathway is incomplete, and groundwater is not a media of concern at the Site.

The 2002 and 2014 analytical data of the perched water samples is summarized in attached Table 5 and graphically shown in Figure 10. The deep regional groundwater analytical data is summarized in attached Table 6 and graphically shown in Figure 11.

A copy of the exploration logs except MW-5 (unavailable to Aspect) are presented in attached Appendix H.

A copy of the laboratory report for groundwater sample from G-1 is presented in Appendix E.

9.7 Contaminated Soil Disposal

According to weight summaries provided by Sellen, approximately 14,550 tons of contaminated/impacted soil was excavated from the Subject Property and transported to Waste Management's transfer station in Seattle, Washington for rail hauling and permitted disposal at their Subtitle D landfill located in Arlington, Oregon.

Also, approximately 1,500 gallons of UST-rinse water (wastewater) was removed from the Subject Property during the tank removal activities and transported to Marine Vacuum Services facility in Seattle, Washington for permitted disposal.

A copy of the contaminated soil tonnage summaries and wastewater disposal receipts provided by Sellen are included in Appendix G.

10 Post-Cleanup (2019) Analysis of Potential Risk for Vapor Intrusion

Per Ecology's 2019 request, Aspect performed this post-cleanup assessment to evaluate the potential risk for VI in the newly constructed Stratus Apartments building relative to the residual petroleum- and PAH-contaminated soil at the Site.

Aspect's analysis demonstrates that the residual petroleum- and PAH-contaminated soil present at the Site does not pose a risk for potential VI into the existing Stratus Apartments building based on the following four lines of evidence:

10.1 Ecology's 2017 Property-Specific NFA Determination

- Based on the information provided in the 2016 RI/FS (GeoEngineers, 2016a) and CAR (GeoEngineers, 2016b) documents, Ecology stated in the 2017 property-specific NFA opinion letter that "the soil vapor intrusion pathway is not an issue at this Site" (Ecology, 2017a).

  Note that nothing has changed at the Site relative to the soil, perched water, and groundwater quality, geological and hydrogeological conditions, and location, nature, and extent of residual petroleum- and PAHs-contaminated soil except for the change in east and south boundaries of the Subject Property (that extend to the centerline of 9th Avenue and Lenora Street).

  Therefore, based on Ecology's 2017 determination and supplemental considerations outlined below, the VI pathway is still considered incomplete for the Subject Property.

10.2 Stratus Apartments Building Ventilation

- The existing 42-storied Stratus Apartments is a reinforced concrete building that consists of 6 sub-grade parking levels, retail at-grade, and residential apartments above. The 6-level underground parking structure has a separate ventilation system from the above-ground retail and residential floors. Therefore, the vapor exposure pathway for the inhabited/residential portion of the building is incomplete (see item 3 below).
- The air exchange rate of a building is considered a mitigating factor for the potential risk of vapor intrusion. For example, the Johnson-Ettinger (JE) model uses a conservative default air exchange rate of 0.25 exchanges per hour for residential buildings[5] to calculate the predicted indoor air concentration of contaminants that present a potential risk for vapor inhalation. Based on the mechanical drawings for the Stratus building, each of the 6 sub-grade parking

[5] See Appendix D of Ecology's Guidance for Evaluating Soil Vapor Intrusion in Washington State: Investigation and Remedial Action, Washington State Department of Ecology, Toxics Cleanup Program, Publication No.09-09-047, Review Draft October 2009, Revised February 2016 and April 2018.

levels have a ventilation system that provides 7.8 air exchanges per hour[6] in each of the parking garage levels. This air exchange rate is considered adequate for the mitigation of potential impacts to indoor air that could pose a risk to human health in a parking garage use exposure scenario.

10.3 No Volatiles in Groundwater Beneath Stratus Building

- There are no volatiles in groundwater based on chemical testing and the groundwater is not in contact with the building foundation.
- The chemical analytical results of groundwater samples from two former monitoring wells (G-1 located on-property and MW-5 located off-property in south sidewalk of Lenora Street) that were screened in the deep regional aquifer showed no petroleum impacts.
- The 2002 chemical data from perched water samples (obtained directly from the boreholes [B-2 and B-3] that were completed within the Lenora Street and alley, respectively) indicated MTCA exceedances of petroleum hydrocarbons (gasoline- and oil-range). However, this 2002 data does not represent the current perched water conditions due to the following reasons:
    - The data are 17 years old and the petroleum constituents are likely to have experienced natural attenuation since that time.
    - GeoEngineers could not perform a boring at the B-2 location during their investigation in 2014 to verify the 2002 chemical data due to the presence of multiple utilities beneath the Lenora Street sidewalk. However, perched water sampled from three soil borings completed in the vicinity of B-2 (DP-3, DP-4, and DP-5) were below MTCA Method A cleanup levels for petroleum hydrocarbons.
    - Perched water was not encountered within the mass excavation limits during cleanup activities and building construction in 2015.
    - Additionally, clean low permeability glacially consolidated vadose zone soil maintains significant vertical separation (39 feet) between remaining residual inaccessible petroleum-contaminated soil and the static groundwater table beneath the Site.

10.4 Nature and Extent of Residual Contaminated Soil

- The petroleum- and PAH-contaminated soil at the Site is present in three localized and separate areas (9th Avenue, Lenora Street, and the alley) outside the footprint of the existing Stratus building (Figure 7). Only the 9th Avenue and Lenora Street contaminated soil areas are located on the Subject

[6] The air exchange rate per hour was calculated using the formula (CFM * 60/Volume of Parking Garage). The average CFM of the garage fan for the six parking levels was 22,500 Cubic Feet per Minute (CFM) and the volume of parking garage was calculated by multiplying the length (180 feet), width (120 feet) and, height (8 feet) of one level of parking garage.

Property. The nature and extent of these residual soil impacts are considered a low risk for VI based on the following:

- Clean low permeability glacially consolidated vadose zone soil (approximate thickness 39 feet) separates the residual petroleum- and PAHs-contaminated soil from the deep regional groundwater beneath the Site.
- The off-property contamination in the alley comprises oil-range hydrocarbons and carcinogenic PAHs. Based on the low volatility of these contaminants, the residual contaminated soil in the alley poses a low risk for VI.
- The contaminant concentrations documented in 2002 in Lenora Street (gasoline 2,400 mg/kg and oil-range 18,000 mg/kg) are dominated by weathered and heavier-end petroleum hydrocarbons that have a low volatility. These data are also 17 years old and the petroleum constituents are likely to have experienced further natural attenuation since that time as demonstrated by the 2016 RI testing (DP-3, DP-4, and DP-5) and the confirmation soil sampling results along the adjacent southern mass excavation wall during the cleanup action (UST2-EX-S1, Figure 7 and 9). Petroleum hydrocarbons either were not detected or detected at low concentrations below MTCA Method A cleanup levels in the 2014 RI soil samples, and not detected in the 2015 excavation confirmation soil samples.
- The soil contaminant concentrations in 9th Avenue (gasoline 50 mg/kg and benzene 0.23 mg/kg) only slightly exceed MTCA Method A Cleanup Levels (gasoline 30 mg/kg and benzene 0.03 mg/kg). These concentrations are unlikely to pose a risk for the vapor exposure pathway when taken under consideration with the previous lines of evidence including the presence of underground parking garage (6 levels) with high air exchange rate as outlined above.

11 Analysis of Impracticability for Soil Removal

Please note that this 2019 Cleanup Action Report is stamped by a Washington State licensed engineer to satisfy Ecology's request for an engineering analysis of impracticability to excavate residual petroleum-and PAH-contaminated soil at the Site.

Based on the chemical analytical results of the soil samples obtained within the Subject Property boundaries (includes portions of Lenora Street [boring B-2 in 2002] and 9th Avenue [utility excavation in 2015]) and the adjacent alley (borings DP-1 and DP-2 in 2014), petroleum hydrocarbons and PAHs were detected at concentrations greater than the MTCA Method A cleanup levels.

Site characterization data has demonstrated that the residual contamination in 9th Avenue is not part of the Site (Sections 3 and 4) while the likely source of contamination in Lenora Street and alley are the former Subject Property USTs that were removed in 2002 (UST1) and in 2015 (UST2).

The following summarizes Aspect's analysis regarding the impracticability of removal of this residual contaminated soil.

11.1 Location and Extent of Residual Contaminated Soil

Excavation and removal of the residual petroleum- and PAHs-contaminated soil in 9th Avenue, Lenora Street, and the alley is not feasible and deemed impracticable because:

- **Lenora Street**. Residual gasoline- and heavy oil-range hydrocarbons, toluene- and PAH-contaminated soil that could not be removed during the cleanup and redevelopment is present in an area measuring approximately 40 feet long (east-west) by 8 feet wide (north-south) and 8-foot thick (between approximate depths of 24 feet bgs and 36 feet bgs [corresponding approximate Elevations 63 feet amsl and 55 feet amsl]). Note that the Lenora Street surface Elevation is 87 feet amsl.

  Excavation would require significant and costly shoring for excavation. Closure of Lenora Street would have an adverse and unacceptable impact on downtown traffic. A multitude of utilities beneath Lenora Street also make excavation infeasible. Furthermore, the contaminated soil is capped under the hard pavement (concrete) of Lenora Street sidewalk. Additionally, in-situ treatment is not technically feasible or cost effective for heavy-range petroleum hydrocarbons and PAHs in the vadose zone above the water table.

- **Alley**. Residual heavy oil-range hydrocarbons and PAH-contaminated soil is present in an area measuring approximately 60 feet long (north-south) by 10 feet wide (east-west) and 8-foot thick between approximate depths of 6 feet bgs and 14 feet bgs [corresponding Elevation 63 to 55 feet amsl]. Note that the alley surface Elevation is 69 feet amsl.

  The presence of infrastructural impediments eliminate the possibility of additional remedial excavation of residual contaminated soil in the alley.

Infrastructure impediments include a shoring wall that supports Lenora Street, adjacent historic underground parking garage structural elements now buried beneath the City park and presence of foundation elements of the new Stratus building. Furthermore, the contaminated soil is capped under the hard pavement (asphalt) of the alley. Additionally, *in situ* treatment is not technically feasible or cost effective for heavy-range petroleum hydrocarbons and PAHs in the vadose zone above the water table.

- **9th Avenue**. Residual gasoline-range hydrocarbons and benzene-contaminated soil from an off-site source is present in an area measuring approximately 20 feet long (north-south) by 10 feet wide (east-west) and 9 feet thick (between approximate depths of 15 feet bgs and 24 feet bgs [approximate Elevations 72 feet amsl and 63 feet amsl]). Note that the 9th Avenue surface elevation is 87 feet amsl.

  Excavation would require significant and costly shoring for excavation. Closure of 9th Avenue and would have an adverse and unacceptable impact on downtown traffic. A multitude of utilities beneath 9th Avenue also make excavation infeasible. Furthermore, the contaminated soil is capped under the hard pavement (asphalt) of 9th Avenue. Finally, this contamination is considered a separate Site (Section 4).

11.2 2016 MTCA Disproportionate Cost Analysis

The following summary of the MTCA Disproportionate Cost Analysis (DCA) performed by GeoEngineers in 2016 is based on Aspect's understanding of the cleanup action and our review of the RI/FS Report (GeoEngineers, 2016a).

- The DCA analysis involves comparing the costs and benefits of alternatives and selecting the alternative with incremental costs that are not disproportionate to the incremental benefits.
- The evaluation criteria for the DCA are specified in WAC 173-340-360(2) and WAC 173 340-360(3), and include protectiveness, permanence, cost, long-term effectiveness, management of short-term risks, implementability and consideration of public concerns.
- As outlined in WAC 173-340-360(3)(e), MTCA provides a methodology that uses the criteria below to determine whether the costs associated with each cleanup alternative are disproportionate relative to the incremental benefit of the alternative above the next lowest-cost alternative.
    - Costs are disproportionate to benefits if the incremental costs of the more permanent alternative exceed the incremental degree of benefits achieved by the other lower-cost alternative [WAC-173-340-360(e)(i)]. Where two or more alternatives are equal in benefits, Ecology selects the less costly alternative [WAC 173-340-360(e)(ii)(c)].

- The MTCA DCA evaluated the following three alternatives for remediating petroleum- and PAHs-contaminated soil remaining beneath 9th Avenue, Lenora Street, and alley. Each of the three alternatives mentioned below met the four MTCA threshold requirements for cleanup actions: protection of human health and the environment, compliance with cleanup standards, compliance with applicable state and federal regulations, and provision for compliance monitoring.
    - Alternative 1 – Capping with Institutional and Engineering Controls
    - Alternative 2 – Excavation
    - Alternative 3 – *In situ* Treatment
- Based on the DCA, remedial Alternative 1 – Capping (Institutional and Engineering Controls) is the preferred alternative for remediating the residual contaminated soil beneath 9th Avenue, Lenora Street, and the alley because it meets the minimum thresholds and other requirements as follows:
    - **Uses permanent solutions to the maximum extent practicable** [WAC 173-340-360(2)(b)(i)] as demonstrated by the disproportionate cost analysis.
    - **Provides a reasonable restoration time frame** [WAC 173-340-360(2)(b)(ii)]. The cap(s) already exist as paved sidewalks and/or city streets or alleys.
    - **Public Concerns.** For VCP sites, there is no direct opportunity for the public to comment on planned cleanup actions. However, information is available to the public through Ecology's Site Register, and the public could comment on any planned actions.

Based on the above analysis, Aspect believes it is highly infeasible and impractical to excavate the limited quantity of inaccessible residual petroleum- and PAHs-contaminated soil from portions of the 9th Avenue and Lenora Street on the Subject Property and in the alley located outside the Subject Property. Furthermore, the contaminated soil in these areas is capped under hard surfaces (concrete and/or asphalt pavement) which meets the MTCA cleanup requirements.

11.3 2017 Ecology's Model Remedy 3

The Ecology's Model Remedy 3[7] for petroleum contaminated sites (Ecology, 2017b) states *"This model remedy applies to situations where Method A levels (either for unrestricted use, or for sites that meet the definition of industrial land use) are selected but the soil removal action is not sufficient to fully comply with the specified concentrations at all locations on the source property or within the portion of the right-of-way that is owned by the source property owner, due to the presence of one or more*

[7] Model Remedies for Sites with Petroleum Contaminated Soils, Toxics Cleanup Program, Publication No. 15-09-043, dated September 2015 and revised in December 2017.

structural impediments (e.g., buildings, utility lines, or roadways).” This is applicable to the Subject Property and the overall Site because:

- The contaminated/impacted soil removal was implemented to the maximum extent practicable (Figure 4, 5, and 6).
- Site characterization data confirms that no other pathway has or can reasonably be expected to be impacted.
- Presence of structural impediments consisting of building elements, utility lines, roadways in 9th Avenue and Lenora Street (a portion of these rights-of-way are part of the Subject Property) and the alley precludes access and removal of the limited contaminated soil present in these areas (Figures 7, 8, and 9) because any excavation activity will undermine the structural integrity of nearby improvements.
- Although intermittent perched water appears impacted in a limited southeast portion of the Subject Property based on 2002 chemical data (Figure 10), this data is considered superseded by the 2014 sampling and testing data. Also, the groundwater is not impacted at the Site (Figure 11).
- Contaminated soil that remains capped in place is separated from the deep regional groundwater table by clean low permeability glacially consolidated vadose zone soil (approximate thickness 39 feet) beneath the Site.
- An environmental covenant will be recorded in accordance with Washington Administrative Code (WAC) 173-340-440, to implement institutional controls in areas where residual petroleum- and PAH-contaminated soil is present at the Subject Property (portions of 9th Avenue and Lenora Street) to ensure the integrity of the cap and prevent exposure to hazardous substances at the Property (Figure 12).

Based on the above analysis, it is highly infeasible and impractical to excavate the limited quantity of inaccessible residual petroleum- and PAHs-contaminated soil from portions of Lenora Street and 9th Avenue that are part of the Subject Property, or from the alley located outside the Subject Property boundary. Furthermore, the contaminated soil in these areas is capped under hard surfaces (concrete and/or asphalt pavement) to prevent direct contact or soil leaching to groundwater.

12 Conclusions

The Property-specific NFA determination is based on the Site characterization data, chemical analytical results of the confirmation soil samples obtained at the final limits of the remedial excavations within the Subject Property, and groundwater samples obtained from former monitoring wells that were screened in the deep regional aquifer. Ecology had previously concurred with these findings (Ecology, 2017a) and, as explained in greater detail below, the recently identified change in property boundaries does not affect this conclusion; therefore, reissuance of a Property-Specific NFA is appropriate:

12.1 Soil

Two underground storage tanks, a hydraulically operated elevator shaft, and a hydraulic hoist, were encountered and removed from the Subject Property between June 2015 and August 2015 in accordance with Ecology's Guidance for Site Checks and Site Assessments for Underground Storage Tanks" dated February 1991.

Soil with MTCA exceedances of diesel-, and heavy oil-range hydrocarbons and PAHs; and to a lesser extent with gasoline-range hydrocarbons, benzene, xylenes, and/or lead was successfully removed from the mass excavation limits at the Subject Property.

Confirmation soil sampling demonstrated that applicable cleanup standards were met vertically and laterally within the mass excavation limits at the Subject Property.

Based on the contaminated soil disposal summaries provided by Sellen, the total quantity of contaminated/impacted soil removed from the Ninth and Lenora development project area for permitted disposal was 14,550 tons.

Residual petroleum- and PAHs-contaminated soil located outside the footprint of the new Stratus Apartments building in 9th Avenue and Lenora Street (within the Subject Property), and in the alley (outside the Subject Property) owned by the Parks Department, are inaccessible and cannot be excavated due to the presence of structural impediments (Section 11). Furthermore, the residual petroleum- and PAHs-contaminated soil in these three areas remains capped beneath hard pavements to prevent direct contact. Also, in-situ treatment is not technically feasible or cost effective for heavy-range petroleum hydrocarbons and PAHs in the vadose zone above the water table.

Additionally, based on the deep regional groundwater table; large vertical separation (39 feet) between groundwater and residual petroleum- and PAH-contaminated soil due to the presence of clean low permeable glacially consolidated soil; and no impacts to the groundwater documented by the groundwater samples analytical data, the soil-to-groundwater pathway for contaminant migration is incomplete at the Site.

12.2 Groundwater

Regional groundwater is deep (55 to 53 feet bgs at approximate Elevations 16 to 14 feet amsl) based on the measurements from a former groundwater monitoring well G-1 which was installed prior to construction activities on the Subject Property.

Groundwater is not impacted by the releases at Subject Property based on the following:

- Perched water was encountered at localized and discontinuous locations in the subsurface explorations (Figure 10) but was not encountered during shoring installation and mass construction excavation at the Subject Property.
- The 2002 chemical data from perched water samples (obtained directly from the boreholes [B-2 and B-3] that were completed within the Lenora Street and alley, respectively) indicated MTCA exceedances of petroleum hydrocarbons (gasoline- and oil-range). However, this 2002 data does not represent the current perched water conditions due to the following reasons:
    - The data are 17 years old and the petroleum constituents are likely to have experienced natural attenuation since that time.
    - GeoEngineers could not perform a boring at the B-2 location during their investigation in 2014 to verify the 2002 chemical data due to the presence of multiple utilities beneath the Lenora Street sidewalk. However, perched water sampled from three soil borings completed in the vicinity of B-2 (DP-3, DP-4, and DP-5) were below MTCA Method A cleanup levels for petroleum hydrocarbons.
    - Perched water was not encountered within the mass excavation limits during cleanup activities and building construction in 2015.
- Groundwater was encountered during the installation of vertical shoring elements at approximate Elevations ranging from 10 to 15 feet amsl, beneath the property (consistent with the observations in former monitoring well, G-1).
- The contaminated soil extended to a maximum depth of approximately 32 feet bgs (Elevation 55 feet amsl) and the regional groundwater aquifer was first encountered at depths of approximately 53 to 55 feet below local Subject Property ground surface (Elevations 16 to 14 feet amsl).

  Therefore, a significant thickness (39 feet) of clean low permeable glacially consolidated vadose zone soil was documented separating the limited quantity of residual contaminated soil from deeper regional aquifer at the Subject Property.
- Groundwater samples tested from a former on-property monitoring well G-1 showed that arsenic, chromium, and lead were present at concentrations below MTCA Method A cleanup levels and petroleum hydrocarbons (gasoline-, diesel-, and heavy oil-range hydrocarbons), and BTEX were not detected (Figure 11).
- A groundwater sample obtained from a nearby off-property monitoring well (MW-5) located opposite to the Subject Property, in south sidewalk of Lenora Street, indicated no petroleum impacts (Figure 11).

Based on the rationale above, groundwater is not contaminated at the Site. Hence, the soil leaching to groundwater and groundwater exposure pathways for contaminant migration is incomplete at the Site and additional confirmation groundwater sampling is not necessary to verify the success of the 2015 cleanup action.

12.3 Soil Vapor

As discussed earlier in Section 10 of this report, the soil vapor to inhalation pathway is considered incomplete under current conditions at the Site because:

- The nature and extent of residual petroleum- and PAH-contaminated soil impacts pose a low risk for VI, and the construction of the new Stratus building with 6 underground parking levels with ventilation system provide adequate mitigation of any potential VI pathway.
- There are no volatiles in groundwater and no groundwater impacts are in contact with the building foundation that would preclude the conclusions of this assessment.
- Based on the information provided in the 2016 RI/FS (GeoEngineers, 2016a) and CAR (GeoEngineers, 2016b) documents, Ecology stated in the 2017 Property-Specific NFA opinion letter that "the soil vapor intrusion pathway is not an issue at this Site" (Ecology, 2017a).
- Note that nothing has changed at the Site relative to the soil, perched water, and groundwater quality, geological and hydrogeological conditions, and location, nature, and extent of residual petroleum- and PAHs-contaminated soil except for the change in east and south boundaries of the Subject Property (that extend to the centerline of 9th Avenue and Lenora Street).

Based on Ecology's 2017 determination, the low volatility and localized presence of residual petroleum-and PAH-contaminated soil in three separate areas that are limited in magnitude, the VI exposure pathway for the Subject Property is incomplete and does not warrant additional evaluation.

12.4 Regulatory Closure

The cleanup action completed at the Subject Property resulted in conditions that are protective of human health and the environment. A Property-Specific no further action (NFA) determination from Ecology is considered appropriate based on the following:

- Chemical analytical results of confirmation soil and groundwater samples has documented removal of all contaminated/impacted soil from within the bounds of the mass excavation at the Subject Property. However,
- A limited volume of petroleum- and PAH-contaminated soil is present beneath limited portions of 9th Avenue and Lenora Street (within the Subject Property) and in a limited portion of the alley (outside the Subject Property). The results of 2016 MTCA DCA (GeoEngineers, 2016a) and Aspect's 2019 Impracticability Analysis (Section 11) has demonstrated that it is not practicable to excavate the residual petroleum- and PAH-contaminated soil.
- Based on the deep regional groundwater table; large vertical separation (39 feet) between groundwater and residual petroleum- and PAH-contaminated soil due to the presence of clean low permeable glacially consolidated soil; and no impacts to the groundwater documented by the groundwater samples analytical data, the

soil leaching and groundwater pathways for contaminant migration is incomplete at the Site.

- Residual petroleum- and PAHs-contaminated soil remains capped beneath hard pavements, which is considered protective of the soil direct contact and soil leaching pathways.
- The results of Aspect's 2019 VI assessment indicate that the soil vapor to inhalation pathway is incomplete under current conditions at the Site (Section 10).
- The Site qualified for an exclusion from the Terrestrial Ecological Evaluation (Section 6).
- An environmental covenant will be recorded in accordance with Washington Administrative Code (WAC) 173-340-440, to implement institutional controls in areas where residual petroleum- and PAH-contaminated soil is present at the Subject Property (portions of 9th Avenue and Lenora Street) to ensure the integrity of the cap and prevent exposure to hazardous substances at the Property (Figure 12).

Based on the evaluation of Site conditions and remedial options described in GeoEngineers' RI/FS (GeoEngineers, 2016a), and the results of the cleanup action on the Subject Property documented in this Cleanup Action Report, reissuance of a Property-Specific NFA determination for the Subject Property is requested.

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13 References

GeoEngineers, Inc., GeoEngineers 2014. Construction Contingency Plan for Contaminated Soil and Groundwater Management, 9th and Lenora Development, 2118 Westlake Avenue/2101 9th Avenue, Seattle, Washington, dated December 12, 2014.

GeoEngineers, Inc., GeoEngineers 2015. Northeast Heating Oil UST Removal and Site Assessment Report, 9th and Lenora Development, Seattle, Washington, dated July 13, 2015.

GeoEngineers, Inc., GeoEngineers 2016a. Remedial Investigation and Feasibility Study, Ninth and Lenora Development, 2101 9th Avenue, Seattle, Washington, Facility/Site #91413494, Cleanup Site ID: 1802, VCP Project No. NW2980, dated March 24, 2016.

GeoEngineers, Inc., GeoEngineers 2016b. Cleanup Action Report, Ninth and Lenora Development, 2101 9th Avenue, Seattle, Washington, Facility/Site #91413494, Cleanup Site ID: 1802, VCP Project No. NW2980, dated March 25, 2016.

Washington State Department of Ecology. Ecology 2017a. No Further Action at a Property associated with a Site opinion letter dated November 14, 2017.

Washington State Department of Ecology. Ecology 2017b. Model Remedies for Sites with Petroleum Contaminated Soils, Toxics Cleanup Program, Publication No. 15-09-043, dated September 2015 and revised in December 2017.

14 Limitations

Work for this project was performed for the Ninth and Lenora LLC (Client), and this report was prepared in accordance with generally accepted professional practices for the nature and conditions of work completed in the same or similar localities, at the time the work was performed. This report does not represent a legal opinion. No other warranty, expressed or implied, is made.

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Please refer to Appendix I titled "Report Limitations and Guidelines for Use" for additional information governing the use of this report.

TABLES

Table 1. Soil Field Screening and Chemical Analytical Data[1] of Soil Stockpiles and Mass Excavation Samples - Petroleum Hydrocarbons and PAHs

Project No. 170291, Lenora Building Project, Seattle, WA

Sample Location	Approximate Surface Elevation[2] (feet amsl)	Sample Identification	Sample Depth (feet bgs)	Approximate Sample Elevation (feet amsl)	Field Screening Results		Petroleum Hydrocarbons (mg/kg)		Total cPAHs (mg/kg)
					Sheen	Headspace Vapor (ppm)	Diesel Range	Heavy Oil Range	Toxicity Equivalent
July and August 2015 Confirmation Samples									
Soil Stockpiles from Shoring Installation and Lenora Street Duct Bank Excavation	na	SS-1	na	na	SS	<1	**56**	**350**	**0.0549**
		SS-2			SS	<1	**44**	**210**	**0.5135**
		SS-3			MS	<1	**74**	**650**	**0.0077**
		SS-4			MS	<1	**70**	**380**	**0.1324**
		SS-5[8]			SS	<1	<40U	**300**	--
		SS-6			HS	<1	**610**	**2900**	**0.5016**
		SS-7			SS	<1	**43**	**120**	0.0138
		SS-8			SS	<1	<35U	**76**	**0.0305**
August 2015 Confirmation Samples									
Mass Excavation of Shallow Fill Soil	69	MASSEX-1-10.0	10.0	59	NS	<1	<30U	<59U	0.0059
		MASSEX-2-10.0	10.0	59	NS	<1	<30U	<59U	0.0059
		MASSEX-3-7.0	7.0	62	NS	<1	<30U	<60U	0.006
		MASSEX-4-7.0	7.0	62	NS	<1	<29U	61	0.0059
		MASSEX-4-9.0	9.0	60	NS	>1	<28U	<56U	--
		MASSEX-5-7.0	7.0	62	NS	<1	<31U	<61U	0.006
		MASSEX-6-7.0	7.0	62	NS	<1	<30U	<59U	0.006
		MASSEX-7-7.0	7.0	62	NS	<1	<31U	<63U	0.0062
		MASSEX-8-7.0	7.0	62	NS	<1	<31U	<61U	0.006
		MASSEX-9-8.0	8.0	61	NS	<1	<30U	<60U	0.0059
		MASSEX-10-8.0	8	61	NS	<1	<30U	**66**	0.0059
		MASSEX-10-9.0	9	60	NS	<1	<28U	<56U	--
		MASSEX-11-15.0	15.0	54	NS	<1	<29U	<57U	0.0057
MTCA Method A or B Cleanup Level for Unrestricted Land Use							2,000	2,000	0.1

Notes

ft bgs = feet below existing ground surface

mg/kg = milligrams per kilogram

-- = Not analyzed

U = Analyte not detected at or above the listed Reporting Limit.

MTCA = Model Toxics Control Act

HS = Heavy sheen: MS = Moderate sheen: SS = Slight sheen: NS = No sheen

na = Not applicable

amsl = above mean sea level

ppm = parts per million

Sample elevation corresponds to North American vertical Datum 1988

Bold value indicates analyte was detected at the listed concentration.

Shading indicates analyte detected at concentration exceeding the MTCA Method A Cleanup Level for unrestricted land use.

Table 2. Soil Field Screening and Chemical Analytical Data[1]
Elevator Shaft and Hoist Excavation Samples - Petroleum Hydrocarbons

Project No. 170291, Lenora Building Project, Seattle, WA

Sample Location	Approximate Surface Elevation (feet amsl)	Sample Identification	Sample Depth (feet bgs)	Approximate Sample Elevation (feet amsl)	Field Screening Results		Petroleum Hydrocarbons		
					Sheen	Headspace Vapor (ppm)	Gasoline Range	Diesel Range	Heavy Oil Range
August 2015 - Product Characterization Samples									
Elevator Shaft	75	ELVTR-Product	na	na	HS	--	ND	Detected	Detected
Hydraulic	69	HOIST-Product	na	na	HS	--	ND	Detected	Detected
August 2015 - UST2 Soil Confirmation Samples (mg/kg)									
Elevator Shaft Excavation	75	ELEVTREX-1-20.0	20.0	55	NS	<1	--	<28U	<56U
Hoist Excavation	69	HOIST-EX-7.0	7.0	62	NS	<1	--	<31U	<62U
MTCA Method A Cleanup Levels for Soil - Unrestricted Land Use							30*	2,000	2,000

Notes

ft bgs = feet below existing ground surface
mg/kg = milligrams per kilogram
-- = Not analyzed
* = MTCA cleanup level of Gasoline when benzene is
U = Analyte not detected at or above the listed Reporting Limit.
MTCA = Model Toxics Control Act
HS = Heavy sheen: MS = Moderate sheen: SS = Slight sheen: NS = No sheen
na = Not applicable
ppm = parts per million
asml = above mean sea level
Sample elevation corresponds to North American Vertical Datum 1988

Table 3 Soil Field Screening and Chemical Analytical Data[1] of UST2 Excavation Samples- BETX, Petroleum Hydrocarbons, and PAHs

Project No. 170291, Lenora Building Project, Seattle, Washington

Sample Location	Approximate Surface Elevation (feet amsl)	Sample Identification	Sample Depth (feet bgs)	Approximate Sample Elevation (feet amsl)	Field Screening		BTEX				Petroleum Hydrocarbons			Polycyclic Aromatic Hydrocarbons	
					Sheen	Headspace Vapor (ppm)	Benzene	Toluene	Ethyl benzene	Total Xylenes	Gasoline Range	Diesel Range	Heavy Oil Range	Naphthalenes	Total cPAHS (TEQ)
August 2015 - UST2 Product Characterization Sample															
UST2	na	SW-UST-Product	na	na	HS	14	--	--	--	--	ND	Detected	Detected	--	--
August 2015 - UST2 Soil Characterization Samples (mg/kg)[10]															
UST2 Pit	87	UST2-W-22.0	22.0	65	HS	13	--	--	--	--	--	**4,300**	**29,000**	**19.6**	**0.635**
		UST2-S-22.0	22.0	65	HS	23	--	--	--	--	--	**2,500**	**30,000**	**25.5**	**0.489**
		UST2-B-24.0	24.0	63	HS	27	--	--	--	--	--	**2,900**	**40,000**	**38.7**	**0.534**
August 2015 - UST2 Soil Confirmation Samples (mg/kg)															
UST2 Remedial Excavation	87	UST2EX-N-33.0	33.0	54	NS	<1	<0.020	<0.064	<0.064	<0.128	<6.4	<33	<66	<0.264	0.0066
		UST2EX-S1-20.0	20.0	67	NS	<1	<0.020	<0.055	<0.055	<0.11	<5.5	<25	<50	--	--
		UST2EX-S1-24.0	24.0	63	NS	<1	--	--	--	--	<7.6	<33	<65	--	--
		UST2EX-S1-33.0	33.0	54	NS	<1	<0.020	<0.06	<0.06	<0.12	<6.0	<27	<55	<0.0219	0.0056
		UST2EX-S2-22.0[11]	22.0	65	NS	<1	--	--	--	--	--	<31	<61	**0.0568**	0.0062
		UST2EX-S2-24.0[11]	24.0	63	NS	<1	--	--	--	--	--	**56**	**490**	**0.73**	**0.008**
		UST2EX-S2-33.0	33.0	54	NS	<1	<0.020	<0.069	<0.069	<0.138	<6.9	<32	<63	<0.0252	0.0063
		UST2EX-E-24.0	24.0	63	NS	<1	--	--	--	--	--	<32	<64	<0.0255	0.0064
		UST2EX-E-35.0	35.0	52	NS	<1	<0.020	<0.069	<0.069	<0.178	<6.9	<32	<64	<0.0258	0.0065
		UST2EX-W1-22.0	22.0	65	NS	<1	--	--	--	--	--	<32	<64	<0.0255	0.0065
		UST2EX-W1-24.0[11]	24.0	63	NS	<1	--	--	--	--	--	**1,700**	**19,000**	**6.0**	**0.1501**
		UST2EX-W1-33.0[11]	33.0	54	NS	<1	<0.02	<0.079	<0.079	<0.158	<7.9	<33	<65	**0.082**	0.0066
		UST2EX-W2-24.0	24.0	63	NS	<1	--	--	--	--	--	<32	<63	<0.0255	0.0065
		UST2EX-W2-30.0[11]	30.0	57	NS	<1	--	--	--	--	--	**240**	**1,800**	**1.72**	**0.022**
		UST2EX-W2-33.0	33.0	54	NS	<1	<0.020	<0.067	<0.067	<0.134	<6.7	<31	<62	<0.0249	0.0063
		UST2EX-W3-30.0	30.0	57	NS	<1	<0.020	<0.064	<0.064	<0.128	<6.4	<32	<65	<0.0258	0.0065
		UST2EX-B1-35.0	35.0	52	NS	<1	<0.020	<0.063	<0.063	<0.126	<6.3	<26	<53	<0.021	0.0053
		UST2EX-B2-36.0	36.0	51	NS	<1	<0.020	<0.073	<0.073	<0.146	<7.3	<32	<64	<0.0255	0.0065
MTCA Method A Cleanup Levels for Soil - Unrestricted Land Use							0.03	7	6	9	30*	2,000	2,000	2,000	2,000

Notes

ft bgs = feet below existing ground surface

mg/kg = milligrams per kilogram

-- = Not analyzed

* = MTCA cleanup level of Gasoline when benzene is present.

U = Analyte not detected at or above the listed Reporting Limit.

MTCA = Model Toxics Control Act

HS = Heavy sheen: MS = Moderate sheen: SS = Slight sheen: NS = No sheen

na = Not applicable

ppm = parts per million

ND = Not detected

Bold value indicates analyte was detected at the listed concentration.

Shading indicates analyte detected at concentration exceeding the MTCA Method A Cleanup Level for unrestricted land use.

Table 4. Soil Field Screening and Chemical Analytical Data[1] of UST3 Excavation Samples - Petroleum Hydrocarbons

Project No. 170291, Lenora Building Project, Seattle, WA

Sample Location	Approximate Surface Elevation (feet amsl)	Sample Identification	Sample Depth (feet bgs)	Approximate Sample Elevation (feet amsl)	Field Screening Results		Petroleum Hydrocarbons	
					Sheen	Headspace Vapor (ppm)	Diesel Range	Heavy Oil Range
June 2015 - UST3 Soil Characterization Samples (mg/kg)								
UST3 Pit	67	UST3-N-3.0	3.0	64	SS	<1	<28	<56
		UST3-S-3.0	3.0	64	SS	<1	<28	<57
		UST3-B-7.0*	7.0	60	HS	<1	**2,300**	**1,400**
Fuel Supply Line	80	UST3-FL-2.0	2.0	78	NS	<1	<28	<56
August 2015 - UST3 Soil Confirmation Samples (mg/kg)								
UST3 Remedial Excavation	67	UST3EX-N-10.0	10.0	57	NS	<1	<31	<62
		UST3EX-S-10.0	10.0	57	NS	<1	<31	<61
		UST3EX-E-10.0	10.0	57	NS	<1	<33	<67
		UST3EX-W-10.0	10.0	57	NS	<1	<32	<63
		UST3EX-B-15.0	15.0	52	NS	<1	<31	<63
MTCA Method A Cleanup Level for Unrestricted Land Use							2,000	2,000

Notes

ft bgs = feet below existing ground surface

mg/kg = milligrams per kilogram

* = Soil represented by this sample was excavated and transported to a permitted waste facility for disposal.

U = Analyte not detected at or above the listed Reporting Limit.

HS = Heavy sheen: MS = Moderate sheen: SS = Slight sheen: NS = No sheen

MTCA = Model Toxics Control Act

Bold value indicates analyte was detected at the listed concentration.

Shading indicates analyte detected at concentration exceeding the MTCA Method A cleanup level for unrestricted land use.

Table 5. Perched Water Chemical Analytical Data - Petroleum Hydrocarbons, BTEX, and Metals

Project No.170291, Lenora Building Project, Seattle, Washington

Analyte Group			Total Petroleum Hydrocarbons			BTEX	
Analyte Name Concentration Unit			Gasoline Range Organics ug/L	Diesel Range Organics ug/L	Motor Oil Range Organics ug/L	Benzene ug/L	Toluene ug/L
MTCA Method A or B Cleanup Level			800*	500	500	5	1000
Location	**Sample**	**Date**					
B-2	B-2-20020131	1/31/2002	--	--	--	--	--
B-2	B-2-200208	8/1/2002	**28,000**	< 25000 UJ	**540,000**	< 10 U	< 10 U
B-3	B-3-20020131	1/31/2002	--	**73,000**	**470,000**	--	--
DP-3	DP-3-W	9/1/2014	< 100 U	< 270 U	< 430 U	< 1 U	< 1 U
DP-4	DP-4-W	9/1/2014	< 100 U	**310**	< 450 U	< 1 U	< 1 U
DP-5	DP-5-W	9/1/2014	< 100 U	< 310 U	< 490 U	< 1 U	< 1 U

Notes

ug/L = micrograms per liter

-- = Not analyzed

* Gasoline MTCA cleanup level when benzene is present.

U - Analyte not detected at or above Reporting Limit (RL) listed.

UJ - Analyte not detected and the Reporting Limit (RL) is an estimate.

MTCA - Model Toxics Control Act

Bold indicates chemical detected at the listed concentration.

Shading indicates chemical detected at a concentration greater than the

Table 5. Perched Water Chemical Analytical Data - Petroleum Hydrocarbons, BTEX, and Metals

Project No.170291, Lenora Building Project, Seattle, Washington

Analyte Group			BTEX		Total Metals			
Analyte Name Concentration Unit			Ethylbenzene ug/L	Total Xylenes ug/L	Arsenic ug/L	Chromium ug/L	Lead ug/L	Mercury ug/L
MTCA Method A or B Cleanup Level			700	1000	5	50	15	2
Location	**Sample**	**Date**						
B-2	B-2-20020131	1/31/2002	--	--	**10**	**70**	**69**	< 0.2 U
B-2	B-2-200208	8/1/2002	**39**	**170**	--	--	--	--
B-3	B-3-20020131	1/31/2002	--	--	**100**	**3200**	**8100**	**3.7**
DP-3	DP-3-W	9/1/2014	< 1 U	< 2 U	**25**	**90**	**12.5**	< 0.5 U
DP-4	DP-4-W	9/1/2014	< 1 U	< 2 U	**82**	**720**	**84**	**0.61**
DP-5	DP-5-W	9/1/2014	< 1 U	< 2 U	**43**	**310**	**41**	< 0.5 U

Notes

ug/L = micrograms per liter

-- = Not analyzed

* Gasoline MTCA cleanup level when benzene is present.

U - Analyte not detected at or above Reporting Limit (RL) listed.

UJ - Analyte not detected and the Reporting Limit (RL) is an estimate.

MTCA - Model Toxics Control Act

Bold indicates chemical detected at the listed concentration.

Shading indicates chemical detected at a concentration greater than the

Table 6. Groundwater Chemical Analytical Data - Petroleum Hydrocarbons, BTEX, and Metals

Project No. 170291, Lenora Building Project, Seattle, Washington

		Analyte Group	Total Petroleum Hydrocarbons			BTEX
		Analyte Name	Gasoline-Range Organics	Diesel-Range Organics	Motor Oil-Range Organics	Benzene
		Concentration Unit	ug/L	ug/L	ug/L	ug/L
		MTCA Method A or B Cleanup Level	800	500	500	5
Monitoring Well	Sample Name	Sample Date				
G-1	G-1-20131223	12/23/2013	< 100 U	< 260 U	< 410 U	< 0.2 U
G-1	G-1-20140421	4/21/2014	--	--	--	--
G-1	G-1-W-071715	7/17/2015	< 100 U	< 260 U	< 410 U	< 1 U
MW-5	MW-5_1993	9/1/1993	< 50 U	< 250 U	< 750 U	< 1 U

Notes

ug/L = micrograms per liter

-- = Not analyzed

* Gasoline MTCA cleanup level when benzene is present.

U - Analyte not detected at or above Reporting Limit (RL) listed.

MTCA - Model Toxics Control Act

Bold indicates chemical detected at the listed concentration.

Table 6. Groundwater Chemical Analytical Data - Petroleum Hydrocarbons, BTEX, and Metals

Project No. 170291, Lenora Building Project, Seattle, Washington

		Analyte Group	BTEX			Total Metals	
		Analyte Name Concentration Unit	Toluene ug/L	Ethylbenzene ug/L	Total Xylenes ug/L	Arsenic ug/L	Chromium ug/L
		MTCA Method A or B Cleanup Level	1,000	700	1,000	5	50
Monitoring Well	Sample Name	Sample Date					
G-1	G-1-20131223	12/23/2013	< 1 U	< 0.2 U	**1.27**	--	--
G-1	G-1-20140421	4/21/2014	--	--	--	**3.7**	< 0.5 U
G-1	G-1-W-071715	7/17/2015	< 1 U	< 1 U	< 2 U	--	--
MW-5	MW-5_1993	9/1/1993	< 1 U	< 1 U	< 2 U	--	--

Notes

ug/L = micrograms per liter

-- = Not analyzed

* Gasoline MTCA cleanup level when benzene is present.

U - Analyte not detected at or above Reporting Limit (RL) listed.

MTCA - Model Toxics Control Act

Bold indicates chemical detected at the listed concentration.

Table 6. Groundwater Chemical Analytical Data - Petroleum Hydrocarbons, BTEX, and Metals

Project No. 170291, Lenora Building Project, Seattle, Washington

		Analyte Group	Total Metals		
		Analyte Name Concentration Unit	Chromium ug/L	Lead ug/L	Mercury ug/L
		MTCA Method A or B Cleanup Level	50	15	2
Monitoring Well	Sample Name	Sample Date			
G-1	G-1-20131223	12/23/2013	--	--	--
G-1	G-1-20140421	4/21/2014	**33**	**1.4**	< 0.5 U
G-1	G-1-W-071715	7/17/2015	--	--	--
MW-5	MW-5_1993	9/1/1993	--	--	--

Notes

ug/L = micrograms per liter

-- = Not analyzed

* Gasoline MTCA cleanup level when benzene is present.

U - Analyte not detected at or above Reporting Limit (RL) listed.

MTCA - Model Toxics Control Act

Bold indicates chemical detected at the listed concentration.

Table 7. Chemical Analytical Data of Residual Contaminated Soil Samples - Petroleum Hydrocarbons, BTEX, Metals, and PAHs

Project No. 170291, Lenora Building Project, Seattle, Washington

							Analyte Group	Total Petroleum Hydrocarbons			BTEX				Metals	
							Analyte Name Concentration Unit	Gasoline-Range Organics mg/kg	Diesel-Range Organics mg/kg	Motor Oil-Range Organics mg/kg	Benzene mg/kg	Toluene mg/kg	Ethylbenzene mg/kg	Total Xylenes mg/kg	Arsenic mg/kg	Cadmium mg/kg
							MTCA Method A or B Cleanup Level	30*	2000	2000	0.03	7	6	9	20	2
Location	Exploration ID	Surface Elevation	Sample Name	Sample Date (feet bgs)	Sample Depth	Sample Elevation (feet)										
Subject Property - 9th Avenue	B-1	87	B-1-18.0	8/1/2002	18	69		< 3 U	**120**	**310**	**0.23**	< 0.05 U	< 0.05 U	< 0.2 U	--	--
			B-1-24.0	8/1/2002	24	63		< 3 U	< 25 U	< 50 U	< 0.03 U	< 0.05 U	< 0.05 U	< 0.2 U	--	--
	UTL9-E	87	UTL9-E-15.0	4/1/2015	15	72		< 6 U	**34**	< 59 U	**0.06**	< 0.06 U	< 0.06 U	< 0.06 U	--	--
			UTL9-E-18.0	4/1/2015	18	69		**50**	--	--	**0.052**	< 0.065 U	< 0.065 U	< 0.065 U	--	--
	UTL9-N	87	UTL9-N-5.0	4/1/2015	5	82		< 5.5 U	--	--	< 0.02 U	< 0.055 U	< 0.055 U	< 0.055 U	--	--
			UTL9-N-18.0	4/1/2015	18	69		< 5.9 U	**180**	**1700**	< 0.02 U	< 0.059 U	< 0.059 U	< 0.059 U	--	--
	UTL9-S	87	UTL9-S-5.0	4/1/2015	5	82		< 6.4 U	--	--	< 0.02 U	< 0.064 U	< 0.064 U	< 0.064 U	--	--
			UTL9-S-15.0	4/1/2015	15	72		< 4.9 U	< 29 U	< 57 U	**0.022**	< 0.049 U	< 0.049 U	**0.057**	--	--
			UTL9-S-20.0	4/1/2015	20	67		< 5 U	--	--	**0.029**	< 0.05 U	< 0.05 U	**0.164**	--	--
			UTL9-S-23.0	4/1/2015	23	64		< 5.3 U	< 28 U	< 56 U	< 0.02 U	< 0.053 U	< 0.053 U	< 0.053 U	--	--
			UTL9-S-30.0	4/1/2015	30	57		< 8.6 U	--	--	< 0.02 U	< 0.086 U	< 0.086 U	< 0.086 U	--	--
	EX-1	87	EX-1-6.0	4/1/2015	6	81		< 5.1 U	--	--	< 0.02 U	< 0.051 U	< 0.051 U	< 0.051 U	--	--
			EX-1-12.0	4/1/2015	12	75		< 5.9 U	< 27 U	< 55 U	< 0.02 U	< 0.059 U	< 0.059 U	< 0.059 U	--	--
			EX-1-18.0	4/1/2015	18	69		< 6.1 U	< 28 U	**68**	< 0.02 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--
Subject Property - Lenora Street	B-2	87	B-2-24.0	8/1/2002	24	63		**2400 X**	< 500 U	**18,000**	< 0.6 U	**11**	< 1 U	< 3 U	--	--
			B-2-32.5	8/1/2002	32.5	54.5		< 3 U	< 25 U	**99**	< 0.03 U	< 0.05 U	< 0.05 U	< 0.2 U	--	--
	DP-3	87	DP-3-20.0	9/1/2014	20	67		**10**	< 28 U	< 56 U	< 0.02 U	< 0.054 U	< 0.054 U	< 0.108 U	--	--
			DP-3-24.0	9/1/2014	24	63		< 6.3 U	< 30 U	< 60 U	< 0.02 U	< 0.063 U	< 0.063 U	< 0.126 U	--	--
			DP-3-28.0	9/1/2014	28	59		< 7.2 U	< 33 U	< 66 U	< 0.02 U	< 0.072 U	< 0.072 U	< 0.144 U	--	--
	DP-4	87	DP-4-4.0	9/1/2014	4	83		--	< 27 U	< 54 U	--	--	--	--	--	--
			DP-4-20.0	9/1/2014	20	67		< 6.1 U	< 28 U	< 55 U	< 0.02 U	< 0.061 U	< 0.061 U	< 0.122 U	--	--
			DP-4-24.0	9/1/2014	24	63		< 6.3 U	< 31 U	< 62 U	< 0.02 U	< 0.063 U	< 0.063 U	< 0.126 U	--	--
			DP-4-28.0	9/1/2014	28	59		< 6.6 U	< 32 U	< 63 U	< 0.02 U	< 0.066 U	< 0.066 U	< 0.132 U	--	--
	DP-5	87	DP-5-2.0	9/1/2014	2	85		--	< 27 U	**580**	--	--	--	--	--	--
			DP-5-22.0	9/1/2014	22	65		< 5.9 U	< 29 U	< 59 U	< 0.02 U	< 0.059 U	< 0.059 U	< 0.118 U	--	--
			DP-5-24.0	9/1/2014	24	63		< 5.9 U	< 29 U	< 58 U	< 0.02 U	< 0.059 U	< 0.059 U	< 0.118 U	--	--
			DP-5-28.0	9/1/2014	28	59		< 6.8 U	< 30 U	< 61 U	< 0.02 U	< 0.068 U	< 0.068 U	< 0.136 U	--	--
	UST2EX-B1	87	UST2 EX-B1-35.0	8/26/2015	35	52		< 6.3 U	< 26 U	< 53 U	< 0.02 U	< 0.063 U	< 0.063 U	< 0.063 U	--	--
	UST2EX-S1	87	UST2EX-S1-20.0	8/1/2015	20	67		< 5.5 U	< 25 U	< 50 U	< 0.02 U	< 0.055 U	< 0.055 U	< 0.11 U	--	--
			UST2EX-S1-24.0	8/19/2015	24	63		< 7.6 U	< 33 U	< 65 U	< 0.02 U	< 0.076 U	< 0.076 U	< 0.076 U	--	--
			UST2EX-S1-33.0	8/28/2015	33	54		< 6 U	< 27 U	< 55 U	< 0.02 U	< 0.06 U	< 0.06 U	< 0.06 U	--	--
Subject Property- Near Alley	UST2EX-W1	87	UST2EX-W1-22.0	8/20/2015	22	65		--	< 32 U	< 64 U	--	--	--	--	--	--
			UST2EX-W1-24.0	8/20/2015	24	63		--	**1,700**	**19,000**	--	--	--	--	--	--
			UST2EX-W1-33.0	8/28/2015	33	54		< 7.9 U	< 33 U	< 65 U	< 0.02 U	< 0.079 U	< 0.079 U	< 0.079 U	--	--
	UST2EX-W3	87	UST2 EX-W3-30.0	8/26/2015	30	57		< 6.4 U	< 32 U	< 65 U	< 0.02 U	< 0.064 U	< 0.064 U	< 0.064 U	--	--
Alley	B-3	69	B-3-8.0	8/1/2002	8	61		< 12 U	**93**	**850**	< 0.03 U	< 0.05 U	< 0.05 U	< 0.2 U	**6**	< 0.59 U
			B-3-14.0	8/1/2002	14	55		< 3 U	< 25 U	**82**	< 0.03 U	< 0.05 U	< 0.05 U	< 0.2 U	**9.1**	< 0.64 U
	DP-1	69	DP-1-4.0	9/1/2014	4	65		--	**250**	**1,500**	--	--	--	--	< 11 U	< 1.1 U
			DP-1-8.0	9/1/2014	8	61		--	< 29 U	< 59 U	--	--	--	--	< 12 U	< 0.59 U
			DP-1-14.0	9/1/2014	14	55		--	< 32 U	< 65 U	--	--	--	--	--	--
			DP-1-20.0	9/1/2014	20	49		--	< 28 U	< 58 U	--	--	--	--	--	--
	DP-2	69	DP-2-4.0	9/1/2014	4	65		--	**380**	**1,900**	--	--	--	--	< 11 U	< 1.1 U
			DP-2-8.0	9/1/2014	8	61		--	**2,900**	**15,000**	--	--	--	--	< 12 U	< 0.63 U
			DP-2-14.0	9/1/2014	14	55		--	< 33 U	< 65 U	--	--	--	--	--	--
	GEI-1	67	GEI-1-4	7/1/2007	4	63		< 20 U	< 50 U	< 100 U	--	--	--	--	--	--
			GEI-1-12	7/1/2007	12	55		< 20 U	< 50 U	< 100 U	--	--	--	--	--	--

Notes
ft bgs = feet below existing ground surface
mg/kg = milligrams per kilogram
-- = Not analyzed
* = MTCA cleanup level of Gasoline when benzene is present at the Site.
U = Analyte not detected at or above the listed Reporting Limit.

X = Chromatographic pattern does not match quantitation standard. However, the listed values are considered detections based c
MTCA = Model Toxics Control Act
Bolded value indicates analyte detected at the listed concentration.
Shading indicates analyte detected at a concentration greater than the corresponding MTCA cleanup level.

Table 7. Chemical Analytical Data of Residual Contaminated Soil Samples - Petroleum Hydrocarbons, BTEX, Metals, and PAHs

Project No. 170291, Lenora Building Project, Seattle, Washington

							Analyte Group	Metals			Polycyclic Aromatic Hydrocarbons (PAHs)					
							Analyte Name Concentration Unit	Chromium mg/kg	Lead mg/kg	Mercury mg/kg	1- Methylnaphthalene mg/kg	2- Methylnaphthalene mg/kg	Acenaphthene mg/kg	Acenaphthylene mg/kg	Anthracene mg/kg	Benz(a)anthracene mg/kg
							MTCA Method A or B Cleanup Level		250	2	34	320	4800		24000	
Location	Exploration ID	Surface Elevation	Sample Name	Sample Date (feet bgs)	Sample Depth	Sample Elevation (feet)										
Subject Property - 9th Avenue	B-1	87	B-1-18.0	8/1/2002	18	69	--	--	--	--	--	--	--	--	--	--
			B-1-24.0	8/1/2002	24	63	--	--	--	--	--	--	--	--	--	--
	UTL9-E	87	UTL9-E-15.0	4/1/2015	15	72	--	--	--	--	--	--	--	--	--	--
			UTL9-E-18.0	4/1/2015	18	69	--	--	--	--	--	--	--	--	--	--
	UTL9-N	87	UTL9-N-5.0	4/1/2015	5	82	--	--	--	--	--	--	--	--	--	--
			UTL9-N-18.0	4/1/2015	18	69	--	--	--	--	--	--	--	--	--	--
	UTL9-S	87	UTL9-S-5.0	4/1/2015	5	82	--	--	--	--	--	--	--	--	--	--
			UTL9-S-15.0	4/1/2015	15	72	--	--	--	--	--	--	--	--	--	--
			UTL9-S-20.0	4/1/2015	20	67	--	--	--	--	--	--	--	--	--	--
			UTL9-S-23.0	4/1/2015	23	64	--	--	--	--	--	--	--	--	--	--
			UTL9-S-30.0	4/1/2015	30	57	--	--	--	--	--	--	--	--	--	--
	EX-1	87	EX-1-6.0	4/1/2015	6	81	--	--	--	--	--	--	--	--	--	--
			EX-1-12.0	4/1/2015	12	75	--	--	--	--	--	--	--	--	--	--
			EX-1-18.0	4/1/2015	18	69	--	--	--	--	--	--	--	--	--	--
Subject Property - Lenora Street	B-2	87	B-2-24.0	8/1/2002	24	63	--	--	--	--	--	--	--	--	--	--
			B-2-32.5	8/1/2002	32.5	54.5	--	--	--	--	--	--	--	--	--	--
	DP-3	87	DP-3-20.0	9/1/2014	20	67	--	--	--	--	--	--	--	--	--	--
			DP-3-24.0	9/1/2014	24	63	--	--	--	--	--	--	--	--	--	--
			DP-3-28.0	9/1/2014	28	59	--	--	--	--	--	--	--	--	--	--
	DP-4	87	DP-4-4.0	9/1/2014	4	83	--	--	--	--	--	< 0.0072 U	< 0.0072 U	< 0.0072 U	< 0.0072 U
			DP-4-20.0	9/1/2014	20	67	--	--	--	--	--	--	--	--	--	--
			DP-4-24.0	9/1/2014	24	63	--	--	--	--	--	--	--	--	--	--
			DP-4-28.0	9/1/2014	28	59	--	--	--	--	--	--	--	--	--	--
	DP-5	87	DP-5-2.0	9/1/2014	2	85	--	--	--	--	--	--	--	--	--	--
			DP-5-22.0	9/1/2014	22	65	--	--	--	--	--	--	--	--	--	--
			DP-5-24.0	9/1/2014	24	63	--	--	--	--	--	--	--	--	--	--
			DP-5-28.0	9/1/2014	28	59	--	--	--	--	--	--	--	--	--	--
	UST2EX-B1	87	UST2 EX-B1-35.0	8/26/2015	35	52	--	--	--	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U
	UST2EX-S1	87	UST2EX-S1-20.0	8/1/2015	20	67	--	--	--	--	--	--	--	--	--	--
			UST2EX-S1-24.0	8/19/2015	24	63	--	--	--	--	--	--	--	--	--	--
			UST2EX-S1-33.0	8/28/2015	33	54	--	--	--	< 0.0073 U	< 0.0073 U	< 0.0073 U	< 0.0073 U	< 0.0073 U	< 0.0073 U
Subject Property- Near Alley	UST2EX-W1	87	UST2EX-W1-22.0	8/20/2015	22	65	--	--	--	< 0.0085 U	< 0.0085 U	< 0.0085 U	< 0.0085 U	< 0.0085 U	< 0.0085 U
			UST2EX-W1-24.0	8/20/2015	24	63	--	--	--	**1.9**	**2.8**	**0.08**	**0.036**	**0.15**	**0.17**
			UST2EX-W1-33.0	8/28/2015	33	54	--	--	--	**0.021**	**0.021**	< 0.0087 U	< 0.0087 U	< 0.0087 U	< 0.0087 U
	UST2EX-W3	87	UST2 EX-W3-30.0	8/26/2015	30	57	--	--	--	< 0.0086 U	< 0.0086 U	< 0.0086 U	< 0.0086 U	< 0.0086 U	< 0.0086 U
Alley	B-3	69	B-3-8.0	8/1/2002	8	61	**51**	< 7.1 U	**0.03**	--	--	--	--	--	--
			B-3-14.0	8/1/2002	14	55	**41**	< 7.7 U	**0.04**	--	--	--	--	--	--
	DP-1	69	DP-1-4.0	9/1/2014	4	65	**35**	**30**	< 0.56 U	--	--	**0.053**	**0.057**	**0.075**	**0.22**
			DP-1-8.0	9/1/2014	8	61	**70**	< 5.9 U	< 0.29 U	--	--	< 0.0078 U	< 0.0078 U	< 0.0078 U	< 0.0078 U
			DP-1-14.0	9/1/2014	14	55	--	--	--	--	--	--	--	--	--
			DP-1-20.0	9/1/2014	20	49	--	--	--	--	--	--	--	--	--	--
	DP-2	69	DP-2-4.0	9/1/2014	4	65	**28**	**22**	< 0.53 U	--	--	**0.019**	< 0.014 U	**0.027**	**0.06**
			DP-2-8.0	9/1/2014	8	61	**52**	**22**	< 0.31 U	--	--	**0.18**	**0.044**	**0.064**	**0.12**
			DP-2-14.0	9/1/2014	14	55	--	--	--	--	--	< 0.0087 U	< 0.0087 U	< 0.0087 U	< 0.0087 U
	GEI-1	67	GEI-1-4	7/1/2007	4	63	--	--	--	--	--	--	--	--	--
			GEI-1-12	7/1/2007	12	55	--	--	--	--	--	--	--	--	--

Notes

ft bgs = feet below existing ground surface
mg/kg = milligrams per kilogram
-- = Not analyzed
* = MTCA cleanup level of Gasoline when benzene is present at the Site.
U = Analyte not detected at or above the listed Reporting Limit.

X = Chromatographic pattern does not match quantitation standard. However, the listed values are considered detections based c
MTCA = Model Toxics Control Act
Bolded value indicates analyte detected at the listed concentration.
Shading indicates analyte detected at a concentration greater than the corresponding MTCA cleanup level.

Table 7. Chemical Analytical Data of Residual Contaminated Soil Samples - Petroleum Hydrocarbons, BTEX, Metals, and PAHs

Project No. 170291, Lenora Building Project, Seattle, Washington

							Analyte Group	Polycyclic Aromatic Hydrocarbons (PAHs)							
							Analyte Name Concentration Unit	Benzo(a)pyrene mg/kg	Benzo(b)fluoranthene mg/kg	Benzo(g,h,i)perylene mg/kg	Benzo(j,k)fluoranthene mg/kg	Chrysene mg/kg	Dibenzo(a,h)anthracene mg/kg	Fluoranthene mg/kg	Fluorene mg/kg
							MTCA Method A or B Cleanup Level	0.1						3200	3200
Location	Exploration ID	Surface Elevation	Sample Name	Sample Date (feet bgs)	Sample Depth	Sample Elevation (feet)									
Subject Property - 9th Avenue	B-1	87	B-1-18.0	8/1/2002	18	69		--	--	--	--	--	--	--	--
			B-1-24.0	8/1/2002	24	63		--	--	--	--	--	--	--	--
	UTL9-E	87	UTL9-E-15.0	4/1/2015	15	72		--	--	--	--	--	--	--	--
			UTL9-E-18.0	4/1/2015	18	69		--	--	--	--	--	--	--	--
	UTL9-N	87	UTL9-N-5.0	4/1/2015	5	82		--	--	--	--	--	--	--	--
			UTL9-N-18.0	4/1/2015	18	69		--	--	--	--	--	--	--	--
	UTL9-S	87	UTL9-S-5.0	4/1/2015	5	82		--	--	--	--	--	--	--	--
			UTL9-S-15.0	4/1/2015	15	72		--	--	--	--	--	--	--	--
			UTL9-S-20.0	4/1/2015	20	67		--	--	--	--	--	--	--	--
			UTL9-S-23.0	4/1/2015	23	64		--	--	--	--	--	--	--	--
			UTL9-S-30.0	4/1/2015	30	57		--	--	--	--	--	--	--	--
	EX-1	87	EX-1-6.0	4/1/2015	6	81		--	--	--	--	--	--	--	--
			EX-1-12.0	4/1/2015	12	75		--	--	--	--	--	--	--	--
			EX-1-18.0	4/1/2015	18	69		--	--	--	--	--	--	--	--
Subject Property - Lenora Street	B-2	87	B-2-24.0	8/1/2002	24	63		--	--	--	--	--	--	--	--
			B-2-32.5	8/1/2002	32.5	54.5		--	--	--	--	--	--	--	--
	DP-3	87	DP-3-20.0	9/1/2014	20	67		--	--	--	--	--	--	--	--
			DP-3-24.0	9/1/2014	24	63		--	--	--	--	--	--	--	--
			DP-3-28.0	9/1/2014	28	59		--	--	--	--	--	--	--	--
	DP-4	87	DP-4-4.0	9/1/2014	4	83		< 0.0072 U	< 0.0072 U	< 0.0072 U	< 0.0072 U	< 0.0072 U	< 0.0072 U	< 0.0072 U	< 0.0072 U
			DP-4-20.0	9/1/2014	20	67		--	--	--	--	--	--	--	--
			DP-4-24.0	9/1/2014	24	63		--	--	--	--	--	--	--	--
			DP-4-28.0	9/1/2014	28	59		--	--	--	--	--	--	--	--
	DP-5	87	DP-5-2.0	9/1/2014	2	85		--	--	--	--	--	--	--	--
			DP-5-22.0	9/1/2014	22	65		--	--	--	--	--	--	--	--
			DP-5-24.0	9/1/2014	24	63		--	--	--	--	--	--	--	--
			DP-5-28.0	9/1/2014	28	59		--	--	--	--	--	--	--	--
	UST2EX-B1	87	UST2 EX-B1-35.0	8/26/2015	35	52		< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U
	UST2EX-S1	87	UST2EX-S1-20.0	8/1/2015	20	67		--	--	--	--	--	--	--	--
			UST2EX-S1-24.0	8/19/2015	24	63		--	--	--	--	--	--	--	--
			UST2EX-S1-33.0	8/28/2015	33	54		< 0.0073 U	< 0.0073 U	< 0.0073 U	< 0.0073 U	< 0.0073 U	< 0.0073 U	< 0.0073 U	< 0.0073 U
Subject Property- Near Alley	UST2EX-W1	87	UST2EX-W1-22.0	8/20/2015	22	65		< 0.0085 U	< 0.0085 U	< 0.0085 U	< 0.0085 U	< 0.0085 U	< 0.0085 U	< 0.0085 U	< 0.0085 U
			UST2EX-W1-24.0	8/20/2015	24	63		**0.11**	**0.12**	**0.13**	< 0.044 U	**0.15**	< 0.044 U	**0.21**	**0.16**
			UST2EX-W1-33.0	8/28/2015	33	54		< 0.0087 U	< 0.0087 U	< 0.0087 U	< 0.0087 U	< 0.0087 U	< 0.0087 U	< 0.0087 U	< 0.0087 U
	UST2EX-W3	87	UST2 EX-W3-30.0	8/26/2015	30	57		< 0.0086 U	< 0.0086 U	< 0.0086 U	< 0.0086 U	< 0.0086 U	< 0.0086 U	< 0.0086 U	< 0.0086 U
Alley	B-3	69	B-3-8.0	8/1/2002	8	61		--	--	--	--	--	--	--	--
			B-3-14.0	8/1/2002	14	55		--	--	--	--	--	--	--	--
	DP-1	69	DP-1-4.0	9/1/2014	4	65		**0.22**	**0.18**	**0.14**	**0.14**	**0.26**	**0.055**	**0.48**	**0.17**
			DP-1-8.0	9/1/2014	8	61		< 0.0078 U	< 0.0078 U	< 0.0078 U	< 0.0078 U	< 0.0078 U	< 0.0078 U	< 0.0078 U	< 0.0078 U
			DP-1-14.0	9/1/2014	14	55		--	--	--	--	--	--	--	--
			DP-1-20.0	9/1/2014	20	49		--	--	--	--	--	--	--	--
	DP-2	69	DP-2-4.0	9/1/2014	4	65		**0.048**	**0.032**	**0.028**	**0.037**	**0.063**	< 0.014 U	**0.16**	**0.034**
			DP-2-8.0	9/1/2014	8	61		**0.1**	**0.058**	**0.11**	**0.02**	**0.12**	**0.014**	**0.045**	**0.31**
			DP-2-14.0	9/1/2014	14	55		< 0.0087 U	< 0.0087 U	< 0.0087 U	< 0.0087 U	< 0.0087 U	< 0.0087 U	< 0.0087 U	< 0.0087 U
	GEI-1	67	GEI-1-4	7/1/2007	4	63		--	--	--	--	--	--	--	--
			GEI-1-12	7/1/2007	12	55		--	--	--	--	--	--	--	--

Notes

ft bgs = feet below existing ground surface
mg/kg = milligrams per kilogram
-- = Not analyzed
* = MTCA cleanup level of Gasoline when benzene is present at the Site.
U = Analyte not detected at or above the listed Reporting Limit.

X = Chromatographic pattern does not match quantitation standard. However, the listed values are considered detections based c
MTCA = Model Toxics Control Act
Bolded value indicates analyte detected at the listed concentration.
Shading indicates analyte detected at a concentration greater than the corresponding MTCA cleanup level.

Table 7. Chemical Analytical Data of Residual Contaminated Soil Samples - Petroleum Hydrocarbons, BTEX, Metals, and PAHs

Project No. 170291, Lenora Building Project, Seattle, Washington

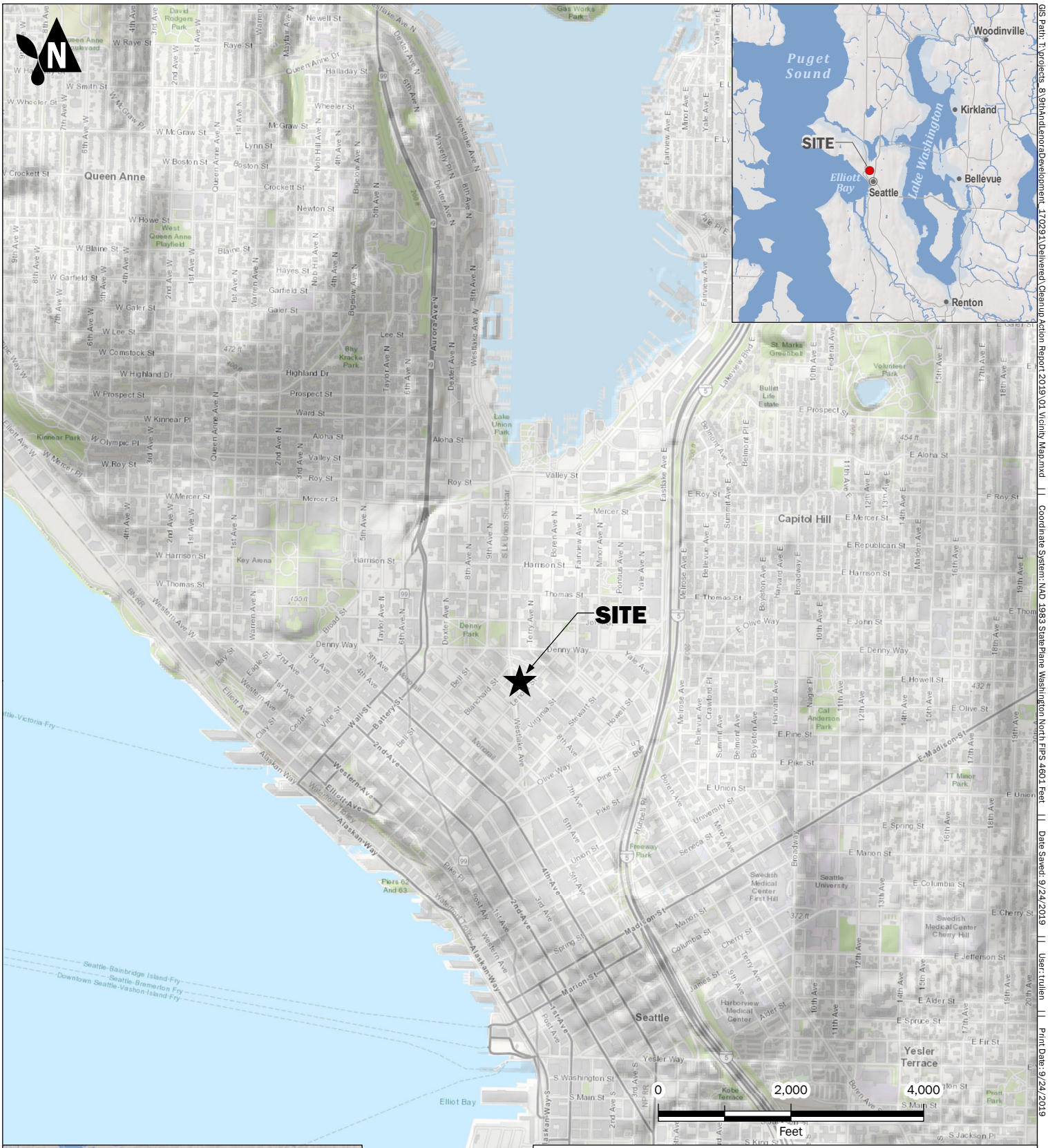
							Analyte Group	Polycyclic Aromatic Hydrocarbons (PAHs)					
							Analyte Name Concentration Unit	Indeno(1,2,3-cd)pyrene mg/kg	Naphthalene mg/kg	Phenanthrene mg/kg	Pyrene mg/kg	Total Naphthalenes mg/kg	Total cPAHs TEQ (ND = 1/2 RDL) mg/kg
							MTCA Method A or B Cleanup Level		5		2400		0.1
Location	Exploration ID	Surface Elevation	Sample Name	Sample Date (feet bgs)	Sample Depth	Sample Elevation (feet)							
Subject Property - 9th Avenue	B-1	87	B-1-18.0	8/1/2002	18	69		--	--	--	--	--	--
			B-1-24.0	8/1/2002	24	63		--	--	--	--	--	--
	UTL9-E	87	UTL9-E-15.0	4/1/2015	15	72		--	--	--	--	--	--
			UTL9-E-18.0	4/1/2015	18	69		--	--	--	--	--	--
	UTL9-N	87	UTL9-N-5.0	4/1/2015	5	82		--	--	--	--	--	--
			UTL9-N-18.0	4/1/2015	18	69		--	--	--	--	--	--
	UTL9-S	87	UTL9-S-5.0	4/1/2015	5	82		--	--	--	--	--	--
			UTL9-S-15.0	4/1/2015	15	72		--	--	--	--	--	--
			UTL9-S-20.0	4/1/2015	20	67		--	--	--	--	--	--
			UTL9-S-23.0	4/1/2015	23	64		--	--	--	--	--	--
			UTL9-S-30.0	4/1/2015	30	57		--	--	--	--	--	--
	EX-1	87	EX-1-6.0	4/1/2015	6	81		--	--	--	--	--	--
			EX-1-12.0	4/1/2015	12	75		--	--	--	--	--	--
			EX-1-18.0	4/1/2015	18	69		--	--	--	--	--	--
Subject Property - Lenora Street	B-2	87	B-2-24.0	8/1/2002	24	63		--	--	--	--	--	--
			B-2-32.5	8/1/2002	32.5	54.5		--	--	--	--	--	--
	DP-3	87	DP-3-20.0	9/1/2014	20	67		--	--	--	--	--	--
			DP-3-24.0	9/1/2014	24	63		--	--	--	--	--	--
			DP-3-28.0	9/1/2014	28	59		--	--	--	--	--	--
	DP-4	87	DP-4-4.0	9/1/2014	4	83		< 0.0072 U	--	< 0.0072 U	< 0.0072 U	< 0.0072 U	< 0.00543 U
			DP-4-20.0	9/1/2014	20	67		--	--	--	--	--	--
			DP-4-24.0	9/1/2014	24	63		--	--	--	--	--	--
			DP-4-28.0	9/1/2014	28	59		--	--	--	--	--	--
	DP-5	87	DP-5-2.0	9/1/2014	2	85		--	--	--	--	--	--
			DP-5-22.0	9/1/2014	22	65		--	--	--	--	--	--
			DP-5-24.0	9/1/2014	24	63		--	--	--	--	--	--
			DP-5-28.0	9/1/2014	28	59		--	--	--	--	--	--
	UST2EX-B1	87	UST2 EX-B1-35.0	8/26/2015	35	52		< 0.007 U	< 0.007 U	< 0.007 U	< 0.007 U	< 0.021 U	**0.0053**
	UST2EX-S1	87	UST2EX-S1-20.0	8/1/2015	20	67		--	--	--	--	--	--
			UST2EX-S1-24.0	8/19/2015	24	63		--	--	--	--	--	--
			UST2EX-S1-33.0	8/28/2015	33	54		< 0.0073 U	< 0.0073 U	< 0.0073 U	< 0.0073 U	< 0.0219 U	**0.0056**
Subject Property- Near Alley	UST2EX-W1	87	UST2EX-W1-22.0	8/20/2015	22	65		< 0.0085 U	< 0.0085 U	< 0.0085 U	< 0.0085 U	< 0.0255 U	**0.0065**
			UST2EX-W1-24.0	8/20/2015	24	63		**0.072**	**1.3**	**0.4**	**0.42**	**6**	**0.1501**
			UST2EX-W1-33.0	8/28/2015	33	54		< 0.0087 U	**0.04**	< 0.0087 U	< 0.0087 U	**0.082**	**0.0066**
	UST2EX-W3	87	UST2 EX-W3-30.0	8/26/2015	30	57		< 0.0086 U	< 0.0086 U	< 0.0086 U	< 0.0086 U	< 0.0258 U	**0.0065**
Alley	B-3	69	B-3-8.0	8/1/2002	8	61		--	--	--	--	--	--
			B-3-14.0	8/1/2002	14	55		--	--	--	--	--	--
	DP-1	69	DP-1-4.0	9/1/2014	4	65		**0.12**	--	**0.66**	**0.42**	**0.89**	**0.2941**
			DP-1-8.0	9/1/2014	8	61		< 0.0078 U	--	< 0.0078 U	< 0.0078 U	< 0.0078 U	< 0.00588 U
			DP-1-14.0	9/1/2014	14	55		--	--	--	--	--	--
			DP-1-20.0	9/1/2014	20	49		--	--	--	--	--	--
	DP-2	69	DP-2-4.0	9/1/2014	4	65		**0.026**	--	**0.13**	**0.14**	**0.22**	**0.06483**
			DP-2-8.0	9/1/2014	8	61		**0.026**	--	**0.65**	**0.35**	**9.96**	**0.125**
			DP-2-14.0	9/1/2014	14	55		< 0.0087 U	--	< 0.0087 U	< 0.0087 U	**0.055**	< 0.00656 U
	GEI-1	67	GEI-1-4	7/1/2007	4	63		--	--	--	--	--	--
			GEI-1-12	7/1/2007	12	55		--	--	--	--	--	--

Notes

ft bgs = feet below existing ground surface
mg/kg = milligrams per kilogram
-- = Not analyzed
* = MTCA cleanup level of Gasoline when benzene is present at the Site.
U = Analyte not detected at or above the listed Reporting Limit.

X = Chromatographic pattern does not match quantitation standard. However, the listed values are considered detections based c
MTCA = Model Toxics Control Act
Bolded value indicates analyte detected at the listed concentration.
Shading indicates analyte detected at a concentration greater than the corresponding MTCA cleanup level.

FIGURES



Vicinity Map

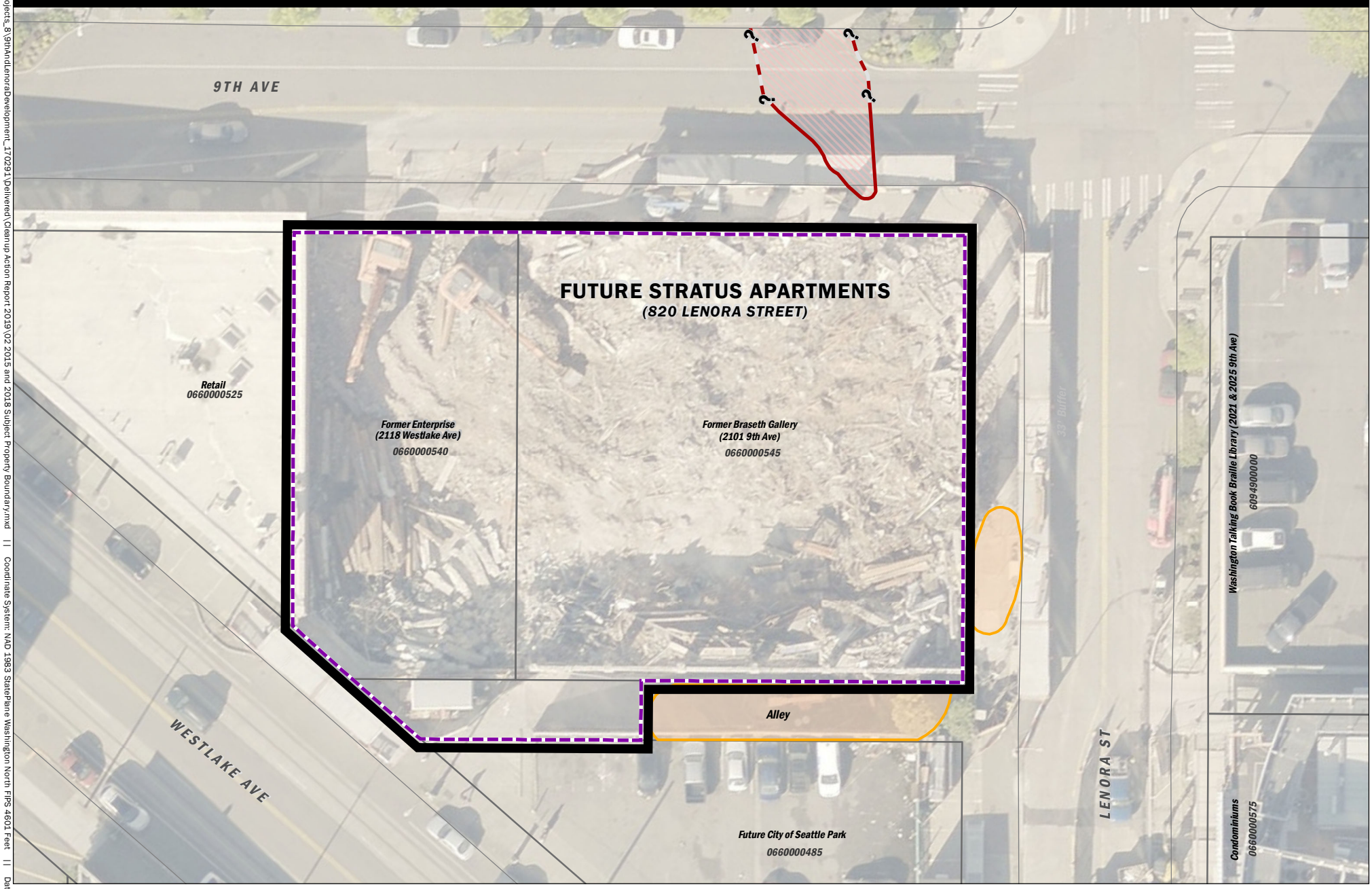
Cleanup Action Report
820 Lenora Street
Seattle, Washington

Aspect Consulting	SEP-2019	BY: FK / TDR	FIGURE NO. 1
	PROJECT NO. 170291	REVISED BY: ---	

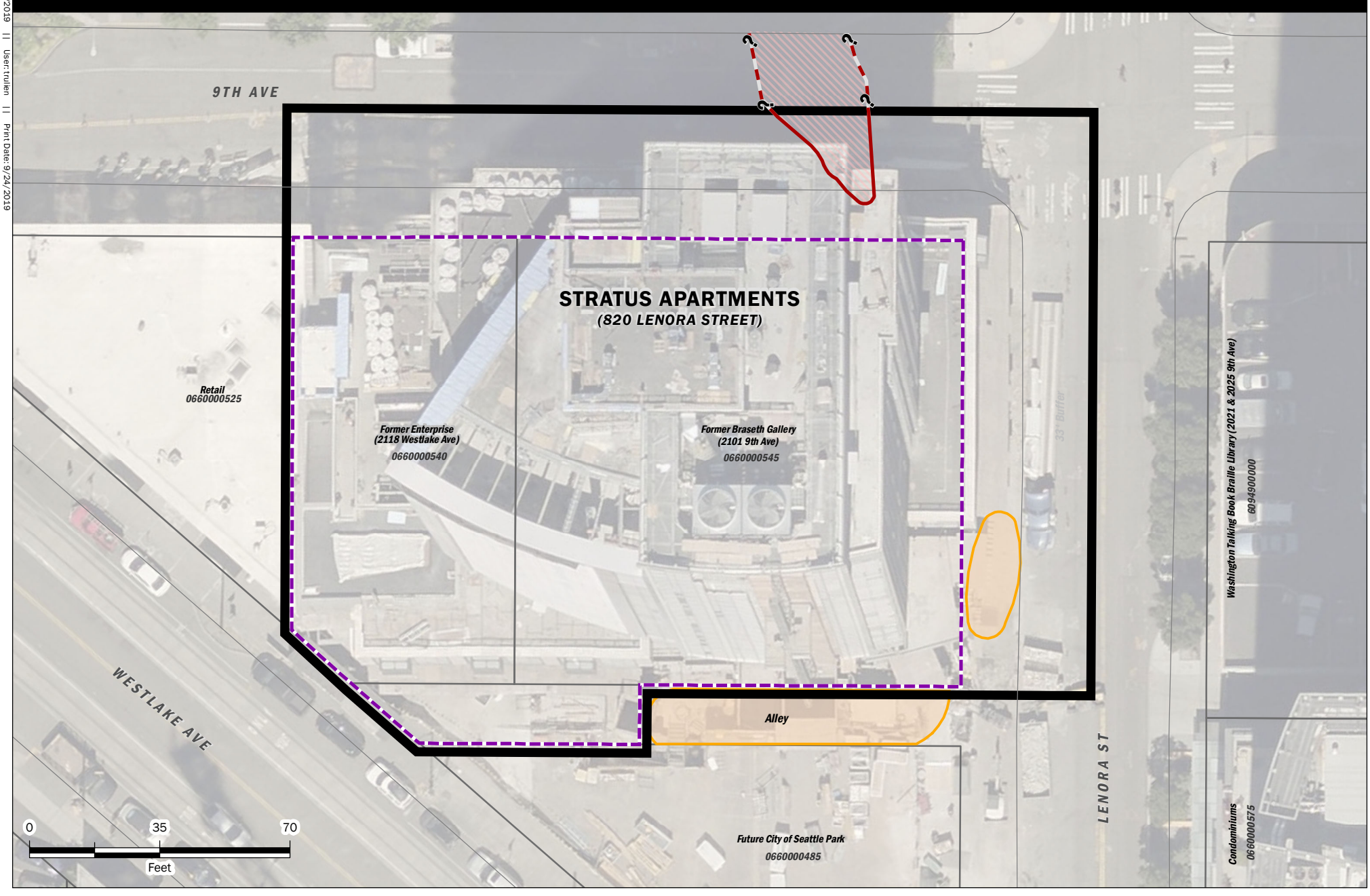
GIS Path: T:\projects_8\9thAndLenoraDevelopment_170291\Delivered\Cleanup Action Report 2019\01 Vicinity Map.mxd || Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet || Date Saved: 9/24/2019 || User: trullen || Print Date: 9/24/2019

Basemap Layer Credits || Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community
Copyright:(c) 2014 Esri

2015 Subject Property



2018 Subject Property



Mass excavation limits

Approximate known extent of residual PAHs and/or petroleum-contaminated soil with MTCA exceedance

Interpreted extent of gasoline and benzene contaminated soil with MTCA exceedance at Subject Property from an off property source

Subject Property

King County Parcel

0660000545 Parcel Number

MTCA: Model Toxics Cleanup Control Act
PAH: Polycyclic aromatic hydrocarbons

2015 and 2018 Subject Property Boundary

Cleanup Action Report
820 Lenora Street
Seattle, Washington

Aspect Consulting	SEP-2019	BY: FK / KES	FIGURE NO. 2
	PROJECT NO. 170291	REVISED BY: TDR	

Basemap Layer Credits || Pictometry International Corp., Pictometry, King County

GIS Path: T:\projects_8\9thAndLenoraDevelopment_170291\Delivered\Cleanup Action Report 2019\02 2015 and 2018 Subject Property Boundary.mxd || Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet || Date Saved: 9/24/2019 || User: trulen || Print Date: 9/24/2019

GIS Path: T:\projects_8\9thAndLenoraDevelopment_170291\Delivered\Cleanup Action Report 2019\03 Pre-Cleanup Soil Conditions in Mass Excavation Limits.mxd || Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet || Date Saved: 9/24/2019 || User: trullen || Print Date: 9/24/2019

Whole Foods

8729740000

Condominiums

Social Security Administration (901 Lenora St)
0660001310

9TH AVE

Utility Excavation for Deep Sewer

STRATUS APARTMENTS
(820 LENORA STREET)

MW-1

G-1

Retail
0660000525

Former Enterprise
(2118 Westlake Ave)
0660000540

Former Braseth Gallery
(2101 9th Ave)
0660000545

Former UST 2

MW-5

Alley

Washington Talking Book Braille Library (2021 & 2025 9th Ave)
6094900000

WESTLAKE AVE

LENORA ST

Future City of Seattle Park
0660000485

Condominiums
0660000575

Retail
0660000500

0 30 60
Feet

Note:

1. The Subject Property boundary is based on the Plat Map of the Second Addition to the Town of Seattle. The Plat Map was filed for record on December 14, 1875 and can be obtained from King County Records Office or a title company.
2. Soil conditions in mass excavation limits sourced from GeoEngineers, 2016.

Zone 1: Area of impacted fill to an approximate depth of 10 feet bgs (Elev. 60)

Zone 2: Estimated extent of contaminated fill to an approximate depth of 6 feet bgs (Elev. 63)

Zone 3: Estimated extent of contaminated fill to an approximated depth of 18 feet bgs (Elev. 51)

Former Monitoring Well

Mass excavation limits

Subject Property

King County Parcel

0660000545 Parcel Number

bgs: Below ground surface
UST: Underground Storage Tank

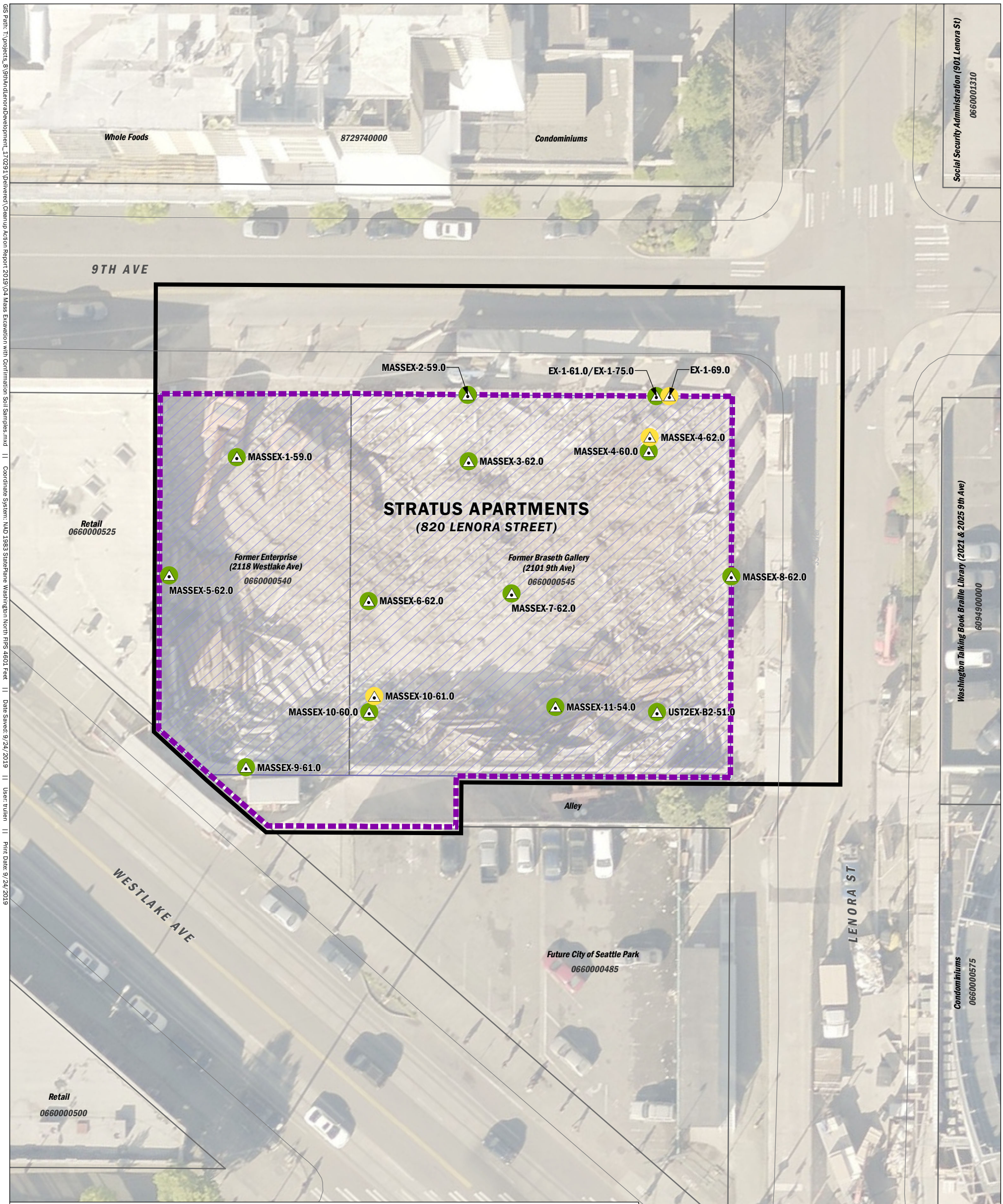
Pre-Cleanup Soil Conditions in Mass Excavation Limits

Cleanup Action Report
820 Lenora Street
Seattle, Washington

Aspect Consulting	SEP-2019	BY: FK / KES	FIGURE NO. 3
	PROJECT NO. 170291	REVISED BY: TDR	

Basemap Layer Credits || Pictometry International Corp.

GIS Path: T:\projects_8\9thAndLenoraDevelopment_170291\Delivered\Cleanup Action Report 2019\04 Mass Excavation with Confirmation Soil Samples.mxd || Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet || Date Saved: 9/24/2019 || User: trulien || Print Date: 9/24/2019



Note:

1. The Subject Property boundary is based on the Plat Map of the Second Addition to the Town of Seattle. The Plat Map was filed for record on December 14, 1875 and can be obtained from King County Records Office or a title company.

Sample elevation in feet

MASSEX-9-61.0

Sample name

0 30 60

Feet

Characterization soil sample location. Diesel- and heavy oil-range hydrocarbons and/or cPAHs were detected at concentrations below MTCA Method A Cleanup Level. Soil represented by this sample was subsequently excavated and transported from the site to Waste Management's Landfill for permitted disposal.

Confirmation soil sample location. Diesel- and heavy oil-range hydrocarbons and cPAHs were not detected.

Mass Excavation for removing contaminated and/or impacted fill soil.

Soil Sample

Mass excavation limits

Subject Property

King County Parcel

0660000545 Parcel Number

MTCA: Model Toxics Cleanup Control Act
cPAH: Carcinogenic polycyclic aromatic hydrocarbons

Mass Excavation with Confirmation Soil Samples

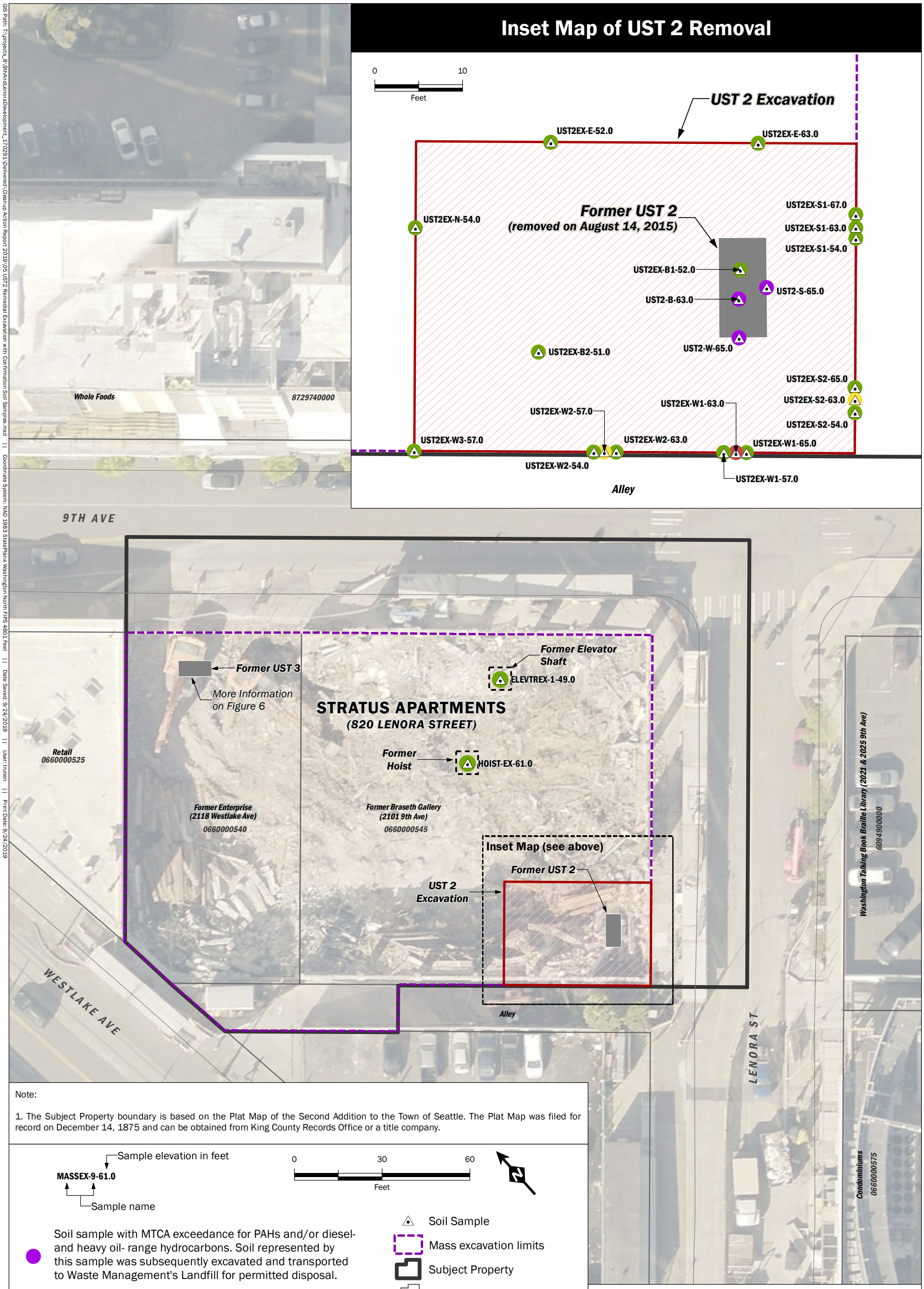
Cleanup Action Report
820 Lenora Street
Seattle, Washington

Aspect Consulting	SEP-2019	BY: FK / KES	FIGURE NO. 4
	PROJECT NO. 170291	REVISED BY: TDR	

Basemap Layer Credits || Pictometry International Corp.

GIS Path: T:\projects_8\9thAndLenoraDevelopment_170291\Delivered\Cleanup Action Report 2019\05 UST2 Remedial Excavation with Confirmation Soil Samples.mxd || Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet || Date Saved: 9/24/2019 || User: trullen || Print Date: 9/24/2019

Inset Map of UST 2 Removal



Note:

1. The Subject Property boundary is based on the Plat Map of the Second Addition to the Town of Seattle. The Plat Map was filed for record on December 14, 1875 and can be obtained from King County Records Office or a title company.

Sample elevation in feet
MASSEX-9-61.0
Sample name

0 30 60
Feet

N

- Soil sample with MTCA exceedance for PAHs and/or diesel- and heavy oil- range hydrocarbons. Soil represented by this sample was subsequently excavated and transported to Waste Management's Landfill for permitted disposal.

Represents Soil Conditions at the Final Limits of Excavation

- Confirmation soil sample with MTCA exceedance for heavy oil- range hydrocarbons and PAHs.
- Confirmation soil sample in which diesel- and heavy oil-range hydrocarbons and PAHs were detected at concentrations below MTCA Method A Cleanup Levels.
- Confirmation soil sample with no detections of petroleum hydrocarbons and PAHs.

- Soil Sample
- Mass excavation limits
- Subject Property
- King County Parcel
- 0660000545 Parcel Number

MTCA: Model Toxics Cleanup Control Act
PAH: Polycyclic aromatic hydrocarbons
UST: Underground Storage Tank

UST2 Remedial Excavation with Confirmation Soil Samples

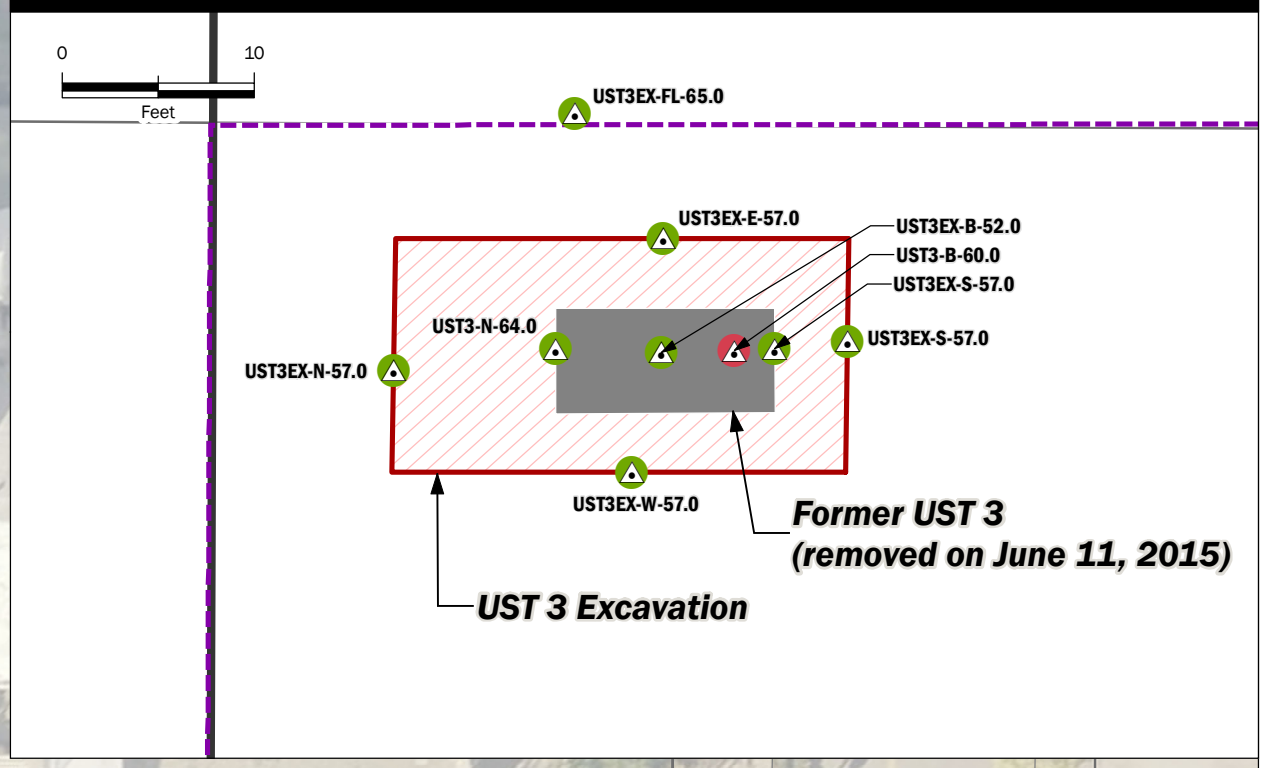
Cleanup Action Report
820 Lenora Street
Seattle, Washington

Aspect Consulting	SEP-2019	BY: FK / KES	FIGURE NO. 5
	PROJECT NO. 170291	REVISED BY: TDR	

Basemap Layer Credits || Pictometry International Corp.

GIS Path: T:\projects_8\9thAndLenoraDevelopment_170291\Delivered\Clean up Action Report 2019\06 UST3 Remedial Excavation with Confirmation Soil Samples.mxd || Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet || Date Saved: 9/24/2019 || User: trullen || Print Date: 9/24/2019

Inset Map of UST 3 Removal



Whole Foods

8729740000

Condominiums

9TH AVE

Inset Map (see above)

Former UST 3

UST 3 Excavation

STRATUS APARTMENTS
(820 LENORA STREET)

Retail
0660000525

Former Enterprise
(2118 Westlake Ave)
0660000540

Former Braseth Gallery
(2101 9th Ave)
0660000545

Former UST 2

More Information on Figure 5

Washington Talking Book Braille Library (2021 & 2025 9th Ave)
6094900000

WESTLAKE AVE

Alley

LENORA ST

Future City of Seattle Park
0660000485

Condominiums
0660000575

Note:

1. The Subject Property boundary is based on the Plat Map of the Second Addition to the Town of Seattle. The Plat Map was filed for record on December 14, 1875 and can be obtained from King County Records Office or a title company.

Sample elevation in feet
MASSEX-9-61.0
Sample name

0 30 60
Feet

Soil sample with MTCA exceedance for diesel-range hydrocarbons. Soil represented by this sample was subsequently excavated and transported to Waste Management's Landfill for permitted disposal.

Confirmation soil sample with no detections of diesel- and heavy oil- range hydrocarbons. Represent soil conditions at the final excavation limits.

Soil Sample

Mass excavation limits

Subject Property

King County Parcel

0660000545 Parcel Number

MTCA: Model Toxics Cleanup Control Act
UST: Underground Storage Tank

UST3 Remedial Excavation with Confirmation Soil Samples

Cleanup Action Report
820 Lenora Street
Seattle, Washington

Aspect Consulting	SEP-2019	BY: FK / KES	FIGURE NO. 6
	PROJECT NO. 170291	REVISED BY: TDR	

Basemap Layer Credits || Pictometry International Corp.

GIS Path: T:\projects_8\9thAndLenoraDevelopment_170291\Delivered\Cleanup Action Report 2019\07 Post Cleanup Soil Conditions.mxd || Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet || Date Saved: 9/24/2019 || User: trullen || Print Date: 9/24/2019

Whole Foods

8729740000

Condominiums

Social Security Administration (901 Lenora St)
0660001310

9TH AVE

A'

A

B

B'

UTL9-E
Benzene: 0.06 (15 ft)
GRO: 50 (18 ft)

B-1
Benzene: 0.23 (18 ft)

UTL9-N

UTL9-S

EX-1

STRATUS APARTMENTS
(820 LENORA STREET)

Retail
0660000525

Former Enterprise
(2118 Westlake Ave)
0660000540

Former Braseth Gallery
(2101 9th Ave)
0660000545

B-2
GRO: 2400 X (24 ft)
ORO: 18000 (24 ft)
Toluene: 11 (24 ft)

DP-5

UST2EX-W1
Benzo(a)pyrene: 0.11 (24 ft)
cPAH TEQ: 0.1501 (24 ft)
ORO: 19000 (24 ft)

DP-2
cPAH TEQ: 0.125 (8 ft)
DRO: 2900 (8 ft)
ORO: 15000 (8 ft)

UST2EX-S1

DP-4

MW-5

UST2EX-B1

UST2EX-W3

DP-3

Alley

GEI-1

DP-1
Benzo(a)pyrene: 0.22 (4 ft)
cPAH TEQ: 0.2941 (4 ft)

Washington Talking Book Braille Library (2021 & 2025 9th Ave)
6094900000

WESTLAKE AVE

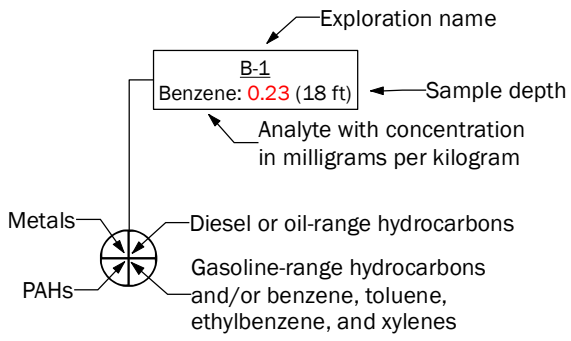
LENORA ST

Future City of Seattle Park
0660000485

Condominiums
0660000575

Note:

1. The Subject Property boundary is based on the Plat Map of the Second Addition to the Town of Seattle. The Plat Map was filed for record on December 14, 1875 and can be obtained from King County Records Office or a title company.



0 30 60
Feet

PAH: Polycyclic aromatic hydrocarbons
MTCA: Model Toxics Cleanup Control Act
GRO: Gasoline-range organics
DRO: Diesel-range organics
ORO: Oil-range organics

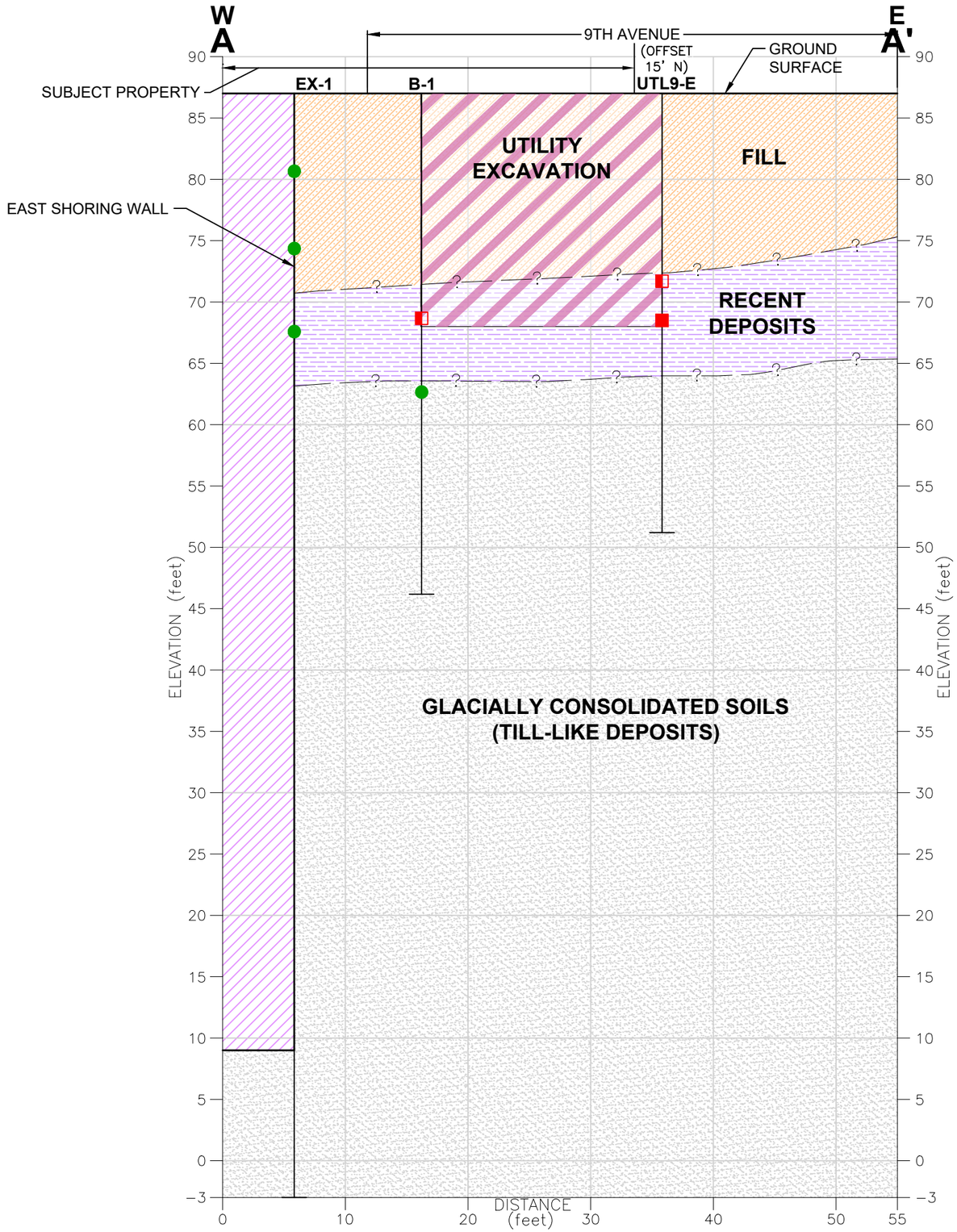
- Contaminant concentration greater than the MTCA Method A Cleanup Level
- Contaminant concentration less than the MTCA Method A Cleanup Level
- Contaminant not detected
- Sample not submitted for analyte testing
- Soil Sample
- Soil Boring
- Former Monitoring Well
- Approximate extent of utility excavation
- Mass excavation limits
- Approximate known extent of residual PAHs and/or petroleum-contaminated soil with MTCA exceedance
- Interpreted extent of gasoline and benzene contaminated soil with MTCA exceedance at Subject Property from an off property source
- Cross Section
- Subject Property
- King County Parcel
- 0660000545 Parcel Number

Post-Cleanup Soil Conditions at the Subject Property and Alley

Cleanup Action Plan
820 Lenora Street
Seattle, Washington

Aspect Consulting	SEP-2019	BY: FK / KES	FIGURE NO. 7
	PROJECT NO. 170291	REVISED BY: TDR	

Basemap Layer Credits || Pictometry, King County



EXPLANATION:

- Benzene and Gasoline Detected at a concentration greater than the MTCA Method A Cleanup Level
- Benzene Detected at a concentration greater than the MTCA Method A Cleanup Level
- Gasoline and Benzene not detected

MTCA Model Toxics Control Act

(OFFSET 15' N) **UTL9-E** Sample number and approximate location

Soil contact

- Fill
- Recent deposits
- Glacially consolidated soils (till–like deposits)
- Soil at the Subject Property was excavated to an approximate elevation of 9 feet during mass excavation
- Deep sewer utility excavation

0 10 20
Feet

Notes:

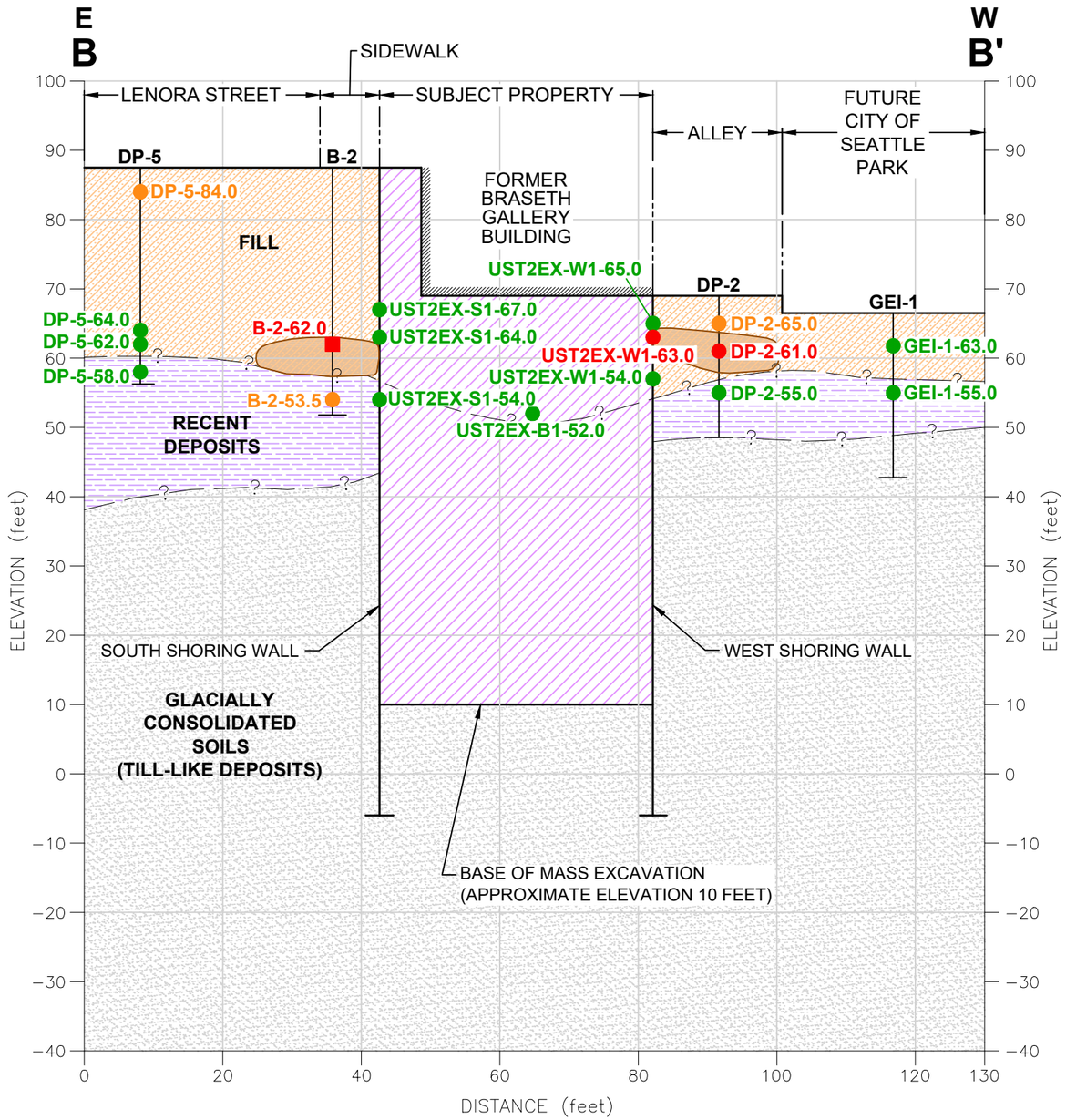
1. The subsurface conditions shown are based on interpolation between widely spaced explorations and should be considered approximate; actual subsurface conditions may vary from those shown.
2. Refer to Figure 7 for location of Cross Section.
3. This figure is for informational purposes only. It is intended to assist in the identification of features discussed in a related document. Data were compiled from sources as listed in this figure. The data sources do not guarantee these data are accurate or complete. There may have been updates to the data since the publication of this figure.
4. Figure sourced from GeoEngineers, Cross Section C-C' Figure 7, 2016.

Cross Section A-A'

Cleanup Action Report
820 Lenora Street
Seattle, Washington

Aspect CONSULTING	SEP-2019	BY: FK / TDR	FIGURE NO. 8
	PROJECT NO. 170291	REV BY: ---	

GIS Path: T:\Templates\1117_Landscape.mxd || Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet || Date Saved: 6/2/2014 || User: ecrumbaker || Print Date: 6/9/2014



Notes:

1. The subsurface conditions shown are based on interpolation between widely spaced explorations and should be considered approximate; actual subsurface conditions may vary from those shown.
2. Refer to Figure 7 for location of Cross Section.
3. This figure is for informational purposes only. It is intended to assist in the identification of features discussed in a related document. Data were compiled from sources as listed in this figure. The data sources do not guarantee these data are accurate or complete. There may have been updates to the data since the publication of this figure.
4. Figure sourced from GeoEngineers, Cross Section A-A' Figure 6, 2016.

Legend

- Soil sample with gasoline- and heavy oil-range hydrocarbons and toluene detections greater than MTCA Method A Cleanup Levels
- Soil sample with MTCA exceedance for diesel- and heavy oil-range hydrocarbons and PAHs
- Soil sample with petroleum hydrocarbons and PAHs detections less than MTCA Method A Cleanup Levels
- Soil sample non-detect for petroleum hydrocarbons and PAHs

MTCA Model Toxics Control Act

PAHs Polycyclic aromatic hydrocarbons

DP-2 Exploration and approximate location

Soil contact

Approximate thickness of residual MTCA exceeding petroleum- and PAHs- contaminated soil

Fill

Recent deposits

Glacially consolidated soils (till-like deposits)

Former Braseth Gallery building was demolished and soil at the subject property was excavated to an approximate Elevation of 7 feet, NAVD88, during mass excavation

0 20 40
Feet

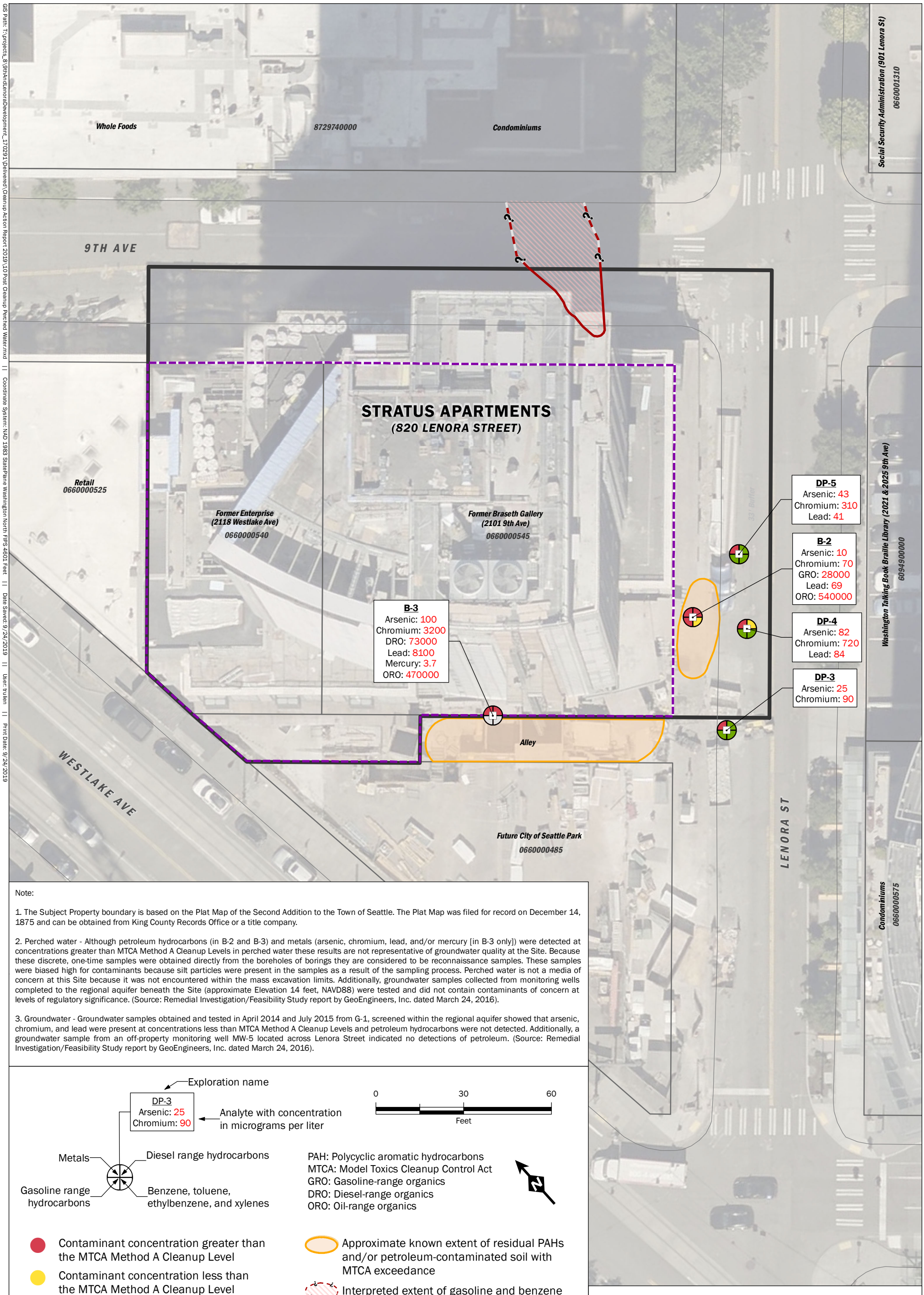
Cross Section B-B'

Cleanup Action Report
820 Lenora Street
Seattle, Washington

Aspect Consulting	SEP-2019	BY: FK / TDR	FIGURE NO. 9
	PROJECT NO. 170291	REV BY: ---	

GIS Path: T:\Templates\1117_Landscape.mxd || Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet || Date Saved: 6/2/2014 || User: ecrumbaker || Print Date: 6/9/2014

GIS Path: T:\projects_8\9thAndLenoraDevelopment_170291\Delivered\Cleanup Action Report 2019\10 Post Cleanup Perched Water.mxd || Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet || Date Saved: 9/24/2019 || User: trullen || Print Date: 9/24/2019



Note:

1. The Subject Property boundary is based on the Plat Map of the Second Addition to the Town of Seattle. The Plat Map was filed for record on December 14, 1875 and can be obtained from King County Records Office or a title company.

2. Perched water - Although petroleum hydrocarbons (in B-2 and B-3) and metals (arsenic, chromium, lead, and/or mercury [in B-3 only]) were detected at concentrations greater than MTCA Method A Cleanup Levels in perched water these results are not representative of groundwater quality at the Site. Because these discrete, one-time samples were obtained directly from the boreholes of borings they are considered to be reconnaissance samples. These samples were biased high for contaminants because silt particles were present in the samples as a result of the sampling process. Perched water is not a media of concern at this Site because it was not encountered within the mass excavation limits. Additionally, groundwater samples collected from monitoring wells completed to the regional aquifer beneath the Site (approximate Elevation 14 feet, NAVD88) were tested and did not contain contaminants of concern at levels of regulatory significance. (Source: Remedial Investigation/Feasibility Study report by GeoEngineers, Inc. dated March 24, 2016).

3. Groundwater - Groundwater samples obtained and tested in April 2014 and July 2015 from G-1, screened within the regional aquifer showed that arsenic, chromium, and lead were present at concentrations less than MTCA Method A Cleanup Levels and petroleum hydrocarbons were not detected. Additionally, a groundwater sample from an off-property monitoring well MW-5 located across Lenora Street indicated no detections of petroleum. (Source: Remedial Investigation/Feasibility Study report by GeoEngineers, Inc. dated March 24, 2016).

PAH: Polycyclic aromatic hydrocarbons
MTCA: Model Toxics Cleanup Control Act
GRO: Gasoline-range organics
DRO: Diesel-range organics
ORO: Oil-range organics

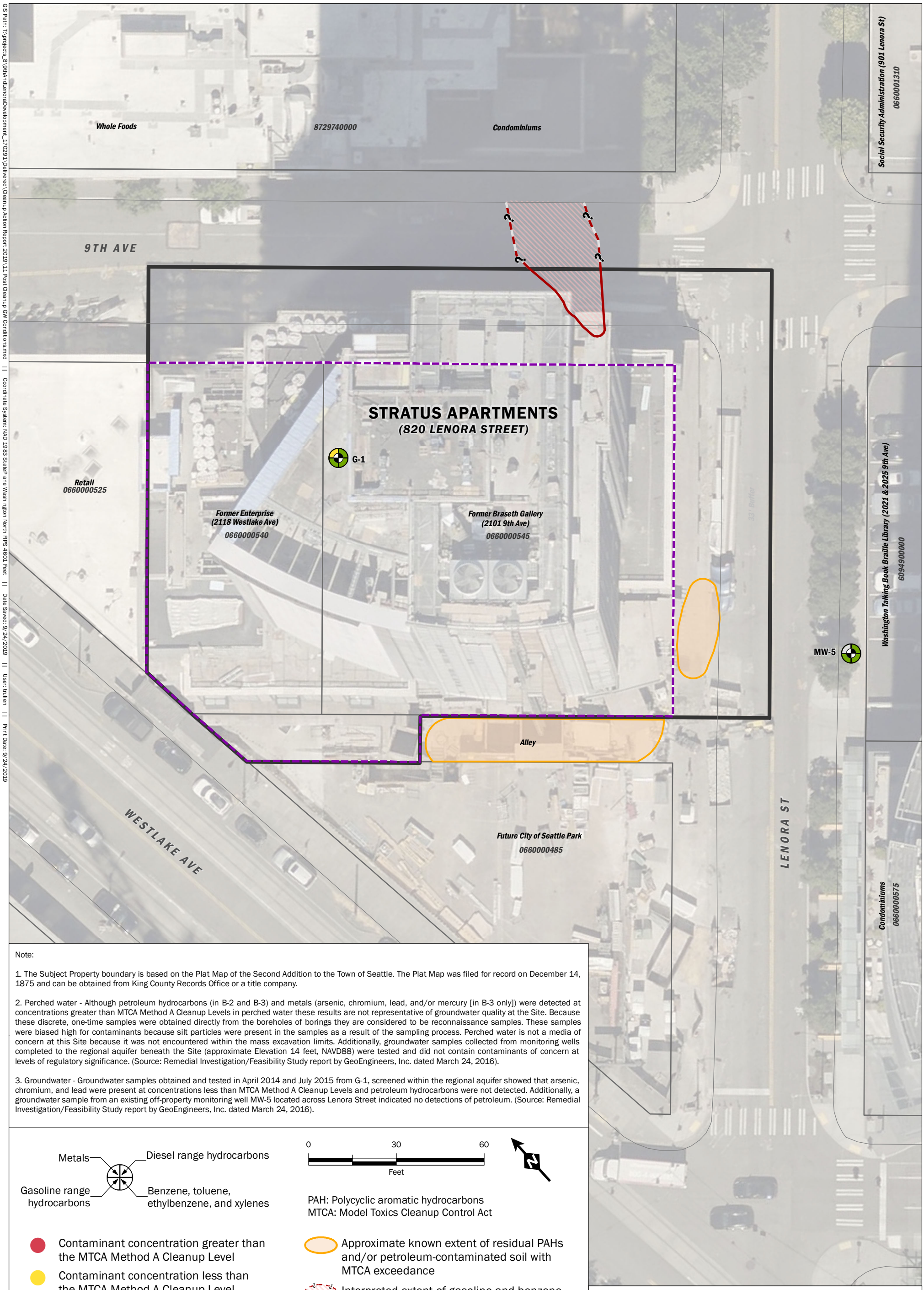
- Contaminant concentration greater than the MTCA Method A Cleanup Level
- Contaminant concentration less than the MTCA Method A Cleanup Level
- Contaminant not detected
- Sample not submitted for analyte testing
- Perched Water Sample from Soil Boring
- Mass excavation limits
- Approximate known extent of residual PAHs and/or petroleum-contaminated soil with MTCA exceedance
- Interpreted extent of gasoline and benzene contaminated soil with MTCA exceedance at Subject Property from an off property source
- Subject Property
- King County Parcel
- 0660000545 Parcel Number

Post-Cleanup Perched Water Conditions at the Subject Property and Vicinity

Cleanup Action Report
820 Lenora Street
Seattle, Washington

Aspect Consulting	SEP-2019	BY: FK / KES	FIGURE NO. 10
	PROJECT NO. 170291	REVISED BY: TDR	

Basemap Layer Credits || Pictometry, King County



Note:

1. The Subject Property boundary is based on the Plat Map of the Second Addition to the Town of Seattle. The Plat Map was filed for record on December 14, 1875 and can be obtained from King County Records Office or a title company.

2. Perched water - Although petroleum hydrocarbons (in B-2 and B-3) and metals (arsenic, chromium, lead, and/or mercury [in B-3 only]) were detected at concentrations greater than MTCA Method A Cleanup Levels in perched water these results are not representative of groundwater quality at the Site. Because these discrete, one-time samples were obtained directly from the boreholes of borings they are considered to be reconnaissance samples. These samples were biased high for contaminants because silt particles were present in the samples as a result of the sampling process. Perched water is not a media of concern at this Site because it was not encountered within the mass excavation limits. Additionally, groundwater samples collected from monitoring wells completed to the regional aquifer beneath the Site (approximate Elevation 14 feet, NAVD88) were tested and did not contain contaminants of concern at levels of regulatory significance. (Source: Remedial Investigation/Feasibility Study report by GeoEngineers, Inc. dated March 24, 2016).

3. Groundwater - Groundwater samples obtained and tested in April 2014 and July 2015 from G-1, screened within the regional aquifer showed that arsenic, chromium, and lead were present at concentrations less than MTCA Method A Cleanup Levels and petroleum hydrocarbons were not detected. Additionally, a groundwater sample from an existing off-property monitoring well MW-5 located across Lenora Street indicated no detections of petroleum. (Source: Remedial Investigation/Feasibility Study report by GeoEngineers, Inc. dated March 24, 2016).

PAH: Polycyclic aromatic hydrocarbons
MTCA: Model Toxics Cleanup Control Act

- Contaminant concentration greater than the MTCA Method A Cleanup Level
- Contaminant concentration less than the MTCA Method A Cleanup Level
- Contaminant not detected
- Sample not submitted for analyte testing
- Groundwater Sample from Former Monitoring Well
- Mass excavation limits
- Approximate known extent of residual PAHs and/or petroleum-contaminated soil with MTCA exceedance
- Interpreted extent of gasoline and benzene contaminated soil with MTCA exceedance at Subject Property from an off property source
- Subject Property
- King County Parcel
- 0660000545 Parcel Number

Post-Cleanup Groundwater Conditions at the Subject Property and Vicinity

Cleanup Action Report
820 Lenora Street
Seattle, Washington

Aspect Consulting	SEP-2019	BY: FK / KES	FIGURE NO. 11
	PROJECT NO. 170291	REVISED BY: TDR	

Basemap Layer Credits || Pictometry, King County

GIS Path: T:\projects_8\9thAndLenoraDevelopment_170291\Delivered\Cleanup Action Report 2019\11 Post Cleanup GW Conditions.mxd || Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet || Date Saved: 9/24/2019 || User: trullen || Print Date: 9/24/2019

GIS Path: T:\projects_8\9thAndLenoraDevelopment_170291\Delivered\Cleanup Action Report 2019\12 Environmental Covant Areas.mxd || Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet || Date Saved: 9/24/2019 || User: trullen || Print Date: 9/24/2019

Whole Foods

8729740000

Condominiums

Social Security Administration (901 Lenora St)
0660001310

9TH AVE

STRATUS APARTMENTS
(820 LENORA STREET)

Retail
0660000525

Former Enterprise
(2118 Westlake Ave)
0660000540

Former Braseth Gallery
(2101 9th Ave)
0660000545

33' Buffer

Washington Talking Book Braille Library (2021 & 2025 9th Ave)
6094900000

Alley

WESTLAKE AVE

LENORA ST

Future City of Seattle Park
0660000485

Condominiums
0660000575

Retail
0660000500

Note:

1. The Subject Property boundary is based on the Plat Map of the Second Addition to the Town of Seattle. The Plat Map was filed for record on December 14, 1875 and can be obtained from King County Records Office or a title company.

- Mass excavation limits
- Approximate known extent of residual PAHs and/or petroleum-contaminated soil with MTCA exceedance
- Interpreted extent of gasoline and benzene contaminated soil with MTCA exceedance at Subject Property from an off property source
- Subject Property
- King County Parcel
- 0660000545 Parcel Number

0 30 60
Feet

MTCA: Model Toxics Cleanup Control Act
PAH: Polycyclic aromatic hydrocarbons

Subject Property- Environmental Covenant Areas

Cleanup Action Report
820 Lenora Street
Seattle, Washington

Aspect Consulting	SEP-2019	BY: FK / KES	FIGURE NO. 12
	PROJECT NO. 170291	REVISED BY: TDR	

Basemap Layer Credits || Pictometry, King County

APPENDIX A

2017 Property-Specific No Further Action Letter

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
Northwest Regional Office • 3190 160th Ave SE • Bellevue, WA 98008-5452 • 425-649-7000
711 for Washington Relay Service • Persons with a speech disability can call 877-833-6341

November 14, 2017

Mr. Jeff Lowenberg
Ninth and Lenora, LLC
125 High Street, 27th Floor
Boston, MA 02110

Re: No Further Action at a Property associated with a Site:

- **Site Name:** Lenora Building
- **Site Address:** 2101 9th Avenue, Seattle, Washington 98121
- **Facility/Site No.:** 91413494
- **Cleanup Site ID No.:** 1802
- **VCP Project No.:** NW2980

Dear Mr. Lowenberg:

The Washington State Department of Ecology (Ecology) received your request for an opinion on your proposed independent cleanup of the **Lenora Building** (Site). This letter provides our opinion. We are providing this opinion under the authority of the Model Toxics Control Act (MTCA), Chapter 70.105D RCW.

Issues Presented and Opinion

1. Is further remedial action necessary at the Property to clean up contamination associated with the Site?

   NO. Ecology has determined that no further remedial action is necessary at the Property to clean up contamination associated with the Site.

2. Is further remedial action still necessary elsewhere at the Site?

   YES. Ecology has determined that further remedial action is still necessary elsewhere at the Site.

This opinion is based on an analysis of whether the remedial action meets the substantive requirements of MTCA, Chapter 70.105D RCW, and its implementing regulations, Chapter 173-340 WAC (collectively "substantive requirements of MTCA"). The analysis is provided below.

Description of the Property and the Site

This opinion applies only to the Property and the Sire described below. This opinion does not apply to any other site that may affect the Property. Any such sites, if known, are identified separately below.

1. **Description of the Property.**

   The Property includes the following two tax parcels in King County, which was affected by the Site and will be addressed by your cleanup:

   - 0660000540
   - 0660000545

   Enclosure A includes a legal description of the Property. **Enclosure B** includes a diagram of the Site that illustrates the location of the Property within the Site.

2. **Description of the Site.**

   The Site is defined by the nature and extent of contamination associated with the following releases:

   - Gasoline-range petroleum hydrocarbons (TPH-G), Diesel-range petroleum hydrocarbons (TPH-D), Oil-range petroleum hydrocarbons (TPH-O), benzene, xylenes, lead, and carcinogenic PAHs (cPAHs) into the Soil.

   Enclosure B includes a detailed description and diagram of the Site, as currently known to Ecology.

3. **Identification of Other Sites that may affect the Property.**

Please note a parcel of real property can be affected by multiple sites. At this time, we have no information that the Property is affected by other Sites.

The Property does not include Lenora Street and the adjacent alley right-of-ways located south and west of the Lenora Building.

Basis for the Opinion

This opinion is based on the information contained in the following documents:

1. GeoEngineers, Inc., *Construction Contingency Plan, Contaminated Soil and Groundwater Management, 9th and Lenora Development, 2118 Westlake Avenue/2101 9th Avenue, Seattle, Washington,* dated December 12, 2014.

2. GeoEngineers, Inc., *Northeast Heating Oil UST Removal and Site Assessment Report; 9th and Lenora Development, 2118 Westlake Avenue/2101 9th Avenue, Seattle, Washington,* dated July 13, 2015.

3. GeoEngineers, Inc., *Remedial Investigation/Feasibility Study, Ninth and Lenora Redevelopment, 2101 9th Avenue, Seattle, Washington, VCP Project No. NW2980,* dated March 24, 2016.

4. GeoEngineers, Inc., *Cleanup Action Report, Ninth and Lenora Redevelopment, 2101 9th Avenue, Seattle, Washington, VCP Project No. NW2980,* dated March 24, 2016.

Those documents are kept in the Central Files of the Northwest Regional Office of Ecology (NWRO) for review by appointment only. You can make an appointment by calling the NWRO resource contact at 425.649.7235 or via email at NWRO_public_request@ecy.wa.gov.

This opinion is void if any of the information contained in those documents is materially false or misleading.

Analysis of the Cleanup

1. Cleanup of the Property located within the Site.

Ecology has concluded that **no further remedial action** is necessary at the Property to clean up contamination associated with the Site. That conclusion is based on the following analysis:

a. Characterization of the Site.

Ecology has determined your characterization of the Site is sufficient to establish cleanup standards for the Site and select a cleanup for the Property. The Site is described above and in **Enclosure B.**

b. Establishment of cleanup standards for the Site.

Ecology has determined the cleanup levels and points of compliance you established for the Site meet the substantive requirements of MTCA.

Soil:

Current Site uses include commercial businesses to which the public has access, so unrestricted land use is the appropriate basis for development of soil cleanup levels. The following potential exposure/risk pathways were appropriate to consider:

- Human health protection from direct soil contact pathway exposure.
- Human health protection from soil-to-groundwater pathway exposure.
- Human health protection from soil-to-air pathway exposure.
- Human health protection from soil-to-surface water pathway exposure.
- Terrestrial ecological protection.

Because the Site has relatively few contaminants, MTCA Method A can be used as cleanup levels for the Site contaminants of concern.

Appropriate soil cleanup levels are the WAC 173-340 Table 740-1 Method A values of 30 milligrams per kilogram (mg/kg) for gasoline-range organics when benzene is present, 0.03 mg/kg for benzene, 7 mg/kg for toluene, 6 mg/kg for ethylbenzene, 9 mg/kg for xylenes, 2,000 mg/kg for diesel-range organics and 2,000 mg/kg for oil-range organics.

Soil cleanup levels protective of terrestrial ecological species are also potentially applicable. However, they are deemed not applicable as this Site meets the simplified Terrestrial Ecological Evaluation (TEE) exclusion criteria (Table 749-1 of WAC 173-340-7492(2)(a)(ii)). The land use at the Property and surrounding area makes substantial wildlife exposure unlikely. The Site also meets the initial TEE exclusion criteria (MTCA WAC 173-340-7491(1)(c)(i). There are less than 1.5 acres of contiguous undeveloped land on or within 500 feet of any part of the Site.

The point of compliance for protection of human health (direct contact) for soil is throughout the Site to a depth of 15 feet below the ground surface. The standard point of compliance for soil for the protection of ground water is throughout the Site.

Ground Water:

Cleanup levels were set for ground water based on its potential use as a drinking water source. The MTCA Method A cleanup levels are appropriate for this purpose, and were selected as the cleanup levels for this Site.

Appropriate ground water cleanup levels are the WAC 173-340
Table 720-1 Method A values.

The point of compliance for ground water is throughout the Site from the uppermost level of the unsaturated zone extending vertically to the lowest most depth which could potentially be affected by the Site.

Soil Gas:

The soil vapor intrusion pathway is not an issue at this Site. For the vapor intrusion pathway to be considered complete, there must be three components: a source of volatile compounds in the subsurface environment (ground water and soil), building(s), and a migration route to connect them.

All contaminated soil associated with the releases were removed from the Property, and the shallow ground water was fully removed throughout the Property boundary upon completion of the building construction and redevelopment.

c. **Selection of cleanup of the Property.**

Ecology has determined the cleanup action you selected for the Property meets the substantive requirements of MTCA. The cleanup meets minimum cleanup requirements and does not exacerbate conditions or preclude reasonable cleanup alternatives elsewhere at the Site.

The selected cleanup consisted of the excavation and removal of approximately 14,550 tons of petroleum-contaminated soil (contaminated with the COCs TPH-G, PAHs, benzene, xylenes, and lead), and which were transported off-Site to a regulated facility. The cleanup also consisted of the removal of a closed-in-place petroleum UST with fill ports and piping; a hydraulically operated steel elevator shaft and a concrete vault; and an undocumented heating oil tank. Confirmation soil samples confirmed that all PCS was excavated and removed from the heating tank location.

These actions meet the minimum requirements in WAC 173-340-360(2) because they are protective of human health and the environment, comply with the selected cleanup standards, comply with applicable state and federal laws and provide for compliance monitoring. The selected cleanup action used permanent solutions to the maximum extent practicable (source removal and off-Site disposal) and provided a reasonable restoration time frame.

d. Cleanup of the Property.

Ecology has determined the cleanup you performed meets the applicable Site cleanup standards within the Property.

The cleanup performed consisted of the excavation and removal of approximately 14,550 tons of petroleum-contaminated soil which were transported off-Site to the Waste Management (WM) transfer station in Seattle, Washington for rail haul and permitted disposal at the WM subtitle D landfill in Arlington, Oregon.

The lateral and vertical extent of petroleum-impacted soil had been adequately defined upon the completion of Site investigation, cleanup action, and confirmation soil sampling. Soil analytical results of confirmation samples were below MTCA Method A cleanup levels for the contaminants of concern. Ground water (perched) was not encountered during excavation associated with mass construction of the Property.

A hydraulically-operated steel elevator shaft and a concrete vault that housed a hydraulic hoist were removed during Property redevelopment and construction between June and August 2015. Confirmation samples confirmed that soil below the former elevator shaft and vault was not impacted.

A closed-in-place steel diesel tank (UST #2), along with associated piping and petroleum-contaminated soil were removed from the south portion of the Property. Confirmation soil samples confirmed that all petroleum-contaminated soil was excavated and removed from within the Property boundaries. Note that a gasoline UST (UST#1) was removed from the Property in 2002.

Residual petroleum-contaminated soil (exceeding MTCA Method A cleanup levels) remains in place outside the west Property boundary in a limited portion of an alley owned by the City of Seattle.

An undocumented heating oil tank (UST #3) was discovered during Property redevelopment and construction. The UST was excavated and removed along with petroleum-contaminated soil between June 2015 and August 2015. Confirmation samples confirmed that all petroleum-contaminated soil was excavated and removed from the UST#3 location.

Regional ground water was determined to be 53 to 55 feet bgs (elevation 14 to 16 feet above mean sea level (msl)) based on the results of ground water monitoring well MWG-1 which was installed prior to Property redevelopment and construction activities. Ground water was determined to be uncontaminated above COC MTCA Method A cleanup levels based on the analytical results of ground water samples collected from on-Property monitoring well MWG-1 and from on off-Property monitoring well MW-5 which was screened from 42 to 58 feet below the ground surface (bgs). These well locations are considered representative of ground water on the Site. Perched ground

water was encountered in localized, discontinuous locations during subsurface explorations, but was not encountered during excavation related to mass construction of the Property.

Based on the deep regional ground water table, the estimated extent of vertical separation (greater than 40 feet) between regional ground water and contaminated fill soil, and ground water sampling data, the soil to groundwater pathway for contaminant migration is most likely incomplete. The potential source of contaminated shallow ground water (the petroleum-contaminated soil) was excavated and removed from the Property and the regional ground water is not contaminated.

2. Cleanup of the Site as a whole.

Ecology has concluded that **further remedial action** under MTCA is still necessary elsewhere at the Site. In other words, while your cleanup constitutes the final action for the Property, it constitutes only an **"interim action"** for the Site as a whole.

Documentation has been provided which specifies that beyond the Property boundary a limited volume of petroleum- and PAH-contaminated soil is present beneath a portion of the adjacent Lenora Street sidewalk and the southeast portion of the alley (rights-of-ways located south and west of the Lenora Building Property: the Site).

- Lenora Street: Soil contaminated with TPH-G, TPH-D, TPH-O, benzene, xylenes, lead, and cPAHs above MTCA Method A is located approximately 24 feet bgs (under the street). Several utility corridors are present in Lenora Street that precluded further investigation.
- Alley: Utilities and additional infrastructure elements (concrete footings and walls) are present in the alley.
- In a regional aquifer underlying the Site, ground water occurs at 53 to 55 feet bgs; (near elevations 14 to 16 feet above msl).
- Lenora Street and the alley are currently capped with asphalt so there is some control of surface water and the infiltration of precipitation.

Listing of the Site

Based on this opinion, Ecology will update the status of remedial action at the Site on our database of hazardous waste sites. However, because further remedial action is still necessary elsewhere at the Site, we will not remove the Site from our lists of hazardous waste sites. Furthermore, the Property will remain listed as part of the Site because the cleanup of the Property does not change the boundaries of the Site.

Limitations of the Opinion

1. Opinion does not settle liability with the state.

Liable persons are strictly liable, jointly and severally, for all remedial action costs and for all natural resource damages resulting from the release or releases of hazardous substances at the Site. This opinion **does not**:

- Change the boundaries of the Site.
- Resolve or alter a person's liability to the state.
- Protect liable persons from contribution claims by third parties.

To settle liability with the state and obtain protection from contribution claims, a person must enter into a consent decree with Ecology under RCW 70.105D.040(4).

2. Opinion does not constitute a determination of substantial equivalence.

To recover remedial action costs from other liable persons under MTCA, one must demonstrate that the action is the substantial equivalent of an Ecology-conducted or Ecology-supervised action. This opinion does not determine whether the action you performed is substantially equivalent. Courts make that determination. *See* RCW 70.105D.080 and WAC 173-340-545.

3. State is immune from liability.

The state, Ecology, and its officers and employees are immune from all liability, and no cause of action of any nature may arise from any act or omission in providing this opinion. *See* RCW 70.105D.030(1)(i).

Termination of Agreement

Thank you for cleaning up your Property under the Voluntary Cleanup Program (VCP). This opinion terminates the VCP Agreement governing this project (VCP# NW2980). If you should decide to clean up the remainder of the Site, please do not hesitate to reapply and request additional services under the VCP.

For more information about the VCP and the cleanup process, please visit our web site: www.ecy.wa.gov/programs/tcp/vcp/vcpmain.htm. If you have any questions about this opinion or the termination of the Agreement, please contact me by phone at 425-649-4422, or via email at gcar461@ecy.wa.gov.

Sincerely,

Glynis A. Carrosino, Project Manager
Toxics Cleanup Program, NWRO

Enclosures (2): A – Legal Description of the Property
B – Description and Diagrams of the Site (including the Property)

By Certified Mail: [9171 9690 0935 0163 8405 95]

cc: Fasih Khan, Aspect Consulting LLC
Matt Alexander, VCP Financial Manager, Ecology
Sonia Fernandez, NWRO VCP Coordinator, Ecology

Enclosure A

Legal Description

BELL HEIRS OF S A 2ND ADD E OF WESTLAKE BLVD
Plat Block 24
Plat Lot 10

BELL HEIRS of S A 2nd ADD

Enclosure B

Description and Diagrams of the Site

Site Description

This section provides Ecology's understanding and interpretation of Site conditions, and is the basis for the opinions expressed in the body of the letter.

Site: The Site is defined by the release of diesel- and oil-range total petroleum hydrocarbons (TPH-D and TPH-O respectively) to soil associated with historical boiler and furnace/heating systems of the former property buildings, Underground Storage Tanks (USTs), and historic property uses. The Site is located at 2101 9th Avenue, in Seattle, Washington (Property).

Area and Property Description: The Property consists of two King County tax parcels encompassing approximately 0.49 acres. The north parcel is King County Parcel # 0660000540, and the south parcel is King County Parcel #0660000545. The Property does not include Lenora Street and the adjacent alley right-of-ways located south and west of the Lenora Building Property.

The Property is located in the Denny Triangle neighborhood and bounded to the north by retail properties, 9th Avenue to the east, Lenora Street to the south, and a public alley to the west in downtown Seattle, Washington. The Property is currently under construction as Stratus, a development consisting of a 42-story residential tower with ground level retail and six levels of subgrade parking. The construction of the exterior of the building has been completed, with the building interior in process. Land use surrounding the Site includes commercial businesses, residential apartments and condominiums.

Property History and Current Use: Early use of the Property was as a wood yard, printing facility, metal shop and a vehicle servicing/auto restoration garage. Additional historic facilities were identified: a former boiler room, chimney and furnace systems, former car wash area, printing facility and metal shops. USTs located on the Property consisted of: one former petroleum UST, (which was removed in 2002), one closed-in-place petroleum UST with fill ports and piping, and a heating oil UST.

Key details:
Based on the historic fire insurance (Sanborn) maps, the North parcel (Parcel #0660000540) was undeveloped in 1905. A small structure and parking were present on the parcel in 1936. Later, a single-story office building with a basement was constructed between 1946 and 1948 and was used by a vehicle company for car sales, storage and repair. A boiler house was also present on the parcel and the building was heated by hot water and an oil burner. In 1980, an underground tunnel was constructed in order to provide access to the basement of the single-story building from the underground parking garage located on parcel #0660000485. Westlake Chevrolet Company owned the north parcel from 1946 until the mid-1980s (for car sales and possibly auto repair).

The parcel was occupied by a used car sales office until 1990s and the prior owner indicated that fill from an unknown source may have been brought to the parcels during the construction of the building.

Based on the historic fire insurance (Sanborn) maps and tax assessment records, the South Parcel (Parcel # 0660000545) was undeveloped from at least 1893 until approximately 1905 when a "wood yard" was located on the parcel. This parcel was owned by a lumber company from 1905 to 1924. A two-story office/retail building on the parcel was constructed in 1924 as a garage. The building was originally heated by an oil burner. The parcel was used as an auto repair facility between the 1940s and the 1970s. Later, the parcel was used as a printing facility during the 1980s and 1990s, and included a camera area, dark room and bindery area. A metal shop is shown in the west corner of the basement in 1998 building plans. Cornish College Cornish College of Arts then owned the parcel since 2003.

The northern parcel was the former location of an Enterprise care rental company. The southern parcel was the former location of a two-story office/warehouse building with a garage below. The Property is currently under construction (building exterior is completed) as a Stratus development.

Contaminant Source and History: Sources of contamination include historical boiler and furnace/chimney systems of the former property buildings, USTs (UST#1 was removed in 2002; UST#2 with associated piping was closed in place; and UST#3 was a previously undocumented heating oil tank), and historic property uses such as a wood yard, printing facility, metal shops, and former vehicle servicing/washing/restoration facility, and undocumented fill that was imported to the Property. Because of the sloping nature of the Site from 9th Avenue down to the alley at the west side of the Property, the construction excavation extended from starting elevations of about 87 feet above mean sea level (msl) (high side near 9th Avenue) to 69 feet above msl (low side near the alley) to a bottom construction excavation of about elevation 7 feet above msl. Contaminated soil occurred within the upper 20 feet of fill soil at the Property.

All contaminated soil associated with the releases were removed from the Property, and shallow perched ground water was fully removed throughout the Property boundary upon completion of the remedial excavation conducted as part of the redevelopment.

Physiographic Setting: The Property is located within the Puget Lowland physiographic province, a broad, low-lying region situated between the Cascade Range to the east and the Olympic Mountains to the west. The Property grades drop about 10 feet from southeast to northwest. The alley along the west side of the Property historically provided access to the lowest level of the former building and slopes down near Westlake Avenue to the entrance of the former 2101 9th Avenue building. The alley does not extend through to Lenora Street. A permanent slope currently exists between the end of the alley and Lenora Street.

Surface/Storm Water System: Lake Union is located approximately 3,000 feet north of the Property. Elliott Bay is located approximately 3,000 feet southwest of the Property.

Ecological Setting: The Property is covered with a building (exterior is completed). Land surrounding the Site is primarily covered with buildings, asphalt and concrete with small landscaped areas.

Geology: The Property is underlain by relatively shallow fill overlying recent deposits and competent glacially consolidated soils. Fill generally consists of loose to medium dense silty sand with variable gravel and cobble content and occasional brick, charcoal or wood debris. Based on historical research, the block is located on the eastern edge of the 1928 to 1930 Denny Regrade, and portions of this area are reported to have up to 25 feet of fill added as part of the historical regrading process. The thickness of fill encountered in the explorations completed at the Site ranged from approximately 6 to 15 feet.

The recent deposits consist of soft to hard silt and clay with occasional sand interbeds and variable gravel content or medium dense to dense sand with variable silt and gravel content. The glacially consolidated soils were encountered below the fill and recent deposits. The glacially consolidated soils encountered in the explorations were till deposits, which consist of very dense silty sand.

Ground Water: Perched ground water was encountered intermittently in some of the Site characterization explorations completed during remedial investigations. No perched water was encountered within the mass excavation limits at the Property. The static ground water level associated with the regional aquifer was measured in former monitoring well MWG-1 in 2013 and 2014. The measured depths ranged from approximately 53.30 to 55.39 feet bgs (approximate elevations 16 and 14 feet above msl) respectively, at the MWG-1 location.

Water Supply: Seattle Public Utilities (SPU) provides drinking water to the building. The Cedar and the South Fork Tolt River Watersheds in eastern King County are the two sources for potable water supplied by SPU.

Release and Extent of Soil and Ground Water Contamination:
Petroleum hydrocarbons (TPH-G, TPH-D, and TPH-O), Benzene, Xylenes, Lead, and cPAHs were present in soil at the Property. Confirmation soil samples demonstrated that all identified soil contaminated above MTCA Method A cleanup levels was removed from the Property, and that a portion of Site soil contaminants exceeding MTCA Method A cleanup levels extended beyond the Property boundaries. Petroleum-contaminated soil at concentrations exceeding MTCA Method A cleanup levels is present beneath a portion of the adjacent Lenora Street sidewalk and the southeast portion of the alley (rights-of-ways owned by the city of Seattle located south and west of the Lenora Building Property)

During remedial excavation activities, shallow ground water was encountered, was intermittent and did not yield significant quantities of recoverable water. This perched ground water, which did not constitute a continuous water-bearing zone, was fully removed throughout the Property boundary upon completion of the excavation during redevelopment. The depth of the regional ground water is approximately 55 to 75 feet bgs.

Site Diagrams

Office: Redmond Path: \\redfs\projects\212113800\GIS\2113800100_F1_VicinityMap.mxd Map Revised: 9/10/2014 EL

Site
Denny Park
Denny Playfield
Cascade Playground
Thomas Street Park
Bobby Morris Playfield
Boren Pike Pine Park
First Hill Park
Westlake Park
Victor Steinbrueck Park
Waterfront Park
Pioneer Square Park
City Hall Park
Kobe Terrace Park
Klondike Gold Rush NHP
Hing Hay Park
Hattonview Park
Freeway Park
Spring Street Park
McGilvra Place
Boylston Ave
Belmont Ave
Summit Ave
Bellevue Ave
Melrose Ave
Yale Ave
Minor Ave
Boren Ave
Terry Ave
Republican St
Harrison St
Thomas St
John St
Mercer St
Roy St
Aloha St
Prospect St
Denny Way
Olive Way
Pine St
Union St
Pike St
Spring St
Seneca St
University St
Columbia St
Cherry St
James St
Jefferson St
Madison St
Broadway
Terrace St
Federal Ave E
Belmont Pl E
Fairview Ave E
Franklin Ave E
Howe St
Garfield St
Galer St
Lee St
Highland Dr
Observatory Court
Queen Anne Greenbelt
Bhy Kracke Park
Ward Springs Park
Kerry Park
Highland Place
Parsons Gardens
Kinnear Park
Elliott Bay Park
Myrtle Edwards Park
Elliott Ave W
Queen Anne Ave N
1st Ave N
2nd Ave W
3rd Ave W
4th Ave W
6th Ave W
7th Ave W
Warren Ave N
Taylor Ave N
Dexter Ave N
Eldelow Ave N
Hayes St
Blaine St
W Queen Anne Pl
W Kinnear Pl
W Prospect St
W Roy St
W Harrison St
W John St
W Thomas St
W Lee St
W Galer St
W Garfield St
Lake Union
Bigelow Ave N
4th Ave N
5th Ave N
6th Ave N
7th Ave N
8th Ave N
9th Ave N
Taylor Ave N
Valley St
Aloha St
Ward St
Prospect St
Harrison St
Republican St
Thomas St
John

P:\21\21I5800\03\CAD\RIFS\21I5800_03_T500_RIFS_F2 REMEDIAL INVESTIGATIONS EXPLORATIONS.DWG\TAB:F2 MODIFIED BY SVI ON MAR 10, 2016 - 14:46

Legend:

- Subject Property Boundary
- Mass Excavation Limits
- DP-1 — Direct-Push Boring (GeoEngineers, Sep. 2014)
- E-2 — Soil Boring (GeoEngineers, Dec. 2013)
- G-1 — Monitoring Well (GeoEngineers, Dec. 2013)
- G-2 — Soil Boring (GeoEngineers, Dec. 2013)
- GEI-7 — Soil Boring (GeoEngineers, July 2013)
- MW-01 — Monitoring Well (GeoEngineers, July 2013)
- GEI-1 — Soil Boring (GeoEngineers, July 2007)
- HA-1 — Hand Auger Boring (GeoEngineers, Aug. 2002)
- B-2 — Direct-Push Boring (GeoEngineers, Aug. 2002)
- MW-5 — Offsite Monitoring Well (GeoEngineers, Sep. 1993)
- Catch Basin
- (2101 9TH AVE) — Property Address
- 0660000545 — Parcel Number
- UST — Underground Storage Tank
- CDF — Controlled Density Fill
- Parcel Line

N W E S

40 0 40
FEET

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. can not 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.

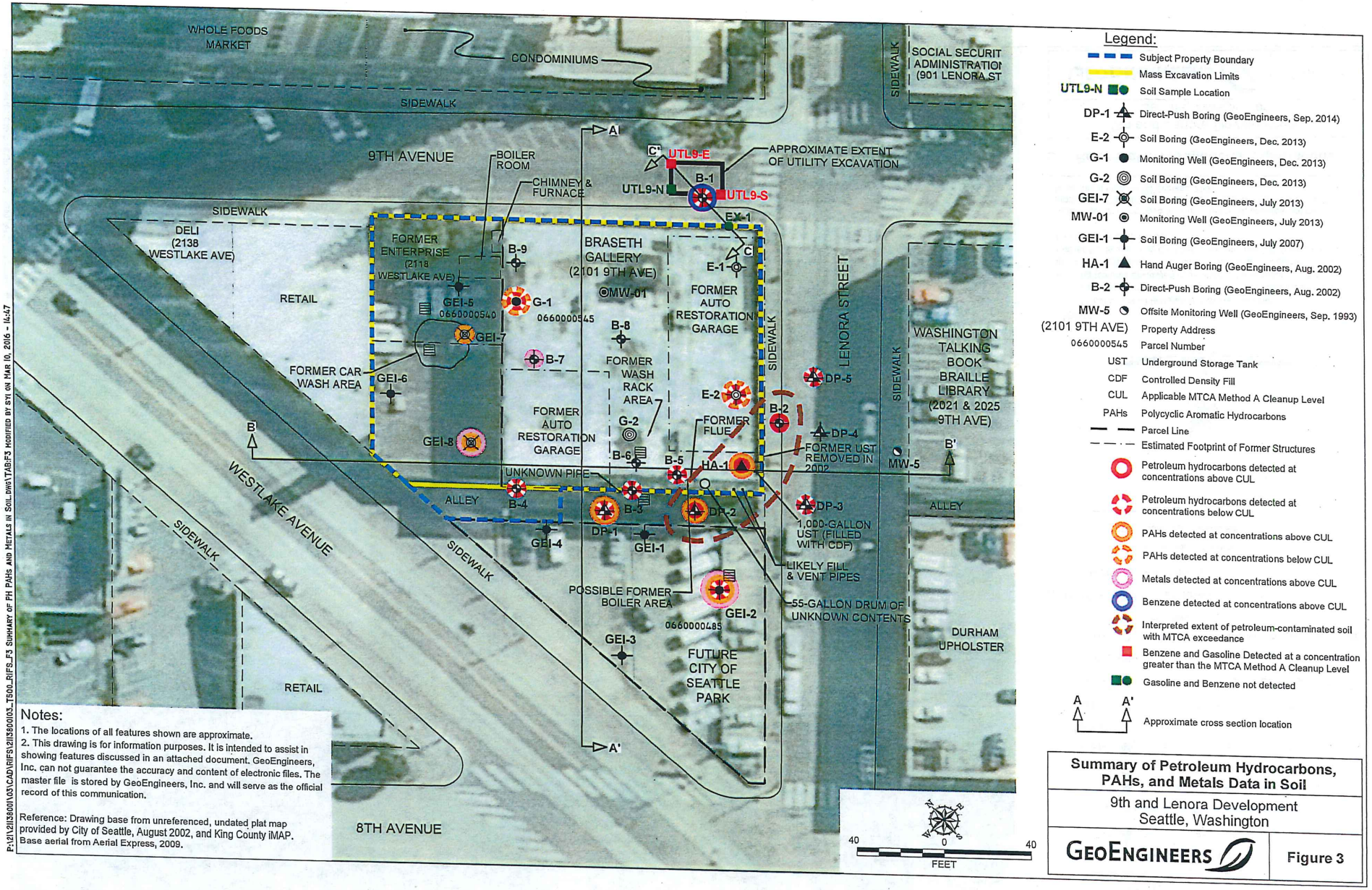
Reference: Drawing base from unreferenced, undated plat map provided by City of Seattle, August 2002, and King County iMAP. Base aerial from Aerial Express, 2009.

Remedial Investigations Explorations

9th and Lenora Development
Seattle, Washington

GeoEngineers

Figure 2



Notes:

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Reference: Drawing base from unreferenced, undated plat map provided by City of Seattle, August 2002, and King County iMAP. Base aerial from Aerial Express, 2009.

Legend:

- Subject Property Boundary
- Mass Excavation Limits
- UTL9-N — Soil Sample Location
- DP-1 — Direct-Push Boring (GeoEngineers, Sep. 2014)
- E-2 — Soil Boring (GeoEngineers, Dec. 2013)
- G-1 — Monitoring Well (GeoEngineers, Dec. 2013)
- G-2 — Soil Boring (GeoEngineers, Dec. 2013)
- GEI-7 — Soil Boring (GeoEngineers, July 2013)
- MW-01 — Monitoring Well (GeoEngineers, July 2013)
- GEI-1 — Soil Boring (GeoEngineers, July 2007)
- HA-1 — Hand Auger Boring (GeoEngineers, Aug. 2002)
- B-2 — Direct-Push Boring (GeoEngineers, Aug. 2002)
- MW-5 — Offsite Monitoring Well (GeoEngineers, Sep. 1993)
- (2101 9TH AVE) — Property Address
- 0660000545 — Parcel Number
- UST — Underground Storage Tank
- CDF — Controlled Density Fill
- CUL — Applicable MTCA Method A Cleanup Level
- PAHs — Polycyclic Aromatic Hydrocarbons
- Parcel Line
- Estimated Footprint of Former Structures
- Petroleum hydrocarbons detected at concentrations above CUL
- Petroleum hydrocarbons detected at concentrations below CUL
- PAHs detected at concentrations above CUL
- PAHs detected at concentrations below CUL
- Metals detected at concentrations above CUL
- Benzene detected at concentrations above CUL
- Interpreted extent of petroleum-contaminated soil with MTCA exceedance
- Benzene and Gasoline Detected at a concentration greater than the MTCA Method A Cleanup Level
- Gasoline and Benzene not detected
- A — A' — Approximate cross section location

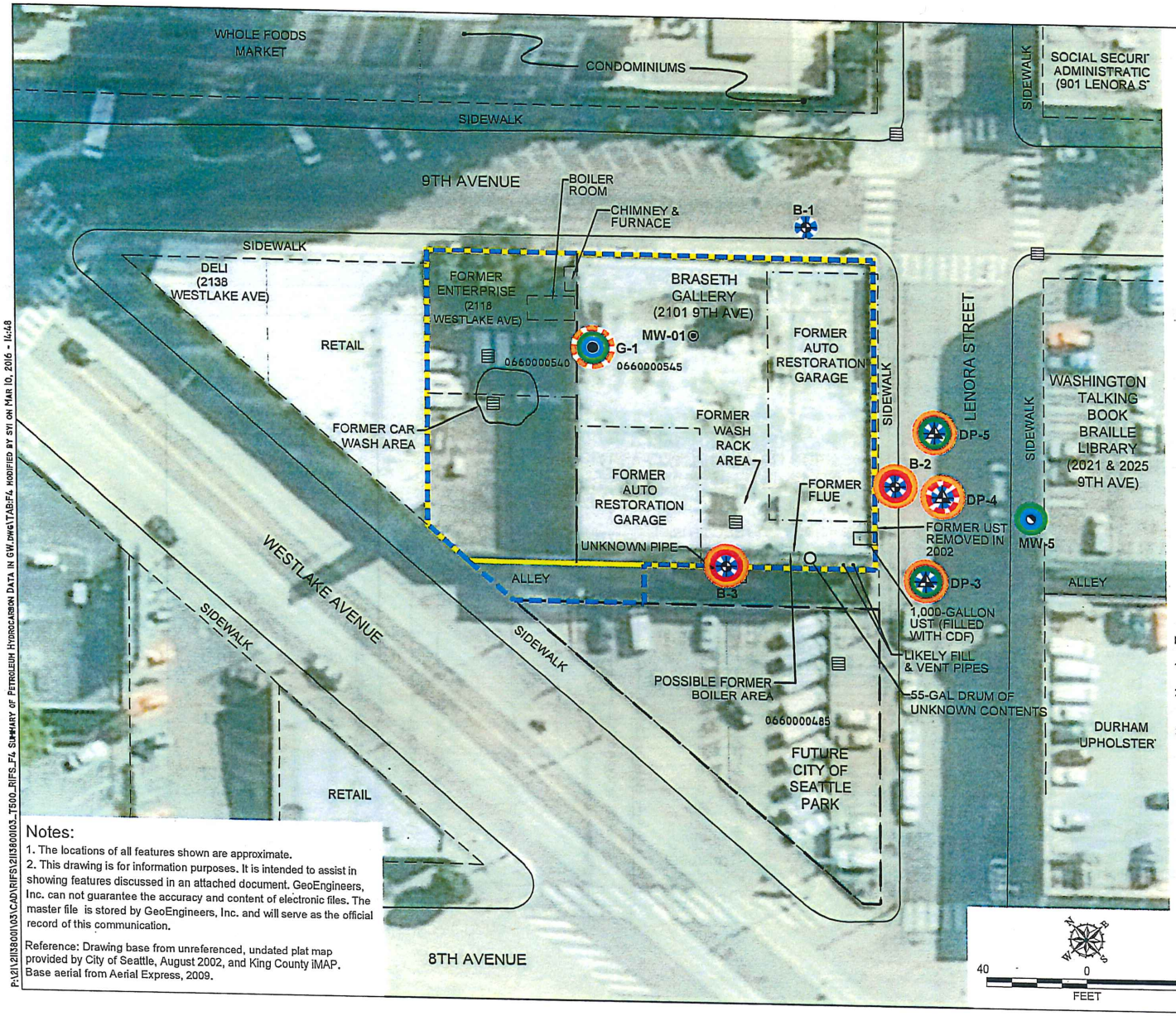
Summary of Petroleum Hydrocarbons, PAHs, and Metals Data in Soil

9th and Lenora Development
Seattle, Washington

GeoEngineers

Figure 3

P:\21\21380\01\03\CAD\RIFS\21380103_T500_RIFS_F3 SUMMARY OF PH PAHS AND METALS IN SOIL.DWG\TAB:F3 MODIFIED BY SYI ON MAR 10, 2016 - 14:47



Legend:

- Subject Property Boundary
- Mass Excavation Limits
- DP-1 Direct-Push Boring (GeoEngineers, Sep. 2014)
- G-1 Monitoring Well (GeoEngineers, Dec. 2013)
- MW-01 Monitoring Well (GeoEngineers, July 2013)
- B-2 Direct-Push Boring (GeoEngineers, Aug. 2002)
- MW-5 Offsite Monitoring Well (GeoEngineers, Sep. 1993)
- Catch Basin
- (2101 9TH AVE) Property Address
- 0660000545 Parcel Number
- UST Underground Storage Tank
- CDF Controlled-Density Fill
- CUL Applicable MTCA Method A Cleanup Level
- Parcel Line
- Estimated Footprint of Former Structures
- Groundwater Sample from Monitoring Well
- Perched Water Sample from Boring
- Petroleum hydrocarbons detected at concentrations above CUL
- Petroleum hydrocarbons detected at concentrations below CUL
- Metals detected at concentrations above CUL
- Metals detected at concentrations below CUL
- Petroleum hydrocarbons not detected

Notes:

1. Benzene was not detected in B-1.
2. MW-01 was dry. Monitoring wells G-1 and MW-01 were decommissioned in July 2015, prior to mass excavation.
3. The discrete, one-time perched water samples were obtained directly from the boreholes of borings B-2, B-3 in 2002 and DP-3, DP-4, and DP-5 in 2014. These perched water samples should be considered reconnaissance samples. These samples were biased high for metals because silt particles were incorporated into the sample bottles and do not represent groundwater conditions at the subject property. Sample G-1 obtained from a monitoring well is representative of groundwater quality, at the subject property. Sample MW-5 obtained from a monitoring well is representative of groundwater quality, at the Lenora Street. See report text for further explanation.

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. can not 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.

Reference: Drawing base from unreferenced, undated plat map provided by City of Seattle, August 2002, and King County iMAP. Base aerial from Aerial Express, 2009.

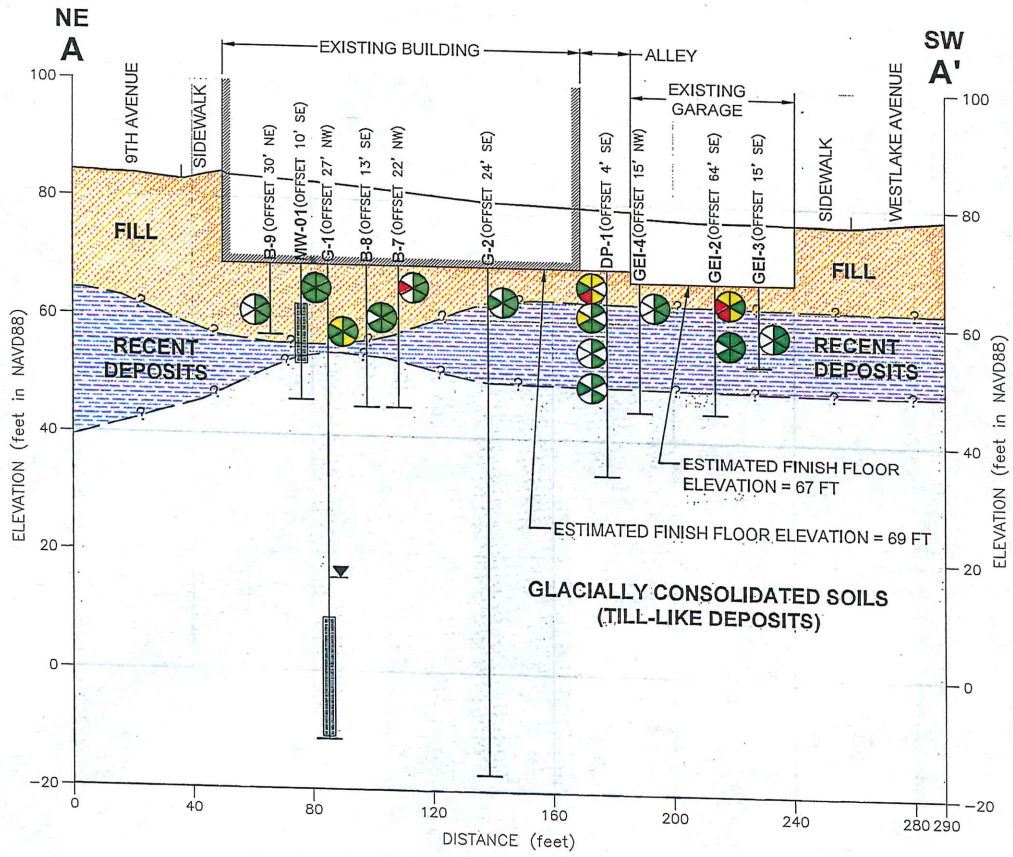
Summary of Petroleum Hydrocarbons and Metals Data in Perched Water and Groundwater

9th and Lenora Development
Seattle, Washington

GeoEngineers

Figure 4

P:\21\2113800\031\CAD\RIFS\2113800103_T600_RIFS_F4 SUMMARY OF PETROLEUM HYDROCARBON DATA IN GW.DWG\TAB:F4 MODIFIED BY SVI ON MAR 10, 2016 - 11:48



EXPLANATION:

Chemical Analytical Results of Discrete Soil Samples

PAHs — Diesel—Range Petroleum Hydrocarbons
Metals — Gasoline—Range Petroleum Hydrocarbons
cPAHs — Heavy Oil—Range Petroleum Hydrocarbons

- Detected at a concentration greater than the MTCA Method A Cleanup Level
- Detected at a concentration less than the MTCA Method A Cleanup Level
- Metals detected at concentrations similar to Natural Background Concentrations. Other analytes not detected
- Not Analyzed

PAHs — Polycyclic aromatic hydrocarbons

cPAHs — carcinogenic PAHs

B-7 (OFFSET 22' NW)

- Boring number and approximate location
- Groundwater level observed in monitoring well
- Perched groundwater observed during drilling
- Soil contact
- Screen location

- Fill
- Recent deposits
- Glacially consolidated soils (till-like deposits)

Notes:
1. The subsurface conditions shown are based on interpolation between widely spaced explorations and should be considered approximate; actual subsurface conditions may vary from those shown.
2. Refer to Figure 3 for location of Cross Section.
3. This figure is for informational purposes only. It is intended to assist in the identification of features discussed in a related document. Data were compiled from sources as listed in this figure. The data sources do not guarantee these data are accurate or complete. There may have been updates to the data since the publication of this figure. This figure is a copy of a master document. The master hard copy is stored by GeoEngineers, Inc. and will serve as the official document of record.

40 0 40
Horizontal Scale in Feet
20 0 20
Vertical Scale in Feet
Vertical Exaggeration: 2X

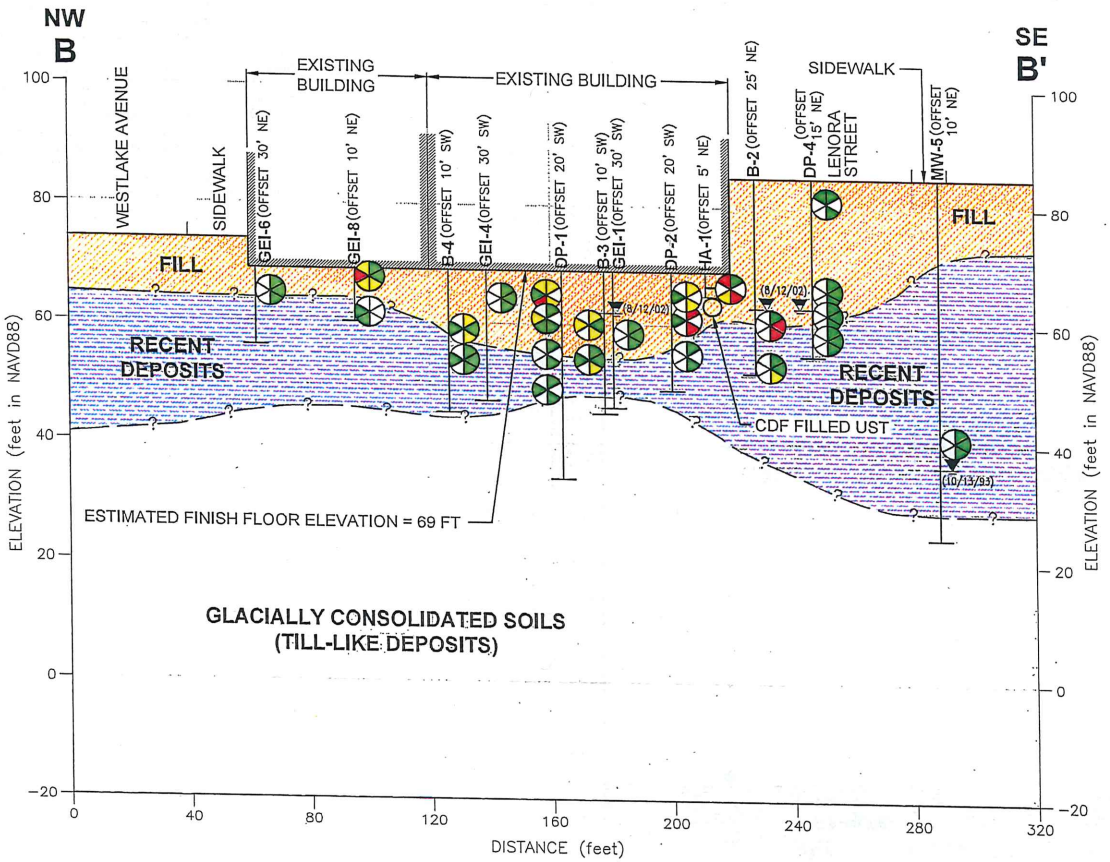
Cross Section A-A'

9th and Lenora Development
Seattle, Washington

GeoEngineers

Figure 5

W:\Projects\21\21538001\03\CAD\RIFS\21I538001I03_T500_RIFS_F5_F6_F7 Cross Sections A-A', B-B', C-C'.dwg\TAB:F5 Modified by SYI on Dec 16, 2015 - 0:21



EXPLANATION:

Chemical Analytical Results of Discrete Soil Samples

PAHs — Diesel–Range Petroleum Hydrocarbons
Metals — Gasoline–Range Petroleum Hydrocarbons
cPAHs — Heavy Oil–Range Petroleum Hydrocarbons

- Detected at a concentration greater than the MTCA Method A Cleanup Level
- Detected at a concentration less than the MTCA Method A Cleanup Level
- Metals detected at concentrations similar to Natural Background Concentrations. Other analytes not detected
- Not Analyzed

PAHs — Polycyclic aromatic hydrocarbons
cPAHs — carcinogenic PAHs

B-2 (OFFSET 25' NE) — Boring number and approximate location
Groundwater level observed in monitoring well
Perched groundwater observed during drilling
Soil contact

UST — Underground storage tank
CDF — Controlled density fill

Fill
Recent deposits
Glacially consolidated soils (till–like deposits)

Notes:
1. The subsurface conditions shown are based on interpolation between widely spaced explorations and should be considered approximate; actual subsurface conditions may vary from those shown.
2. Refer to Figure 3 for location of Cross Section.
3. This figure is for informational purposes only. It is intended to assist in the identification of features discussed in a related document. Data were compiled from sources as listed in this figure. The data sources do not guarantee these data are accurate or complete. There may have been updates to the data since the publication of this figure. This figure is a copy of a master document. The master hard copy is stored by GeoEngineers, Inc. and will serve as the official document of record.

40 0 40
Horizontal Scale in Feet
20 0 20
Vertical Scale in Feet
Vertical Exaggeration: 2X

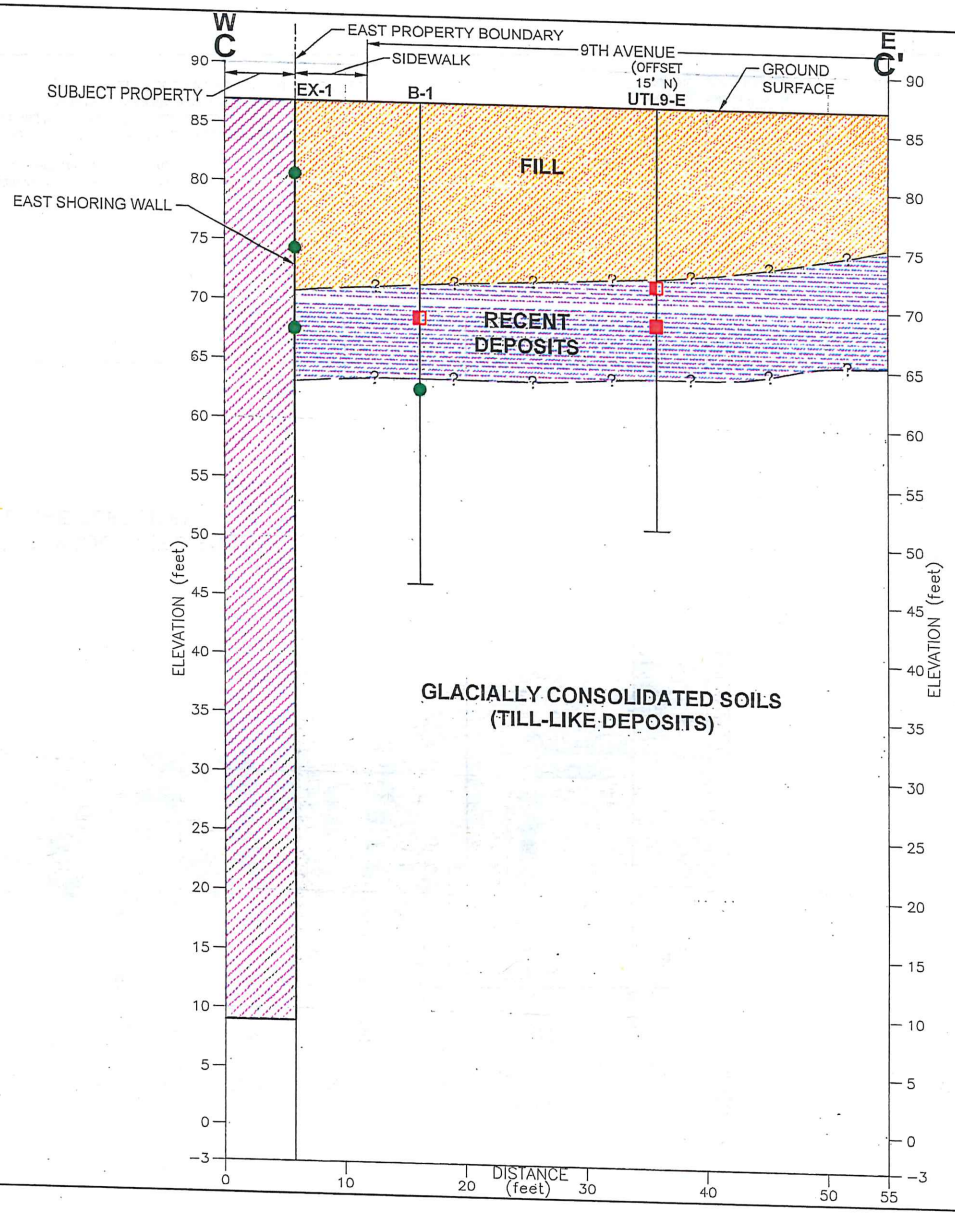
Cross Section B-B'

9th and Lenora Development
Seattle, Washington

GeoEngineers

Figure 6

W:\PROJECTS\21I\3800\03\CAD\RIFS\21I3800I03_T500_RIFS_F5_F6_F7 Cross Sections A-A'_B-B'_C-C'.DWG\TAB:F6 MODIFIED BY SYI ON DEC 16, 2015 - 9:21



EXPLANATION:

- Benzene and Gasoline Detected at a concentration greater than the MTCA Method A Cleanup Level
- Benzene Detected at a concentration greater than the MTCA Method A Cleanup Level
- Gasoline and Benzene not detected
- MTCA — Model Toxics Control Act
- (OFFSET 15' N) UTL9-E — Sample number and approximate location
- Soil contact
- Fill
- Recent deposits
- Glacially consolidated soils (till-like deposits)
- Soil at the subject property was excavated to an approximate elevation of 9 feet during mass excavation

10 0 10
Horizontal Scale in Feet
10 0 10
Vertical Scale in Feet
Vertical Exaggeration: 1X

Notes:

1. The subsurface conditions shown are based on interpolation between widely spaced explorations and should be considered approximate; actual subsurface conditions may vary from those shown.
2. Refer to Figure 3 for location of Cross Section.
3. This figure is for informational purposes only. It is intended to assist in the identification of features discussed in a related document. Data were compiled from sources as listed in this figure. The data sources do not guarantee these data are accurate or complete. There may have been updates to the data since the publication of this figure. This figure is a copy of a master document. The master hard copy is stored by GeoEngineers, Inc. and will serve as the official document of record.

Cross Section C-C'

9th and Lenora Development
Seattle, Washington

GeoEngineers

Figure 7

W:\Projects\21\21380\003\CAD\RIFS\21I3800I03_T500_RIFS_F5_F6_F7 Cross Sections A-A'_B-B'_C-C'.dwg\TAB:F7 Modified by SYI on Dec 18, 2015 - 1:25

SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS GRAPH	SYMBOLS LETTER	TYPICAL DESCRIPTIONS
COARSE GRAINED SOILS	GRAVEL AND GRAVELLY SOILS	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES
				GP	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES
	MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
				GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES
MORE THAN 50% RETAINED ON NO. 200 SIEVE	SAND AND SANDY SOILS	CLEAN SANDS (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS
				SP	POORLY-GRADED SANDS, GRAVELLY SAND
	MORE THAN 50% OF COARSE FRACTION PASSING NO. 4 SIEVE	SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)		SM	SILTY SANDS, SAND - SILT MIXTURES
				SC	CLAYEY SANDS, SAND - CLAY MIXTURES
FINE GRAINED SOILS	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS, ROCK FLOUR, CLAYEY SILTS WITH SLIGHT PLASTICITY
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
MORE THAN 50% PASSING NO. 200 SIEVE	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS SILTY SOILS
				CH	INORGANIC CLAYS OF HIGH PLASTICITY
				OH	ORGANIC CLAYS AND SILTS OF MEDIUM TO HIGH PLASTICITY
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

NOTE: Multiple symbols are used to indicate borderline or dual soil classifications

ADDITIONAL MATERIAL SYMBOLS

SYMBOLS GRAPH	SYMBOLS LETTER	TYPICAL DESCRIPTIONS
	AC	Asphalt Concrete
	CC	Cement Concrete
	CR	Crushed Rock/ Quarry Spalls
	TS	Topsoil/ Forest Duff/Sod

Groundwater Contact

Measured groundwater level in exploration, well, or piezometer

Measured free product in well or piezometer

Graphic Log Contact

Distinct contact between soil strata or geologic units

Approximate location of soil strata change within a geologic soil unit

Material Description Contact

Distinct contact between soil strata or geologic units

Approximate location of soil strata change within a geologic soil unit

Sampler Symbol Descriptions

2.4-inch I.D. split barrel

Standard Penetration Test (SPT)

Shelby tube

Piston

Direct-Push

Bulk or grab

Blowcount is recorded for driven samplers as the number of blows required to advance sampler 12 inches (or distance noted). See exploration log for hammer weight and drop.

A "P" indicates sampler pushed using the weight of the drill rig.

Laboratory / Field Tests

%F	Percent fines
AL	Atterberg limits
CA	Chemical analysis
CP	Laboratory compaction test
CS	Consolidation test
DS	Direct shear
HA	Hydrometer analysis
MC	Moisture content
MD	Moisture content and dry density
OC	Organic content
PM	Permeability or hydraulic conductivity
PI	Plasticity index
PP	Pocket penetrometer
PPM	Parts per million
SA	Sieve analysis
TX	Triaxial compression
UC	Unconfined compression
VS	Vane shear

Sheen Classification

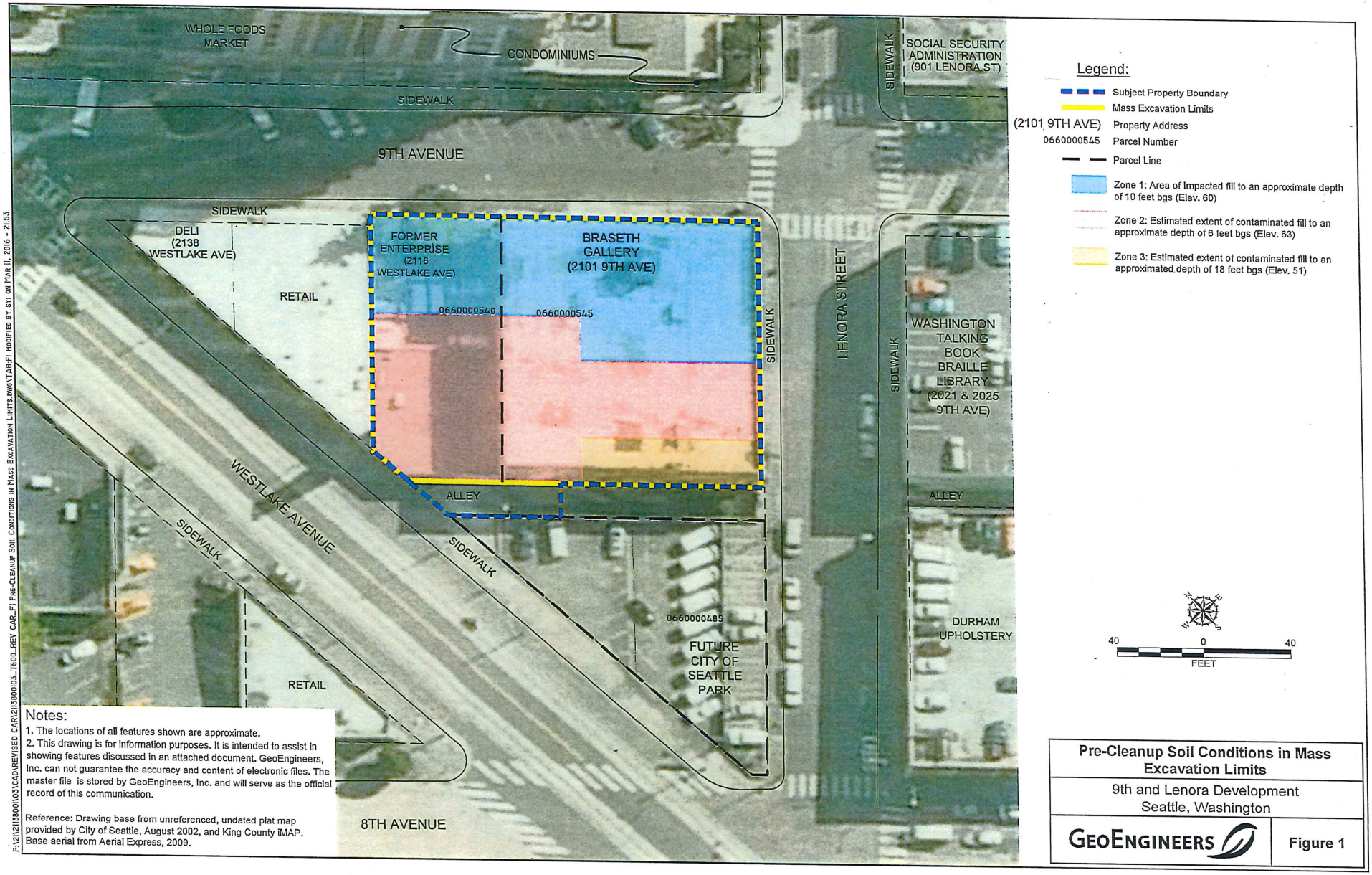
NS	No Visible Sheen
SS	Slight Sheen
MS	Moderate Sheen
HS	Heavy Sheen
NT	Not Tested

NOTE: The reader must refer to the discussion in the report text and the logs of explorations for a proper understanding of subsurface conditions. Descriptions on the logs apply only at the specific exploration locations and at the time the explorations were made; they are not warranted to be representative of subsurface conditions at other locations or times.

KEY TO EXPLORATION LOGS

GeoEngineers

FIGURE A-1



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. can not 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.

Reference: Drawing base from unreferenced, undated plat map provided by City of Seattle, August 2002, and King County iMAP. Base aerial from Aerial Express, 2009.

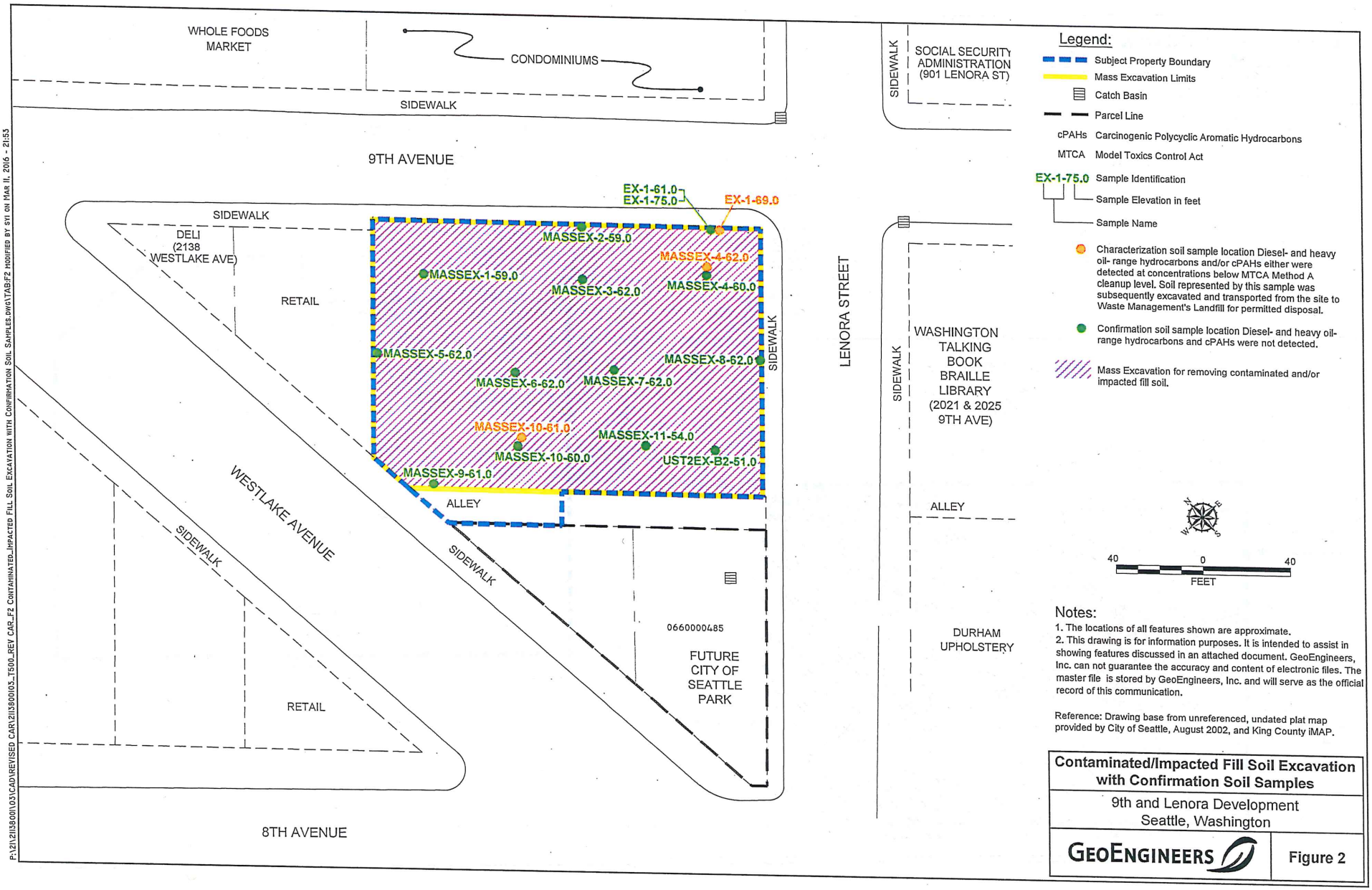
P:\21\21I5800\103\CAD\REVISED CAR\21I5800103_T500_REV CAR_FI PRE-CLEANUP SOIL CONDITIONS IN MASS EXCAVATION LIMITS.DWG\TAB:FI MODIFIED BY SYI ON MAR 11, 2016 - 21:53

Pre-Cleanup Soil Conditions in Mass Excavation Limits

9th and Lenora Development
Seattle, Washington

GeoEngineers

Figure 1



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. can not 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.

Reference: Drawing base from unreferenced, undated plat map provided by City of Seattle, August 2002, and King County iMAP.

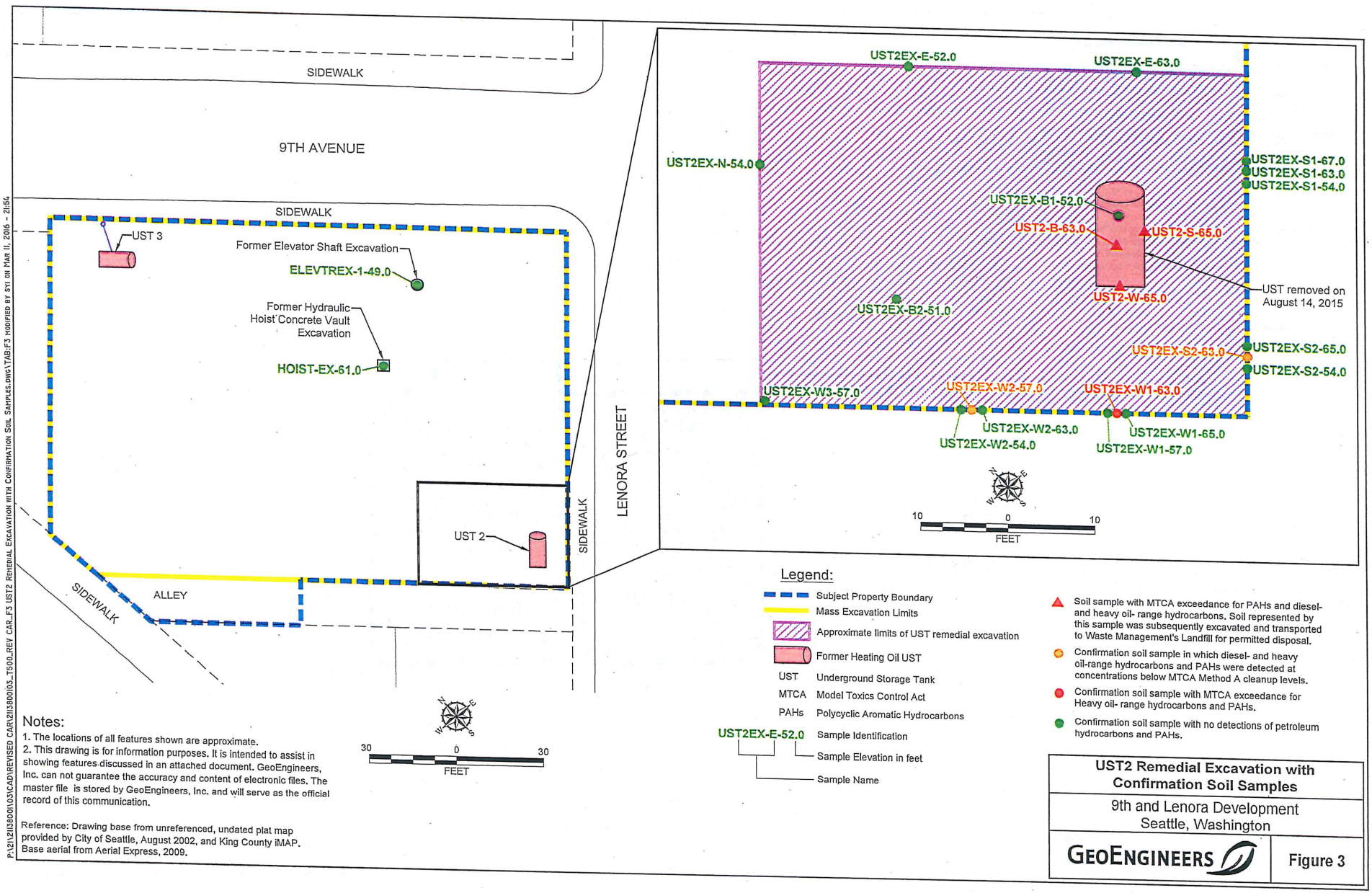
Contaminated/Impacted Fill Soil Excavation with Confirmation Soil Samples

9th and Lenora Development
Seattle, Washington

GeoEngineers

Figure 2

P:\21\21I3500\03\CAD\REVISED CAR\21I3500I03_T500_REV CAR_F2 CONTAMINATED_IMPACTED FILL SOIL EXCAVATION WITH CONFIRMATION SOIL SAMPLES.DWG\TAB:F2 MODIFIED BY SYI ON MAR 11, 2016 - 21:53



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. can not 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.

Reference: Drawing base from unreferenced, undated plat map provided by City of Seattle, August 2002, and King County iMAP. Base aerial from Aerial Express, 2009.

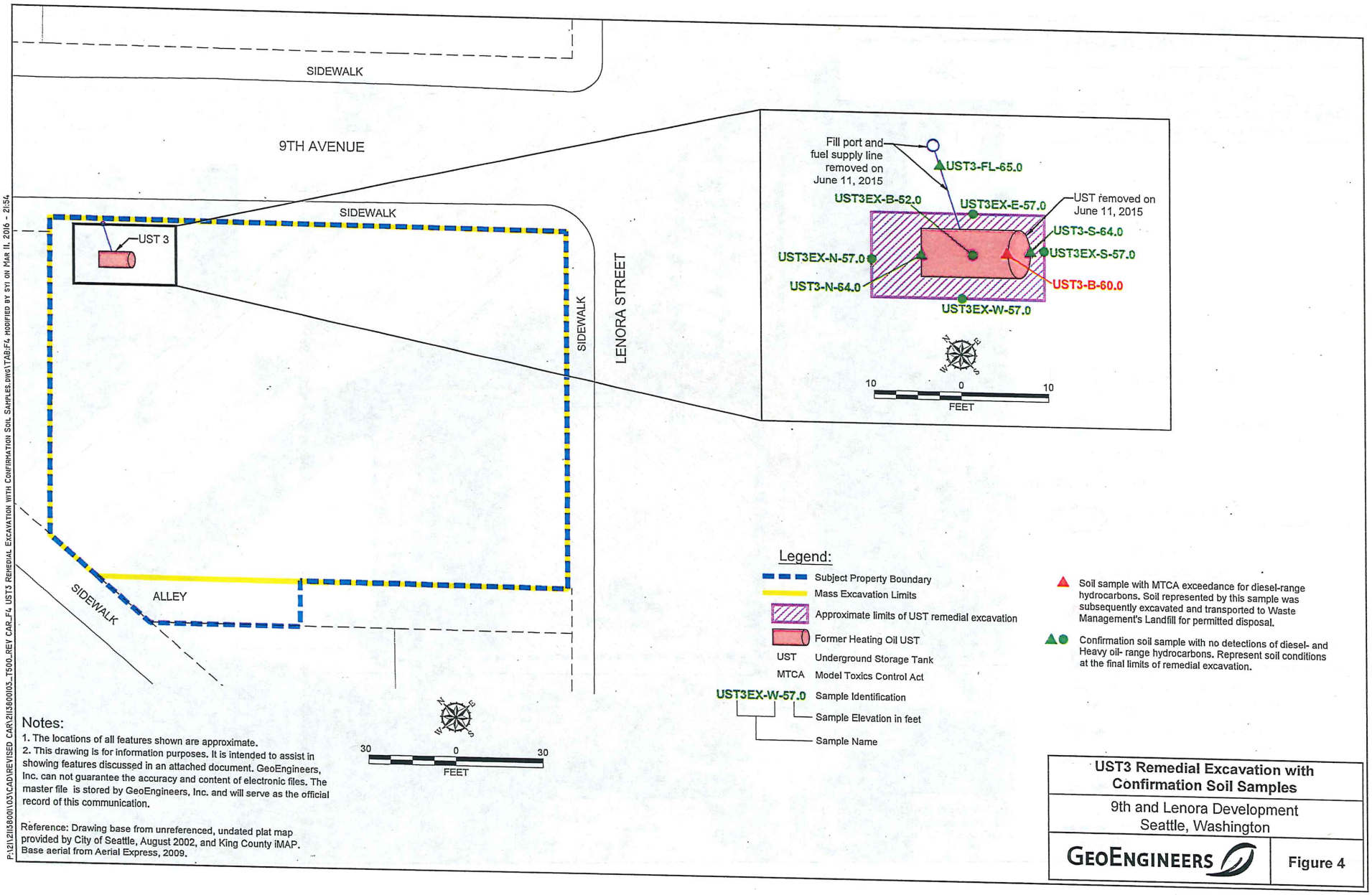
UST2 Remedial Excavation with Confirmation Soil Samples

9th and Lenora Development
Seattle, Washington

GeoEngineers

Figure 3

P:\121\I3800\103\CAD\REVISED CAR\I3800103_T500_REV CAR_F3 UST2 REMEDIAL EXCAVATION WITH CONFIRMATION SOIL SAMPLES.DWG\TAB:F3 MODIFIED BY SYI ON MAR 11, 2016 - 2:15A



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. can not 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.

Reference: Drawing base from unreferenced, undated plat map provided by City of Seattle, August 2002, and King County iMAP. Base aerial from Aerial Express, 2009.

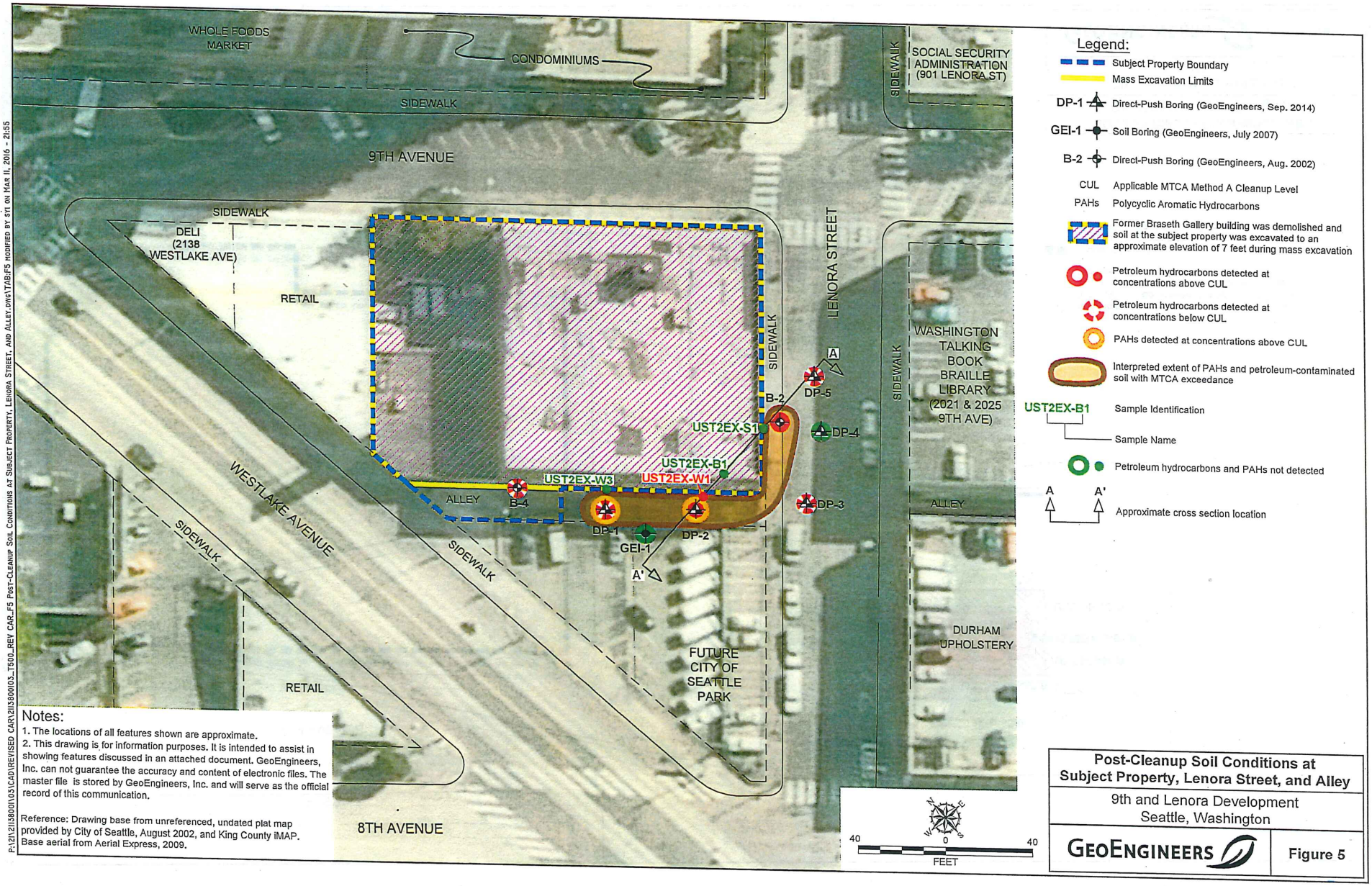
UST3 Remedial Excavation with Confirmation Soil Samples

9th and Lenora Development
Seattle, Washington

GeoEngineers

Figure 4

P:\21\21580\03\CAD\REVISED CAR\21I3600103_T500_REV CAR_F4 UST3 REMEDIAL EXCAVATION WITH CONFIRMATION SOIL SAMPLES.DWG\TAB:F4 MODIFIED BY SYI ON MAR 11, 2016 - 21:54



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. can not 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.

Reference: Drawing base from unreferenced, undated plat map provided by City of Seattle, August 2002, and King County iMAP. Base aerial from Aerial Express, 2009.

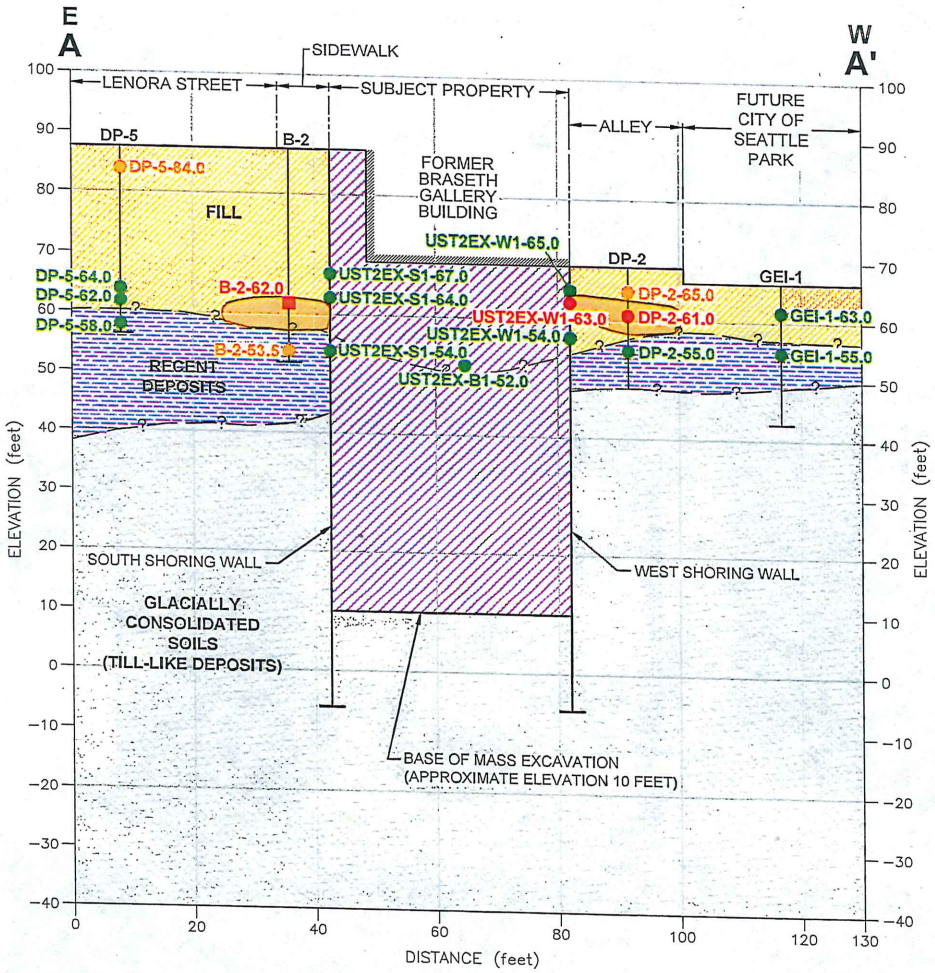
Post-Cleanup Soil Conditions at Subject Property, Lenora Street, and Alley

9th and Lenora Development
Seattle, Washington

GeoEngineers

Figure 5

P:\21\21I5800\03\CAD\REVISED CAR\21I5800I03_T500_REV CAR_F5 POST-CLEANUP SOIL CONDITIONS AT SUBJECT PROPERTY, LENORA STREET, AND ALLEY.DWG\TAB:F5 MODIFIED BY SYI ON MAR 11, 2016 - 2:55



Legend

- Soil sample with gasoline- and heavy oil-range hydrocarbons and Toluene detections greater than MTCA Method A Cleanup Levels
- Soil sample with MTCA exceedance for diesel- and heavy oil-range hydrocarbons and PAHs
- Soil sample with petroleum hydrocarbons and PAHs detections less than MTCA Method A Cleanup Levels
- Soil sample non-detect for petroleum hydrocarbons and PAHs
- MTCA — Model Toxics Control Act
- PAHs — Polycyclic aromatic hydrocarbons
- DP-2 — Exploration and approximate location
- Soil contact
- Approximate thickness of residual MTCA exceeding petroleum hydrocarbons and PAHs contaminated soil
- Fill
- Recent deposits
- Glacially consolidated soils (till-like deposits)
- Former Braseth Gallery building was demolished and soil at the subject property was excavated to an approximate elevation of 7 feet during mass excavation

20 0 20
Horizontal Scale in Feet
20 0 20
Vertical Scale in Feet
Vertical Exaggeration: 1X

Notes:
1. The subsurface conditions shown are based on interpolation between widely spaced explorations and should be considered approximate; actual subsurface conditions may vary from those shown.
2. Refer to Figure 7 for location of Cross Section.
3. This figure is for informational purposes only. It is intended to assist in the identification of features discussed in a related document. Data were compiled from sources as listed in this figure. The data sources do not guarantee these data are accurate or complete. There may have been updates to the data since the publication of this figure. This figure is a copy of a master document. The master hard copy is stored by GeoEngineers, Inc. and will serve as the official document of record.

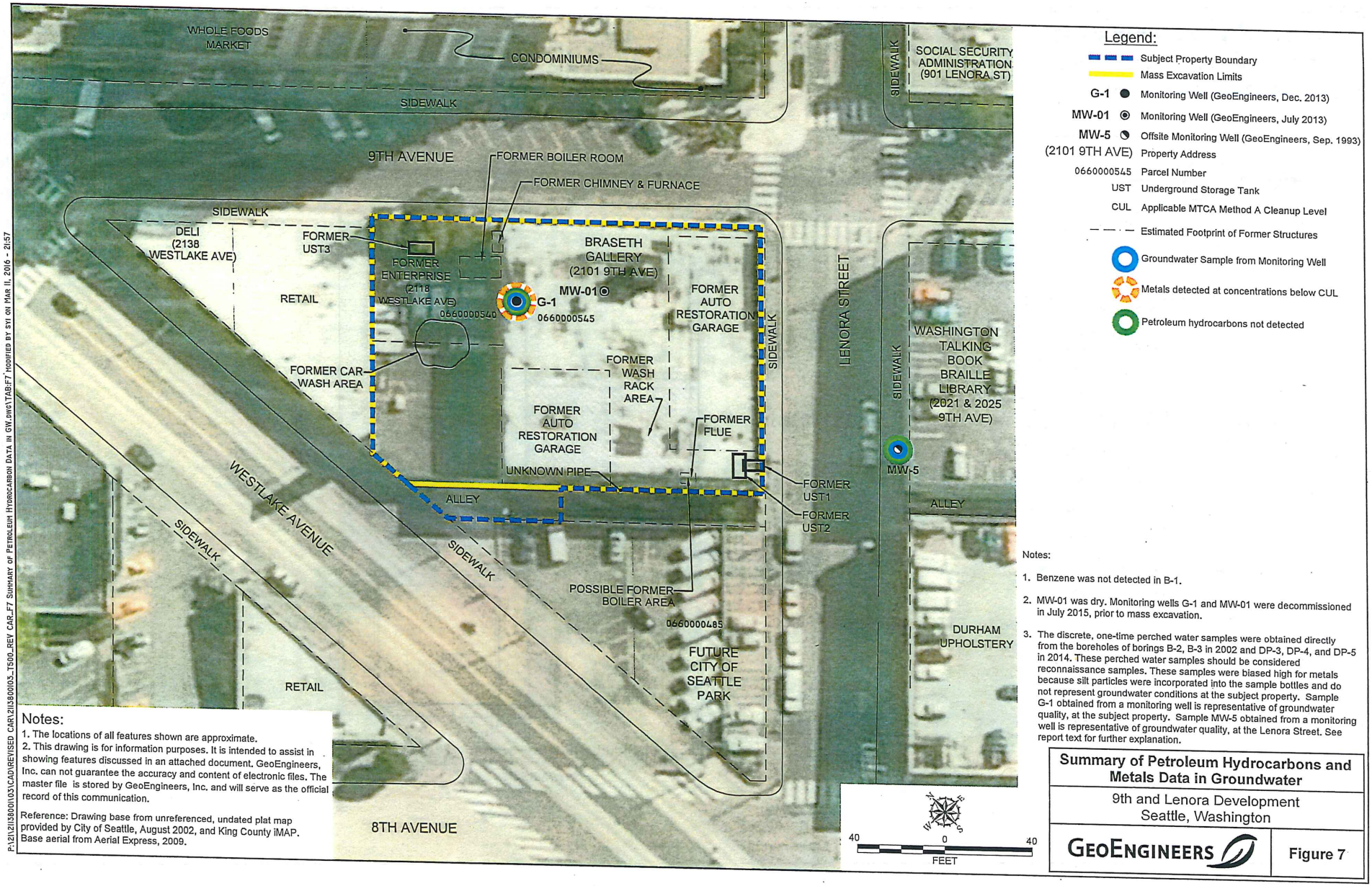
Cross Section A-A'

9th and Lenora Development
Seattle, Washington

GeoEngineers

Figure 6

P:\21\21I5800\I\03\CAD\REVISED CAR\21I5800I03_T500_REV CAR_F6 Cross Section A-A'.dwg\TAB:F6 MODIFIED BY SYI ON MAR 11, 2016 - 21:56



P:\21\2I\5800\03\CAD\REVISED CAR\2I\5800I03_T600_REV CAR_F7 SUMMARY OF PETROLEUM HYDROCARBON DATA IN GW.DWG\TAB:F7 MODIFIED BY SYI ON MAR 11, 2016 - 21:57

Notes:

1. Benzene was not detected in B-1.
2. MW-01 was dry. Monitoring wells G-1 and MW-01 were decommissioned in July 2015, prior to mass excavation.
3. The discrete, one-time perched water samples were obtained directly from the boreholes of borings B-2, B-3 in 2002 and DP-3, DP-4, and DP-5 in 2014. These perched water samples should be considered reconnaissance samples. These samples were biased high for metals because silt particles were incorporated into the sample bottles and do not represent groundwater conditions at the subject property. Sample G-1 obtained from a monitoring well is representative of groundwater quality, at the subject property. Sample MW-5 obtained from a monitoring well is representative of groundwater quality, at the Lenora Street. See report text for further explanation.

Summary of Petroleum Hydrocarbons and Metals Data in Groundwater

9th and Lenora Development
Seattle, Washington

GeoEngineers

Figure 7

APPENDIX B

Terrestrial Ecological Evaluation Form

Voluntary Cleanup Program

Washington State Department of Ecology
Toxics Cleanup Program

TERRESTRIAL ECOLOGICAL EVALUATION FORM

Under the Model Toxics Control Act (MTCA), a terrestrial ecological evaluation is necessary if hazardous substances are released into the soils at a Site. In the event of such a release, you must take one of the following three actions as part of your investigation and cleanup of the Site:

1. Document an exclusion from further evaluation using the criteria in WAC 173-340-7491.
2. Conduct a simplified evaluation as set forth in WAC 173-340-7492.
3. Conduct a site-specific evaluation as set forth in WAC 173-340-7493.

When requesting a written opinion under the Voluntary Cleanup Program (VCP), you must complete this form and submit it to the Department of Ecology (Ecology). The form documents the type and results of your evaluation.

Completion of this form is not sufficient to document your evaluation. You still need to document your analysis and the basis for your conclusion in your cleanup plan or report.

If you have questions about how to conduct a terrestrial ecological evaluation, please contact the Ecology site manager assigned to your Site. For additional guidance, please refer to https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Terrestrial-ecological-evaluation.

Step 1: IDENTIFY HAZARDOUS WASTE SITE	
Please identify below the hazardous waste site for which you are documenting an evaluation.	
Facility/Site Name: Lenora Building (alternate name: Stratus)	
Facility/Site Address: 2101 9th Avenue (alternately 820Lenora Street), Seattle, WA 98121	
Facility/Site No: 91413494	VCP Project No.: To be determined

Step 2: IDENTIFY EVALUATOR			
Please identify below the person who conducted the evaluation and their contact information.			
Name: David A. Cook		Title: Principal	
Organization: Aspect Consulting, LLC			
Mailing address: 710 2nd Avenue, Suite 550			
City: Seattle	State: WA	Zip code: 98104	
Phone: 206.838.5837	Fax:	E-mail: dcook@aspectconsulting.com	

Step 3: DOCUMENT EVALUATION TYPE AND RESULTS

A. Exclusion from further evaluation.

1. Does the Site qualify for an exclusion from further evaluation?

[X] Yes *If you answered **"YES,"** then answer **Question 2**.*

☐ No or Unknown *If you answered **"NO" or "UNKNOWN,"** then skip to **Step 3B** of this form.*

2. What is the basis for the exclusion? *Check all that apply. Then skip to **Step 4** of this form.*

Point of Compliance: WAC 173-340-7491(1)(a)

☐ All soil contamination is, or will be,* at least 15 feet below the surface.

☐ All soil contamination is, or will be,* at least 6 feet below the surface (or alternative depth if approved by Ecology), and institutional controls are used to manage remaining contamination.

Barriers to Exposure: WAC 173-340-7491(1)(b)

☐ All contaminated soil, is or will be,* covered by physical barriers (such as buildings or paved roads) that prevent exposure to plants and wildlife, and institutional controls are used to manage remaining contamination.

Undeveloped Land: WAC 173-340-7491(1)(c)

☐ There is less than 0.25 acres of contiguous[#] undeveloped[±] land on or within 500 feet of any area of the Site and any of the following chemicals is present: chlorinated dioxins or furans, PCB mixtures, DDT, DDE, DDD, aldrin, chlordane, dieldrin, endosulfan, endrin, heptachlor, heptachlor epoxide, benzene hexachloride, toxaphene, hexachlorobenzene, pentachlorophenol, or pentachlorobenzene.

[X] For sites not containing any of the chemicals mentioned above, there is less than 1.5 acres of contiguous[#] undeveloped[±] land on or within 500 feet of any area of the Site.

Background Concentrations: WAC 173-340-7491(1)(d)

☐ Concentrations of hazardous substances in soil do not exceed natural background levels as described in WAC 173-340-200 and 173-340-709.

* An exclusion based on future land use must have a completion date for future development that is acceptable to Ecology.

[±] "Undeveloped land" is land that is not covered by building, roads, paved areas, or other barriers that would prevent wildlife from feeding on plants, earthworms, insects, or other food in or on the soil.

[#] "Contiguous" undeveloped land is an area of undeveloped land that is not divided into smaller areas of highways, extensive paving, or similar structures that are likely to reduce the potential use of the overall area by wildlife.

B. Simplified evaluation.

1. Does the Site qualify for a simplified evaluation?

☐ Yes *If you answered **"YES,"** then answer **Question 2** below.*

☐ No or Unknown *If you answered **"NO"** or **"UNKNOWN,"** then skip to **Step 3C** of this form.*

2. Did you conduct a simplified evaluation?

☐ Yes *If you answered **"YES,"** then answer **Question 3** below.*

☐ No *If you answered **"NO,"** then skip to **Step 3C** of this form.*

3. Was further evaluation necessary?

☐ Yes *If you answered **"YES,"** then answer **Question 4** below.*

☐ No *If you answered **"NO,"** then answer **Question 5** below.*

4. If further evaluation was necessary, what did you do?

☐ Used the concentrations listed in Table 749-2 as cleanup levels. *If so, then skip to **Step 4** of this form.*

☐ Conducted a site-specific evaluation. *If so, then skip to **Step 3C** of this form.*

5. If no further evaluation was necessary, what was the reason? *Check all that apply. Then skip to **Step 4** of this form.*

Exposure Analysis: WAC 173-340-7492(2)(a)

☐ Area of soil contamination at the Site is not more than 350 square feet.

☐ Current or planned land use makes wildlife exposure unlikely. Used Table 749-1.

Pathway Analysis: WAC 173-340-7492(2)(b)

☐ No potential exposure pathways from soil contamination to ecological receptors.

Contaminant Analysis: WAC 173-340-7492(2)(c)

☐ No contaminant listed in Table 749-2 is, or will be, present in the upper 15 feet at concentrations that exceed the values listed in Table 749-2.

☐ No contaminant listed in Table 749-2 is, or will be, present in the upper 6 feet (or alternative depth if approved by Ecology) at concentrations that exceed the values listed in Table 749-2, and institutional controls are used to manage remaining contamination.

☐ No contaminant listed in Table 749-2 is, or will be, present in the upper 15 feet at concentrations likely to be toxic or have the potential to bioaccumulate as determined using Ecology-approved bioassays.

☐ No contaminant listed in Table 749-2 is, or will be, present in the upper 6 feet (or alternative depth if approved by Ecology) at concentrations likely to be toxic or have the potential to bioaccumulate as determined using Ecology-approved bioassays, and institutional controls are used to manage remaining contamination.

C. Site-specific evaluation. A site-specific evaluation process consists of two parts: (1) formulating the problem, and (2) selecting the methods for addressing the identified problem. Both steps require consultation with and approval by Ecology. *See* WAC 173-340-7493(1)(c).

1. Was there a problem? *See* WAC 173-340-7493(2).

☐ Yes *If you answered **"YES,"** then answer **Question 2** below.*

☐ No *If you answered **"NO,"** then identify the reason here and then skip to **Question 5** below:*

- ☐ No issues were identified during the problem formulation step.
- ☐ While issues were identified, those issues were addressed by the cleanup actions for protecting human health.

2. What did you do to resolve the problem? *See* WAC 173-340-7493(3).

- ☐ Used the concentrations listed in Table 749-3 as cleanup levels. *If so, then skip to **Question 5** below.*
- ☐ Used one or more of the methods listed in WAC 173-340-7493(3) to evaluate and address the identified problem. *If so, then answer **Questions 3 and 4** below.*

3. If you conducted further site-specific evaluations, what methods did you use?
Check all that apply. See WAC 173-340-7493(3).

- ☐ Literature surveys.
- ☐ Soil bioassays.
- ☐ Wildlife exposure model.
- ☐ Biomarkers.
- ☐ Site-specific field studies.
- ☐ Weight of evidence.
- ☐ Other methods approved by Ecology. If so, please specify:

4. What was the result of those evaluations?

- ☐ Confirmed there was no problem.
- ☐ Confirmed there was a problem and established site-specific cleanup levels.

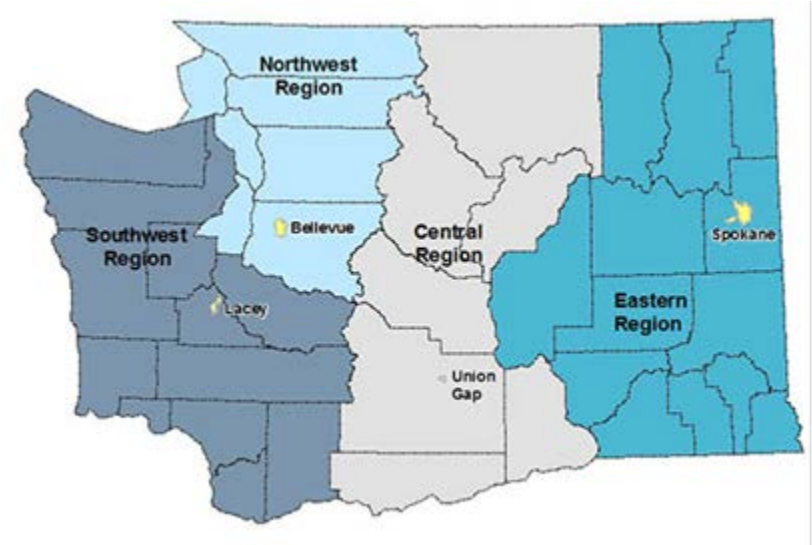
5. Have you already obtained Ecology's approval of both your problem formulation and problem resolution steps?

☐ Yes If so, please identify the Ecology staff who approved those steps:

☐ No

Step 4: SUBMITTAL

Please mail your completed form to the Ecology site manager assigned to your Site. If a site manager has not yet been assigned, please mail your completed form to the Ecology regional office for the County in which your Site is located.



Northwest Region: Attn: VCP Coordinator 3190 160th Ave. SE Bellevue, WA 98008-5452	**Central Region:** Attn: VCP Coordinator 1250 West Alder St. Union Gap, WA 98903-0009
Southwest Region: Attn: VCP Coordinator P.O. Box 47775 Olympia, WA 98504-7775	**Eastern Region:** Attn: VCP Coordinator N. 4601 Monroe Spokane WA 99205-1295

If you need this publication in an alternate format, please call the Toxics Cleanup Program at 360-407-7170. People with hearing loss can call 711 for Washington Relay Service. People with a speech disability can call 877-833-6341.

APPENDIX C

Wells Decommissioning Documents

CASCADE DRILLING, L.P.
LEADERS IN SAFETY

Bill To:
ATTN: ACCOUNTS PAYABLE
GeoEngineers - Redmond
Fasih Khan
8410 154th Avenue NE
Redmond, Washington 98052

Invoice #:	1501183
Quote #:	00004090
Account #:	1GEOENG052
JobID #:	103150857
Invoice Date:	07/30/2015
Terms:	Net 30
Due Date:	08/29/2015

REMIT TO: Cascade Drilling, LP. PO Box 844046 Los Angeles, CA. 90084-4046

Project Name:	Commercial Building	Customer Project#:	21138-001-03
Project Start/End Date:	07/27/2015 / 07/27/2015	Customer PO:	
Project Contact/Phone:	/	Additional Detail:	
Work Site Address:	9th and Lenora Seattle, WA 98121		

Billing Date: To:

Product	Description	UOM	Quantity	Rate	Extended Rate
Decommission Wells	Chip in Place (1)80-2" and (1) 17'6"-2" MW	Per Foot	97.00	$6.00	$582.00
Well Box	Cement Standard Well Box In Place	Each	2.00	$50.00	$100.00
Permits	Decommissioning	Each	2.00	$35.00	$70.00
Standby	To gain access	Per Hour	.50	$250.00	$125.00
Mob/Demob	Mobilization/Demobilization	Each	1.00	$450.00	$450.00

Pre-Tax Total	$1,327.00
Tax Percentage	9.600%
Taxes	$127.39
Invoice Total	$1,454.39

As a courtesy, Cascade Drilling, LP and its subsidiaries allow Customers up to three days to approve this invoice. This invoice will be considered approved and final unless we hear from GeoEngineers - Redmond before the end of this period.

CASCADE DRILLING DAILY WORK REPORT

CASCADE DRILLING, L.P.
LEADERS IN SAFETY

19404 Woodinville Snohomish Rd NE, Woodinville, WA 98072
425-485-8908 # CASCADL91508

CLIENT	Geo-Engineers	PROJECT NO		DATE	7-27-15	DAY	Mon
JOB LOCATION	Westlake & Lenora	DIG ALERT #		CD-LP#	103-15-0857		

Well # / Bore #	Depth Drilled	DESCRIPTION OF WORK (Please explain reasons for Down Time and Standby Time and Shop Time)	HOURS Start	HOURS Stop	Total Hrs	Charge Hrs
		AM Shop Time — pre-trip, load W561	6:15	6:45	.5	
		Travel to Site	6:45	8:00	1.25	
		Geo access	8:00	8:30	.5	
		CIP 2"x80' @ 1 & 6"x17' MW-1	8:30	9:30	1	
		- Leave monuments in place.	—			
		Travel to Shop	9:30	10:30	1	
		PM Shop Time — post. unload W561	10:30	11:00	.5	
Total Ft.		TOTAL CHARGEABLE RIG HOURS				

RIG ENGINE HOURS: START _____ STOP _____ TOTAL _____

EQUIPMENT

DRILL RIG #		COMPRESSOR/JACKHAMMER	
SUPPORT TRUCK #	W561	SNOW FENCE RENTAL	
SUPPORT TRUCK #		CONTINUOUS SAMPLER	
TRAILER #		CONTINUOUS SAMPLER FOOTAGE	
BOBCAT		# OF CORE CUTS	
AUTO HAMMER		# OF BULLDOG CUTS	
GROUT MIXER		# OF SERVICE RUNS	
GROUT PUMP		# OF SAW CUTS	
PERISTALTIC PUMP		PORTABLE RESTROOM	
FORKLIFT/HOPPER			

LABOR

NAME	SIGNATURE	SHOP	DRILL	TOTAL HRS
Curtis A				4.75

CREW WITH PER DIEM _____ CHARGEABLE EXTRA LABOR HRS _____

CASING

TYPE___SLOT___	2"	4		
20' SCREEN				
10' SCREEN				
5' SCREEN				
20' BLANK				
10' BLANK				
5' BLANK				
5' PP SCREEN				
10' PP SCREEN				
SLIP CAP				
THREADED CAPS				
LOCKING CAPS				
DRIVE SHOE				
CENTRALIZERS				
LOCKS				

UTILITIES FOUND OR HIT

MATERIALS

ITEM	QTY	ITEM	QTY
SAND		WELL COVER 8"	
READYMIX	3	WELL COVER 12"	
QUICKSET		MONUMENT CASING	
PORTLAND		BOLLARDS	
ASPHALT		SOIL DRUMS	
BENTONITE GROUT		DEVELOPMENT DRUMS	
BENTONITE CHIPS	6	DECON DRUMS	
BENTONITE POWDER		HOLE COVER PLATES	
BENTONITE PELLETS		PLASTIC SHEETING	
BENTONITE GRANULAR		TRAFFIC CONTROL	
SAMPLER TUBES		CORE BOXES	
SHELBY TUBES		PLYWOOD	
PROBE POINTS "		SOIL SAMPLES	
GW PROBE POINTS		WATER SAMPLES	
MACRO LINERS		HYDROPUNCH SAMPLES	
SAMPLER SHOE		AUGER PLUGS	
		DRILL OUT BITS	

REMARKS

Client Signature _____ Operator Signature _____

RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

CURRENT

Notice of Intent No. AE33096

Construction/Decommission

☐ Construction

☒ Decommission *ORIGINAL INSTALLATION Notice of Intent Number* _____

Type of Well

☒ Resource Protection

☐ Geotechnical Soil Boring

Consulting Firm **GeoEngineers**

Property Owner **9th & Lenora Development**

Site Address **Westlake Ave & Lenora St**

City **Seattle** County **King**

Unique Ecology Well ID Tag No. _____

Location 1/4 **NE** 1/4 **NE** Sec **31** TWN **25N** R **4E** ☐ EWM ☐ WWM

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

Lat/Long (s,t,r still Required) Lat Deg **n/a** Lat Min/Sec **n/a** Long Deg **n/a** Long Min/Sec **n/a**

☒ Driller ☐ Trainee Name (Print) **Curtis Askew**

Driller/Trainee Signature _____

Driller/Trainee License No. **2867**

Tax Parcel No. _____

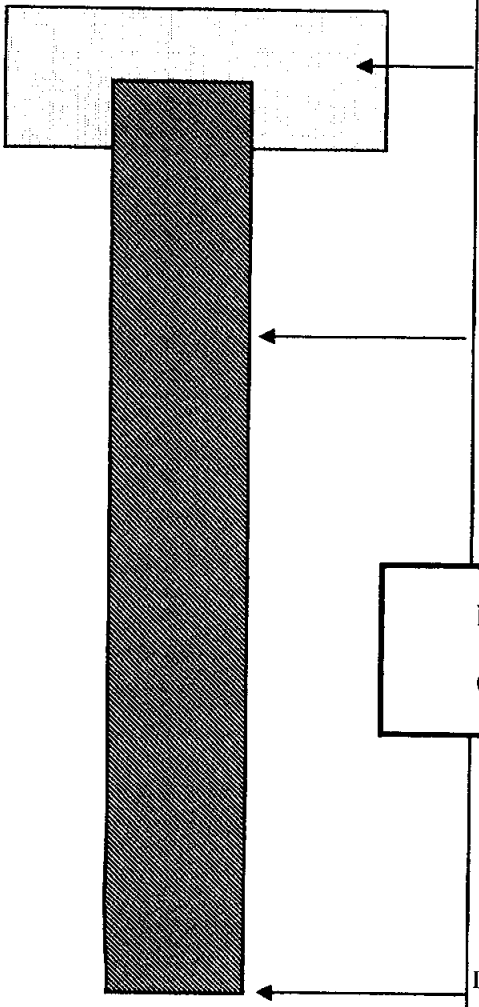
Cased or Uncased Diameter CIP 2" well Static Level 56'

If trainee, licesned drillers' Signature and License No. _____

Work/Decommision Start Date 7-27-15

Work/Decommision Completed Date 7-27-15

Construction/Design — Well Data 103-15-0857 — Formation Description



CONCRETE SURFACE SEAL 5 FT — 0 - 86 FT CIP existing 2" well

BACKFILL 75 FT — 0 - FT

Bent. Chips

DEPTH OF BORING 80 FT

REQUIRED INFORMATION

(Must get one or both if available)

DEPT OF ECOLOGY WELL TAG # : _____

CLIENT WELL ID #: G-1

Scale 1" = _____ Page _____ of _____

RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

CURRENT

Notice of Intent No. AE33096

Construction/Decommission

☐ Construction

☒ Decommission *ORIGINAL INSTALLATION Notice of Intent Number* _____

Type of Well

☒ Resource Protection

☐ Geotechnical Soil Boring

Consulting Firm **GeoEngineers**

Property Owner **9th & Lenora Development**

Site Address **Westlake Ave & Lenora St**

City **Seattle** County **King**

Unique Ecology Well ID Tag No. _____

Location 1/4 **NE** 1/4 **NE** Sec **31** TWN **25N** R **4E** ☐ EWM ☐ WWM

Lat/Long (s,t,r still Required) Lat Deg **n/a** Lat Min/Sec **n/a** Long Deg **n/a** Long Min/Sec **n/a**

Tax Parcel No. _____

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

☒ Driller ☐ Trainee Name (Print) **Curtis Askew**

Driller/Trainee Signature _____

Driller/Trainee License No. **2867**

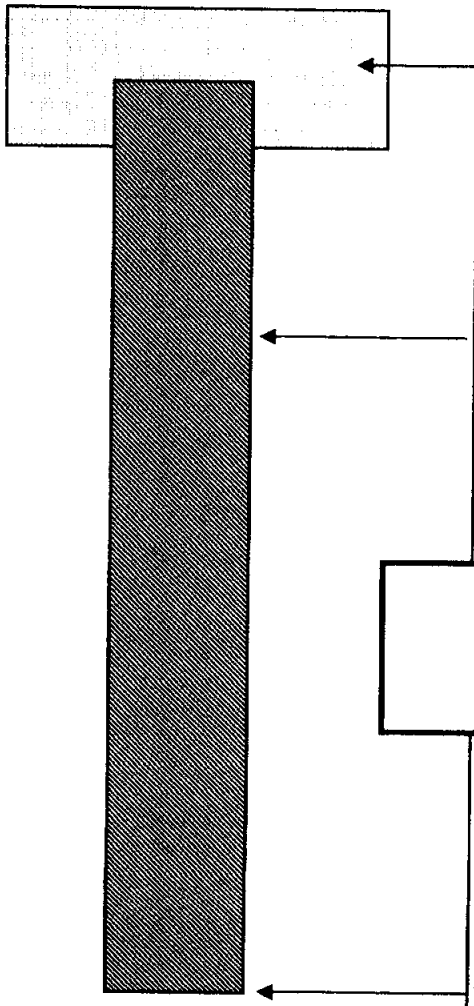
Cased or Uncased Diameter CIP 6" well Static Level 11

Work/Decommision Start Date 7-27-15

Work/Decommision Completed Date 7-27-15

If trainee, licesned drillers' Signature and License No. _____

Construction/Design



Well Data 103-15-0857

CONCRETE SURFACE SEAL 3 FT

BACKFILL 14 FT

Bent. Chips

DEPTH OF BORING 17 FT

Formation Description

0 - 17' FT CIP existing 6" well

0 - _____ FT

REQUIRED INFORMATION

(Must get one or both if available)

DEPT OF ECOLOGY WELL TAG # : _____

CLIENT WELL ID #: MW-01

Scale 1" = _____

Page _____ of _____

ECY 050-12 (Rev. 3/01)

APPENDIX D

Cleanup Action Photographs

1. Contaminated fill soil in east portion of mass excavation –Looking North

2. Contaminated fill soil in north portion of mass excavation – LookingWest

3. Contaminated fill soil excavation during construction – Looking Southeast

4. Non-contaminated soil underlying the contaminated fill soil excavated from the subject property – Looking North

Cleanup Action Photographs	
820 Lenora Street Seattle, Washington	
GeoEngineers	Appendix D

5. View of former UST2 in southwest portion of the subject property – Looking South

6. UST2 was removed form the subject property – Looking West

7. Controlled Density Fill inside the former UST2 and associated contaminated soil prior to excavation – Looking West

8. Clean native soil following excavation of contaminated soil at the former UST2 location in southwest portion of the subject property – Looking South

Cleanup Action Photographs	
820 Lenora Street Seattle, Washington	
GeoEngineers	Appendix D

9. Monitoring wells decommissioning activities at the subject property

10. Concrete vault of former hydraulic hoist in central portion of subject property

11. Excavation of former elevator Shaft and hydraulic hoist – Looking South

12. Clean native soil at the former elevator shaft and hydraulic hoist location in central portion of the subject property – Looking Northeast

Cleanup Action Photographs	
820 Lenora Street Seattle, Washington	
GeoEngineers	Appendix D

13. Former UST3 location in northeast portion of the subject property – Looking South

14. A small hole is visible in UST3 that was removed from the subject property

15. Contaminated soil at former UST2 location on the subject property

16. Clean native soil following excavation of contaminated soil at the former UST3 location – Looking North

Cleanup Action Photographs	
820 Lenora Street Seattle, Washington	
GeoEngineers	Appendix D

APPENDIX E

Chemical Analytical Program

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

April 29, 2015

Fasih Khan
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03, T300
Laboratory Reference No. 1504-253

Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on April 28, 2015.

Please note that this is a *revised* report, and replaces the original due to revisions of the sample identifications.

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,

David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: April 29, 2015
Samples Submitted: April 28, 2015
Laboratory Reference: 1504-253
Project: 21138-001-03, T300

Case Narrative

Samples were collected on April 28, 2015 and received by the laboratory on April 28, 2015. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that 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 preserved with either Methanol or Sodium Bisulfate.

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.

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: April 29, 2015
Samples Submitted: April 28, 2015
Laboratory Reference: 1504-253
Project: 21138-001-03, T300

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
UTL9-S-5.0	04-253-02	Soil	4-28-15	4-28-15	
UTL9-N-5.0	04-253-04	Soil	4-28-15	4-28-15	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: April 29, 2015
Samples Submitted: April 28, 2015
Laboratory Reference: 1504-253
Project: 21138-001-03, T300

NWTPH-Gx/BTEX

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UTL9-S-5.0**					
Laboratory ID:	04-253-02					
Benzene	**ND**	0.020	EPA 8021B	4-28-15	4-28-15	
Toluene	**ND**	0.064	EPA 8021B	4-28-15	4-28-15	
Ethyl Benzene	**ND**	0.064	EPA 8021B	4-28-15	4-28-15	
m,p-Xylene	**ND**	0.064	EPA 8021B	4-28-15	4-28-15	
o-Xylene	**ND**	0.064	EPA 8021B	4-28-15	4-28-15	
Gasoline	**ND**	6.4	NWTPH-Gx	4-28-15	4-28-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*121*	*68-123*				
Client ID:	**UTL9-N-5.0**					
Laboratory ID:	04-253-04					
Benzene	**ND**	0.020	EPA 8021B	4-28-15	4-28-15	
Toluene	**ND**	0.055	EPA 8021B	4-28-15	4-28-15	
Ethyl Benzene	**ND**	0.055	EPA 8021B	4-28-15	4-28-15	
m,p-Xylene	**ND**	0.055	EPA 8021B	4-28-15	4-28-15	
o-Xylene	**ND**	0.055	EPA 8021B	4-28-15	4-28-15	
Gasoline	**ND**	5.5	NWTPH-Gx	4-28-15	4-28-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*121*	*68-123*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: April 29, 2015
Samples Submitted: April 28, 2015
Laboratory Reference: 1504-253
Project: 21138-001-03, T300

NWTPH-Gx/BTEX
QUALITY CONTROL

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0428S1					
Benzene	**ND**	0.020	EPA 8021B	4-28-15	4-28-15	
Toluene	**ND**	0.050	EPA 8021B	4-28-15	4-28-15	
Ethyl Benzene	**ND**	0.050	EPA 8021B	4-28-15	4-28-15	
m,p-Xylene	**ND**	0.050	EPA 8021B	4-28-15	4-28-15	
o-Xylene	**ND**	0.050	EPA 8021B	4-28-15	4-28-15	
Gasoline	**ND**	5.0	NWTPH-Gx	4-28-15	4-28-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*87*	*68-123*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	04-253-02										
	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						*121*	*121*	*68-123*			
SPIKE BLANKS											
Laboratory ID:	SB0428S1										
	SB	SBD	SB	SBD		SB	SBD				
Benzene	**0.917**	**0.957**	1.00	1.00		**92**	**96**	75-117	4	13	
Toluene	**0.934**	**0.971**	1.00	1.00		**93**	**97**	78-118	4	12	
Ethyl Benzene	**0.934**	**0.970**	1.00	1.00		**93**	**97**	78-118	4	12	
m,p-Xylene	**0.955**	**0.983**	1.00	1.00		**96**	**98**	78-121	3	13	
o-Xylene	**0.946**	**0.982**	1.00	1.00		**95**	**98**	77-119	4	13	
Surrogate:											
Fluorobenzene						*88*	*90*	*68-123*			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: April 29, 2015
Samples Submitted: April 28, 2015
Laboratory Reference: 1504-253
Project: 21138-001-03, T300

% MOISTURE

Date Analyzed: 4-28-15

Client ID	Lab ID	% Moisture
UTL9-S-5.0	04-253-02	13
UTL9-N-5.0	04-253-04	14

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

OnSite Environmental Inc.

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-napthalene) 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

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: GEOENGINEERS
Project Number: 21138-001-03, T300
Project Name: 9th & LENORA PROJECT
Project Manager: FASIH KHAN
Sampled by: FASIH KHAN

Turnaround Request (in working days)
(Check One)
☒ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☐ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Laboratory Number: 04-253

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	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		HOLD				% Moisture
1	UTL9-W-5.0 (W DS 5.1)	4/28/15	1330	S	2																		⊗				
2	UTL9-S-5.0	↓	1410	↓	2		⊗																				X
3	UTL9-E-5.0		1420		2		·																⊗				
4	UTL9-N-5.0 (N DS 5.0)		1400		2		⊗																				X

	Signature	Company	Date	Time	Comments/Special Instructions
Relinquished		GEI	4/28/15	1545	
Received		COE	4/28/15	1545	
Relinquished					
Received					
Relinquished					
Received					
Reviewed/Date		Reviewed/Date			Chromatograms with final report ☐

Data Package: Standard ☐ Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ _____

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

April 30, 2015

Fasih Khan
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03
Laboratory Reference No. 1504-270

Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on April 29, 2015.

Please note that this is a *revised* report, and replaces the original due to revisions of the sample identifications.

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,

David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: April 30, 2015
Samples Submitted: April 29, 2015
Laboratory Reference: 1504-270
Project: 21138-001-03

Case Narrative

Samples were collected on April 29, 2015 and received by the laboratory on April 29, 2015. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that 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 preserved with either Methanol or Sodium Bisulfate.

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.

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: April 30, 2015
Samples Submitted: April 29, 2015
Laboratory Reference: 1504-270
Project: 21138-001-03

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
UTL9-S-15.0	04-270-01	Soil	4-29-15	4-29-15	
UTL9-S-20.0	04-270-02	Soil	4-29-15	4-29-15	
UTL9-S-23.0	04-270-03	Soil	4-29-15	4-29-15	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: April 30, 2015
Samples Submitted: April 29, 2015
Laboratory Reference: 1504-270
Project: 21138-001-03

NWTPH-Gx/BTEX

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UTL9-S-15.0**					
Laboratory ID:	04-270-01					
Benzene	**0.022**	0.020	EPA 8021B	4-29-15	4-29-15	
Toluene	**ND**	0.049	EPA 8021B	4-29-15	4-29-15	
Ethyl Benzene	**ND**	0.049	EPA 8021B	4-29-15	4-29-15	
m,p-Xylene	**0.057**	0.049	EPA 8021B	4-29-15	4-29-15	
o-Xylene	**ND**	0.049	EPA 8021B	4-29-15	4-29-15	
Gasoline	**ND**	4.9	NWTPH-Gx	4-29-15	4-29-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*119*	*68-123*				
Client ID:	**UTL9-S-20.0**					
Laboratory ID:	04-270-02					
Benzene	**0.029**	0.020	EPA 8021B	4-29-15	4-29-15	
Toluene	**ND**	0.050	EPA 8021B	4-29-15	4-29-15	
Ethyl Benzene	**ND**	0.050	EPA 8021B	4-29-15	4-29-15	
m,p-Xylene	**0.084**	0.050	EPA 8021B	4-29-15	4-29-15	
o-Xylene	**0.080**	0.050	EPA 8021B	4-29-15	4-29-15	
Gasoline	**ND**	5.0	NWTPH-Gx	4-29-15	4-29-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*121*	*68-123*				
Client ID:	**UTL9-S-23.0**					
Laboratory ID:	04-270-03					
Benzene	**ND**	0.020	EPA 8021B	4-29-15	4-29-15	
Toluene	**ND**	0.053	EPA 8021B	4-29-15	4-29-15	
Ethyl Benzene	**ND**	0.053	EPA 8021B	4-29-15	4-29-15	
m,p-Xylene	**ND**	0.053	EPA 8021B	4-29-15	4-29-15	
o-Xylene	**ND**	0.053	EPA 8021B	4-29-15	4-29-15	
Gasoline	**ND**	5.3	NWTPH-Gx	4-29-15	4-29-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*116*	*68-123*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: April 30, 2015
Samples Submitted: April 29, 2015
Laboratory Reference: 1504-270
Project: 21138-001-03

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UTL9-S-15.0**					
Laboratory ID:	04-270-01					
Diesel Range Organics	**ND**	29	NWTPH-Dx	4-29-15	4-29-15	
Lube Oil Range Organics	**ND**	57	NWTPH-Dx	4-29-15	4-29-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*87*	*50-150*				
Client ID:	**UTL9-S-23.0**					
Laboratory ID:	04-270-03					
Diesel Range Organics	**ND**	28	NWTPH-Dx	4-29-15	4-29-15	
Lube Oil Range Organics	**ND**	56	NWTPH-Dx	4-29-15	4-29-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*90*	*50-150*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: April 30, 2015
Samples Submitted: April 29, 2015
Laboratory Reference: 1504-270
Project: 21138-001-03

NWTPH-Gx/BTEX
QUALITY CONTROL

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0429S1					
Benzene	**ND**	0.020	EPA 8021B	4-29-15	4-29-15	
Toluene	**ND**	0.050	EPA 8021B	4-29-15	4-29-15	
Ethyl Benzene	**ND**	0.050	EPA 8021B	4-29-15	4-29-15	
m,p-Xylene	**ND**	0.050	EPA 8021B	4-29-15	4-29-15	
o-Xylene	**ND**	0.050	EPA 8021B	4-29-15	4-29-15	
Gasoline	**ND**	5.0	NWTPH-Gx	4-29-15	4-29-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*88*	*68-123*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	04-254-01										
	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						*93*	*93*	*68-123*			
MATRIX SPIKES											
Laboratory ID:	04-254-12										
	MS	MSD	MS	MSD		MS	MSD				
Benzene	**0.848**	**0.950**	1.00	1.00	ND	**85**	**95**	71-122	11	21	
Toluene	**0.870**	**0.960**	1.00	1.00	ND	**87**	**96**	77-124	10	17	
Ethyl Benzene	**0.877**	**0.969**	1.00	1.00	ND	**88**	**97**	77-121	10	19	
m,p-Xylene	**0.890**	**0.969**	1.00	1.00	ND	**89**	**97**	78-124	8	19	
o-Xylene	**0.882**	**0.967**	1.00	1.00	ND	**88**	**97**	75-117	9	13	
Surrogate:											
Fluorobenzene						*96*	*94*	*68-123*			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: April 30, 2015
Samples Submitted: April 29, 2015
Laboratory Reference: 1504-270
Project: 21138-001-03

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0429S1					
Diesel Range Organics	**ND**	25	NWTPH-Dx	4-29-15	4-29-15	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	4-29-15	4-29-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*84*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE										
Laboratory ID:	04-256-03									
	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						*81* *82*	*50-150*			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: April 30, 2015
Samples Submitted: April 29, 2015
Laboratory Reference: 1504-270
Project: 21138-001-03

% MOISTURE

Date Analyzed: 4-29-15

Client ID	Lab ID	% Moisture
UTL9-S-15.0	04-270-01	12
UTL9-S-20.0	04-270-02	12
UTL9-S-23.0	04-270-03	11

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

OnSite Environmental Inc.

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-napthalene) 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

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Chain of Custody

Page 1 of 1

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: GEOENGINEERS
Project Number: 21138-001-03
Project Name: 9th & LENORA PROJECT
Project Manager: FASIH KHAN
Sampled by: FASIH KHAN

Turnaround Request (in working days)
(Check One)
☒ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☐ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Laboratory Number: 04-270

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	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
1	UTL9-S-15.0	4/29/15	0930	S	2		⊗		⊗													↓
2	UTL9-S-20.0	↓	1000	S	2		⊗															
3	UTL9-S-23.0	↓	1025	S	2		⊗		⊗													

	Signature	Company	Date	Time
Relinquished		GEO	4/29/15	1240
Received		ONE	4/29/15	1240
Relinquished				
Received				
Relinquished				
Received				

Comments/Special Instructions
Results by 10.00 a.m on 4/30/15.

Reviewed/Date
Reviewed/Date
Chromatograms with final report ☐

Data Package: Standard ☐ Level III ☐ Level IV ☐
Electronic Data Deliverables (EDDs) ☐ _____

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

May 1, 2015

Fasih Khan
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03
Laboratory Reference No. 1504-279

Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on April 29, 2015.

Please note that this is a *revised* report, and replaces the original due to revisions of the sample identifications.

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,

David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: May 1, 2015
Samples Submitted: April 29, 2015
Laboratory Reference: 1504-279
Project: 21138-001-03

Case Narrative

Samples were collected on April 29, 2015 and received by the laboratory on April 29, 2015. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that 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 preserved with either Methanol or Sodium Bisulfate.

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.

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: May 1, 2015
Samples Submitted: April 29, 2015
Laboratory Reference: 1504-279
Project: 21138-001-03

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
UTL9-N-18.0	04-279-03	Soil	4-29-15	4-29-15	
UTL9-E-15.0	04-279-06	Soil	4-29-15	4-29-15	
UTL9-E-18.0	04-279-07	Soil	4-29-15	4-29-15	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: May 1, 2015
Samples Submitted: April 29, 2015
Laboratory Reference: 1504-279
Project: 21138-001-03

NWTPH-Gx/BTEX

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UTL9-N-18.0**					
Laboratory ID:	04-279-03					
Benzene	**ND**	0.020	EPA 8021B	4-30-15	4-30-15	
Toluene	**ND**	0.059	EPA 8021B	4-30-15	4-30-15	
Ethyl Benzene	**ND**	0.059	EPA 8021B	4-30-15	4-30-15	
m,p-Xylene	**ND**	0.059	EPA 8021B	4-30-15	4-30-15	
o-Xylene	**ND**	0.059	EPA 8021B	4-30-15	4-30-15	
Gasoline	**ND**	5.9	NWTPH-Gx	4-30-15	4-30-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*109*	*68-123*				
Client ID:	**UTL9-E-15.0**					
Laboratory ID:	04-279-06					
Benzene	**0.060**	0.020	EPA 8021B	4-30-15	4-30-15	
Toluene	**ND**	0.060	EPA 8021B	4-30-15	4-30-15	
Ethyl Benzene	**ND**	0.060	EPA 8021B	4-30-15	4-30-15	
m,p-Xylene	**ND**	0.060	EPA 8021B	4-30-15	4-30-15	
o-Xylene	**ND**	0.060	EPA 8021B	4-30-15	4-30-15	
Gasoline	**ND**	6.0	NWTPH-Gx	4-30-15	4-30-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*110*	*68-123*				
Client ID:	**UTL9-E-18.0**					
Laboratory ID:	04-279-07					
Benzene	**0.052**	0.020	EPA 8021B	4-30-15	4-30-15	
Toluene	**ND**	0.065	EPA 8021B	4-30-15	4-30-15	
Ethyl Benzene	**ND**	0.065	EPA 8021B	4-30-15	4-30-15	
m,p-Xylene	**ND**	0.065	EPA 8021B	4-30-15	4-30-15	
o-Xylene	**ND**	0.065	EPA 8021B	4-30-15	4-30-15	
Gasoline	**50**	6.5	NWTPH-Gx	4-30-15	4-30-15	O
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*111*	*68-123*				

This report pertains to the samples analyzed in accordance with the chain of custody,
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Date of Report: May 1, 2015
Samples Submitted: April 29, 2015
Laboratory Reference: 1504-279
Project: 21138-001-03

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UTL9-N-18.0**					
Laboratory ID:	04-279-03					
Diesel Range Organics	**180**	150	NWTPH-Dx	4-29-15	4-30-15	N
Lube Oil	**1700**	300	NWTPH-Dx	4-29-15	4-30-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*85*	*50-150*				
Client ID:	**UTL9-E-15.0**					
Laboratory ID:	04-279-06					
Diesel Range Organics	**34**	30	NWTPH-Dx	4-29-15	4-29-15	
Lube Oil Range Organics	**ND**	59	NWTPH-Dx	4-29-15	4-29-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*77*	*50-150*				

This report pertains to the samples analyzed in accordance with the chain of custody,
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Date of Report: May 1, 2015
Samples Submitted: April 29, 2015
Laboratory Reference: 1504-279
Project: 21138-001-03

NWTPH-Gx/BTEX
QUALITY CONTROL

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0430S1					
Benzene	**ND**	0.020	EPA 8021B	4-30-15	4-30-15	
Toluene	**ND**	0.050	EPA 8021B	4-30-15	4-30-15	
Ethyl Benzene	**ND**	0.050	EPA 8021B	4-30-15	4-30-15	
m,p-Xylene	**ND**	0.050	EPA 8021B	4-30-15	4-30-15	
o-Xylene	**ND**	0.050	EPA 8021B	4-30-15	4-30-15	
Gasoline	**ND**	5.0	NWTPH-Gx	4-30-15	4-30-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*87*	*68-123*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	04-279-03										
	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						*109*	*116*	*68-123*			
SPIKE BLANKS											
Laboratory ID:	SB0430S1										
	SB	SBD	SB	SBD		SB	SBD				
Benzene	**0.947**	**0.940**	1.00	1.00		**95**	**94**	75-117	1	13	
Toluene	**0.952**	**0.947**	1.00	1.00		**95**	**95**	78-118	1	12	
Ethyl Benzene	**0.952**	**0.950**	1.00	1.00		**95**	**95**	78-118	0	12	
m,p-Xylene	**0.956**	**0.960**	1.00	1.00		**96**	**96**	78-121	0	13	
o-Xylene	**0.953**	**0.959**	1.00	1.00		**95**	**96**	77-119	1	13	
Surrogate:											
Fluorobenzene						*90*	*90*	*68-123*			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: May 1, 2015
Samples Submitted: April 29, 2015
Laboratory Reference: 1504-279
Project: 21138-001-03

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0429S1					
Diesel Range Organics	**ND**	25	NWTPH-Dx	4-29-15	4-29-15	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	4-29-15	4-29-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*84*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	04-279-06										
	ORIG	DUP									
Diesel Range Organics	**29.1**	**ND**	NA	NA		NA		NA	NA	NA	
Lube Oil Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Surrogate:											
o-Terphenyl						*77*	*78*	*50-150*			

This report pertains to the samples analyzed in accordance with the chain of custody,
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Date of Report: May 1, 2015
Samples Submitted: April 29, 2015
Laboratory Reference: 1504-279
Project: 21138-001-03

% MOISTURE

Date Analyzed: 4-29&30-15

Client ID	Lab ID	% Moisture
UTL9-N-18.0	04-279-03	16
UTL9-E-15.0	04-279-06	15
UTL9-E-18.0	04-279-07	20

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

OnSite Environmental Inc.

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-napthalene) 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

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: GEOENGINEERS
Project Number: 21138-001-03
Project Name: 9th & LENORA PROJECT
Project Manager: FASIH KHAN
Sampled by: FASIH KHAN

Turnaround Request (in working days)
(Check One)
- [X] Same Day
- [ ] 1 Day
- [ ] 2 Days
- [ ] 3 Days
- [ ] Standard (7 Days) (TPH analysis 5 Days)
- [ ] _____ (other)

Laboratory Number: 04-279

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	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		HOLD					% Moisture
1	UTL9-~~W~~N-10.0 DB 4/30/15	4/29/15	1300	S	2																		X					
2	UTL9-~~W~~N-15.0		1320																				X					
3	UTL9-~~W~~N-18.0		1340				X		X																			X
4	UTL9-~~W~~N-25.0		1350																				X					
5	UTL9-E-10.0		1400																				X					
6	UTL9-E-15.0		1410				X		X																			X
7	UTL9-E-18.0	↓	1420	↓	↓		O																X NO					O

	Signature	Company	Date	Time
Relinquished		GEI	4/29/15	1630
Received		CONC	4/29/15	1630
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions
O-Added 4/30/15. DB (Same day)

Chromatograms with final report ☐

Data Package: Standard ☐ Level III ☐ Level IV ☐

Electronic Data Deliverables (EDDs) ☐ _____

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

May 6, 2015

Fasih Khan
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03
Laboratory Reference No. 1505-024

Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on May 5, 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,

David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: May 6, 2015
Samples Submitted: May 5, 2015
Laboratory Reference: 1505-024
Project: 21138-001-03

Case Narrative

Samples were collected on May 5, 2015 and received by the laboratory on May 5, 2015. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that 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 preserved with either Methanol or Sodium Bisulfate.

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.

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: May 6, 2015
Samples Submitted: May 5, 2015
Laboratory Reference: 1505-024
Project: 21138-001-03

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
UTL9-S-30.0	05-024-01	Soil	5-5-15	5-5-15	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: May 6, 2015
Samples Submitted: May 5, 2015
Laboratory Reference: 1505-024
Project: 21138-001-03

NWTPH-Gx/BTEX

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UTL9-S-30.0**					
Laboratory ID:	05-024-01					
Benzene	**ND**	0.020	EPA 8021B	5-5-15	5-5-15	
Toluene	**ND**	0.086	EPA 8021B	5-5-15	5-5-15	
Ethyl Benzene	**ND**	0.086	EPA 8021B	5-5-15	5-5-15	
m,p-Xylene	**ND**	0.086	EPA 8021B	5-5-15	5-5-15	
o-Xylene	**ND**	0.086	EPA 8021B	5-5-15	5-5-15	
Gasoline	**ND**	8.6	NWTPH-Gx	5-5-15	5-5-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*123*	*68-123*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: May 6, 2015
Samples Submitted: May 5, 2015
Laboratory Reference: 1505-024
Project: 21138-001-03

NWTPH-Gx/BTEX
QUALITY CONTROL

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0505S1					
Benzene	**ND**	0.020	EPA 8021B	5-5-15	5-5-15	
Toluene	**ND**	0.050	EPA 8021B	5-5-15	5-5-15	
Ethyl Benzene	**ND**	0.050	EPA 8021B	5-5-15	5-5-15	
m,p-Xylene	**ND**	0.050	EPA 8021B	5-5-15	5-5-15	
o-Xylene	**ND**	0.050	EPA 8021B	5-5-15	5-5-15	
Gasoline	**ND**	5.0	NWTPH-Gx	5-5-15	5-5-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*89*	*68-123*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	05-024-01										
	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						*123*	*123*	*68-123*			
SPIKE BLANKS											
Laboratory ID:	SB0505S1										
	SB	SBD	SB	SBD		SB	SBD				
Benzene	**0.964**	**0.956**	1.00	1.00		**96**	**96**	75-117	1	13	
Toluene	**0.941**	**0.960**	1.00	1.00		**94**	**96**	78-118	2	12	
Ethyl Benzene	**0.961**	**0.962**	1.00	1.00		**96**	**96**	78-118	0	12	
m,p-Xylene	**0.969**	**0.964**	1.00	1.00		**97**	**96**	78-121	1	13	
o-Xylene	**0.949**	**0.964**	1.00	1.00		**95**	**96**	77-119	2	13	
Surrogate:											
Fluorobenzene						*89*	*91*	*68-123*			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: May 6, 2015
Samples Submitted: May 5, 2015
Laboratory Reference: 1505-024
Project: 21138-001-03

% MOISTURE

Date Analyzed: 5-5-15

Client ID	Lab ID	% Moisture
UTL9-S-30.0	05-024-01	21

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

OnSite Environmental Inc.

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-napthalene) 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.

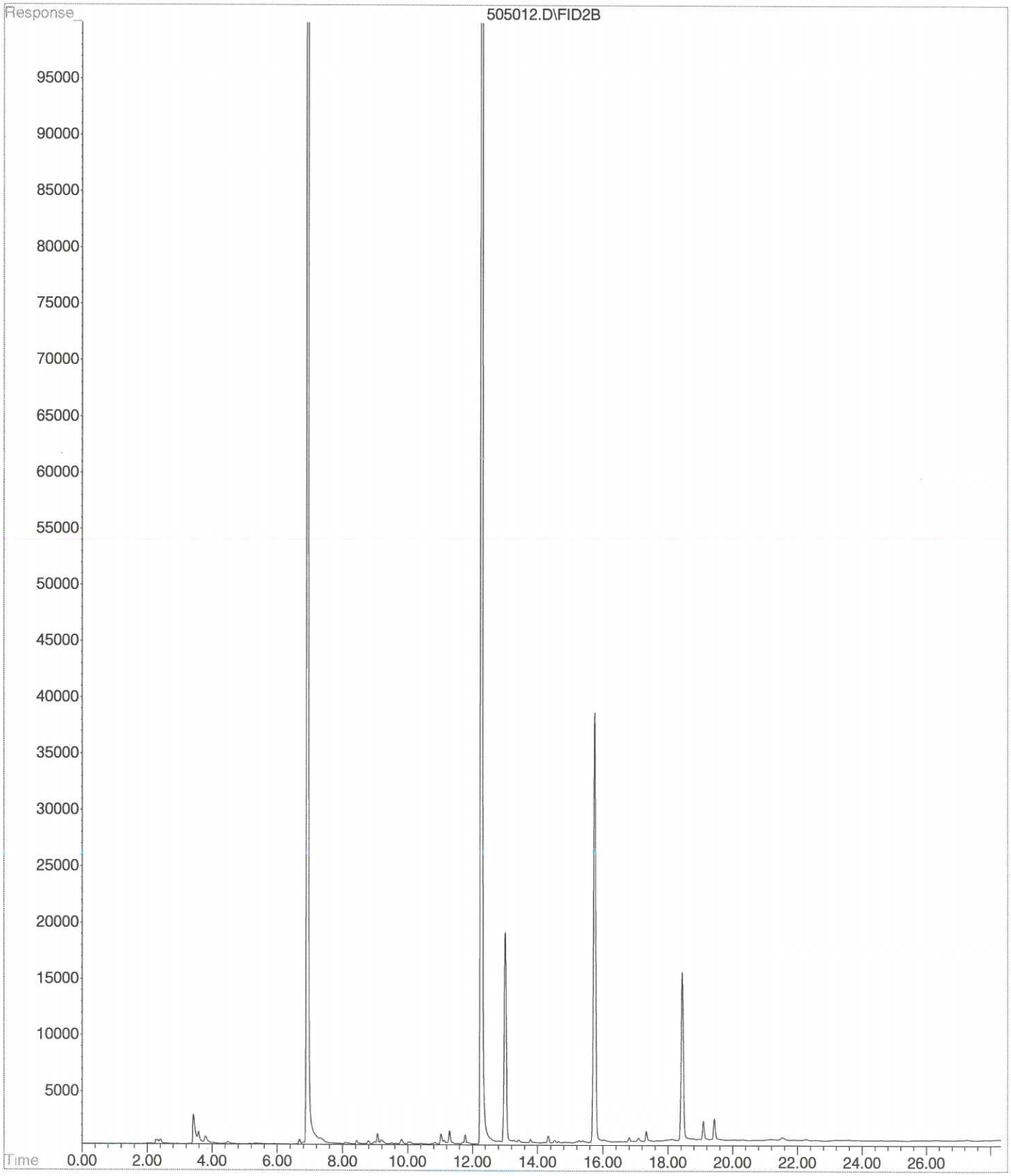
Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

File : X:\BTEX\DARYL\DATA\D150505\505012.D
Operator :
Acquired : 5 May 2015 16:25 using AcqMethod 150327B.M
Instrument : Daryl
Sample Name: 05-024-01s
Misc Info : V2-36-17
Vial Number: 12



Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: GEOENGINEERS
Project Number: 21138-001-03
Project Name: 9th & LENORA PROJECT
Project Manager: FASIH KHAN
Sampled by: FASIH KHAN

Turnaround Request (in working days)

(Check One)

- [X] Same Day
- [ ] 1 Day
- [ ] 2 Days
- [ ] 3 Days
- [ ] Standard (7 Days) (TPH analysis 5 Days)
- [ ] _____ (other)

Laboratory Number: 05-024

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	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		HOLD				% Moisture
1	UTL9-S-30.0	5/5/15	1315	S	2		X																				X
2	UTL9-S-35.0	5/5/15	1350	S	2																		X				

	Signature	Company	Date	Time	Comments/Special Instructions
Relinquished		GEO	5/5/15	1425	
Received		ONSITE	5/5/15	1425	
Relinquished					
Received					
Relinquished					
Received					
Reviewed/Date		Reviewed/Date			Chromatograms with final report ☐

Data Package: Standard ☐ Level III ☐ Level IV ☐

Electronic Data Deliverables (EDDs) ☐ _____

OnSite Environmental Inc.

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

July 29, 2015

Fasih Khan
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03
Laboratory Reference No. 1507-215

Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on July 27, 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,

David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 29, 2015
Samples Submitted: July 27, 2015
Laboratory Reference: 1507-215
Project: 21138-001-03

Case Narrative

Samples were collected on July 27, 2015 and received by the laboratory on July 27, 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.

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 29, 2015
Samples Submitted: July 27, 2015
Laboratory Reference: 1507-215
Project: 21138-001-03

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
EX-1-18.0	07-215-01	Soil	7-27-15	7-27-15	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 29, 2015
Samples Submitted: July 27, 2015
Laboratory Reference: 1507-215
Project: 21138-001-03

NWTPH-Gx/BTEX

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**EX-1-18.0**					
Laboratory ID:	07-215-01					
Benzene	**ND**	0.020	EPA 8021B	7-28-15	7-28-15	
Toluene	**ND**	0.061	EPA 8021B	7-28-15	7-28-15	
Ethyl Benzene	**ND**	0.061	EPA 8021B	7-28-15	7-28-15	
m,p-Xylene	**ND**	0.061	EPA 8021B	7-28-15	7-28-15	
o-Xylene	**ND**	0.061	EPA 8021B	7-28-15	7-28-15	
Gasoline	**ND**	6.1	NWTPH-Gx	7-28-15	7-28-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*95*	*68-123*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 29, 2015
Samples Submitted: July 27, 2015
Laboratory Reference: 1507-215
Project: 21138-001-03

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**EX-1-18.0**					
Laboratory ID:	07-215-01					
Diesel Range Organics	**ND**	28	NWTPH-Dx	7-28-15	7-28-15	
Lube Oil	**68**	56	NWTPH-Dx	7-28-15	7-28-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*97*	*50-150*				

This report pertains to the samples analyzed in accordance with the chain of custody,
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Date of Report: July 29, 2015
Samples Submitted: July 27, 2015
Laboratory Reference: 1507-215
Project: 21138-001-03

NWTPH-Gx/BTEX
QUALITY CONTROL

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0728S1					
Benzene	**ND**	0.020	EPA 8021B	7-28-15	7-28-15	
Toluene	**ND**	0.050	EPA 8021B	7-28-15	7-28-15	
Ethyl Benzene	**ND**	0.050	EPA 8021B	7-28-15	7-28-15	
m,p-Xylene	**ND**	0.050	EPA 8021B	7-28-15	7-28-15	
o-Xylene	**ND**	0.050	EPA 8021B	7-28-15	7-28-15	
Gasoline	**ND**	5.0	NWTPH-Gx	7-28-15	7-28-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*88*	*68-123*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	07-072-04										
	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*	*120*	*68-123*			
SPIKE BLANKS											
Laboratory ID:	SB0728S1										
	SB	SBD	SB	SBD		SB	SBD				
Benzene	**0.992**	**1.04**	1.00	1.00		**99**	**104**	75-117	5	13	
Toluene	**0.978**	**1.02**	1.00	1.00		**98**	**102**	78-118	4	12	
Ethyl Benzene	**0.965**	**1.00**	1.00	1.00		**97**	**100**	78-118	4	12	
m,p-Xylene	**0.976**	**1.02**	1.00	1.00		**98**	**102**	78-121	4	13	
o-Xylene	**0.967**	**1.01**	1.00	1.00		**97**	**101**	77-119	4	13	
Surrogate:											
Fluorobenzene						*88*	*92*	*68-123*			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 29, 2015
Samples Submitted: July 27, 2015
Laboratory Reference: 1507-215
Project: 21138-001-03

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0728S2					
Diesel Range Organics	**ND**	25	NWTPH-Dx	7-28-15	7-28-15	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	7-28-15	7-28-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*96*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	07-194-05										
	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						*93*	*97*	*50-150*			

This report pertains to the samples analyzed in accordance with the chain of custody,
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Date of Report: July 29, 2015
Samples Submitted: July 27, 2015
Laboratory Reference: 1507-215
Project: 21138-001-03

% MOISTURE

Date Analyzed: 7-28-15

Client ID	Lab ID	% Moisture
EX-1-18.0	07-215-01	10

This report pertains to the samples analyzed in accordance with the chain of custody,
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OnSite Environmental Inc.

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-napthalene) 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

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: GEOENGINEERS
Project Number: 21138-001-03
Project Name: 9th & LENORA PROJECT
Project Manager: FASIH KHAN
Sampled by: FASIH KHAN

Turnaround Request (in working days)

(Check One)

- ☐ Same Day
- ☐ 1 Day
- ☒ 2 Days
- ☐ 3 Days
- ☐ Standard (7 Days) (TPH analysis 5 Days)
- ☐ _____ (other)

Laboratory Number: 07-215

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	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			HOLD			% Moisture
1	EX-1-18.0	7/27/15	0930	S	2		X		X																		P
2	G-1-72715	7/27/15	0945	W	1																			X			

	Signature	Company	Date	Time
Relinquished		GEI	7/27/15	1440
Received		GEI	7/27/15	1440
Relinquished				
Received				
Relinquished				
Received				

Comments/Special Instructions

Reviewed/Date

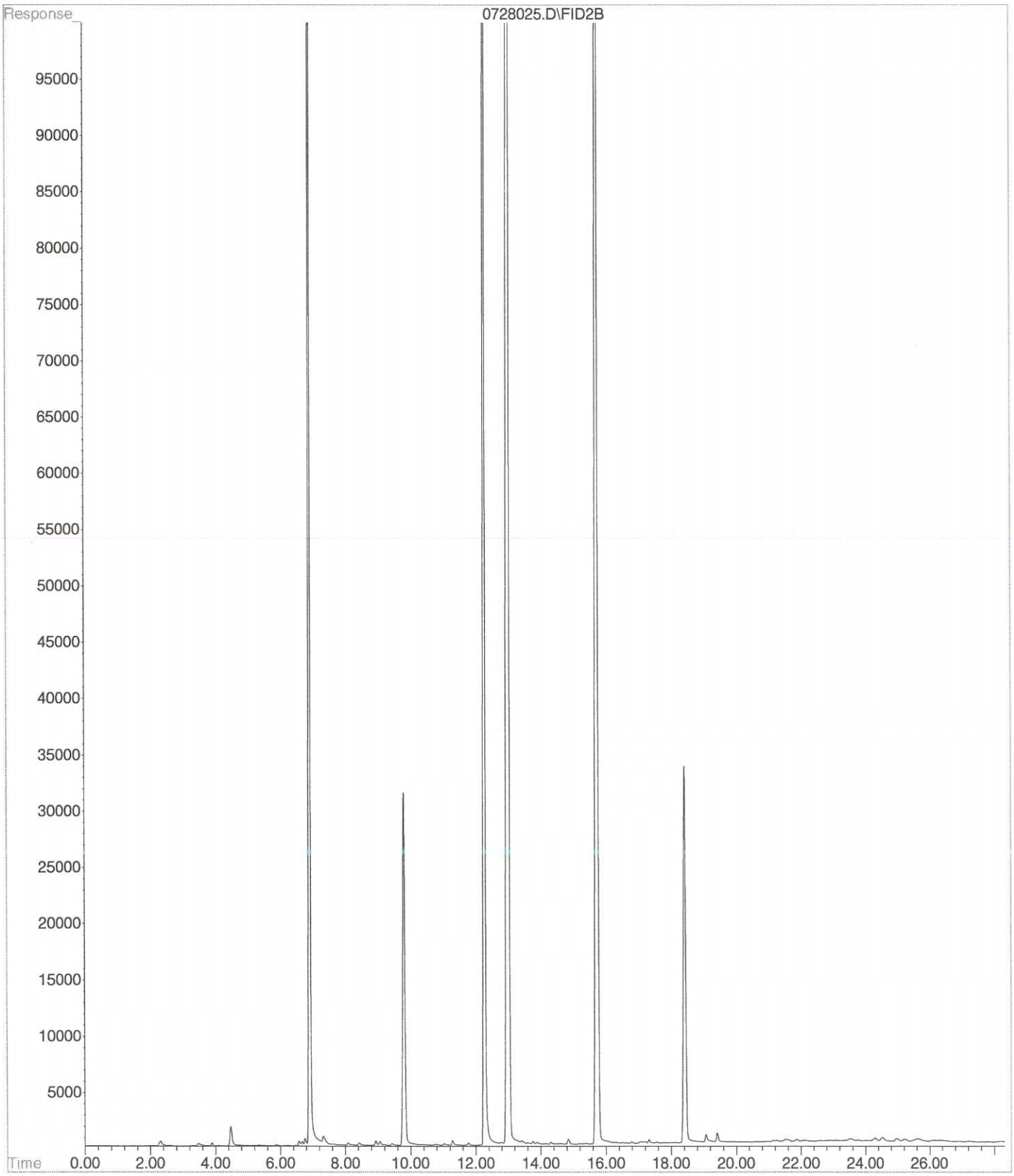
Reviewed/Date

Chromatograms with final report ☐

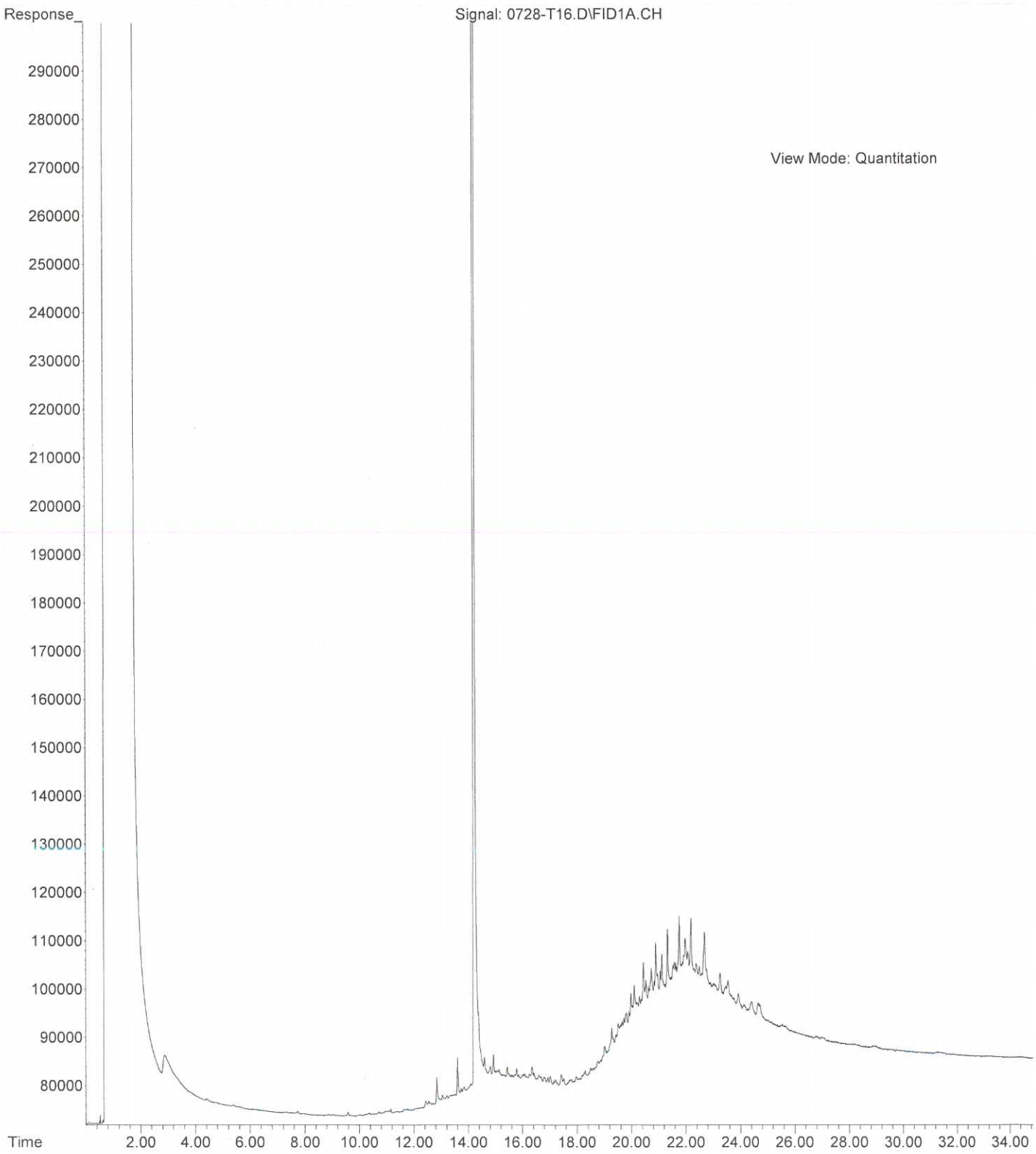
Data Package: Standard ☐ Level III ☐ Level IV ☐

Electronic Data Deliverables (EDDs) ☐ _____

File : D:\BTEX\DATA\D150728\0728025.D
Operator :
Acquired : 29 Jul 2015 00:05 using AcqMethod 150709B.M
Instrument : Daryl
Sample Name: 07-215-01s
Misc Info :
Vial Number: 25



File :X:\DIESELS\TERI\DATA\T150728\0728-T16.D
Operator : ZT
Acquired : 29 Jul 2015 10:23 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 07-215-01 RR
Misc Info :
Vial Number: 16



OnSite Environmental Inc.

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

August 3, 2015

Fasih Khan
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03
Laboratory Reference No. 1507-206

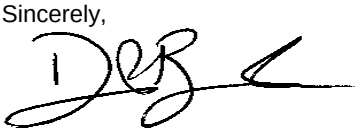
Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on July 24, 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,



David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 3, 2015
Samples Submitted: July 24, 2015
Laboratory Reference: 1507-206
Project: 21138-001-03

Case Narrative

Samples were collected on July 24, 2015 and received by the laboratory on July 24, 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 preserved with either Methanol or Sodium Bisulfate.

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.

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Date of Report: August 3, 2015
Samples Submitted: July 24, 2015
Laboratory Reference: 1507-206
Project: 21138-001-03

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
SS-1	07-206-01	Soil	7-24-15	7-24-15	
SS-2	07-206-02	Soil	7-24-15	7-24-15	
SS-3	07-206-03	Soil	7-24-15	7-24-15	
SS-4	07-206-04	Soil	7-24-15	7-24-15	
EX-1-12.0	07-206-05	Soil	7-24-15	7-24-15	

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Date of Report: August 3, 2015
Samples Submitted: July 24, 2015
Laboratory Reference: 1507-206
Project: 21138-001-03

NWTPH-Gx/BTEX

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**EX-1-12.0**					
Laboratory ID:	07-206-05					
Benzene	**ND**	0.020	EPA 8021B	7-28-15	7-29-15	
Toluene	**ND**	0.059	EPA 8021B	7-28-15	7-29-15	
Ethyl Benzene	**ND**	0.059	EPA 8021B	7-28-15	7-29-15	
m,p-Xylene	**ND**	0.059	EPA 8021B	7-28-15	7-29-15	
o-Xylene	**ND**	0.059	EPA 8021B	7-28-15	7-29-15	
Gasoline	**ND**	5.9	NWTPH-Gx	7-28-15	7-29-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*120*	*68-123*				

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Date of Report: August 3, 2015
Samples Submitted: July 24, 2015
Laboratory Reference: 1507-206
Project: 21138-001-03

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SS-1**					
Laboratory ID:	07-206-01					
Diesel Range Organics	**56**	33	NWTPH-Dx	7-27-15	7-28-15	
Lube Oil Range Organics	**350**	67	NWTPH-Dx	7-27-15	7-28-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*57*	*50-150*				
Client ID:	**SS-2**					
Laboratory ID:	07-206-02					
Diesel Range Organics	**44**	29	NWTPH-Dx	7-27-15	7-27-15	
Lube Oil Range Organics	**210**	58	NWTPH-Dx	7-27-15	7-27-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*65*	*50-150*				
Client ID:	**SS-3**					
Laboratory ID:	07-206-03					
Diesel Range Organics	**74**	32	NWTPH-Dx	7-27-15	7-28-15	
Lube Oil Range Organics	**650**	65	NWTPH-Dx	7-27-15	7-28-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*74*	*50-150*				
Client ID:	**SS-4**					
Laboratory ID:	07-206-04					
Diesel Range Organics	**70**	30	NWTPH-Dx	7-27-15	7-27-15	
Lube Oil Range Organics	**380**	59	NWTPH-Dx	7-27-15	7-27-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*65*	*50-150*				
Client ID:	**EX-1-12.0**					
Laboratory ID:	07-206-05					
Diesel Range Organics	**ND**	27	NWTPH-Dx	7-27-15	7-27-15	
Lube Oil Range Organics	**ND**	55	NWTPH-Dx	7-27-15	7-27-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*61*	*50-150*				

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Date of Report: August 3, 2015
Samples Submitted: July 24, 2015
Laboratory Reference: 1507-206
Project: 21138-001-03

cPAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SS-1**					
Laboratory ID:	07-206-01					
Benzo[a]anthracene	**0.048**	0.0089	EPA 8270D/SIM	7-29-15	7-30-15	
Chrysene	**0.049**	0.0089	EPA 8270D/SIM	7-29-15	7-30-15	
Benzo[b]fluoranthene	**0.043**	0.0089	EPA 8270D/SIM	7-29-15	7-30-15	
Benzo(j,k)fluoranthene	**0.013**	0.0089	EPA 8270D/SIM	7-29-15	7-30-15	
Benzo[a]pyrene	**0.041**	0.0089	EPA 8270D/SIM	7-29-15	7-30-15	
Indeno(1,2,3-c,d)pyrene	**0.026**	0.0089	EPA 8270D/SIM	7-29-15	7-30-15	
Dibenz[a,h]anthracene	**ND**	0.0089	EPA 8270D/SIM	7-29-15	7-30-15	
Benzo[g,h,i]perylene	**0.031**	0.0089	EPA 8270D/SIM	7-29-15	7-30-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*67*	*32 - 114*				
Pyrene-d10	*59*	*33 - 121*				
Terphenyl-d14	*74*	*31 - 116*				

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Date of Report: August 3, 2015
Samples Submitted: July 24, 2015
Laboratory Reference: 1507-206
Project: 21138-001-03

cPAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SS-2**					
Laboratory ID:	07-206-02					
Benzo[a]anthracene	**0.38**	0.0077	EPA 8270D/SIM	7-29-15	7-31-15	
Chrysene	**0.35**	0.0077	EPA 8270D/SIM	7-29-15	7-31-15	
Benzo[b]fluoranthene	**0.35**	0.0077	EPA 8270D/SIM	7-29-15	7-31-15	
Benzo(j,k)fluoranthene	**0.12**	0.0077	EPA 8270D/SIM	7-29-15	7-31-15	
Benzo[a]pyrene	**0.33**	0.0077	EPA 8270D/SIM	7-29-15	7-31-15	
Indeno(1,2,3-c,d)pyrene	**0.19**	0.0077	EPA 8270D/SIM	7-29-15	7-31-15	
Dibenz[a,h]anthracene	**0.050**	0.0077	EPA 8270D/SIM	7-29-15	7-31-15	
Benzo[g,h,i]perylene	**0.18**	0.0077	EPA 8270D/SIM	7-29-15	7-31-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*77*	*32 - 114*				
Pyrene-d10	*74*	*33 - 121*				
Terphenyl-d14	*95*	*31 - 116*				

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Date of Report: August 3, 2015
Samples Submitted: July 24, 2015
Laboratory Reference: 1507-206
Project: 21138-001-03

cPAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SS-3**					
Laboratory ID:	07-206-03					
Benzo[a]anthracene	**0.010**	0.0086	EPA 8270D/SIM	7-29-15	7-31-15	
Chrysene	**0.010**	0.0086	EPA 8270D/SIM	7-29-15	7-31-15	
Benzo[b]fluoranthene	**0.010**	0.0086	EPA 8270D/SIM	7-29-15	7-31-15	
Benzo(j,k)fluoranthene	**ND**	0.0086	EPA 8270D/SIM	7-29-15	7-31-15	
Benzo[a]pyrene	**ND**	0.0086	EPA 8270D/SIM	7-29-15	7-31-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0086	EPA 8270D/SIM	7-29-15	7-31-15	
Dibenz[a,h]anthracene	**ND**	0.0086	EPA 8270D/SIM	7-29-15	7-31-15	
Benzo[g,h,i]perylene	**ND**	0.0086	EPA 8270D/SIM	7-29-15	7-31-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*69*	*32 - 114*				
Pyrene-d10	*70*	*33 - 121*				
Terphenyl-d14	*78*	*31 - 116*				

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Date of Report: August 3, 2015
Samples Submitted: July 24, 2015
Laboratory Reference: 1507-206
Project: 21138-001-03

cPAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SS-4**					
Laboratory ID:	07-206-04					
Benzo[a]anthracene	**0.10**	0.016	EPA 8270D/SIM	7-29-15	7-30-15	
Chrysene	**0.11**	0.016	EPA 8270D/SIM	7-29-15	7-30-15	
Benzo[b]fluoranthene	**0.13**	0.016	EPA 8270D/SIM	7-29-15	7-30-15	
Benzo(j,k)fluoranthene	**0.035**	0.016	EPA 8270D/SIM	7-29-15	7-30-15	
Benzo[a]pyrene	**0.095**	0.016	EPA 8270D/SIM	7-29-15	7-30-15	
Indeno(1,2,3-c,d)pyrene	**0.081**	0.016	EPA 8270D/SIM	7-29-15	7-30-15	
Dibenz[a,h]anthracene	**0.017**	0.016	EPA 8270D/SIM	7-29-15	7-30-15	
Benzo[g,h,i]perylene	**0.090**	0.016	EPA 8270D/SIM	7-29-15	7-30-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*69*	*32 - 114*				
Pyrene-d10	*62*	*33 - 121*				
Terphenyl-d14	*81*	*31 - 116*				

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Date of Report: August 3, 2015
Samples Submitted: July 24, 2015
Laboratory Reference: 1507-206
Project: 21138-001-03

NWTPH-Gx/BTEX
QUALITY CONTROL

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0728S1					
Benzene	**ND**	0.020	EPA 8021B	7-28-15	7-28-15	
Toluene	**ND**	0.050	EPA 8021B	7-28-15	7-28-15	
Ethyl Benzene	**ND**	0.050	EPA 8021B	7-28-15	7-28-15	
m,p-Xylene	**ND**	0.050	EPA 8021B	7-28-15	7-28-15	
o-Xylene	**ND**	0.050	EPA 8021B	7-28-15	7-28-15	
Gasoline	**ND**	5.0	NWTPH-Gx	7-28-15	7-28-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*88*	*68-123*				

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE										
Laboratory ID:	07-072-04									
	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*	*120*	*68-123*		
SPIKE BLANKS										
Laboratory ID:	SB0728S1									
	SB	SBD	SB	SBD		SB	SBD			
Benzene	**0.992**	**1.04**	1.00	1.00		**99**	**104**	75-117	5	13
Toluene	**0.978**	**1.02**	1.00	1.00		**98**	**102**	78-118	4	12
Ethyl Benzene	**0.965**	**1.00**	1.00	1.00		**97**	**100**	78-118	4	12
m,p-Xylene	**0.976**	**1.02**	1.00	1.00		**98**	**102**	78-121	4	13
o-Xylene	**0.967**	**1.01**	1.00	1.00		**97**	**101**	77-119	4	13
Surrogate:										
Fluorobenzene						*88*	*92*	*68-123*		

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Date of Report: August 3, 2015
Samples Submitted: July 24, 2015
Laboratory Reference: 1507-206
Project: 21138-001-03

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0727S1					
Diesel Range Organics	**ND**	25	NWTPH-Dx	7-27-15	7-27-15	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	7-27-15	7-27-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*55*	*50-150*				

DUPLICATE									
Laboratory ID:	07-206-05								
	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					*61*	*74*	*50-150*		

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Date of Report: August 3, 2015
Samples Submitted: July 24, 2015
Laboratory Reference: 1507-206
Project: 21138-001-03

cPAHs EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0729S1					
Benzo[a]anthracene	**ND**	0.0067	EPA 8270D/SIM	7-29-15	7-29-15	
Chrysene	**ND**	0.0067	EPA 8270D/SIM	7-29-15	7-29-15	
Benzo[b]fluoranthene	**ND**	0.0067	EPA 8270D/SIM	7-29-15	7-29-15	
Benzo(j,k)fluoranthene	**ND**	0.0067	EPA 8270D/SIM	7-29-15	7-29-15	
Benzo[a]pyrene	**ND**	0.0067	EPA 8270D/SIM	7-29-15	7-29-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0067	EPA 8270D/SIM	7-29-15	7-29-15	
Dibenz[a,h]anthracene	**ND**	0.0067	EPA 8270D/SIM	7-29-15	7-29-15	
Benzo[g,h,i]perylene	**ND**	0.0067	EPA 8270D/SIM	7-29-15	7-29-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*80*	*32 - 114*				
Pyrene-d10	*86*	*33 - 121*				
Terphenyl-d14	*83*	*31 - 116*				

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Date of Report: August 3, 2015
Samples Submitted: July 24, 2015
Laboratory Reference: 1507-206
Project: 21138-001-03

cPAHs EPA 8270D/SIM
MS/MSD QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	07-205-01										
	MS	MSD	MS	MSD		MS	MSD				
Naphthalene	**0.0727**	**0.0740**	0.0833	0.0833	ND	87	89	44 - 107	2	29	
Acenaphthylene	**0.0728**	**0.0727**	0.0833	0.0833	ND	87	87	44 - 121	0	27	
Acenaphthene	**0.0725**	**0.0726**	0.0833	0.0833	ND	87	87	47 - 109	0	26	
Fluorene	**0.0744**	**0.0761**	0.0833	0.0833	ND	89	91	49 - 115	2	28	
Phenanthrene	**0.0755**	**0.0751**	0.0833	0.0833	ND	91	90	45 - 114	1	26	
Anthracene	**0.0976**	**0.0997**	0.0833	0.0833	ND	117	120	43 - 140	2	27	
Fluoranthene	**0.0780**	**0.0764**	0.0833	0.0833	ND	94	92	44 - 126	2	27	
Pyrene	**0.0776**	**0.0758**	0.0833	0.0833	ND	93	91	43 - 125	2	27	
Benzo[a]anthracene	**0.0817**	**0.0820**	0.0833	0.0833	ND	98	98	42 - 134	0	27	
Chrysene	**0.0750**	**0.0752**	0.0833	0.0833	ND	90	90	45 - 114	0	27	
Benzo[b]fluoranthene	**0.0696**	**0.0742**	0.0833	0.0833	ND	84	89	38 - 131	6	33	
Benzo(j,k)fluoranthene	**0.0660**	**0.0671**	0.0833	0.0833	ND	79	81	44 - 114	2	34	
Benzo[a]pyrene	**0.0747**	**0.0745**	0.0833	0.0833	ND	90	89	40 - 136	0	29	
Indeno(1,2,3-c,d)pyrene	**0.0701**	**0.0710**	0.0833	0.0833	ND	84	85	45 - 126	1	30	
Dibenz[a,h]anthracene	**0.0728**	**0.0735**	0.0833	0.0833	ND	87	88	46 - 121	1	28	
Benzo[g,h,i]perylene	**0.0744**	**0.0739**	0.0833	0.0833	ND	89	89	43 - 120	1	31	
Surrogate:											
2-Fluorobiphenyl						*80*	*80*	*32 - 114*			
Pyrene-d10						*84*	*85*	*33 - 121*			
Terphenyl-d14						*83*	*87*	*31 - 116*			

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Date of Report: August 3, 2015
Samples Submitted: July 24, 2015
Laboratory Reference: 1507-206
Project: 21138-001-03

% MOISTURE

Date Analyzed: 7-27-15

Client ID	Lab ID	% Moisture
SS-1	07-206-01	25
SS-2	07-206-02	14
SS-3	07-206-03	23
SS-4	07-206-04	15
EX-1-12.0	07-206-05	8

This report pertains to the samples analyzed in accordance with the chain of custody,
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OnSite Environmental Inc.

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-napthalene) 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

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Laboratory Number: 07-206

Company: GEOENGINEERS
Project Number: 21138-001-05
Project Name: 9th & LENORA SITE
Project Manager: FASIH KHAN
Sampled by: FASIH KHAN

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☒ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	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	cPAHs ONLY					% Moisture
1	SS-1	7/24/15	0900	S	1				X													X					X
2	SS-2	↓	0910	↓	1				X													X					
3	SS-3		0930		1				X													X					
4	SS-4		0940		1				X													X					
5	EX-1-12.0	↓	1130	↓	2		X		X																		↓

	Signature	Company	Date	Time
Relinquished		GEI	7/24/15	1623
Received		OSE	7/24/15	1623
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

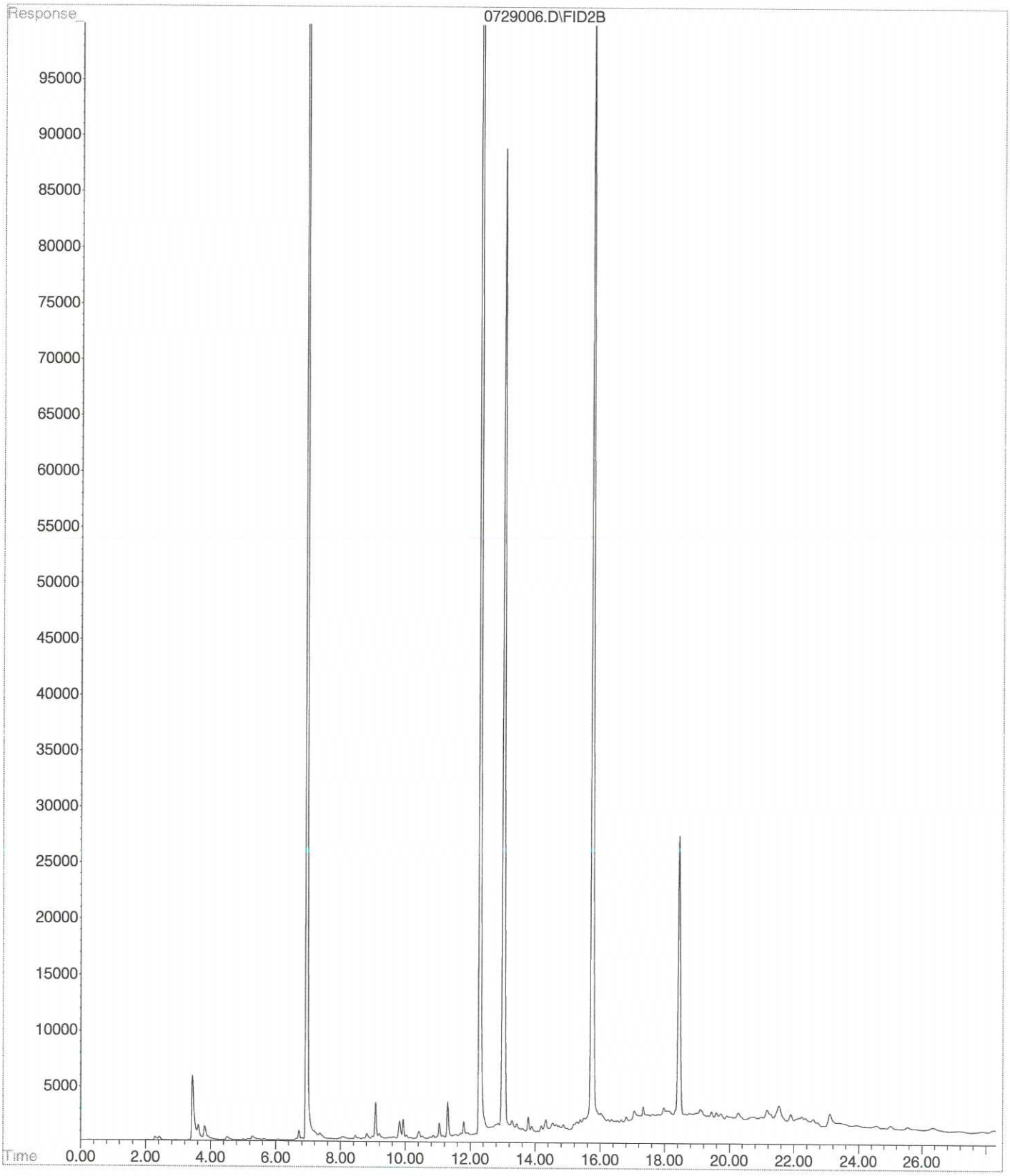
Comments/Special Instructions

Chromatograms with final report ☐

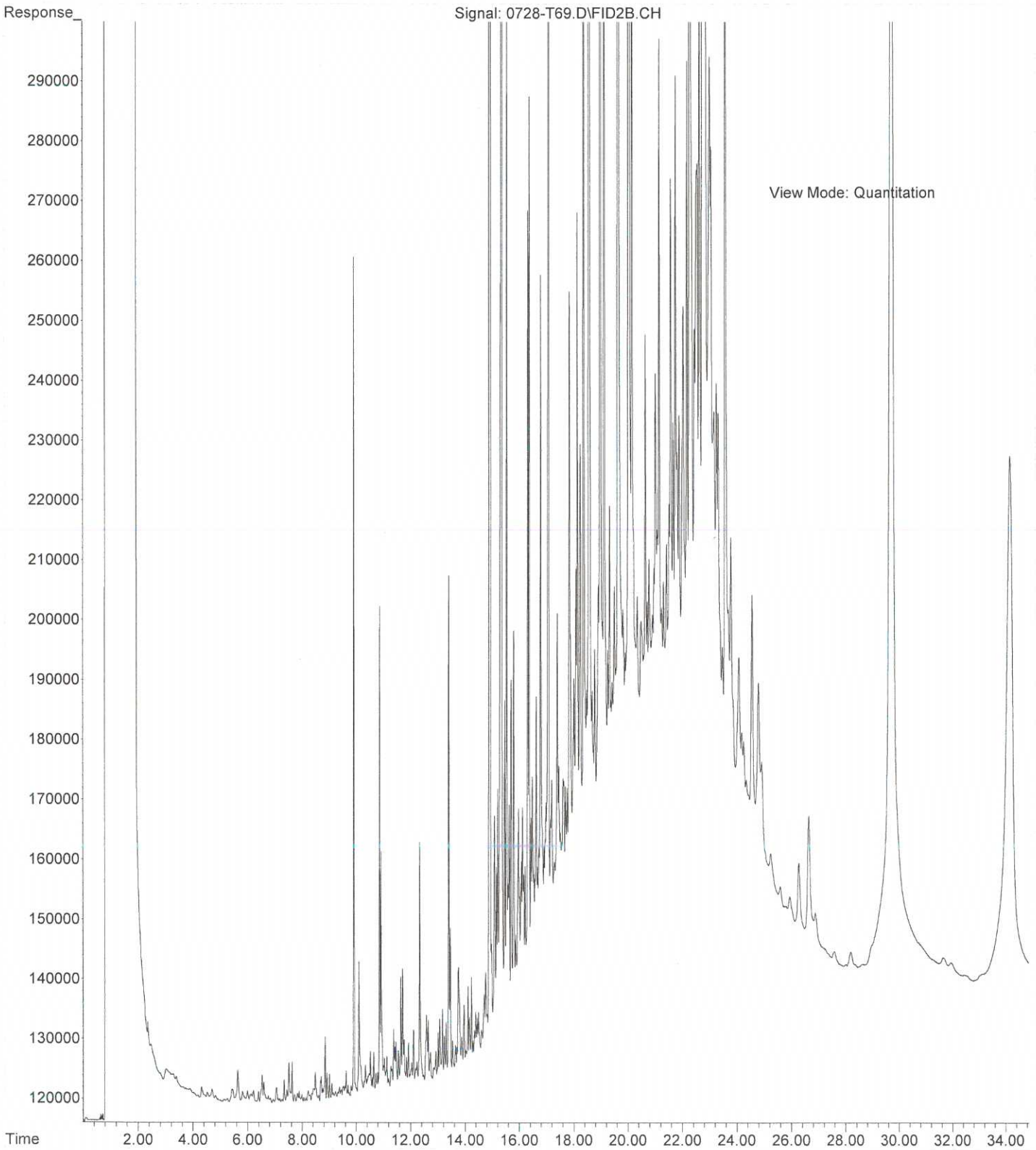
Data Package: Standard ☐ Level III ☐ Level IV ☐

Electronic Data Deliverables (EDDs) ☐ _____

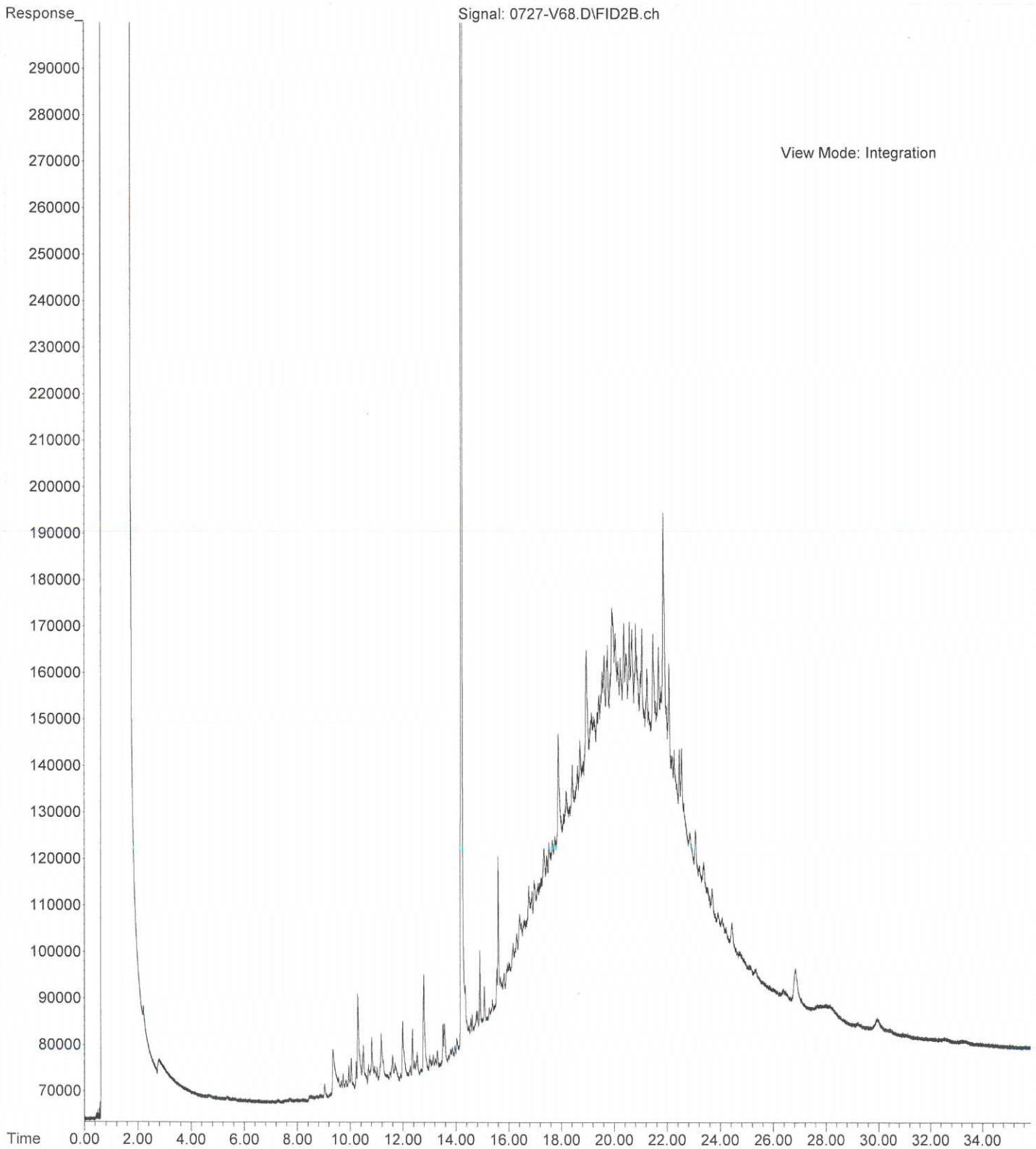
File : D:\BTEX\DATA\D150729\0729006.D
Operator :
Acquired : 29 Jul 2015 13:16 using AcqMethod 150709B.M
Instrument : Daryl
Sample Name: 07-206-05 RRR
Misc Info :
Vial Number: 6



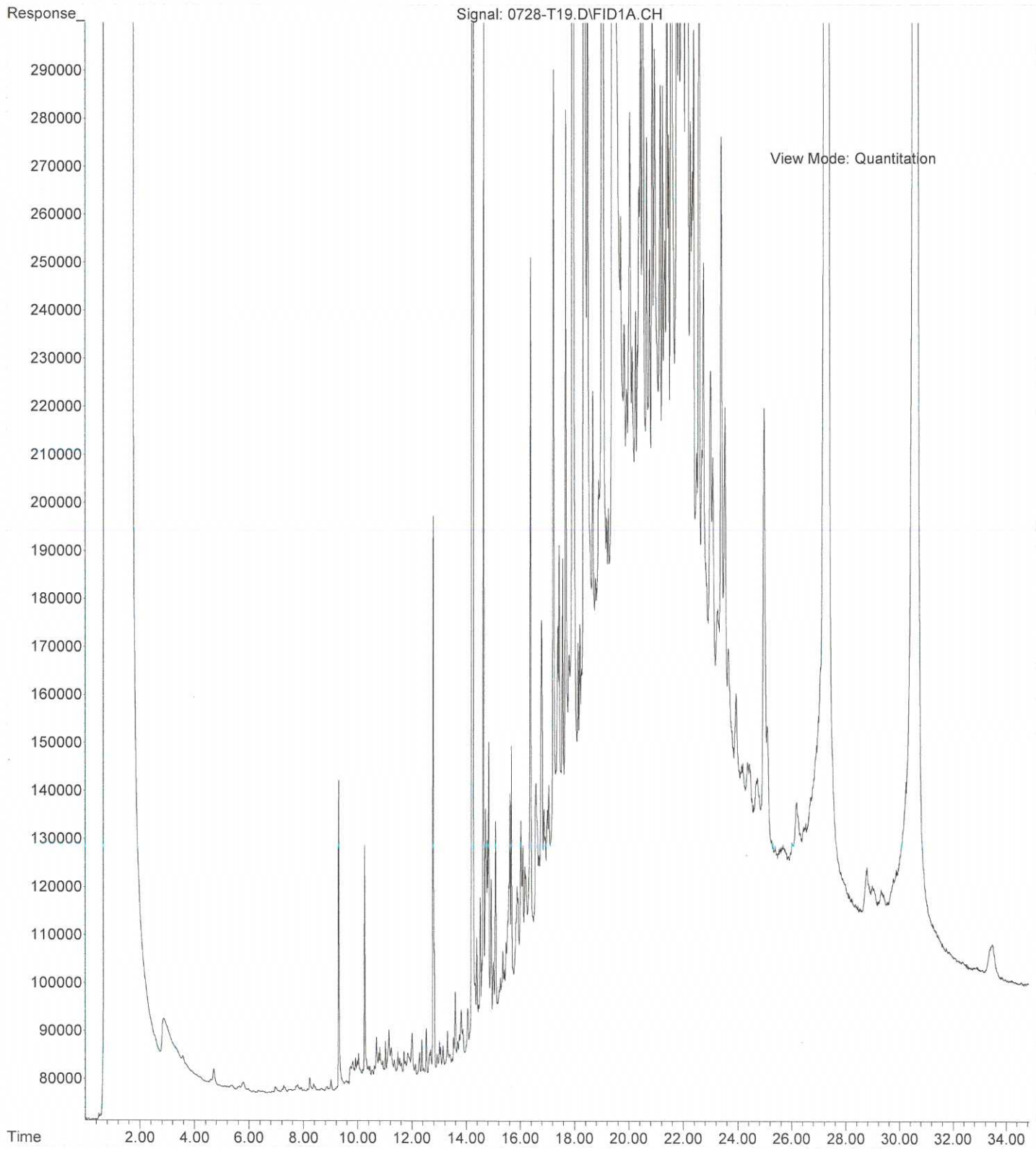
File :X:\DIESELS\TERI\DATA\T150728.SEC\0728-T69.D
Operator : ZT
Acquired : 29 Jul 2015 12:53 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 07-206-01 RR
Misc Info :
Vial Number: 69



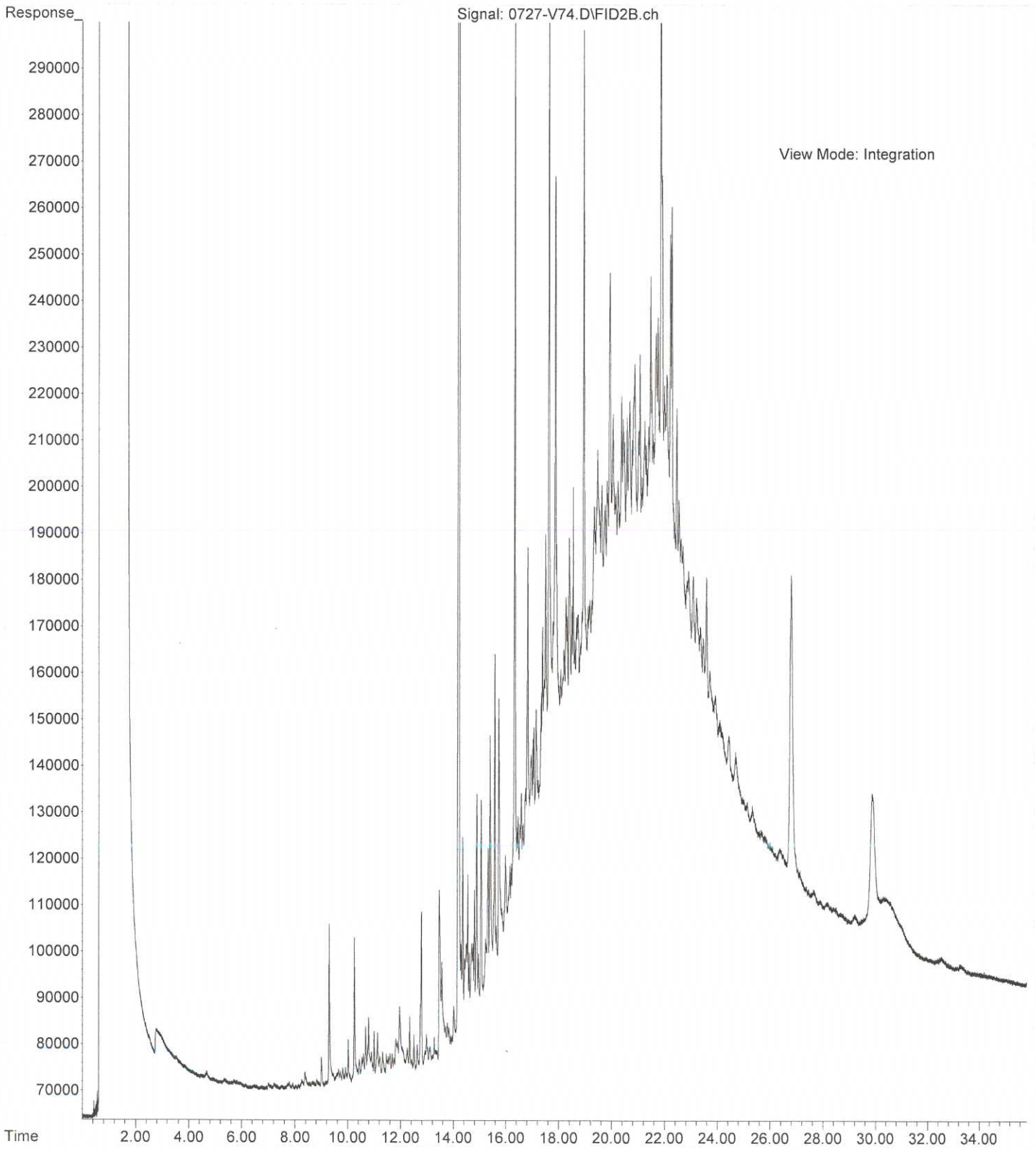
File :X:\DIESELS\VIGO\DATA\V150727.SEC\0727-V68.D
Operator :
Acquired : 28 Jul 2015 00:38 using AcqMethod V150209F.M
Instrument : Vigo
Sample Name: 07-206-02
Misc Info :
Vial Number: 68



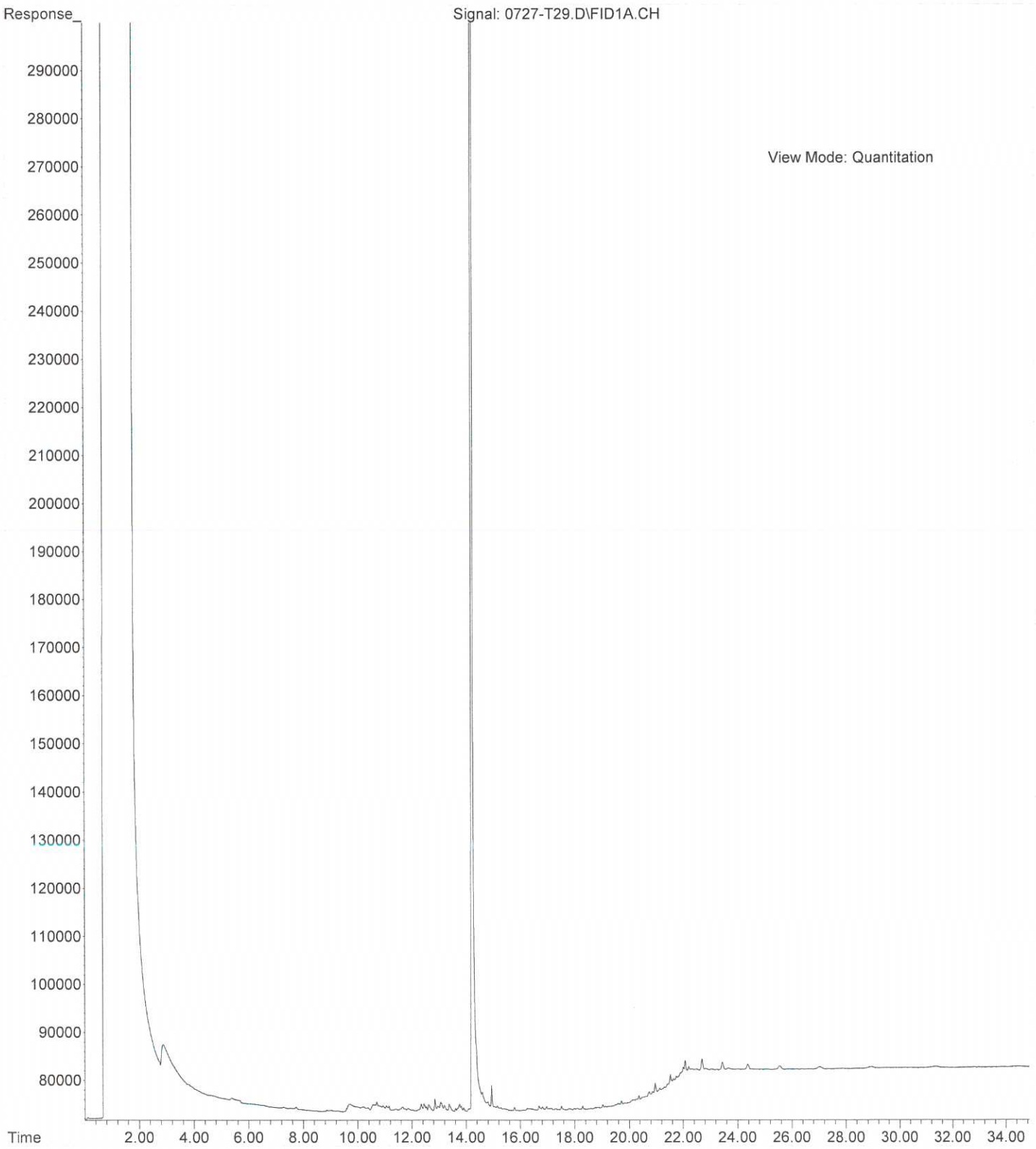
File :X:\DIESELS\TERI\DATA\T150728\0728-T19.D
Operator : ZT
Acquired : 29 Jul 2015 12:53 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 07-206-03 RR
Misc Info :
Vial Number: 19



File :X:\DIESELS\VIGO\DATA\V150727.SEC\0727-V74.D
Operator :
Acquired : 28 Jul 2015 4:43 using AcqMethod V150209F.M
Instrument : Vigo
Sample Name: 07-206-04
Misc Info :
Vial Number: 74



File :X:\DIESELS\TERI\DATA\T150727\0727-T29.D
Operator : ZT
Acquired : 28 Jul 2015 8:42 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 07-206-05
Misc Info :
Vial Number: 29



OnSite Environmental Inc.

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

August 3, 2015

Fasih Khan
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03
Laboratory Reference No. 1507-254

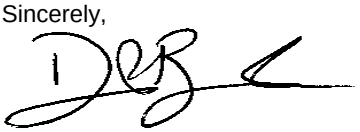
Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on July 31, 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,



David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 3, 2015
Samples Submitted: July 31, 2015
Laboratory Reference: 1507-254
Project: 21138-001-03

Case Narrative

Samples were collected on July 31, 2015 and received by the laboratory on July 31, 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.

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 3, 2015
Samples Submitted: July 31, 2015
Laboratory Reference: 1507-254
Project: 21138-001-03

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
SS-5	07-254-01	Soil	7-31-15	7-31-15	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 3, 2015
Samples Submitted: July 31, 2015
Laboratory Reference: 1507-254
Project: 21138-001-03

NWTPH-Gx/BTEX

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SS-5**					
Laboratory ID:	07-254-01					
Benzene	**ND**	0.022	EPA 8021B	7-31-15	7-31-15	
Toluene	**ND**	0.11	EPA 8021B	7-31-15	7-31-15	
Ethyl Benzene	**ND**	0.11	EPA 8021B	7-31-15	7-31-15	
m,p-Xylene	**ND**	0.11	EPA 8021B	7-31-15	7-31-15	
o-Xylene	**ND**	0.11	EPA 8021B	7-31-15	7-31-15	
Gasoline	**ND**	11	NWTPH-Gx	7-31-15	7-31-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*90*	*68-123*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 3, 2015
Samples Submitted: July 31, 2015
Laboratory Reference: 1507-254
Project: 21138-001-03

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SS-5**					
Laboratory ID:	07-254-01					
Diesel Range Organics	**ND**	40	NWTPH-Dx	7-31-15	7-31-15	U1
Lube Oil	**300**	55	NWTPH-Dx	7-31-15	7-31-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*70*	*50-150*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 3, 2015
Samples Submitted: July 31, 2015
Laboratory Reference: 1507-254
Project: 21138-001-03

NWTPH-Gx/BTEX
QUALITY CONTROL

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0731S2					
Benzene	**ND**	0.020	EPA 8021B			
Toluene	**ND**	0.050	EPA 8021B			
Ethyl Benzene	**ND**	0.050	EPA 8021B			
m,p-Xylene	**ND**	0.050	EPA 8021B			
o-Xylene	**ND**	0.050	EPA 8021B			
Gasoline	**ND**	5.0	NWTPH-Gx			
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*86*	*68-123*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	07-212-01										
	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						*93*	*93*	*68-123*			
SPIKE BLANKS											
Laboratory ID:	SB0731S1										
	SB	SBD	SB	SBD		SB	SBD				
Benzene	**0.985**	**1.03**	1.00	1.00		**99**	**103**	75-117	4	13	
Toluene	**0.971**	**1.02**	1.00	1.00		**97**	**102**	78-118	5	12	
Ethyl Benzene	**0.957**	**1.00**	1.00	1.00		**96**	**100**	78-118	4	12	
m,p-Xylene	**0.972**	**1.02**	1.00	1.00		**97**	**102**	78-121	5	13	
o-Xylene	**0.960**	**0.994**	1.00	1.00		**96**	**99**	77-119	3	13	
Surrogate:											
Fluorobenzene						*89*	*93*	*68-123*			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 3, 2015
Samples Submitted: July 31, 2015
Laboratory Reference: 1507-254
Project: 21138-001-03

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0731S1					
Diesel Range Organics	**ND**	25	NWTPH-Dx	7-31-15	7-31-15	
Lube Oil Range	**ND**	50	NWTPH-Dx	7-31-15	7-31-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*61*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	07-242-02										
	ORIG	DUP									
Diesel Fuel #2	**4950**	**3390**	NA	NA		NA		NA	37	NA	
Lube Oil Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	U1
Surrogate:											
o-Terphenyl						*121*	*111*	*50-150*			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 3, 2015
Samples Submitted: July 31, 2015
Laboratory Reference: 1507-254
Project: 21138-001-03

% MOISTURE

Date Analyzed: 7-31-15

Client ID	Lab ID	% Moisture
SS-5	07-254-01	8

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

OnSite Environmental Inc.

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-napthalene) 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

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Chain of Custody

Page 1 of 1

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Laboratory Number: 07-254

Company: GEOENGINEERS
Project Number: 21138-001-03
Project Name: 9th & LENORA PROJECT
Project Manager: FASIH KHAN
Sampled by: FASIH KHAN

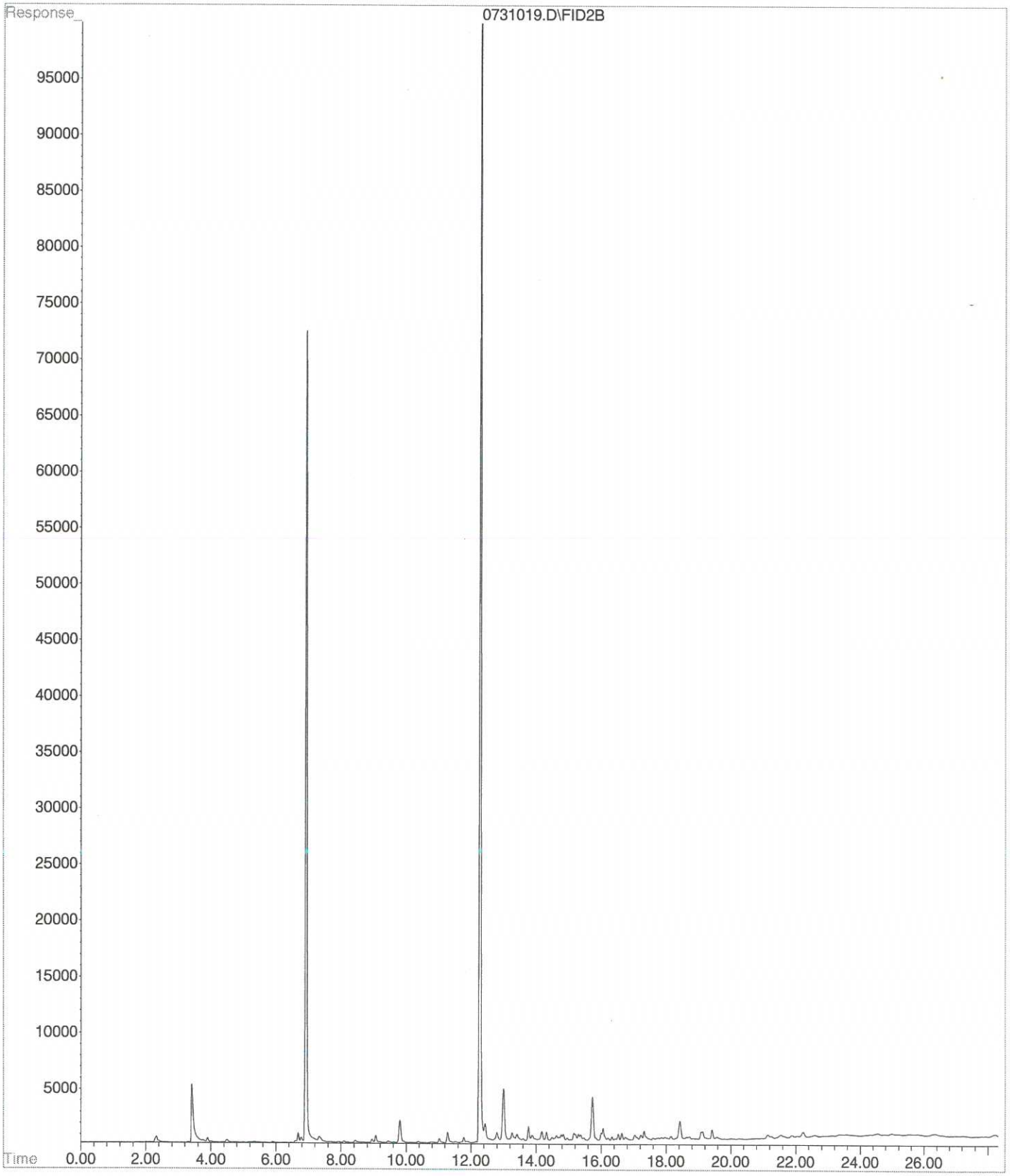
Turnaround Request (in working days)
(Check One)
☐ Same Day ☒ 1 Day
☐ 2 Days ☐ 3 Days
☐ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	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
1	SS-5	7/31/15	0930	S	2		⊗		⊗													X

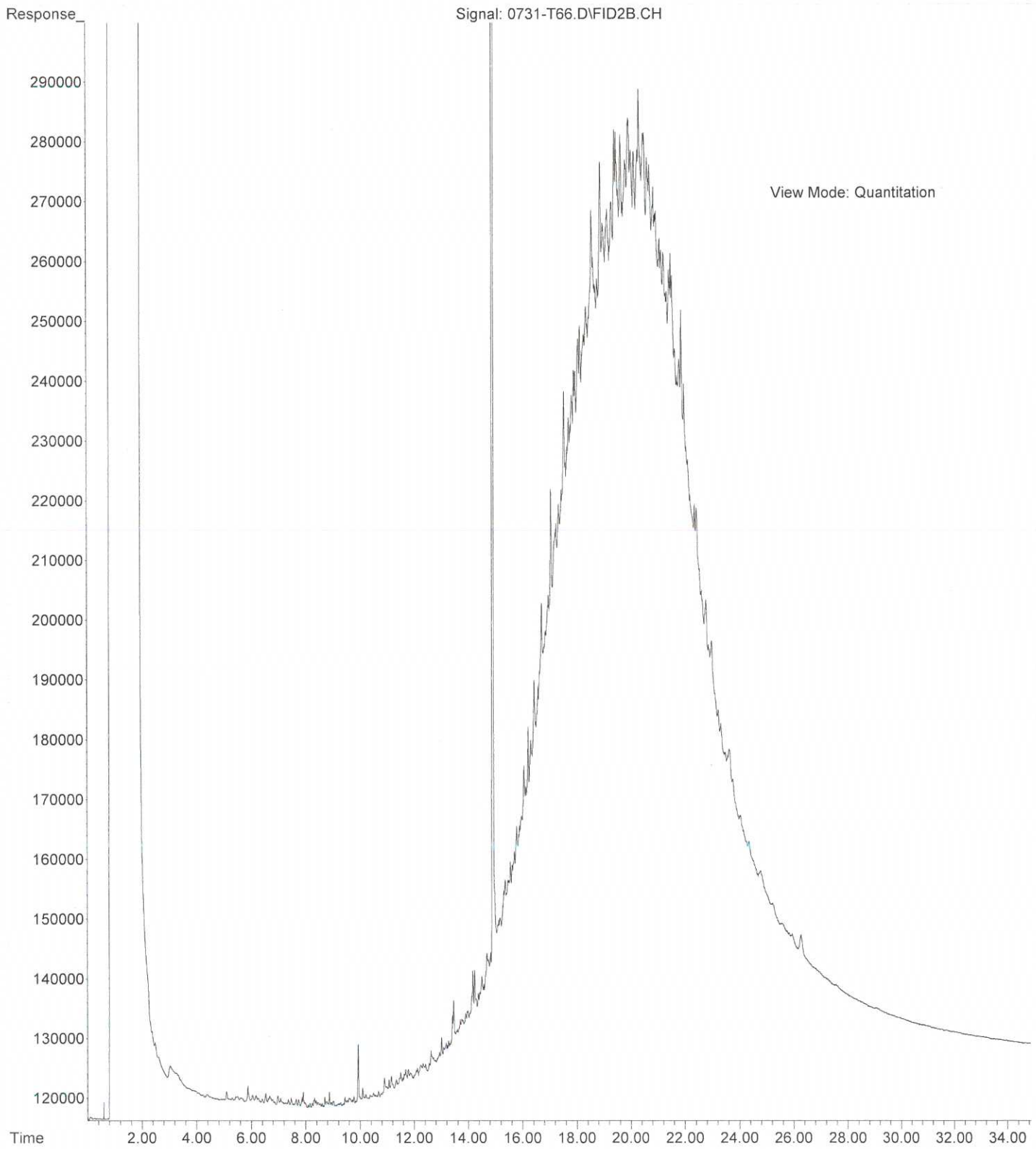
	Signature	Company	Date	Time	Comments/Special Instructions
Relinquished		GEI	7/31/15	1155	
Received		CORE	7/31/15	1155	
Relinquished					
Received					
Relinquished					
Received					
Reviewed/Date		Reviewed/Date			Chromatograms with final report ☐

Data Package: Standard ☐ Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ _____

File : D:\BTEX\DATA\D150731\0731019.D
Operator :
Acquired : 1 Aug 2015 00:24 using AcqMethod 150709B.M
Instrument : Daryl
Sample Name: 07-254-01 1:100
Misc Info :
Vial Number: 19



File :X:\DIESELS\TERI\DATA\T150731.SEC\0731-T66.D
Operator : ZT
Acquired : 01 Aug 2015 0:27 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 07-254-01
Misc Info :
Vial Number: 66



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

August 7, 2015

Fasih Khan
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03
Laboratory Reference No. 1508-030

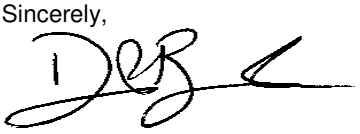
Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on August 6, 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,



David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 7, 2015
Samples Submitted: August 6, 2015
Laboratory Reference: 1508-030
Project: 21138-001-03

Case Narrative

Samples were collected on August 5, 2015 and received by the laboratory on August 6, 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.

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 7, 2015
Samples Submitted: August 6, 2015
Laboratory Reference: 1508-030
Project: 21138-001-03

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
SS-6	08-030-01	Soil	8-5-15	8-6-15	
SS-7	08-030-02	Soil	8-5-15	8-6-15	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 7, 2015
Samples Submitted: August 6, 2015
Laboratory Reference: 1508-030
Project: 21138-001-03

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SS-6**					
Laboratory ID:	08-030-01					
Diesel Range Organics	**610**	31	NWTPH-Dx	8-6-15	8-6-15	N
Lube Oil	**2900**	63	NWTPH-Dx	8-6-15	8-6-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*72*	*50-150*				
Client ID:	**SS-7**					
Laboratory ID:	08-030-02					
Diesel Range Organics	**43**	35	NWTPH-Dx	8-6-15	8-6-15	
Lube Oil Range Organics	**120**	69	NWTPH-Dx	8-6-15	8-6-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*85*	*50-150*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 7, 2015
Samples Submitted: August 6, 2015
Laboratory Reference: 1508-030
Project: 21138-001-03

cPAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SS-6**					
Laboratory ID:	08-030-01					
Benzo[a]anthracene	**0.40**	0.017	EPA 8270D/SIM	8-6-15	8-7-15	
Chrysene	**0.40**	0.017	EPA 8270D/SIM	8-6-15	8-7-15	
Benzo[b]fluoranthene	**0.37**	0.0084	EPA 8270D/SIM	8-6-15	8-6-15	
Benzo(j,k)fluoranthene	**0.13**	0.0084	EPA 8270D/SIM	8-6-15	8-6-15	
Benzo[a]pyrene	**0.38**	0.0084	EPA 8270D/SIM	8-6-15	8-6-15	
Indeno(1,2,3-c,d)pyrene	**0.23**	0.0084	EPA 8270D/SIM	8-6-15	8-6-15	
Dibenz[a,h]anthracene	**0.046**	0.0084	EPA 8270D/SIM	8-6-15	8-6-15	
Benzo[g,h,i]perylene	**0.23**	0.0084	EPA 8270D/SIM	8-6-15	8-6-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*77*	*32 - 114*				
Pyrene-d10	*53*	*33 - 121*				
Terphenyl-d14	*86*	*31 - 116*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 7, 2015
Samples Submitted: August 6, 2015
Laboratory Reference: 1508-030
Project: 21138-001-03

cPAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SS-7**					
Laboratory ID:	08-030-02					
Benzo[a]anthracene	**ND**	0.0093	EPA 8270D/SIM	8-6-15	8-6-15	
Chrysene	**ND**	0.0093	EPA 8270D/SIM	8-6-15	8-6-15	
Benzo[b]fluoranthene	**ND**	0.019	EPA 8270D/SIM	8-6-15	8-7-15	
Benzo(j,k)fluoranthene	**ND**	0.019	EPA 8270D/SIM	8-6-15	8-7-15	
Benzo[a]pyrene	**ND**	0.019	EPA 8270D/SIM	8-6-15	8-7-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.019	EPA 8270D/SIM	8-6-15	8-7-15	
Dibenz[a,h]anthracene	**ND**	0.019	EPA 8270D/SIM	8-6-15	8-7-15	
Benzo[g,h,i]perylene	**ND**	0.019	EPA 8270D/SIM	8-6-15	8-7-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*69*	*32 - 114*				
Pyrene-d10	*63*	*33 - 121*				
Terphenyl-d14	*82*	*31 - 116*				

This report pertains to the samples analyzed in accordance with the chain of custody,
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Date of Report: August 7, 2015
Samples Submitted: August 6, 2015
Laboratory Reference: 1508-030
Project: 21138-001-03

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0806S1					
Diesel Range Organics	**ND**	25	NWTPH-Dx	8-6-15	8-6-15	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	8-6-15	8-6-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*88*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE										
Laboratory ID:	08-031-01									
	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						*93* *95*	*50-150*			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 7, 2015
Samples Submitted: August 6, 2015
Laboratory Reference: 1508-030
Project: 21138-001-03

cPAHs EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0806S2					
Benzo[a]anthracene	**ND**	0.0067	EPA 8270D/SIM	8-6-15	8-6-15	
Chrysene	**ND**	0.0067	EPA 8270D/SIM	8-6-15	8-6-15	
Benzo[b]fluoranthene	**ND**	0.0067	EPA 8270D/SIM	8-6-15	8-6-15	
Benzo(j,k)fluoranthene	**ND**	0.0067	EPA 8270D/SIM	8-6-15	8-6-15	
Benzo[a]pyrene	**ND**	0.0067	EPA 8270D/SIM	8-6-15	8-6-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0067	EPA 8270D/SIM	8-6-15	8-6-15	
Dibenz[a,h]anthracene	**ND**	0.0067	EPA 8270D/SIM	8-6-15	8-6-15	
Benzo[g,h,i]perylene	**ND**	0.0067	EPA 8270D/SIM	8-6-15	8-6-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*86*	*32 - 114*				
Pyrene-d10	*90*	*33 - 121*				
Terphenyl-d14	*99*	*31 - 116*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 7, 2015
Samples Submitted: August 6, 2015
Laboratory Reference: 1508-030
Project: 21138-001-03

cPAHs 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:	SB0806S2									
	SB	SBD	SB	SBD	SB	SBD				
Naphthalene	**0.0712**	**0.0711**	0.0833	0.0833	85	85	63 - 113	0	19	
Acenaphthylene	**0.0654**	**0.0731**	0.0833	0.0833	79	88	61 - 125	11	16	
Acenaphthene	**0.0684**	**0.0698**	0.0833	0.0833	82	84	66 - 113	2	16	
Fluorene	**0.0747**	**0.0731**	0.0833	0.0833	90	88	60 - 117	2	16	
Phenanthrene	**0.0723**	**0.0693**	0.0833	0.0833	87	83	63 - 116	4	12	
Anthracene	**0.0966**	**0.0845**	0.0833	0.0833	116	101	66 - 146	13	19	
Fluoranthene	**0.0733**	**0.0718**	0.0833	0.0833	88	86	60 - 125	2	13	
Pyrene	**0.0718**	**0.0682**	0.0833	0.0833	86	82	66 - 126	5	15	
Benzo[a]anthracene	**0.0646**	**0.0661**	0.0833	0.0833	78	79	60 - 128	2	15	
Chrysene	**0.0749**	**0.0781**	0.0833	0.0833	90	94	60 - 117	4	13	
Benzo[b]fluoranthene	**0.0668**	**0.0694**	0.0833	0.0833	80	83	60 - 131	4	16	
Benzo(j,k)fluoranthene	**0.0687**	**0.0690**	0.0833	0.0833	82	83	57 - 126	0	20	
Benzo[a]pyrene	**0.0700**	**0.0713**	0.0833	0.0833	84	86	62 - 136	2	16	
Indeno(1,2,3-c,d)pyrene	**0.0640**	**0.0645**	0.0833	0.0833	77	77	60 - 127	1	19	
Dibenz[a,h]anthracene	**0.0653**	**0.0665**	0.0833	0.0833	78	80	62 - 133	2	22	
Benzo[g,h,i]perylene	**0.0628**	**0.0658**	0.0833	0.0833	75	79	63 - 129	5	22	
Surrogate:										
2-Fluorobiphenyl					*83*	*86*	*32 - 114*			
Pyrene-d10					*90*	*87*	*33 - 121*			
Terphenyl-d14					*92*	*88*	*31 - 116*			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 7, 2015
Samples Submitted: August 6, 2015
Laboratory Reference: 1508-030
Project: 21138-001-03

% MOISTURE

Date Analyzed: 8-6-15

Client ID	Lab ID	% Moisture
SS-6	08-030-01	20
SS-7	08-030-02	28

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

OnSite Environmental Inc.

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-napthalene) 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.

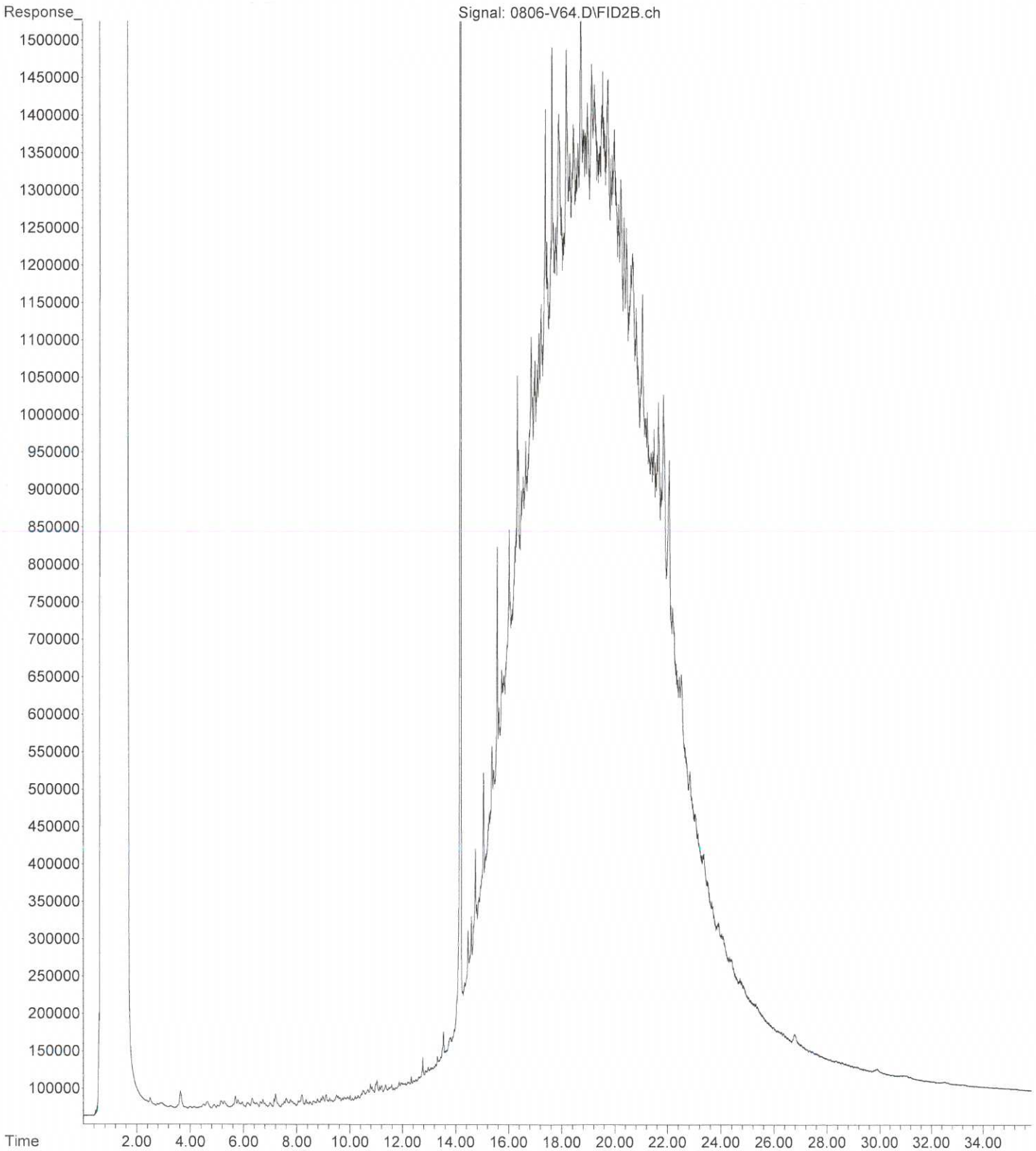
Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

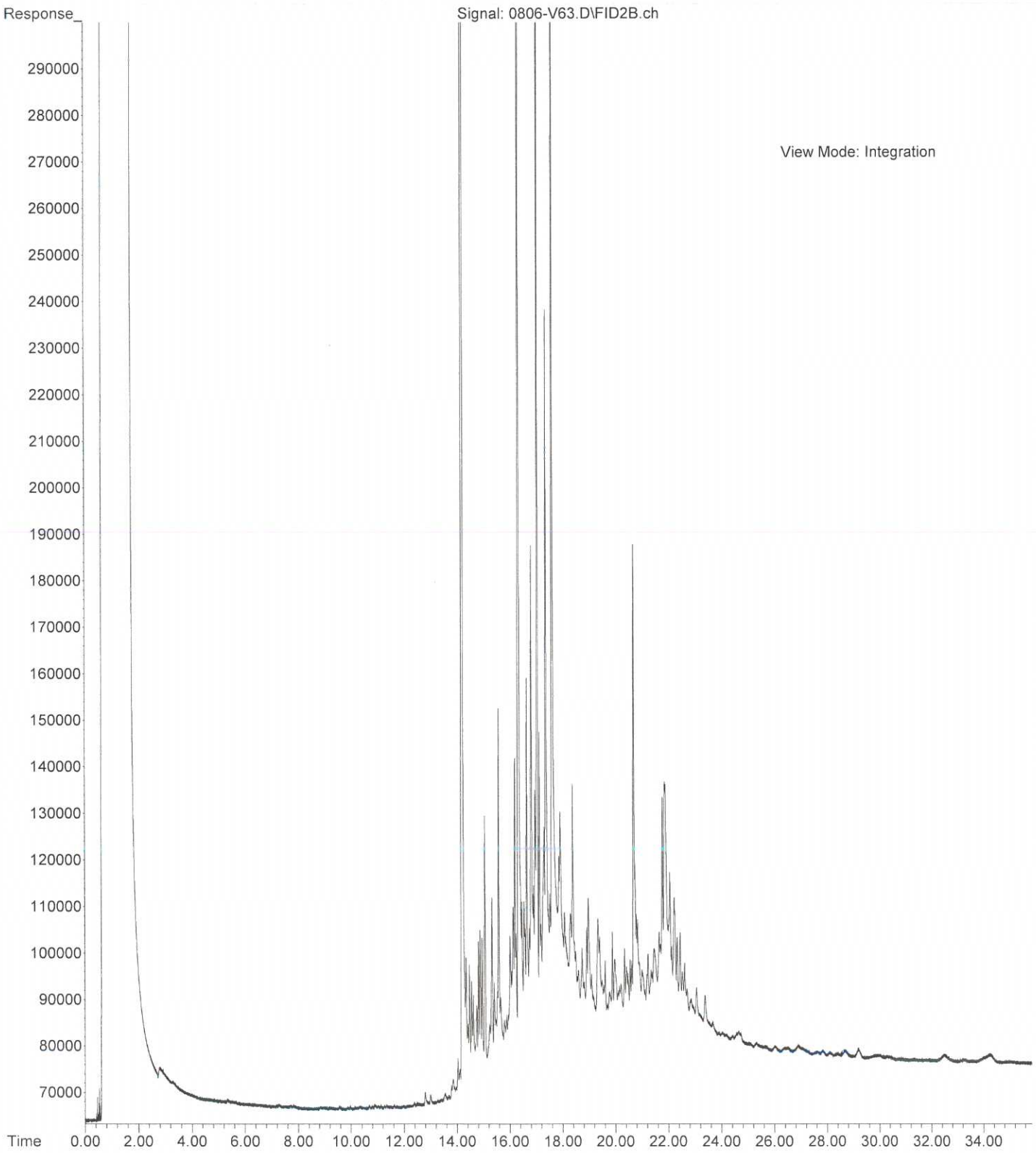
ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

File :X:\DIESELS\VIGO\DATA\V150806.SEC\0806-V64.D
Operator :
Acquired : 6 Aug 2015 22:08 using AcqMethod V150209F.M
Instrument : Vigo
Sample Name: 08-030-01
Misc Info :
Vial Number: 64



File :X:\DIESELS\VIGO\DATA\V150806.SEC\0806-V63.D
Operator :
Acquired : 6 Aug 2015 21:27 using AcqMethod V150209F.M
Instrument : Vigo
Sample Name: 08-030-02
Misc Info :
Vial Number: 63



Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: GEOENGINEERS
Project Number: 21138-001-03
Project Name: 9th & LENORA PROJECT
Project Manager: FASIH KHAN
Sampled by: FASIH KHAN

Turnaround Request (in working days)

(Check One)

- ☐ Same Day
- ☒ 1 Day
- ☐ 2 Days
- ☐ 3 Days
- ☐ Standard (7 Days) (TPH analysis 5 Days)
- ☐ _____ (other)

Laboratory Number: 08-030

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	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	cPAHs ONLY					% Moisture
1	SS-6	8/5/15	0930	S	1				X													X					X
2	SS-7	8/5/15	1330	S	1				X													X					X

	Signature	Company	Date	Time
Relinquished		GEI	8/6/15	0740
Received		OSE	8.6.15	7:40
Relinquished				
Received				
Relinquished				
Received				

Comments/Special Instructions

Reviewed/Date

Reviewed/Date

Chromatograms with final report ☐

Data Package: Standard ☐ Level III ☐ Level IV ☐

Electronic Data Deliverables (EDDs) ☐ _____

OnSite Environmental Inc.

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

August 14, 2015

Fasih Khan
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03
Laboratory Reference No. 1508-100

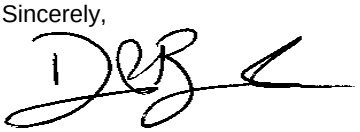
Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on August 12, 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,



David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 14, 2015
Samples Submitted: August 12, 2015
Laboratory Reference: 1508-100
Project: 21138-001-03

Case Narrative

Samples were collected on August 10 and 11, 2015 and received by the laboratory on August 12, 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.

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 14, 2015
Samples Submitted: August 12, 2015
Laboratory Reference: 1508-100
Project: 21138-001-03

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
SS-8	08-100-01	Soil	8-10-15	8-12-15	

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Date of Report: August 14, 2015
Samples Submitted: August 12, 2015
Laboratory Reference: 1508-100
Project: 21138-001-03

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SS-8**					
Laboratory ID:	08-100-01					
Diesel Range Organics	**ND**	35	NWTPH-Dx	8-12-15	8-12-15	
Lube Oil	**76**	71	NWTPH-Dx	8-12-15	8-12-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*77*	*50-150*				

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Date of Report: August 14, 2015
Samples Submitted: August 12, 2015
Laboratory Reference: 1508-100
Project: 21138-001-03

cPAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SS-8**					
Laboratory ID:	08-100-01					
Benzo[a]anthracene	**0.019**	0.0094	EPA 8270D/SIM	8-13-15	8-13-15	
Chrysene	**0.026**	0.0094	EPA 8270D/SIM	8-13-15	8-13-15	
Benzo[b]fluoranthene	**0.025**	0.0094	EPA 8270D/SIM	8-13-15	8-13-15	
Benzo(j,k)fluoranthene	**ND**	0.0094	EPA 8270D/SIM	8-13-15	8-13-15	
Benzo[a]pyrene	**0.015**	0.0094	EPA 8270D/SIM	8-13-15	8-13-15	
Indeno(1,2,3-c,d)pyrene	**0.014**	0.0094	EPA 8270D/SIM	8-13-15	8-13-15	
Dibenz[a,h]anthracene	**ND**	0.0094	EPA 8270D/SIM	8-13-15	8-13-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*66*	*32 - 114*				
Pyrene-d10	*57*	*33 - 121*				
Terphenyl-d14	*63*	*31 - 116*				

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Date of Report: August 14, 2015
Samples Submitted: August 12, 2015
Laboratory Reference: 1508-100
Project: 21138-001-03

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0812S1					
Diesel Range Organics	**ND**	25	NWTPH-Dx	8-12-15	8-12-15	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	8-12-15	8-12-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*76*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE										
Laboratory ID:	08-091-01									
	ORIG	DUP								
Diesel Range	**ND**	**ND**	NA	NA		NA	NA	NA	NA	U1
Lube Oil	**150**	**143**	NA	NA		NA	NA	5	NA	
Surrogate:										
o-Terphenyl						*87* *90*	*50-150*			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 14, 2015
Samples Submitted: August 12, 2015
Laboratory Reference: 1508-100
Project: 21138-001-03

cPAHs EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0813S2					
Benzo[a]anthracene	**ND**	0.0067	EPA 8270D/SIM	8-13-15	8-13-15	
Chrysene	**ND**	0.0067	EPA 8270D/SIM	8-13-15	8-13-15	
Benzo[b]fluoranthene	**ND**	0.0067	EPA 8270D/SIM	8-13-15	8-13-15	
Benzo(j,k)fluoranthene	**ND**	0.0067	EPA 8270D/SIM	8-13-15	8-13-15	
Benzo[a]pyrene	**ND**	0.0067	EPA 8270D/SIM	8-13-15	8-13-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0067	EPA 8270D/SIM	8-13-15	8-13-15	
Dibenz[a,h]anthracene	**ND**	0.0067	EPA 8270D/SIM	8-13-15	8-13-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*100*	*32 - 114*				
Pyrene-d10	*88*	*33 - 121*				
Terphenyl-d14	*90*	*31 - 116*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 14, 2015
Samples Submitted: August 12, 2015
Laboratory Reference: 1508-100
Project: 21138-001-03

cPAHs EPA 8270D/SIM
MS/MSD QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	08-100-01										
	MS	MSD	MS	MSD		MS	MSD				
Naphthalene	**0.144**	**0.168**	0.167	0.167	0.0371	64	78	44 - 107	15	29	
Acenaphthylene	**0.105**	**0.113**	0.167	0.167	ND	63	68	44 - 121	7	27	
Acenaphthene	**0.118**	**0.119**	0.167	0.167	ND	71	71	47 - 109	1	26	
Fluorene	**0.126**	**0.123**	0.167	0.167	ND	75	74	49 - 115	2	28	
Phenanthrene	**0.177**	**0.158**	0.167	0.167	0.0609	70	58	45 - 114	11	26	
Anthracene	**0.169**	**0.160**	0.167	0.167	0.00766	97	91	43 - 140	5	27	
Fluoranthene	**0.136**	**0.125**	0.167	0.167	0.0225	68	61	44 - 126	8	27	
Pyrene	**0.151**	**0.122**	0.167	0.167	0.0197	79	61	43 - 125	21	27	
Benzo[a]anthracene	**0.135**	**0.127**	0.167	0.167	0.0134	73	68	42 - 134	6	27	
Chrysene	**0.132**	**0.126**	0.167	0.167	0.0182	68	65	45 - 114	5	27	
Benzo[b]fluoranthene	**0.129**	**0.128**	0.167	0.167	0.0176	67	66	38 - 131	1	33	
Benzo(j,k)fluoranthene	**0.116**	**0.103**	0.167	0.167	ND	69	62	44 - 114	12	34	
Benzo[a]pyrene	**0.124**	**0.116**	0.167	0.167	0.0104	68	63	40 - 136	7	29	
Indeno(1,2,3-c,d)pyrene	**0.112**	**0.110**	0.167	0.167	0.0101	61	60	45 - 126	2	30	
Dibenz[a,h]anthracene	**0.103**	**0.102**	0.167	0.167	ND	62	61	46 - 121	1	28	
Benzo[g,h,i]perylene	**0.114**	**0.111**	0.167	0.167	0.0105	62	60	43 - 120	3	31	
Surrogate:											
2-Fluorobiphenyl						*64*	*74*	*32 - 114*			
Pyrene-d10						*76*	*64*	*33 - 121*			
Terphenyl-d14						*91*	*70*	*31 - 116*			

This report pertains to the samples analyzed in accordance with the chain of custody,
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Date of Report: August 14, 2015
Samples Submitted: August 12, 2015
Laboratory Reference: 1508-100
Project: 21138-001-03

% MOISTURE

Date Analyzed: 8-12-15

Client ID	Lab ID	% Moisture
SS-8	08-100-01	29

This report pertains to the samples analyzed in accordance with the chain of custody,
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OnSite Environmental Inc.

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-napthalene) 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

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Laboratory Number: 08-100

Company: GeoEngineers
Project Number: 21138-001-03
Project Name: 9th & Lenora Project
Project Manager: Fasih Khan
Sampled by: Fasih Khan

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☒ 2 Days ☐ 3 Days
☐ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	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	cPAHs Only		HOLD				% Moisture
1	SS-8	8/10/15	1015	S	1				X													X						X
2	SW-UST-PCS	8/11/15	1140	S	1																			X				

	Signature	Company	Date	Time
Relinquished		GE	8/12/15	0930
Received		GEL	8/12/15	0930
Relinquished				
Received				
Relinquished				
Received				

Comments/Special Instructions

Reviewed/Date

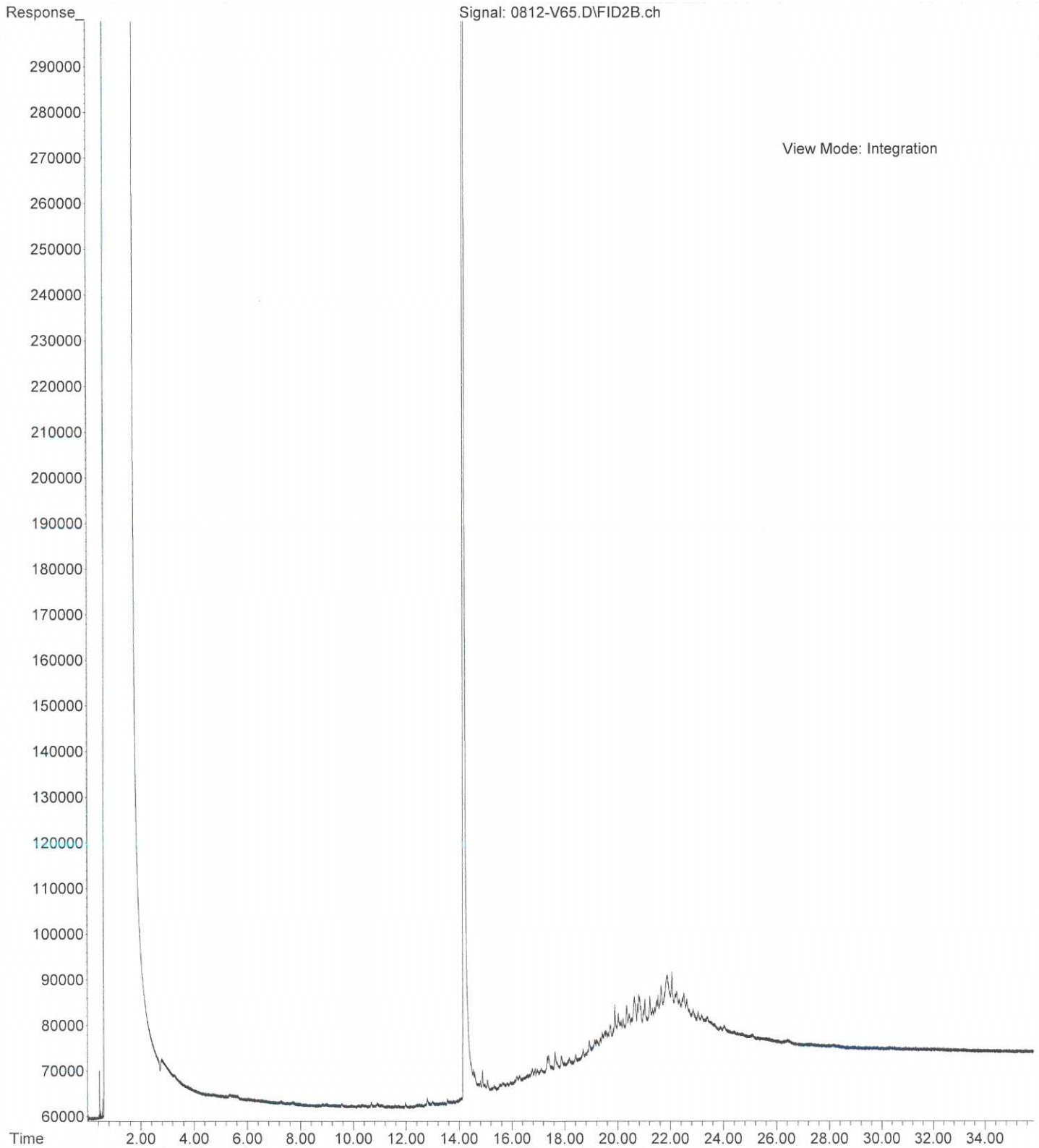
Reviewed/Date

Chromatograms with final report ☐

Data Package: Standard ☐ Level III ☐ Level IV ☐

Electronic Data Deliverables (EDDs) ☐ _____

File :X:\DIESELS\VIGO\DATA\V150812.SEC\0812-V65.D
Operator :
Acquired : 12 Aug 2015 21:58 using AcqMethod V150209F.M
Instrument : Vigo
Sample Name: 08-100-01
Misc Info :
Vial Number: 65



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

August 28, 2015

Fasih Khan
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03
Laboratory Reference No. 1508-267

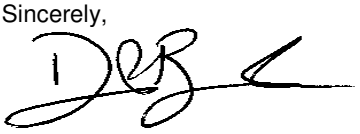
Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on August 27, 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,



David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody,
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Date of Report: August 28, 2015
Samples Submitted: August 27, 2015
Laboratory Reference: 1508-267
Project: 21138-001-03

Case Narrative

Samples were collected on August 26, 2015 and received by the laboratory on August 27, 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.

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Date of Report: August 28, 2015
Samples Submitted: August 27, 2015
Laboratory Reference: 1508-267
Project: 21138-001-03

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
UST2 EX-E-35.0	08-267-01	Soil	8-26-15	8-27-15	
UST2 EX-B1-35.0	08-267-02	Soil	8-26-15	8-27-15	

This report pertains to the samples analyzed in accordance with the chain of custody,
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Date of Report: August 28, 2015
Samples Submitted: August 27, 2015
Laboratory Reference: 1508-267
Project: 21138-001-03

NWTPH-Gx/BTEX

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST2 EX-E-35.0**					
Laboratory ID:	08-267-01					
Benzene	**ND**	0.020	EPA 8021B	8-27-15	8-27-15	
Toluene	**ND**	0.069	EPA 8021B	8-27-15	8-27-15	
Ethyl Benzene	**ND**	0.069	EPA 8021B	8-27-15	8-27-15	
m,p-Xylene	**ND**	0.069	EPA 8021B	8-27-15	8-27-15	
o-Xylene	**ND**	0.069	EPA 8021B	8-27-15	8-27-15	
Gasoline	**ND**	6.9	NWTPH-Gx	8-27-15	8-27-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*89*	*68-123*				
Client ID:	**UST2 EX-B1-35.0**					
Laboratory ID:	08-267-02					
Benzene	**ND**	0.020	EPA 8021B	8-27-15	8-27-15	
Toluene	**ND**	0.063	EPA 8021B	8-27-15	8-27-15	
Ethyl Benzene	**ND**	0.063	EPA 8021B	8-27-15	8-27-15	
m,p-Xylene	**ND**	0.063	EPA 8021B	8-27-15	8-27-15	
o-Xylene	**ND**	0.063	EPA 8021B	8-27-15	8-27-15	
Gasoline	**ND**	6.3	NWTPH-Gx	8-27-15	8-27-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*83*	*68-123*				

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Date of Report: August 28, 2015
Samples Submitted: August 27, 2015
Laboratory Reference: 1508-267
Project: 21138-001-03

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST2 EX-E-35.0**					
Laboratory ID:	08-267-01					
Diesel Range Organics	**ND**	32	NWTPH-Dx	8-27-15	8-27-15	
Lube Oil Range Organics	**ND**	64	NWTPH-Dx	8-27-15	8-27-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*90*	*50-150*				
Client ID:	**UST2 EX-B1-35.0**					
Laboratory ID:	08-267-02					
Diesel Range Organics	**ND**	26	NWTPH-Dx	8-27-15	8-27-15	
Lube Oil Range Organics	**ND**	53	NWTPH-Dx	8-27-15	8-27-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*83*	*50-150*				

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Date of Report: August 28, 2015
Samples Submitted: August 27, 2015
Laboratory Reference: 1508-267
Project: 21138-001-03

PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST2 EX-E-35.0**					
Laboratory ID:	08-267-01					
Naphthalene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
2-Methylnaphthalene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
1-Methylnaphthalene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Acenaphthylene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Acenaphthene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Fluorene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Phenanthrene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Anthracene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Fluoranthene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Pyrene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[a]anthracene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Chrysene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[b]fluoranthene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo(j,k)fluoranthene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[a]pyrene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Dibenz[a,h]anthracene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[g,h,i]perylene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*62*	*32 - 114*				
Pyrene-d10	*60*	*33 - 121*				
Terphenyl-d14	*63*	*31 - 116*				

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Date of Report: August 28, 2015
Samples Submitted: August 27, 2015
Laboratory Reference: 1508-267
Project: 21138-001-03

PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST2 EX-B1-35.0**					
Laboratory ID:	08-267-02					
Naphthalene	**ND**	0.0070	EPA 8270D/SIM	8-27-15	8-27-15	
2-Methylnaphthalene	**ND**	0.0070	EPA 8270D/SIM	8-27-15	8-27-15	
1-Methylnaphthalene	**ND**	0.0070	EPA 8270D/SIM	8-27-15	8-27-15	
Acenaphthylene	**ND**	0.0070	EPA 8270D/SIM	8-27-15	8-27-15	
Acenaphthene	**ND**	0.0070	EPA 8270D/SIM	8-27-15	8-27-15	
Fluorene	**ND**	0.0070	EPA 8270D/SIM	8-27-15	8-27-15	
Phenanthrene	**ND**	0.0070	EPA 8270D/SIM	8-27-15	8-27-15	
Anthracene	**ND**	0.0070	EPA 8270D/SIM	8-27-15	8-27-15	
Fluoranthene	**ND**	0.0070	EPA 8270D/SIM	8-27-15	8-27-15	
Pyrene	**ND**	0.0070	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[a]anthracene	**ND**	0.0070	EPA 8270D/SIM	8-27-15	8-27-15	
Chrysene	**ND**	0.0070	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[b]fluoranthene	**ND**	0.0070	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo(j,k)fluoranthene	**ND**	0.0070	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[a]pyrene	**ND**	0.0070	EPA 8270D/SIM	8-27-15	8-27-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0070	EPA 8270D/SIM	8-27-15	8-27-15	
Dibenz[a,h]anthracene	**ND**	0.0070	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[g,h,i]perylene	**ND**	0.0070	EPA 8270D/SIM	8-27-15	8-27-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*55*	*32 - 114*				
Pyrene-d10	*52*	*33 - 121*				
Terphenyl-d14	*54*	*31 - 116*				

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Date of Report: August 28, 2015
Samples Submitted: August 27, 2015
Laboratory Reference: 1508-267
Project: 21138-001-03

NWTPH-Gx/BTEX
QUALITY CONTROL

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0827S1					
Benzene	**ND**	0.020	EPA 8021B	8-27-15	8-27-15	
Toluene	**ND**	0.050	EPA 8021B	8-27-15	8-27-15	
Ethyl Benzene	**ND**	0.050	EPA 8021B	8-27-15	8-27-15	
m,p-Xylene	**ND**	0.050	EPA 8021B	8-27-15	8-27-15	
o-Xylene	**ND**	0.050	EPA 8021B	8-27-15	8-27-15	
Gasoline	**ND**	5.0	NWTPH-Gx	8-27-15	8-27-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*84*	*68-123*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	08-267-01										
	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						*89*	*94*	*68-123*			
SPIKE BLANKS											
Laboratory ID:	SB0827S1										
	SB	SBD	SB	SBD		SB	SBD				
Benzene	**0.887**	**0.952**	1.00	1.00		**89**	**95**	75-117	7	13	
Toluene	**0.891**	**0.943**	1.00	1.00		**89**	**94**	78-118	6	12	
Ethyl Benzene	**0.883**	**0.925**	1.00	1.00		**88**	**93**	78-118	5	12	
m,p-Xylene	**0.903**	**0.980**	1.00	1.00		**90**	**98**	78-121	8	13	
o-Xylene	**0.891**	**0.916**	1.00	1.00		**89**	**92**	77-119	3	13	
Surrogate:											
Fluorobenzene						*82*	*84*	*68-123*			

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Date of Report: August 28, 2015
Samples Submitted: August 27, 2015
Laboratory Reference: 1508-267
Project: 21138-001-03

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0827S1					
Diesel Range Organics	**ND**	25	NWTPH-Dx	8-27-15	8-27-15	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	8-27-15	8-27-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*94*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	08-267-02										
	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						*83*	*87*	*50-150*			

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Date of Report: August 28, 2015
Samples Submitted: August 27, 2015
Laboratory Reference: 1508-267
Project: 21138-001-03

PAHs EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0827S1					
Naphthalene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
2-Methylnaphthalene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
1-Methylnaphthalene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Acenaphthylene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Acenaphthene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Fluorene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Phenanthrene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Anthracene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Fluoranthene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Pyrene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[a]anthracene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Chrysene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[b]fluoranthene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo(j,k)fluoranthene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[a]pyrene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Dibenz[a,h]anthracene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[g,h,i]perylene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*82*	*32 - 114*				
Pyrene-d10	*87*	*33 - 121*				
Terphenyl-d14	*92*	*31 - 116*				

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Date of Report: August 28, 2015
Samples Submitted: August 27, 2015
Laboratory Reference: 1508-267
Project: 21138-001-03

PAHs EPA 8270D/SIM
MS/MSD QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	08-263-03										
	MS	MSD	MS	MSD		MS	MSD				
Naphthalene	**0.0583**	**0.0615**	0.0833	0.0833	ND	70	74	44 - 107	5	29	
Acenaphthylene	**0.0581**	**0.0652**	0.0833	0.0833	ND	70	78	44 - 121	12	27	
Acenaphthene	**0.0579**	**0.0636**	0.0833	0.0833	ND	70	76	47 - 109	9	26	
Fluorene	**0.0620**	**0.0653**	0.0833	0.0833	ND	74	78	49 - 115	5	28	
Phenanthrene	**0.0598**	**0.0638**	0.0833	0.0833	ND	72	77	45 - 114	6	26	
Anthracene	**0.100**	**0.110**	0.0833	0.0833	ND	120	132	43 - 140	10	27	
Fluoranthene	**0.0584**	**0.0641**	0.0833	0.0833	ND	70	77	44 - 126	9	27	
Pyrene	**0.0582**	**0.0636**	0.0833	0.0833	ND	70	76	43 - 125	9	27	
Benzo[a]anthracene	**0.0680**	**0.0727**	0.0833	0.0833	ND	82	87	42 - 134	7	27	
Chrysene	**0.0597**	**0.0654**	0.0833	0.0833	ND	72	79	45 - 114	9	27	
Benzo[b]fluoranthene	**0.0602**	**0.0651**	0.0833	0.0833	ND	72	78	38 - 131	8	33	
Benzo(j,k)fluoranthene	**0.0575**	**0.0636**	0.0833	0.0833	ND	69	76	44 - 114	10	34	
Benzo[a]pyrene	**0.0580**	**0.0638**	0.0833	0.0833	ND	70	77	40 - 136	10	29	
Indeno(1,2,3-c,d)pyrene	**0.0580**	**0.0623**	0.0833	0.0833	ND	70	75	45 - 126	7	30	
Dibenz[a,h]anthracene	**0.0597**	**0.0646**	0.0833	0.0833	ND	72	78	46 - 121	8	28	
Benzo[g,h,i]perylene	**0.0579**	**0.0626**	0.0833	0.0833	ND	70	75	43 - 120	8	31	
Surrogate:											
2-Fluorobiphenyl						*67*	*84*	*32 - 114*			
Pyrene-d10						*71*	*78*	*33 - 121*			
Terphenyl-d14						*75*	*84*	*31 - 116*			

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Date of Report: August 28, 2015
Samples Submitted: August 27, 2015
Laboratory Reference: 1508-267
Project: 21138-001-03

% MOISTURE

Date Analyzed: 8-27-15

Client ID	Lab ID	% Moisture
UST2 EX-E-35.0	08-267-01	22
UST2 EX-B1-35.0	08-267-02	5

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

OnSite Environmental Inc.

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-napthalene) 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

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: GEOENGINEERS
Project Number: 21138-001-03
Project Name: 9th & LENORA PROJECT
Project Manager: FASIH KHAN
Sampled by: FASIH KHAN

Turnaround Request (in working days)
(Check One)
☒ Same Day ~~☒ 1 Day~~ 2
☐ 2 Days ☐ 3 Days
☐ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Laboratory Number: 08-267

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	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
1	VST2EX-E-35.0	8/26/15	0930	S	2		⊗		⊗				⊗									X
2	VST2EX-B1-35.0	8/26/15	0940	S	2		⊗		⊗				⊗									X

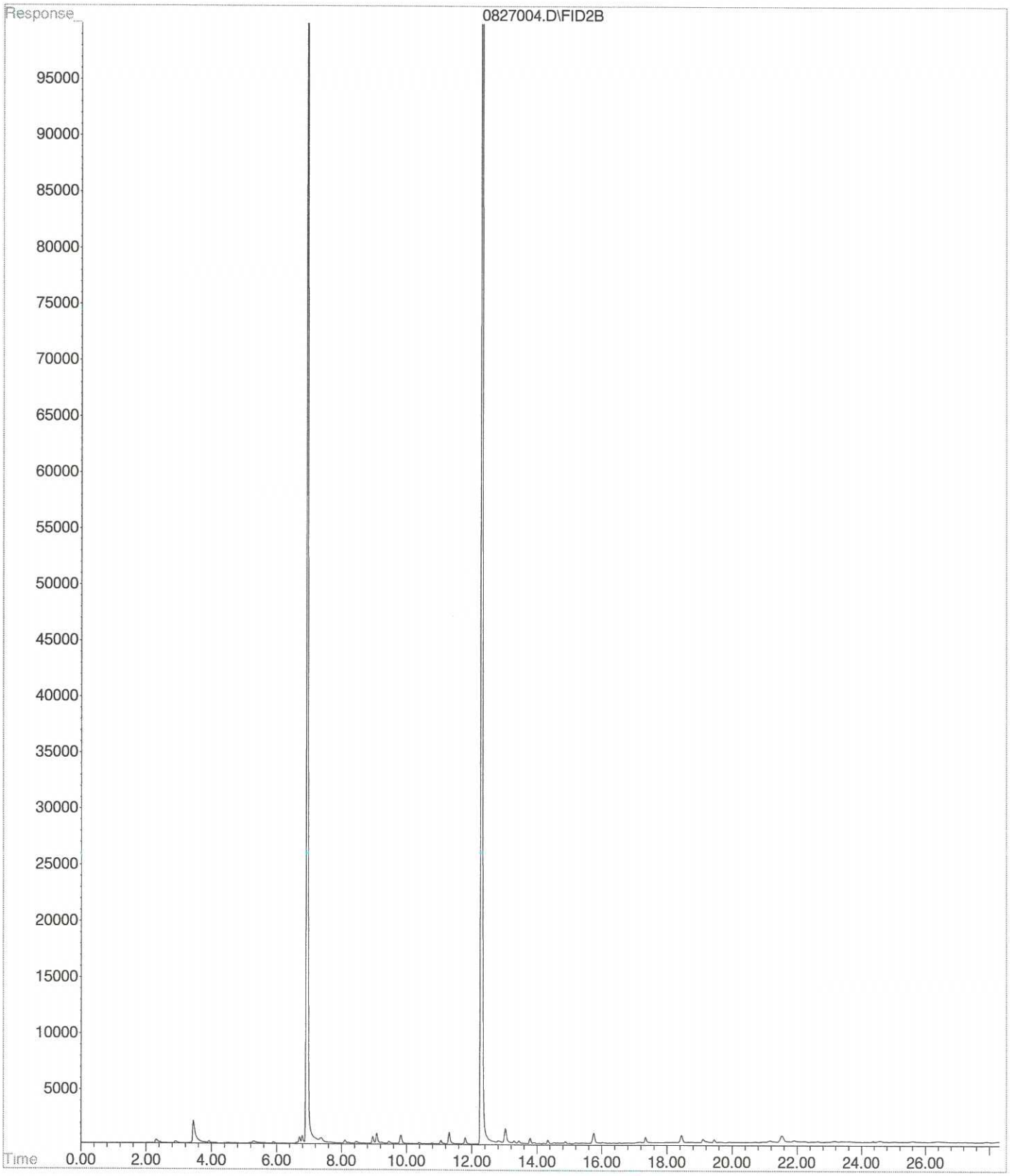
	Signature	Company	Date	Time
Relinquished		GEI	8/27/15	0855
Received		OSE	8/27/15	0855
Relinquished				
Received				
Relinquished				
Received				

Comments/Special Instructions
Only Gx/BTEX and Dx analysis on One-DAY TAT.
PAHs on 2-day TAT.

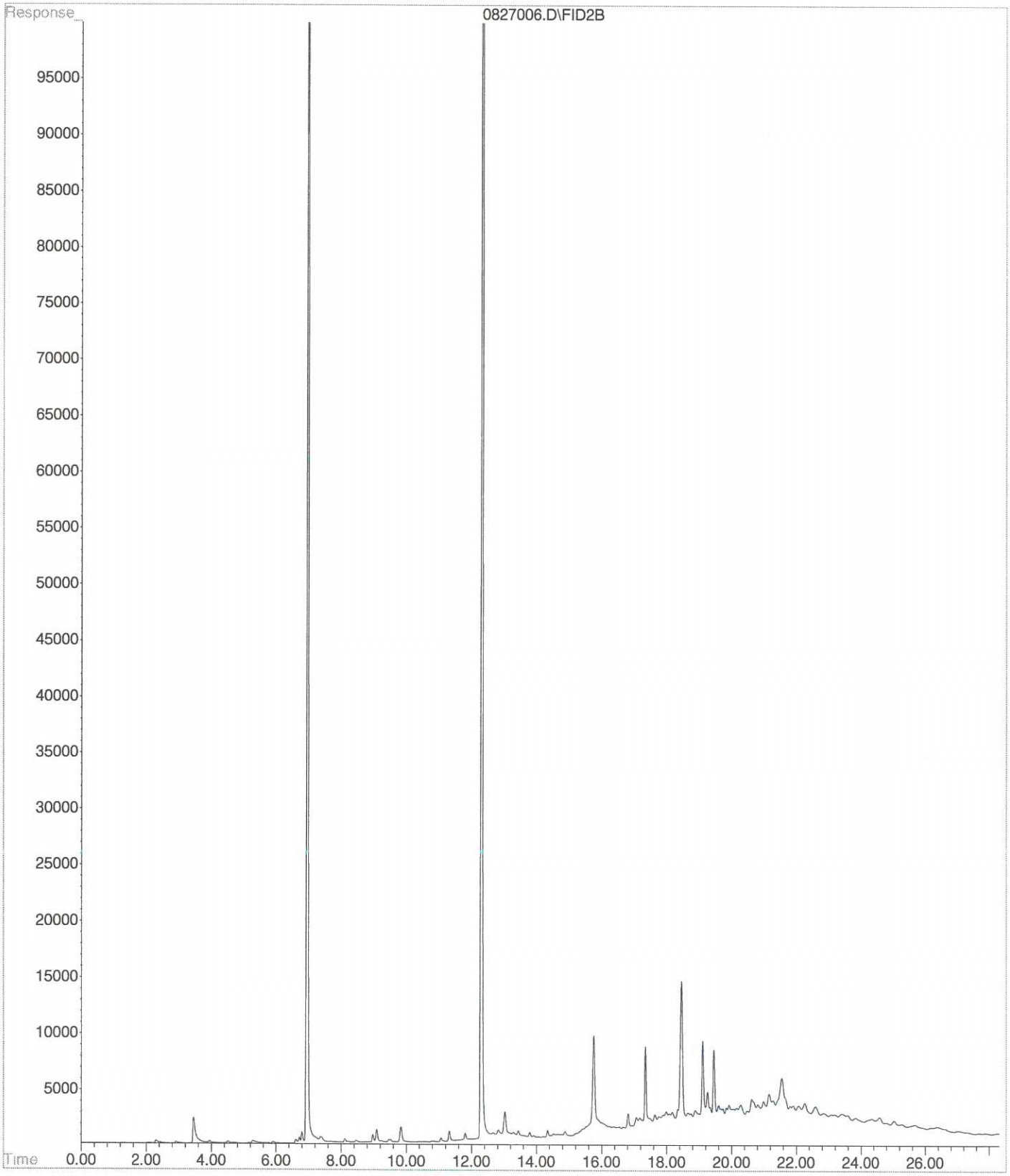
Reviewed/Date
Reviewed/Date
Chromatograms with final report ☐

Data Package: Standard ☐ Level III ☐ Level IV ☐
Electronic Data Deliverables (EDDs) ☐ _____

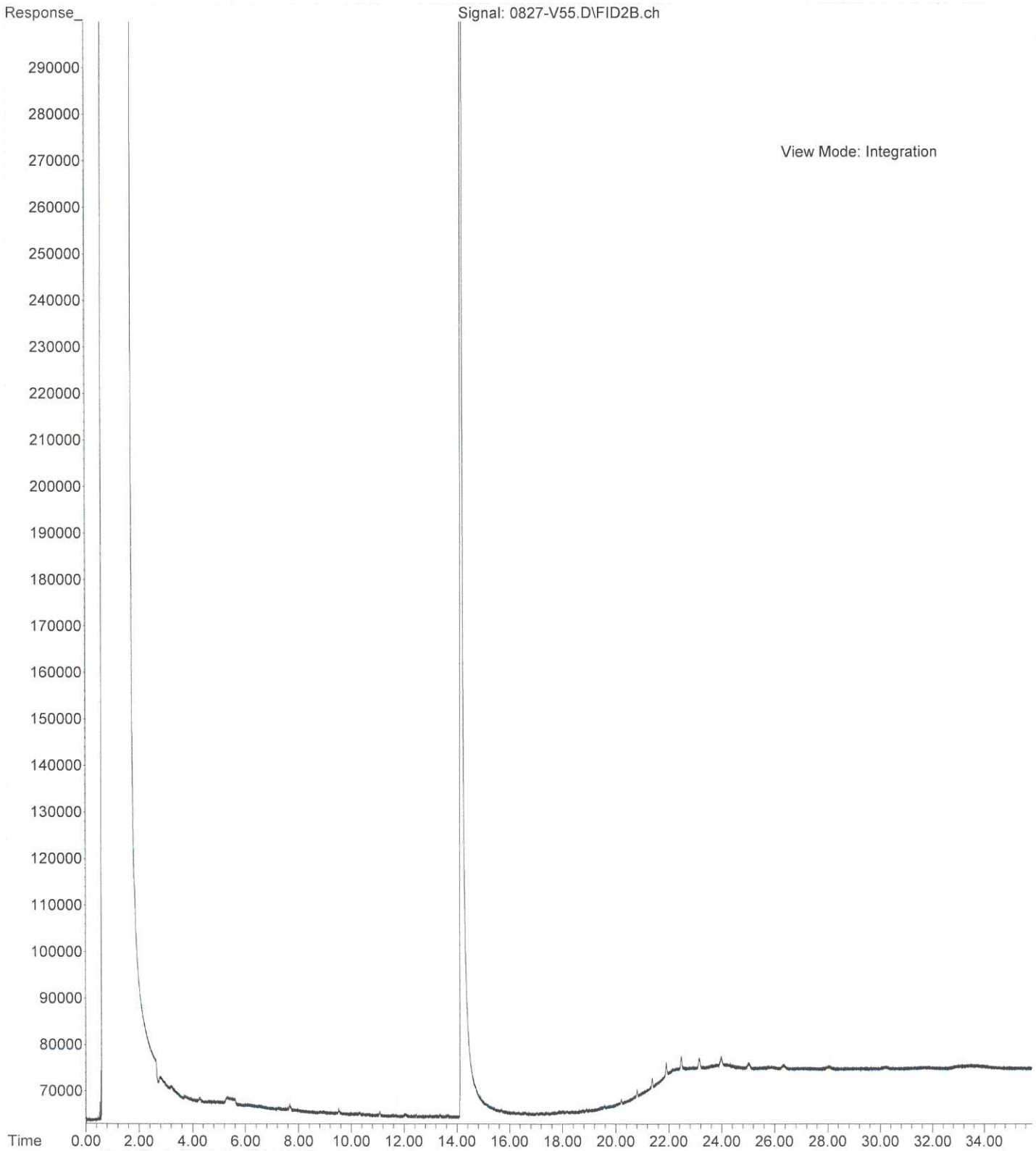
File : X:\BTEX\DARYL\DATA\D150827\0827004.D
Operator :
Acquired : 27 Aug 2015 12:40 using AcqMethod 150709B.M
Instrument : Daryl
Sample Name: 08-267-01s
Misc Info : V2-37-21
Vial Number: 4



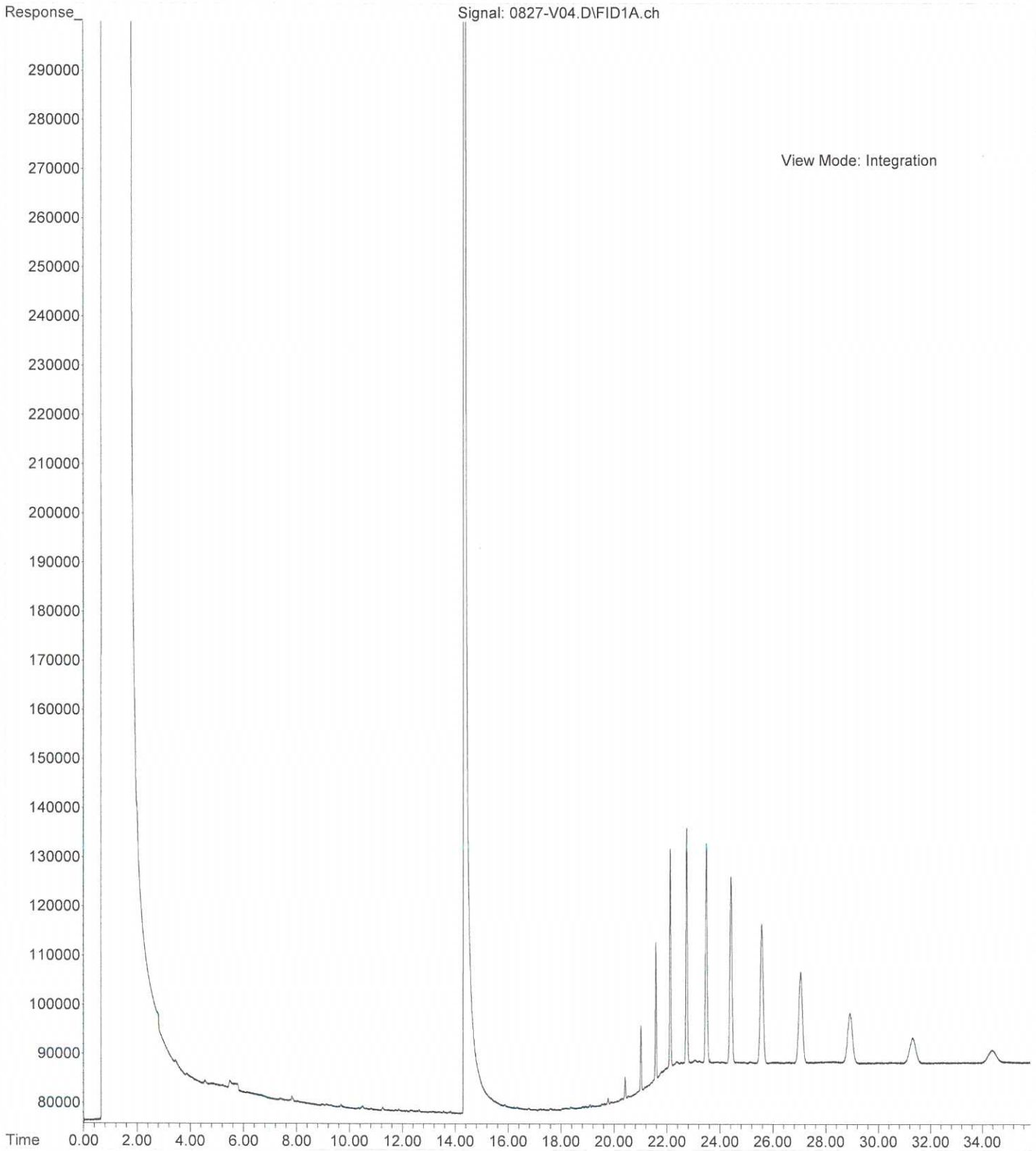
File : X:\BTEX\DARYL\DATA\D150827\0827006.D
Operator :
Acquired : 27 Aug 2015 13:49 using AcqMethod 150709B.M
Instrument : Daryl
Sample Name: 08-267-02s
Misc Info : V2-37-21
Vial Number: 6



File : X:\DIESELS\VIGO\DATA\V150827.SEC\0827-V55.D
Operator :
Acquired : 27 Aug 2015 13:12 using AcqMethod V150507F.M
Instrument : Vigo
Sample Name: 08-267-01
Misc Info :
Vial Number: 55



File :X:\DIESELS\VIGO\DATA\V150827\0827-V04.D
Operator :
Acquired : 27 Aug 2015 12:30 using AcqMethod V150507F.M
Instrument : Vigo
Sample Name: 08-267-02
Misc Info :
Vial Number: 4



OnSite Environmental Inc.

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

August 21, 2015

Fasih Khan
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03
Laboratory Reference No. 1508-200

Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on August 19, 2915.

Please note that this is a *revised* report, and replaces the original due to a revision of the sample identification.

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,

David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 21, 2015
Samples Submitted: August 19, 2915
Laboratory Reference: 1508-200
Project: 21138-001-03

Case Narrative

Samples were collected on August 18, 2015 and received by the laboratory on August 19, 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.

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 21, 2015
Samples Submitted: August 19, 2915
Laboratory Reference: 1508-200
Project: 21138-001-03

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
HOIST-EX-7.0	08-200-01	Soil	8-18-15	8-19-15	
UST2EX-S1-24.0	08-200-02	Soil	8-18-15	8-19-15	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 21, 2015
Samples Submitted: August 19, 2915
Laboratory Reference: 1508-200
Project: 21138-001-03

NWTPH-Gx/BTEX

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST2EX-S1-24.0**					
Laboratory ID:	08-200-02					
Benzene	**ND**	0.020	EPA 8021B	8-19-15	8-19-15	
Toluene	**ND**	0.076	EPA 8021B	8-19-15	8-19-15	
Ethyl Benzene	**ND**	0.076	EPA 8021B	8-19-15	8-19-15	
m,p-Xylene	**ND**	0.076	EPA 8021B	8-19-15	8-19-15	
o-Xylene	**ND**	0.076	EPA 8021B	8-19-15	8-19-15	
Gasoline	**ND**	7.6	NWTPH-Gx	8-19-15	8-19-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*87*	*68-123*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 21, 2015
Samples Submitted: August 19, 2915
Laboratory Reference: 1508-200
Project: 21138-001-03

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**HOIST-EX-7.0**					
Laboratory ID:	08-200-01					
Diesel Range Organics	**ND**	31	NWTPH-Dx	8-20-15	8-20-15	
Lube Oil Range Organics	**ND**	62	NWTPH-Dx	8-20-15	8-20-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*71*	*50-150*				
Client ID:	**UST2EX-S1-24.0**					
Laboratory ID:	08-200-02					
Diesel Range Organics	**ND**	33	NWTPH-Dx	8-20-15	8-20-15	
Lube Oil Range Organics	**ND**	65	NWTPH-Dx	8-20-15	8-20-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*73*	*50-150*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 21, 2015
Samples Submitted: August 19, 2915
Laboratory Reference: 1508-200
Project: 21138-001-03

NWTPH-Gx/BTEX
QUALITY CONTROL

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0819S1					
Benzene	**ND**	0.020	EPA 8021B	8-19-15	8-19-15	
Toluene	**ND**	0.050	EPA 8021B	8-19-15	8-19-15	
Ethyl Benzene	**ND**	0.050	EPA 8021B	8-19-15	8-19-15	
m,p-Xylene	**ND**	0.050	EPA 8021B	8-19-15	8-19-15	
o-Xylene	**ND**	0.050	EPA 8021B	8-19-15	8-19-15	
Gasoline	**ND**	5.0	NWTPH-Gx	8-19-15	8-19-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*81*	*68-123*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	08-097-01										
	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						*86*	*87*	*68-123*			
SPIKE BLANKS											
Laboratory ID:	SB0819S1										
	SB	SBD	SB	SBD		SB	SBD				
Benzene	**0.876**	**0.912**	1.00	1.00		**88**	**91**	75-117	4	13	
Toluene	**0.866**	**0.906**	1.00	1.00		**87**	**91**	78-118	5	12	
Ethyl Benzene	**0.851**	**0.892**	1.00	1.00		**85**	**89**	78-118	5	12	
m,p-Xylene	**0.865**	**0.906**	1.00	1.00		**87**	**91**	78-121	5	13	
o-Xylene	**0.866**	**0.902**	1.00	1.00		**87**	**90**	77-119	4	13	
Surrogate:											
Fluorobenzene						*81*	*85*	*68-123*			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 21, 2015
Samples Submitted: August 19, 2915
Laboratory Reference: 1508-200
Project: 21138-001-03

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0820S1					
Diesel Range Organics	**ND**	25	NWTPH-Dx	8-20-15	8-20-15	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	8-20-15	8-20-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*111*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	08-203-04										
	ORIG	DUP									
Diesel Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Lube Oil	**71.9**	**65.6**	NA	NA		NA		NA	9	NA	
Surrogate:											
o-Terphenyl						*101*	*95*	*50-150*			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 21, 2015
Samples Submitted: August 19, 2915
Laboratory Reference: 1508-200
Project: 21138-001-03

% MOISTURE

Date Analyzed: 8-20-15

Client ID	Lab ID	% Moisture
HOIST-EX-7.0	08-200-01	19
UST2EX-S1-24.0	08-200-02	23

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

OnSite Environmental Inc.

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-napthalene) 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

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Chain of Custody

Page 1 of 1

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Laboratory Number: 08-200

Company: GEOENGINEERS
Project Number: 21138-001-03
Project Name: 9th & LENORA PROJECT
Project Manager: FASIH KHAN
Sampled by: FASIH KHAN

Turnaround Request (in working days)
(Check One)
☐ Same Day ☒ 1 Day
☐ 2 Days ☐ 3 Days
☐ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX 8/27	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
1	HOIST-EX-7.0	8/18/15	1005	S	1				⊗													X
2	~~SW-B2-24.0~~ DB 8/21	8/19/15	1330	S	2			⊗	⊗													↓
	~~UST2EX-S2-24.0~~																					
	UST2EX-S1-24.0 DB 12/29/15																					

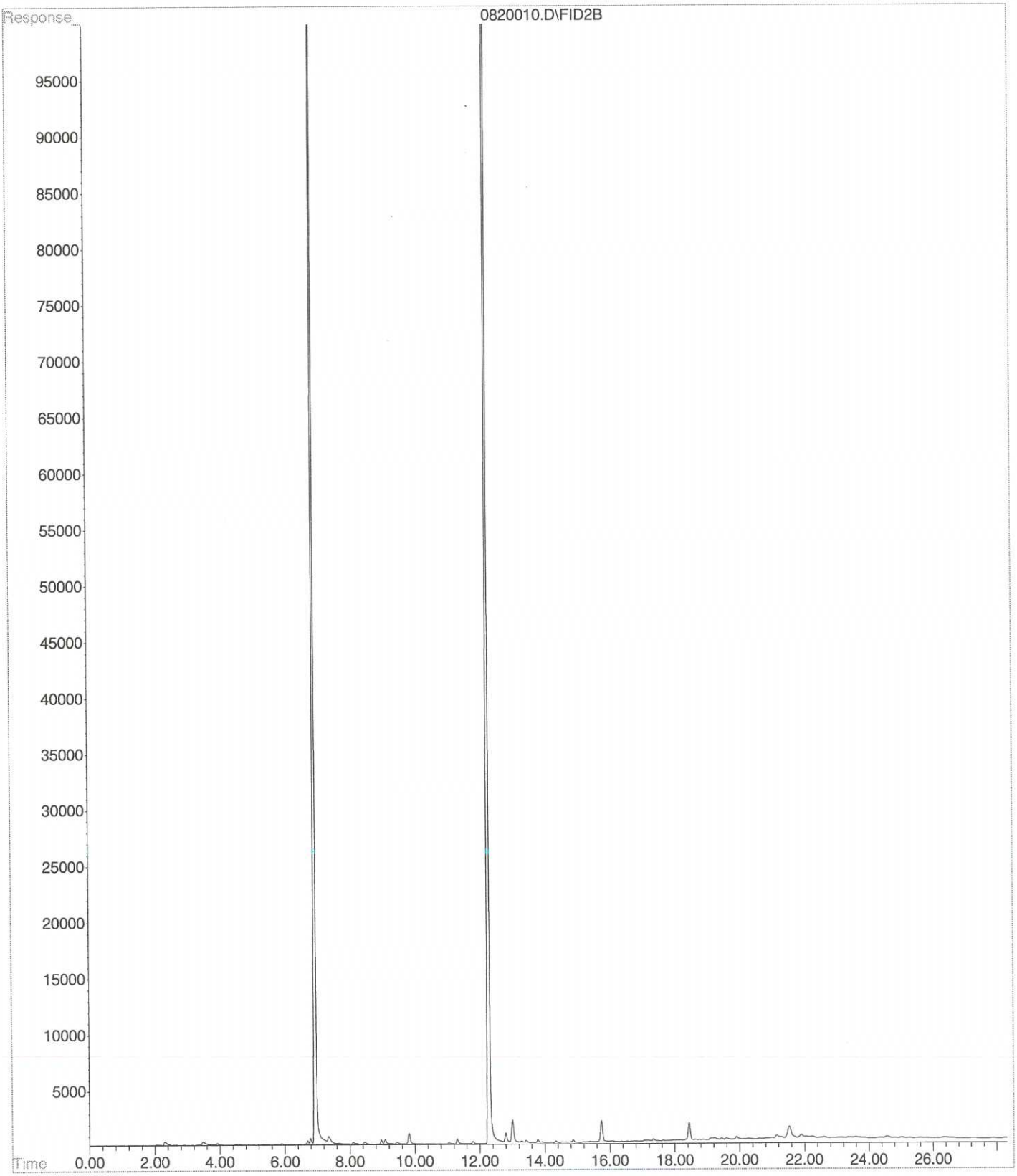
	Signature	Company	Date	Time
Relinquished		GEI	8/19/15	1615
Received		OSE	8/19/15	1615
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

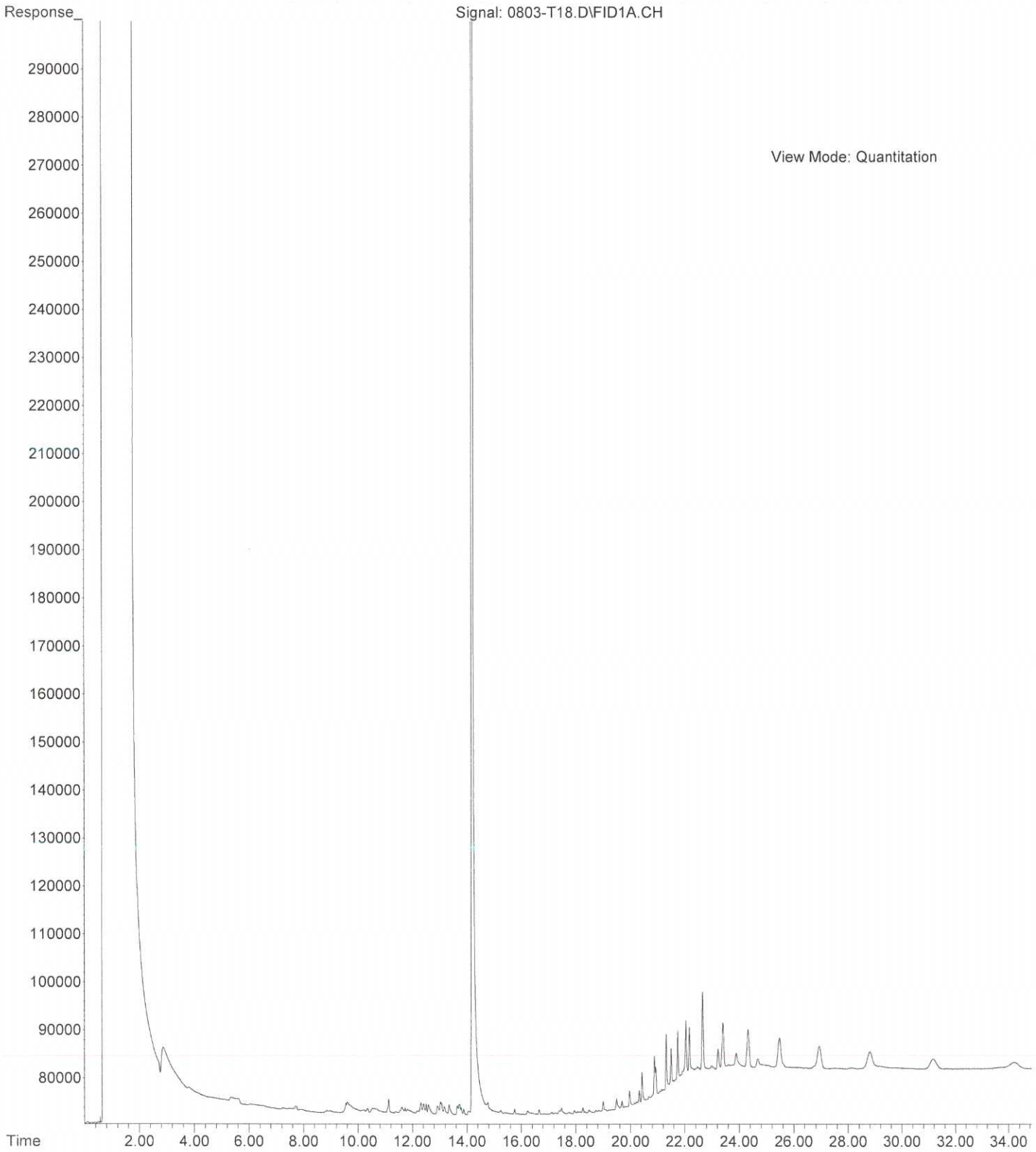
Chromatograms with final report ☐

Data Package: Standard ☐ Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ _____

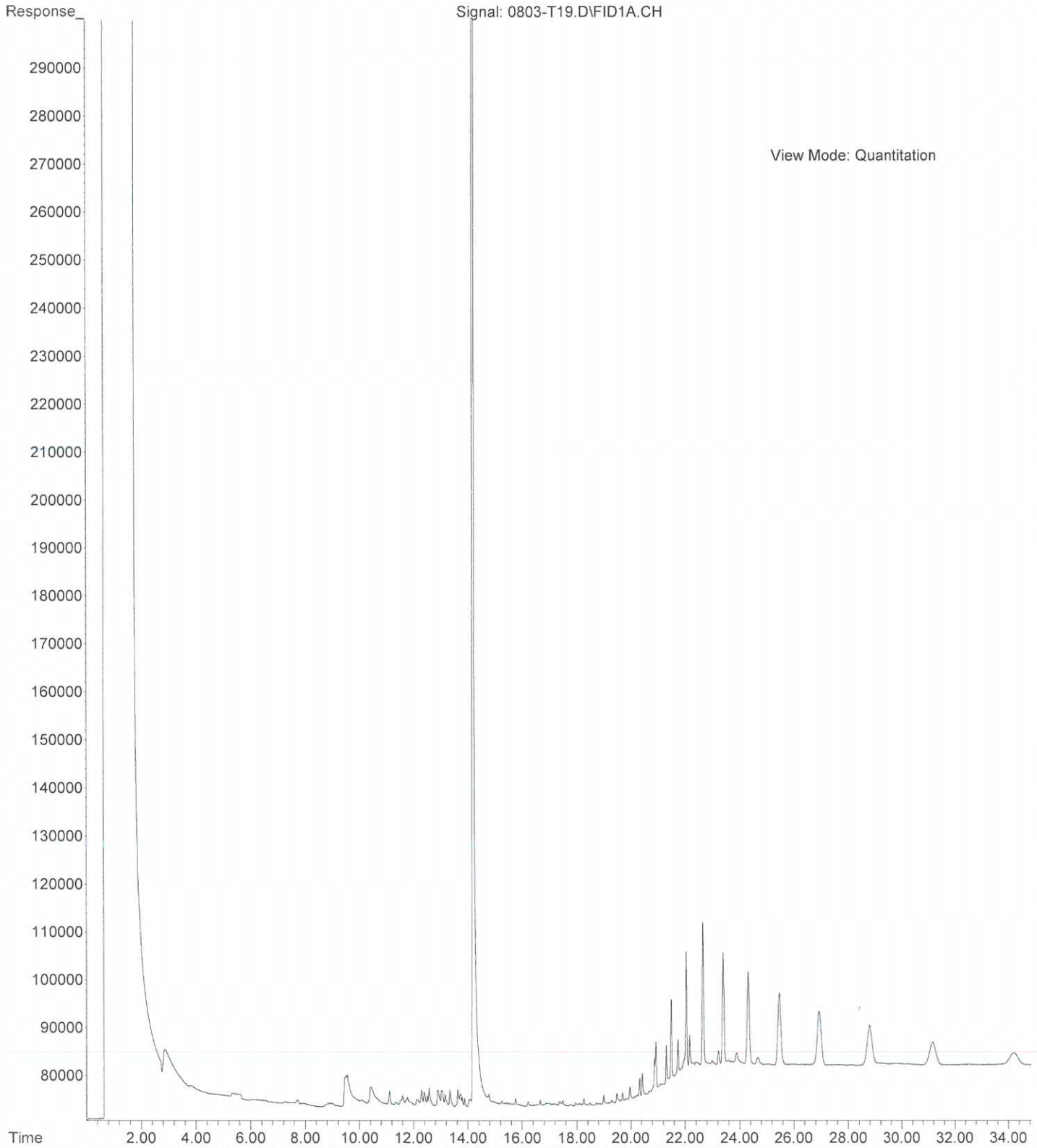
File : X:\BTEX\DARYL\DATA\D150820\0820010.D
Operator :
Acquired : 20 Aug 2015 19:20 using AcqMethod 150709B.M
Instrument : Daryl
Sample Name: 08-200-02s
Misc Info : V2-37-21
Vial Number: 10



File :X:\DIESELS\TERI\DATA\T150820\0803-T18.D
Operator : ZT
Acquired : 21 Aug 2015 3:40 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 08-200-01
Misc Info :
Vial Number: 18



File : X:\DIESELS\TERI\DATA\T150820\0803-T19.D
Operator : ZT
Acquired : 21 Aug 2015 4:23 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 08-200-02
Misc Info :
Vial Number: 19



OnSite Environmental Inc.

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

August 25, 2015

Fasih Khan
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03
Laboratory Reference No. 1508-216

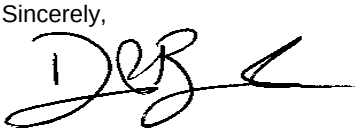
Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on August 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,



David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 25, 2015
Samples Submitted: August 21, 2015
Laboratory Reference: 1508-216
Project: 21138-001-03

Case Narrative

Samples were collected on August 20, 2015 and received by the laboratory on August 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.

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 25, 2015
Samples Submitted: August 21, 2015
Laboratory Reference: 1508-216
Project: 21138-001-03

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
UST2EX-E-24.0	08-216-01	Soil	8-20-15	8-21-15	
UST2EX-S2-22.0	08-216-02	Soil	8-20-15	8-21-15	
UST2EX-W1-22.0	08-216-03	Soil	8-20-15	8-21-15	
UST2EX-W1-24.0	08-216-04	Soil	8-20-15	8-21-15	
UST2EX-W2-24.0	08-216-05	Soil	8-20-15	8-21-15	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 25, 2015
Samples Submitted: August 21, 2015
Laboratory Reference: 1508-216
Project: 21138-001-03

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST2EX-E-24.0**					
Laboratory ID:	08-216-01					
Diesel Range Organics	**ND**	32	NWTPH-Dx	8-21-15	8-21-15	
Lube Oil Range Organics	**ND**	64	NWTPH-Dx	8-21-15	8-21-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*95*	*50-150*				
Client ID:	**UST2EX-S2-22.0**					
Laboratory ID:	08-216-02					
Diesel Range Organics	**ND**	31	NWTPH-Dx	8-21-15	8-21-15	
Lube Oil Range Organics	**ND**	61	NWTPH-Dx	8-21-15	8-21-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*86*	*50-150*				
Client ID:	**UST2EX-W1-22.0**					
Laboratory ID:	08-216-03					
Diesel Range Organics	**ND**	32	NWTPH-Dx	8-21-15	8-21-15	
Lube Oil Range Organics	**ND**	64	NWTPH-Dx	8-21-15	8-21-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*97*	*50-150*				
Client ID:	**UST2EX-W1-24.0**					
Laboratory ID:	08-216-04					
Diesel Range Organics	**1700**	33	NWTPH-Dx	8-21-15	8-21-15	
Lube Oil	**19000**	1300	NWTPH-Dx	8-21-15	8-24-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*---*	*50-150*				S
Client ID:	**UST2EX-W2-24.0**					
Laboratory ID:	08-216-05					
Diesel Range Organics	**ND**	32	NWTPH-Dx	8-21-15	8-21-15	
Lube Oil Range Organics	**ND**	63	NWTPH-Dx	8-21-15	8-21-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*88*	*50-150*				

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Date of Report: August 25, 2015
Samples Submitted: August 21, 2015
Laboratory Reference: 1508-216
Project: 21138-001-03

PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST2EX-E-24.0**					
Laboratory ID:	08-216-01					
Naphthalene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
2-Methylnaphthalene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
1-Methylnaphthalene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Acenaphthylene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Acenaphthene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Fluorene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Phenanthrene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Anthracene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Fluoranthene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Pyrene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo[a]anthracene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Chrysene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo[b]fluoranthene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo(j,k)fluoranthene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo[a]pyrene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Dibenz[a,h]anthracene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo[g,h,i]perylene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*85*	*32 - 114*				
Pyrene-d10	*68*	*33 - 121*				
Terphenyl-d14	*83*	*31 - 116*				

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Date of Report: August 25, 2015
Samples Submitted: August 21, 2015
Laboratory Reference: 1508-216
Project: 21138-001-03

PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST2EX-S2-22.0**					
Laboratory ID:	08-216-02					
Naphthalene	**0.0088**	0.0081	EPA 8270D/SIM	8-21-15	8-22-15	
2-Methylnaphthalene	**0.029**	0.0081	EPA 8270D/SIM	8-21-15	8-22-15	
1-Methylnaphthalene	**0.019**	0.0081	EPA 8270D/SIM	8-21-15	8-22-15	
Acenaphthylene	**ND**	0.0081	EPA 8270D/SIM	8-21-15	8-22-15	
Acenaphthene	**ND**	0.0081	EPA 8270D/SIM	8-21-15	8-22-15	
Fluorene	**ND**	0.0081	EPA 8270D/SIM	8-21-15	8-22-15	
Phenanthrene	**ND**	0.0081	EPA 8270D/SIM	8-21-15	8-22-15	
Anthracene	**ND**	0.0081	EPA 8270D/SIM	8-21-15	8-22-15	
Fluoranthene	**ND**	0.0081	EPA 8270D/SIM	8-21-15	8-22-15	
Pyrene	**ND**	0.0081	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo[a]anthracene	**ND**	0.0081	EPA 8270D/SIM	8-21-15	8-22-15	
Chrysene	**ND**	0.0081	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo[b]fluoranthene	**ND**	0.0081	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo(j,k)fluoranthene	**ND**	0.0081	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo[a]pyrene	**ND**	0.0081	EPA 8270D/SIM	8-21-15	8-22-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0081	EPA 8270D/SIM	8-21-15	8-22-15	
Dibenz[a,h]anthracene	**ND**	0.0081	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo[g,h,i]perylene	**ND**	0.0081	EPA 8270D/SIM	8-21-15	8-22-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*77*	*32 - 114*				
Pyrene-d10	*69*	*33 - 121*				
Terphenyl-d14	*83*	*31 - 116*				

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Date of Report: August 25, 2015
Samples Submitted: August 21, 2015
Laboratory Reference: 1508-216
Project: 21138-001-03

PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST2EX-W1-22.0**					
Laboratory ID:	08-216-03					
Naphthalene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
2-Methylnaphthalene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
1-Methylnaphthalene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Acenaphthylene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Acenaphthene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Fluorene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Phenanthrene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Anthracene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Fluoranthene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Pyrene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo[a]anthracene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Chrysene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo[b]fluoranthene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo(j,k)fluoranthene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo[a]pyrene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Dibenz[a,h]anthracene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo[g,h,i]perylene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*79*	*32 - 114*				
Pyrene-d10	*70*	*33 - 121*				
Terphenyl-d14	*87*	*31 - 116*				

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Date of Report: August 25, 2015
Samples Submitted: August 21, 2015
Laboratory Reference: 1508-216
Project: 21138-001-03

PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST2EX-W1-24.0**					
Laboratory ID:	08-216-04					
Naphthalene	**1.3**	0.044	EPA 8270D/SIM	8-21-15	8-24-15	
2-Methylnaphthalene	**2.8**	0.044	EPA 8270D/SIM	8-21-15	8-24-15	
1-Methylnaphthalene	**1.9**	0.044	EPA 8270D/SIM	8-21-15	8-24-15	
Acenaphthylene	**0.036**	0.0089	EPA 8270D/SIM	8-21-15	8-24-15	
Acenaphthene	**0.080**	0.044	EPA 8270D/SIM	8-21-15	8-24-15	
Fluorene	**0.16**	0.044	EPA 8270D/SIM	8-21-15	8-24-15	
Phenanthrene	**0.40**	0.044	EPA 8270D/SIM	8-21-15	8-24-15	
Anthracene	**0.15**	0.044	EPA 8270D/SIM	8-21-15	8-24-15	
Fluoranthene	**0.21**	0.044	EPA 8270D/SIM	8-21-15	8-24-15	
Pyrene	**0.42**	0.044	EPA 8270D/SIM	8-21-15	8-24-15	
Benzo[a]anthracene	**0.17**	0.044	EPA 8270D/SIM	8-21-15	8-24-15	
Chrysene	**0.15**	0.044	EPA 8270D/SIM	8-21-15	8-24-15	
Benzo[b]fluoranthene	**0.12**	0.044	EPA 8270D/SIM	8-21-15	8-24-15	
Benzo(j,k)fluoranthene	**ND**	0.044	EPA 8270D/SIM	8-21-15	8-24-15	
Benzo[a]pyrene	**0.11**	0.044	EPA 8270D/SIM	8-21-15	8-24-15	
Indeno(1,2,3-c,d)pyrene	**0.072**	0.044	EPA 8270D/SIM	8-21-15	8-24-15	
Dibenz[a,h]anthracene	**ND**	0.044	EPA 8270D/SIM	8-21-15	8-24-15	
Benzo[g,h,i]perylene	**0.13**	0.044	EPA 8270D/SIM	8-21-15	8-24-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*74*	*32 - 114*				
Pyrene-d10	*73*	*33 - 121*				
Terphenyl-d14	*100*	*31 - 116*				

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Date of Report: August 25, 2015
Samples Submitted: August 21, 2015
Laboratory Reference: 1508-216
Project: 21138-001-03

PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST2EX-W2-24.0**					
Laboratory ID:	08-216-05					
Naphthalene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
2-Methylnaphthalene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
1-Methylnaphthalene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Acenaphthylene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Acenaphthene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Fluorene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Phenanthrene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Anthracene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Fluoranthene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Pyrene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo[a]anthracene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Chrysene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo[b]fluoranthene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo(j,k)fluoranthene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo[a]pyrene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Dibenz[a,h]anthracene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo[g,h,i]perylene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*67*	*32 - 114*				
Pyrene-d10	*59*	*33 - 121*				
Terphenyl-d14	*73*	*31 - 116*				

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Date of Report: August 25, 2015
Samples Submitted: August 21, 2015
Laboratory Reference: 1508-216
Project: 21138-001-03

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0821S1					
Diesel Range Organics	**ND**	25	NWTPH-Dx	8-21-15	8-21-15	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	8-21-15	8-21-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*101*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	08-215-04										
	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						*111*	*99*	*50-150*			

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Date of Report: August 25, 2015
Samples Submitted: August 21, 2015
Laboratory Reference: 1508-216
Project: 21138-001-03

PAHs EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0821S1					
Naphthalene	**ND**	0.0067	EPA 8270D/SIM	8-21-15	8-22-15	
2-Methylnaphthalene	**ND**	0.0067	EPA 8270D/SIM	8-21-15	8-22-15	
1-Methylnaphthalene	**ND**	0.0067	EPA 8270D/SIM	8-21-15	8-22-15	
Acenaphthylene	**ND**	0.0067	EPA 8270D/SIM	8-21-15	8-22-15	
Acenaphthene	**ND**	0.0067	EPA 8270D/SIM	8-21-15	8-22-15	
Fluorene	**ND**	0.0067	EPA 8270D/SIM	8-21-15	8-22-15	
Phenanthrene	**ND**	0.0067	EPA 8270D/SIM	8-21-15	8-22-15	
Anthracene	**ND**	0.0067	EPA 8270D/SIM	8-21-15	8-22-15	
Fluoranthene	**ND**	0.0067	EPA 8270D/SIM	8-21-15	8-22-15	
Pyrene	**ND**	0.0067	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo[a]anthracene	**ND**	0.0067	EPA 8270D/SIM	8-21-15	8-22-15	
Chrysene	**ND**	0.0067	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo[b]fluoranthene	**ND**	0.0067	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo(j,k)fluoranthene	**ND**	0.0067	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo[a]pyrene	**ND**	0.0067	EPA 8270D/SIM	8-21-15	8-22-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0067	EPA 8270D/SIM	8-21-15	8-22-15	
Dibenz[a,h]anthracene	**ND**	0.0067	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo[g,h,i]perylene	**ND**	0.0067	EPA 8270D/SIM	8-21-15	8-22-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*99*	*32 - 114*				
Pyrene-d10	*77*	*33 - 121*				
Terphenyl-d14	*96*	*31 - 116*				

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Date of Report: August 25, 2015
Samples Submitted: August 21, 2015
Laboratory Reference: 1508-216
Project: 21138-001-03

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:	SB0821S1									
	SB	SBD	SB	SBD	SB	SBD				
Naphthalene	**0.0683**	**0.0624**	0.0833	0.0833	82	75	63 - 113	9	19	
Acenaphthylene	**0.0731**	**0.0651**	0.0833	0.0833	88	78	61 - 125	12	16	
Acenaphthene	**0.0755**	**0.0669**	0.0833	0.0833	91	80	66 - 113	12	16	
Fluorene	**0.0681**	**0.0614**	0.0833	0.0833	82	74	60 - 117	10	16	
Phenanthrene	**0.0645**	**0.0576**	0.0833	0.0833	77	69	63 - 116	11	12	
Anthracene	**0.104**	**0.0933**	0.0833	0.0833	125	112	66 - 146	11	19	
Fluoranthene	**0.0610**	**0.0560**	0.0833	0.0833	73	67	60 - 125	9	13	
Pyrene	**0.0679**	**0.0632**	0.0833	0.0833	82	76	66 - 126	7	15	
Benzo[a]anthracene	**0.0805**	**0.0740**	0.0833	0.0833	97	89	60 - 128	8	15	
Chrysene	**0.0647**	**0.0606**	0.0833	0.0833	78	73	60 - 117	7	13	
Benzo[b]fluoranthene	**0.0654**	**0.0623**	0.0833	0.0833	79	75	60 - 131	5	16	
Benzo(j,k)fluoranthene	**0.0702**	**0.0631**	0.0833	0.0833	84	76	57 - 126	11	20	
Benzo[a]pyrene	**0.0710**	**0.0655**	0.0833	0.0833	85	79	62 - 136	8	16	
Indeno(1,2,3-c,d)pyrene	**0.0687**	**0.0628**	0.0833	0.0833	82	75	60 - 127	9	19	
Dibenz[a,h]anthracene	**0.0655**	**0.0607**	0.0833	0.0833	79	73	62 - 133	8	22	
Benzo[g,h,i]perylene	**0.0689**	**0.0637**	0.0833	0.0833	83	76	63 - 129	8	22	
Surrogate:										
2-Fluorobiphenyl					*105*	*84*	*32 - 114*			
Pyrene-d10					*82*	*76*	*33 - 121*			
Terphenyl-d14					*99*	*94*	*31 - 116*			

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Date of Report: August 25, 2015
Samples Submitted: August 21, 2015
Laboratory Reference: 1508-216
Project: 21138-001-03

% MOISTURE

Date Analyzed: 8-21-15

Client ID	Lab ID	% Moisture
UST2EX-E-24.0	08-216-01	22
UST2EX-S2-22.0	08-216-02	18
UST2EX-W1-22.0	08-216-03	22
UST2EX-W1-24.0	08-216-04	25
UST2EX-W2-24.0	08-216-05	21

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OnSite Environmental Inc.

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-napthalene) 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

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Chain of Custody

Page 1 of 1

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Laboratory Number: 08-216

Company: GEOENGINEERS
Project Number: 21138-001-03
Project Name: 9th & CENORA PROJECT
Project Manager: FASIH KHAN
Sampled by: FASIH KHAN

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☒ 2 Days ☐ 3 Days
☐ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	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		1 DAY TAT				% Moisture
1	~~SW~~ UST2EX-E-24.0	8/20/15	1330	S	1				X				X										X				X
2	~~SW~~ UST2EX-S2-22.0	↓	1130	↓	↓				X				X										X				X
3	~~SW~~ UST2EX-W1-22.0		1310						X				X										X				X
4	~~SW~~ UST2EX-W1-24.0		1230						X				X										X				X
5	~~SW~~ UST2EX-W2-24.0	↓	1410	↓	↓				X				X										X				X

	Signature	Company	Date	Time
Relinquished		GEI	8/21/15	0835
Received		OSE	8/21/15	0835
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

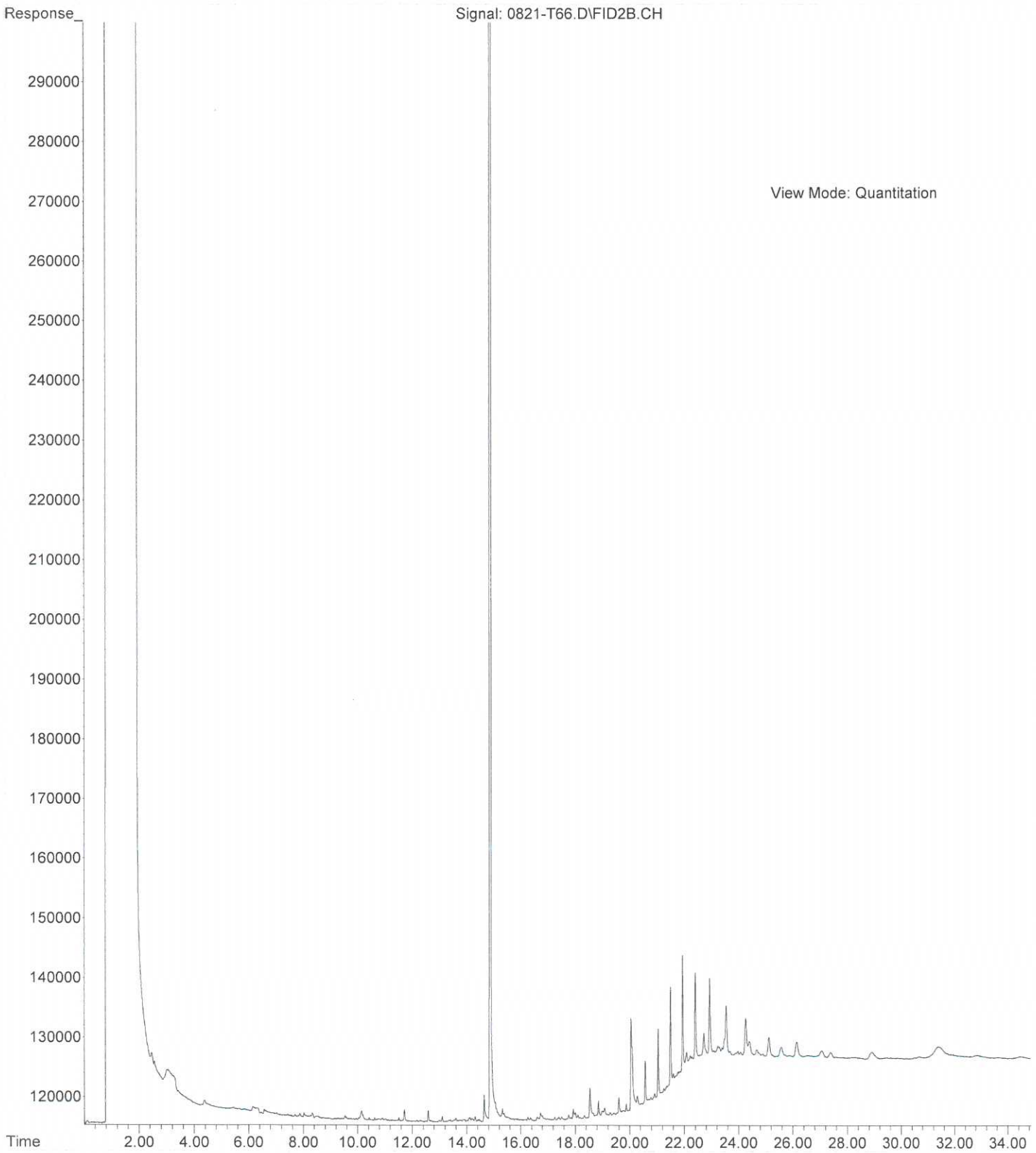
Comments/Special Instructions

Chromatograms with final report ☐

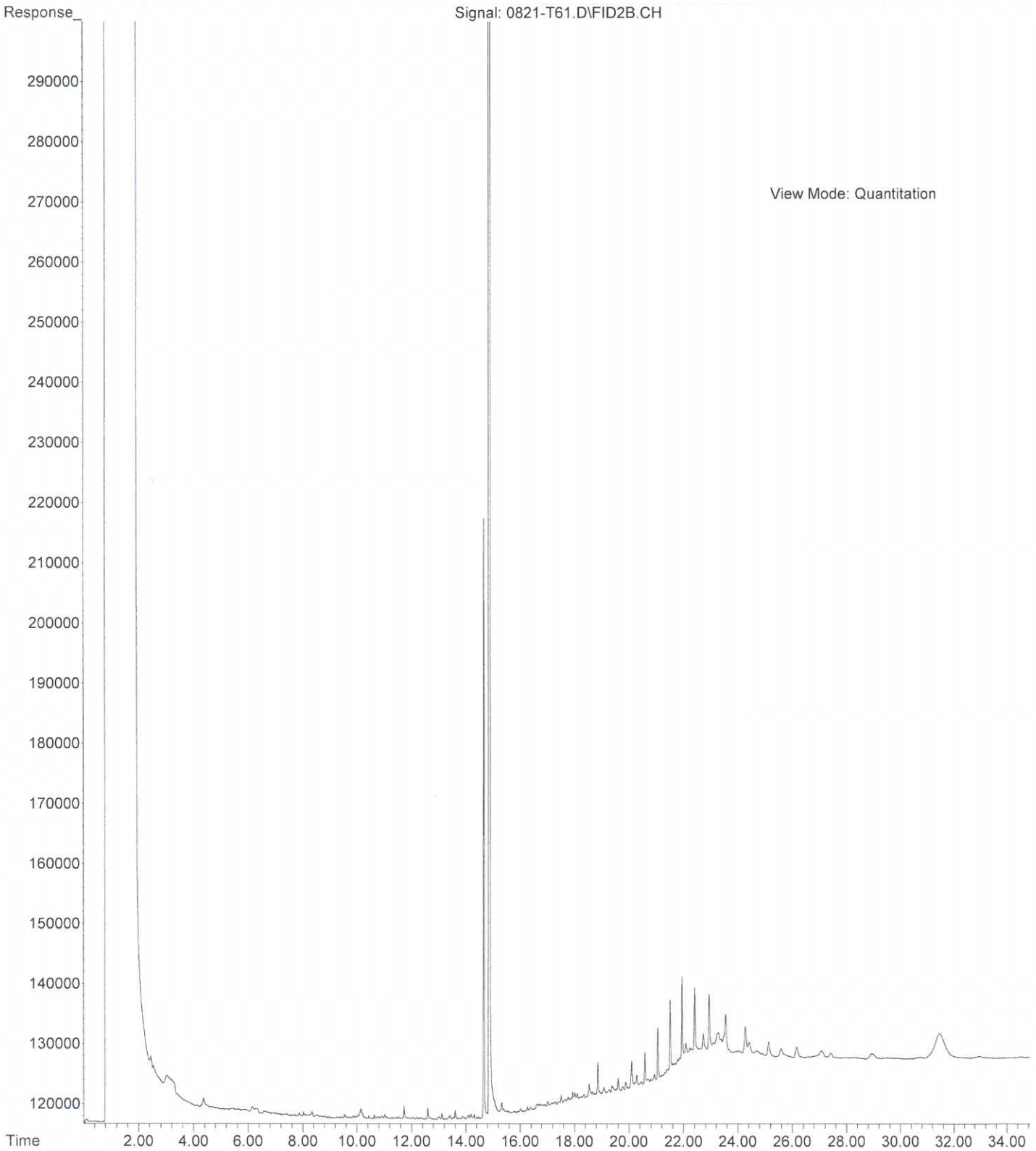
Data Package: Standard ☐ Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ _____

20

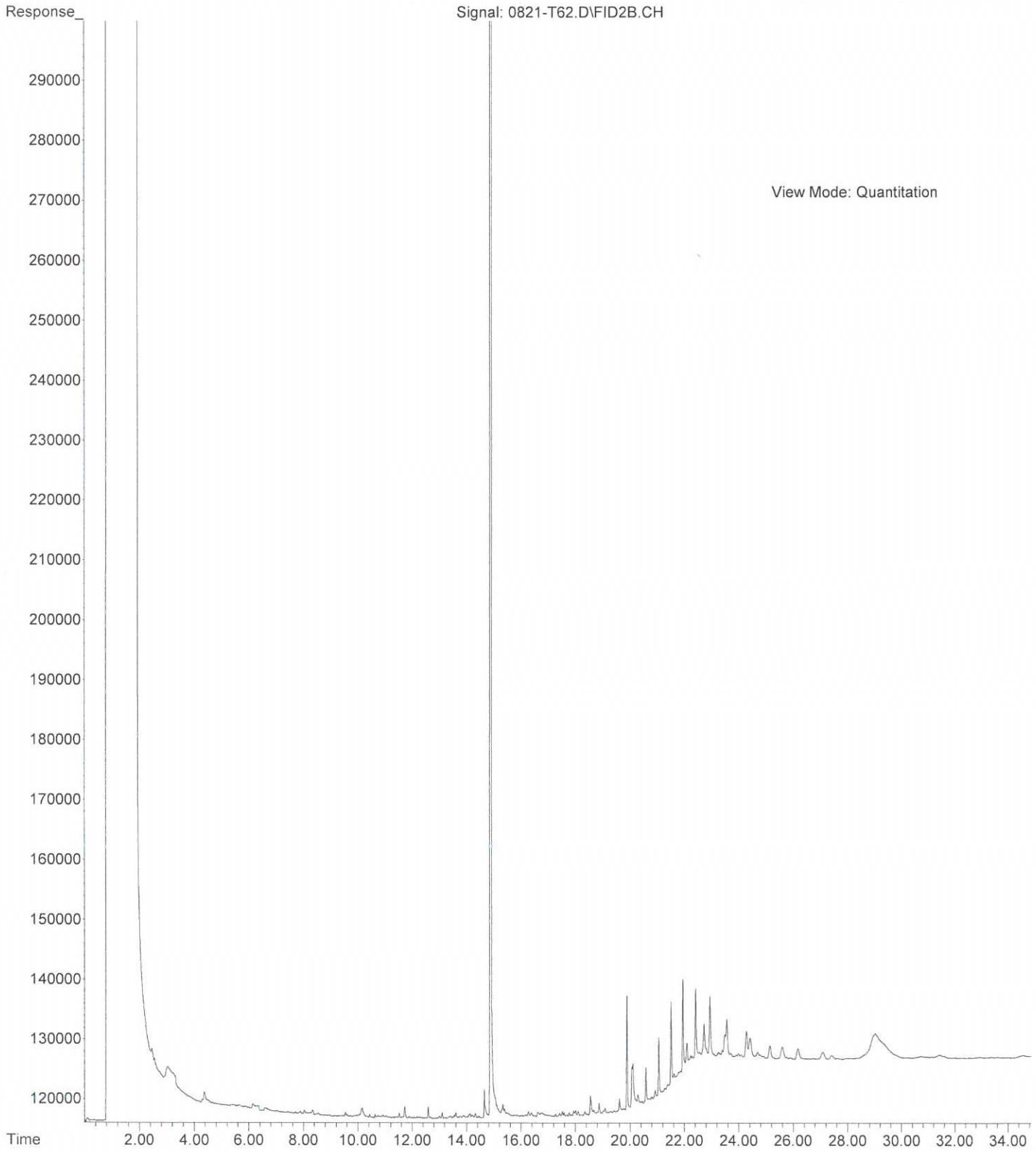
File : X:\DIESELS\TERI\DATA\T150821.SEC\0821-T66.D
Operator : ZT
Acquired : 21 Aug 2015 23:45 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 08-216-01
Misc Info :
Vial Number: 66



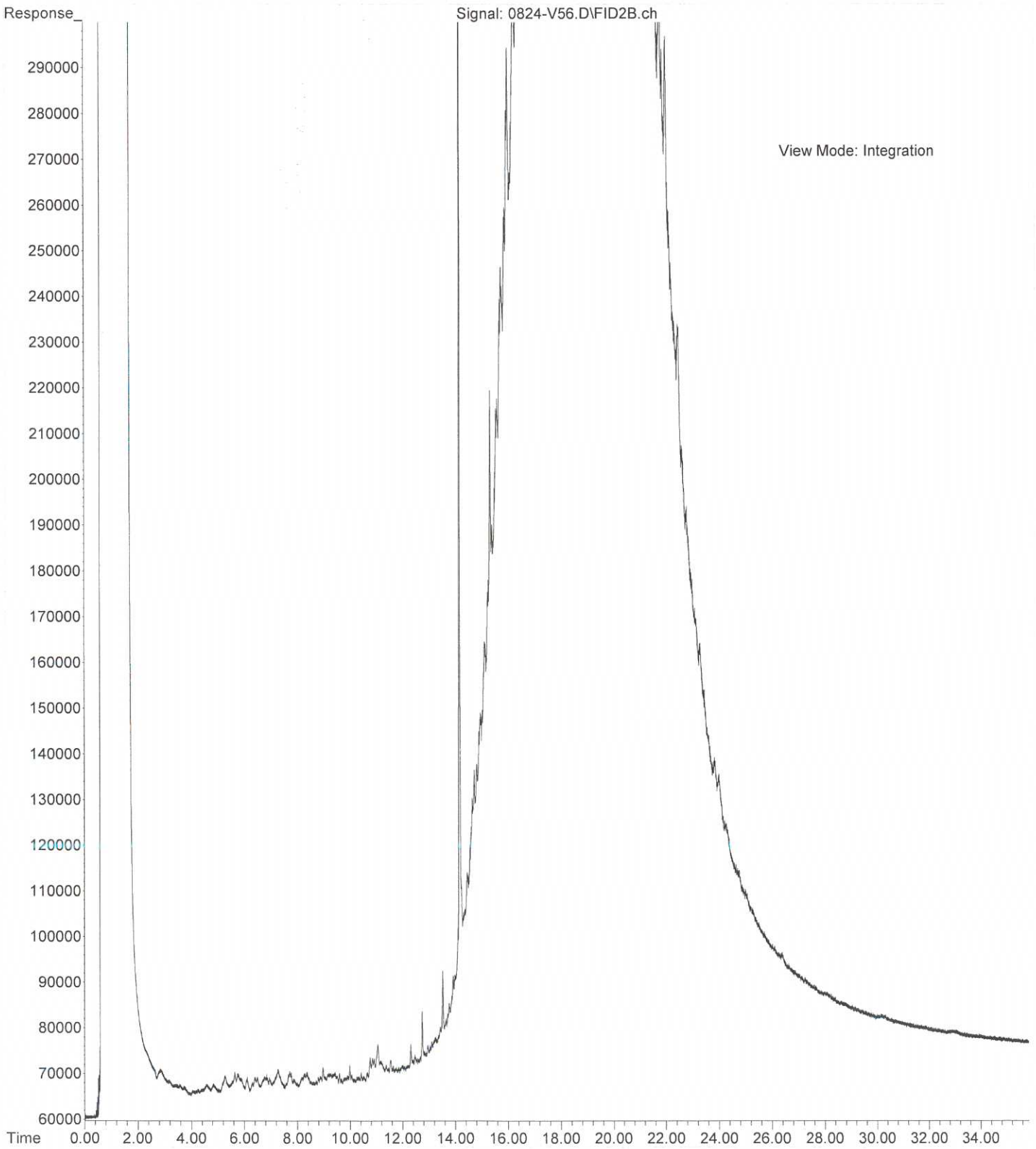
File : X:\DIESELS\TERI\DATA\T150821.SEC\0821-T61.D
Operator : ZT
Acquired : 21 Aug 2015 20:09 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 08-216-02
Misc Info :
Vial Number: 61



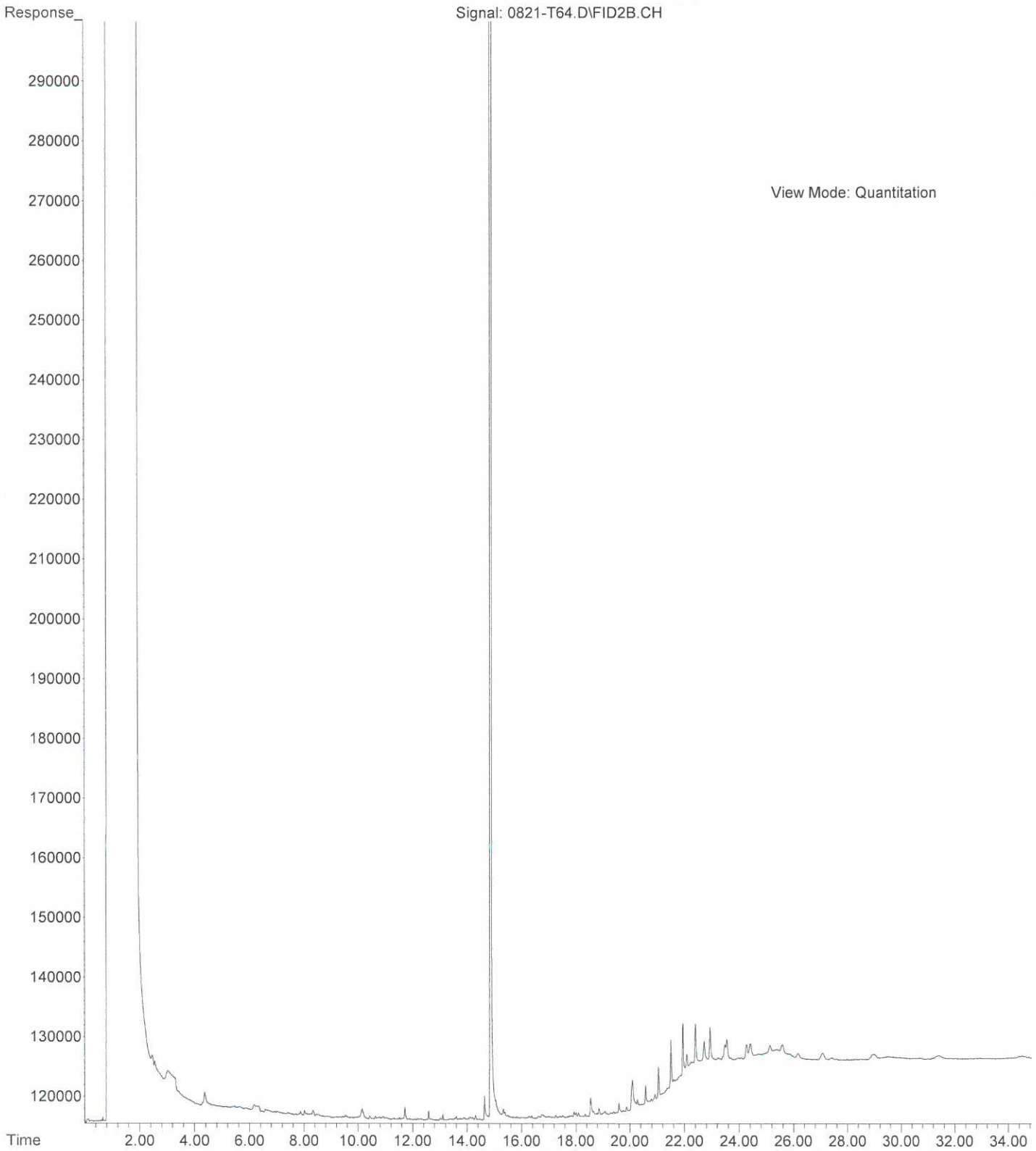
File : X:\DIESELS\TERI\DATA\T150821.SEC\0821-T62.D
Operator : ZT
Acquired : 21 Aug 2015 20:52 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 08-216-03
Misc Info :
Vial Number: 62



File :X:\DIESELS\VIGO\DATA\V150824.SEC\0824-V56.D
Operator :
Acquired : 24 Aug 2015 12:57 using AcqMethod V150507F.M
Instrument : Vigo
Sample Name: 08-216-04 20X
Misc Info :
Vial Number: 56



File : X:\DIESELS\TERI\DATA\T150821.SEC\0821-T64.D
Operator : ZT
Acquired : 21 Aug 2015 22:19 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 08-216-05
Misc Info :
Vial Number: 64



OnSite Environmental Inc.

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

September 1, 2015

Fasih Khan
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03
Laboratory Reference No. 1508-268

Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on August 27, 2015.

Please note that this is a *revised* report, and replaces the original due to a revision of the sample identification.

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,

David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody,
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Date of Report: September 1, 2015
Samples Submitted: August 27, 2015
Laboratory Reference: 1508-268
Project: 21138-001-03

Case Narrative

Samples were collected on August 26, 2015 and received by the laboratory on August 27, 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.

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Date of Report: September 1, 2015
Samples Submitted: August 27, 2015
Laboratory Reference: 1508-268
Project: 21138-001-03

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
UST2 EX-N-33.0	08-268-01	Soil	8-26-15	8-27-15	
UST2 EX-W3-30.0	08-268-02	Soil	8-26-15	8-27-15	

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Date of Report: September 1, 2015
Samples Submitted: August 27, 2015
Laboratory Reference: 1508-268
Project: 21138-001-03

NWTPH-Gx/BTEX

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST2 EX-N-33.0**					
Laboratory ID:	08-268-01					
Benzene	**ND**	0.020	EPA 8021B	8-27-15	8-27-15	
Toluene	**ND**	0.064	EPA 8021B	8-27-15	8-27-15	
Ethyl Benzene	**ND**	0.064	EPA 8021B	8-27-15	8-27-15	
m,p-Xylene	**ND**	0.064	EPA 8021B	8-27-15	8-27-15	
o-Xylene	**ND**	0.064	EPA 8021B	8-27-15	8-27-15	
Gasoline	**ND**	6.4	NWTPH-Gx	8-27-15	8-27-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*97*	*68-123*				
Client ID:	**UST2 EX-W3-30.0**					
Laboratory ID:	08-268-02					
Benzene	**ND**	0.020	EPA 8021B	8-27-15	8-27-15	
Toluene	**ND**	0.064	EPA 8021B	8-27-15	8-27-15	
Ethyl Benzene	**ND**	0.064	EPA 8021B	8-27-15	8-27-15	
m,p-Xylene	**ND**	0.064	EPA 8021B	8-27-15	8-27-15	
o-Xylene	**ND**	0.064	EPA 8021B	8-27-15	8-27-15	
Gasoline	**ND**	6.4	NWTPH-Gx	8-27-15	8-27-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*111*	*68-123*				

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Date of Report: September 1, 2015
Samples Submitted: August 27, 2015
Laboratory Reference: 1508-268
Project: 21138-001-03

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST2 EX-N-33.0**					
Laboratory ID:	08-268-01					
Diesel Range Organics	**ND**	33	NWTPH-Dx	8-27-15	8-31-15	
Lube Oil Range Organics	**ND**	66	NWTPH-Dx	8-27-15	8-31-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*79*	*50-150*				
Client ID:	**UST2 EX-W3-30.0**					
Laboratory ID:	08-268-02					
Diesel Range Organics	**ND**	32	NWTPH-Dx	8-27-15	8-31-15	
Lube Oil Range Organics	**ND**	65	NWTPH-Dx	8-27-15	8-31-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*99*	*50-150*				

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Date of Report: September 1, 2015
Samples Submitted: August 27, 2015
Laboratory Reference: 1508-268
Project: 21138-001-03

PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST2 EX-N-33.0**					
Laboratory ID:	08-268-01					
Naphthalene	**ND**	0.0088	EPA 8270D/SIM	8-27-15	8-27-15	
2-Methylnaphthalene	**ND**	0.0088	EPA 8270D/SIM	8-27-15	8-27-15	
1-Methylnaphthalene	**ND**	0.0088	EPA 8270D/SIM	8-27-15	8-27-15	
Acenaphthylene	**ND**	0.0088	EPA 8270D/SIM	8-27-15	8-27-15	
Acenaphthene	**ND**	0.0088	EPA 8270D/SIM	8-27-15	8-27-15	
Fluorene	**ND**	0.0088	EPA 8270D/SIM	8-27-15	8-27-15	
Phenanthrene	**ND**	0.0088	EPA 8270D/SIM	8-27-15	8-27-15	
Anthracene	**ND**	0.0088	EPA 8270D/SIM	8-27-15	8-27-15	
Fluoranthene	**ND**	0.0088	EPA 8270D/SIM	8-27-15	8-27-15	
Pyrene	**ND**	0.0088	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[a]anthracene	**ND**	0.0088	EPA 8270D/SIM	8-27-15	8-27-15	
Chrysene	**ND**	0.0088	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[b]fluoranthene	**ND**	0.0088	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo(j,k)fluoranthene	**ND**	0.0088	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[a]pyrene	**ND**	0.0088	EPA 8270D/SIM	8-27-15	8-27-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0088	EPA 8270D/SIM	8-27-15	8-27-15	
Dibenz[a,h]anthracene	**ND**	0.0088	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[g,h,i]perylene	**ND**	0.0088	EPA 8270D/SIM	8-27-15	8-27-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*58*	*32 - 114*				
Pyrene-d10	*57*	*33 - 121*				
Terphenyl-d14	*60*	*31 - 116*				

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Date of Report: September 1, 2015
Samples Submitted: August 27, 2015
Laboratory Reference: 1508-268
Project: 21138-001-03

PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST2 EX-W3-30.0**					
Laboratory ID:	08-268-02					
Naphthalene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
2-Methylnaphthalene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
1-Methylnaphthalene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Acenaphthylene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Acenaphthene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Fluorene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Phenanthrene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Anthracene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Fluoranthene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Pyrene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[a]anthracene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Chrysene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[b]fluoranthene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo(j,k)fluoranthene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[a]pyrene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Dibenz[a,h]anthracene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[g,h,i]perylene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*65*	*32 - 114*				
Pyrene-d10	*56*	*33 - 121*				
Terphenyl-d14	*59*	*31 - 116*				

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Date of Report: September 1, 2015
Samples Submitted: August 27, 2015
Laboratory Reference: 1508-268
Project: 21138-001-03

NWTPH-Gx/BTEX
QUALITY CONTROL

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0827S1					
Benzene	**ND**	0.020	EPA 8021B	8-27-15	8-27-15	
Toluene	**ND**	0.050	EPA 8021B	8-27-15	8-27-15	
Ethyl Benzene	**ND**	0.050	EPA 8021B	8-27-15	8-27-15	
m,p-Xylene	**ND**	0.050	EPA 8021B	8-27-15	8-27-15	
o-Xylene	**ND**	0.050	EPA 8021B	8-27-15	8-27-15	
Gasoline	**ND**	5.0	NWTPH-Gx	8-27-15	8-27-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*84*	*68-123*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	08-267-01										
	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						*89*	*94*	*68-123*			
SPIKE BLANKS											
Laboratory ID:	SB0827S1										
	SB	SBD	SB	SBD		SB	SBD				
Benzene	**0.887**	**0.952**	1.00	1.00		**89**	**95**	75-117	7	13	
Toluene	**0.891**	**0.943**	1.00	1.00		**89**	**94**	78-118	6	12	
Ethyl Benzene	**0.883**	**0.925**	1.00	1.00		**88**	**93**	78-118	5	12	
m,p-Xylene	**0.903**	**0.980**	1.00	1.00		**90**	**98**	78-121	8	13	
o-Xylene	**0.891**	**0.916**	1.00	1.00		**89**	**92**	77-119	3	13	
Surrogate:											
Fluorobenzene						*82*	*84*	*68-123*			

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Date of Report: September 1, 2015
Samples Submitted: August 27, 2015
Laboratory Reference: 1508-268
Project: 21138-001-03

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0827S3					
Diesel Range Organics	**ND**	25	NWTPH-Dx	8-27-15	8-31-15	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	8-27-15	8-31-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*108*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	08-246-02										
	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						*103*	*93*	*50-150*			

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Date of Report: September 1, 2015
Samples Submitted: August 27, 2015
Laboratory Reference: 1508-268
Project: 21138-001-03

PAHs EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0827S1					
Naphthalene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
2-Methylnaphthalene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
1-Methylnaphthalene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Acenaphthylene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Acenaphthene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Fluorene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Phenanthrene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Anthracene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Fluoranthene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Pyrene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[a]anthracene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Chrysene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[b]fluoranthene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo(j,k)fluoranthene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[a]pyrene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Dibenz[a,h]anthracene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[g,h,i]perylene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*82*	*32 - 114*				
Pyrene-d10	*87*	*33 - 121*				
Terphenyl-d14	*92*	*31 - 116*				

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Samples Submitted: August 27, 2015
Laboratory Reference: 1508-268
Project: 21138-001-03

PAHs EPA 8270D/SIM
MS/MSD QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	08-263-03										
	MS	MSD	MS	MSD		MS	MSD				
Naphthalene	**0.0583**	**0.0615**	0.0833	0.0833	ND	70	74	44 - 107	5	29	
Acenaphthylene	**0.0581**	**0.0652**	0.0833	0.0833	ND	70	78	44 - 121	12	27	
Acenaphthene	**0.0579**	**0.0636**	0.0833	0.0833	ND	70	76	47 - 109	9	26	
Fluorene	**0.0620**	**0.0653**	0.0833	0.0833	ND	74	78	49 - 115	5	28	
Phenanthrene	**0.0598**	**0.0638**	0.0833	0.0833	ND	72	77	45 - 114	6	26	
Anthracene	**0.100**	**0.110**	0.0833	0.0833	ND	120	132	43 - 140	10	27	
Fluoranthene	**0.0584**	**0.0641**	0.0833	0.0833	ND	70	77	44 - 126	9	27	
Pyrene	**0.0582**	**0.0636**	0.0833	0.0833	ND	70	76	43 - 125	9	27	
Benzo[a]anthracene	**0.0680**	**0.0727**	0.0833	0.0833	ND	82	87	42 - 134	7	27	
Chrysene	**0.0597**	**0.0654**	0.0833	0.0833	ND	72	79	45 - 114	9	27	
Benzo[b]fluoranthene	**0.0602**	**0.0651**	0.0833	0.0833	ND	72	78	38 - 131	8	33	
Benzo(j,k)fluoranthene	**0.0575**	**0.0636**	0.0833	0.0833	ND	69	76	44 - 114	10	34	
Benzo[a]pyrene	**0.0580**	**0.0638**	0.0833	0.0833	ND	70	77	40 - 136	10	29	
Indeno(1,2,3-c,d)pyrene	**0.0580**	**0.0623**	0.0833	0.0833	ND	70	75	45 - 126	7	30	
Dibenz[a,h]anthracene	**0.0597**	**0.0646**	0.0833	0.0833	ND	72	78	46 - 121	8	28	
Benzo[g,h,i]perylene	**0.0579**	**0.0626**	0.0833	0.0833	ND	70	75	43 - 120	8	31	
Surrogate:											
2-Fluorobiphenyl						*67*	*84*	*32 - 114*			
Pyrene-d10						*71*	*78*	*33 - 121*			
Terphenyl-d14						*75*	*84*	*31 - 116*			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: September 1, 2015
Samples Submitted: August 27, 2015
Laboratory Reference: 1508-268
Project: 21138-001-03

% MOISTURE

Date Analyzed: 8-27-15

Client ID	Lab ID	% Moisture
UST2 EX-N-33.0	08-268-01	24
UST2 EX-W3-30.0	08-268-02	23

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OnSite Environmental Inc.

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-napthalene) 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

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: GEOENGINEERS
Project Number: 21138-001-03
Project Name: 9th & LENORA PROJECT
Project Manager: FASIH KHAN
Sampled by: FASIH KHAN

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☒ 2 Days ☐ 3 Days
☐ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

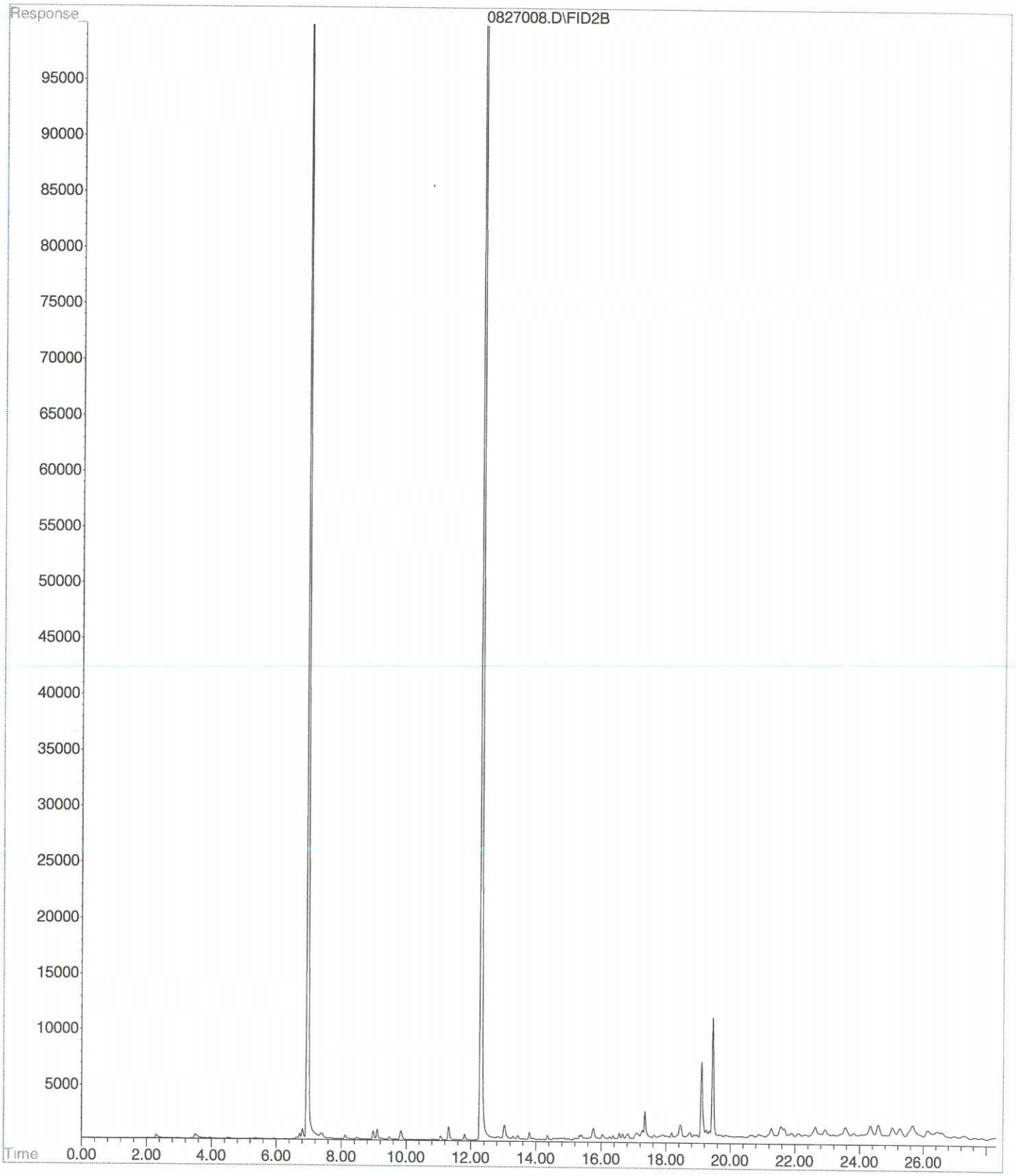
Laboratory Number: 08-268

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx/BTEX	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
1	VST2EX-N-33.0	8/26/15	1000	S	2			(X)	(X)				(X)														X
2	VST2EX-W3 ~~33.0~~ 30.0 DB	8/26/15	1045	S	2			(X)	(X)				(X)														X

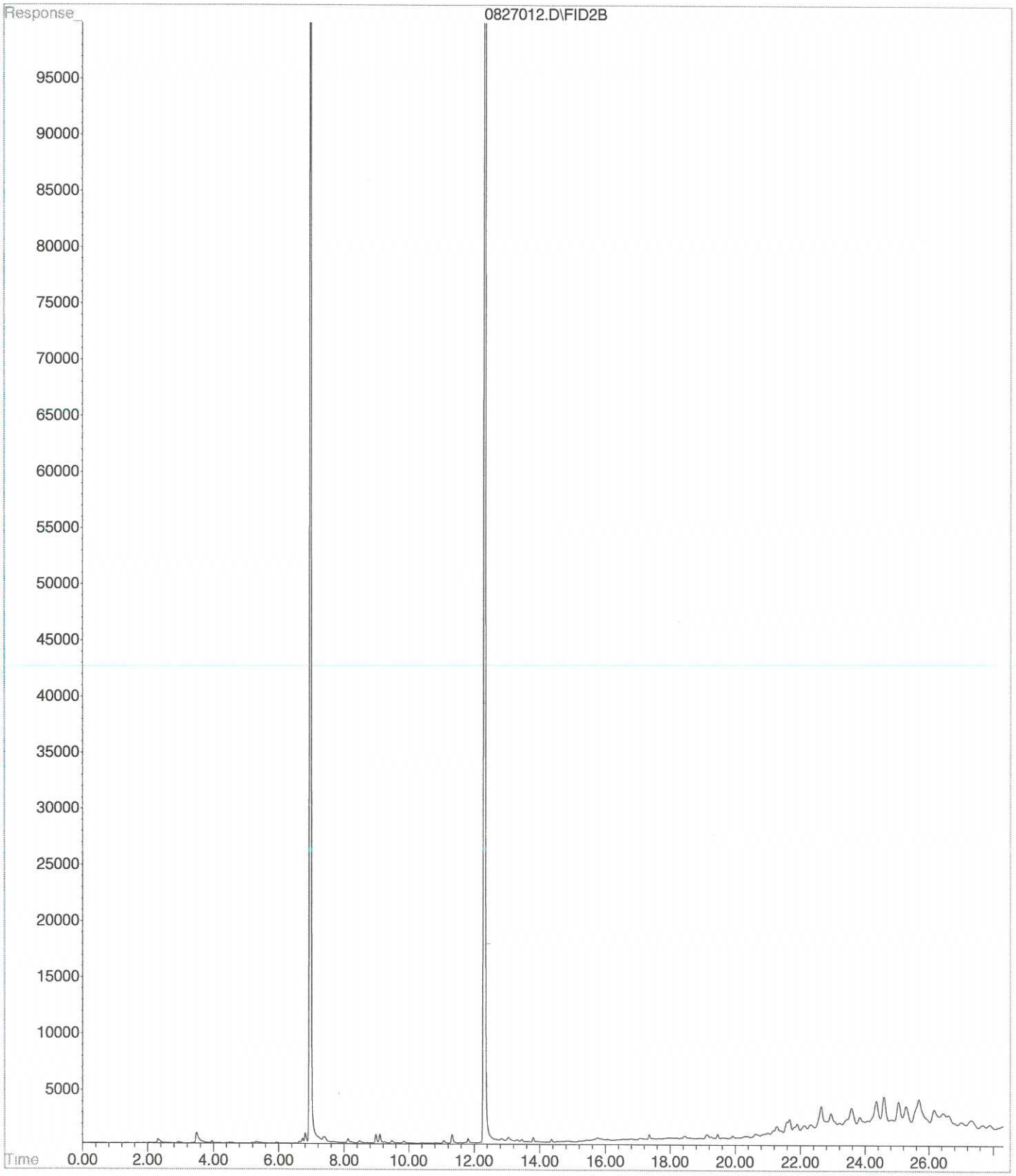
	Signature	Company	Date	Time	Comments/Special Instructions
Relinquished		GEI	8/27/15	0915	
Received			8/27/15	915	
Relinquished					
Received					
Relinquished					
Received					
Reviewed/Date		Reviewed/Date			Chromatograms with final report ☐

Data Package: Standard ☐ Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ _____

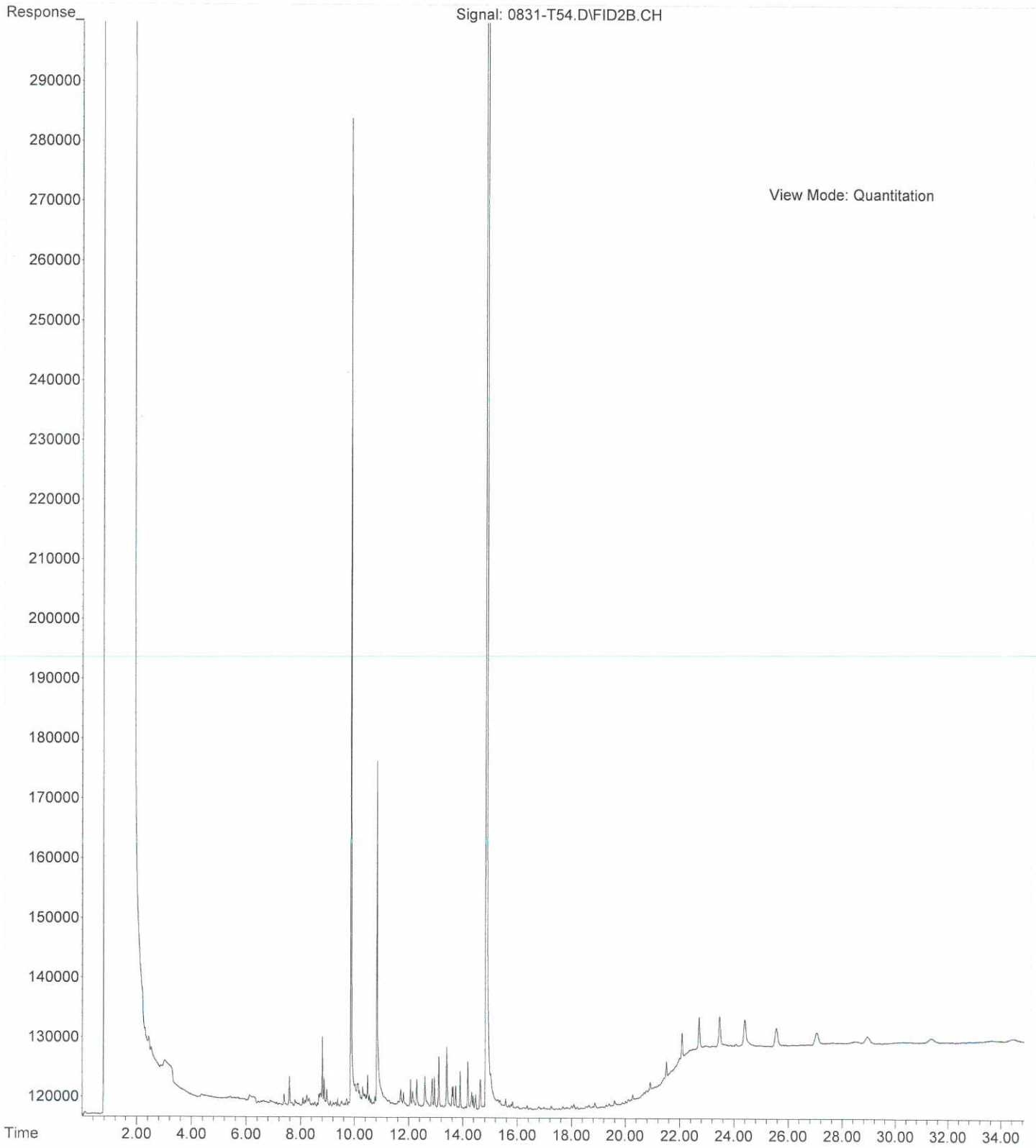
File : X:\BTEX\DARYL\DATA\D150827\0827008.D
Operator :
Acquired : 27 Aug 2015 14:59 using AcqMethod 150709B.M
Instrument : Daryl
Sample Name: 08-268-01s
Misc Info : V2-37-21
Vial Number: 8



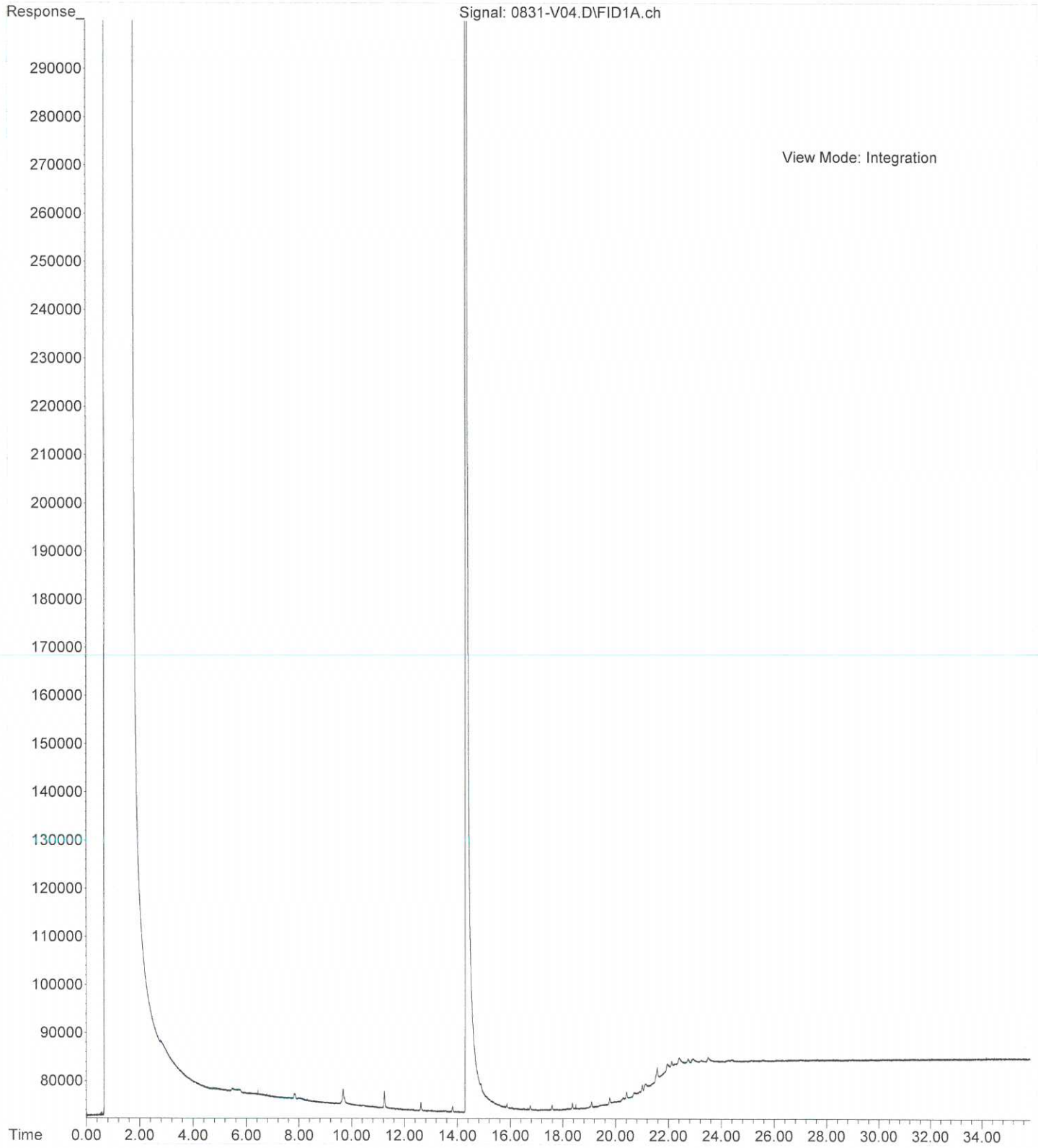
File : X:\BTEX\DARYL\DATA\D150827\0827012.D
Operator :
Acquired : 27 Aug 2015 17:33 using AcqMethod 150709B.M
Instrument : Daryl
Sample Name: 08-268-02s
Misc Info : V2-37-21
Vial Number: 12



File :X:\DIESELS\TERI\DATA\T150831.SEC\0831-T54.D
Operator : ZT
Acquired : 31 Aug 2015 11:33 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 08-268-01
Misc Info :
Vial Number: 54



File : X:\DIESELS\VIGO\DATA\V150831\0831-V04.D
Operator :
Acquired : 31 Aug 2015 11:56 using AcqMethod V150507F.M
Instrument : Vigo
Sample Name: 08-268-02
Misc Info :
Vial Number: 4



OnSite Environmental Inc.

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

August 21, 2015

Fasih Khan
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03
Laboratory Reference No. 1508-158

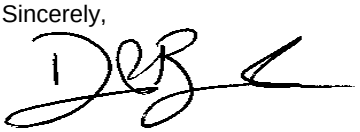
Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on August 17, 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,



David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 21, 2015
Samples Submitted: August 17, 2015
Laboratory Reference: 1508-158
Project: 21138-001-03

Case Narrative

Samples were collected on August 14, 2015 and received by the laboratory on August 17, 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.

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Date of Report: August 21, 2015
Samples Submitted: August 17, 2015
Laboratory Reference: 1508-158
Project: 21138-001-03

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
UST2-B-24.0	08-158-01	Soil	8-14-15	8-17-15	
UST2-S-22.0	08-158-02	Soil	8-14-15	8-17-15	
UST2-W-22.0	08-158-03	Soil	8-14-15	8-17-15	

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Date of Report: August 21, 2015
Samples Submitted: August 17, 2015
Laboratory Reference: 1508-158
Project: 21138-001-03

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST2-B-24.0**					
Laboratory ID:	08-158-01					
Diesel Range Organics	**2900**	620	NWTPH-Dx	8-17-15	8-19-15	M,N
Lube Oil	**40000**	1200	NWTPH-Dx	8-17-15	8-19-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	---	*50-150*				S
Client ID:	**UST2-S-22.0**					
Laboratory ID:	08-158-02					
Diesel Range Organics	**2500**	620	NWTPH-Dx	8-17-15	8-19-15	M,N
Lube Oil	**30000**	1200	NWTPH-Dx	8-17-15	8-19-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	---	*50-150*				S
Client ID:	**UST2-W-22.0**					
Laboratory ID:	08-158-03					
Diesel Range Organics	**4300**	340	NWTPH-Dx	8-17-15	8-18-15	M,N
Lube Oil	**29000**	690	NWTPH-Dx	8-17-15	8-18-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	---	*50-150*				S

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Date of Report: August 21, 2015
Samples Submitted: August 17, 2015
Laboratory Reference: 1508-158
Project: 21138-001-03

PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST2-B-24.0**					
Laboratory ID:	08-158-01					
Naphthalene	**6.7**	0.83	EPA 8270D/SIM	8-18-15	8-20-15	
2-Methylnaphthalene	**20**	0.83	EPA 8270D/SIM	8-18-15	8-20-15	
1-Methylnaphthalene	**12**	0.83	EPA 8270D/SIM	8-18-15	8-20-15	
Acenaphthylene	**0.32**	0.17	EPA 8270D/SIM	8-18-15	8-20-15	
Acenaphthene	**0.71**	0.17	EPA 8270D/SIM	8-18-15	8-20-15	
Fluorene	**1.2**	0.17	EPA 8270D/SIM	8-18-15	8-20-15	
Phenanthrene	**2.7**	0.17	EPA 8270D/SIM	8-18-15	8-20-15	
Anthracene	**0.91**	0.17	EPA 8270D/SIM	8-18-15	8-20-15	
Fluoranthene	**0.79**	0.17	EPA 8270D/SIM	8-18-15	8-20-15	
Pyrene	**1.8**	0.17	EPA 8270D/SIM	8-18-15	8-20-15	
Benzo[a]anthracene	**0.51**	0.17	EPA 8270D/SIM	8-18-15	8-20-15	
Chrysene	**0.87**	0.17	EPA 8270D/SIM	8-18-15	8-20-15	
Benzo[b]fluoranthene	**0.40**	0.17	EPA 8270D/SIM	8-18-15	8-20-15	
Benzo(j,k)fluoranthene	**0.072**	0.033	EPA 8270D/SIM	8-18-15	8-19-15	
Benzo[a]pyrene	**0.40**	0.17	EPA 8270D/SIM	8-18-15	8-20-15	
Indeno(1,2,3-c,d)pyrene	**0.24**	0.17	EPA 8270D/SIM	8-18-15	8-20-15	
Dibenz[a,h]anthracene	**0.036**	0.033	EPA 8270D/SIM	8-18-15	8-19-15	
Benzo[g,h,i]perylene	**0.72**	0.17	EPA 8270D/SIM	8-18-15	8-20-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*42*	*32 - 114*				
Pyrene-d10	*69*	*33 - 121*				
Terphenyl-d14	*56*	*31 - 116*				

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Date of Report: August 21, 2015
Samples Submitted: August 17, 2015
Laboratory Reference: 1508-158
Project: 21138-001-03

PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST2-S-22.0**					
Laboratory ID:	08-158-02					
Naphthalene	**6.7**	0.82	EPA 8270D/SIM	8-18-15	8-20-15	
2-Methylnaphthalene	**12**	0.82	EPA 8270D/SIM	8-18-15	8-20-15	
1-Methylnaphthalene	**6.8**	0.82	EPA 8270D/SIM	8-18-15	8-20-15	
Acenaphthylene	**0.10**	0.033	EPA 8270D/SIM	8-18-15	8-19-15	
Acenaphthene	**0.16**	0.16	EPA 8270D/SIM	8-18-15	8-20-15	
Fluorene	**0.44**	0.16	EPA 8270D/SIM	8-18-15	8-20-15	
Phenanthrene	**1.4**	0.16	EPA 8270D/SIM	8-18-15	8-20-15	
Anthracene	**0.49**	0.16	EPA 8270D/SIM	8-18-15	8-20-15	
Fluoranthene	**0.68**	0.16	EPA 8270D/SIM	8-18-15	8-20-15	
Pyrene	**1.3**	0.16	EPA 8270D/SIM	8-18-15	8-20-15	
Benzo[a]anthracene	**0.55**	0.16	EPA 8270D/SIM	8-18-15	8-20-15	
Chrysene	**0.68**	0.16	EPA 8270D/SIM	8-18-15	8-20-15	
Benzo[b]fluoranthene	**0.34**	0.16	EPA 8270D/SIM	8-18-15	8-20-15	
Benzo(j,k)fluoranthene	**0.072**	0.033	EPA 8270D/SIM	8-18-15	8-19-15	
Benzo[a]pyrene	**0.36**	0.16	EPA 8270D/SIM	8-18-15	8-20-15	
Indeno(1,2,3-c,d)pyrene	**0.25**	0.16	EPA 8270D/SIM	8-18-15	8-20-15	
Dibenz[a,h]anthracene	**ND**	0.033	EPA 8270D/SIM	8-18-15	8-19-15	
Benzo[g,h,i]perylene	**0.64**	0.16	EPA 8270D/SIM	8-18-15	8-20-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*56*	*32 - 114*				
Pyrene-d10	*79*	*33 - 121*				
Terphenyl-d14	*77*	*31 - 116*				

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Date of Report: August 21, 2015
Samples Submitted: August 17, 2015
Laboratory Reference: 1508-158
Project: 21138-001-03

PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST2-W-22.0**					
Laboratory ID:	08-158-03					
Naphthalene	**5.5**	0.46	EPA 8270D/SIM	8-18-15	8-20-15	
2-Methylnaphthalene	**8.9**	0.46	EPA 8270D/SIM	8-18-15	8-20-15	
1-Methylnaphthalene	**5.2**	0.46	EPA 8270D/SIM	8-18-15	8-20-15	
Acenaphthylene	**0.12**	0.092	EPA 8270D/SIM	8-18-15	8-20-15	
Acenaphthene	**0.14**	0.092	EPA 8270D/SIM	8-18-15	8-20-15	
Fluorene	**0.41**	0.092	EPA 8270D/SIM	8-18-15	8-20-15	
Phenanthrene	**1.2**	0.092	EPA 8270D/SIM	8-18-15	8-20-15	
Anthracene	**0.48**	0.092	EPA 8270D/SIM	8-18-15	8-20-15	
Fluoranthene	**0.86**	0.092	EPA 8270D/SIM	8-18-15	8-20-15	
Pyrene	**1.4**	0.092	EPA 8270D/SIM	8-18-15	8-20-15	
Benzo[a]anthracene	**0.59**	0.092	EPA 8270D/SIM	8-18-15	8-20-15	
Chrysene	**0.74**	0.092	EPA 8270D/SIM	8-18-15	8-20-15	
Benzo[b]fluoranthene	**0.67**	0.092	EPA 8270D/SIM	8-18-15	8-20-15	
Benzo(j,k)fluoranthene	**0.20**	0.092	EPA 8270D/SIM	8-18-15	8-20-15	
Benzo[a]pyrene	**0.44**	0.092	EPA 8270D/SIM	8-18-15	8-20-15	
Indeno(1,2,3-c,d)pyrene	**0.37**	0.092	EPA 8270D/SIM	8-18-15	8-20-15	
Dibenz[a,h]anthracene	**0.041**	0.037	EPA 8270D/SIM	8-18-15	8-19-15	
Benzo[g,h,i]perylene	**0.83**	0.092	EPA 8270D/SIM	8-18-15	8-20-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*51*	*32 - 114*				
Pyrene-d10	*63*	*33 - 121*				
Terphenyl-d14	*60*	*31 - 116*				

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Date of Report: August 21, 2015
Samples Submitted: August 17, 2015
Laboratory Reference: 1508-158
Project: 21138-001-03

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0817S2					
Diesel Range Organics	**ND**	25	NWTPH-Dx	8-17-15	8-18-15	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	8-17-15	8-18-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*105*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE										
Laboratory ID:	08-145-07									
	ORIG	DUP								
Diesel Range	**ND**	**ND**	NA	NA		NA	NA	NA	NA	U1,
Lube Oil	**5440**	**4100**	NA	NA		NA	NA	28	NA	
Surrogate:										
o-Terphenyl						--- ---	*50-150*			S,S

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 21, 2015
Samples Submitted: August 17, 2015
Laboratory Reference: 1508-158
Project: 21138-001-03

PAHs EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0818S1					
Naphthalene	**ND**	0.033	EPA 8270D/SIM	8-18-15	8-18-15	
2-Methylnaphthalene	**ND**	0.033	EPA 8270D/SIM	8-18-15	8-18-15	
1-Methylnaphthalene	**ND**	0.033	EPA 8270D/SIM	8-18-15	8-18-15	
Acenaphthylene	**ND**	0.0067	EPA 8270D/SIM	8-18-15	8-18-15	
Acenaphthene	**ND**	0.0067	EPA 8270D/SIM	8-18-15	8-18-15	
Fluorene	**ND**	0.0067	EPA 8270D/SIM	8-18-15	8-18-15	
Phenanthrene	**ND**	0.0067	EPA 8270D/SIM	8-18-15	8-18-15	
Anthracene	**ND**	0.0067	EPA 8270D/SIM	8-18-15	8-18-15	
Fluoranthene	**ND**	0.0067	EPA 8270D/SIM	8-18-15	8-18-15	
Pyrene	**ND**	0.0067	EPA 8270D/SIM	8-18-15	8-18-15	
Benzo[a]anthracene	**ND**	0.0067	EPA 8270D/SIM	8-18-15	8-18-15	
Chrysene	**ND**	0.0067	EPA 8270D/SIM	8-18-15	8-18-15	
Benzo[b]fluoranthene	**ND**	0.0067	EPA 8270D/SIM	8-18-15	8-18-15	
Benzo(j,k)fluoranthene	**ND**	0.0067	EPA 8270D/SIM	8-18-15	8-18-15	
Benzo[a]pyrene	**ND**	0.0067	EPA 8270D/SIM	8-18-15	8-18-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0067	EPA 8270D/SIM	8-18-15	8-18-15	
Dibenz[a,h]anthracene	**ND**	0.0067	EPA 8270D/SIM	8-18-15	8-18-15	
Benzo[g,h,i]perylene	**ND**	0.0067	EPA 8270D/SIM	8-18-15	8-18-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*70*	*32 - 114*				
Pyrene-d10	*72*	*33 - 121*				
Terphenyl-d14	*90*	*31 - 116*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 21, 2015
Samples Submitted: August 17, 2015
Laboratory Reference: 1508-158
Project: 21138-001-03

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:	SB0818S1									
	SB	SBD	SB	SBD	SB	SBD				
Acenaphthylene	**0.0754**	**0.0732**	0.0833	0.0833	91	88	61 - 125	3	16	
Acenaphthene	**0.0752**	**0.0719**	0.0833	0.0833	90	86	66 - 113	4	16	
Fluorene	**0.0787**	**0.0725**	0.0833	0.0833	94	87	60 - 117	8	16	
Phenanthrene	**0.0746**	**0.0741**	0.0833	0.0833	90	89	63 - 116	1	12	
Anthracene	**0.114**	**0.113**	0.0833	0.0833	137	136	66 - 146	1	19	
Fluoranthene	**0.0921**	**0.0828**	0.0833	0.0833	111	99	60 - 125	11	13	
Pyrene	**0.0802**	**0.0784**	0.0833	0.0833	96	94	66 - 126	2	15	
Benzo[a]anthracene	**0.0726**	**0.0774**	0.0833	0.0833	87	93	60 - 128	6	15	
Chrysene	**0.0709**	**0.0735**	0.0833	0.0833	85	88	60 - 117	4	13	
Benzo[b]fluoranthene	**0.0766**	**0.0748**	0.0833	0.0833	92	90	60 - 131	2	16	
Benzo(j,k)fluoranthene	**0.0786**	**0.0765**	0.0833	0.0833	94	92	57 - 126	3	20	
Benzo[a]pyrene	**0.0796**	**0.0795**	0.0833	0.0833	96	95	62 - 136	0	16	
Indeno(1,2,3-c,d)pyrene	**0.0824**	**0.0878**	0.0833	0.0833	99	105	60 - 127	6	19	
Dibenz[a,h]anthracene	**0.0753**	**0.0765**	0.0833	0.0833	90	92	62 - 133	2	22	
Benzo[g,h,i]perylene	**0.0769**	**0.0828**	0.0833	0.0833	92	99	63 - 129	7	22	
Surrogate:										
2-Fluorobiphenyl					*97*	*93*	*32 - 114*			
Pyrene-d10					*97*	*94*	*33 - 121*			
Terphenyl-d14					*97*	*111*	*31 - 116*			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 21, 2015
Samples Submitted: August 17, 2015
Laboratory Reference: 1508-158
Project: 21138-001-03

% MOISTURE

Date Analyzed: 8-17-15

Client ID	Lab ID	% Moisture
UST2-B-24.0	08-158-01	19
UST2-S-22.0	08-158-02	19
UST2-W-22.0	08-158-03	27

This report pertains to the samples analyzed in accordance with the chain of custody,
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OnSite Environmental Inc.

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-napthalene) 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

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: GeoEngineers
Project Number: 21138-001-03
Project Name: 9th & Lenora Project
Project Manager: Fasih Khan
Sampled by: Fasih Khan

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☒ 2 Days ☐ 3 Days
☐ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

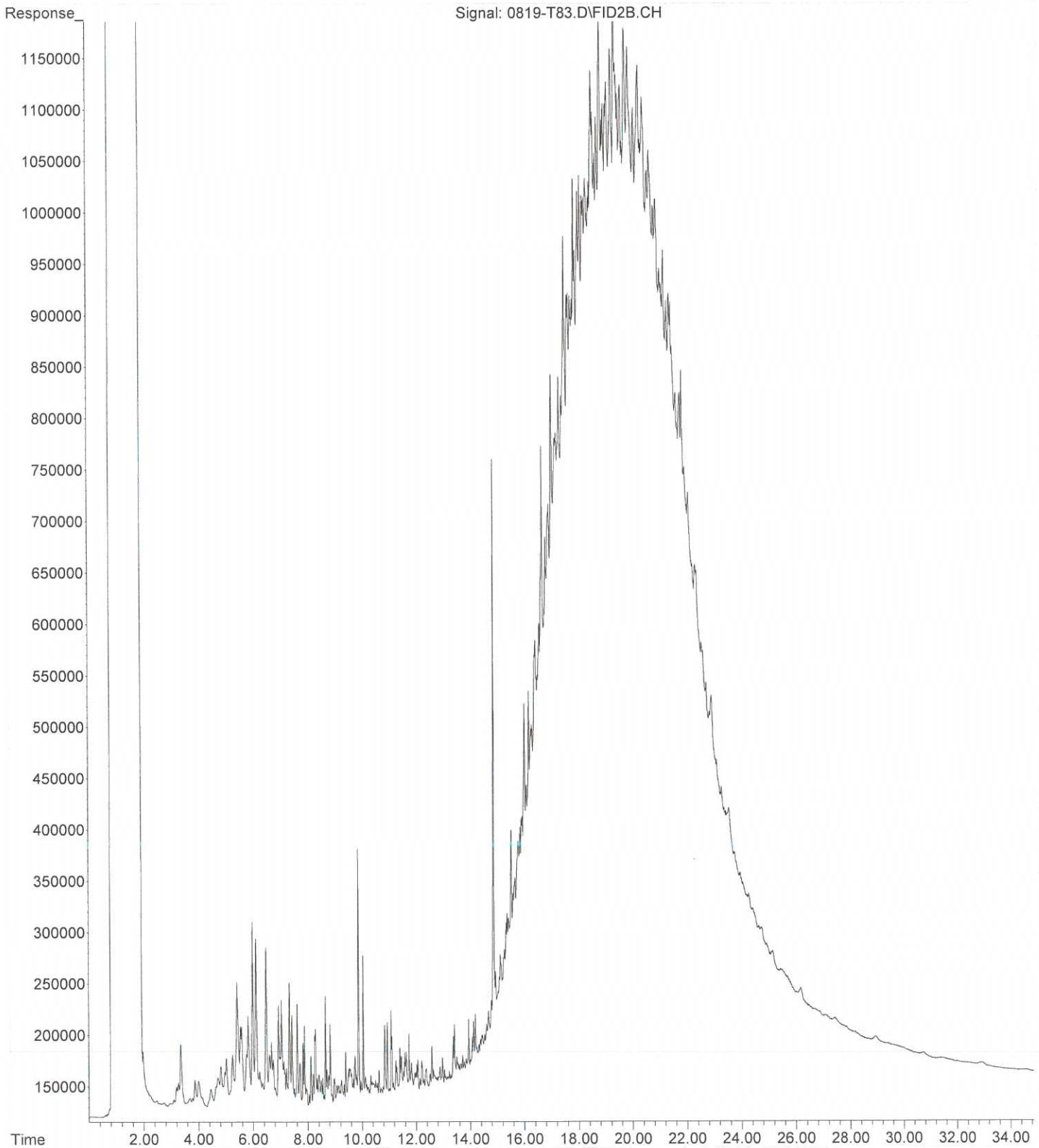
Laboratory Number: 08-158

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	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
1	UST2-B-24.0	8/14/15	1245	S	1				⊗				⊗														X
2	UST2-S-22.0	↓	1300	↓	↓				⊗				⊗														X
3	UST2-W-22.0	↓	1310	↓	↓				⊗				⊗														X

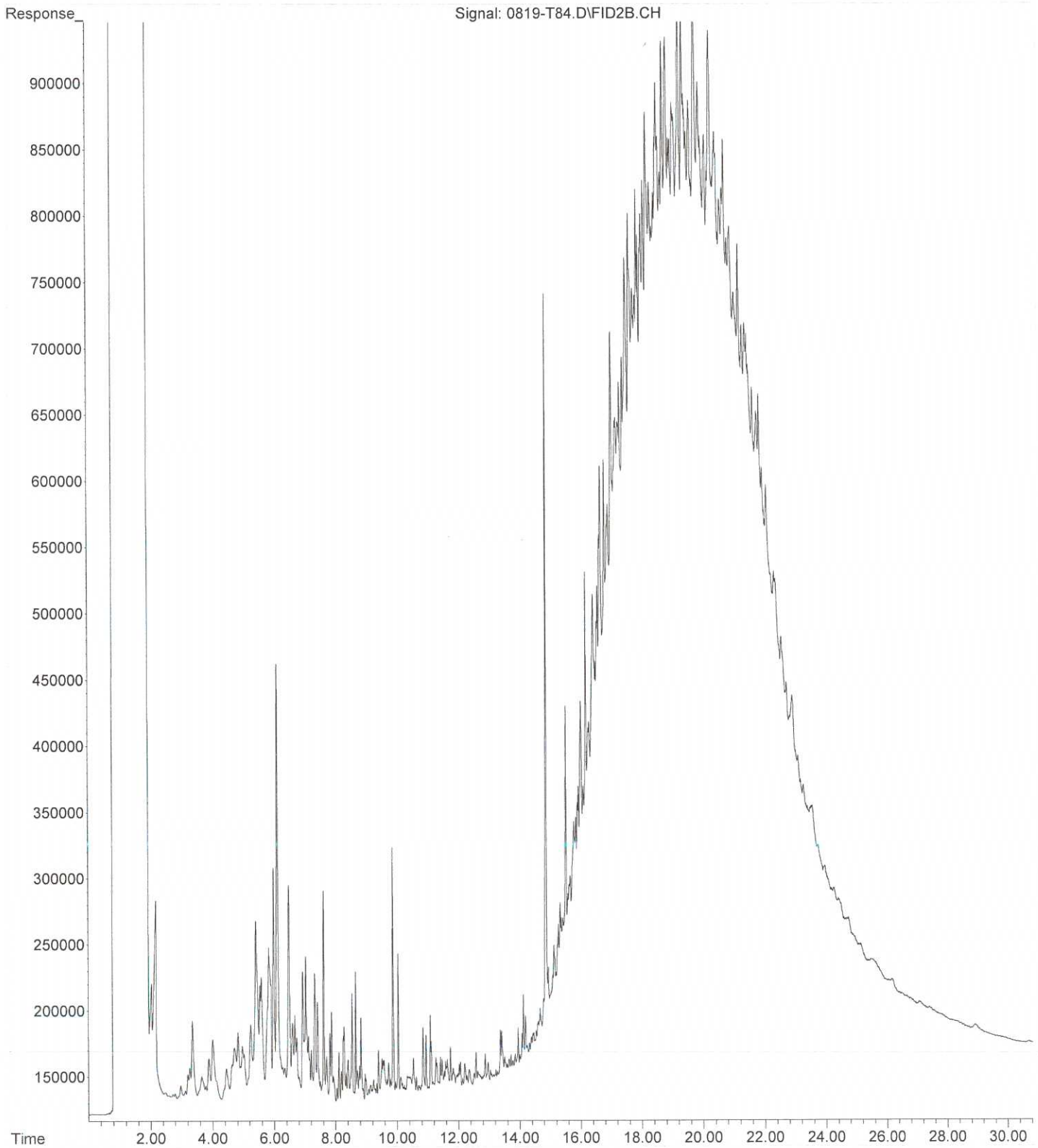
	Signature	Company	Date	Time	Comments/Special Instructions
Relinquished		GEI	8/17/15	0825	
Received		OSE	8.17.15	8:25A	
Relinquished					
Received					
Relinquished					
Received					
Reviewed/Date		Reviewed/Date			Chromatograms with final report ☐

Data Package: Standard ☐ Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ _____

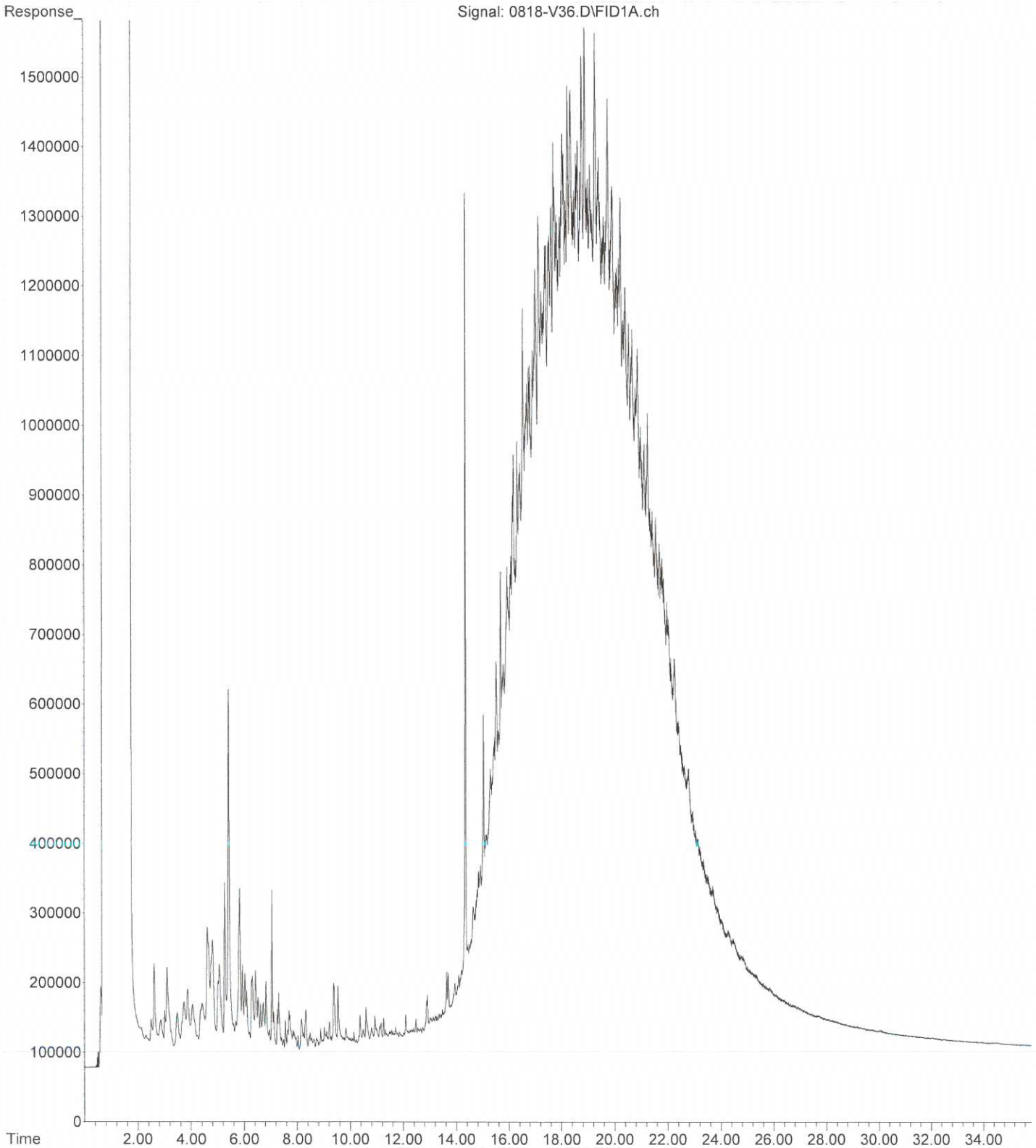
File :X:\DIESELS\TERI\DATA\T150819.SEC\0819-T83.D
Operator : ZT
Acquired : 20 Aug 2015 10:45 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 08-158-01 20X
Misc Info :
Vial Number: 83



File :X:\DIESELS\TERI\DATA\T150819.SEC\0819-T84.D
Operator : ZT
Acquired : 20 Aug 2015 11:28 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 08-158-02 20X
Misc Info :
Vial Number: 84



File : X:\DIESELS\VIGO\DATA\V150818\0818-V36.D
Operator :
Acquired : 19 Aug 2015 14:39 using AcqMethod V150507F.M
Instrument : Vigo
Sample Name: 08-158-03 10X
Misc Info :
Vial Number: 36



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

August 12, 2015

Fasih Khan
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03
Laboratory Reference No. 1508-101

Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on August 12, 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,

David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 12, 2015
Samples Submitted: August 12, 2015
Laboratory Reference: 1508-101
Project: 21138-001-03

Case Narrative

Samples were collected on August 11, 2015 and received by the laboratory on August 12, 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.

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 12, 2015
Samples Submitted: August 12, 2015
Laboratory Reference: 1508-101
Project: 21138-001-03

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
SW-UST-PRODUCT	08-101-01	Product	8-11-15	8-12-15	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 12, 2015
Samples Submitted: August 12, 2015
Laboratory Reference: 1508-101
Project: 21138-001-03

NWTPH-HCID

Matrix: Product
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SW-UST-PRODUCT**					
Laboratory ID:	08-101-01					
Gasoline Range Organics	**ND**	8600	NWTPH-HCID	8-12-15	8-12-15	U1
Diesel Fuel #2	**Detected**	2400	NWTPH-HCID	8-12-15	8-12-15	
Lube Oil	**Detected**	4800	NWTPH-HCID	8-12-15	8-12-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*106*	*50-150*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 12, 2015
Samples Submitted: August 12, 2015
Laboratory Reference: 1508-101
Project: 21138-001-03

NWTPH-HCID
QUALITY CONTROL

Matrix: Product
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0812P1					
Gasoline Range Organics	**ND**	1000	NWTPH-HCID	8-12-15	8-12-15	
Diesel Range Organics	**ND**	2500	NWTPH-HCID	8-12-15	8-12-15	
Lube Oil Range Organics	**ND**	5000	NWTPH-HCID	8-12-15	8-12-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*85*	*50-150*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

OnSite Environmental Inc.

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-napthalene) 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.

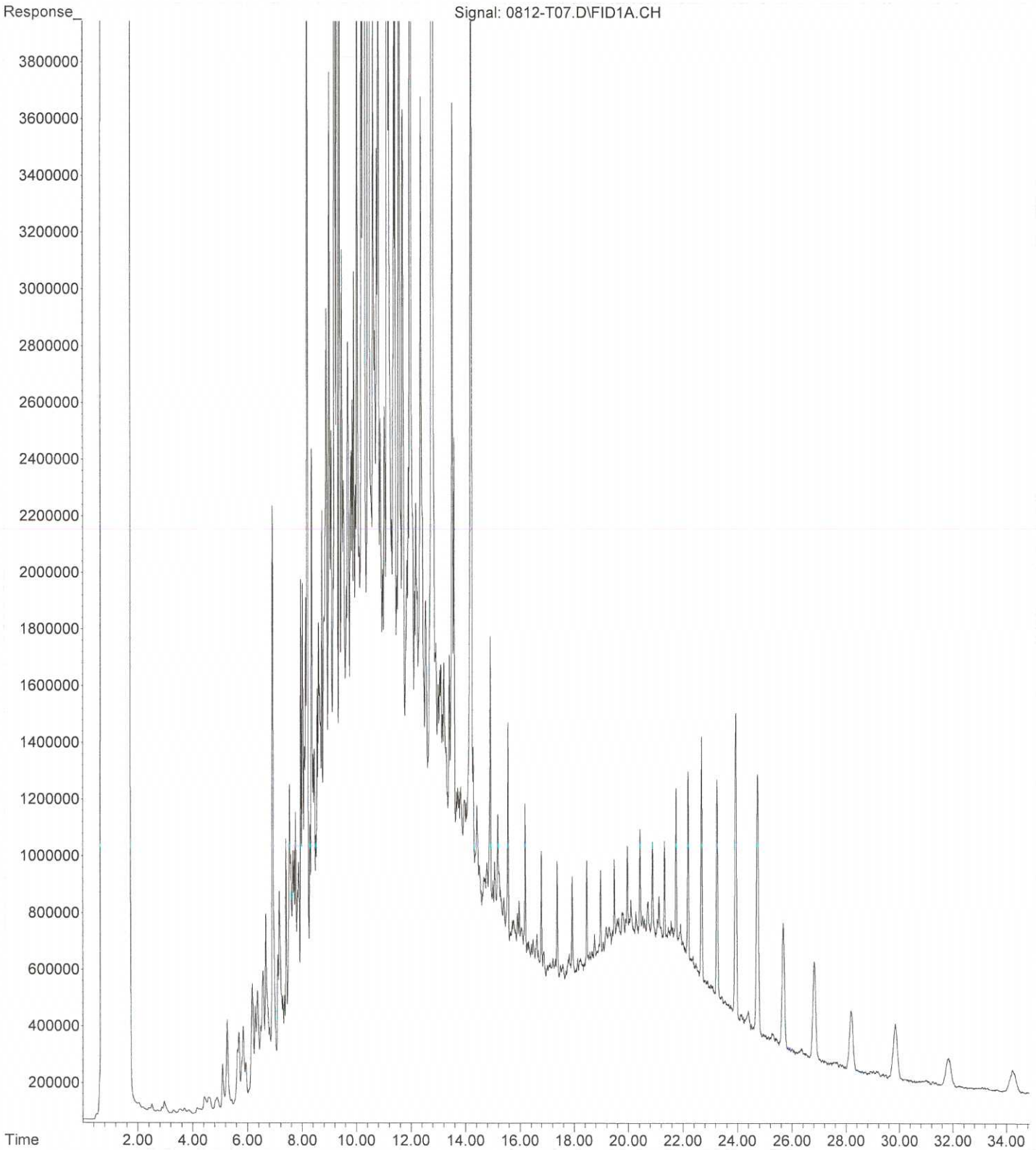
Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

File : X:\DIESELS\TERI\DATA\T150812\0812-T07.D
Operator : ZT
Acquired : 12 Aug 2015 15:35 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 08-101-01 HC P
Misc Info :
Vial Number: 7



Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: GEOENGINEERS
Project Number: 21138-001-03
Project Name: 9th & LENORA PROJECT
Project Manager: FASIH KHAN
Sampled by: FASIH KHAN

Turnaround Request (in working days)
(Check One)
☒ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☐ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Laboratory Number: 08-101

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	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
1	SW-UST-PRODUCT	8/11/15	0930	PRODUCT	1	X																					

	Signature	Company	Date	Time
Relinquished		GEO	8/12/15	0925
Received		GEO	8/12/15	0925
Relinquished				
Received				
Relinquished				
Received				

Comments/Special Instructions

Reviewed/Date
Reviewed/Date
Chromatograms with final report ☐

Data Package: Standard ☐ Level III ☐ Level IV ☐
Electronic Data Deliverables (EDDs) ☐ _____

OnSite Environmental Inc.

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

August 11, 2015

Fasih Khan
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03
Laboratory Reference No. 1508-031

Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on August 6, 2015.

Please note that this is a *revised* report, and replaces the original due to a revision of the sample identification.

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,

David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 11, 2015
Samples Submitted: August 6, 2015
Laboratory Reference: 1508-031
Project: 21138-001-03

Case Narrative

Samples were collected on August 4, 2015 and received by the laboratory on August 6, 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.

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 11, 2015
Samples Submitted: August 6, 2015
Laboratory Reference: 1508-031
Project: 21138-001-03

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
UST2EX-S1-20.0	08-031-01	Soil	8-4-15	8-6-15	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 11, 2015
Samples Submitted: August 6, 2015
Laboratory Reference: 1508-031
Project: 21138-001-03

NWTPH-Gx/BTEX

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST2EX-S1-20.0**					
Laboratory ID:	08-031-01					
Benzene	**ND**	0.020	EPA 8021B	8-7-15	8-7-15	
Toluene	**ND**	0.055	EPA 8021B	8-7-15	8-7-15	
Ethyl Benzene	**ND**	0.055	EPA 8021B	8-7-15	8-7-15	
m,p-Xylene	**ND**	0.055	EPA 8021B	8-7-15	8-7-15	
o-Xylene	**ND**	0.055	EPA 8021B	8-7-15	8-7-15	
Gasoline	**ND**	5.5	NWTPH-Gx	8-7-15	8-7-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*91*	*68-123*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 11, 2015
Samples Submitted: August 6, 2015
Laboratory Reference: 1508-031
Project: 21138-001-03

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST2EX-S1-20.0**					
Laboratory ID:	08-031-01					
Diesel Range Organics	**ND**	25	NWTPH-Dx	8-6-15	8-6-15	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	8-6-15	8-6-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*93*	*50-150*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 11, 2015
Samples Submitted: August 6, 2015
Laboratory Reference: 1508-031
Project: 21138-001-03

NWTPH-Gx/BTEX
QUALITY CONTROL

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0807S1					
Benzene	**ND**	0.020	EPA 8021B	8-7-15	8-7-15	
Toluene	**ND**	0.050	EPA 8021B	8-7-15	8-7-15	
Ethyl Benzene	**ND**	0.050	EPA 8021B	8-7-15	8-7-15	
m,p-Xylene	**ND**	0.050	EPA 8021B	8-7-15	8-7-15	
o-Xylene	**ND**	0.050	EPA 8021B	8-7-15	8-7-15	
Gasoline	**ND**	5.0	NWTPH-Gx	8-7-15	8-7-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*89*	*68-123*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	08-047-01										
	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						*89*	*89*	*68-123*			
SPIKE BLANKS											
Laboratory ID:	SB0807S1										
	SB	SBD	SB	SBD		SB	SBD				
Benzene	**1.03**	**1.03**	1.00	1.00		**103**	**103**	75-117	0	13	
Toluene	**1.02**	**1.02**	1.00	1.00		**102**	**102**	78-118	0	12	
Ethyl Benzene	**1.01**	**1.01**	1.00	1.00		**101**	**101**	78-118	0	12	
m,p-Xylene	**1.02**	**1.02**	1.00	1.00		**102**	**102**	78-121	0	13	
o-Xylene	**1.02**	**1.01**	1.00	1.00		**102**	**101**	77-119	1	13	
Surrogate:											
Fluorobenzene						*96*	*95*	*68-123*			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 11, 2015
Samples Submitted: August 6, 2015
Laboratory Reference: 1508-031
Project: 21138-001-03

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0806S1					
Diesel Range Organics	**ND**	25	NWTPH-Dx	8-6-15	8-6-15	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	8-6-15	8-6-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*88*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	08-031-01										
	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						*93*	*95*	*50-150*			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 11, 2015
Samples Submitted: August 6, 2015
Laboratory Reference: 1508-031
Project: 21138-001-03

% MOISTURE

Date Analyzed: 8-6-15

Client ID	Lab ID	% Moisture
UST2EX-S1-20.0	08-031-01	12

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

OnSite Environmental Inc.

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-napthalene) 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

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: GEOENGINEERS
Project Number: 21138-001-03
Project Name: 9th & LENORA PROJECT
Project Manager: FASIH KHAN
Sampled by: FASIH KHAN

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☒ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Laboratory Number: 08-031

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	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
1	~~EX SW-1 20.0~~ VST2EX-S1-20.0	8/4/15	1400	S	2		⊗		⊗																		X

	Signature	Company	Date	Time
Relinquished		GE	8/6/15	0745
Received			8-6-15	7:45A
Relinquished				
Received				
Relinquished				
Received				

Comments/Special Instructions

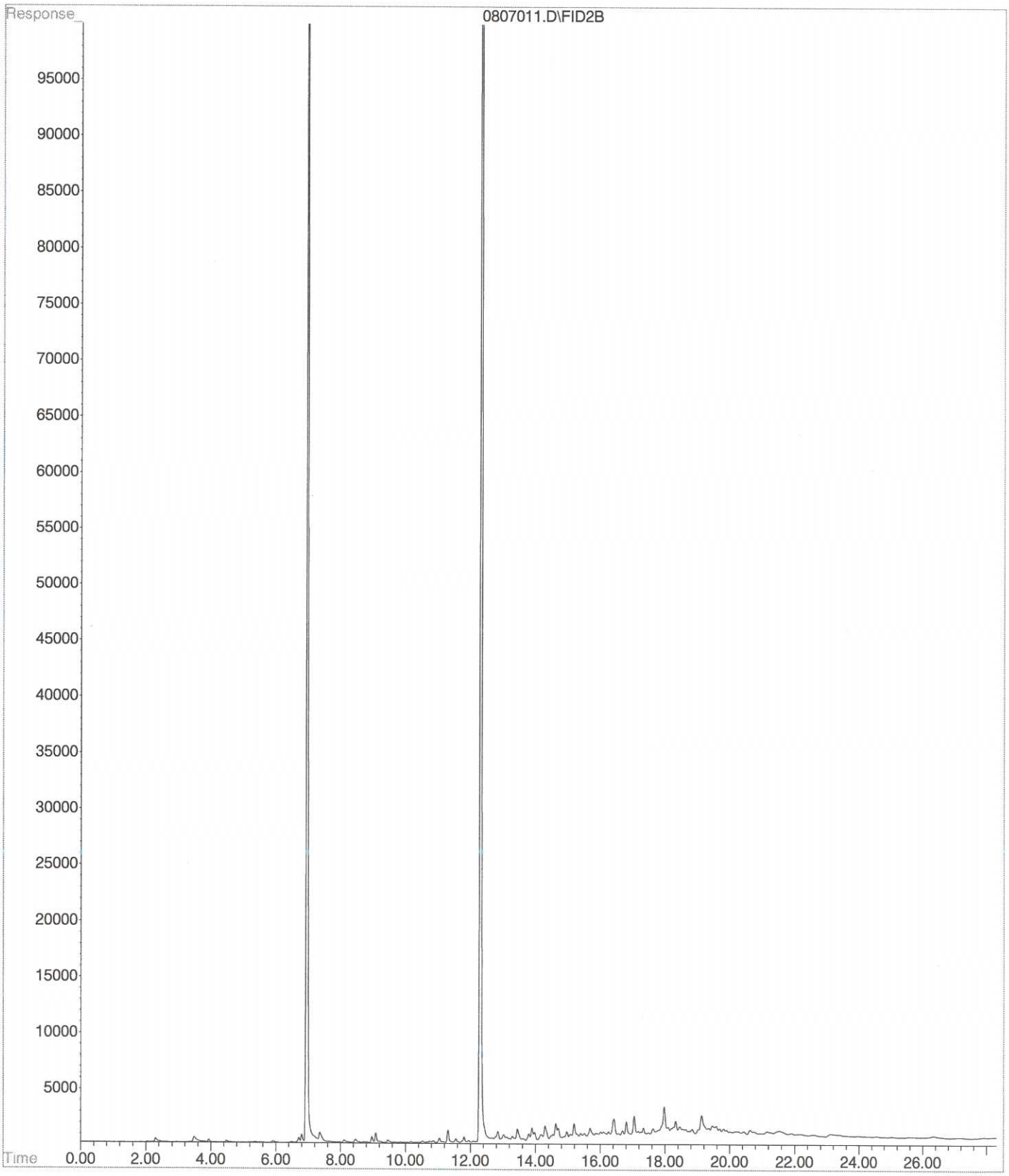
Reviewed/Date

Reviewed/Date

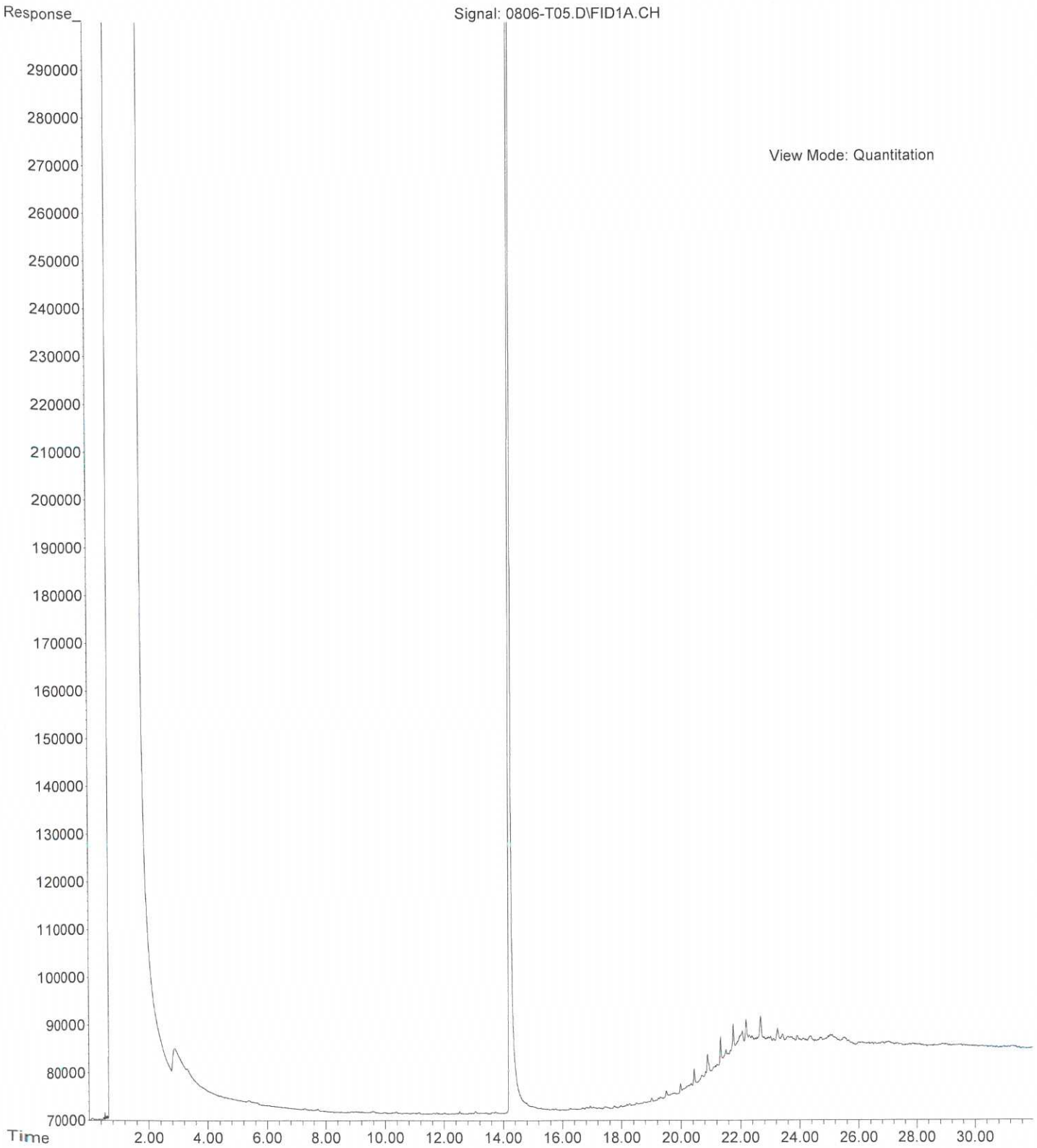
Chromatograms with final report ☐

Data Package: Standard ☐ Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ _____

File : X:\BTEX\DARYL\DATA\D150807\0807011.D
Operator :
Acquired : 7 Aug 2015 18:19 using AcqMethod 150709B.M
Instrument : Daryl
Sample Name: 08-031-01s
Misc Info : V2-37-21
Vial Number: 11



File :X:\DIESELS\TERI\DATA\T150806\0806-T05.D
Operator : ZT
Acquired : 06 Aug 2015 14:33 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 08-031-01
Misc Info :
Vial Number: 5



OnSite Environmental Inc.

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

September 2, 2015

Fasih Khan
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03
Laboratory Reference No. 1508-289R2

Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on August 28, 2015.

Please note that this is a *revised* report, and replaces the original due to a revision of the sample identification.

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,

David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: September 2, 2015
Samples Submitted: August 28, 2015
Laboratory Reference: 1508-289R2
Project: 21138-001-03

Case Narrative

Samples were collected on August 27 and 28, 2015 and received by the laboratory on August 28, 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.

PAHs EPA 8270D/SIM Analysis

The Spike Blank/Spike Blank Duplicate had one recovery slightly above control limits, due to a small upward bias in the instruments' calibration. No further action was taken.

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.

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: September 2, 2015
Samples Submitted: August 28, 2015
Laboratory Reference: 1508-289R2
Project: 21138-001-03

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
UST2EX-W2-30.0	08-289-01	Soil	8-28-15	8-28-15	
UST2EX-S2-24.0	08-289-02	Soil	8-27-15	8-28-15	

This report pertains to the samples analyzed in accordance with the chain of custody,
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Date of Report: September 2, 2015
Samples Submitted: August 28, 2015
Laboratory Reference: 1508-289R2
Project: 21138-001-03

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST2EX-W2-30.0**					
Laboratory ID:	08-289-01					
Diesel Range Organics	**240**	34	NWTPH-Dx	8-31-15	8-31-15	
Lube Oil	**1800**	68	NWTPH-Dx	8-31-15	8-31-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*82*	*50-150*				
Client ID:	**UST2EX-S2-24.0**					
Laboratory ID:	08-289-02					
Diesel Range Organics	**56**	34	NWTPH-Dx	8-31-15	8-31-15	
Lube Oil	**490**	68	NWTPH-Dx	8-31-15	8-31-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*76*	*50-150*				

This report pertains to the samples analyzed in accordance with the chain of custody,
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Date of Report: September 2, 2015
Samples Submitted: August 28, 2015
Laboratory Reference: 1508-289R2
Project: 21138-001-03

PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST2EX-W2-30.0**					
Laboratory ID:	08-289-01					
Naphthalene	**0.18**	0.0091	EPA 8270D/SIM	8-31-15	8-31-15	
2-Methylnaphthalene	**0.89**	0.0091	EPA 8270D/SIM	8-31-15	8-31-15	
1-Methylnaphthalene	**0.65**	0.0091	EPA 8270D/SIM	8-31-15	8-31-15	
Acenaphthylene	**0.024**	0.0091	EPA 8270D/SIM	8-31-15	8-31-15	
Acenaphthene	**0.053**	0.0091	EPA 8270D/SIM	8-31-15	8-31-15	
Fluorene	**0.088**	0.0091	EPA 8270D/SIM	8-31-15	8-31-15	
Phenanthrene	**0.17**	0.0091	EPA 8270D/SIM	8-31-15	8-31-15	
Anthracene	**0.051**	0.0091	EPA 8270D/SIM	8-31-15	8-31-15	
Fluoranthene	**0.044**	0.0091	EPA 8270D/SIM	8-31-15	8-31-15	
Pyrene	**0.12**	0.0091	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[a]anthracene	**0.043**	0.0091	EPA 8270D/SIM	8-31-15	8-31-15	
Chrysene	**0.047**	0.0091	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[b]fluoranthene	**0.018**	0.0091	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo(j,k)fluoranthene	**ND**	0.0091	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[a]pyrene	**0.015**	0.0091	EPA 8270D/SIM	8-31-15	8-31-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0091	EPA 8270D/SIM	8-31-15	8-31-15	
Dibenz[a,h]anthracene	**ND**	0.0091	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[g,h,i]perylene	**0.027**	0.0091	EPA 8270D/SIM	8-31-15	8-31-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*65*	*32 - 114*				
Pyrene-d10	*77*	*33 - 121*				
Terphenyl-d14	*67*	*31 - 116*				

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Date of Report: September 2, 2015
Samples Submitted: August 28, 2015
Laboratory Reference: 1508-289R2
Project: 21138-001-03

PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST2EX-S2-24.0**					
Laboratory ID:	08-289-02					
Naphthalene	**0.20**	0.0090	EPA 8270D/SIM	8-31-15	8-31-15	
2-Methylnaphthalene	**0.32**	0.0090	EPA 8270D/SIM	8-31-15	8-31-15	
1-Methylnaphthalene	**0.21**	0.0090	EPA 8270D/SIM	8-31-15	8-31-15	
Acenaphthylene	**ND**	0.0090	EPA 8270D/SIM	8-31-15	8-31-15	
Acenaphthene	**0.013**	0.0090	EPA 8270D/SIM	8-31-15	8-31-15	
Fluorene	**0.024**	0.0090	EPA 8270D/SIM	8-31-15	8-31-15	
Phenanthrene	**0.051**	0.0090	EPA 8270D/SIM	8-31-15	8-31-15	
Anthracene	**0.018**	0.0090	EPA 8270D/SIM	8-31-15	8-31-15	
Fluoranthene	**0.016**	0.0090	EPA 8270D/SIM	8-31-15	8-31-15	
Pyrene	**0.036**	0.0090	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[a]anthracene	**0.015**	0.0090	EPA 8270D/SIM	8-31-15	8-31-15	
Chrysene	**0.015**	0.0090	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[b]fluoranthene	**ND**	0.0090	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo(j,k)fluoranthene	**ND**	0.0090	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[a]pyrene	**ND**	0.0090	EPA 8270D/SIM	8-31-15	8-31-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0090	EPA 8270D/SIM	8-31-15	8-31-15	
Dibenz[a,h]anthracene	**ND**	0.0090	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[g,h,i]perylene	**0.011**	0.0090	EPA 8270D/SIM	8-31-15	8-31-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*48*	*32 - 114*				
Pyrene-d10	*45*	*33 - 121*				
Terphenyl-d14	*56*	*31 - 116*				

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Date of Report: September 2, 2015
Samples Submitted: August 28, 2015
Laboratory Reference: 1508-289R2
Project: 21138-001-03

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0831S1					
Diesel Range Organics	**ND**	25	NWTPH-Dx	8-31-15	8-31-15	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	8-31-15	8-31-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*110*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	08-287-04,09 Comp.										
	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						*107*	*112*	*50-150*			

This report pertains to the samples analyzed in accordance with the chain of custody,
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Date of Report: September 2, 2015
Samples Submitted: August 28, 2015
Laboratory Reference: 1508-289R2
Project: 21138-001-03

PAHs EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0831S1					
Naphthalene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
2-Methylnaphthalene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
1-Methylnaphthalene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Acenaphthylene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Acenaphthene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Fluorene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Phenanthrene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Anthracene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Fluoranthene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Pyrene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[a]anthracene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Chrysene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[b]fluoranthene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo(j,k)fluoranthene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[a]pyrene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Dibenz[a,h]anthracene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[g,h,i]perylene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*81*	*32 - 114*				
Pyrene-d10	*83*	*33 - 121*				
Terphenyl-d14	*90*	*31 - 116*				

This report pertains to the samples analyzed in accordance with the chain of custody,
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Date of Report: September 2, 2015
Samples Submitted: August 28, 2015
Laboratory Reference: 1508-289R2
Project: 21138-001-03

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:	SB0831S1									
	SB	SBD	SB	SBD	SB	SBD				
Naphthalene	**0.0711**	**0.0719**	0.0833	0.0833	85	86	63 - 113	1	19	
Acenaphthylene	**0.0748**	**0.0728**	0.0833	0.0833	90	87	61 - 125	3	16	
Acenaphthene	**0.0748**	**0.0732**	0.0833	0.0833	90	88	66 - 113	2	16	
Fluorene	**0.0753**	**0.0777**	0.0833	0.0833	90	93	60 - 117	3	16	
Phenanthrene	**0.0726**	**0.0724**	0.0833	0.0833	87	87	63 - 116	0	12	
Anthracene	**0.127**	**0.126**	0.0833	0.0833	152	151	66 - 146	1	19	II
Fluoranthene	**0.0717**	**0.0722**	0.0833	0.0833	86	87	60 - 125	1	13	
Pyrene	**0.0716**	**0.0716**	0.0833	0.0833	86	86	66 - 126	0	15	
Benzo[a]anthracene	**0.0826**	**0.0824**	0.0833	0.0833	99	99	60 - 128	0	15	
Chrysene	**0.0740**	**0.0746**	0.0833	0.0833	89	90	60 - 117	1	13	
Benzo[b]fluoranthene	**0.0711**	**0.0720**	0.0833	0.0833	85	86	60 - 131	1	16	
Benzo(j,k)fluoranthene	**0.0727**	**0.0735**	0.0833	0.0833	87	88	57 - 126	1	20	
Benzo[a]pyrene	**0.0699**	**0.0704**	0.0833	0.0833	84	85	62 - 136	1	16	
Indeno(1,2,3-c,d)pyrene	**0.0603**	**0.0632**	0.0833	0.0833	72	76	60 - 127	5	19	
Dibenz[a,h]anthracene	**0.0592**	**0.0627**	0.0833	0.0833	71	75	62 - 133	6	22	
Benzo[g,h,i]perylene	**0.0641**	**0.0668**	0.0833	0.0833	77	80	63 - 129	4	22	
Surrogate:										
2-Fluorobiphenyl					*88*	*87*	*32 - 114*			
Pyrene-d10					*82*	*83*	*33 - 121*			
Terphenyl-d14					*89*	*89*	*31 - 116*			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: September 2, 2015
Samples Submitted: August 28, 2015
Laboratory Reference: 1508-289R2
Project: 21138-001-03

% MOISTURE

Date Analyzed: 8-31-15

Client ID	Lab ID	% Moisture
UST2EX-W2-30.0	08-289-01	27
UST2EX-S2-24.0	08-289-02	26

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

OnSite Environmental Inc.

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-napthalene) 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

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: GEOENGINEERS
Project Number: 21138-001-03
Project Name: 9th & LENORA PROJECT
Project Manager: FASIH KHAN
Sampled by: FASIH KHAN

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☒ 3 Days
☐ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Laboratory Number: 08-289

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	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
1	VST2EX-W2-30.0* DB 12/29/15	8/28/15	1320	S	2				(X)				(X)														X
2	VST2EX-S2-24.0	8/27/15	1240	S	2				(X)				(X)														X

	Signature	Company	Date	Time
Relinquished		GEI	8/28/15	1555
Received		Onsite	8-28-15	1555
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions
* HOT Sample

Chromatograms with final report ☐

Data Package: Standard ☐ Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐

OnSite Environmental Inc.

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

September 1, 2015

Fasih Khan
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03
Laboratory Reference No. 1508-288

Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on August 28, 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,

David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody,
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Date of Report: September 1, 2015
Samples Submitted: August 28, 2015
Laboratory Reference: 1508-288
Project: 21138-001-03

Case Narrative

Samples were collected on August 28, 2015 and received by the laboratory on August 28, 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.

PAHs EPA 8270D/SIM Analysis

The Spike Blank/Spike Blank Duplicate had one recovery slightly above control limits, due to a small upward bias in the instruments' calibration. No further action was taken.

Please note that any other QA/QC issues associated with these extractions and analyses will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

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Date of Report: September 1, 2015
Samples Submitted: August 28, 2015
Laboratory Reference: 1508-288
Project: 21138-001-03

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
UST2EX-S1-33.0	08-288-01	Soil	8-28-15	8-28-15	
UST2EX-S2-33.0	08-288-02	Soil	8-28-15	8-28-15	
UST2EX-W1-33.0	08-288-03	Soil	8-28-15	8-28-15	
UST2EX-W2-33.0	08-288-04	Soil	8-28-15	8-28-15	
UST2EX-B2-36.0	08-288-05	Soil	8-28-15	8-28-15	

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Date of Report: September 1, 2015
Samples Submitted: August 28, 2015
Laboratory Reference: 1508-288
Project: 21138-001-03

NWTPH-Gx/BTEX

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST2EX-S1-33.0**					
Laboratory ID:	08-288-01					
Benzene	**ND**	0.020	EPA 8021B	8-28-15	8-28-15	
Toluene	**ND**	0.060	EPA 8021B	8-28-15	8-28-15	
Ethyl Benzene	**ND**	0.060	EPA 8021B	8-28-15	8-28-15	
m,p-Xylene	**ND**	0.060	EPA 8021B	8-28-15	8-28-15	
o-Xylene	**ND**	0.060	EPA 8021B	8-28-15	8-28-15	
Gasoline	**ND**	6.0	NWTPH-Gx	8-28-15	8-28-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*89*	*68-123*				
Client ID:	**UST2EX-S2-33.0**					
Laboratory ID:	08-288-02					
Benzene	**ND**	0.020	EPA 8021B	8-28-15	8-28-15	
Toluene	**ND**	0.069	EPA 8021B	8-28-15	8-28-15	
Ethyl Benzene	**ND**	0.069	EPA 8021B	8-28-15	8-28-15	
m,p-Xylene	**ND**	0.069	EPA 8021B	8-28-15	8-28-15	
o-Xylene	**ND**	0.069	EPA 8021B	8-28-15	8-28-15	
Gasoline	**ND**	6.9	NWTPH-Gx	8-28-15	8-28-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*86*	*68-123*				
Client ID:	**UST2EX-W1-33.0**					
Laboratory ID:	08-288-03					
Benzene	**ND**	0.020	EPA 8021B	8-28-15	8-28-15	
Toluene	**ND**	0.079	EPA 8021B	8-28-15	8-28-15	
Ethyl Benzene	**ND**	0.079	EPA 8021B	8-28-15	8-28-15	
m,p-Xylene	**ND**	0.079	EPA 8021B	8-28-15	8-28-15	
o-Xylene	**ND**	0.079	EPA 8021B	8-28-15	8-28-15	
Gasoline	**ND**	7.9	NWTPH-Gx	8-28-15	8-28-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*98*	*68-123*				

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Date of Report: September 1, 2015
Samples Submitted: August 28, 2015
Laboratory Reference: 1508-288
Project: 21138-001-03

NWTPH-Gx/BTEX

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST2EX-W2-33.0**					
Laboratory ID:	08-288-04					
Benzene	**ND**	0.020	EPA 8021B	8-28-15	8-28-15	
Toluene	**ND**	0.067	EPA 8021B	8-28-15	8-28-15	
Ethyl Benzene	**ND**	0.067	EPA 8021B	8-28-15	8-28-15	
m,p-Xylene	**ND**	0.067	EPA 8021B	8-28-15	8-28-15	
o-Xylene	**ND**	0.067	EPA 8021B	8-28-15	8-28-15	
Gasoline	**ND**	6.7	NWTPH-Gx	8-28-15	8-28-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*87*	*68-123*				
Client ID:	**UST2EX-B2-36.0**					
Laboratory ID:	08-288-05					
Benzene	**ND**	0.020	EPA 8021B	8-28-15	8-28-15	
Toluene	**ND**	0.073	EPA 8021B	8-28-15	8-28-15	
Ethyl Benzene	**ND**	0.073	EPA 8021B	8-28-15	8-28-15	
m,p-Xylene	**ND**	0.073	EPA 8021B	8-28-15	8-28-15	
o-Xylene	**ND**	0.073	EPA 8021B	8-28-15	8-28-15	
Gasoline	**ND**	7.3	NWTPH-Gx	8-28-15	8-28-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*90*	*68-123*				

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Date of Report: September 1, 2015
Samples Submitted: August 28, 2015
Laboratory Reference: 1508-288
Project: 21138-001-03

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST2EX-S1-33.0**					
Laboratory ID:	08-288-01					
Diesel Range Organics	**ND**	27	NWTPH-Dx	8-29-15	8-31-15	
Lube Oil Range Organics	**ND**	55	NWTPH-Dx	8-29-15	8-31-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*92*	*50-150*				
Client ID:	**UST2EX-S2-33.0**					
Laboratory ID:	08-288-02					
Diesel Range Organics	**ND**	32	NWTPH-Dx	8-29-15	8-31-15	
Lube Oil Range Organics	**ND**	63	NWTPH-Dx	8-29-15	8-31-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*103*	*50-150*				
Client ID:	**UST2EX-W1-33.0**					
Laboratory ID:	08-288-03					
Diesel Range Organics	**ND**	33	NWTPH-Dx	8-29-15	8-31-15	
Lube Oil Range Organics	**ND**	65	NWTPH-Dx	8-29-15	8-31-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*96*	*50-150*				
Client ID:	**UST2EX-W2-33.0**					
Laboratory ID:	08-288-04					
Diesel Range Organics	**ND**	31	NWTPH-Dx	8-29-15	8-31-15	
Lube Oil Range Organics	**ND**	62	NWTPH-Dx	8-29-15	8-31-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*88*	*50-150*				
Client ID:	**UST2EX-B2-36.0**					
Laboratory ID:	08-288-05					
Diesel Range Organics	**ND**	32	NWTPH-Dx	8-29-15	8-31-15	
Lube Oil Range Organics	**ND**	64	NWTPH-Dx	8-29-15	8-31-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*85*	*50-150*				

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Date of Report: September 1, 2015
Samples Submitted: August 28, 2015
Laboratory Reference: 1508-288
Project: 21138-001-03

PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST2EX-S1-33.0**					
Laboratory ID:	08-288-01					
Naphthalene	**ND**	0.0073	EPA 8270D/SIM	8-31-15	8-31-15	
2-Methylnaphthalene	**ND**	0.0073	EPA 8270D/SIM	8-31-15	8-31-15	
1-Methylnaphthalene	**ND**	0.0073	EPA 8270D/SIM	8-31-15	8-31-15	
Acenaphthylene	**ND**	0.0073	EPA 8270D/SIM	8-31-15	8-31-15	
Acenaphthene	**ND**	0.0073	EPA 8270D/SIM	8-31-15	8-31-15	
Fluorene	**ND**	0.0073	EPA 8270D/SIM	8-31-15	8-31-15	
Phenanthrene	**ND**	0.0073	EPA 8270D/SIM	8-31-15	8-31-15	
Anthracene	**ND**	0.0073	EPA 8270D/SIM	8-31-15	8-31-15	
Fluoranthene	**ND**	0.0073	EPA 8270D/SIM	8-31-15	8-31-15	
Pyrene	**ND**	0.0073	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[a]anthracene	**ND**	0.0073	EPA 8270D/SIM	8-31-15	8-31-15	
Chrysene	**ND**	0.0073	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[b]fluoranthene	**ND**	0.0073	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo(j,k)fluoranthene	**ND**	0.0073	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[a]pyrene	**ND**	0.0073	EPA 8270D/SIM	8-31-15	8-31-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0073	EPA 8270D/SIM	8-31-15	8-31-15	
Dibenz[a,h]anthracene	**ND**	0.0073	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[g,h,i]perylene	**ND**	0.0073	EPA 8270D/SIM	8-31-15	8-31-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*57*	*32 - 114*				
Pyrene-d10	*56*	*33 - 121*				
Terphenyl-d14	*61*	*31 - 116*				

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Date of Report: September 1, 2015
Samples Submitted: August 28, 2015
Laboratory Reference: 1508-288
Project: 21138-001-03

PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST2EX-S2-33.0**					
Laboratory ID:	08-288-02					
Naphthalene	**ND**	0.0084	EPA 8270D/SIM	8-31-15	8-31-15	
2-Methylnaphthalene	**ND**	0.0084	EPA 8270D/SIM	8-31-15	8-31-15	
1-Methylnaphthalene	**ND**	0.0084	EPA 8270D/SIM	8-31-15	8-31-15	
Acenaphthylene	**ND**	0.0084	EPA 8270D/SIM	8-31-15	8-31-15	
Acenaphthene	**ND**	0.0084	EPA 8270D/SIM	8-31-15	8-31-15	
Fluorene	**ND**	0.0084	EPA 8270D/SIM	8-31-15	8-31-15	
Phenanthrene	**ND**	0.0084	EPA 8270D/SIM	8-31-15	8-31-15	
Anthracene	**ND**	0.0084	EPA 8270D/SIM	8-31-15	8-31-15	
Fluoranthene	**ND**	0.0084	EPA 8270D/SIM	8-31-15	8-31-15	
Pyrene	**ND**	0.0084	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[a]anthracene	**ND**	0.0084	EPA 8270D/SIM	8-31-15	8-31-15	
Chrysene	**ND**	0.0084	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[b]fluoranthene	**ND**	0.0084	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo(j,k)fluoranthene	**ND**	0.0084	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[a]pyrene	**ND**	0.0084	EPA 8270D/SIM	8-31-15	8-31-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0084	EPA 8270D/SIM	8-31-15	8-31-15	
Dibenz[a,h]anthracene	**ND**	0.0084	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[g,h,i]perylene	**ND**	0.0084	EPA 8270D/SIM	8-31-15	8-31-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*52*	*32 - 114*				
Pyrene-d10	*49*	*33 - 121*				
Terphenyl-d14	*53*	*31 - 116*				

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Date of Report: September 1, 2015
Samples Submitted: August 28, 2015
Laboratory Reference: 1508-288
Project: 21138-001-03

PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST2EX-W1-33.0**					
Laboratory ID:	08-288-03					
Naphthalene	**0.040**	0.0087	EPA 8270D/SIM	8-31-15	8-31-15	
2-Methylnaphthalene	**0.021**	0.0087	EPA 8270D/SIM	8-31-15	8-31-15	
1-Methylnaphthalene	**0.021**	0.0087	EPA 8270D/SIM	8-31-15	8-31-15	
Acenaphthylene	**ND**	0.0087	EPA 8270D/SIM	8-31-15	8-31-15	
Acenaphthene	**ND**	0.0087	EPA 8270D/SIM	8-31-15	8-31-15	
Fluorene	**ND**	0.0087	EPA 8270D/SIM	8-31-15	8-31-15	
Phenanthrene	**ND**	0.0087	EPA 8270D/SIM	8-31-15	8-31-15	
Anthracene	**ND**	0.0087	EPA 8270D/SIM	8-31-15	8-31-15	
Fluoranthene	**ND**	0.0087	EPA 8270D/SIM	8-31-15	8-31-15	
Pyrene	**ND**	0.0087	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[a]anthracene	**ND**	0.0087	EPA 8270D/SIM	8-31-15	8-31-15	
Chrysene	**ND**	0.0087	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[b]fluoranthene	**ND**	0.0087	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo(j,k)fluoranthene	**ND**	0.0087	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[a]pyrene	**ND**	0.0087	EPA 8270D/SIM	8-31-15	8-31-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0087	EPA 8270D/SIM	8-31-15	8-31-15	
Dibenz[a,h]anthracene	**ND**	0.0087	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[g,h,i]perylene	**ND**	0.0087	EPA 8270D/SIM	8-31-15	8-31-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*64*	*32 - 114*				
Pyrene-d10	*60*	*33 - 121*				
Terphenyl-d14	*65*	*31 - 116*				

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Date of Report: September 1, 2015
Samples Submitted: August 28, 2015
Laboratory Reference: 1508-288
Project: 21138-001-03

PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST2EX-W2-33.0**					
Laboratory ID:	08-288-04					
Naphthalene	**ND**	0.0083	EPA 8270D/SIM	8-31-15	8-31-15	
2-Methylnaphthalene	**ND**	0.0083	EPA 8270D/SIM	8-31-15	8-31-15	
1-Methylnaphthalene	**ND**	0.0083	EPA 8270D/SIM	8-31-15	8-31-15	
Acenaphthylene	**ND**	0.0083	EPA 8270D/SIM	8-31-15	8-31-15	
Acenaphthene	**ND**	0.0083	EPA 8270D/SIM	8-31-15	8-31-15	
Fluorene	**ND**	0.0083	EPA 8270D/SIM	8-31-15	8-31-15	
Phenanthrene	**ND**	0.0083	EPA 8270D/SIM	8-31-15	8-31-15	
Anthracene	**ND**	0.0083	EPA 8270D/SIM	8-31-15	8-31-15	
Fluoranthene	**ND**	0.0083	EPA 8270D/SIM	8-31-15	8-31-15	
Pyrene	**ND**	0.0083	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[a]anthracene	**ND**	0.0083	EPA 8270D/SIM	8-31-15	8-31-15	
Chrysene	**ND**	0.0083	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[b]fluoranthene	**ND**	0.0083	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo(j,k)fluoranthene	**ND**	0.0083	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[a]pyrene	**ND**	0.0083	EPA 8270D/SIM	8-31-15	8-31-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0083	EPA 8270D/SIM	8-31-15	8-31-15	
Dibenz[a,h]anthracene	**ND**	0.0083	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[g,h,i]perylene	**ND**	0.0083	EPA 8270D/SIM	8-31-15	8-31-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*81*	*32 - 114*				
Pyrene-d10	*82*	*33 - 121*				
Terphenyl-d14	*88*	*31 - 116*				

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Laboratory Reference: 1508-288
Project: 21138-001-03

PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST2EX-B2-36.0**					
Laboratory ID:	08-288-05					
Naphthalene	**ND**	0.0085	EPA 8270D/SIM	8-31-15	8-31-15	
2-Methylnaphthalene	**ND**	0.0085	EPA 8270D/SIM	8-31-15	8-31-15	
1-Methylnaphthalene	**ND**	0.0085	EPA 8270D/SIM	8-31-15	8-31-15	
Acenaphthylene	**ND**	0.0085	EPA 8270D/SIM	8-31-15	8-31-15	
Acenaphthene	**ND**	0.0085	EPA 8270D/SIM	8-31-15	8-31-15	
Fluorene	**ND**	0.0085	EPA 8270D/SIM	8-31-15	8-31-15	
Phenanthrene	**ND**	0.0085	EPA 8270D/SIM	8-31-15	8-31-15	
Anthracene	**ND**	0.0085	EPA 8270D/SIM	8-31-15	8-31-15	
Fluoranthene	**ND**	0.0085	EPA 8270D/SIM	8-31-15	8-31-15	
Pyrene	**ND**	0.0085	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[a]anthracene	**ND**	0.0085	EPA 8270D/SIM	8-31-15	8-31-15	
Chrysene	**ND**	0.0085	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[b]fluoranthene	**ND**	0.0085	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo(j,k)fluoranthene	**ND**	0.0085	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[a]pyrene	**ND**	0.0085	EPA 8270D/SIM	8-31-15	8-31-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0085	EPA 8270D/SIM	8-31-15	8-31-15	
Dibenz[a,h]anthracene	**ND**	0.0085	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[g,h,i]perylene	**ND**	0.0085	EPA 8270D/SIM	8-31-15	8-31-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*74*	*32 - 114*				
Pyrene-d10	*73*	*33 - 121*				
Terphenyl-d14	*78*	*31 - 116*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: September 1, 2015
Samples Submitted: August 28, 2015
Laboratory Reference: 1508-288
Project: 21138-001-03

NWTPH-Gx/BTEX
QUALITY CONTROL

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0828S2					
Benzene	**ND**	0.020	EPA 8021B	8-28-15	8-28-15	
Toluene	**ND**	0.050	EPA 8021B	8-28-15	8-28-15	
Ethyl Benzene	**ND**	0.050	EPA 8021B	8-28-15	8-28-15	
m,p-Xylene	**ND**	0.050	EPA 8021B	8-28-15	8-28-15	
o-Xylene	**ND**	0.050	EPA 8021B	8-28-15	8-28-15	
Gasoline	**ND**	5.0	NWTPH-Gx	8-28-15	8-28-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*86*	*68-123*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	08-288-01										
	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						*89*	*88*	*68-123*			
SPIKE BLANKS											
Laboratory ID:	SB0828S1										
	SB	SBD	SB	SBD		SB	SBD				
Benzene	**0.870**	**0.951**	1.00	1.00		**87**	**95**	75-117	9	13	
Toluene	**0.875**	**0.967**	1.00	1.00		**88**	**97**	78-118	10	12	
Ethyl Benzene	**0.862**	**0.936**	1.00	1.00		**86**	**94**	78-118	8	12	
m,p-Xylene	**0.878**	**0.964**	1.00	1.00		**88**	**96**	78-121	9	13	
o-Xylene	**0.869**	**0.943**	1.00	1.00		**87**	**94**	77-119	8	13	
Surrogate:											
Fluorobenzene						*82*	*87*	*68-123*			

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Date of Report: September 1, 2015
Samples Submitted: August 28, 2015
Laboratory Reference: 1508-288
Project: 21138-001-03

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0829S1					
Diesel Range Organics	**ND**	25	NWTPH-Dx	8-29-15	8-31-15	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	8-29-15	8-31-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*96*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	08-247-04										
	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						*97*	*92*	*50-150*			

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Date of Report: September 1, 2015
Samples Submitted: August 28, 2015
Laboratory Reference: 1508-288
Project: 21138-001-03

PAHs EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0831S1					
Naphthalene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
2-Methylnaphthalene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
1-Methylnaphthalene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Acenaphthylene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Acenaphthene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Fluorene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Phenanthrene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Anthracene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Fluoranthene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Pyrene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[a]anthracene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Chrysene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[b]fluoranthene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo(j,k)fluoranthene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[a]pyrene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Dibenz[a,h]anthracene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[g,h,i]perylene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*81*	*32 - 114*				
Pyrene-d10	*83*	*33 - 121*				
Terphenyl-d14	*90*	*31 - 116*				

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Date of Report: September 1, 2015
Samples Submitted: August 28, 2015
Laboratory Reference: 1508-288
Project: 21138-001-03

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:	SB0831S1									
	SB	SBD	SB	SBD	SB	SBD				
Naphthalene	**0.0711**	**0.0719**	0.0833	0.0833	85	86	63 - 113	1	19	
Acenaphthylene	**0.0748**	**0.0728**	0.0833	0.0833	90	87	61 - 125	3	16	
Acenaphthene	**0.0748**	**0.0732**	0.0833	0.0833	90	88	66 - 113	2	16	
Fluorene	**0.0753**	**0.0777**	0.0833	0.0833	90	93	60 - 117	3	16	
Phenanthrene	**0.0726**	**0.0724**	0.0833	0.0833	87	87	63 - 116	0	12	
Anthracene	**0.127**	**0.126**	0.0833	0.0833	152	151	66 - 146	1	19	II
Fluoranthene	**0.0717**	**0.0722**	0.0833	0.0833	86	87	60 - 125	1	13	
Pyrene	**0.0716**	**0.0716**	0.0833	0.0833	86	86	66 - 126	0	15	
Benzo[a]anthracene	**0.0826**	**0.0824**	0.0833	0.0833	99	99	60 - 128	0	15	
Chrysene	**0.0740**	**0.0746**	0.0833	0.0833	89	90	60 - 117	1	13	
Benzo[b]fluoranthene	**0.0711**	**0.0720**	0.0833	0.0833	85	86	60 - 131	1	16	
Benzo(j,k)fluoranthene	**0.0727**	**0.0735**	0.0833	0.0833	87	88	57 - 126	1	20	
Benzo[a]pyrene	**0.0699**	**0.0704**	0.0833	0.0833	84	85	62 - 136	1	16	
Indeno(1,2,3-c,d)pyrene	**0.0603**	**0.0632**	0.0833	0.0833	72	76	60 - 127	5	19	
Dibenz[a,h]anthracene	**0.0592**	**0.0627**	0.0833	0.0833	71	75	62 - 133	6	22	
Benzo[g,h,i]perylene	**0.0641**	**0.0668**	0.0833	0.0833	77	80	63 - 129	4	22	
Surrogate:										
2-Fluorobiphenyl					*88*	*87*	*32 - 114*			
Pyrene-d10					*82*	*83*	*33 - 121*			
Terphenyl-d14					*89*	*89*	*31 - 116*			

This report pertains to the samples analyzed in accordance with the chain of custody,
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Date of Report: September 1, 2015
Samples Submitted: August 28, 2015
Laboratory Reference: 1508-288
Project: 21138-001-03

% MOISTURE

Date Analyzed: 8-28-15

Client ID	Lab ID	% Moisture
UST2EX-S1-33.0	08-288-01	9
UST2EX-S2-33.0	08-288-02	21
UST2EX-W1-33.0	08-288-03	23
UST2EX-W2-33.0	08-288-04	19
UST2EX-B2-36.0	08-288-05	22

This report pertains to the samples analyzed in accordance with the chain of custody,
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OnSite Environmental Inc.

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-napthalene) 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

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Chain of Custody

Page 1 of 1

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: GEOENGINEERS
Project Number: 21138-001-03
Project Name: 9th & LENORA PROJECT
Project Manager: FASIH KHAN
Sampled by: FASIH KHAN

Turnaround Request (in working days)

(Check One)

- [x] Same Day (By 10 AM) (GBEx, Dx)
- [x] 1 Day
- [ ] 2 Days
- [ ] 3 Days
- [ ] Standard (7 Days) (TPH analysis 5 Days)
- [ ] _____ (other)

Laboratory Number: 08-288

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	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
1	UST2EX-S1-33.0	8/28/15	1242	S	2		X		X				X														X
2	UST2EX-S2-33.0		1251				X		X				X														X
3	UST2EX-W1-33.0		1010				X		X				X														X
4	UST2EX-W2-33.0		1015				X		X				X														X
5 ★	UST2EX-B2-36.0	↓	1310	↓	↓		X		X				X														X

	Signature	Company	Date	Time
Relinquished		GEI	8/28/15	1545
Received		Onsite	8-28-15	1545
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

PAH 2 day, except #5 (1 day TAT)

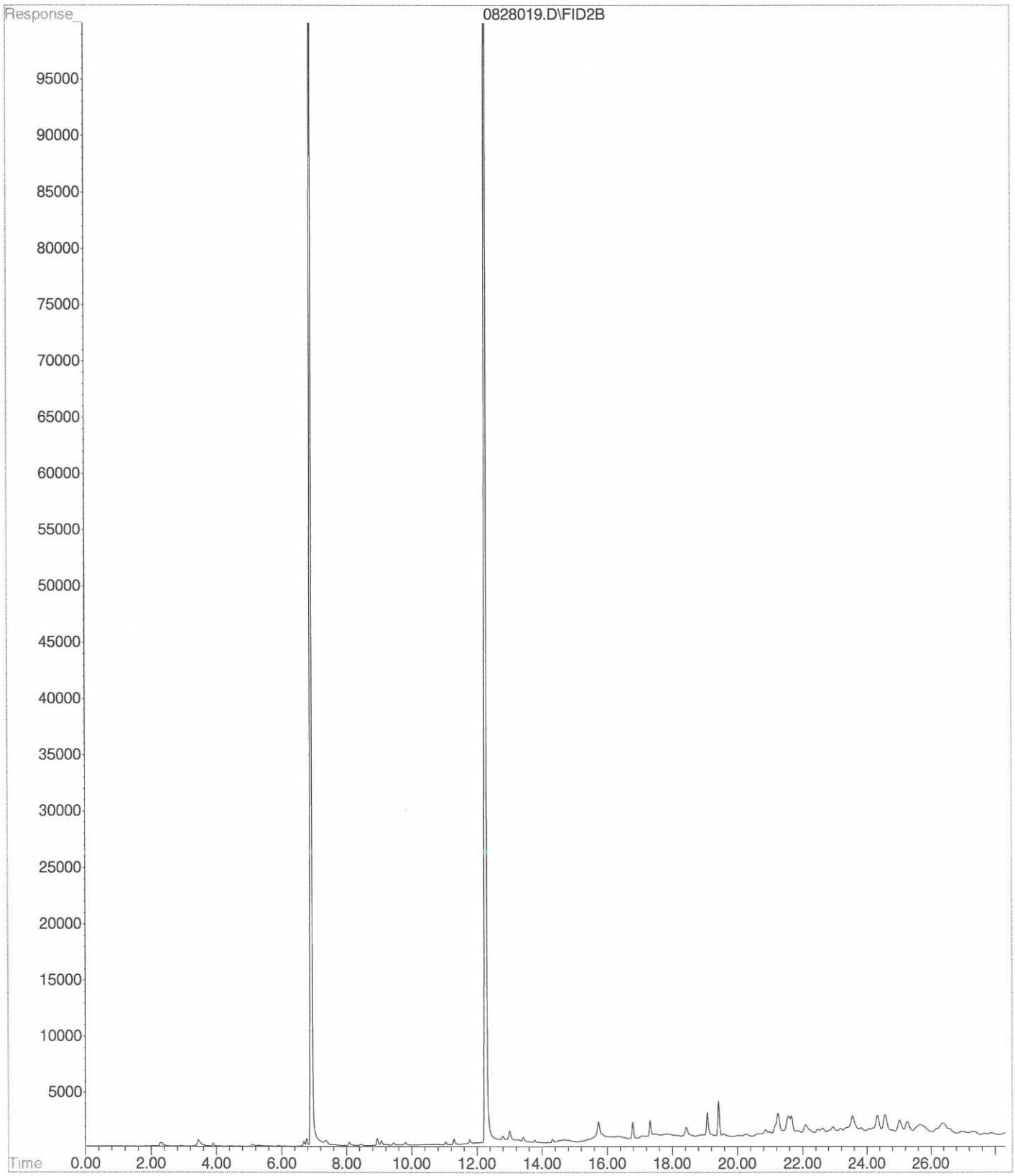
★ This Sample PAHs by Monday evening (Aug 31, 2015).

Chromatograms with final report ☐

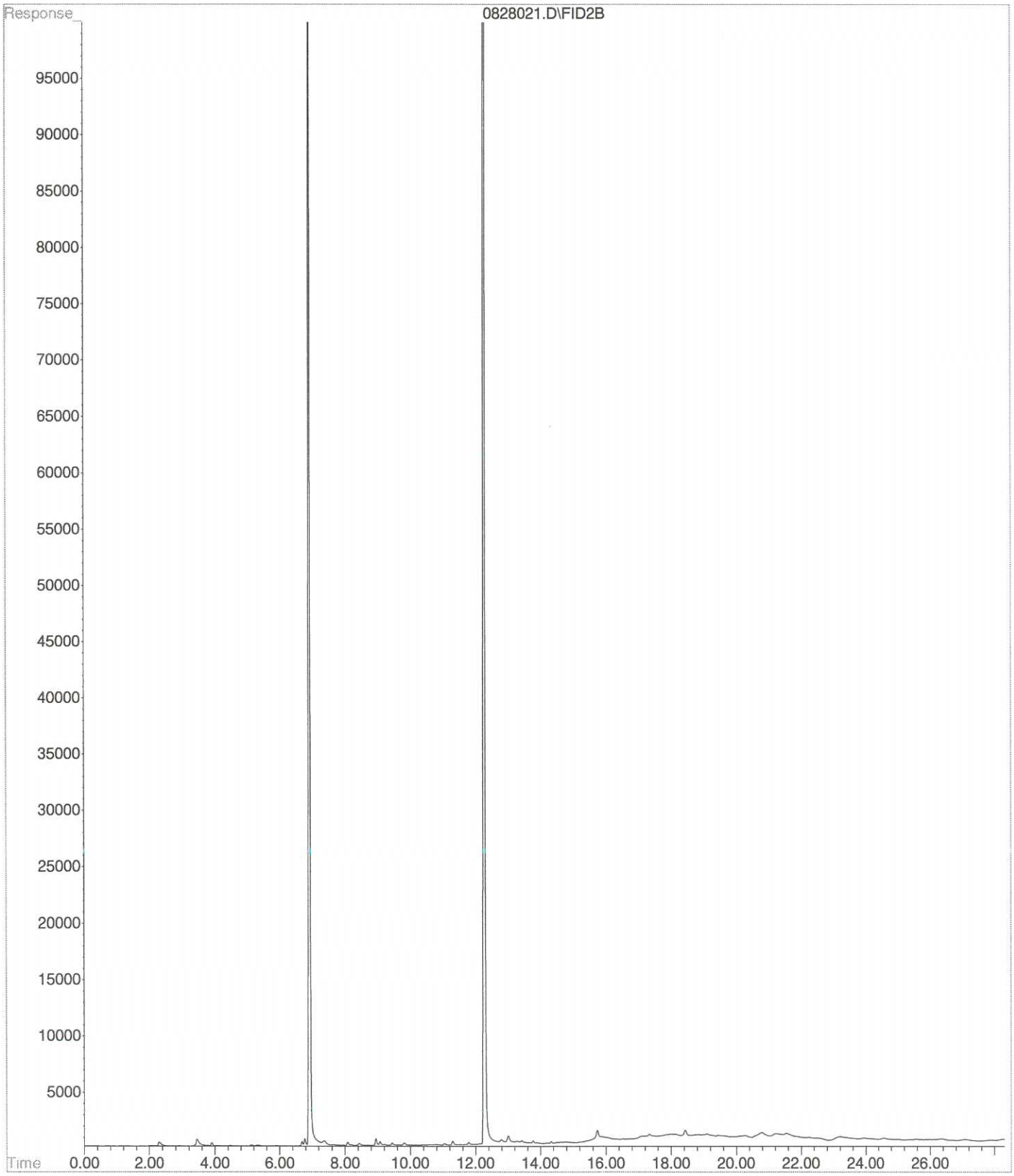
Data Package: Standard ☐ Level III ☐ Level IV ☐

Electronic Data Deliverables (EDDs) ☐ _____

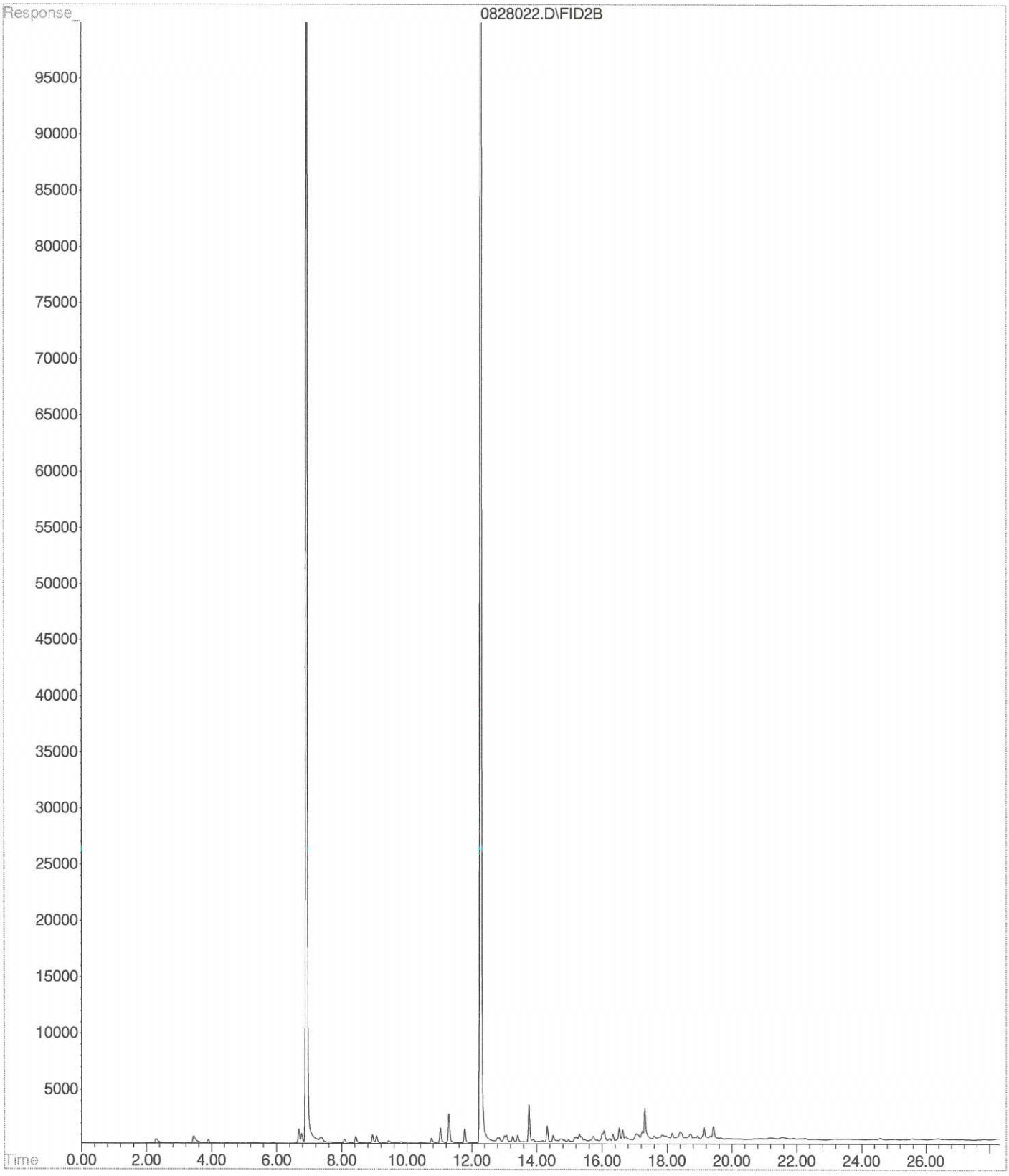
File : X:\BTEX\DARYL\DATA\D150828\0828019.D
Operator :
Acquired : 28 Aug 2015 23:29 using AcqMethod 150709B.M
Instrument : Daryl
Sample Name: 08-288-01s
Misc Info : V2-37-21
Vial Number: 19



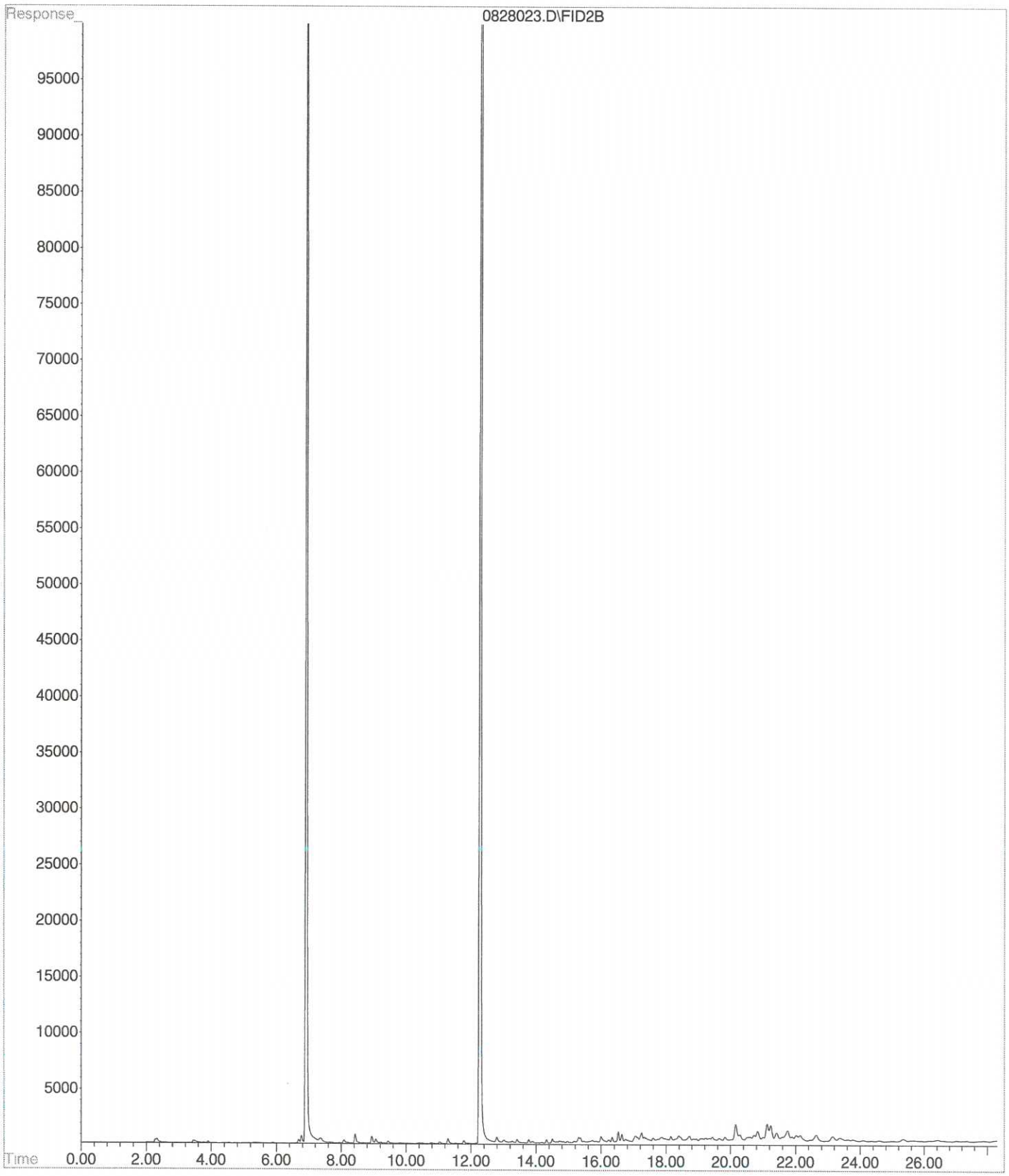
File : X:\BTEX\DARYL\DATA\D150828\0828021.D
Operator :
Acquired : 29 Aug 2015 00:36 using AcqMethod 150709B.M
Instrument : Daryl
Sample Name: 08-288-02s
Misc Info : V2-37-21
Vial Number: 21



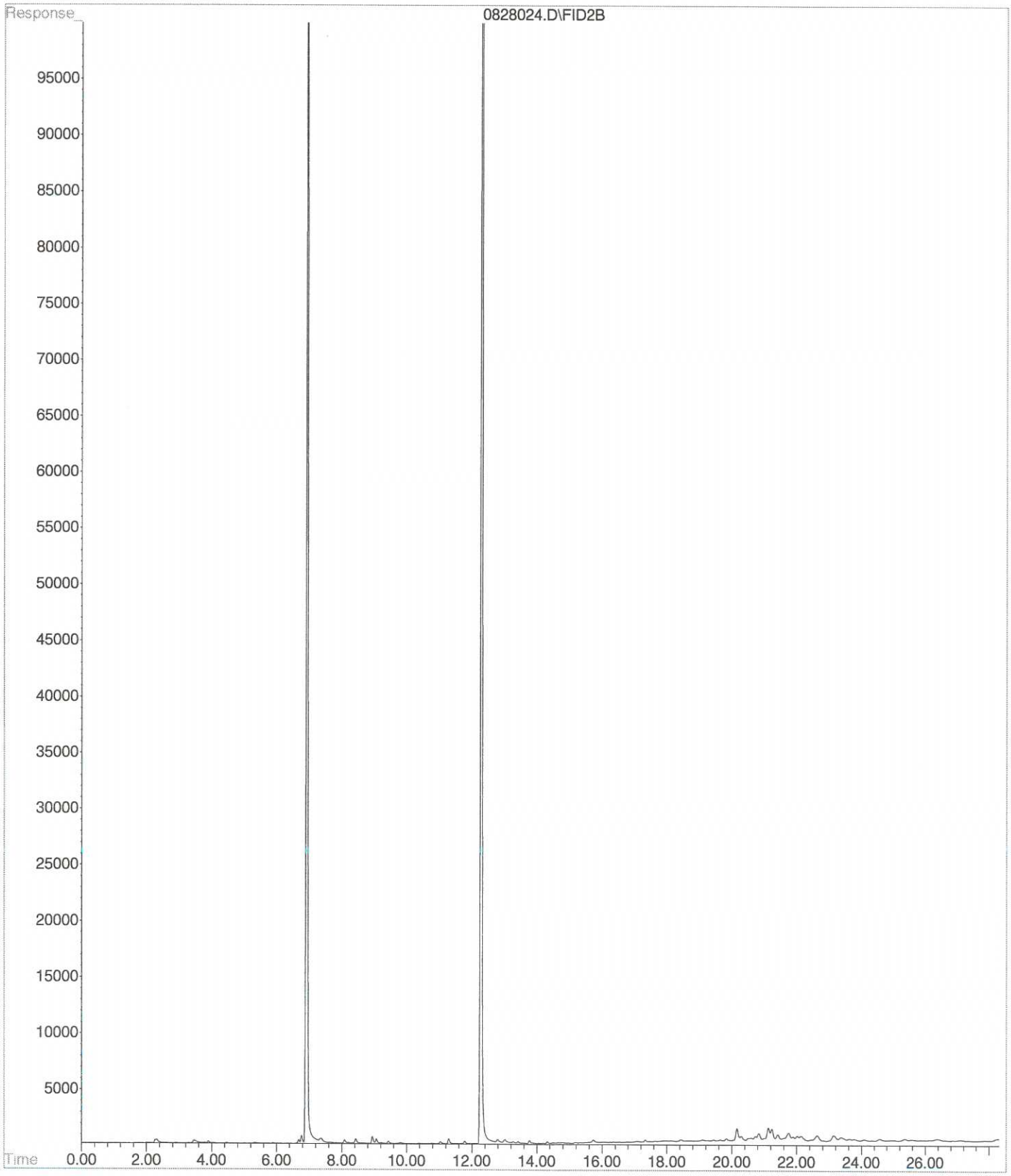
File : X:\BTEX\DARYL\DATA\D150828\0828022.D
Operator :
Acquired : 29 Aug 2015 1:10 using AcqMethod 150709B.M
Instrument : Daryl
Sample Name: 08-288-03s
Misc Info : V2-37-21
Vial Number: 22



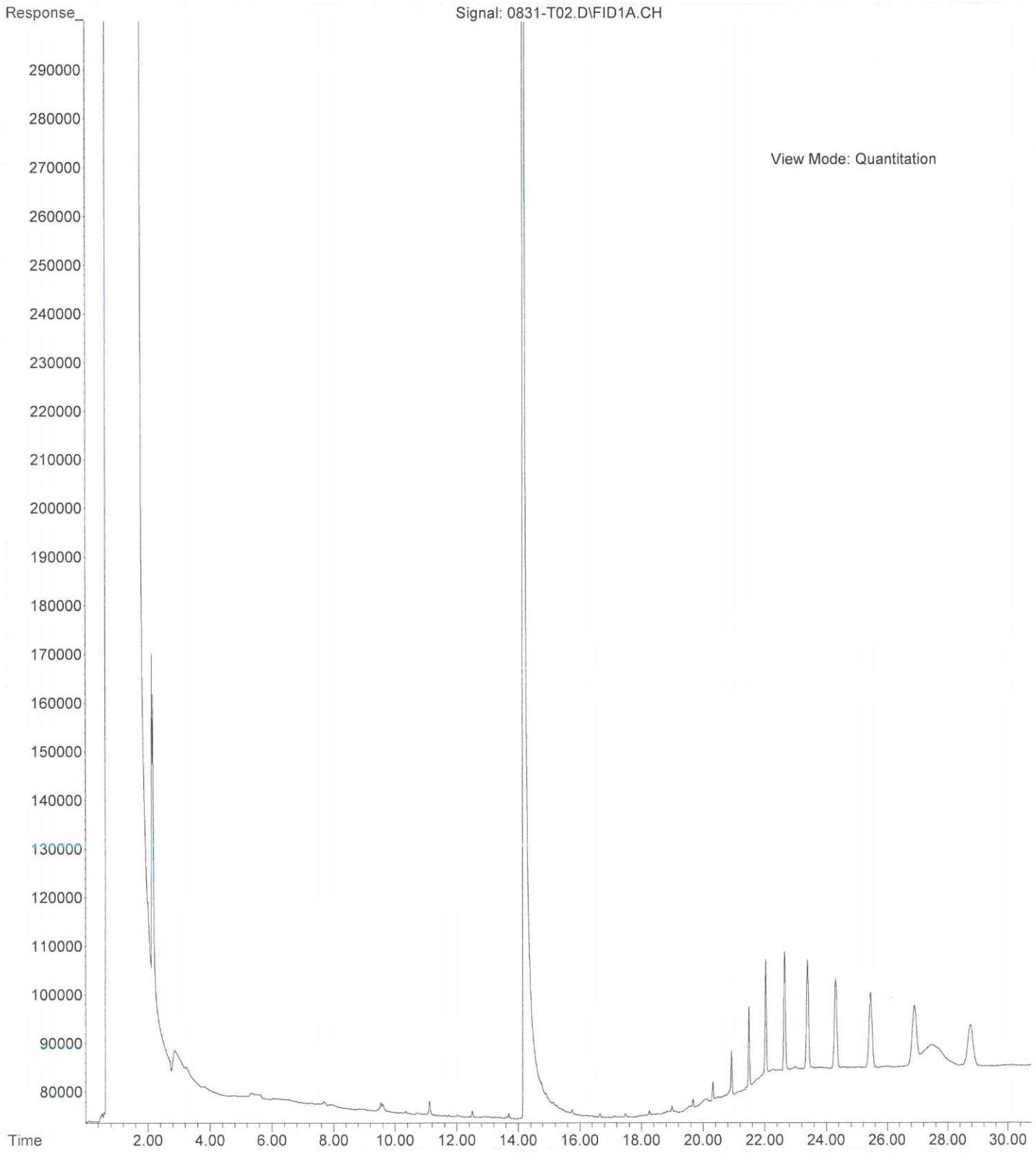
File : X:\BTEX\DARYL\DATA\D150828\0828023.D
Operator :
Acquired : 29 Aug 2015 1:43 using AcqMethod 150709B.M
Instrument : Daryl
Sample Name: 08-288-04s
Misc Info : V2-37-21
Vial Number: 23



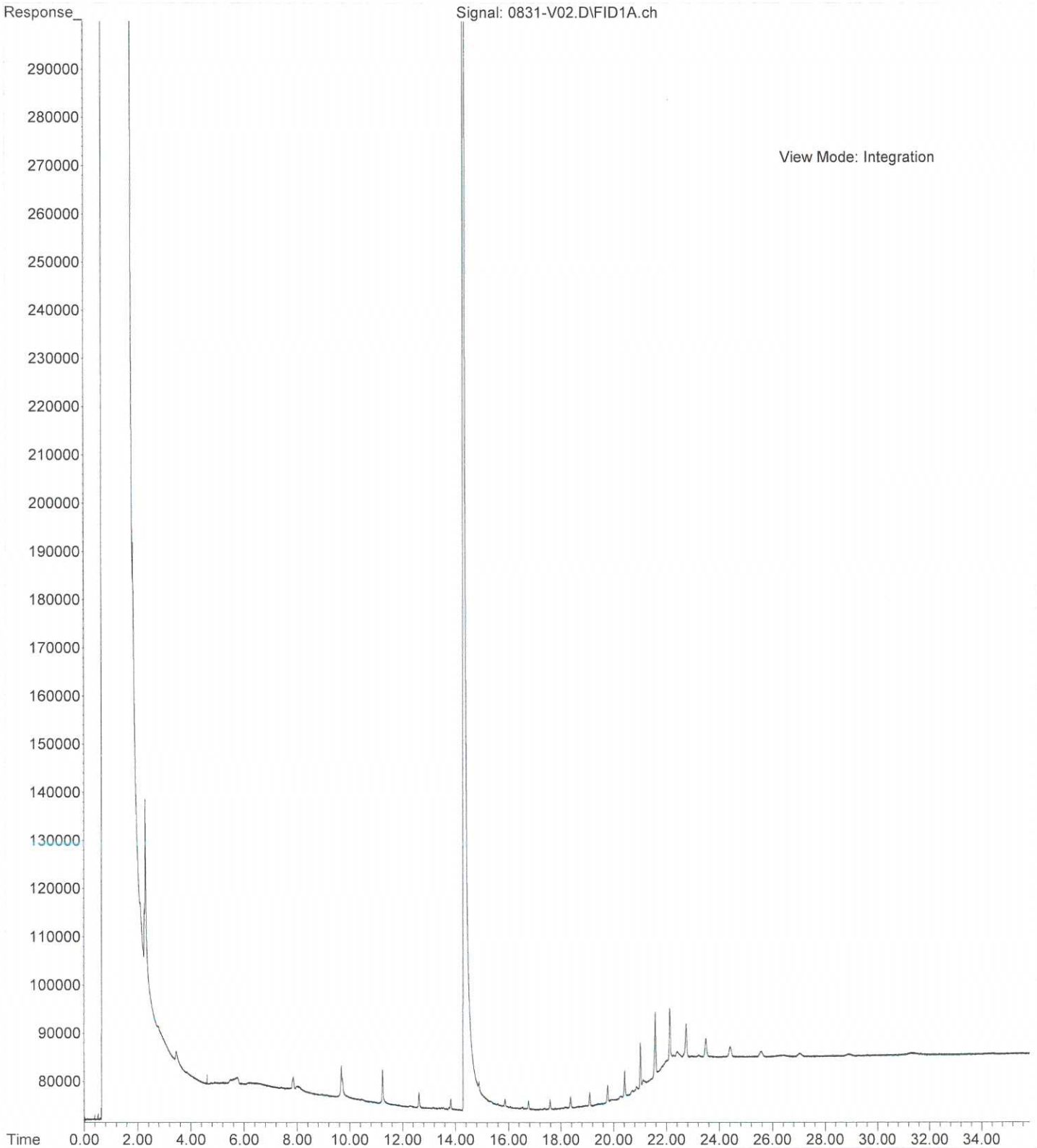
File : X:\BTEX\DARYL\DATA\D150828\0828024.D
Operator :
Acquired : 29 Aug 2015 2:16 using AcqMethod 150709B.M
Instrument : Daryl
Sample Name: 08-288-05s
Misc Info : V2-37-21
Vial Number: 24



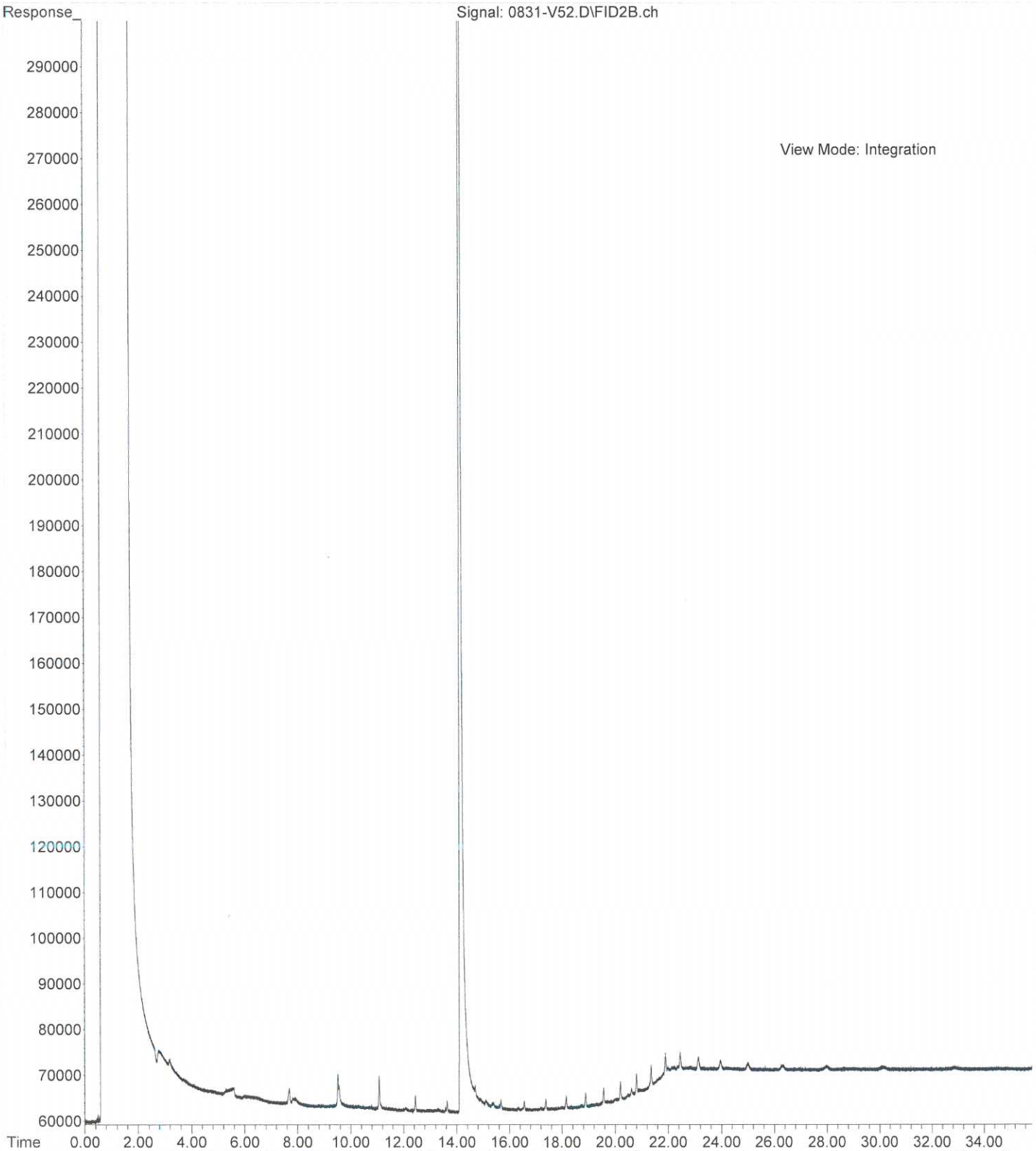
File : X:\DIESELS\TERI\DATA\T150831\0831-T02.D
Operator : ZT
Acquired : 31 Aug 2015 10:15 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 08-288-01
Misc Info :
Vial Number: 2



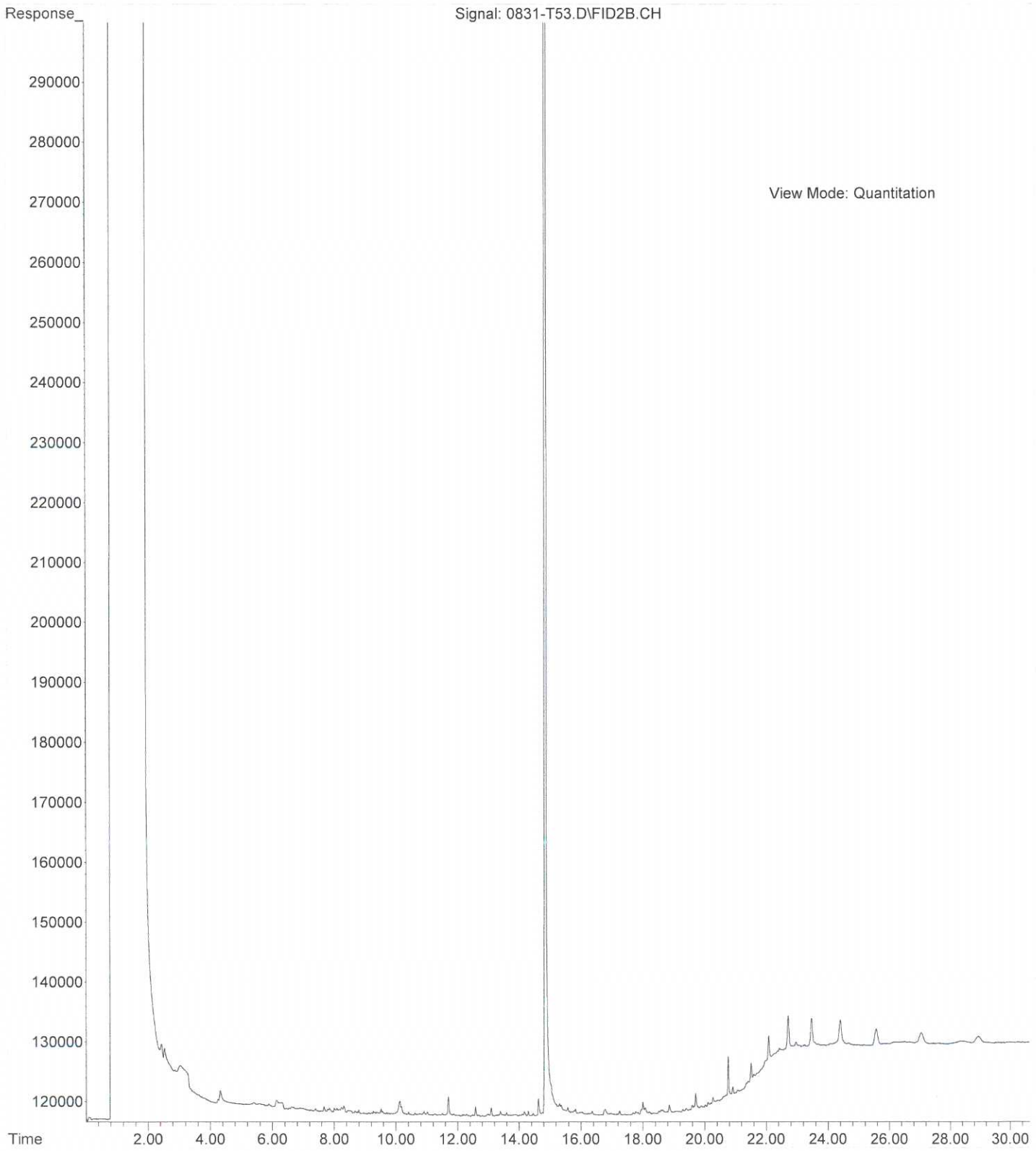
File : X:\DIESELS\VIGO\DATA\V150831\0831-V02.D
Operator :
Acquired : 31 Aug 2015 10:33 using AcqMethod V150507F.M
Instrument : Vigo
Sample Name: 08-288-02
Misc Info :
Vial Number: 2



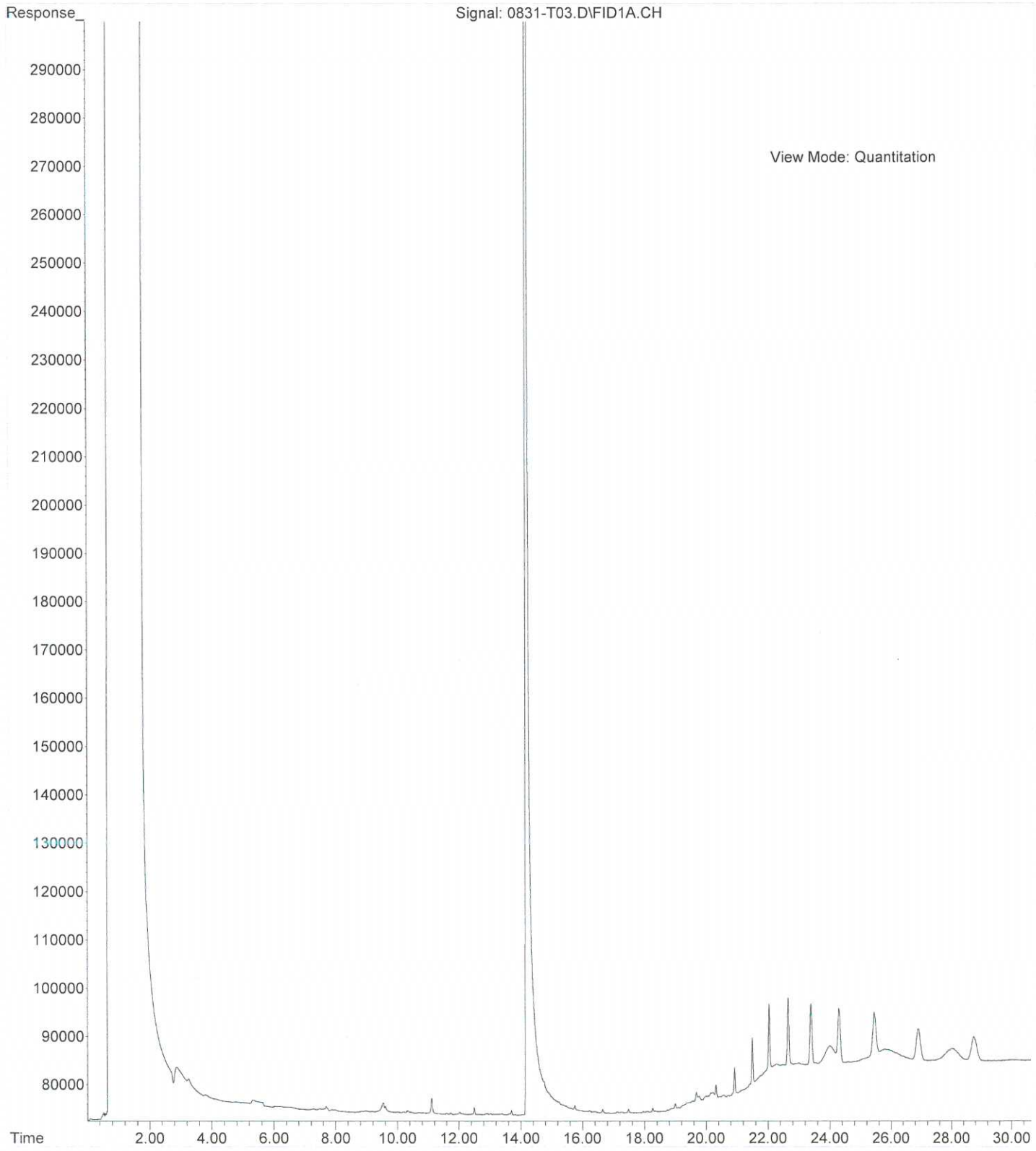
File : X:\DIESELS\VIGO\DATA\V150831.SEC\0831-V52.D
Operator :
Acquired : 31 Aug 2015 10:33 using AcqMethod V150507F.M
Instrument : Vigo
Sample Name: 08-288-03
Misc Info :
Vial Number: 52



File :X:\DIESELS\TERI\DATA\T150831.SEC\0831-T53.D
Operator : ZT
Acquired : 31 Aug 2015 10:54 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 08-288-04
Misc Info :
Vial Number: 53



File :X:\DIESELS\TERI\DATA\T150831\0831-T03.D
Operator : ZT
Acquired : 31 Aug 2015 10:54 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 08-288-05
Misc Info :
Vial Number: 3



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

August 13, 2015

Fasih Khan
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03
Laboratory Reference No. 1508-107

Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on August 12, 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,

David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 13, 2015
Samples Submitted: August 12, 2015
Laboratory Reference: 1508-107
Project: 21138-001-03

Case Narrative

Samples were collected on August 12, 2015 and received by the laboratory on August 12, 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.

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 13, 2015
Samples Submitted: August 12, 2015
Laboratory Reference: 1508-107
Project: 21138-001-03

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
ELEVTR-PRODUCT	08-107-01	Product	8-12-15	8-12-15	
HOIST-PRODUCT	08-107-02	Product	8-12-15	8-12-15	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 13, 2015
Samples Submitted: August 12, 2015
Laboratory Reference: 1508-107
Project: 21138-001-03

NWTPH-HCID

Matrix: Product
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**ELEVTR-PRODUCT**					
Laboratory ID:	08-107-01					
Gasoline Range Organics	**ND**	1400	NWTPH-HCID	8-12-15	8-12-15	U1
Diesel Range Organics	**Detected**	2500	NWTPH-HCID	8-12-15	8-12-15	N
Lube Oil	**Detected**	4900	NWTPH-HCID	8-12-15	8-12-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*85*	*50-150*				
Client ID:	**HOIST-PRODUCT**					
Laboratory ID:	08-107-02					
Gasoline Range Organics	**ND**	2300	NWTPH-HCID	8-12-15	8-12-15	U1
Diesel Range Organics	**Detected**	2400	NWTPH-HCID	8-12-15	8-12-15	N
Lube Oil	**Detected**	4800	NWTPH-HCID	8-12-15	8-12-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*97*	*50-150*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 13, 2015
Samples Submitted: August 12, 2015
Laboratory Reference: 1508-107
Project: 21138-001-03

NWTPH-HCID
QUALITY CONTROL

Matrix: Product
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0812P1					
Gasoline Range Organics	**ND**	1000	NWTPH-HCID	8-12-15	8-12-15	
Diesel Range Organics	**ND**	2500	NWTPH-HCID	8-12-15	8-12-15	
Lube Oil Range Organics	**ND**	5000	NWTPH-HCID	8-12-15	8-12-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*85*	*50-150*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

OnSite Environmental Inc.

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-napthalene) 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

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: GEOENGINEERS
Project Number: 21138-001-03
Project Name: 9th & LENORA PROJECT
Project Manager: FASIH KHAN
Sampled by: FASIH KHAN

Turnaround Request (in working days)

(Check One)

- [X] Same Day
- [ ] 1 Day
- [ ] 2 Days
- [ ] 3 Days
- [ ] Standard (7 Days) (TPH analysis 5 Days)
- [ ] _____ (other)

Laboratory Number: 08-107

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	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
1	ELEVTR-PRODUCT	8/12/15	1115	P	1	X																
2	HOIST-PRODUCT	8/12/15	1120	P	1	X																

	Signature	Company	Date	Time
Relinquished		GEI	8/12/15	1240
Received		GEI	8/12/15	1240
Relinquished				
Received				
Relinquished				
Received				

Comments/Special Instructions

Reviewed/Date

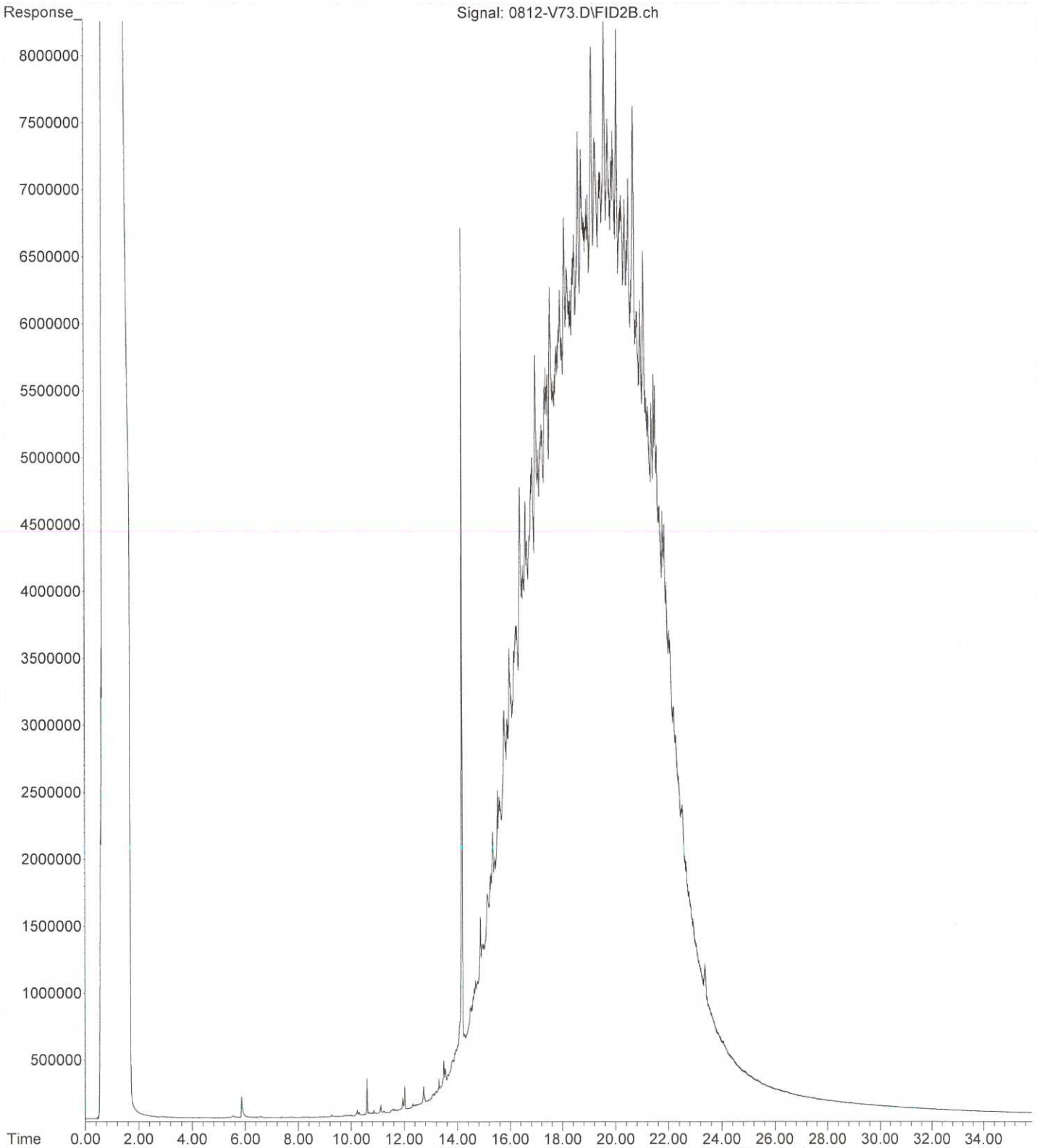
Reviewed/Date

Chromatograms with final report ☐

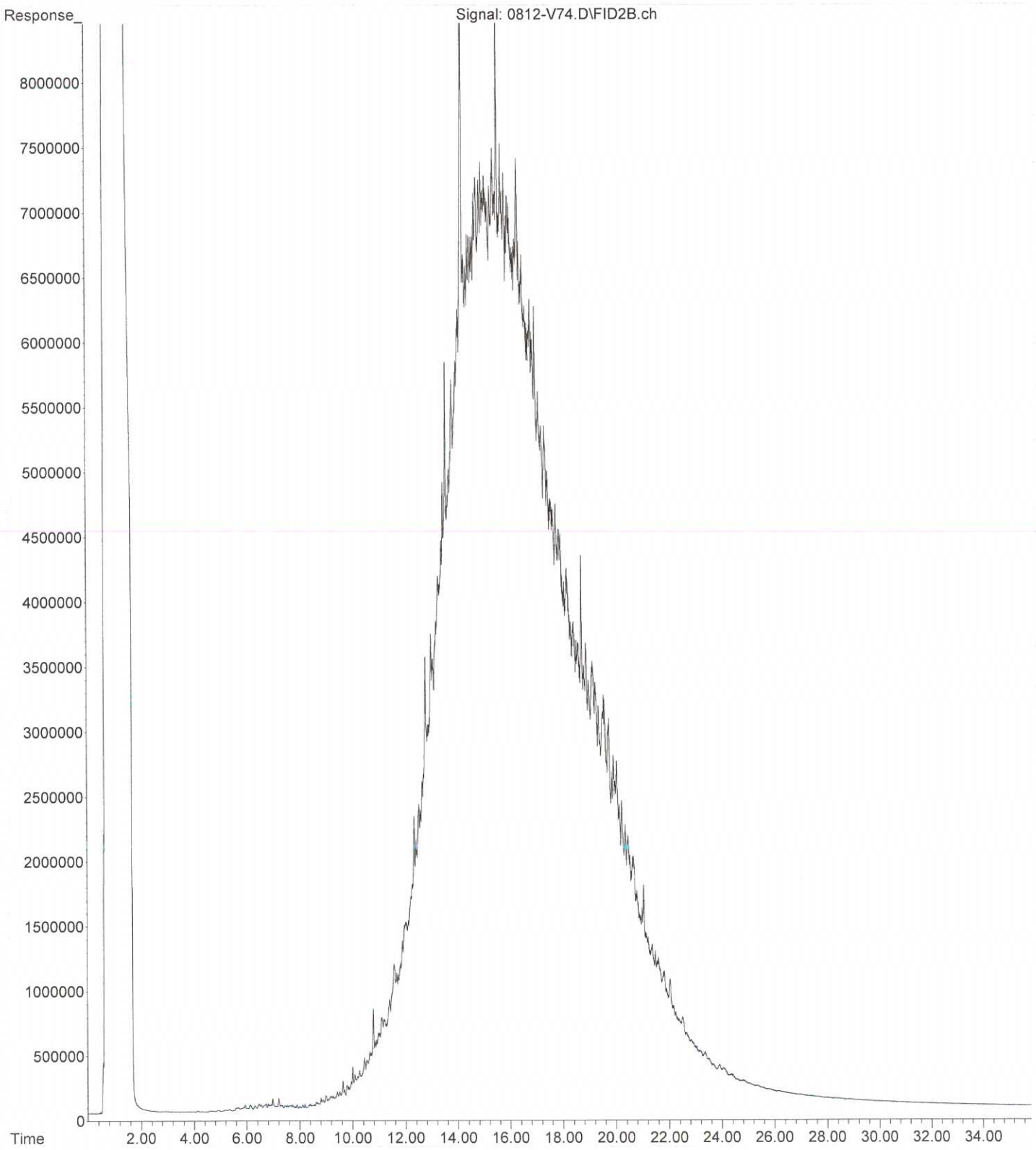
Data Package: Standard ☐ Level III ☐ Level IV ☐

Electronic Data Deliverables (EDDs) ☐ _____

File :X:\DIESELS\VIGO\DATA\V150812.SEC\0812-V73.D
Operator :
Acquired : 13 Aug 2015 3:29 using AcqMethod V150209F.M
Instrument : Vigo
Sample Name: 08-107-01
Misc Info :
Vial Number: 73



File :X:\DIESELS\VIGO\DATA\V150812.SEC\0812-V74.D
Operator :
Acquired : 13 Aug 2015 4:10 using AcqMethod V150209F.M
Instrument : Vigo
Sample Name: 08-107-02
Misc Info :
Vial Number: 74



OnSite Environmental Inc.

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

September 8, 2015

Fasih Khan
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03
Laboratory Reference No. 1509-041

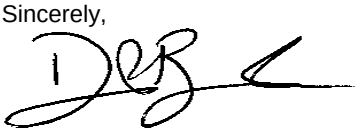
Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on September 2, 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,



David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: September 8, 2015
Samples Submitted: September 2, 2015
Laboratory Reference: 1509-041
Project: 21138-001-03

Case Narrative

Samples were collected on August 24, 25, and 26, 2015 and received by the laboratory on September 2, 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.

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: September 8, 2015
Samples Submitted: September 2, 2015
Laboratory Reference: 1509-041
Project: 21138-001-03

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
ELEVTREX-1-20.0	09-041-01	Soil	8-26-15	9-2-15	
MASSEX-4-9.0	09-041-02	Soil	8-24-15	9-2-15	
MASSEX-10-9.0	09-041-03	Soil	8-25-15	9-2-15	

This report pertains to the samples analyzed in accordance with the chain of custody,
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Date of Report: September 8, 2015
Samples Submitted: September 2, 2015
Laboratory Reference: 1509-041
Project: 21138-001-03

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**ELEVTREX-1-20.0**					
Laboratory ID:	09-041-01					
Diesel Range Organics	**ND**	28	NWTPH-Dx	9-3-15	9-3-15	
Lube Oil Range Organics	**ND**	56	NWTPH-Dx	9-3-15	9-3-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*80*	*50-150*				
Client ID:	**MASSEX-4-9.0**					
Laboratory ID:	09-041-02					
Diesel Range Organics	**ND**	28	NWTPH-Dx	9-3-15	9-3-15	
Lube Oil Range Organics	**ND**	56	NWTPH-Dx	9-3-15	9-3-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*75*	*50-150*				
Client ID:	**MASSEX-10-9.0**					
Laboratory ID:	09-041-03					
Diesel Range Organics	**ND**	28	NWTPH-Dx	9-3-15	9-3-15	
Lube Oil Range Organics	**ND**	56	NWTPH-Dx	9-3-15	9-3-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*75*	*50-150*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: September 8, 2015
Samples Submitted: September 2, 2015
Laboratory Reference: 1509-041
Project: 21138-001-03

cPAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**ELEVTREX-1-20.0**					
Laboratory ID:	09-041-01					
Benzo[a]anthracene	**ND**	0.0074	EPA 8270D/SIM	9-4-15	9-4-15	
Chrysene	**ND**	0.0074	EPA 8270D/SIM	9-4-15	9-4-15	
Benzo[b]fluoranthene	**ND**	0.0074	EPA 8270D/SIM	9-4-15	9-4-15	
Benzo(j,k)fluoranthene	**ND**	0.0074	EPA 8270D/SIM	9-4-15	9-4-15	
Benzo[a]pyrene	**ND**	0.0074	EPA 8270D/SIM	9-4-15	9-4-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0074	EPA 8270D/SIM	9-4-15	9-4-15	
Dibenz[a,h]anthracene	**ND**	0.0074	EPA 8270D/SIM	9-4-15	9-4-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*54*	*32 - 114*				
Pyrene-d10	*48*	*33 - 121*				
Terphenyl-d14	*49*	*31 - 116*				

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Date of Report: September 8, 2015
Samples Submitted: September 2, 2015
Laboratory Reference: 1509-041
Project: 21138-001-03

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0903S1					
Diesel Range Organics	**ND**	25	NWTPH-Dx	9-3-15	9-3-15	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	9-3-15	9-3-15	
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:	09-036-01									
	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						*69* *79*	*50-150*			

This report pertains to the samples analyzed in accordance with the chain of custody,
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Date of Report: September 8, 2015
Samples Submitted: September 2, 2015
Laboratory Reference: 1509-041
Project: 21138-001-03

cPAHs EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0904S1					
Benzo[a]anthracene	**ND**	0.0067	EPA 8270D/SIM	9-4-15	9-4-15	
Chrysene	**ND**	0.0067	EPA 8270D/SIM	9-4-15	9-4-15	
Benzo[b]fluoranthene	**ND**	0.0067	EPA 8270D/SIM	9-4-15	9-4-15	
Benzo(j,k)fluoranthene	**ND**	0.0067	EPA 8270D/SIM	9-4-15	9-4-15	
Benzo[a]pyrene	**ND**	0.0067	EPA 8270D/SIM	9-4-15	9-4-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0067	EPA 8270D/SIM	9-4-15	9-4-15	
Dibenz[a,h]anthracene	**ND**	0.0067	EPA 8270D/SIM	9-4-15	9-4-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*89*	*32 - 114*				
Pyrene-d10	*82*	*33 - 121*				
Terphenyl-d14	*81*	*31 - 116*				

This report pertains to the samples analyzed in accordance with the chain of custody,
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Date of Report: September 8, 2015
Samples Submitted: September 2, 2015
Laboratory Reference: 1509-041
Project: 21138-001-03

cPAHs EPA 8270D/SIM
MS/MSD QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	09-041-01										
	MS	MSD	MS	MSD		MS	MSD				
Naphthalene	**0.0540**	**0.0470**	0.0833	0.0833	ND	65	56	44 - 107	14	29	
Acenaphthylene	**0.0634**	**0.0545**	0.0833	0.0833	ND	76	65	44 - 121	15	27	
Acenaphthene	**0.0565**	**0.0483**	0.0833	0.0833	ND	68	58	47 - 109	16	26	
Fluorene	**0.0579**	**0.0492**	0.0833	0.0833	ND	70	59	49 - 115	16	28	
Phenanthrene	**0.0559**	**0.0484**	0.0833	0.0833	ND	67	58	45 - 114	14	26	
Anthracene	**0.0949**	**0.0793**	0.0833	0.0833	ND	114	95	43 - 140	18	27	
Fluoranthene	**0.0546**	**0.0464**	0.0833	0.0833	ND	66	56	44 - 126	16	27	
Pyrene	**0.0542**	**0.0457**	0.0833	0.0833	ND	65	55	43 - 125	17	27	
Benzo[a]anthracene	**0.0638**	**0.0542**	0.0833	0.0833	ND	77	65	42 - 134	16	27	
Chrysene	**0.0547**	**0.0468**	0.0833	0.0833	ND	66	56	45 - 114	16	27	
Benzo[b]fluoranthene	**0.0532**	**0.0424**	0.0833	0.0833	ND	64	51	38 - 131	23	33	
Benzo(j,k)fluoranthene	**0.0464**	**0.0412**	0.0833	0.0833	ND	56	49	44 - 114	12	34	
Benzo[a]pyrene	**0.0522**	**0.0443**	0.0833	0.0833	ND	63	53	40 - 136	16	29	
Indeno(1,2,3-c,d)pyrene	**0.0483**	**0.0405**	0.0833	0.0833	ND	58	49	45 - 126	18	30	
Dibenz[a,h]anthracene	**0.0501**	**0.0422**	0.0833	0.0833	ND	60	51	46 - 121	17	28	
Benzo[g,h,i]perylene	**0.0502**	**0.0421**	0.0833	0.0833	ND	60	51	43 - 120	18	31	
Surrogate:											
2-Fluorobiphenyl						*67*	*57*	*32 - 114*			
Pyrene-d10						*59*	*50*	*33 - 121*			
Terphenyl-d14						*60*	*51*	*31 - 116*			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: September 8, 2015
Samples Submitted: September 2, 2015
Laboratory Reference: 1509-041
Project: 21138-001-03

% MOISTURE

Date Analyzed: 9-3-15

Client ID	Lab ID	% Moisture
ELEVTREX-1-20.0	09-041-01	10
MASSEX-4-9.0	09-041-02	11
MASSEX-10-9.0	09-041-03	10

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

OnSite Environmental Inc.

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-napthalene) 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

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: GEOENGINEERS
Project Number: 21138-001-03
Project Name: 9th & LENORA PROJECT
Project Manager: FASIH KHAN
Sampled by: FASIH KHAN

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☒ 2 Days ☐ 3 Days
☐ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Laboratory Number: 09-041

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	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	cPAHs	% Moisture
1	ELEVTREX-1-20.0	8/26/15	0900	S	1				X													X	X
2	MASSEX-4-9.0	8/24/15	1310	↓	1				X														↓
3	MASSEX-10-9.0	8/25/15	1020	↓	1				X														

	Signature	Company	Date	Time
Relinquished		GEI	9/2/15	1800
Received		CORE	9/2/15	1800
Relinquished				
Received				
Relinquished				
Received				

Comments/Special Instructions

Reviewed/Date

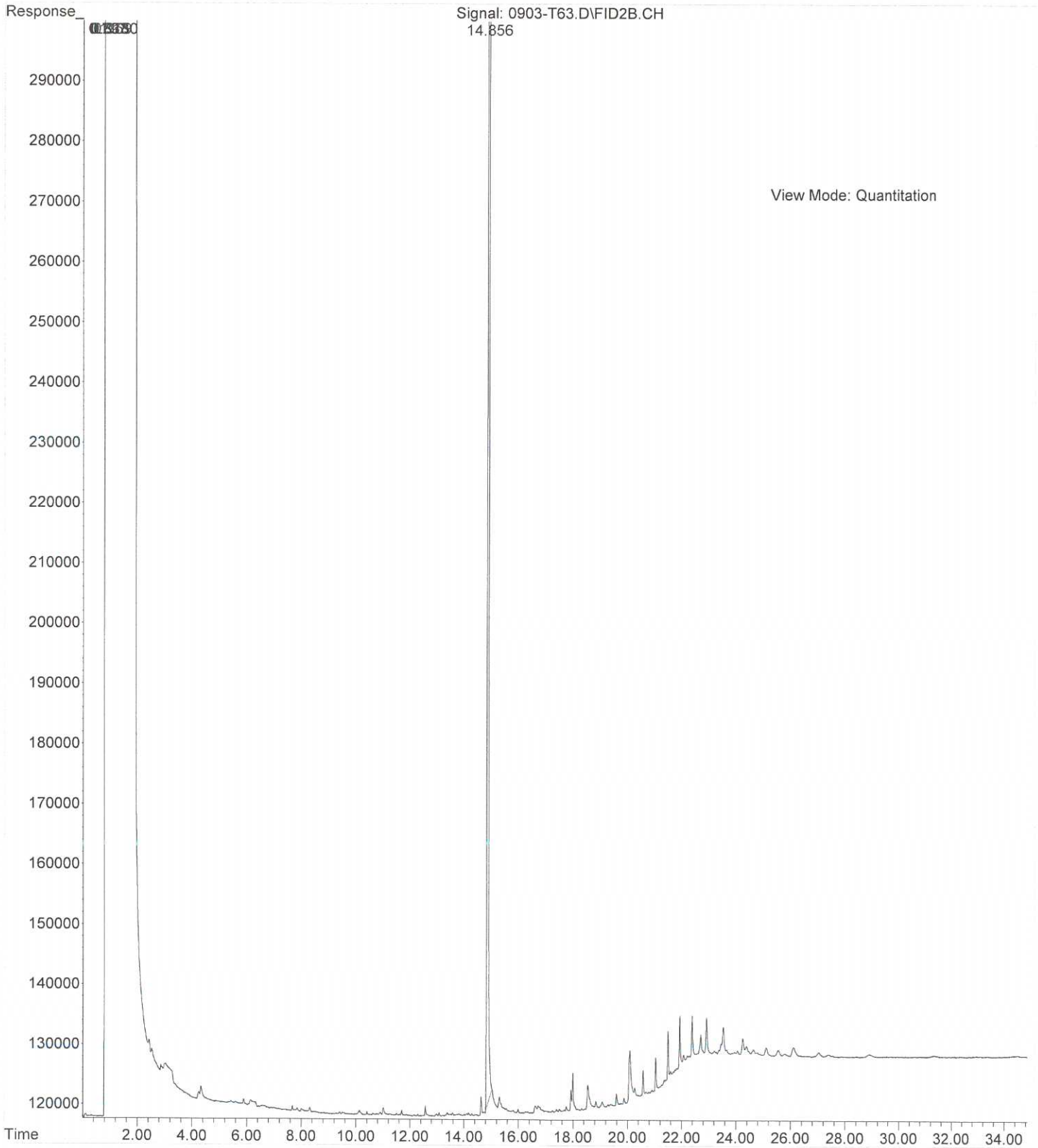
Reviewed/Date

Chromatograms with final report ☐

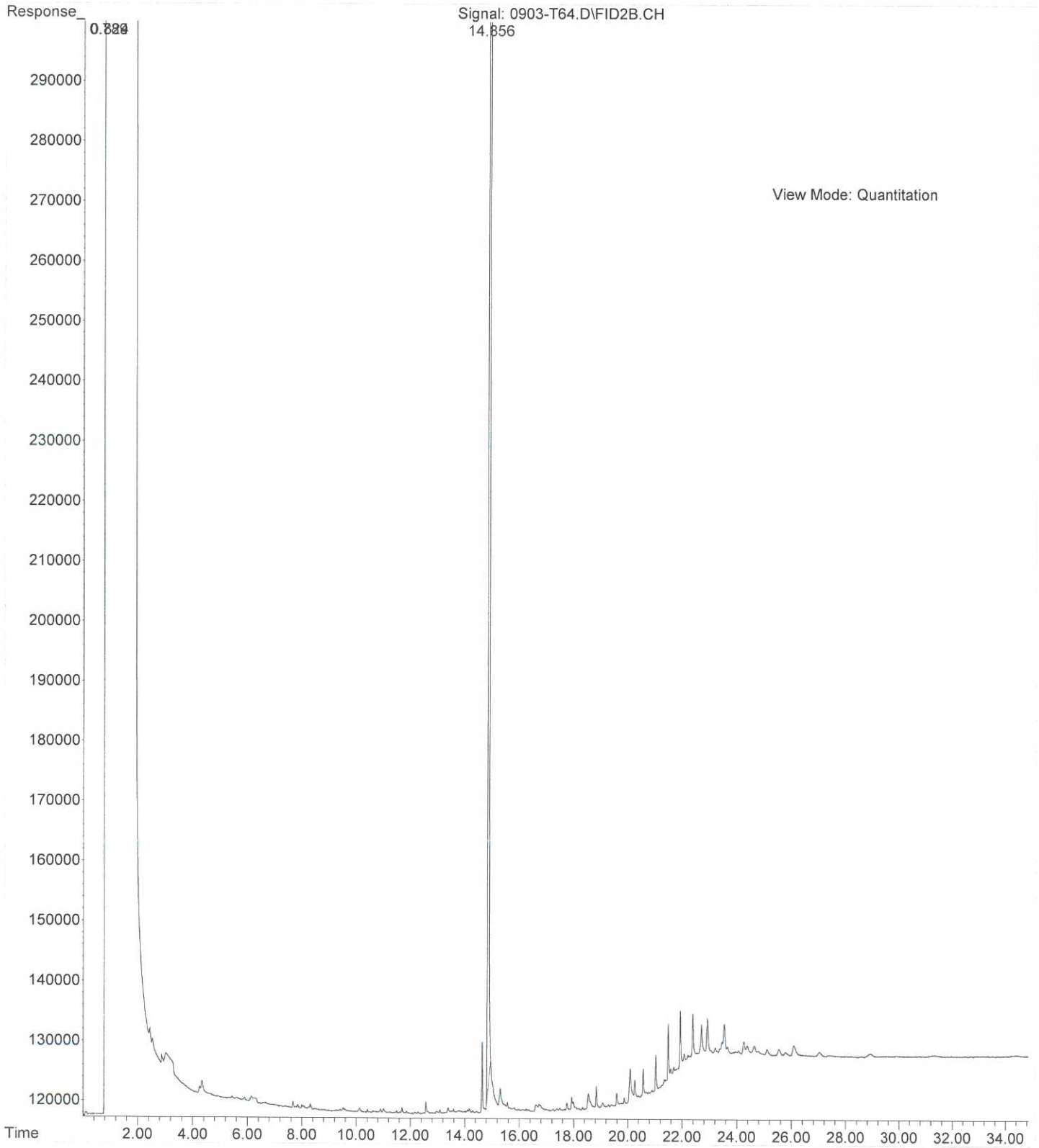
Data Package: Standard ☐ Level III ☐ Level IV ☐

Electronic Data Deliverables (EDDs) ☐ _____

File : X:\DIESELS\TERI\DATA\T150903.SEC\0903-T63.D
Operator : ZT
Acquired : 03 Sep 2015 21:24 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 09-041-01
Misc Info :
Vial Number: 63



File :X:\DIESELS\TERI\DATA\T150903.SEC\0903-T64.D
Operator : ZT
Acquired : 03 Sep 2015 22:07 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 09-041-02
Misc Info :
Vial Number: 64



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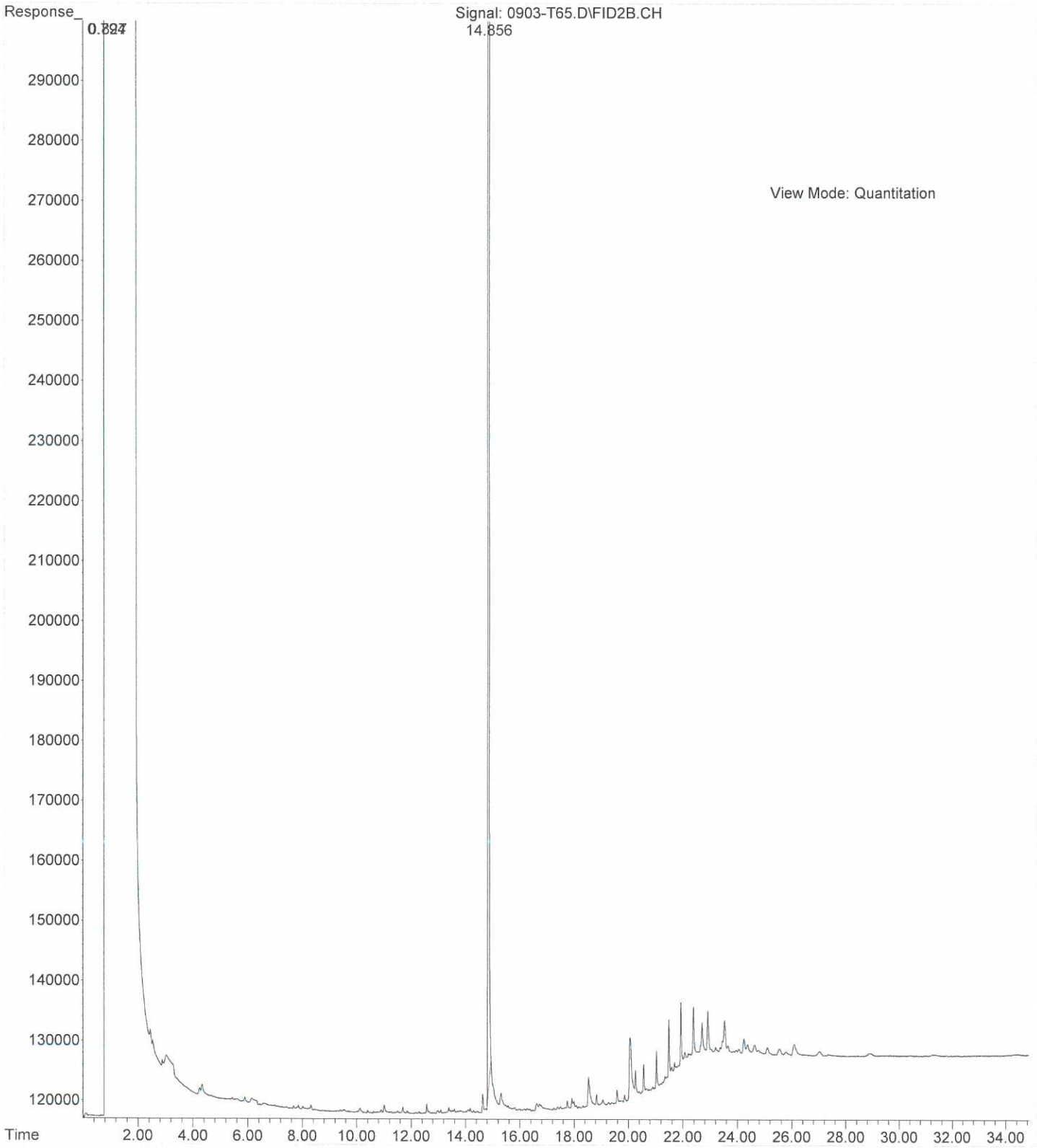
Acquired : 03 Sep 2015 22:50 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 09-041-03
Misc Info :
Vial Number: 65



OnSite Environmental Inc.

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

August 31, 2015

Fasih Khan
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03
Laboratory Reference No. 1508-201

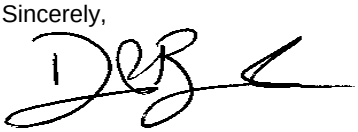
Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on August 19, 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,



David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody,
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Date of Report: August 31, 2015
Samples Submitted: August 19, 2015
Laboratory Reference: 1508-201
Project: 21138-001-03

Case Narrative

Samples were collected on August 14, 15, 17, 18, and 19, 2015 and received by the laboratory on August 19, 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.

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Date of Report: August 31, 2015
Samples Submitted: August 19, 2015
Laboratory Reference: 1508-201
Project: 21138-001-03

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
MASSEX-1-10.0	08-201-01	Soil	8-14-15	8-19-15	
MASSEX-2-10.0	08-201-02	Soil	8-14-15	8-19-15	
MASSEX-3-7.0	08-201-03	Soil	8-15-15	8-19-15	
MASSEX-4-7.0	08-201-04	Soil	8-15-15	8-19-15	
MASSEX-5-7.0	08-201-05	Soil	8-17-15	8-19-15	
MASSEX-6-7.0	08-201-06	Soil	8-17-15	8-19-15	
MASSEX-7-7.0	08-201-07	Soil	8-18-15	8-19-15	
MASSEX-8-7.0	08-201-08	Soil	8-18-15	8-19-15	
MASSEX-9-8.0	08-201-09	Soil	8-19-15	8-19-15	
MASSEX-10-8.0	08-201-10	Soil	8-19-15	8-19-15	

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Date of Report: August 31, 2015
Samples Submitted: August 19, 2015
Laboratory Reference: 1508-201
Project: 21138-001-03

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MASSEX-1-10.0**					
Laboratory ID:	08-201-01					
Diesel Range Organics	**ND**	30	NWTPH-Dx	8-20-15	8-3-15	
Lube Oil Range Organics	**ND**	59	NWTPH-Dx	8-20-15	8-3-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*89*	*50-150*				

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Date of Report: August 31, 2015
Samples Submitted: August 19, 2015
Laboratory Reference: 1508-201
Project: 21138-001-03

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MASSEX-2-10.0**					
Laboratory ID:	08-201-02					
Diesel Range Organics	**ND**	30	NWTPH-Dx	8-26-15	8-26-15	
Lube Oil Range Organics	**ND**	59	NWTPH-Dx	8-26-15	8-26-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*82*	*50-150*				
Client ID:	**MASSEX-3-7.0**					
Laboratory ID:	08-201-03					
Diesel Range Organics	**ND**	30	NWTPH-Dx	8-26-15	8-26-15	
Lube Oil Range Organics	**ND**	60	NWTPH-Dx	8-26-15	8-26-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*82*	*50-150*				
Client ID:	**MASSEX-4-7.0**					
Laboratory ID:	08-201-04					
Diesel Range Organics	**ND**	29	NWTPH-Dx	8-26-15	8-26-15	
Lube Oil	**61**	58	NWTPH-Dx	8-26-15	8-26-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*85*	*50-150*				
Client ID:	**MASSEX-5-7.0**					
Laboratory ID:	08-201-05					
Diesel Range Organics	**ND**	31	NWTPH-Dx	8-26-15	8-26-15	
Lube Oil Range Organics	**ND**	61	NWTPH-Dx	8-26-15	8-26-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*81*	*50-150*				
Client ID:	**MASSEX-6-7.0**					
Laboratory ID:	08-201-06					
Diesel Range Organics	**ND**	30	NWTPH-Dx	8-26-15	8-26-15	
Lube Oil Range Organics	**ND**	59	NWTPH-Dx	8-26-15	8-26-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*79*	*50-150*				
Client ID:	**MASSEX-7-7.0**					
Laboratory ID:	08-201-07					
Diesel Range Organics	**ND**	31	NWTPH-Dx	8-26-15	8-26-15	
Lube Oil Range Organics	**ND**	63	NWTPH-Dx	8-26-15	8-26-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*82*	*50-150*				

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Date of Report: August 31, 2015
Samples Submitted: August 19, 2015
Laboratory Reference: 1508-201
Project: 21138-001-03

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MASSEX-8-7.0**					
Laboratory ID:	08-201-08					
Diesel Range Organics	**ND**	31	NWTPH-Dx	8-26-15	8-26-15	
Lube Oil Range Organics	**ND**	61	NWTPH-Dx	8-26-15	8-26-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*79*	*50-150*				
Client ID:	**MASSEX-9-8.0**					
Laboratory ID:	08-201-09					
Diesel Range Organics	**ND**	30	NWTPH-Dx	8-26-15	8-26-15	
Lube Oil Range Organics	**ND**	60	NWTPH-Dx	8-26-15	8-26-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*98*	*50-150*				
Client ID:	**MASSEX-10-8.0**					
Laboratory ID:	08-201-10					
Diesel Range Organics	**ND**	30	NWTPH-Dx	8-26-15	8-26-15	
Lube Oil	**66**	59	NWTPH-Dx	8-26-15	8-26-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*93*	*50-150*				

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Date of Report: August 31, 2015
Samples Submitted: August 19, 2015
Laboratory Reference: 1508-201
Project: 21138-001-03

cPAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MASSEX-1-10.0**					
Laboratory ID:	08-201-01					
Benzo[a]anthracene	**ND**	0.0079	EPA 8270D/SIM	8-20-15	8-20-15	
Chrysene	**ND**	0.0079	EPA 8270D/SIM	8-20-15	8-20-15	
Benzo[b]fluoranthene	**ND**	0.0079	EPA 8270D/SIM	8-20-15	8-20-15	
Benzo(j,k)fluoranthene	**ND**	0.0079	EPA 8270D/SIM	8-20-15	8-20-15	
Benzo[a]pyrene	**ND**	0.0079	EPA 8270D/SIM	8-20-15	8-20-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0079	EPA 8270D/SIM	8-20-15	8-20-15	
Dibenz[a,h]anthracene	**ND**	0.0079	EPA 8270D/SIM	8-20-15	8-20-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*71*	*32 - 114*				
Pyrene-d10	*66*	*33 - 121*				
Terphenyl-d14	*80*	*31 - 116*				

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Date of Report: August 31, 2015
Samples Submitted: August 19, 2015
Laboratory Reference: 1508-201
Project: 21138-001-03

cPAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MASSEX-2-10.0**					
Laboratory ID:	08-201-02					
Benzo[a]anthracene	**ND**	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Chrysene	**ND**	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[b]fluoranthene	**ND**	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo(j,k)fluoranthene	**ND**	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[a]pyrene	**ND**	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Dibenz[a,h]anthracene	**ND**	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*105*	*32 - 114*				
Pyrene-d10	*65*	*33 - 121*				
Terphenyl-d14	*109*	*31 - 116*				

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Date of Report: August 31, 2015
Samples Submitted: August 19, 2015
Laboratory Reference: 1508-201
Project: 21138-001-03

cPAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MASSEX-3-7.0**					
Laboratory ID:	08-201-03					
Benzo[a]anthracene	**ND**	0.0080	EPA 8270D/SIM	8-24-15	8-25-15	
Chrysene	**ND**	0.0080	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[b]fluoranthene	**ND**	0.0080	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo(j,k)fluoranthene	**ND**	0.0080	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[a]pyrene	**ND**	0.0080	EPA 8270D/SIM	8-24-15	8-25-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0080	EPA 8270D/SIM	8-24-15	8-25-15	
Dibenz[a,h]anthracene	**ND**	0.0080	EPA 8270D/SIM	8-24-15	8-25-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*69*	*32 - 114*				
Pyrene-d10	*69*	*33 - 121*				
Terphenyl-d14	*79*	*31 - 116*				

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Date of Report: August 31, 2015
Samples Submitted: August 19, 2015
Laboratory Reference: 1508-201
Project: 21138-001-03

cPAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MASSEX-4-7.0**					
Laboratory ID:	08-201-04					
Benzo[a]anthracene	**ND**	0.0078	EPA 8270D/SIM	8-24-15	8-25-15	
Chrysene	**ND**	0.0078	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[b]fluoranthene	**ND**	0.0078	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo(j,k)fluoranthene	**ND**	0.0078	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[a]pyrene	**ND**	0.0078	EPA 8270D/SIM	8-24-15	8-25-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0078	EPA 8270D/SIM	8-24-15	8-25-15	
Dibenz[a,h]anthracene	**ND**	0.0078	EPA 8270D/SIM	8-24-15	8-25-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*73*	*32 - 114*				
Pyrene-d10	*76*	*33 - 121*				
Terphenyl-d14	*87*	*31 - 116*				

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Laboratory Reference: 1508-201
Project: 21138-001-03

cPAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MASSEX-5-7.0**					
Laboratory ID:	08-201-05					
Benzo[a]anthracene	**ND**	0.0081	EPA 8270D/SIM	8-24-15	8-25-15	
Chrysene	**ND**	0.0081	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[b]fluoranthene	**ND**	0.0081	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo(j,k)fluoranthene	**ND**	0.0081	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[a]pyrene	**ND**	0.0081	EPA 8270D/SIM	8-24-15	8-25-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0081	EPA 8270D/SIM	8-24-15	8-25-15	
Dibenz[a,h]anthracene	**ND**	0.0081	EPA 8270D/SIM	8-24-15	8-25-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*64*	*32 - 114*				
Pyrene-d10	*71*	*33 - 121*				
Terphenyl-d14	*79*	*31 - 116*				

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Project: 21138-001-03

cPAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MASSEX-6-7.0**					
Laboratory ID:	08-201-06					
Benzo[a]anthracene	**ND**	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Chrysene	**ND**	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[b]fluoranthene	**ND**	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo(j,k)fluoranthene	**ND**	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[a]pyrene	**ND**	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Dibenz[a,h]anthracene	**ND**	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*68*	*32 - 114*				
Pyrene-d10	*69*	*33 - 121*				
Terphenyl-d14	*79*	*31 - 116*				

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Project: 21138-001-03

cPAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MASSEX-7-7.0**					
Laboratory ID:	08-201-07					
Benzo[a]anthracene	**ND**	0.0083	EPA 8270D/SIM	8-24-15	8-25-15	
Chrysene	**ND**	0.0083	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[b]fluoranthene	**ND**	0.0083	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo(j,k)fluoranthene	**ND**	0.0083	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[a]pyrene	**ND**	0.0083	EPA 8270D/SIM	8-24-15	8-25-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0083	EPA 8270D/SIM	8-24-15	8-25-15	
Dibenz[a,h]anthracene	**ND**	0.0083	EPA 8270D/SIM	8-24-15	8-25-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*62*	*32 - 114*				
Pyrene-d10	*66*	*33 - 121*				
Terphenyl-d14	*76*	*31 - 116*				

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Project: 21138-001-03

cPAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MASSEX-8-7.0**					
Laboratory ID:	08-201-08					
Benzo[a]anthracene	**ND**	0.0081	EPA 8270D/SIM	8-24-15	8-25-15	
Chrysene	**ND**	0.0081	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[b]fluoranthene	**ND**	0.0081	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo(j,k)fluoranthene	**ND**	0.0081	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[a]pyrene	**ND**	0.0081	EPA 8270D/SIM	8-24-15	8-25-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0081	EPA 8270D/SIM	8-24-15	8-25-15	
Dibenz[a,h]anthracene	**ND**	0.0081	EPA 8270D/SIM	8-24-15	8-25-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*60*	*32 - 114*				
Pyrene-d10	*63*	*33 - 121*				
Terphenyl-d14	*70*	*31 - 116*				

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Samples Submitted: August 19, 2015
Laboratory Reference: 1508-201
Project: 21138-001-03

cPAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MASSEX-9-8.0**					
Laboratory ID:	08-201-09					
Benzo[a]anthracene	**ND**	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Chrysene	**ND**	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[b]fluoranthene	**ND**	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo(j,k)fluoranthene	**ND**	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[a]pyrene	**ND**	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Dibenz[a,h]anthracene	**ND**	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*68*	*32 - 114*				
Pyrene-d10	*67*	*33 - 121*				
Terphenyl-d14	*77*	*31 - 116*				

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Samples Submitted: August 19, 2015
Laboratory Reference: 1508-201
Project: 21138-001-03

cPAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MASSEX-10-8.0**					
Laboratory ID:	08-201-10					
Benzo[a]anthracene	**ND**	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Chrysene	**ND**	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[b]fluoranthene	**ND**	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo(j,k)fluoranthene	**ND**	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[a]pyrene	**ND**	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Dibenz[a,h]anthracene	**ND**	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*61*	*32 - 114*				
Pyrene-d10	*63*	*33 - 121*				
Terphenyl-d14	*73*	*31 - 116*				

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Date of Report: August 31, 2015
Samples Submitted: August 19, 2015
Laboratory Reference: 1508-201
Project: 21138-001-03

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0820S1					
Diesel Range Organics	**ND**	25	NWTPH-Dx	8-20-15	8-3-15	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	8-20-15	8-3-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*111*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	08-203-04										
	ORIG	DUP									
Diesel Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Lube Oil	**71.9**	**65.6**	NA	NA		NA		NA	9	NA	
Surrogate:											
o-Terphenyl						*101*	*95*	*50-150*			

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Date of Report: August 31, 2015
Samples Submitted: August 19, 2015
Laboratory Reference: 1508-201
Project: 21138-001-03

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0826S1					
Diesel Range Organics	**ND**	25	NWTPH-Dx	8-26-15	8-26-15	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	8-26-15	8-26-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*92*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE										
Laboratory ID:	08-201-04									
	ORIG	DUP								
Diesel Range	**ND**	**ND**	NA	NA		NA	NA	NA	NA	
Lube Oil	**52.0**	**ND**	NA	NA		NA	NA	NA	NA	
Surrogate:										
o-Terphenyl						*85* *93*	*50-150*			

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Date of Report: August 31, 2015
Samples Submitted: August 19, 2015
Laboratory Reference: 1508-201
Project: 21138-001-03

cPAHs EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0820S2					
Benzo[a]anthracene	**ND**	0.0067	EPA 8270D/SIM	8-20-15	8-20-15	
Chrysene	**ND**	0.0067	EPA 8270D/SIM	8-20-15	8-20-15	
Benzo[b]fluoranthene	**ND**	0.0067	EPA 8270D/SIM	8-20-15	8-20-15	
Benzo(j,k)fluoranthene	**ND**	0.0067	EPA 8270D/SIM	8-20-15	8-20-15	
Benzo[a]pyrene	**ND**	0.0067	EPA 8270D/SIM	8-20-15	8-20-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0067	EPA 8270D/SIM	8-20-15	8-20-15	
Dibenz[a,h]anthracene	**ND**	0.0067	EPA 8270D/SIM	8-20-15	8-20-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*91*	*32 - 114*				
Pyrene-d10	*93*	*33 - 121*				
Terphenyl-d14	*104*	*31 - 116*				

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Date of Report: August 31, 2015
Samples Submitted: August 19, 2015
Laboratory Reference: 1508-201
Project: 21138-001-03

cPAHs EPA 8270D/SIM
MS/MSD QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	08-201-01										
	MS	MSD	MS	MSD		MS	MSD				
Naphthalene	**0.0602**	**0.0620**	0.0833	0.0833	ND	72	74	44 - 107	3	29	
Acenaphthylene	**0.0598**	**0.0615**	0.0833	0.0833	ND	72	74	44 - 121	3	27	
Acenaphthene	**0.0607**	**0.0621**	0.0833	0.0833	ND	73	75	47 - 109	2	26	
Fluorene	**0.0620**	**0.0629**	0.0833	0.0833	ND	74	76	49 - 115	1	28	
Phenanthrene	**0.0597**	**0.0590**	0.0833	0.0833	ND	72	71	45 - 114	1	26	
Anthracene	**0.0912**	**0.0900**	0.0833	0.0833	ND	109	108	43 - 140	1	27	
Fluoranthene	**0.0557**	**0.0549**	0.0833	0.0833	ND	67	66	44 - 126	1	27	
Pyrene	**0.0612**	**0.0606**	0.0833	0.0833	ND	73	73	43 - 125	1	27	
Benzo[a]anthracene	**0.0694**	**0.0687**	0.0833	0.0833	ND	83	82	42 - 134	1	27	
Chrysene	**0.0569**	**0.0564**	0.0833	0.0833	ND	68	68	45 - 114	1	27	
Benzo[b]fluoranthene	**0.0571**	**0.0575**	0.0833	0.0833	ND	69	69	38 - 131	1	33	
Benzo(j,k)fluoranthene	**0.0604**	**0.0596**	0.0833	0.0833	ND	73	72	44 - 114	1	34	
Benzo[a]pyrene	**0.0609**	**0.0608**	0.0833	0.0833	ND	73	73	40 - 136	0	29	
Indeno(1,2,3-c,d)pyrene	**0.0586**	**0.0586**	0.0833	0.0833	ND	70	70	45 - 126	0	30	
Dibenz[a,h]anthracene	**0.0556**	**0.0558**	0.0833	0.0833	ND	67	67	46 - 121	0	28	
Benzo[g,h,i]perylene	**0.0589**	**0.0594**	0.0833	0.0833	ND	71	71	43 - 120	1	31	
Surrogate:											
2-Fluorobiphenyl						*82*	*85*	*32 - 114*			
Pyrene-d10						*70*	*70*	*33 - 121*			
Terphenyl-d14						*87*	*88*	*31 - 116*			

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Date of Report: August 31, 2015
Samples Submitted: August 19, 2015
Laboratory Reference: 1508-201
Project: 21138-001-03

cPAHs EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0824S1					
Benzo[a]anthracene	**ND**	0.0067	EPA 8270D/SIM	8-24-15	8-25-15	
Chrysene	**ND**	0.0067	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[b]fluoranthene	**ND**	0.0067	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo(j,k)fluoranthene	**ND**	0.0067	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[a]pyrene	**ND**	0.0067	EPA 8270D/SIM	8-24-15	8-25-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0067	EPA 8270D/SIM	8-24-15	8-25-15	
Dibenz[a,h]anthracene	**ND**	0.0067	EPA 8270D/SIM	8-24-15	8-25-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*80*	*32 - 114*				
Pyrene-d10	*86*	*33 - 121*				
Terphenyl-d14	*94*	*31 - 116*				

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Date of Report: August 31, 2015
Samples Submitted: August 19, 2015
Laboratory Reference: 1508-201
Project: 21138-001-03

cPAHs EPA 8270D/SIM
MS/MSD QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	08-201-02										
	MS	MSD	MS	MSD		MS	MSD				
Naphthalene	**0.0625**	**0.0608**	0.0833	0.0833	ND	75	73	44 - 107	3	29	
Acenaphthylene	**0.0667**	**0.0662**	0.0833	0.0833	ND	80	79	44 - 121	1	27	
Acenaphthene	**0.0666**	**0.0659**	0.0833	0.0833	ND	80	79	47 - 109	1	26	
Fluorene	**0.0710**	**0.0686**	0.0833	0.0833	ND	85	82	49 - 115	3	28	
Phenanthrene	**0.0645**	**0.0630**	0.0833	0.0833	ND	77	76	45 - 114	2	26	
Anthracene	**0.104**	**0.102**	0.0833	0.0833	ND	125	122	43 - 140	2	27	
Fluoranthene	**0.0642**	**0.0627**	0.0833	0.0833	ND	77	75	44 - 126	2	27	
Pyrene	**0.0684**	**0.0663**	0.0833	0.0833	ND	82	80	43 - 125	3	27	
Benzo[a]anthracene	**0.0810**	**0.0787**	0.0833	0.0833	ND	97	94	42 - 134	3	27	
Chrysene	**0.0609**	**0.0596**	0.0833	0.0833	ND	73	72	45 - 114	2	27	
Benzo[b]fluoranthene	**0.0721**	**0.0694**	0.0833	0.0833	ND	87	83	38 - 131	4	33	
Benzo(j,k)fluoranthene	**0.0647**	**0.0636**	0.0833	0.0833	ND	78	76	44 - 114	2	34	
Benzo[a]pyrene	**0.0735**	**0.0721**	0.0833	0.0833	ND	88	87	40 - 136	2	29	
Indeno(1,2,3-c,d)pyrene	**0.0708**	**0.0709**	0.0833	0.0833	ND	85	85	45 - 126	0	30	
Dibenz[a,h]anthracene	**0.0667**	**0.0651**	0.0833	0.0833	ND	80	78	46 - 121	2	28	
Benzo[g,h,i]perylene	**0.0680**	**0.0664**	0.0833	0.0833	ND	82	80	43 - 120	2	31	
Surrogate:											
2-Fluorobiphenyl						*75*	*75*	*32 - 114*			
Pyrene-d10						*76*	*74*	*33 - 121*			
Terphenyl-d14						*87*	*85*	*31 - 116*			

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Date of Report: August 31, 2015
Samples Submitted: August 19, 2015
Laboratory Reference: 1508-201
Project: 21138-001-03

% MOISTURE

Date Analyzed: 8-20&24-15

Client ID	Lab ID	% Moisture
MASSEX-1-10.0	08-201-01	15
MASSEX-2-10.0	08-201-02	15
MASSEX-3-7.0	08-201-03	17
MASSEX-4-7.0	08-201-04	14
MASSEX-5-7.0	08-201-05	18
MASSEX-6-7.0	08-201-06	15
MASSEX-7-7.0	08-201-07	20
MASSEX-8-7.0	08-201-08	18
MASSEX-9-8.0	08-201-09	16
MASSEX-10-8.0	08-201-10	16

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OnSite Environmental Inc.

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-napthalene) 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

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: GEOENGINEERS
Project Number: 21138-001-03
Project Name: 9th & LENORA PROJECT
Project Manager: FASIH KHAN
Sampled by: FASIH KHAN

Turnaround Request (in working days)

(Check One)

- [X] Same Day (NO)
- [ ] 1 Day (YES)
- [ ] 2 Days
- [ ] 3 Days
- [ ] Standard (7 Days) (TPH analysis 5 Days)
- [ ] _____ (other)

Laboratory Number: 08-201

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	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	cPAHs		HOLD			% Moisture
1	MASSEX-1-10.0	8/14/15	1400	S	1				X													X					X
2	MASSEX-2-10.0	8/14/15	1420						O													O		X			O
3	MASSEX-3-7.0	8/15/15	1210						O													O		X			O
4	MASSEX-4-7.0	8/15/15	1220						O													O		X			O
5	MASSEX-5-7.0	8/17/15	1310						O													O		X			O
6	MASSEX-6-7.0	8/17/15	1335						O													O		X			O
7	MASSEX-7-7.0	8/18/15	1030						O													O		X			O
8	MASSEX-8-7.0	8/18/15	1045						O													O		X			O
9	MASSEX-9-8.0	8/19/15	1130						O													O		X			O
10	MASSEX-10-8.0	8/19/15	1150	↓	↓				O													O		X			O

	Signature	Company	Date	Time
Relinquished		GEI	8/19/15	1640
Received		COSC	8/19/15	1640
Relinquished				
Received				
Relinquished				
Received				

Comments/Special Instructions

O Added 8/21/15. (STA)

Reviewed/Date

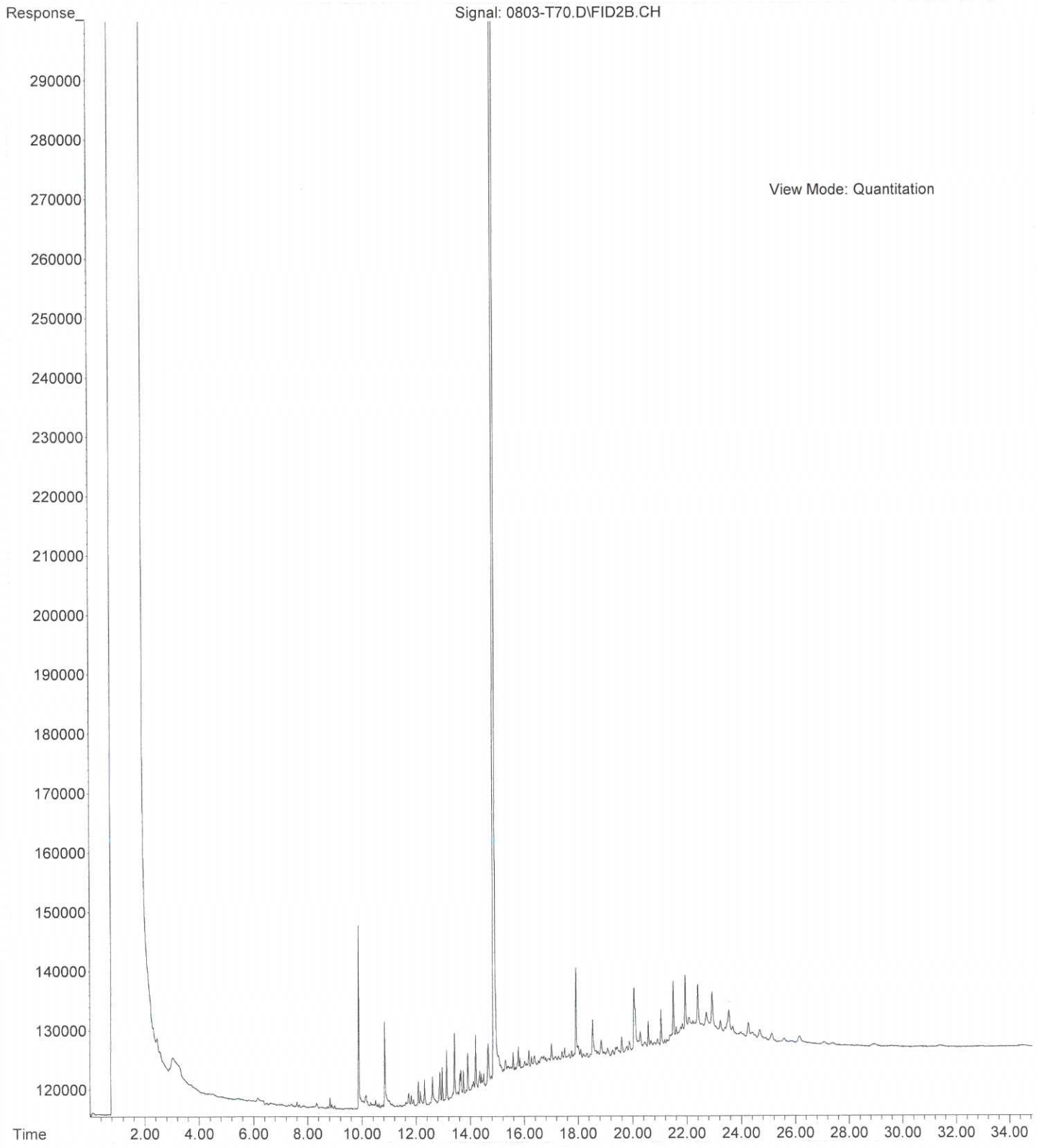
Reviewed/Date

Chromatograms with final report ☐

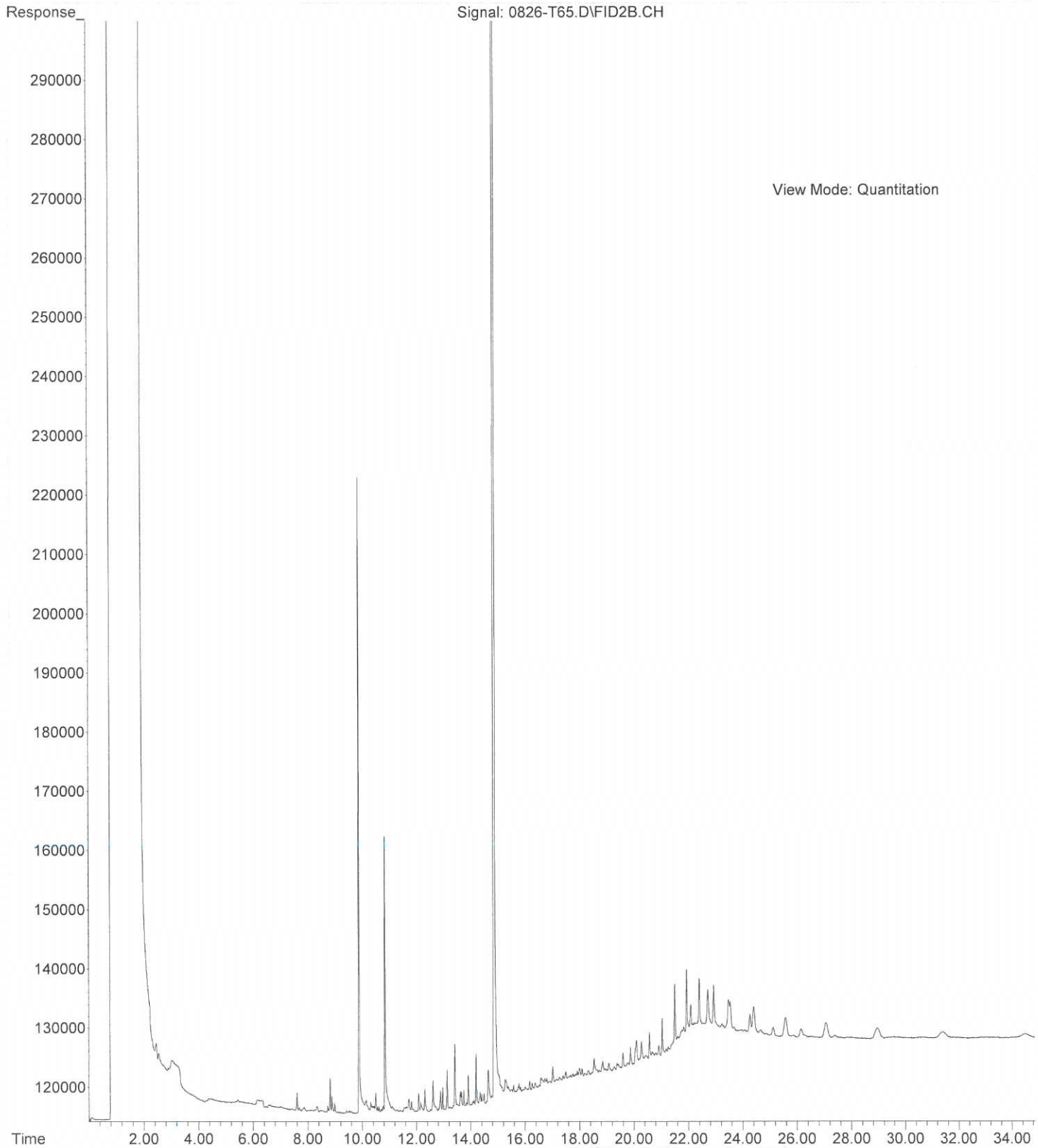
Data Package: Standard ☐ Level III ☐ Level IV ☐

Electronic Data Deliverables (EDDs) ☐ _____

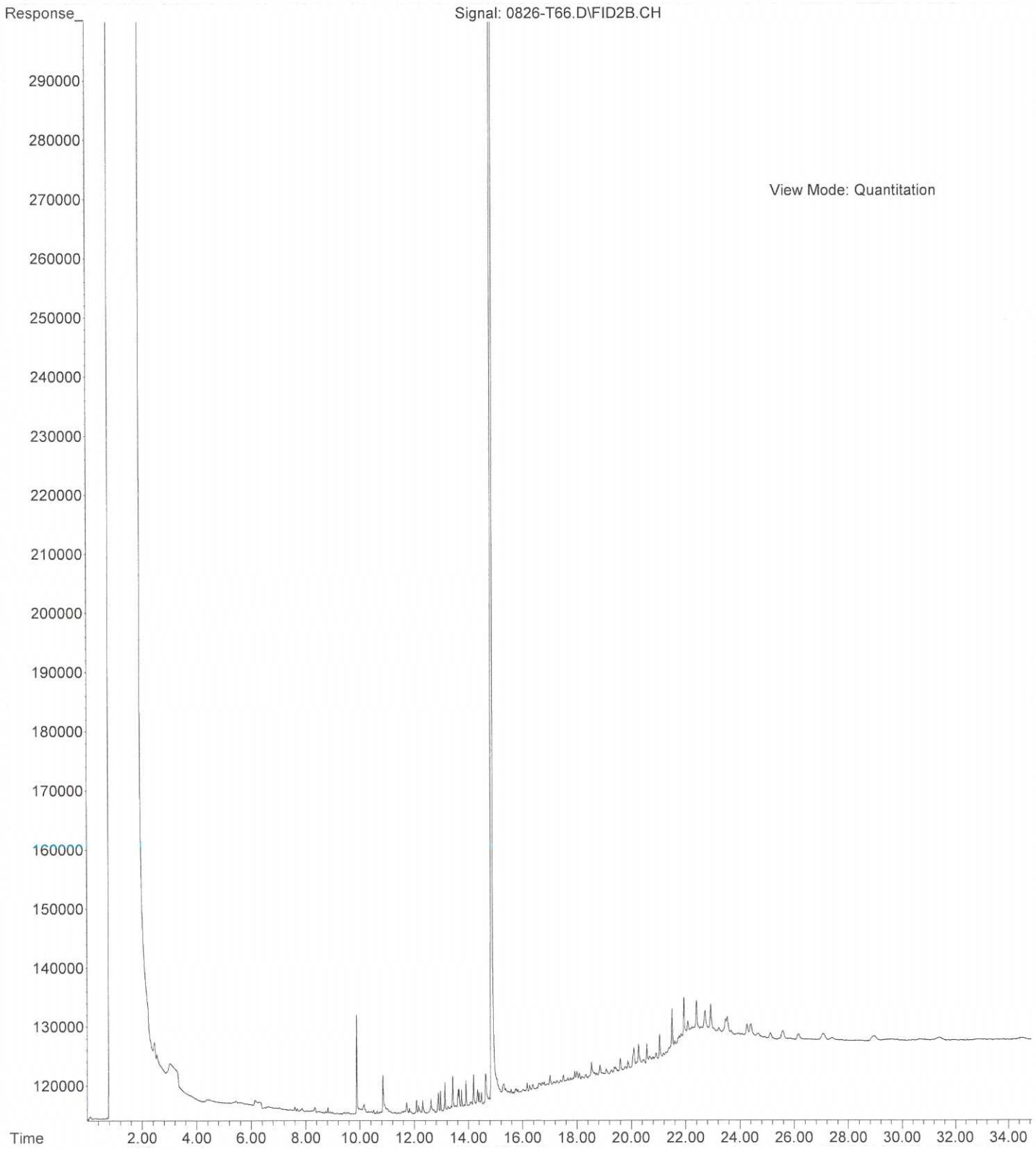
File :X:\DIESELS\TERI\DATA\T150820.SEC\0803-T70.D
Operator : ZT
Acquired : 21 Aug 2015 5:06 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 08-201-01
Misc Info :
Vial Number: 70



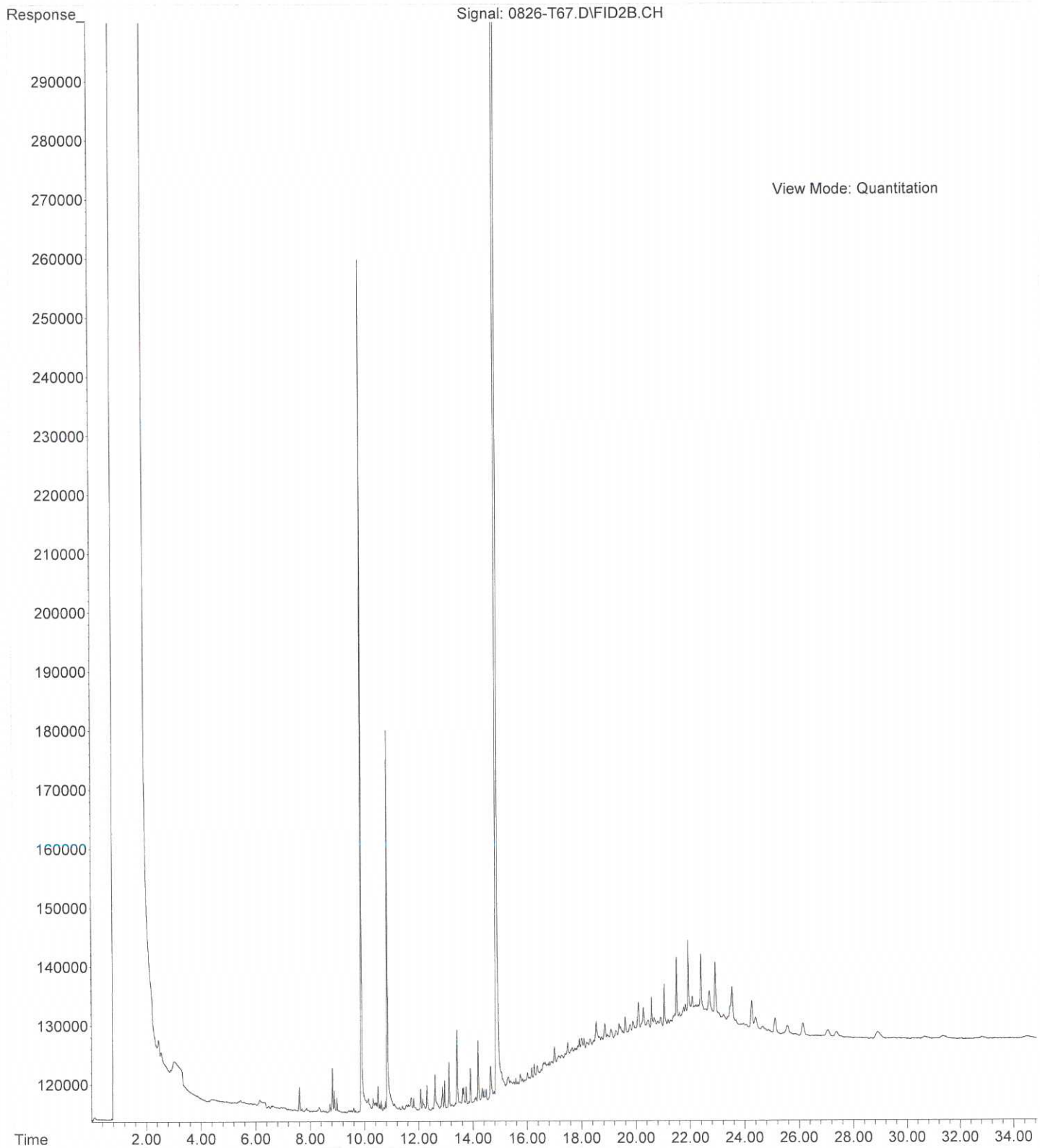
File :X:\DIESELS\TERI\DATA\T150826.SEC\0826-T65.D
Operator : ZT
Acquired : 26 Aug 2015 21:47 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 08-201-02
Misc Info :
Vial Number: 65



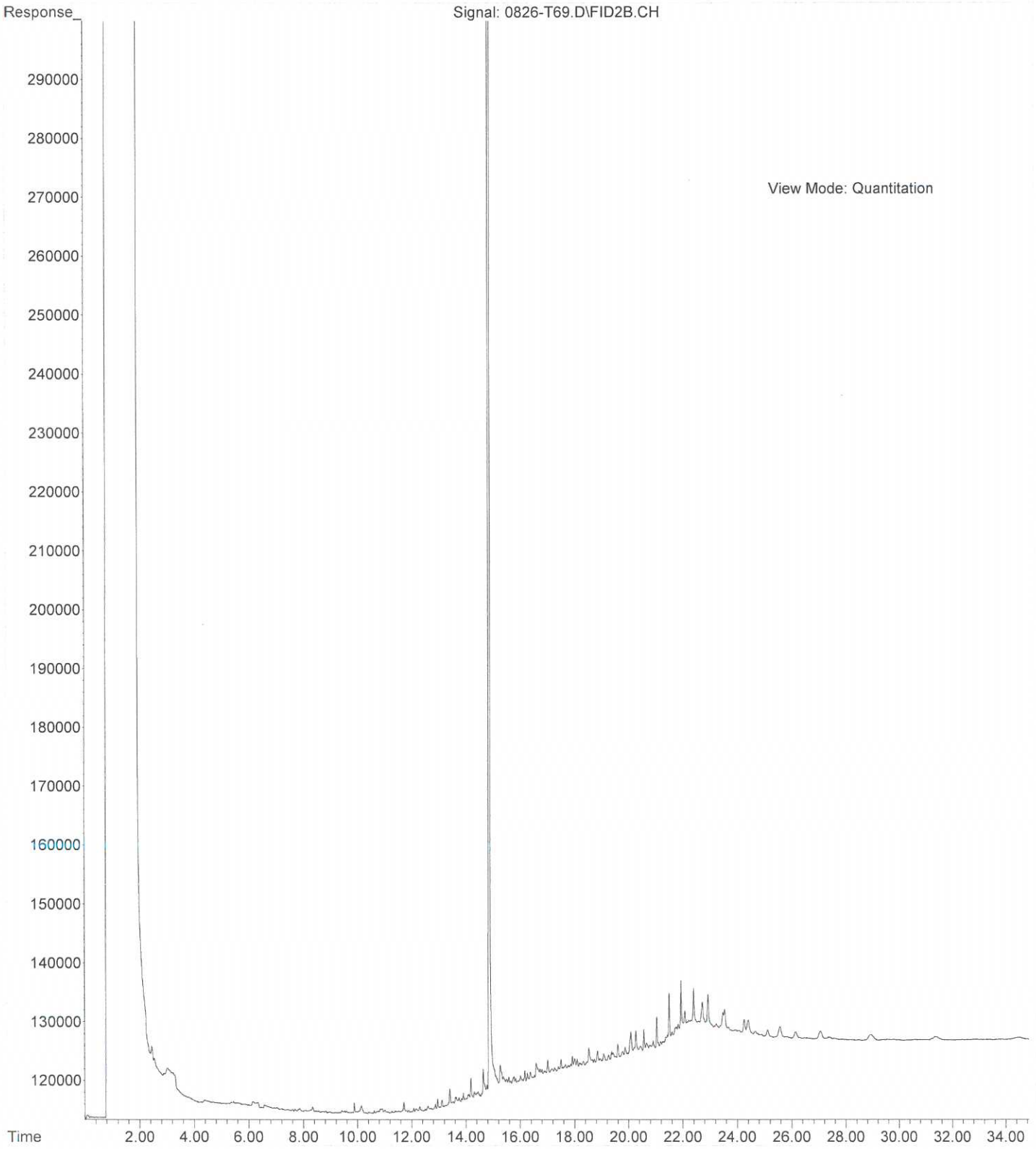
File :X:\DIESELS\TERI\DATA\T150826.SEC\0826-T66.D
Operator : ZT
Acquired : 26 Aug 2015 22:30 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 08-201-03
Misc Info :
Vial Number: 66



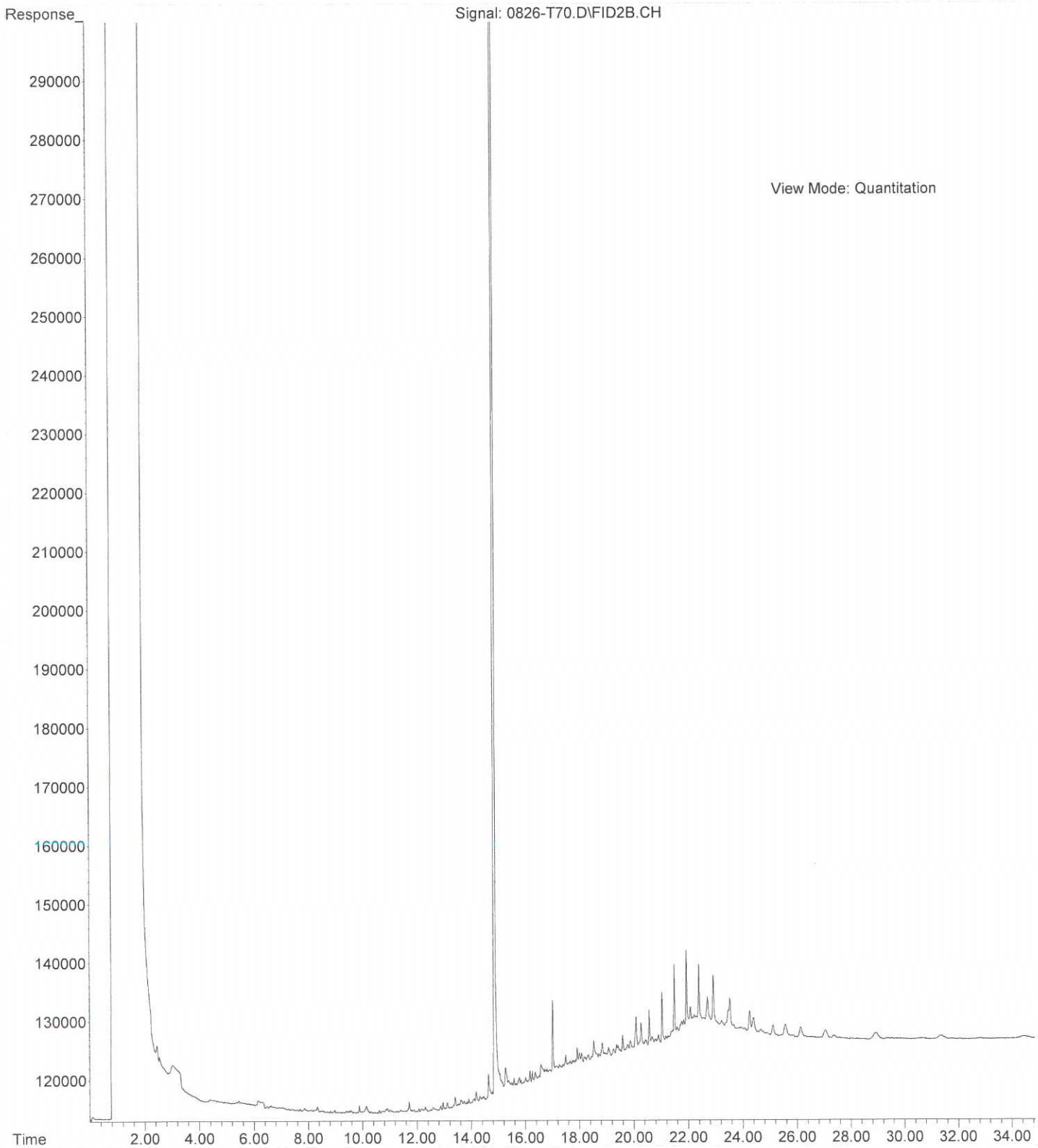
File : X:\DIESELS\TERI\DATA\T150826.SEC\0826-T67.D
Operator : ZT
Acquired : 26 Aug 2015 23:14 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 08-201-04
Misc Info :
Vial Number: 67



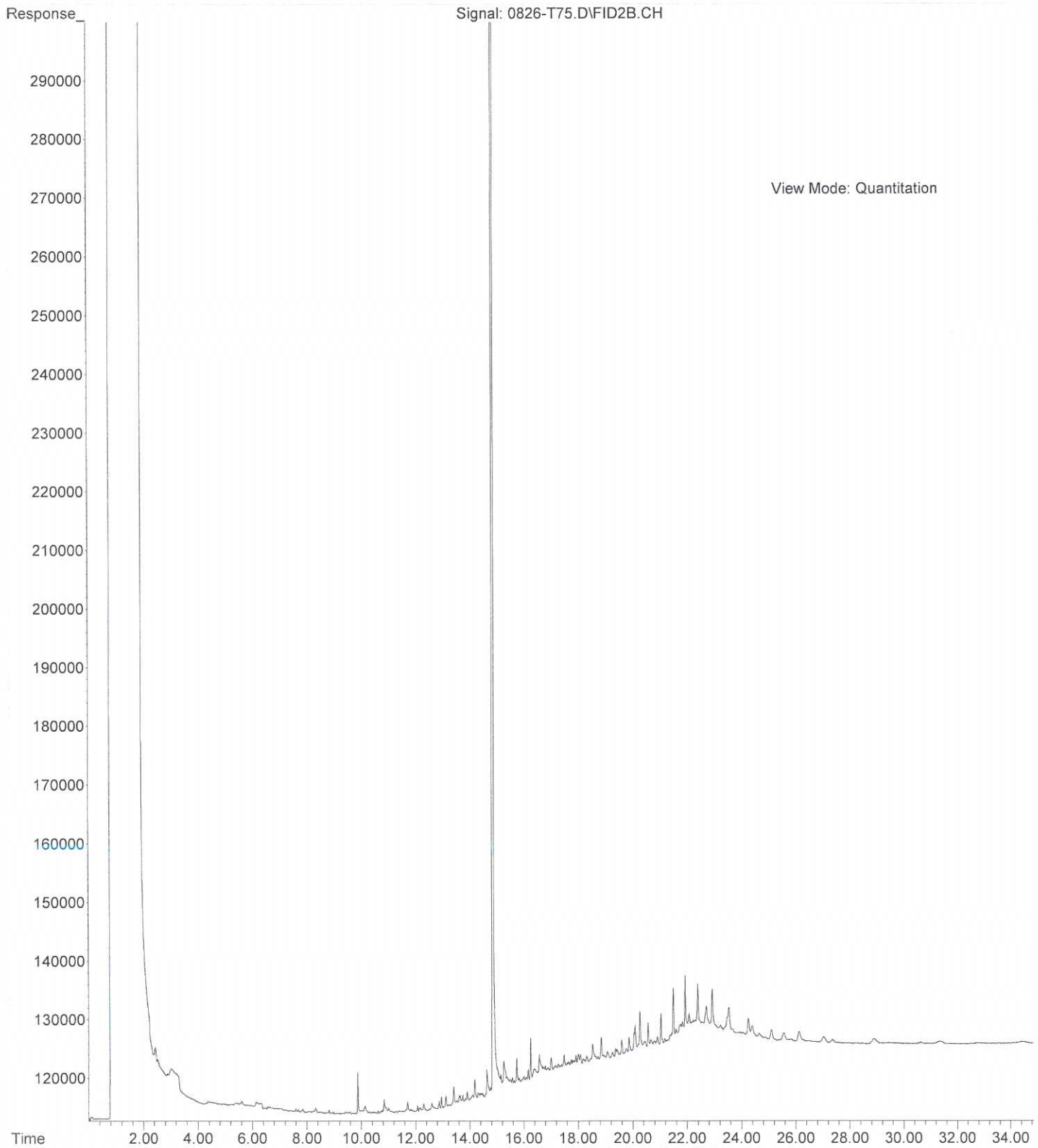
File :X:\DIESELS\TERI\DATA\T150826.SEC\0826-T69.D
Operator : ZT
Acquired : 27 Aug 2015 0:40 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 08-201-05
Misc Info :
Vial Number: 69



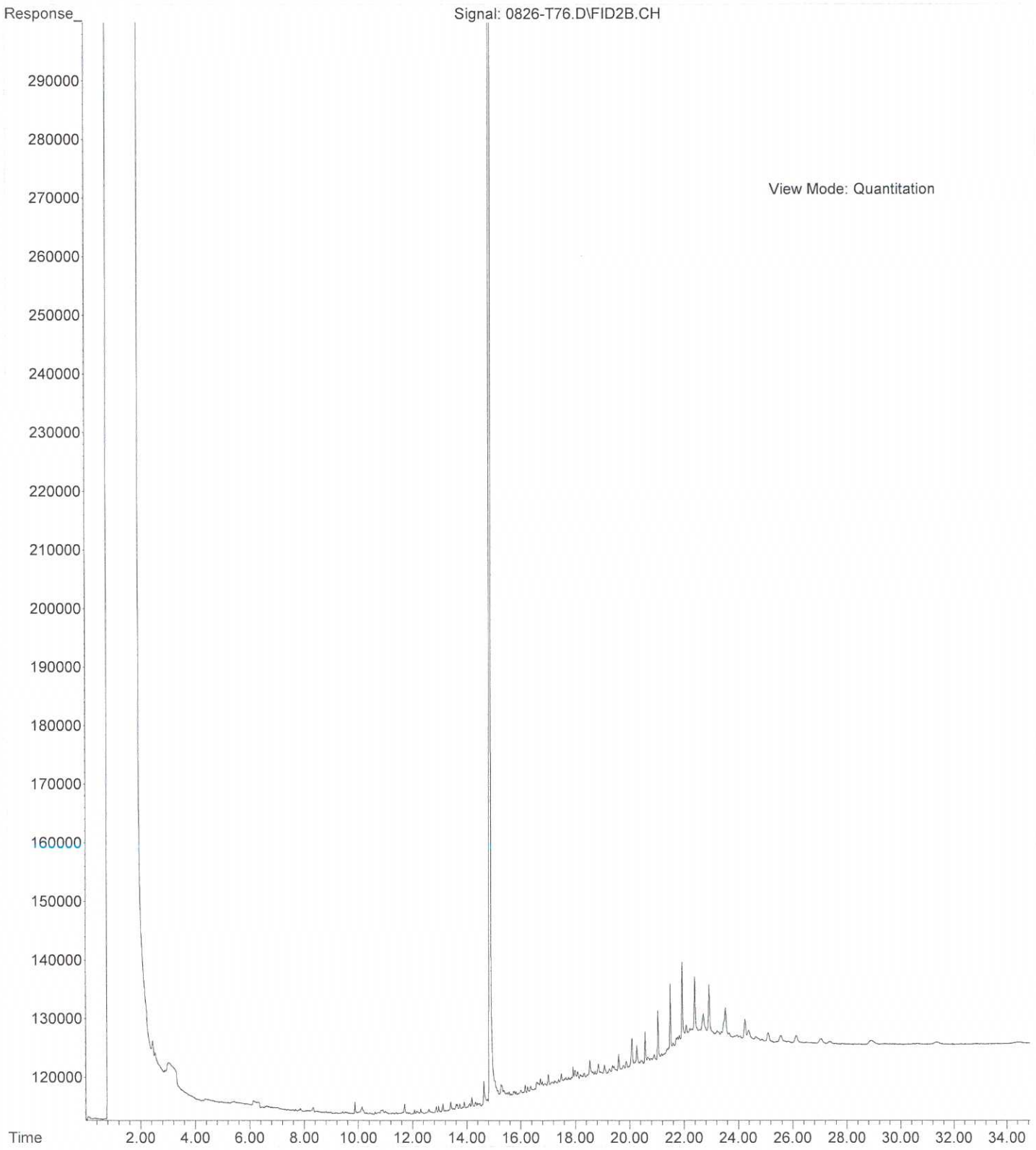
File :X:\DIESELS\TERI\DATA\T150826.SEC\0826-T70.D
Operator : ZT
Acquired : 27 Aug 2015 1:24 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 08-201-06
Misc Info :
Vial Number: 70



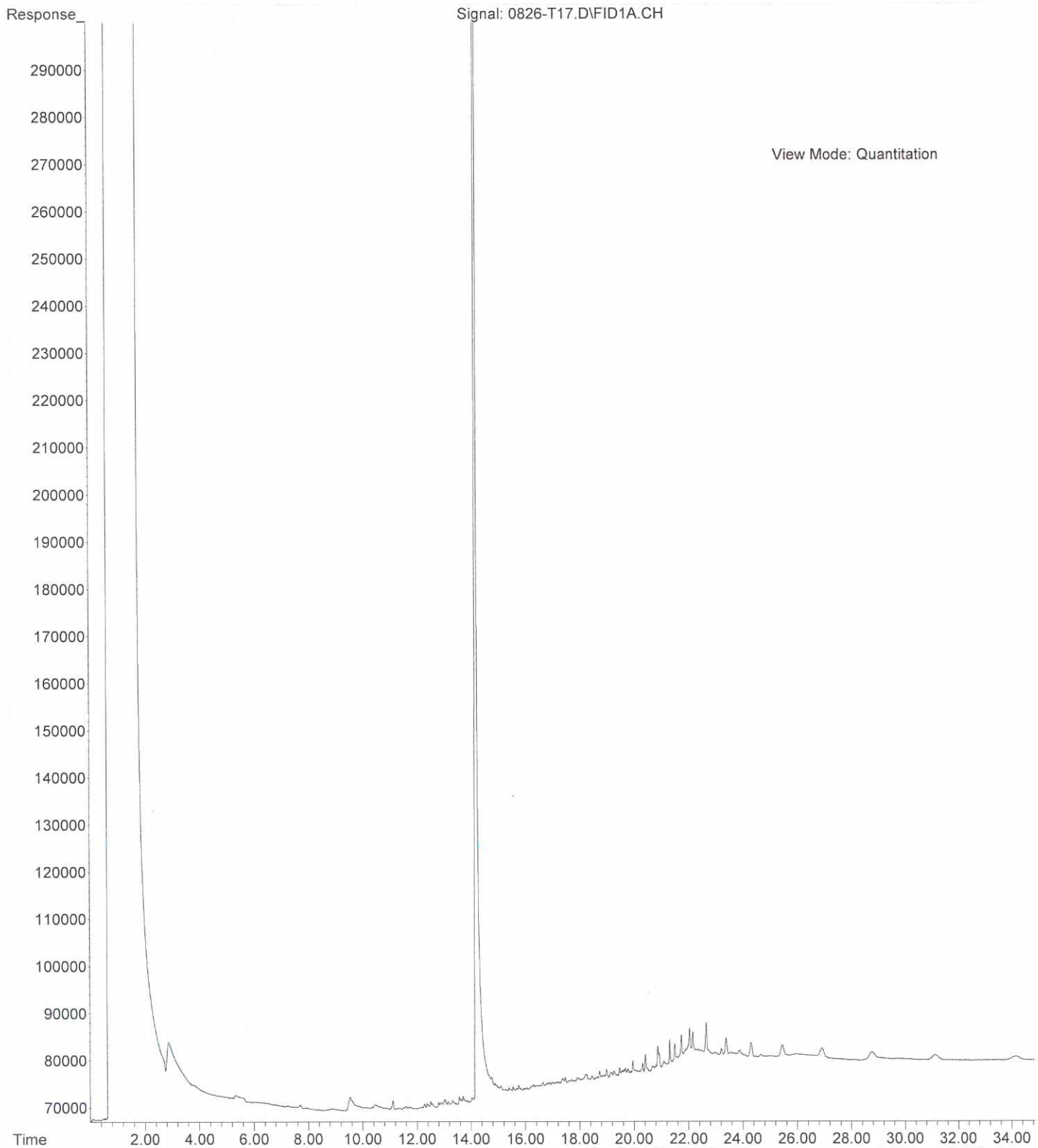
File :X:\DIESELS\TERI\DATA\T150826.SEC\0826-T75.D
Operator : ZT
Acquired : 27 Aug 2015 4:59 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 08-201-07
Misc Info :
Vial Number: 75



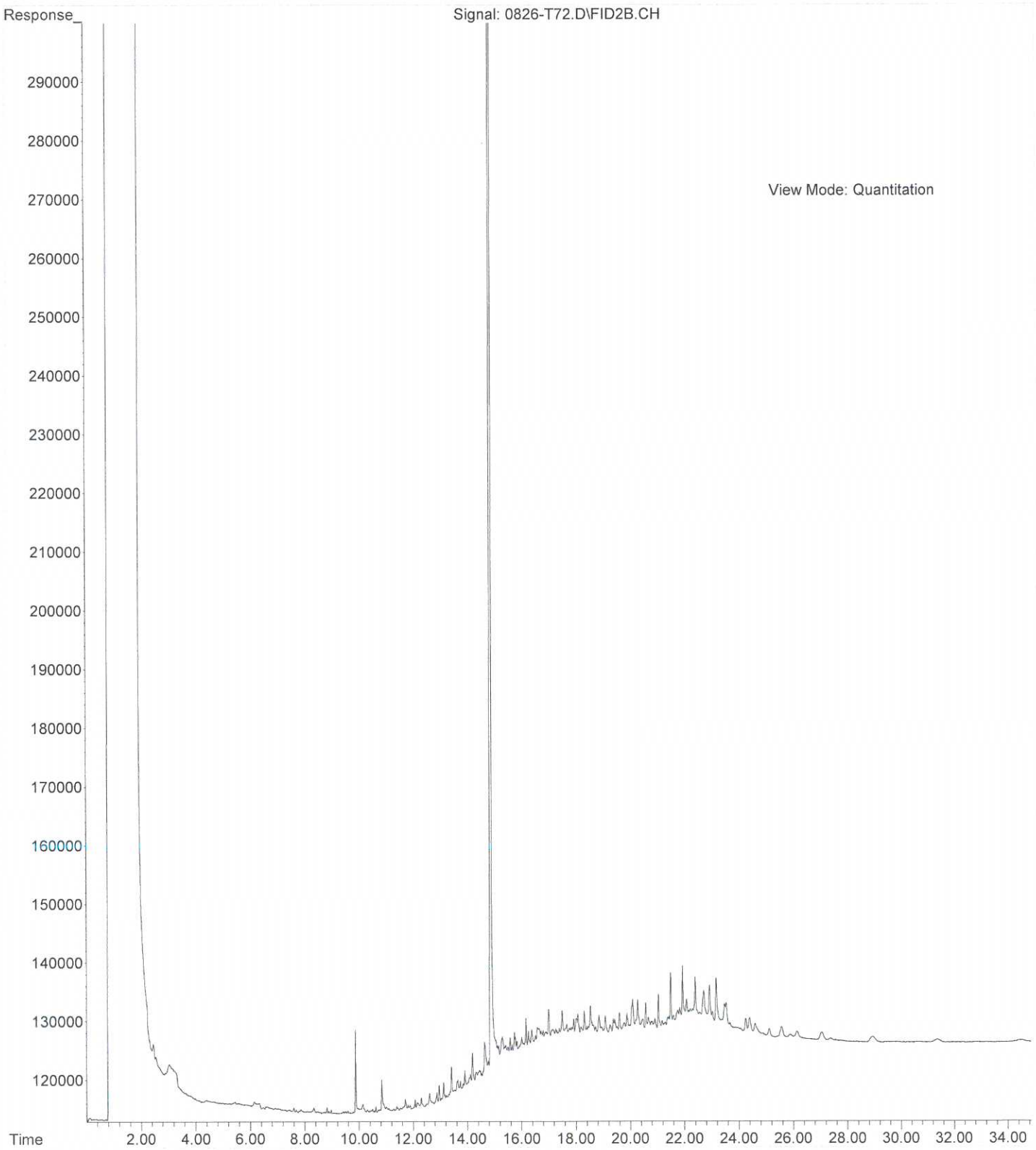
File :X:\DIESELS\TERI\DATA\T150826.SEC\0826-T76.D
Operator : ZT
Acquired : 27 Aug 2015 5:42 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 08-201-08
Misc Info :
Vial Number: 76



File :X:\DIESELS\TERI\DATA\T150826\0826-T17.D
Operator : ZT
Acquired : 26 Aug 2015 23:14 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 08-201-09
Misc Info :
Vial Number: 17



File :X:\DIESELS\TERI\DATA\T150826.SEC\0826-T72.D
Operator : ZT
Acquired : 27 Aug 2015 2:50 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 08-201-10
Misc Info :
Vial Number: 72



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

August 27, 2015

Fasih Khan
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03
Laboratory Reference No. 1508-217

Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on August 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,

David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 27, 2015
Samples Submitted: August 21, 2015
Laboratory Reference: 1508-217
Project: 21138-001-03

Case Narrative

Samples were collected on August 20, 2015 and received by the laboratory on August 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.

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 27, 2015
Samples Submitted: August 21, 2015
Laboratory Reference: 1508-217
Project: 21138-001-03

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
MASSEX-11-15.0	08-217-01	Soil	8-20-15	8-21-15	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 27, 2015
Samples Submitted: August 21, 2015
Laboratory Reference: 1508-217
Project: 21138-001-03

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MASSEX-11-15.0**					
Laboratory ID:	08-217-01					
Diesel Range Organics	**ND**	29	NWTPH-Dx	8-25-15	8-25-15	
Lube Oil Range Organics	**ND**	57	NWTPH-Dx	8-25-15	8-25-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*100*	*50-150*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 27, 2015
Samples Submitted: August 21, 2015
Laboratory Reference: 1508-217
Project: 21138-001-03

cPAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MASSEX-11-15.0**					
Laboratory ID:	08-217-01					
Benzo[a]anthracene	**ND**	0.0076	EPA 8270D/SIM	8-24-15	8-25-15	
Chrysene	**ND**	0.0076	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[b]fluoranthene	**ND**	0.0076	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo(j,k)fluoranthene	**ND**	0.0076	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[a]pyrene	**ND**	0.0076	EPA 8270D/SIM	8-24-15	8-25-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0076	EPA 8270D/SIM	8-24-15	8-25-15	
Dibenz[a,h]anthracene	**ND**	0.0076	EPA 8270D/SIM	8-24-15	8-25-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*64*	*32 - 114*				
Pyrene-d10	*66*	*33 - 121*				
Terphenyl-d14	*74*	*31 - 116*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 27, 2015
Samples Submitted: August 21, 2015
Laboratory Reference: 1508-217
Project: 21138-001-03

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0825S1					
Diesel Range Organics	**ND**	25	NWTPH-Dx	8-25-15	8-25-15	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	8-25-15	8-25-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*116*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	08-230-01										
	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						*88*	*94*	*50-150*			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 27, 2015
Samples Submitted: August 21, 2015
Laboratory Reference: 1508-217
Project: 21138-001-03

cPAHs EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0824S1					
Benzo[a]anthracene	**ND**	0.0067	EPA 8270D/SIM	8-24-15	8-25-15	
Chrysene	**ND**	0.0067	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[b]fluoranthene	**ND**	0.0067	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo(j,k)fluoranthene	**ND**	0.0067	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[a]pyrene	**ND**	0.0067	EPA 8270D/SIM	8-24-15	8-25-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0067	EPA 8270D/SIM	8-24-15	8-25-15	
Dibenz[a,h]anthracene	**ND**	0.0067	EPA 8270D/SIM	8-24-15	8-25-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*80*	*32 - 114*				
Pyrene-d10	*86*	*33 - 121*				
Terphenyl-d14	*94*	*31 - 116*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 27, 2015
Samples Submitted: August 21, 2015
Laboratory Reference: 1508-217
Project: 21138-001-03

cPAHs EPA 8270D/SIM
MS/MSD QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	08-201-02										
	MS	MSD	MS	MSD		MS	MSD				
Naphthalene	**0.0625**	**0.0608**	0.0833	0.0833	ND	75	73	44 - 107	3	29	
Acenaphthylene	**0.0667**	**0.0662**	0.0833	0.0833	ND	80	79	44 - 121	1	27	
Acenaphthene	**0.0666**	**0.0659**	0.0833	0.0833	ND	80	79	47 - 109	1	26	
Fluorene	**0.0710**	**0.0686**	0.0833	0.0833	ND	85	82	49 - 115	3	28	
Phenanthrene	**0.0645**	**0.0630**	0.0833	0.0833	ND	77	76	45 - 114	2	26	
Anthracene	**0.104**	**0.102**	0.0833	0.0833	ND	125	122	43 - 140	2	27	
Fluoranthene	**0.0642**	**0.0627**	0.0833	0.0833	ND	77	75	44 - 126	2	27	
Pyrene	**0.0684**	**0.0663**	0.0833	0.0833	ND	82	80	43 - 125	3	27	
Benzo[a]anthracene	**0.0810**	**0.0787**	0.0833	0.0833	ND	97	94	42 - 134	3	27	
Chrysene	**0.0609**	**0.0596**	0.0833	0.0833	ND	73	72	45 - 114	2	27	
Benzo[b]fluoranthene	**0.0721**	**0.0694**	0.0833	0.0833	ND	87	83	38 - 131	4	33	
Benzo(j,k)fluoranthene	**0.0647**	**0.0636**	0.0833	0.0833	ND	78	76	44 - 114	2	34	
Benzo[a]pyrene	**0.0735**	**0.0721**	0.0833	0.0833	ND	88	87	40 - 136	2	29	
Indeno(1,2,3-c,d)pyrene	**0.0708**	**0.0709**	0.0833	0.0833	ND	85	85	45 - 126	0	30	
Dibenz[a,h]anthracene	**0.0667**	**0.0651**	0.0833	0.0833	ND	80	78	46 - 121	2	28	
Benzo[g,h,i]perylene	**0.0680**	**0.0664**	0.0833	0.0833	ND	82	80	43 - 120	2	31	
Surrogate:											
2-Fluorobiphenyl						*75*	*75*	*32 - 114*			
Pyrene-d10						*76*	*74*	*33 - 121*			
Terphenyl-d14						*87*	*85*	*31 - 116*			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 27, 2015
Samples Submitted: August 21, 2015
Laboratory Reference: 1508-217
Project: 21138-001-03

% MOISTURE

Date Analyzed: 8-24-15

Client ID	Lab ID	% Moisture
MASSEX-11-15.0	08-217-01	12

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

OnSite Environmental Inc.

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-napthalene) 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

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: GEOENGINEERS
Project Number: 21138-001-03
Project Name: 9th & LENORA PROJECT
Project Manager: FASIH KHAN
Sampled by: FASIH KHAN

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☒ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Laboratory Number: 08-217

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	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	cPAH only					% Moisture
1	MASSEX-11-15.0	8/20/15	1420	S	1				X													X					X

	Signature	Company	Date	Time
Relinquished		GEI	8/21/15	0840
Received		OSE	8/21/15	0840
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

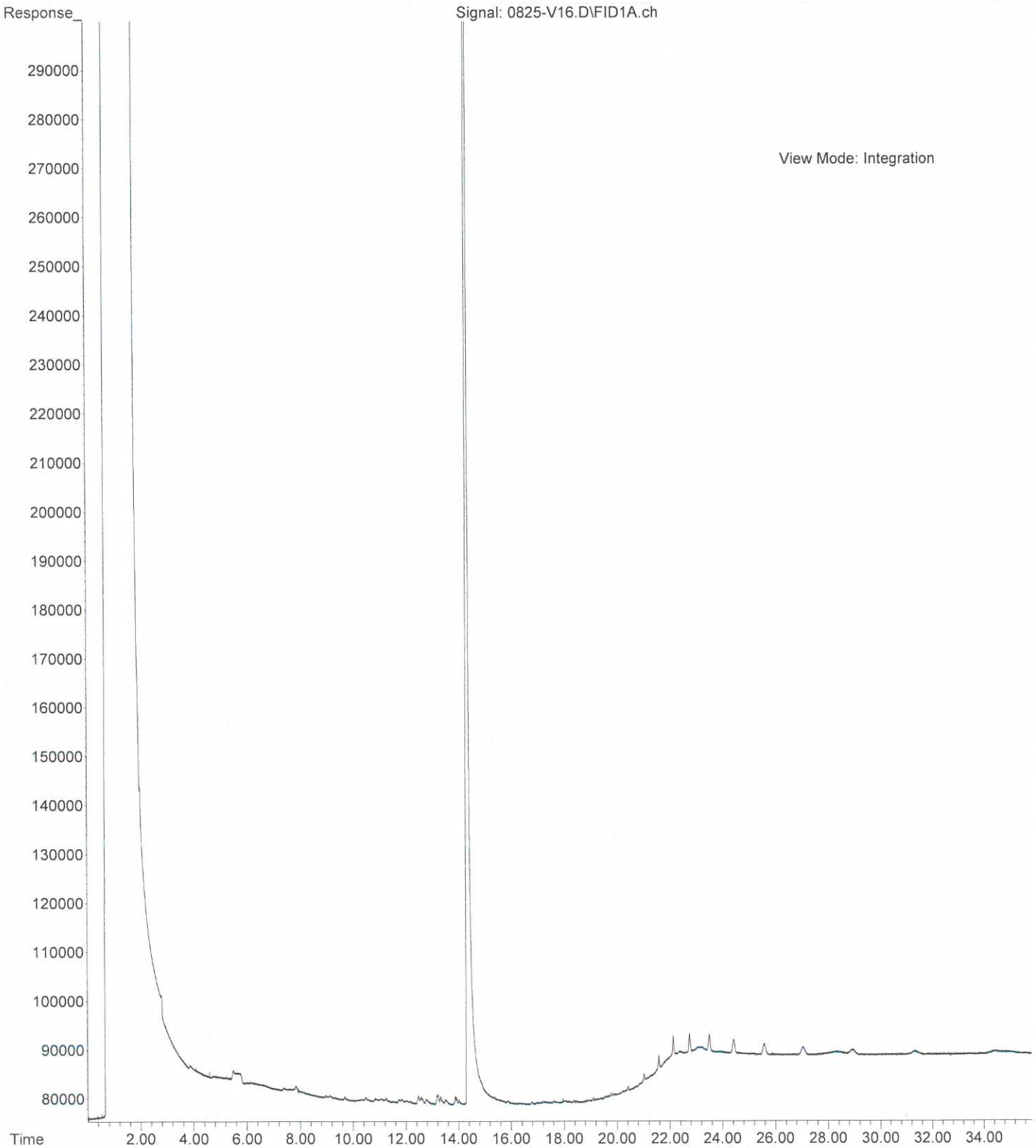
Comments/Special Instructions

Chromatograms with final report ☐

Data Package: Standard ☐ Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ _____

20 °C

File :X:\DIESELS\VIGO\DATA\V150825\0825-V16.D
Operator :
Acquired : 25 Aug 2015 21:33 using AcqMethod V150507F.M
Instrument : Vigo
Sample Name: 08-217-01
Misc Info :
Vial Number: 16



OnSite Environmental Inc.

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

June 17, 2015

Fasih Khan
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-0
Laboratory Reference No. 1506-134

Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on June 12, 2015.

Please note that this is a *revised* report, and replaces the original due to revisions of the sample identifications.

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,

David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 17, 2015
Samples Submitted: June 12, 2015
Laboratory Reference: 1506-134
Project: 21138-001-0

Case Narrative

Samples were collected on June 11, 2015 and received by the laboratory on June 12, 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.

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 17, 2015
Samples Submitted: June 12, 2015
Laboratory Reference: 1506-134
Project: 21138-001-0

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
UST3-N-3.0	06-134-01	Soil	6-11-15	6-12-15	
UST3-S-3.0	06-134-02	Soil	6-11-15	6-12-15	
UST3-B-7.0	06-134-03	Soil	6-11-15	6-12-15	
UST3-FL-2.0	06-134-04	Soil	6-11-15	6-12-15	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 17, 2015
Samples Submitted: June 12, 2015
Laboratory Reference: 1506-134
Project: 21138-001-0

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST3-B-7.0**					
Laboratory ID:	06-134-03					
Diesel Fuel #2	**2300**	29	NWTPH-Dx	6-12-15	6-12-15	
Lube Oil	**1400**	58	NWTPH-Dx	6-12-15	6-12-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*96*	*50-150*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 17, 2015
Samples Submitted: June 12, 2015
Laboratory Reference: 1506-134
Project: 21138-001-0

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST3-N-3.0**					
Laboratory ID:	06-134-01					
Diesel Range Organics	**ND**	28	NWTPH-Dx	6-12-15	6-12-15	
Lube Oil Range Organics	**ND**	56	NWTPH-Dx	6-12-15	6-12-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*89*	*50-150*				
Client ID:	**UST3-S-3.0**					
Laboratory ID:	06-134-02					
Diesel Range Organics	**ND**	28	NWTPH-Dx	6-12-15	6-12-15	
Lube Oil Range Organics	**ND**	57	NWTPH-Dx	6-12-15	6-12-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*90*	*50-150*				
Client ID:	**UST3-FL-2.0**					
Laboratory ID:	06-134-04					
Diesel Range Organics	**ND**	28	NWTPH-Dx	6-12-15	6-12-15	
Lube Oil Range Organics	**ND**	56	NWTPH-Dx	6-12-15	6-12-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*87*	*50-150*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 17, 2015
Samples Submitted: June 12, 2015
Laboratory Reference: 1506-134
Project: 21138-001-0

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0612S2					
Diesel Range Organics	**ND**	25	NWTPH-Dx	6-12-15	6-12-15	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	6-12-15	6-12-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*101*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	06-130-26										
	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*	*74*	*50-150*			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 17, 2015
Samples Submitted: June 12, 2015
Laboratory Reference: 1506-134
Project: 21138-001-0

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0612S3					
Diesel Range Organics	**ND**	25	NWTPH-Dx	6-12-15	6-12-15	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	6-12-15	6-12-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*92*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	06-124-01										
	ORIG	DUP									
Diesel Fuel #2	**5600**	**5390**	NA	NA		NA		NA	4	NA	
Lube Oil	**1520**	**1490**	NA	NA		NA		NA	2	NA	
Surrogate:											
o-Terphenyl						*92*	*90*	*50-150*			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 17, 2015
Samples Submitted: June 12, 2015
Laboratory Reference: 1506-134
Project: 21138-001-0

% MOISTURE

Date Analyzed: 6-12&16-15

Client ID	Lab ID	% Moisture
UST3-N-3.0	06-134-01	11
UST3-S-3.0	06-134-02	12
UST3-B-7.0	06-134-03	14
UST3-FL-2.0	06-134-04	10

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

OnSite Environmental Inc.

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-napthalene) 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

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Laboratory Number: 06-134

Company: GeoEngineers
Project Number: 21138-001-0
Project Name: 9th and Lenora Project
Project Manager: Fasih Khan
Sampled by: Fasih Khan

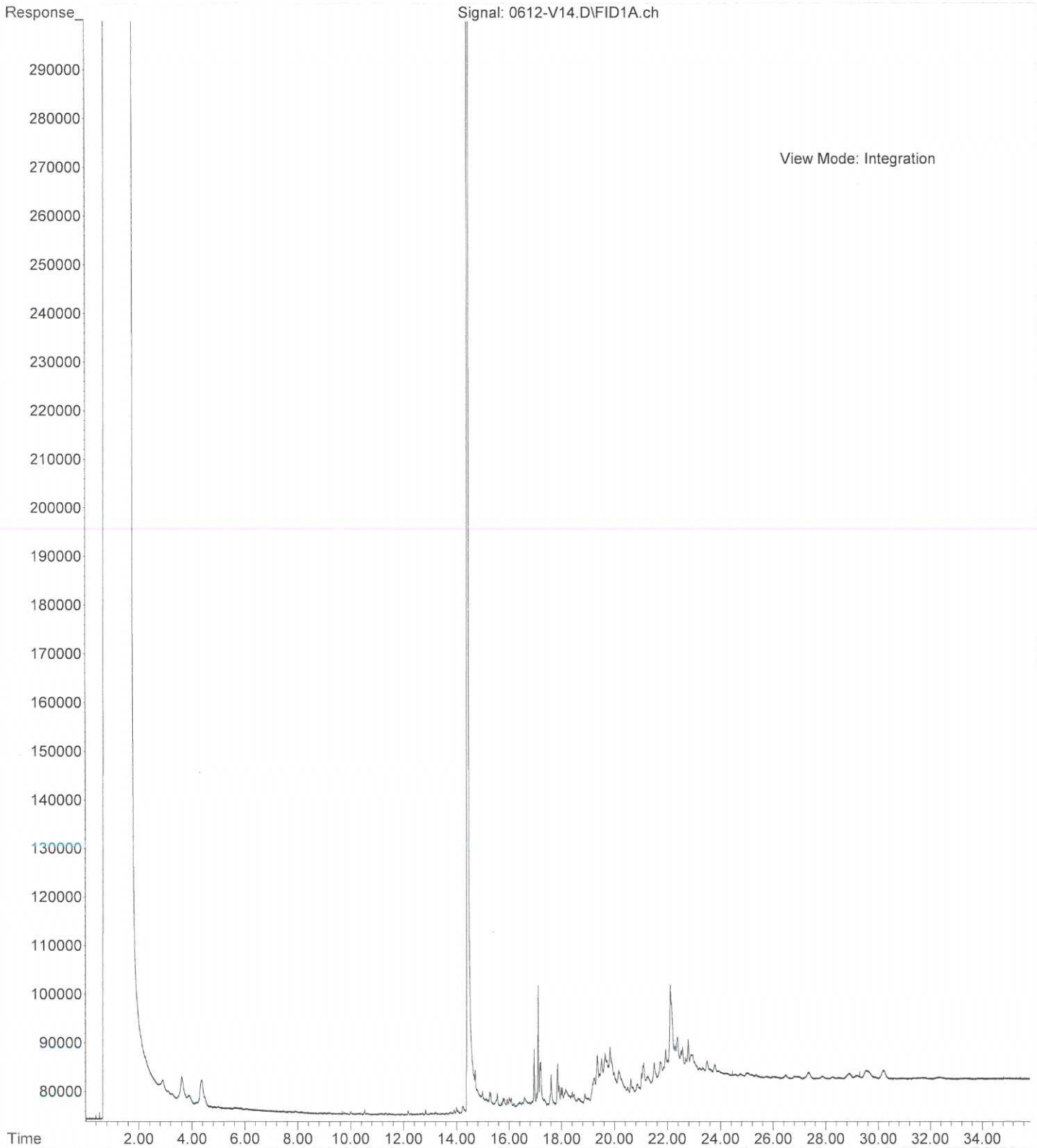
Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☐ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	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		EDD	5 DAY TAT	SAME DAY		% Moisture
1	UST3-N-3.0	6/11/15	1400	S	2				X														X	X			X
2	UST3-S-3.0		1420						X														X	X			
3	UST3-B-7.0		1430						X																X		
4	UST3-FL-2.0		1500						X															X			

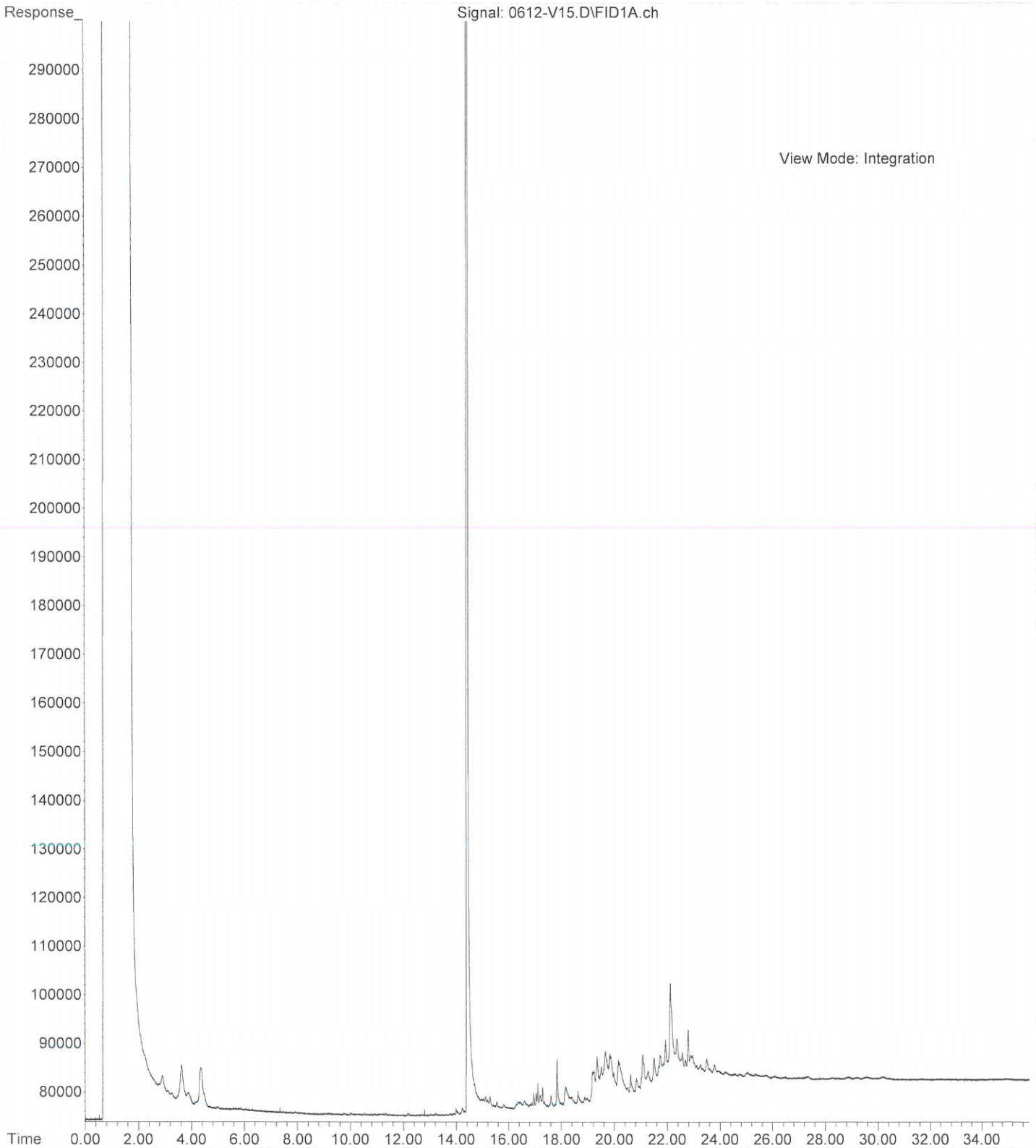
	Signature	Company	Date	Time	Comments/Special Instructions
Relinquished		GE	6/12/15	1050	Same Day for UST2-B-7.0 Sample
Received		GE	6/12/15	1050	AL Changed UST2 to UST3 6/18/15
Relinquished					
Received					
Relinquished					
Received					
Reviewed/Date		Reviewed/Date			Chromatograms with final report ☐

Data Package: Standard ☐ Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ _____

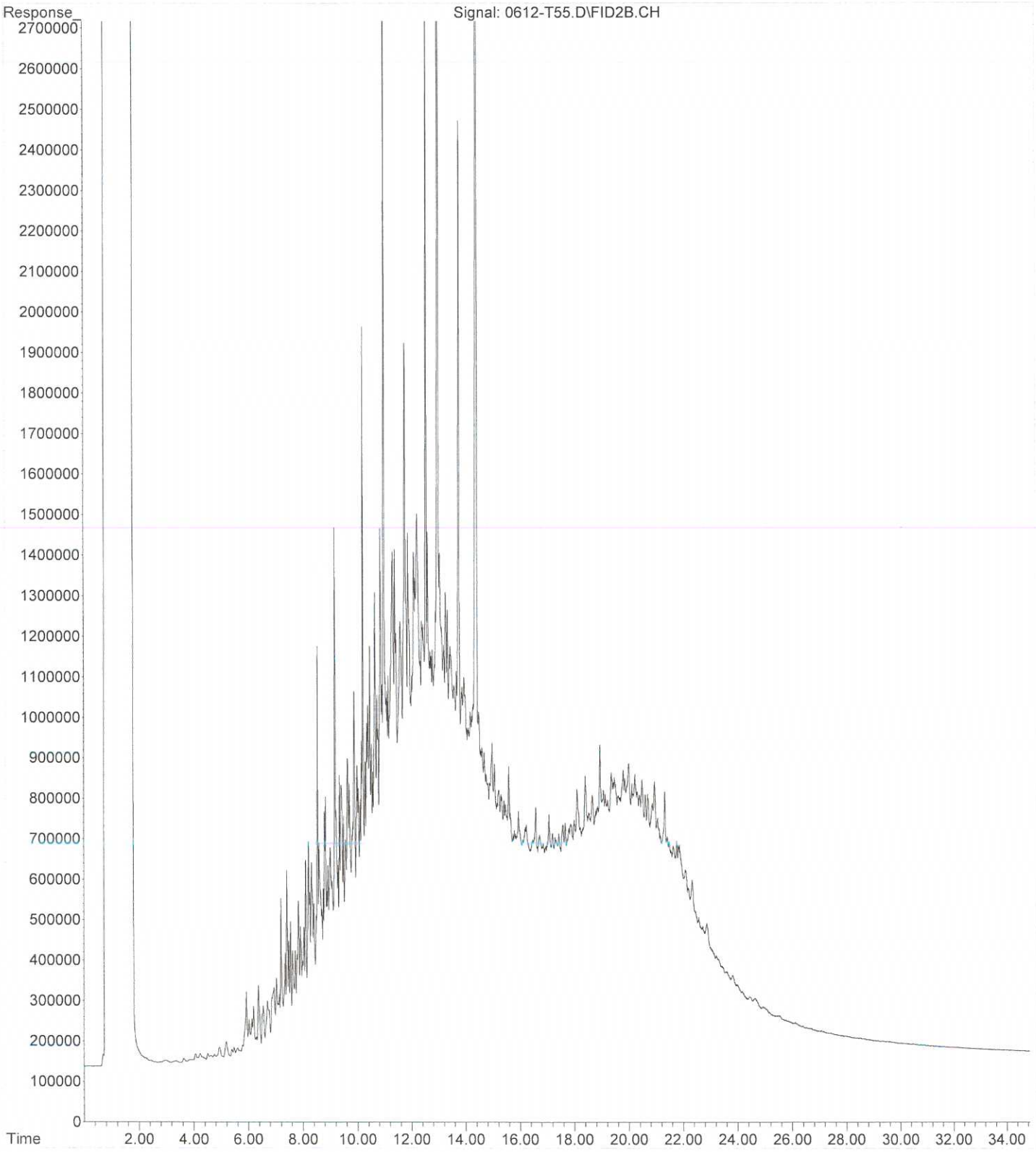
File :X:\DIESELS\VIGO\DATA\V150612\0612-V14.D
Operator :
Acquired : 12 Jun 2015 19:05 using AcqMethod V150209F.M
Instrument : Vigo
Sample Name: 06-134-01
Misc Info :
Vial Number: 14



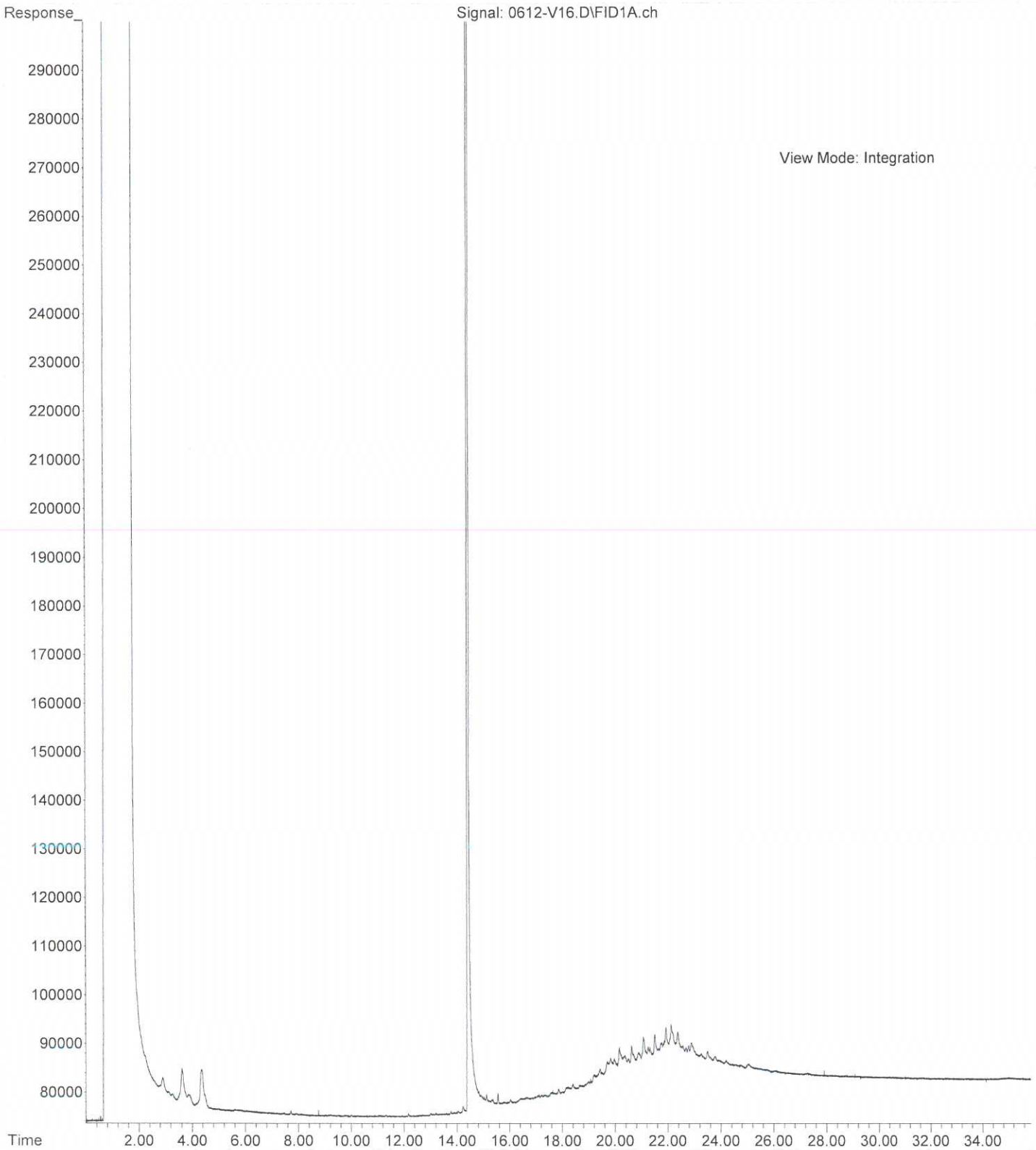
File :X:\DIESELS\VIGO\DATA\V150612\0612-V15.D
Operator :
Acquired : 12 Jun 2015 19:47 using AcqMethod V150209F.M
Instrument : Vigo
Sample Name: 06-134-02
Misc Info :
Vial Number: 15



File :C:\msdchem\1\DATA\T150612.SEC\0612-T55.D
Operator : ZT
Acquired : 12 Jun 2015 12:57 using AcqMethod T150310F.M
Instrument : Teri
Sample Name: 06-134-03
Misc Info :
Vial Number: 55



File :X:\DIESELS\VIGO\DATA\V150612\0612-V16.D
Operator :
Acquired : 12 Jun 2015 20:28 using AcqMethod V150209F.M
Instrument : Vigo
Sample Name: 06-134-04
Misc Info :
Vial Number: 16



OnSite Environmental Inc.

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

August 24, 2015

Fasih Khan
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03
Laboratory Reference No. 1508-198

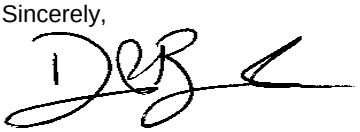
Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on August 19, 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,



David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 24, 2015
Samples Submitted: August 19, 2015
Laboratory Reference: 1508-198
Project: 21138-001-03

Case Narrative

Samples were collected on August 3, 2015 and received by the laboratory on August 3, 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.

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 24, 2015
Samples Submitted: August 19, 2015
Laboratory Reference: 1508-198
Project: 21138-001-03

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
UST3EX-N-10.0	08-198-01	Soil	8-17-15	8-19-15	
UST3EX-S-10.0	08-198-02	Soil	8-17-15	8-19-15	
UST3EX-E-10.0	08-198-03	Soil	8-17-15	8-19-15	
UST3EX-W-10.0	08-198-04	Soil	8-17-15	8-19-15	
UST3EX-B-15.0	08-198-05	Soil	8-17-15	8-19-15	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 24, 2015
Samples Submitted: August 19, 2015
Laboratory Reference: 1508-198
Project: 21138-001-03

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST3EX-N-10.0**					
Laboratory ID:	08-198-01					
Diesel Range Organics	**ND**	31	NWTPH-Dx	8-20-15	8-20-15	
Lube Oil Range Organics	**ND**	62	NWTPH-Dx	8-20-15	8-20-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*84*	*50-150*				
Client ID:	**UST3EX-S-10.0**					
Laboratory ID:	08-198-02					
Diesel Range Organics	**ND**	31	NWTPH-Dx	8-20-15	8-20-15	
Lube Oil Range Organics	**ND**	61	NWTPH-Dx	8-20-15	8-20-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*77*	*50-150*				
Client ID:	**UST3EX-E-10.0**					
Laboratory ID:	08-198-03					
Diesel Range Organics	**ND**	33	NWTPH-Dx	8-20-15	8-20-15	
Lube Oil Range Organics	**ND**	67	NWTPH-Dx	8-20-15	8-20-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*73*	*50-150*				
Client ID:	**UST3EX-W-10.0**					
Laboratory ID:	08-198-04					
Diesel Range Organics	**ND**	32	NWTPH-Dx	8-20-15	8-20-15	
Lube Oil Range Organics	**ND**	63	NWTPH-Dx	8-20-15	8-20-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*88*	*50-150*				
Client ID:	**UST3EX-B-15.0**					
Laboratory ID:	08-198-05					
Diesel Range Organics	**ND**	31	NWTPH-Dx	8-20-15	8-20-15	
Lube Oil Range Organics	**ND**	63	NWTPH-Dx	8-20-15	8-20-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*78*	*50-150*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 24, 2015
Samples Submitted: August 19, 2015
Laboratory Reference: 1508-198
Project: 21138-001-03

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0820S1					
Diesel Range Organics	**ND**	25	NWTPH-Dx	8-20-15	8-20-15	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	8-20-15	8-20-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*111*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	08-203-04										
	ORIG	DUP									
Diesel Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Lube Oil	**71.9**	**65.6**	NA	NA		NA		NA	9	NA	
Surrogate:											
o-Terphenyl						*101*	*95*	*50-150*			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 24, 2015
Samples Submitted: August 19, 2015
Laboratory Reference: 1508-198
Project: 21138-001-03

% MOISTURE

Date Analyzed: 8-20-15

Client ID	Lab ID	% Moisture
UST3EX-N-10.0	08-198-01	19
UST3EX-S-10.0	08-198-02	19
UST3EX-E-10.0	08-198-03	25
UST3EX-W-10.0	08-198-04	21
UST3EX-B-15.0	08-198-05	20

This report pertains to the samples analyzed in accordance with the chain of custody,
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OnSite Environmental Inc.

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-napthalene) 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

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: GEOENGINEERS
Project Number: 21138-001-03
Project Name: 9th & LENORA PROJECT
Project Manager: FASIH KHAN
Sampled by: FASIH KHAN

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☒ 2 Days ☐ 3 Days
☐ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Laboratory Number: 08-198

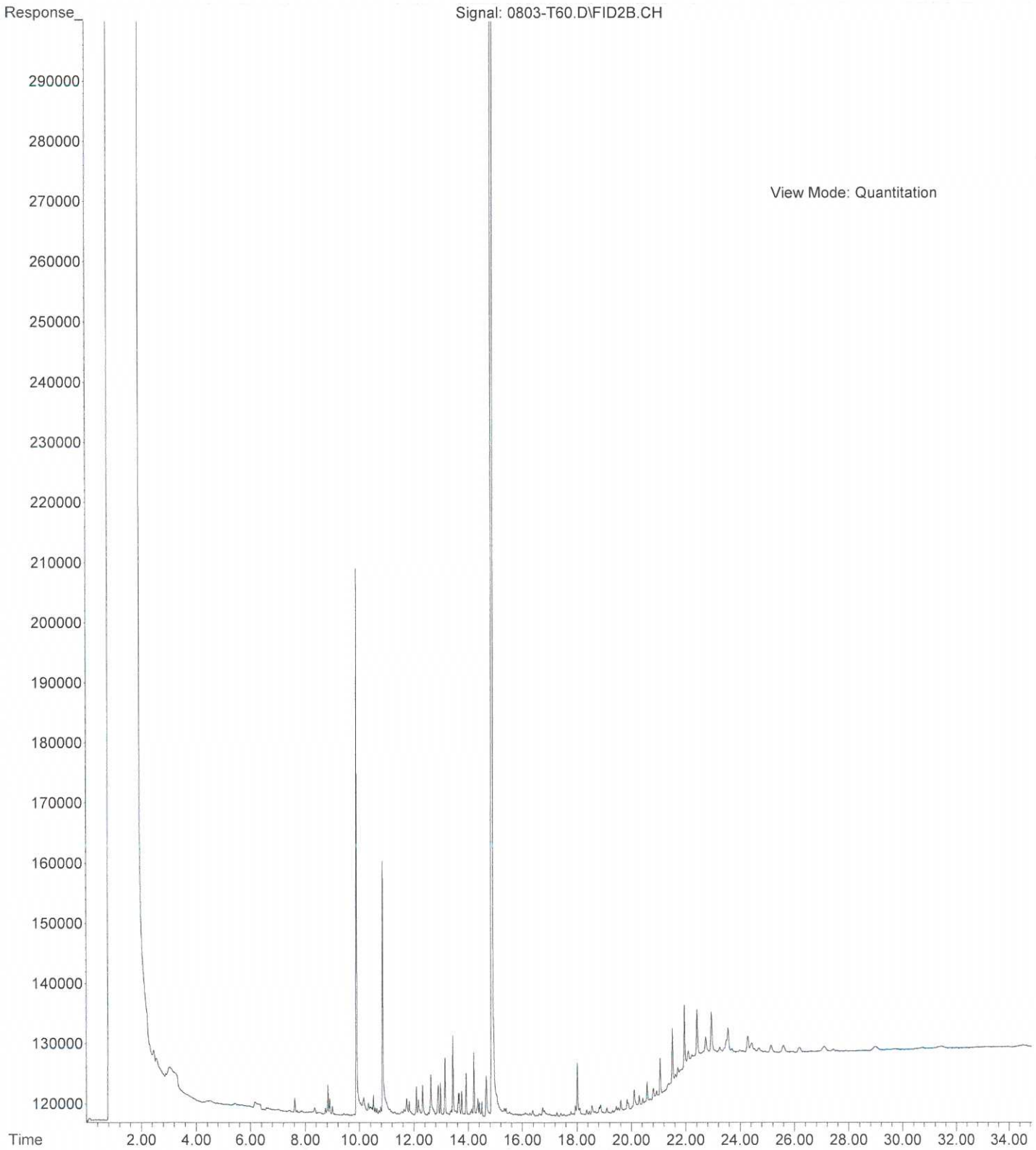
Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A						% Moisture
1	UST3EX-N-X-10.0-D3	8/17/15	0930	S	1				X																		K
2	UST3EX-S-Z-10.0-D3		0950						X																		K
3	UST3EX-E-B-10.0-D3		1130						X																		K
4	UST3EX-W-A-10.0-D3		1245						X																		K
5	UST3EX-B-B-15.0-D1	↓	1350	↓	↓				X																		K

	Signature	Company	Date	Time	Comments/Special Instructions
Relinquished		GED	8/18/15	1605	
Received		CORE	8/18/15	1605	
Relinquished					
Received					
Relinquished					
Received					

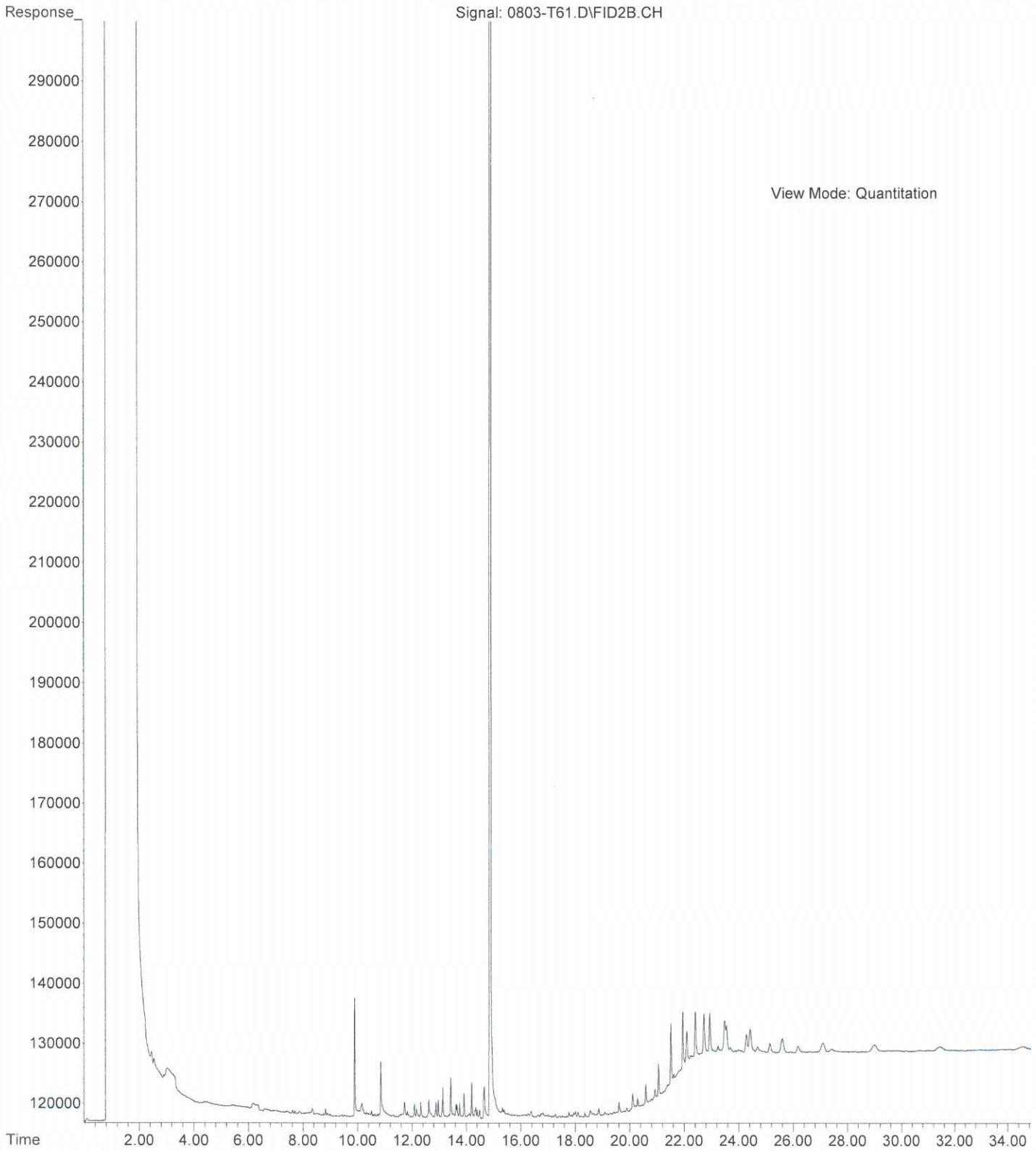
Reviewed/Date | Reviewed/Date | Chromatograms with final report ☐

Data Package: Standard ☐ Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ _____

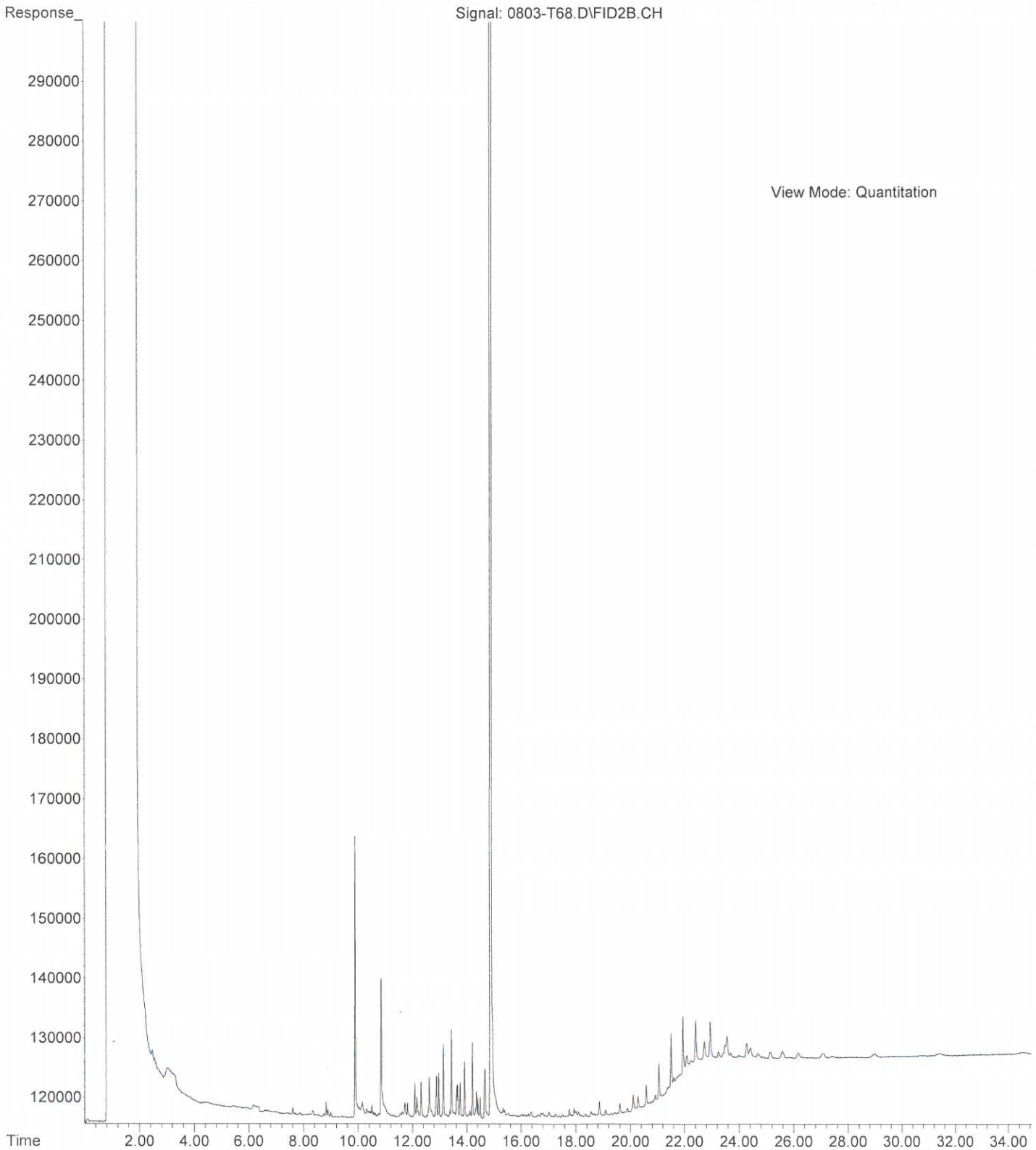
File :X:\DIESELS\TERI\DATA\T150820.SEC\0803-T60.D
Operator : ZT
Acquired : 20 Aug 2015 21:54 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 08-198-01
Misc Info :
Vial Number: 60



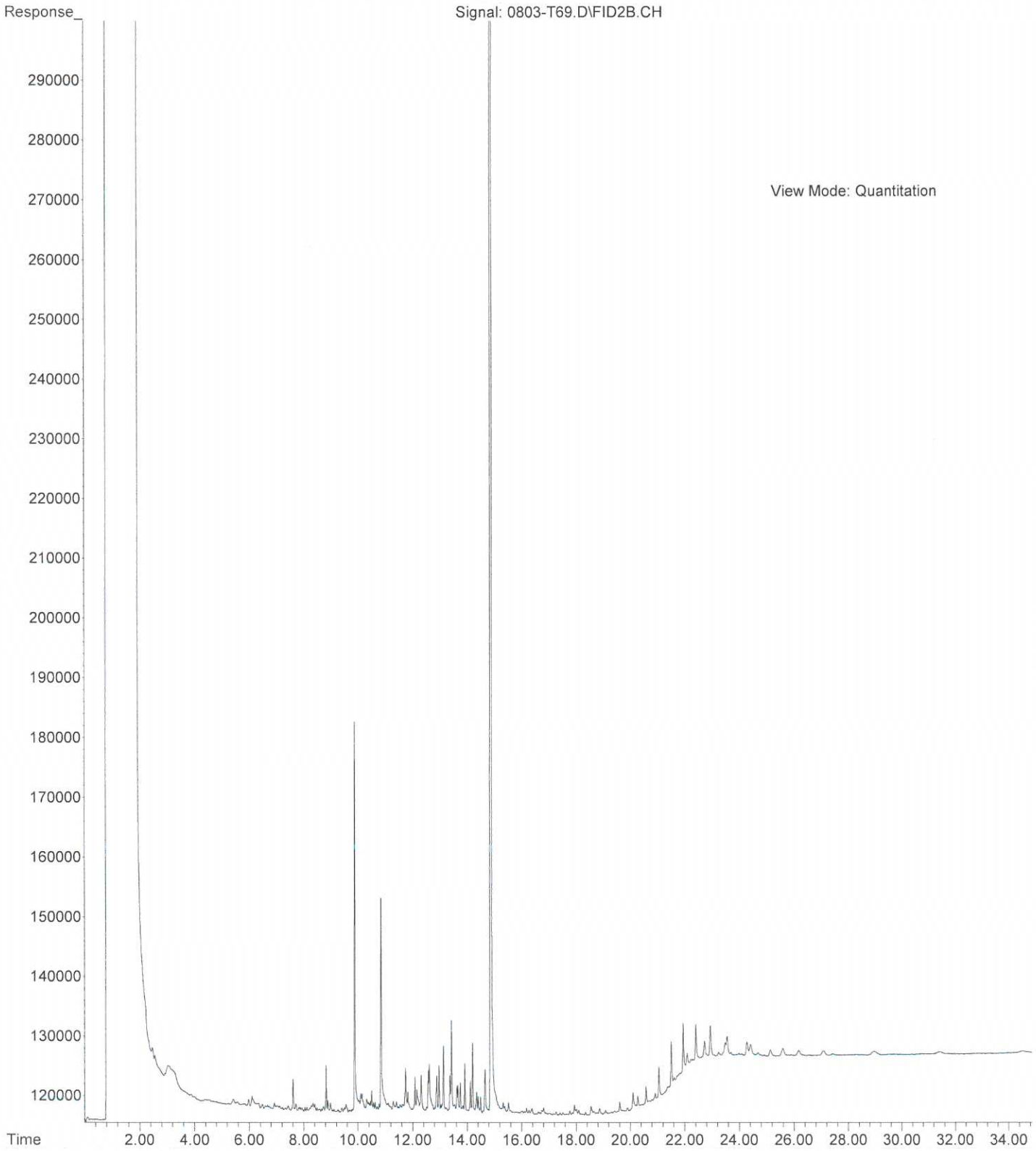
File :X:\DIESELS\TERI\DATA\T150820.SEC\0803-T61.D
Operator : ZT
Acquired : 20 Aug 2015 22:37 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 08-198-02
Misc Info :
Vial Number: 61



File :X:\DIESELS\TERI\DATA\T150820.SEC\0803-T68.D
Operator : ZT
Acquired : 21 Aug 2015 3:40 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 08-198-04
Misc Info :
Vial Number: 68



File :X:\DIESELS\TERI\DATA\T150820.SEC\0803-T69.D
Operator : ZT
Acquired : 21 Aug 2015 4:23 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 08-198-05
Misc Info :
Vial Number: 69



OnSite Environmental Inc.

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

July 13, 2015

Fasih Khan
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03
Laboratory Reference No. 1507-037

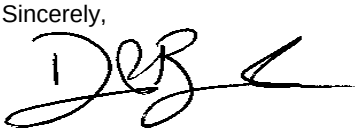
Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on July 7, 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,



David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 13, 2015
Samples Submitted: July 7, 2015
Laboratory Reference: 1507-037
Project: 21138-001-03

Case Narrative

Samples were collected on July 6, 2015 and received by the laboratory on July 7, 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.

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 13, 2015
Samples Submitted: July 7, 2015
Laboratory Reference: 1507-037
Project: 21138-001-03

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
DUCT-1-8.0	07-037-01	Soil	7-6-15	7-7-15	
DUCT-2-15.0	07-037-02	Soil	7-6-15	7-7-15	
DUCT-3-20.0	07-037-03	Soil	7-6-15	7-7-15	
EX-1-6.0	07-037-04	Soil	7-6-15	7-7-15	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 13, 2015
Samples Submitted: July 7, 2015
Laboratory Reference: 1507-037
Project: 21138-001-03

NWTPH-Gx/BTEX

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**DUCT-1-8.0**					
Laboratory ID:	07-037-01					
Benzene	**ND**	0.020	EPA 8021B	7-9-15	7-9-15	
Toluene	**ND**	0.053	EPA 8021B	7-9-15	7-9-15	
Ethyl Benzene	**ND**	0.053	EPA 8021B	7-9-15	7-9-15	
m,p-Xylene	**ND**	0.053	EPA 8021B	7-9-15	7-9-15	
o-Xylene	**ND**	0.053	EPA 8021B	7-9-15	7-9-15	
Gasoline	**ND**	5.3	NWTPH-Gx	7-9-15	7-9-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*98*	*68-123*				
Client ID:	**DUCT-2-15.0**					
Laboratory ID:	07-037-02					
Benzene	**ND**	0.020	EPA 8021B	7-9-15	7-9-15	
Toluene	**ND**	0.063	EPA 8021B	7-9-15	7-9-15	
Ethyl Benzene	**ND**	0.063	EPA 8021B	7-9-15	7-9-15	
m,p-Xylene	**ND**	0.063	EPA 8021B	7-9-15	7-9-15	
o-Xylene	**ND**	0.063	EPA 8021B	7-9-15	7-9-15	
Gasoline	**ND**	6.3	NWTPH-Gx	7-9-15	7-9-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*96*	*68-123*				
Client ID:	**DUCT-3-20.0**					
Laboratory ID:	07-037-03					
Benzene	**ND**	0.020	EPA 8021B	7-9-15	7-9-15	
Toluene	**ND**	0.065	EPA 8021B	7-9-15	7-9-15	
Ethyl Benzene	**ND**	0.065	EPA 8021B	7-9-15	7-9-15	
m,p-Xylene	**ND**	0.065	EPA 8021B	7-9-15	7-9-15	
o-Xylene	**ND**	0.065	EPA 8021B	7-9-15	7-9-15	
Gasoline	**ND**	6.5	NWTPH-Gx	7-9-15	7-9-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*97*	*68-123*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 13, 2015
Samples Submitted: July 7, 2015
Laboratory Reference: 1507-037
Project: 21138-001-03

NWTPH-Gx/BTEX

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**EX-1-6.0**					
Laboratory ID:	07-037-04					
Benzene	**ND**	0.020	EPA 8021B	7-9-15	7-9-15	
Toluene	**ND**	0.051	EPA 8021B	7-9-15	7-9-15	
Ethyl Benzene	**ND**	0.051	EPA 8021B	7-9-15	7-9-15	
m,p-Xylene	**ND**	0.051	EPA 8021B	7-9-15	7-9-15	
o-Xylene	**ND**	0.051	EPA 8021B	7-9-15	7-9-15	
Gasoline	**ND**	5.1	NWTPH-Gx	7-9-15	7-9-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*97*	*68-123*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 13, 2015
Samples Submitted: July 7, 2015
Laboratory Reference: 1507-037
Project: 21138-001-03

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**DUCT-1-8.0**					
Laboratory ID:	07-037-01					
Diesel Range Organics	**ND**	27	NWTPH-Dx	7-9-15	7-9-15	
Lube Oil Range Organics	**ND**	54	NWTPH-Dx	7-9-15	7-9-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*80*	*50-150*				
Client ID:	**DUCT-2-15.0**					
Laboratory ID:	07-037-02					
Diesel Range Organics	**ND**	28	NWTPH-Dx	7-9-15	7-9-15	
Lube Oil Range Organics	**ND**	56	NWTPH-Dx	7-9-15	7-9-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*91*	*50-150*				
Client ID:	**DUCT-3-20.0**					
Laboratory ID:	07-037-03					
Diesel Range Organics	**ND**	27	NWTPH-Dx	7-9-15	7-9-15	
Lube Oil Range Organics	**ND**	53	NWTPH-Dx	7-9-15	7-9-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*84*	*50-150*				

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Date of Report: July 13, 2015
Samples Submitted: July 7, 2015
Laboratory Reference: 1507-037
Project: 21138-001-03

NWTPH-Gx/BTEX
QUALITY CONTROL

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0709S2					
Benzene	**ND**	0.020	EPA 8021B	7-9-15	7-9-15	
Toluene	**ND**	0.050	EPA 8021B	7-9-15	7-9-15	
Ethyl Benzene	**ND**	0.050	EPA 8021B	7-9-15	7-9-15	
m,p-Xylene	**ND**	0.050	EPA 8021B	7-9-15	7-9-15	
o-Xylene	**ND**	0.050	EPA 8021B	7-9-15	7-9-15	
Gasoline	**ND**	5.0	NWTPH-Gx	7-9-15	7-9-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*95*	*68-123*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	07-037-01										
	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						*98*	*93*	*68-123*			
SPIKE BLANKS											
Laboratory ID:	SB0709S1										
	SB	SBD	SB	SBD		SB	SBD				
Benzene	**0.983**	**1.02**	1.00	1.00		**98**	**102**	75-117	4	13	
Toluene	**0.945**	**0.993**	1.00	1.00		**95**	**99**	78-118	5	12	
Ethyl Benzene	**0.946**	**0.978**	1.00	1.00		**95**	**98**	78-118	3	12	
m,p-Xylene	**0.945**	**0.985**	1.00	1.00		**95**	**99**	78-121	4	13	
o-Xylene	**0.945**	**0.974**	1.00	1.00		**95**	**97**	77-119	3	13	
Surrogate:											
Fluorobenzene						*90*	*94*	*68-123*			

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Date of Report: July 13, 2015
Samples Submitted: July 7, 2015
Laboratory Reference: 1507-037
Project: 21138-001-03

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0709S1					
Diesel Range Organics	**ND**	25	NWTPH-Dx	7-9-15	7-10-15	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	7-9-15	7-10-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*83*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE										
Laboratory ID:	07-037-01									
	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						*80* *90*	*50-150*			

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Date of Report: July 13, 2015
Samples Submitted: July 7, 2015
Laboratory Reference: 1507-037
Project: 21138-001-03

% MOISTURE

Date Analyzed: 7-9-15

Client ID	Lab ID	% Moisture
DUCT-1-8.0	07-037-01	7
DUCT-2-15.0	07-037-02	10
DUCT-3-20.0	07-037-03	6
EX-1-6.0	07-037-04	4

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OnSite Environmental Inc.

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-napthalene) 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

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Laboratory Number: 07-037

Company: GEOENGINEERS
Project Number: 21138-001-03
Project Name: 9th AND LENORA PROJECT
Project Manager: FASIH KHAN
Sampled by: FASIH KHAN

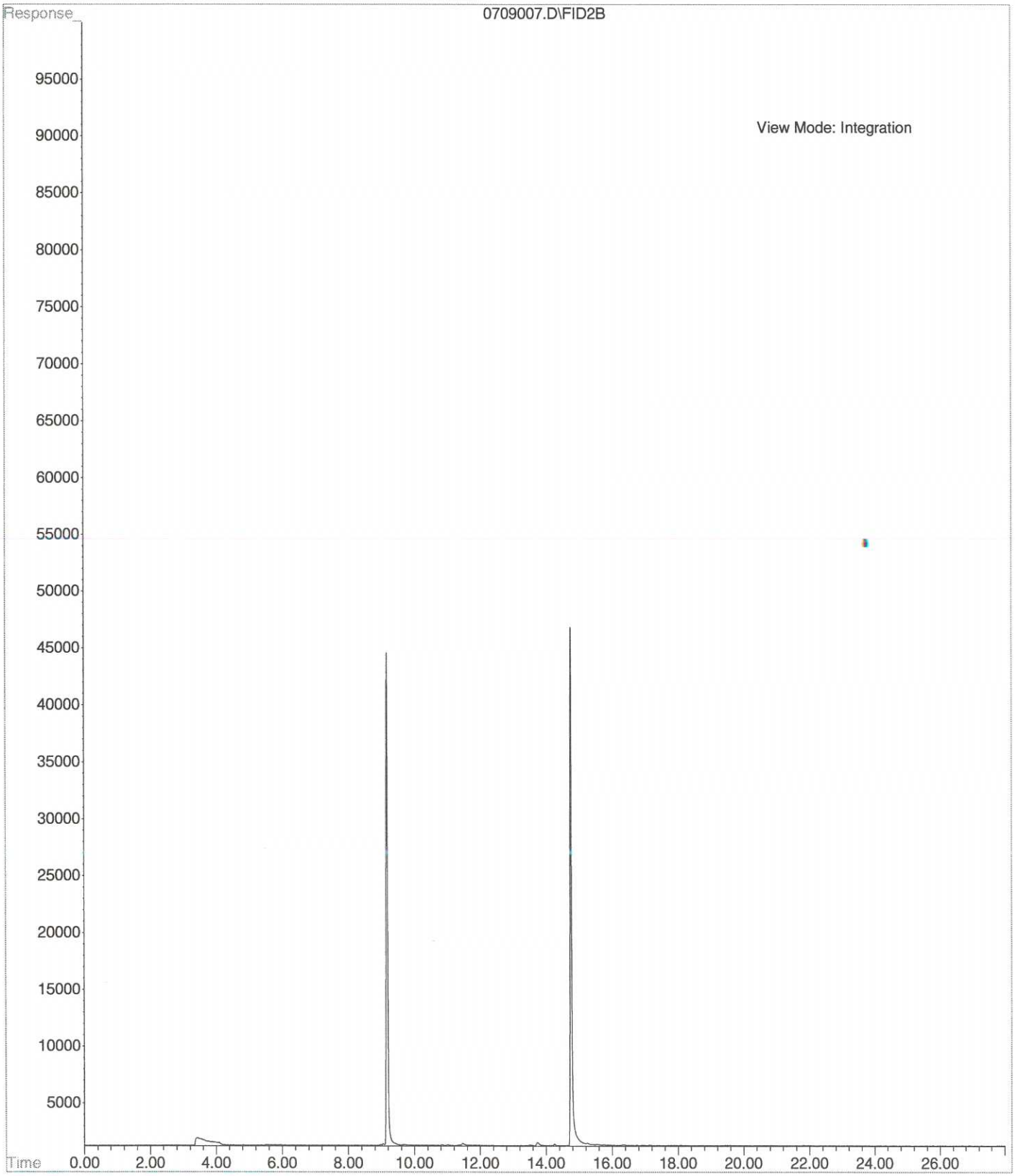
Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☒ 3 Days
☒ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	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
1	DUCT-1-8.0	7/6/15	0830	S	2		X		X													X
2	DUCT-2-15.0		0900				X		X													
3	DUCT-3-20.0		1130				X		X													
4	EX-1-6.0		1135				X															

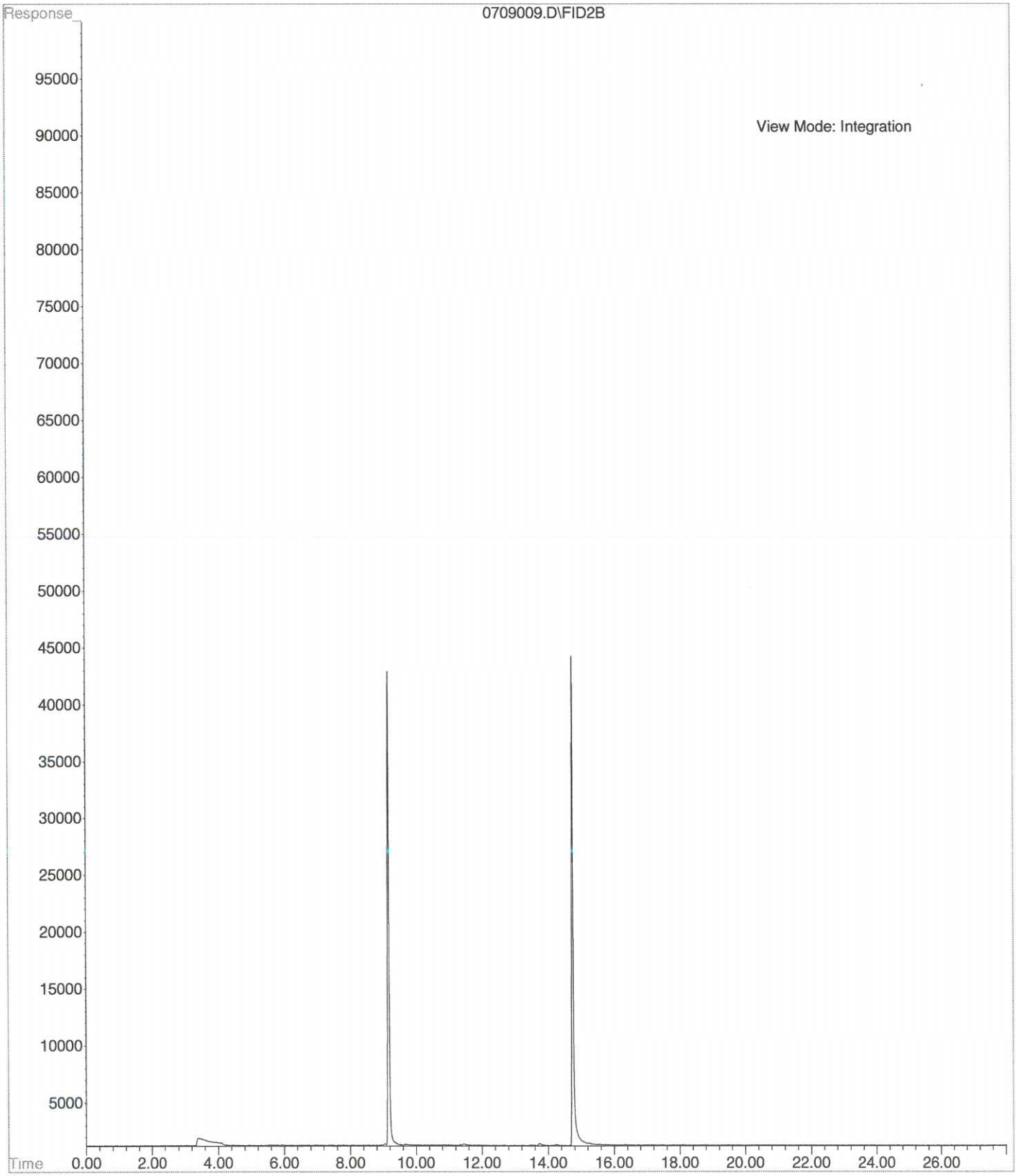
	Signature	Company	Date	Time	Comments/Special Instructions
Relinquished		GEI	7/7/15	0830	
Received			7/7/15	0830	
Relinquished					
Received					
Relinquished					
Received					
Reviewed/Date		Reviewed/Date			Chromatograms with final report ☐

Data Package: Standard ☐ Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ _____

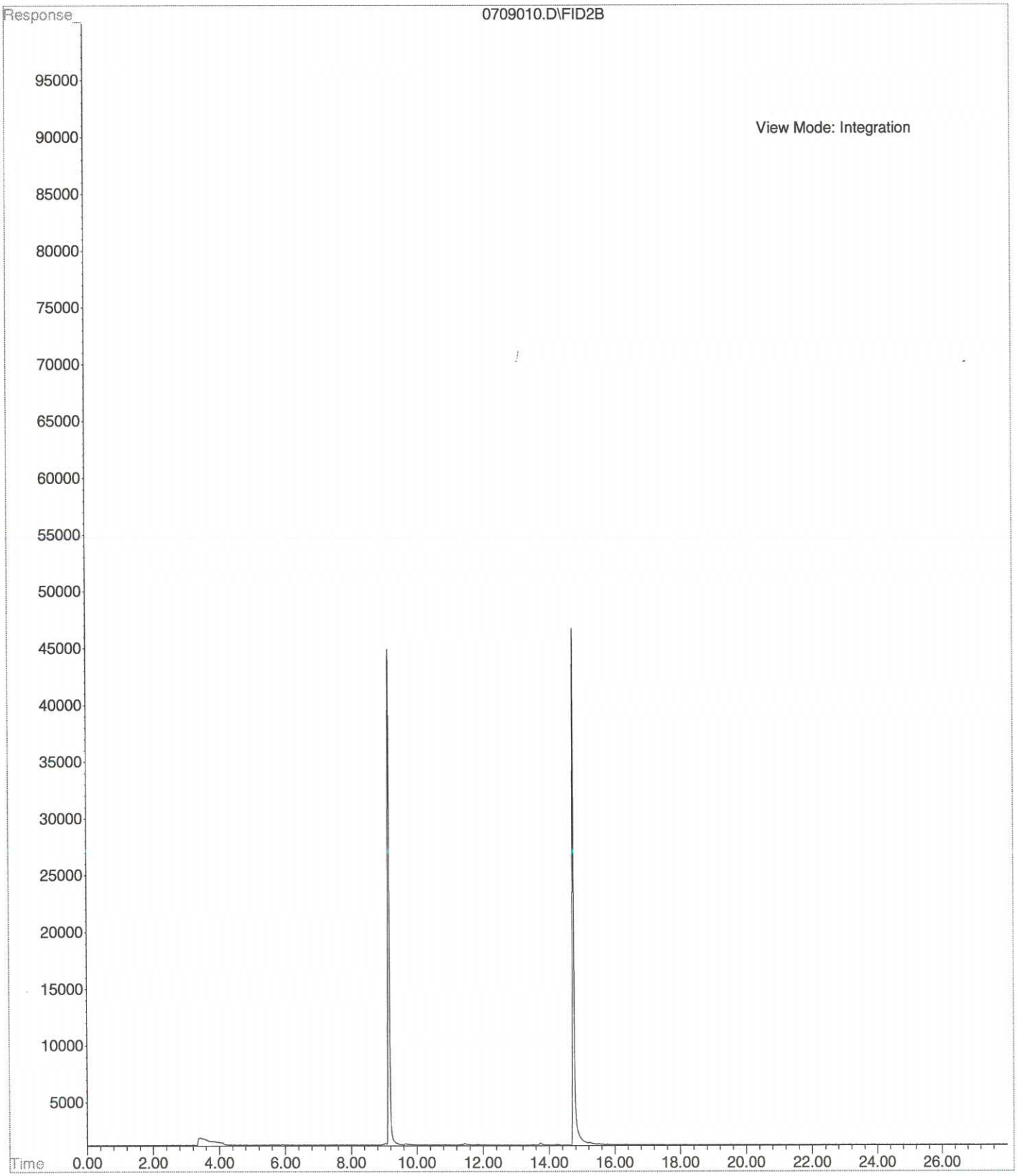
File : X:\BTEX\HOPE\DATA\H150709\0709007.D
Operator :
Acquired : 9 Jul 2015 20:15 using AcqMethod 150701B.M
Instrument : Hope
Sample Name: 07-037-01s
Misc Info : V2-37-21
Vial Number: 7



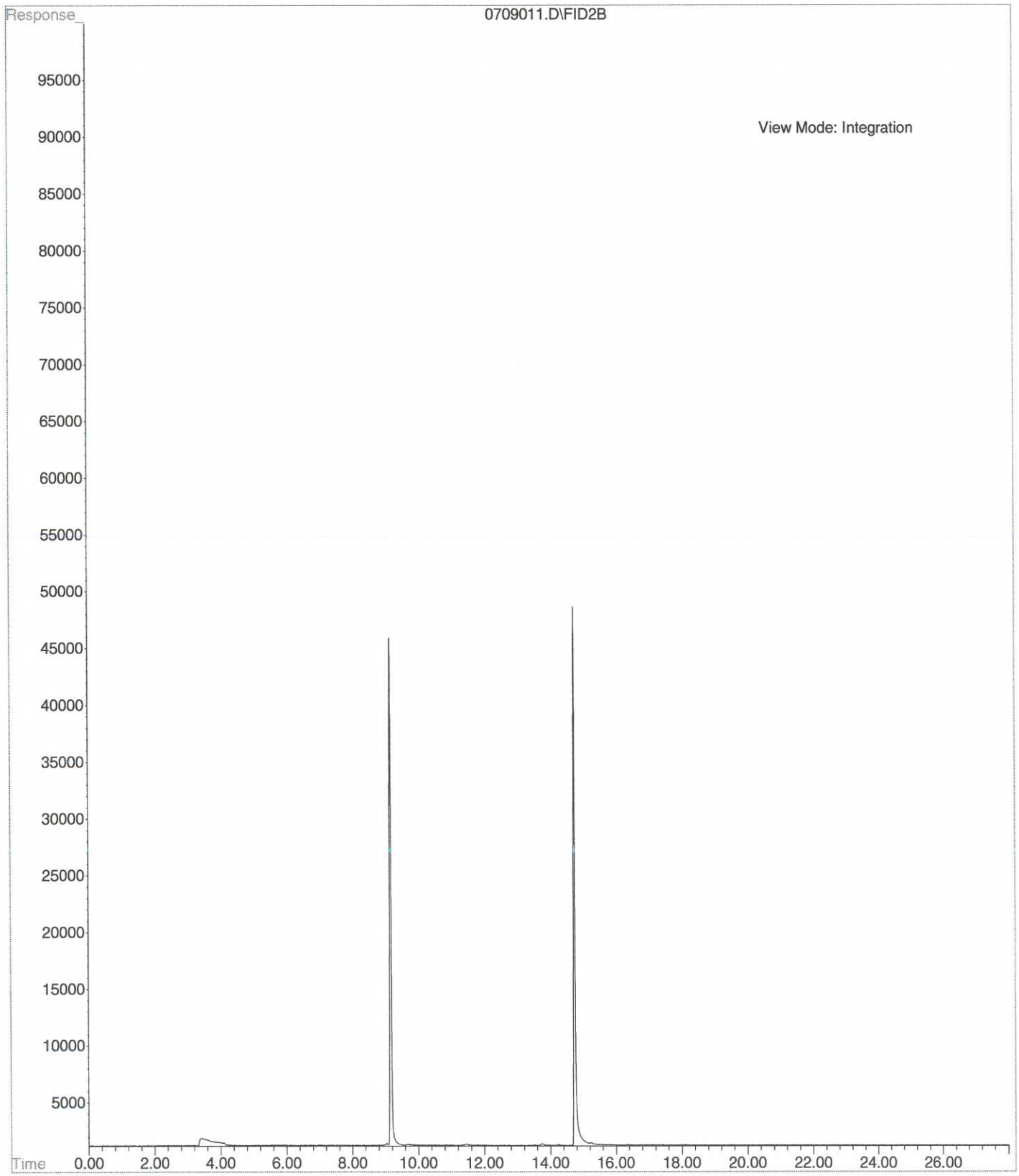
File : X:\BTEX\HOPE\DATA\H150709\0709009.D
Operator :
Acquired : 9 Jul 2015 21:25 using AcqMethod 150701B.M
Instrument : Hope
Sample Name: 07-037-02s
Misc Info : V2-37-21
Vial Number: 9



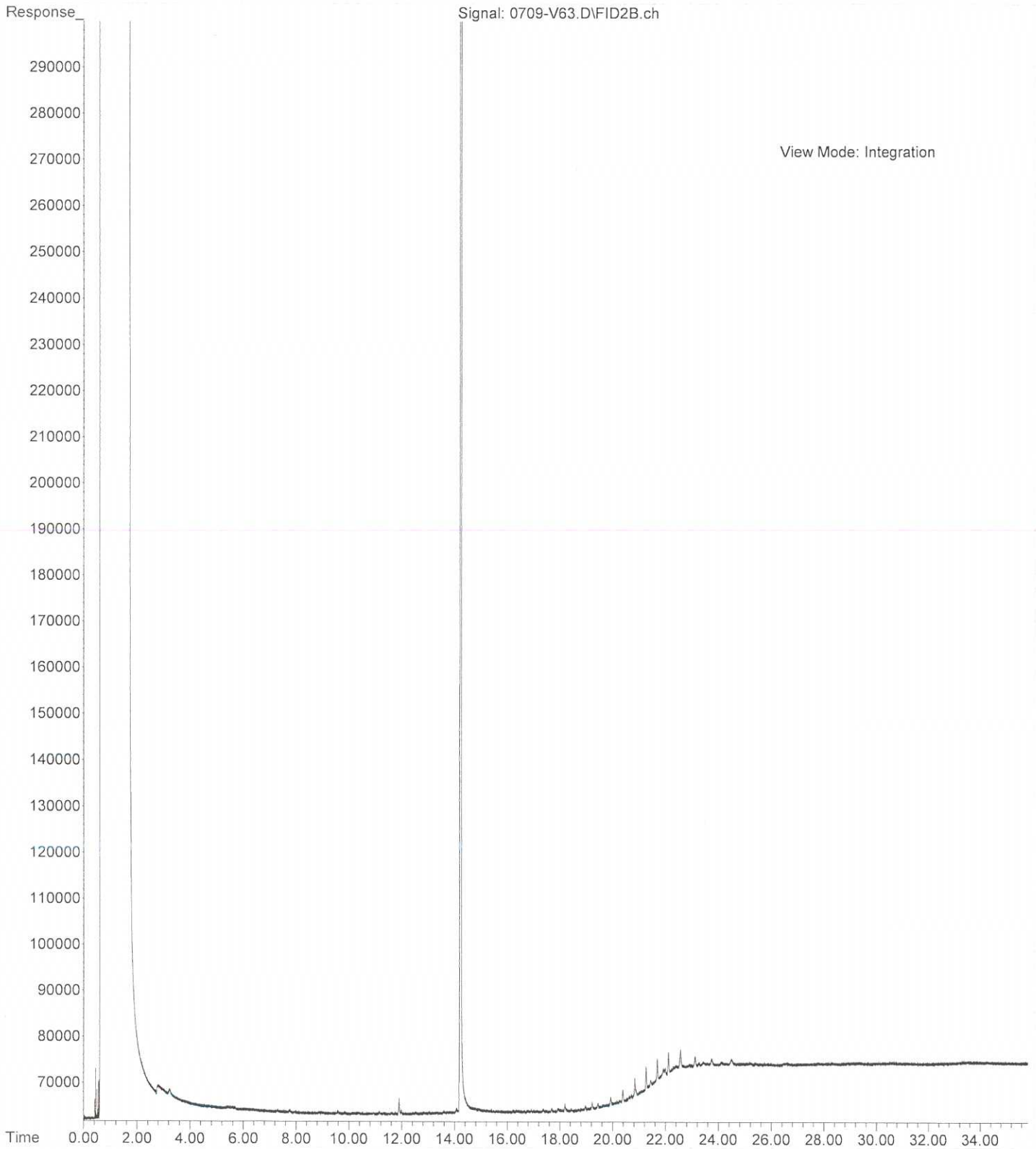
File : X:\BTEX\HOPE\DATA\H150709\0709010.D
Operator :
Acquired : 9 Jul 2015 21:59 using AcqMethod 150701B.M
Instrument : Hope
Sample Name: 07-037-03s
Misc Info : V2-37-21
Vial Number: 10



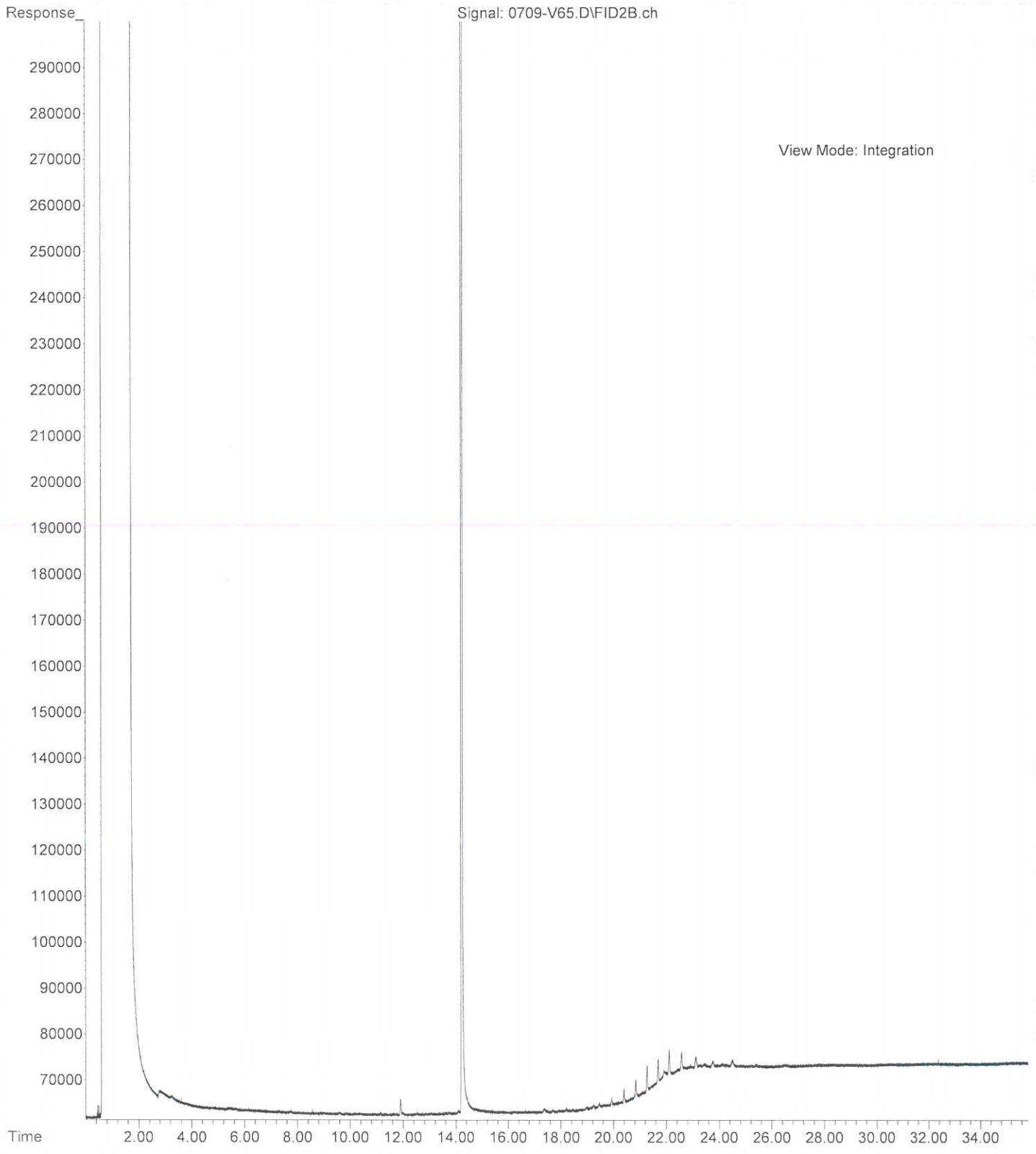
File : X:\BTEX\HOPE\DATA\H150709\0709011.D
Operator :
Acquired : 9 Jul 2015 22:34 using AcqMethod 150701B.M
Instrument : Hope
Sample Name: 07-037-04s
Misc Info : V2-37-21
Vial Number: 11



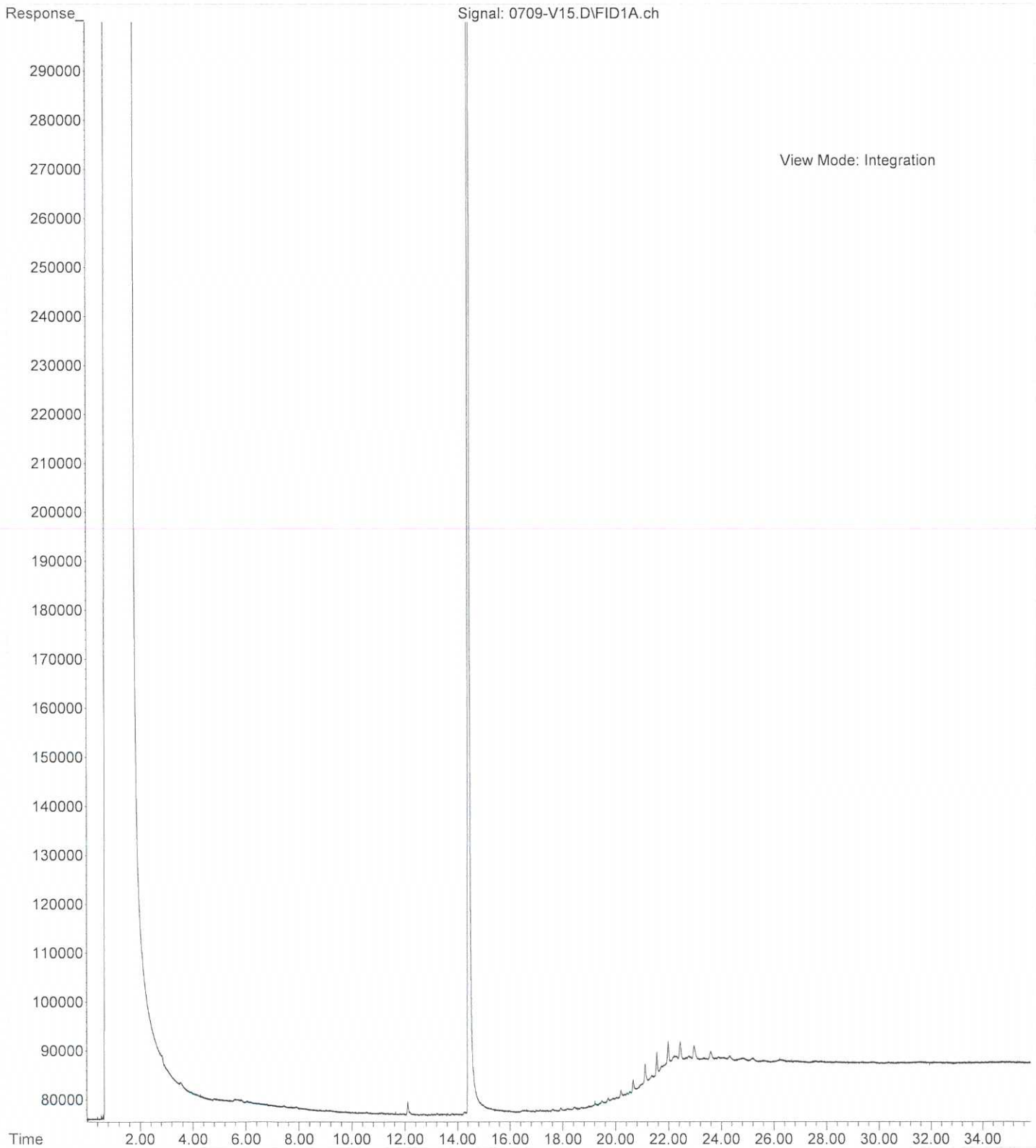
File :X:\DIESELS\VIGO\DATA\V150709.SEC\0709-V63.D
Operator :
Acquired : 9 Jul 2015 19:05 using AcqMethod V150209F.M
Instrument : Vigo
Sample Name: 07-037-01
Misc Info :
Vial Number: 63



File :X:\DIESELS\VIGO\DATA\V150709.SEC\0709-V65.D
Operator :
Acquired : 9 Jul 2015 20:28 using AcqMethod V150209F.M
Instrument : Vigo
Sample Name: 07-037-02
Misc Info :
Vial Number: 65



File :X:\DIESELS\VIGO\DATA\V150709\0709-V15.D
Operator :
Acquired : 9 Jul 2015 20:28 using AcqMethod V150209F.M
Instrument : Vigo
Sample Name: 07-037-03
Misc Info :
Vial Number: 15



OnSite Environmental Inc.

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

July 24, 2015

Fasih Khan
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03
Laboratory Reference No. 1507-147

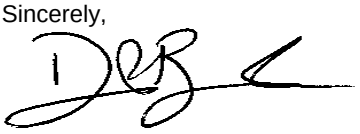
Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on July 17, 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,



David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody,
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Date of Report: July 24, 2015
Samples Submitted: July 17, 2015
Laboratory Reference: 1507-147
Project: 21138-001-03

Case Narrative

Samples were collected on July 17, 2015 and received by the laboratory on July 17, 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.

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Date of Report: July 24, 2015
Samples Submitted: July 17, 2015
Laboratory Reference: 1507-147
Project: 21138-001-03

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
G-1-W-071715	07-147-01	Water	7-17-15	7-17-15	

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Date of Report: July 24, 2015
Samples Submitted: July 17, 2015
Laboratory Reference: 1507-147
Project: 21138-001-03

NWTPH-Gx/BTEX

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**G-1-W-071715**					
Laboratory ID:	07-147-01					
Benzene	**ND**	1.0	EPA 8021B	7-20-15	7-20-15	
Toluene	**ND**	1.0	EPA 8021B	7-20-15	7-20-15	
Ethyl Benzene	**ND**	1.0	EPA 8021B	7-20-15	7-20-15	
m,p-Xylene	**ND**	1.0	EPA 8021B	7-20-15	7-20-15	
o-Xylene	**ND**	1.0	EPA 8021B	7-20-15	7-20-15	
Gasoline	**ND**	100	NWTPH-Gx	7-20-15	7-20-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*95*	*71-113*				

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Date of Report: July 24, 2015
Samples Submitted: July 17, 2015
Laboratory Reference: 1507-147
Project: 21138-001-03

NWTPH-Dx

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**G-1-W-071715**					
Laboratory ID:	07-147-01					
Diesel Range Organics	**ND**	0.26	NWTPH-Dx	7-22-15	7-22-15	
Lube Oil Range Organics	**ND**	0.41	NWTPH-Dx	7-22-15	7-22-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*85*	*50-150*				

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Date of Report: July 24, 2015
Samples Submitted: July 17, 2015
Laboratory Reference: 1507-147
Project: 21138-001-03

NWTPH-Gx/BTEX
QUALITY CONTROL

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0720W1					
Benzene	**ND**	1.0	EPA 8021B	7-20-15	7-20-15	
Toluene	**ND**	1.0	EPA 8021B	7-20-15	7-20-15	
Ethyl Benzene	**ND**	1.0	EPA 8021B	7-20-15	7-20-15	
m,p-Xylene	**ND**	1.0	EPA 8021B	7-20-15	7-20-15	
o-Xylene	**ND**	1.0	EPA 8021B	7-20-15	7-20-15	
Gasoline	**ND**	100	NWTPH-Gx	7-20-15	7-20-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*100*	*71-113*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	07-147-01										
	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						*95*	*89*	*71-113*			
MATRIX SPIKES											
Laboratory ID:	07-147-01										
	MS	MSD	MS	MSD		MS	MSD				
Benzene	**55.5**	**55.8**	50.0	50.0	ND	**111**	**112**	82-120	1	14	
Toluene	**53.9**	**54.2**	50.0	50.0	ND	**108**	**108**	83-120	1	14	
Ethyl Benzene	**53.9**	**54.0**	50.0	50.0	ND	**108**	**108**	83-120	0	15	
m,p-Xylene	**53.5**	**54.1**	50.0	50.0	ND	**107**	**108**	81-123	1	15	
o-Xylene	**53.1**	**53.3**	50.0	50.0	ND	**106**	**107**	80-120	0	16	
Surrogate:											
Fluorobenzene						*97*	*96*	*71-113*			

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Date of Report: July 24, 2015
Samples Submitted: July 17, 2015
Laboratory Reference: 1507-147
Project: 21138-001-03

NWTPH-Dx
QUALITY CONTROL

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0722W1					
Diesel Range Organics	**ND**	0.25	NWTPH-Dx	7-22-15	7-22-15	
Lube Oil Range Organics	**ND**	0.40	NWTPH-Dx	7-22-15	7-22-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*86*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	07-141-02										
	ORIG	DUP									
Diesel Range Organics	**1.55**	**1.34**	NA	NA		NA		NA	15	NA	M
Lube Oil Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Surrogate:											
o-Terphenyl						*87*	*82*	*50-150*			

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OnSite Environmental Inc.

Data Qualifiers and Abbreviations

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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-napthalene) 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

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Chain of Custody

Page 1 of 1

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Laboratory Number: 07-147

Company: GEOENGINEERS
Project Number: 21138-001-03
Project Name: 9th & LENORA
Project Manager: FASIH KHAN
Sampled by: FASIH KHAN

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☒ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	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
1	~~GE1~~ D3 G-1 - W - 071715	7/17/15	1510	W	5		X		X																		

	Signature	Company	Date	Time
Relinquished		GET	7/17/15	1605
Received		OnSite Env	7/17/15	1605
Relinquished				
Received				
Relinquished				
Received				

Comments/Special Instructions

Reviewed/Date

Reviewed/Date

Chromatograms with final report ☐

Data Package: Standard ☐ Level III ☐ Level IV ☐

Electronic Data Deliverables (EDDs) ☐ _____

APPENDIX F

UST2 and UST3 Removal Documents

FILCO COMPANY INC.
P.O. Box 31228 • Seattle, WA 98103 • Ph: (206) 547-8347 • Fax: (206) 548-9352
www.FilcoEnviro.com • Lic# FILCOCI08ØRU

LETTER OF CERTIFICATION

August 14th, 2015

City Transfer, Inc.
PO Box 88670
Seattle, Washington 98138

RE: Commercial Underground Heating Oil Tank at 2101 9th Avenue
Seattle, Washington 98121

This is to certify that Filco Company, Inc. has removed one approximate 1,000 gallon underground commercial heating oil tank from the above named property. The tank and its contents were disposed of according to the codes and guidelines set forth by the Washington State Department of Ecology and local Fire Department regulations and the decommissioned tank meets these standards.

Phil Suetens

Phil Suetens
President Filco Co., Inc.

Printed on 100% recycled paper

Fri 8/14/15 @ 10AM - AD

PERMITS @ SEATTLE.GOV

RECEIVED
AUG 11 2015
PERMIT SE

Your Seattle Fire Department

APPLICATION FOR TEMPORARY PERMIT

Code 7908 **Commercial Tank Removal/Decommissioning**

Permit Fee: $218.00 **Date Issued:** 8/15/15

Tank(s) must be removed from site on the same day as permit is issued!

TO BE COMPLETED BY PERMIT APPLICANT

FIRM NAME	Filco Company, Inc.		
MAILING ADDRESS	PO Box 31228	SUITE	
CITY	Seattle	STATE WA	ZIP 98103
JOBSITE ADDRESS	2101 ~~2014~~ 9th Ave		
CONTACT PERSON	Nate Montgomery	PHONE NUMBER	(206)423-1791

Number of Tank(s): one Tank Size(s): 1,000 ☐ Aboveground tank

Product(s) Previously Contained: heating oil ☑ Underground tank

☑ Removal (Marine Chemist inspection and certificate required for all tanks regardless of size or contents)

☐ Abandonment-in-Place (Marine Chemist certificate required for tanks previously containing Class I flammable liquids and/or unknowns)

Hot work being conducted: ☑ No ☐ Yes (If yes, a separate hot work permit is required)

Permit applications may be submitted in person weekdays from 8:00 a.m. to 5:00 p.m., or mailed to:

Seattle Fire Department
Fire Marshal's Office – Permits
220 Third Ave S, 2nd Floor
Seattle, WA 98104-2608

To pay with a Visa or Master Card: Fax or email this application
THEN CALL US TO CONFIRM RECEIPT AND MAKE PAYMENT
Tel: (206) 386-1450 / Fax: (206) 386-1348
E-mail: permits@seattle.gov

Call 386-1450, at least 24 hours prior to needed inspection time to arrange for an appointment.
TANKS MAY BE REMOVED/DECOMMISSIONED ONLY AFTER FIRE DEPARTMENT INSPECTION
NO HOT WORK IS ALLOWED ON A TANK SYSTEM PRIOR TO ISSUANCE OF THIS FIRE DEPARTMENT PERMIT!

Permission is hereby granted to remove or decommission the tank(s) identified in this permit in accordance with the attached conditions, all noted special conditions, and all applicable provisions of the Seattle Fire Code, federal, state and local regulations. **THIS PERMIT IS NULL AND VOID IF PERMIT CONDITIONS ARE NOT ATTACHED**

Special permit conditions: *Tank removal/decommissioning must be performed, or directly supervised, by an ICC certified individual (WAC 173-360-600)*

SAFE FOR EXCAVATION PER MARINE CHEMIST.

FMO USE:
Check No.: 5-2501161
Receipt No.: 5156081115
Application ID#: 102123

APPROVED BY:
Inspector: Mike Farley SFD ID# 1388
Name of Marine Chemist Amy Sly Certificate # 706
Date: 8/15/15

(01/15)

SOUND TESTING, INC.
P.O. BOX 16204 SEATTLE, WA 98116
(206) 932-0206 FAX (206) 937-3848
WWW.SOUNDTESTINGINC.COM

MARINE CHEMIST CERTIFICATE

SERIAL Nº 46561

FILED	—	AUGUST 14, 2015
Survey Requested by	Vessel Owner or Agent	Date
~1000 g UST	UST	2101 9th AVE
Vessel	Type of Vessel	Specific Location of Vessel
HFO	O_2=20.9%, LEL=0%, CO, H_2S<1PPM THC=35PPM	10:00 AM
Last Three (3) Loadings	Tests Performed	Time Survey Completed

1000 g UST

SAFE FOR EXCAVATION

SAFE FOR DEMOLITION

In the event of changes adversely affecting conditions in the above spaces, or if in any doubt, immediately stop all work and contact the undersigned Marine Chemist.

Qualifications: Manipulation of valves or devices tending to alter conditions in pipe lines or tanks noted above, unless specifically approved in this certificate, will require re-inspection and a new Certificate for spaces so affected. All piping, heating coils, pumps and floating roof gaskets attached to or contained within spaces listed above shall be considered "NOT SAFE" unless otherwise specifically designated.

STANDARD SAFETY DESIGNATIONS

(These detail the minimum conditions for Safe Entry and Hot Work.) The Marine Chemist may request additional measures if workplace conditions so dictate.

ATMOSPHERE SAFE FOR WORKERS means that in a space (a) the oxygen content is between 19.5% and 22% by volume, and (b) combustible gas is less than 10% of the Lower Explosive Limit, and (c) airborne toxic materials are within permissible concentrations as listed in OSHA's Subpart Z or in ACGIH's current list of Threshold Limit Values.

SAFE FOR HOT WORK means that (a) oxygen within the space is less than 22% by volume; and (b) the combustible gas is less than 10% of the Lower Explosive Limit; and (c) cargo residues within the space will not combust during hot work; and (d) pipes that can deliver hazardous materials to the workspace have been separated, blanked, or locked out, and nearby hazardous spaces have been evaluated and noted on the certificate.

NOT SAFE FOR HOT WORK: In the compartment or space so designated, hot work is not permitted.

"The undersigned acknowledges receipt of this Certificate and understands conditions and limitations under which it was issued."

Signed _____ Name _____ Company _____ 8/14/15 Date

This Certificate is based on conditions existing at the time the inspection herein set forth was completed and is issued subject to compliance with all qualifications and instructions.

Signed _____ Marine Chemist N°-706 Certificate No.

POSTING

DEPARTMENT OF ECOLOGY
State of Washington

UST ID #: _____

County: _____

SITE CHECK/SITE ASSESSMENT CHECKLIST

FOR UNDERGROUND STORAGE TANKS

This checklist certifies that site check or site assessment activities were performed in accordance with Chapter 173-360 WAC. Instructions are found on the last page.

I. UST FACILITY		II. OWNER/OPERATOR INFORMATION	
Facility Compliance Tag #:	NOT REGISTERED	Owner/Operator Name:	NINTH & LENORA LLC
UST ID #:	NOT REGISTERED	Business Name:	NINTH & LENORA LLC
Site Name:	9th & LENORA PROJECT	Address:	2118 WESTLAKE AVENUE
Site Address:	2118 WESTLAKE AVENUE	City:	SEATTLE State: WA Zip: 98121
City:	SEATTLE	Phone:	206-682-7770 (SELLEN CONST.)
Phone:	NONE	Email:	NONE

III. CERTIFIED SITE ASSESSOR			
Service Provider Name:	FASIHULLAH KHAN	Company Name:	GEOENGINEERS, INC.
Cell Phone: 206.713.2136	Email: FKHAN@GEOENGINEERS.COM	Address:	600 STEWART ST, #1700
Certification #: 8057 532	Exp. Date: 7/10/2015	City:	SEATTLE State: WA Zip: 98101

IV. TANK INFORMATION

TANK ID	TANK CAPACITY	LAST SUBSTANCE STORED	DATE SITE CHECK OR ASSESSMENT CONDUCTED
UST 3	1,750 GALLONS	DIESEL FUEL #2 (HEATING OIL)	6/11/2015

V. REASON FOR CONDUCTING SITE CHECK/SITE ASSESSMENT (check one)

- [x] Release investigation following permanent UST system closure (i.e. tank removal or closure-in-place).
- [ ] Release investigation following a failed tank and/or line tightness test.
- [ ] Release investigation following discovery of contaminated soil and/or groundwater.
- [ ] Release investigation directed by Ecology to determine if the UST system is the source of offsite impacts.
- [ ] UST system is undergoing a "change-in-service", which is changing from storing a regulated substance (e.g. gasoline) to storing a non-regulated substance (e.g. water).
- [ ] Directed by Ecology for UST system permanently closed or abandoned before 12/22/1988.
- [ ] Other (describe):

VI. Checklist

The site assessor must check each of the following items and include it in the report. Sections referenced below can be found in the Ecology publication *Guidance for Site Checks and Site Assessments for Underground Storage Tanks*.	YES	NO
1. The location of the UST site is shown on a vicinity map.	☒	☐
2. A brief summary of information obtained during the site inspection is provided (Section 3.2)	☒	☐
3. A summary of UST system data is provided (Section 3.1)	☒	☐
4. The soils characteristics at the UST site are described. (Section 5.2)	☒	☐
5. Is there any apparent groundwater in the tank excavation?	☐	☒
6. A brief description of the surrounding land use is provided. (Section 3.1)	☒	☐
7. The name and address of the laboratory used to perform analyses is provided. The methods used to collect and analyze the samples, including the number and types of samples collected, are also documented in the report. The data from the laboratory is appended to the report.	☒	☐
8. The following items are provided in one or more sketches:		
• Location and ID number for all field samples collected	☒	☐
• If applicable, groundwater samples are distinguished from soil samples	☒	☐
• Location of samples collected from stockpiled excavated soil	☒	☐
• Tank and piping locations and limits of excavation pit	☒	☐
• Adjacent structures and streets	☒	☐
• Approximate locations of any on-site and nearby utilities	☐	☒
9. If sampling procedures are different from those specified in the guidance, has justification for using these alternative sampling procedures been provided? (Section 3.4)	☒	☐
10. A table is provided showing laboratory results for each sample collected including; sample ID number, constituents analyzed for and corresponding concentration, analytical method, and detection limit for that method. Any sample exceeding MTCA Method A cleanup standards are highlighted or bolded.	☒	☐
11. Any factors that may have compromised the quality of the data or validity of the results are described.	☐	☒
12. The results of this site check/site assessment indicate that a confirmed release of a regulated substance has occurred. The requirements for reporting confirmed releases can be found in WAC 173-360-372.	☒	☐

VII. Required Signatures

Signature acknowledges the Site Check or Site Assessment complies with UST regulations WAC 173-360-360 through -395.

FASIHULLAH KHAN		6/11/2015
Print or Type Name	Signature of Certified Site Assessor	Date

DEPARTMENT OF ECOLOGY
State of Washington

UNDERGROUND STORAGE TANK (UST)
30-DAY NOTICE

(See back of form for instructions)

CALLED IN

Please ✓ the appropriate box: ☐ Intent to Install ☒ Intent to Close

FOR OFFICE USE ONLY
Site ID #
FS ID #

HQ (360)407-7170 / Central (509)575-2490 / Eastern (509)329-3400 / Northwest (425)649-7000 / Southwest (360)407-6300

SITE INFORMATION

Not registered

Tag or UBI number
Not registered

Site Name
9th & Lenora Project

Site Physical Address
2101 9th Avenue, Seattle, Wa 98121

City Zip Code

206 682-7770 (Sellen Construction)
Site Phone Number

OWNER INFORMATION
(this form will be returned to this address)

UST Owner/Operator

Mailing Address/PO Box

City Zip Code
2101 9th Avenue, Seattle, Wa 98121

Owner/Operator Phone Number

Owner/Operator Email Address

TANK INFORMATION

Tank ID	Substance Stored	Capacity	Date Project is Expected to Begin	Comments:
1	Diesel fuel	2,000 g	6-11-2015	Reportedly, the 30-day tank decommissioning notice was called in prior to by contractor or other consultant prior to this notice being filled out.

1) SERVICE PROVIDER INFORMATION - check the appropriate boxes

PLEASE NOTE: INDIVIDUALS PERFORMING UST SERVICES MUST BE ICC CERTIFIED OR HAVE PASSED ANOTHER QUALIFYING EXAM APPROVED BY THE DEPARTMENT OF ECOLOGY.

☐ Installer ☒ Decommissioner ☒ Site Assessor

Cert. #0878867-U2 and #0878867-U7

Service Provider Company Name
galloway Environmental, Inc.

Contact Person
Gary Galloway

Certified Service Provider Name
Gary Galloway,

Contact Phone Number
425 688 8852. gallowaye@comcast.net

ICC Certification #

Contact Email Address

2) SERVICE PROVIDER INFORMATION (REQUIRED IF USING MORE THAN ONE PROVIDER) - check the appropriate boxes

☐ Installer ☐ Decommissioner ☐ Site Assessor

Service Provider Company Name

Contact Person

Certified Service Provider Name

Contact Phone Number

ICC Certification #

Contact Email Address

DEPARTMENT OF ECOLOGY
State of Washington

UST ID #: _?_____

County: _King___

PERMANENT CLOSURE NOTICE

FOR UNDERGROUND STORAGE TANKS

This notice certifies that permanent closure activities were performed and conducted in accordance with Chapter 173-360 WAC. Instructions are found on the back page.

I. UST FACILITY	II. OWNER/OPERATOR INFORMATION
Facility Compliance Tag #:	Owner/Operator Name:
UST ID #: **not registered**	Business Name: **9th & Lenora Project**
Site Name: **9th & Lenora Project**	Address: **2101 9th Avenue**
Site Address: **2101 9th Avenue**	City: **Seattle** State: **WA** Zip: 98121
City: Seattle	Phone: **206-682-7770 (Sellen Construction)**
Phone: **none**	Email:

III. CERTIFIED UST DECOMMISSIONER	
Company Name: **Galloway Environmental, Inc.**	Service Provider Name: **Gary Galloway**
Address: **3102 220th PL SE**	Certification Type: **IFCI UST Decommissioning**
City: **Sammamish** State: **WA** Zip: **98075**	Cert. No.: 0878867-U2 Exp. Date: **6/4/2017**
Provider Phone: **425-688-8852**	Provider Email: **gary@gallowayenvironmental.com**
Provider Signature:	***Date:*** **June 26, 2015**

IV. TANK INFORMATION

TANK ID	TANK CAPACITY	LAST SUBSTANCE STORED	CLOSURE METHOD			CLOSURE DATE
			removal	closed-in-place	change-in-service	
1	2,000 gallons	diesel	X☐	☐	☐	6/11/2015
			☐	☐	☐	
			☐	☐	☐	
			☐	☐	☐	
			☐	☐	☐	
			☐	☐	☐	

V. REQUIRED SIGNATURE

Signature acknowledges UST(s) comply with UST regulation WAC 173-360-380 Temporary Closure Requirements.

Date	Signature of Tank Owner/Operator or Authorized Representative	Print or Type Name

ECY 020-94 (July 2014)

MARINE VACUUM SERVICE, INC.

UNDERGROUND STORAGE TANK TRIPLE RINSE CERTIFICATE

Tank Size: 6000 GALLONS

Tank Location: 2101 9th Ave
SEATTLE

Marine Vacuum Service, Inc. certifies that the above mentioned tank(s) have been triple rinsed in accordance with the industry standard and that all rinsate has been disposed of in accordance with Federal, State and Local regulations.

Tank Owner: 9th AND LENORA LLC

Sub-Contractor: AMEC FOSTER WHEELER

M.V.S. Representative: Sokha

Date: 6-11-13

Notes:

SOUND TESTING, INC.
206-932-0209
24 HOUR SERVICE

MARINE CHEMIST CERTIFICATE

SERIAL NO. 0191621

MARVAC Survey Requested by	9th & LENORA LLC Vessel Owner or Agent	11 JUN 15 Date
UST Vessel	UST Type of Vessel	9th & LENORA Specific Location of Vessel
DIESEL X 3 Last Three (3) Loadings	VISUAL, O2 Tests Performed	1030 Time Survey Completed

~2000 GAL (cit) ~~[redacted]~~ DIESEL UST

INERTED WITH CO_2
(O_2 < 6.0%)

SAFE FOR LIMITED HOT CORK
LIMITATIONS:
(1) POST FIRE WATCH
(2) MAY USE ABRASIVE SAW TO REMOVE & BACK FILL PIPE
(3) MAY RIP OR ABRASIVE SAW OUT THE SMALLER VENT & PRODUCT LINES FROM THE TANK

[METER: BW S/N SK102-005146 / CAL: 0630-11JUN15]

In the event of physical or atmospheric changes affecting the STANDARD SAFETY DESIGNATIONS assigned to any of the above spaces, this certificate is voided, spaces not listed on the Certificate are not to be entered unless authorized on another Certificate and/or maintained in accordance with OSHA 29 CFR 1915, or if in any doubt, immediately stop all work and contact the undersigned Marine Chemist. Unless otherwise stated on the Certificate, all spaces and affected adjacent spaces are to be reinspected daily or more often as necessary by the competent person in support of work prior to entry or recommencement of work.

QUALIFICATIONS: Transfer of ballast, cargo, fuel, or manipulation of valves or closure equipment tending to alter conditions in pipelines, tanks, or compartments subject to gas accumulation, unless specifically approved on this Certificate, requires inspection and a new Certificate for spaces so affected. All lines, vents, heating coils, valves, and similar enclosed appurtenances shall be considered "not safe" unless otherwise specifically designated. Movement of the vessel from its specific location voids the Certificate unless shifting of the vessel within the facility has been specifically authorized on this Certificate.

STANDARD SAFETY DESIGNATIONS: (partial list, paraphrased from NFPA 306, Subsections 4.3.1 through 4.3.6).

ATMOSPHERE SAFE FOR WORKERS: In the compartment or space so designated (a) the oxygen content of the atmosphere is at least 19.5 percent and not greater than 22 percent by volume; (b) the concentration of flammable materials is below 10 percent of the lower explosive limit; (c) any toxic materials in the atmosphere associated with cargo, fuel, tank coatings, inerting mediums, or fumigants are within permissible concentrations at the time of the inspection.

NOT SAFE FOR WORKERS: In the compartment or space so designated, entry is not permitted.

ENTER WITH RESTRICTIONS: In the compartment or space so designated, entry for work is permitted only if conditions of proper protective equipment, or clothing, or time, or all of the aforementioned, as appropriate, are as specified.

SAFE FOR HOT WORK: In the compartment or space so designated (a) the oxygen content of the atmosphere is not greater than 22 percent by volume; (b) the concentration of flammable materials in the atmosphere is less than 10 percent of the lower explosive limit; (c) the residues, scale, or preservative coatings are cleaned sufficiently to prevent the spread of fire and are not capable of producing a higher concentration than permitted by (a) or (b); (d) all adjacent spaces, containing or having contained flammable or combustible materials shall be sufficiently cleaned of residues, scale, or preservative coatings to prevent the spread of fire, or they are inerted. Ship's fuel tanks, lube tanks, or engine room or fire room bilges, or other machinery spaces, are treated in accordance with the Marine Chemist's requirements.

SAFE FOR LIMITED HOT WORK: In the compartment or space so designated (a) portions of the space meet the requirements for Safe for Hot Work and Partial Cleaning, as applicable, or (b) the space is inerted, adjacent spaces meet the requirements for Safe for Hot Work, and hot work is restricted to specific locations; (c) portions of the space shall meet the requirements for Safe for Hot Work, as applicable, and the nature or type of hot work is limited or restricted.

NOT SAFE FOR HOT WORK: In the compartment or space so designated, hot work is not permitted.

CHEMISTS ENDORSEMENT. This is to certify that I have personally determined that all spaces in the foregoing list are in accordance with NFPA 306 Control of Gas Hazards on Vessels and have found the condition of each to be in accordance with its assigned designation.

This Certificate is based on conditions existing at the time the inpection herein set forth was completed and is issued subject to compliance with all qualifications and instructions.

"The undersigned acknowledges receipt of this Certificate under NFPA 306 and understands conditions and limitations under which it was issued, and the requirements for maintaining its validity."

Signed _____ (Name) GALLOWAY ENV. (Company) 11 JUN 15 (Date)

Signed Craig R. Tuttle (Marine Chemist) #688 (Certificate No.)

SOUND TESTING, INC.
206-932-0209
24 HOUR SERVICE

POSTING COPY CRAIG 206-313-6933

Printed in U.S.A.

20M-11-08

THUR 06/11/15
1PM JK

RECEIVED
JUN 10 2015
PERMIT SECTION

Your Seattle Fire Department

APPLICATION FOR TEMPORARY PERMIT

Code 7908 **Commercial Tank Removal/Decommissioning**

Permit Fee: $208.00 $218-

Date Issued: 6/11/2015

Tank(s) must be removed from site on the same day as permit is issued!

TO BE COMPLETED BY PERMIT APPLICANT

FIRM NAME	MARINE VACUUM SERVICE, INC.		
MAILING ADDRESS	P. O. BOX 24263		SUITE
CITY	SEATTLE	STATE WA	ZIP 98124
JOBSITE ADDRESS	2121 9TH AVENUE SEATTLE, WA 98121		
CONTACT PERSON	MIKE SCHIRMER	PHONE NUMBER (206)	255-8174

Number of Tank(s): 1 Tank Size(s): 1,000 ☐ Aboveground tank

Product(s) Previously Contained: HEATING OIL ☒ Underground tank

☒ Removal (Marine Chemist inspection and certificate required for all tanks regardless of size or contents)

☐ Abandonment-in-Place (Marine Chemist certificate required for tanks previously containing Class I flammable liquids and/or unknowns)

Hot work being conducted: ☒ No ☐ Yes (If yes, a separate hot work permit is required)

Permit applications may be submitted in person weekdays from 8:00 a.m. to 5:00 p.m., or mailed to:

Seattle Fire Department
Fire Marshal's Office – Permits
220 Third Ave S, 2nd Floor
Seattle, WA 98104-2608

To pay with a Visa or Master Card: Fax or email this application
THEN CALL US TO CONFIRM RECEIPT AND MAKE PAYMENT
Tel: (206) 386-1450 / Fax: (206) 386-1348
E-mail: permits@seattle.gov

Call 386-1450, at least 24 hours prior to needed inspection time to arrange for an appointment.
TANKS MAY BE REMOVED/DECOMMISSIONED ONLY AFTER FIRE DEPARTMENT INSPECTION
NO HOT WORK IS ALLOWED ON A TANK SYSTEM PRIOR TO ISSUANCE OF THIS FIRE DEPARTMENT PERMIT!

Permission is hereby granted to remove or decommission the tank(s) identified in this permit in accordance with the attached conditions, all noted special conditions, and all applicable provisions of the Seattle Fire Code, federal, state and local regulations. **THIS PERMIT IS NULL AND VOID IF PERMIT CONDITIONS ARE NOT ATTACHED**

Special permit conditions: *Tank removal/decommissioning must be performed, or directly supervised, by an ICC certified individual (WAC 173-360-600)*

OK FOR TANK REMOVAL

FMO USE:
Check No.: 47160 61015
Receipt No.: 5-247538
Application ID#: 101426

APPROVED BY:
Inspector: JOHN LOUDERBACK SFD ID# 1077
Name of Marine Chemist CRAIG Certificate # 608
Date: 6/11/2015

(01/13)

DEPARTMENT OF ECOLOGY
State of Washington

UST ID #: _____

County: _____

SITE CHECK/SITE ASSESSMENT CHECKLIST

FOR UNDERGROUND STORAGE TANKS

This checklist certifies that site check or site assessment activities were performed in accordance with Chapter 173-360 WAC. Instructions are found on the last page.

I. UST FACILITY		II. OWNER/OPERATOR INFORMATION	
Facility Compliance Tag #:	NOT REGISTERED	Owner/Operator Name:	NINTH & LENORA LLC
UST ID #:	NOT REGISTERED	Business Name:	NINTH & LENORA LLC
Site Name:	9th & LENORA PROJECT	Address:	2118 WESTLAKE AVENUE
Site Address:	2118 WESTLAKE AVENUE	City:	SEATTLE State: WA Zip: 98121
City:	SEATTLE	Phone:	206-682-7770 (SELLEN CONST.)
Phone:	NONE	Email:	NONE

III. CERTIFIED SITE ASSESSOR			
Service Provider Name:	FASIHULLAH KHAN	Company Name:	GEOENGINEERS, INC.
Cell Phone: 206.713.2136	Email: FKHAN@GEOENGINEERS.COM	Address:	600 STEWART ST, #1700
Certification #: 8057 532	Exp. Date: 7/10/2015	City:	SEATTLE State: WA Zip: 98101

IV. TANK INFORMATION

TANK ID	TANK CAPACITY	LAST SUBSTANCE STORED	DATE SITE CHECK OR ASSESSMENT CONDUCTED
UST 3	1,750 GALLONS	DIESEL FUEL #2 (HEATING OIL)	6/11/2015

V. REASON FOR CONDUCTING SITE CHECK/SITE ASSESSMENT (check one)

- [x] Release investigation following permanent UST system closure (i.e. tank removal or closure-in-place).
- [ ] Release investigation following a failed tank and/or line tightness test.
- [ ] Release investigation following discovery of contaminated soil and/or groundwater.
- [ ] Release investigation directed by Ecology to determine if the UST system is the source of offsite impacts.
- [ ] UST system is undergoing a "change-in-service", which is changing from storing a regulated substance (e.g. gasoline) to storing a non-regulated substance (e.g. water).
- [ ] Directed by Ecology for UST system permanently closed or abandoned before 12/22/1988.
- [ ] Other (describe):

VI. Checklist

The site assessor must check each of the following items and include it in the report. Sections referenced below can be found in the Ecology publication *Guidance for Site Checks and Site Assessments for Underground Storage Tanks*.	YES	NO
1. The location of the UST site is shown on a vicinity map.	☒	☐
2. A brief summary of information obtained during the site inspection is provided (Section 3.2)	☒	☐
3. A summary of UST system data is provided (Section 3.1)	☒	☐
4. The soils characteristics at the UST site are described. (Section 5.2)	☒	☐
5. Is there any apparent groundwater in the tank excavation?	☐	☒
6. A brief description of the surrounding land use is provided. (Section 3.1)	☒	☐
7. The name and address of the laboratory used to perform analyses is provided. The methods used to collect and analyze the samples, including the number and types of samples collected, are also documented in the report. The data from the laboratory is appended to the report.	☒	☐
8. The following items are provided in one or more sketches:		
• Location and ID number for all field samples collected	☒	☐
• If applicable, groundwater samples are distinguished from soil samples	☒	☐
• Location of samples collected from stockpiled excavated soil	☒	☐
• Tank and piping locations and limits of excavation pit	☒	☐
• Adjacent structures and streets	☒	☐
• Approximate locations of any on-site and nearby utilities	☐	☒
9. If sampling procedures are different from those specified in the guidance, has justification for using these alternative sampling procedures been provided? (Section 3.4)	☒	☐
10. A table is provided showing laboratory results for each sample collected including; sample ID number, constituents analyzed for and corresponding concentration, analytical method, and detection limit for that method. Any sample exceeding MTCA Method A cleanup standards are highlighted or bolded.	☒	☐
11. Any factors that may have compromised the quality of the data or validity of the results are described.	☐	☒
12. The results of this site check/site assessment indicate that a confirmed release of a regulated substance has occurred. The requirements for reporting confirmed releases can be found in WAC 173-360-372.	☒	☐

VII. Required Signatures

Signature acknowledges the Site Check or Site Assessment complies with UST regulations WAC 173-360-360 through -395.

FASIHULLAH KHAN		6/11/2015
Print or Type Name	Signature of Certified Site Assessor	Date

DEPARTMENT OF ECOLOGY
State of Washington

UNDERGROUND STORAGE TANK (UST)
30-DAY NOTICE

(See back of form for instructions)

CALLED IN

Please ✓ the appropriate box: ☐ Intent to Install ☒ Intent to Close

FOR OFFICE USE ONLY
Site ID #
FS ID #

HQ (360)407-7170 / Central (509)575-2490 / Eastern (509)329-3400 / Northwest (425)649-7000 / Southwest (360)407-6300

SITE INFORMATION

Not registered

Tag or UBI number
Not registered

Site Name
9th & Lenora Project

Site Physical Address
2101 9th Avenue, Seattle, Wa 98121

City Zip Code

206 682-7770 (Sellen Construction)
Site Phone Number

OWNER INFORMATION
(this form will be returned to this address)

UST Owner/Operator

Mailing Address/PO Box

City Zip Code
2101 9th Avenue, Seattle, Wa 98121

Owner/Operator Phone Number

Owner/Operator Email Address

TANK INFORMATION

Tank ID	Substance Stored	Capacity	Date Project is Expected to Begin	Comments:
1	Diesel fuel	2,000 g	6-11-2015	Reportedly, the 30-day tank decommissioning notice was called in prior to by contractor or other consultant prior to this notice being filled out.

1) SERVICE PROVIDER INFORMATION - check the appropriate boxes

PLEASE NOTE: INDIVIDUALS PERFORMING UST SERVICES MUST BE ICC CERTIFIED OR HAVE PASSED ANOTHER QUALIFYING EXAM APPROVED BY THE DEPARTMENT OF ECOLOGY.

☐ Installer ☒ Decommissioner ☒ Site Assessor

Cert. #0878867-U2 and #0878867-U7

Service Provider Company Name
galloway Environmental, Inc.

Contact Person
Gary Galloway

Certified Service Provider Name
Gary Galloway,

Contact Phone Number
425 688 8852. gallowaye@comcast.net

ICC Certification #

Contact Email Address

2) SERVICE PROVIDER INFORMATION (REQUIRED IF USING MORE THAN ONE PROVIDER) - check the appropriate boxes

☐ Installer ☐ Decommissioner ☐ Site Assessor

Service Provider Company Name

Contact Person

Certified Service Provider Name

Contact Phone Number

ICC Certification #

Contact Email Address

DEPARTMENT OF ECOLOGY
State of Washington

UST ID #: _?_____

County: _King___

PERMANENT CLOSURE NOTICE

FOR UNDERGROUND STORAGE TANKS

This notice certifies that permanent closure activities were performed and conducted in accordance with Chapter 173-360 WAC. Instructions are found on the back page.

I. UST FACILITY	II. OWNER/OPERATOR INFORMATION
Facility Compliance Tag #:	Owner/Operator Name:
UST ID #: **not registered**	Business Name: **9th & Lenora Project**
Site Name: **9th & Lenora Project**	Address: **2101 9th Avenue**
Site Address: **2101 9th Avenue**	City: **Seattle** State: **WA** Zip: 98121
City: Seattle	Phone: **206-682-7770 (Sellen Construction)**
Phone: **none**	Email:

III. CERTIFIED UST DECOMMISSIONER	
Company Name: **Galloway Environmental, Inc.**	Service Provider Name: **Gary Galloway**
Address: **3102 220th PL SE**	Certification Type: **IFCI UST Decommissioning**
City: **Sammamish** State: **WA** Zip: **98075**	Cert. No.: 0878867-U2 Exp. Date: **6/4/2017**
Provider Phone: **425-688-8852**	Provider Email: **gary@gallowayenvironmental.com**
Provider Signature:	***Date:*** **June 26, 2015**

IV. TANK INFORMATION

TANK ID	TANK CAPACITY	LAST SUBSTANCE STORED	CLOSURE METHOD			CLOSURE DATE
			removal	closed-in-place	change-in-service	
1	2,000 gallons	diesel	X☐	☐	☐	6/11/2015
			☐	☐	☐	
			☐	☐	☐	
			☐	☐	☐	
			☐	☐	☐	
			☐	☐	☐	

V. REQUIRED SIGNATURE

Signature acknowledges UST(s) comply with UST regulation WAC 173-360-380 Temporary Closure Requirements.

Date	Signature of Tank Owner/Operator or Authorized Representative	Print or Type Name

ECY 020-94 (July 2014)

MARINE VACUUM SERVICE, INC.

UNDERGROUND STORAGE TANK TRIPLE RINSE CERTIFICATE

Tank Size: 6000 GALLONS

Tank Location: 2101 9th Ave
SEATTLE

Marine Vacuum Service, Inc. certifies that the above mentioned tank(s) have been triple rinsed in accordance with the industry standard and that all rinsate has been disposed of in accordance with Federal, State and Local regulations.

Tank Owner: 9th AND LENORA LLC

Sub-Contractor: AMEC FOSTER WHEELER

M.V.S. Representative: Sokha

Date: 6-11-13

Notes:

SOUND TESTING, INC.
206-932-0209
24 HOUR SERVICE

MARINE CHEMIST CERTIFICATE

SERIAL NO. 0191621

MARVAC Survey Requested by	9th & LENORA LLC Vessel Owner or Agent	11 JUN 15 Date
UST Vessel	UST Type of Vessel	9th & LENORA Specific Location of Vessel
DIESEL X 3 Last Three (3) Loadings	VISUAL, O2 Tests Performed	1030 Time Survey Completed

~2000 GAL (cit) ~~[redacted]~~ DIESEL UST

INERTED WITH CO_2
(O_2 < 6.0%)

SAFE FOR LIMITED HOT CORK
LIMITATIONS:
(1) POST FIRE WATCH
(2) MAY USE ABRASIVE SAW TO REMOVE & BACK FILL PIPE
(3) MAY RIP OR ABRASIVE SAW OUT THE SMALLER VENT & PRODUCT LINES FROM THE TANK

[METER: BW S/N SK102-005146 / CAL: 0630-11JUN15]

In the event of physical or atmospheric changes affecting the STANDARD SAFETY DESIGNATIONS assigned to any of the above spaces, this certificate is voided, spaces not listed on the Certificate are not to be entered unless authorized on another Certificate and/or maintained in accordance with OSHA 29 CFR 1915, or if in any doubt, immediately stop all work and contact the undersigned Marine Chemist. Unless otherwise stated on the Certificate, all spaces and affected adjacent spaces are to be reinspected daily or more often as necessary by the competent person in support of work prior to entry or recommencement of work.

QUALIFICATIONS: Transfer of ballast, cargo, fuel, or manipulation of valves or closure equipment tending to alter conditions in pipelines, tanks, or compartments subject to gas accumulation, unless specifically approved on this Certificate, requires inspection and a new Certificate for spaces so affected. All lines, vents, heating coils, valves, and similar enclosed appurtenances shall be considered "not safe" unless otherwise specifically designated. Movement of the vessel from its specific location voids the Certificate unless shifting of the vessel within the facility has been specifically authorized on this Certificate.

STANDARD SAFETY DESIGNATIONS: (partial list, paraphrased from NFPA 306, Subsections 4.3.1 through 4.3.6).

ATMOSPHERE SAFE FOR WORKERS: In the compartment or space so designated (a) the oxygen content of the atmosphere is at least 19.5 percent and not greater than 22 percent by volume; (b) the concentration of flammable materials is below 10 percent of the lower explosive limit; (c) any toxic materials in the atmosphere associated with cargo, fuel, tank coatings, inerting mediums, or fumigants are within permissible concentrations at the time of the inspection.

NOT SAFE FOR WORKERS: In the compartment or space so designated, entry is not permitted.

ENTER WITH RESTRICTIONS: In the compartment or space so designated, entry for work is permitted only if conditions of proper protective equipment, or clothing, or time, or all of the aforementioned, as appropriate, are as specified.

SAFE FOR HOT WORK: In the compartment or space so designated (a) the oxygen content of the atmosphere is not greater than 22 percent by volume; (b) the concentration of flammable materials in the atmosphere is less than 10 percent of the lower explosive limit; (c) the residues, scale, or preservative coatings are cleaned sufficiently to prevent the spread of fire and are not capable of producing a higher concentration than permitted by (a) or (b); (d) all adjacent spaces, containing or having contained flammable or combustible materials shall be sufficiently cleaned of residues, scale, or preservative coatings to prevent the spread of fire, or they are inerted. Ship's fuel tanks, lube tanks, or engine room or fire room bilges, or other machinery spaces, are treated in accordance with the Marine Chemist's requirements.

SAFE FOR LIMITED HOT WORK: In the compartment or space so designated (a) portions of the space meet the requirements for Safe for Hot Work and Partial Cleaning, as applicable, or (b) the space is inerted, adjacent spaces meet the requirements for Safe for Hot Work, and hot work is restricted to specific locations; (c) portions of the space shall meet the requirements for Safe for Hot Work, as applicable, and the nature or type of hot work is limited or restricted.

NOT SAFE FOR HOT WORK: In the compartment or space so designated, hot work is not permitted.

CHEMISTS ENDORSEMENT. This is to certify that I have personally determined that all spaces in the foregoing list are in accordance with NFPA 306 Control of Gas Hazards on Vessels and have found the condition of each to be in accordance with its assigned designation.

This Certificate is based on conditions existing at the time the inpection herein set forth was completed and is issued subject to compliance with all qualifications and instructions.

"The undersigned acknowledges receipt of this Certificate under NFPA 306 and understands conditions and limitations under which it was issued, and the requirements for maintaining its validity."

Signed _____ (Name) GALLOWAY ENV. (Company) 11 JUN 15 (Date)

Signed Craig R. Tuttle (Marine Chemist) #688 (Certificate No.)

SOUND TESTING, INC.
206-932-0209
24 HOUR SERVICE

POSTING COPY CRAIG 206-313-6933

Printed in U.S.A.

20M-11-08

THUR 06/11/15
1PM JK

RECEIVED
JUN 10 2015
PERMIT SECTION

Your Seattle Fire Department

APPLICATION FOR TEMPORARY PERMIT

Code 7908 **Commercial Tank Removal/Decommissioning**

Permit Fee: $208.00 $218-

Date Issued: 6/11/2015

Tank(s) must be removed from site on the same day as permit is issued!

TO BE COMPLETED BY PERMIT APPLICANT

FIRM NAME	MARINE VACUUM SERVICE, INC.		
MAILING ADDRESS	P. O. BOX 24263		SUITE
CITY	SEATTLE	STATE WA	ZIP 98124
JOBSITE ADDRESS	2121 9TH AVENUE SEATTLE, WA 98121		
CONTACT PERSON	MIKE SCHIRMER	PHONE NUMBER (206)	255-8174

Number of Tank(s): 1 Tank Size(s): 1,000 ☐ Aboveground tank

Product(s) Previously Contained: HEATING OIL ☒ Underground tank

☒ Removal (Marine Chemist inspection and certificate required for all tanks regardless of size or contents)

☐ Abandonment-in-Place (Marine Chemist certificate required for tanks previously containing Class I flammable liquids and/or unknowns)

Hot work being conducted: ☒ No ☐ Yes (If yes, a separate hot work permit is required)

Permit applications may be submitted in person weekdays from 8:00 a.m. to 5:00 p.m., or mailed to:

Seattle Fire Department
Fire Marshal's Office – Permits
220 Third Ave S, 2nd Floor
Seattle, WA 98104-2608

To pay with a Visa or Master Card: Fax or email this application
THEN CALL US TO CONFIRM RECEIPT AND MAKE PAYMENT
Tel: (206) 386-1450 / Fax: (206) 386-1348
E-mail: permits@seattle.gov

Call 386-1450, at least 24 hours prior to needed inspection time to arrange for an appointment.
TANKS MAY BE REMOVED/DECOMMISSIONED ONLY AFTER FIRE DEPARTMENT INSPECTION
NO HOT WORK IS ALLOWED ON A TANK SYSTEM PRIOR TO ISSUANCE OF THIS FIRE DEPARTMENT PERMIT!

Permission is hereby granted to remove or decommission the tank(s) identified in this permit in accordance with the attached conditions, all noted special conditions, and all applicable provisions of the Seattle Fire Code, federal, state and local regulations. **THIS PERMIT IS NULL AND VOID IF PERMIT CONDITIONS ARE NOT ATTACHED**

Special permit conditions: *Tank removal/decommissioning must be performed, or directly supervised, by an ICC certified individual (WAC 173-360-600)*

OK FOR TANK REMOVAL

FMO USE:
Check No.: 47160 61015
Receipt No.: 5-247538
Application ID#: 101426

APPROVED BY:
Inspector: JOHN LOUDERBACK SFD ID# 1077
Name of Marine Chemist CRAIG Certificate # 608
Date: 6/11/2015

(01/13)

APPENDIX G

Contaminated Soil Tonnage Summaries

REGIONAL DISPOSAL COMPANY INTERMODA
PO BOX 51057
LOS ANGELES, CA 90074-1057
(206) 332-7731

INVOICE

TO:

Gary Merlino
9125 10th Ave. S.
Seattle, WA 98108

Contaminated soils removed from deep side sewer work on 9th Avenue.

INVOICE NO.	0000048605
PAGE	1
DATE	Apr-30-15
CUSTOMER NO.	11105
SITE NO.	LW-15110
REFERENCE NO.	

SERVICE DATE	CODE	DESCRIPTION		REFERENCE	QTY.	AMOUNT
		Balance forward :				$23,491.16
		Payments :				$9,292.82
		Adjustments :				$0.00
		Invoices :				$0.00
30 - Apr	VH	Vehicle: SOIL SW-CONT SOIL W/FUEL	$45.00	01-922746	16.15 TN	$726.75
30 - Apr	VH	Vehicle: SOIL SW-CONT SOIL W/FUEL	$45.00	01-922748	17.02 TN	$765.90
30 - Apr	VH	Vehicle: SOIL SW-CONT SOIL W/FUEL	$45.00	01-922752	16.98 TN	$764.10
30 - Apr	VH	Vehicle: SOIL SW-CONT SOIL W/FUEL	$45.00	01-922763	15.97 TN	$718.65
30 - Apr	VH	Vehicle: SOIL SW-CONT SOIL W/FUEL	$45.00	01-922764	14.50 TN	$652.50
30 - Apr	VH	Vehicle: SOIL SW-CONT SOIL W/FUEL	$45.00	01-922776	16.27 TN	$732.15
30 - Apr	VH	Vehicle: SOIL SW-CONT SOIL W/FUEL	$45.00	01-922777	16.85 TN	$758.25

Account Status

Payment due upon receipt of this invoice. 1.5% per month (18% per annum) late charge on balances over 30 days from date of invoice.
Payments received after invoice date are not reflected.
To ensure proper credit, please include your account number on your check and include the bottom portion of this invoice. When making payment on multiple accounts, please include the account numbers and the amounts of payment.

CURRENT	31 - 60 DAYS	61 - 90 DAYS	OVER 90 DAYS

TOTAL THIS INVOICE

PLEASE PAY THIS AMOUNT

We reserve the right to suspend service without notice on any past due account.

Please remit to:

INVOICE NO.
PAGE
DATE
CUSTOMER NO.
SITE NO.
REFERENCE NO.

AMOUNT OF REMITTANCE

PLEASE RETURN THIS PORTION WITH REMITTANCE

REMARKS

Form # 401 To re-order this form, call BFI Print & Promotion Solutions 1-888-254-8784. Also available, compatible 2 Window Envelopes #TW10R.

REGIONAL DISPOSAL COMPANY INTERMODA
PO BOX 51057
LOS ANGELES, CA 90074-1057
(206) 332-7731

INVOICE

TO:

Gary Merlino
9125 10th Ave. S.
Seattle, WA 98108

INVOICE NO.	0000048647
PAGE	2
DATE	May-15-15
CUSTOMER NO.	11105
SITE NO.	LW-15110
REFERENCE NO.	

SERVICE DATE	CODE	DESCRIPTION	REFERENCE	QTY.	AMOUNT
		2112 Westlake Ave. & 2101 9th Ave, Seattle			
		Material Summary			
	VH	SW-CONT SOIL W/FUEL		102.95 TN	

15-407
14-520
JOB # [illegible]
COST CODE # 10-041-0030
COST CATEGORY (CIRCLE ONE)
MAT MIX MTU SUB EQR OTH
PM TW DATE 5-29-15

Account Status

Payment due upon receipt of this invoice. 1.5% per month (18% per annum) late charge on balances over 30 days from date of invoice.
Payments received after invoice date are not reflected.
To ensure proper credit, please include your account number on your check and include the bottom portion of this invoice. When making payment on multiple accounts, please include the account numbers and the amounts of payment.

CURRENT	31 - 60 DAYS	61 - 90 DAYS	OVER 90 DAYS
$ 13,324.95	$ 0.00	$ 0.00	$ 3,802.26

TOTAL THIS INVOICE $4,632.75

PLEASE PAY THIS AMOUNT $17,127.21

We reserve the right to suspend service without notice on any past due account.

Please remit to:

REGIONAL DISPOSAL COMPANY INTERMODA
PO BOX 51057
LOS ANGELES, CA 90074-1057
(206) 332-7731

INVOICE NO.	0000048647
PAGE	2
DATE	May-15-15
CUSTOMER NO.	11105
SITE NO.	
REFERENCE NO.	

AMOUNT OF REMITTANCE

PLEASE RETURN THIS PORTION WITH REMITTANCE

REMARKS

***** Please reference your invoice number on each check stub *****

For Billing Inquiries: Call (206)332-7731 or email: chartje@republicservices.com

REGIONAL DISPOSAL COMPANY INTERMODA
PO BOX 51057
LOS ANGELES, CA 90074-1057
(206) 332-7731

INVOICE

TO:

Gary Merlino
9125 10th Ave. S.
Seattle, WA 98108

INVOICE NO. 0000048647
PAGE 1
DATE May-15-15
CUSTOMER NO. 11105
SITE NO. LW-15110
REFERENCE NO.

SERVICE DATE	CODE	DESCRIPTION		REFERENCE	QTY.	AMOUNT
		Balance forward :				$22,890.54
		Payments :				$10,396.08
		Adjustments :				$0.00
		Invoices :				$0.00
01 - May	VH	Vehicle: SOIL SW-CONT SOIL W/FUEL	$45.00	01-922808	16.19 TN	$728.55
01 - May	VH	Vehicle: SOIL SW-CONT SOIL W/FUEL	$45.00	01-922810	14.57 TN	$655.65
01 - May	VH	Vehicle: SOIL SW-CONT SOIL W/FUEL	$45.00	01-922816	13.77 TN	$619.65
01 - May	VH	Vehicle: SOIL SW-CONT SOIL W/FUEL	$45.00	01-922817	13.67 TN	$615.15
01 - May	VH	Vehicle: SOIL SW-CONT SOIL W/FUEL	$45.00	01-922824	14.87 TN	$669.15
01 - May	VH	Vehicle: SOIL SW-CONT SOIL W/FUEL	$45.00	01-922825	15.92 TN	$716.40
04 - May	VH	Vehicle: SOIL SW-CONT SOIL W/FUEL	$45.00	01-922868	13.96 TN	$628.20

Account Status

Payment due upon receipt of this invoice. 1.5% per month (18% per annum) late charge on balances over 30 days from date of invoice.
Payments received after invoice date are not reflected.
To ensure proper credit, please include your account number on your check and include the bottom portion of this invoice. When making payment on multiple accounts, please include the account numbers and the amounts of payment.

CURRENT	31 - 60 DAYS	61 - 90 DAYS	OVER 90 DAYS

TOTAL THIS INVOICE

PLEASE PAY THIS AMOUNT

We reserve the right to suspend service without notice on any past due account.

Please remit to:

INVOICE NO.
PAGE
DATE
CUSTOMER NO.
SITE NO.
REFERENCE NO.

AMOUNT OF REMITTANCE

PLEASE RETURN THIS PORTION WITH REMITTANCE

REMARKS

Form # 401 To re-order this form, call BFI Print & Promotion Solutions 1-888-254-8784. Also available, compatible 2 Window Envelopes #TW10R.

(206) 332-7731

TO:

Gary Merlino
9125 10th Ave. S.
Seattle, WA 98108

INVOICE NO.	0000048605
PAGE	2
DATE	Apr-30-15
CUSTOMER NO.	11105
SITE NO.	LW-15110
REFERENCE NO.	

SERVICE DATE	CODE	DESCRIPTION		REFERENCE	QTY.	AMOUNT
30 - Apr	VH	Vehicle: SOIL SW-CONT SOIL W/FUEL	$45.00	01-922785	15.15 TN	$681.75
30 - Apr	VH	Vehicle: SOIL SW-CONT SOIL W/FUEL	$45.00	01-922788	15.08 TN	$678.60
30 - Apr	VH	Vehicle: SOIL SW-CONT SOIL W/FUEL	$45.00	01-922791	16.21 TN	$729.45
30 - Apr	VH	Vehicle: SOIL SW-CONT SOIL W/FUEL	$45.00	01-922797	16.58 TN	$746.10
30 - Apr	VH	Vehicle: SOIL SW-CONT SOIL W/FUEL	$45.00	01-922799	16.40 TN	$738.00
	VH	Material Summary SW-CONT SOIL W/FUEL			193.16 TN	

JOB # 2015407
COST CODE # 10-041-0030
COST CATEGORY (CIRCLE ONE)
MAT MIX MTU SUB EQR OTH
PM TV DATE 5-7-15

Payment due upon receipt of this invoice. 1.5% per month (18% per annum) late charge on balances over 30 days from date of invoice.
Payments received after invoice date are not reflected.
To ensure proper credit, please include your account number on your check and include the bottom portion of this invoice. When making payment on multiple accounts, please include the account numbers and the amounts of payment.

Account Status

CURRENT	31 - 60 DAYS	61 - 90 DAYS	OVER 90 DAYS
$ 8,851.20	$ 0.00	$ 14,039.34	$ 0.00

TOTAL THIS INVOICE $8,692.20

PLEASE PAY THIS AMOUNT ~~$22,890.54~~

We reserve the right to suspend service without notice on any past due account.

Please remit to:

REGIONAL DISPOSAL COMPANY INTERMODA
PO BOX 51057
LOS ANGELES, CA 90074-1057
(206) 332-7731

INVOICE NO.	0000048605
PAGE	2
DATE	Apr-30-15
CUSTOMER NO.	11105
SITE NO.	
REFERENCE NO.	

AMOUNT OF REMITTANCE

PLEASE RETURN THIS PORTION WITH REMITTANCE

REMARKS

***** Please reference your invoice number on each check stub *****

For Billing Inquiries: Call (206)332-7731 or email: chartje@republicservices.com

Form # 401 To re-order this form, call BFI Print & Promotion Solutions 1-888-254-8784. Also available, compatible 2 Window Envelopes #TW10R.

9th & Lenora

Load Count:

CTI Contaminated Soil Tracking

Thru Friday, 8/28

Tonnage:

Year	Mth	Delivery Date	Project #	Project Name	Source	Destination	Ticket #	Truck #	Hauler
2015	June	6/16/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	104695	372	CTI
2015	June	6/16/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	104727	372	CTI
2015	June	6/16/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	104763	372	CTI
2015	June	6/16/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	104693	375	CTI
2015	June	6/16/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	104725	375	CTI
2015	June	6/16/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	104765	375	CTI
2015	July	7/8/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106076	417	CTI
2015	July	7/8/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106087	417	CTI
2015	July	7/8/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106100	417	CTI
2015	July	7/8/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106110	417	CTI
2015	July	7/8/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106115	417	CTI
2015	July	7/8/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106074	425	CTI
2015	July	7/8/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106082	425	CTI
2015	July	7/8/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106091	425	CTI
2015	July	7/8/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106097	425	CTI
2015	July	7/8/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106106	425	CTI
2015	July	7/8/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106113	425	CTI
2015	July	7/8/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106117	425	CTI
2015	July	7/9/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106147	425	CTI
2015	July	7/9/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106159	425	CTI
2015	July	7/9/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106167	425	CTI
2015	July	7/9/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106178	425	CTI
2015	July	7/9/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106140	411	CTI
2015	July	7/9/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106156	411	CTI
2015	July	7/9/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106165	411	CTI
2015	July	7/9/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106177	411	CTI
2015	July	7/10/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106190	417	CTI
2015	July	7/10/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106201	417	CTI
2015	July	7/10/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106215	417	CTI
2015	July	7/10/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106225	417	CTI
2015	July	7/10/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106188	410	CTI
2015	July	7/10/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106200	410	CTI

Year	Mth	Delivery Date	Project #	Project Name	Source	Destination	Ticket #	Truck #	Hauler
2015	July	7/10/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106214	410	CTI
2015	July	7/10/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106223	410	CTI
2015	July	7/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106304	364	CTI
2015	July	7/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106311	364	CTI
2015	July	7/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106316	364	CTI
2015	July	7/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106323	364	CTI
2015	July	7/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106330	364	CTI
2015	July	7/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106303	420	CTI
2015	July	7/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106309	420	CTI
2015	July	7/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106315	420	CTI
2015	July	7/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106322	420	CTI
2015	July	7/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106327	420	CTI
2015	July	7/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106332	420	CTI
2015	July	7/15/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106401	412	CTI
2015	July	7/15/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106415	412	CTI
2015	July	7/15/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106424	412	CTI
2015	July	7/15/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106435	412	CTI
2015	July	7/15/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106450	412	CTI
2015	July	7/15/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106459	412	CTI
2015	July	7/15/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106398	422	CTI
2015	July	7/15/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106412	422	CTI
2015	July	7/15/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106423	422	CTI
2015	July	7/15/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106434	422	CTI
2015	July	7/15/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106447	422	CTI
2015	July	7/15/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106456	422	CTI
2015	July	7/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106493	425	CTI
2015	July	7/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106498	425	CTI
2015	July	7/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106502	425	CTI
2015	July	7/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106508	425	CTI
2015	July	7/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106517	425	CTI
2015	July	7/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106520	425	CTI
2015	July	7/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106525	425	CTI
2015	July	7/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106534	425	CTI
2015	July	7/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106503	417	CTI
2015	July	7/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106513	417	CTI

Year	Mth	Delivery Date	Project #	Project Name	Source	Destination	Ticket #	Truck #	Hauler
2015	July	7/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106518	417	CTI
2015	July	7/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106523	417	CTI
2015	July	7/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106529	417	CTI
2015	July	7/20/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106550	364	CTI
2015	July	7/20/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106564	364	CTI
2015	July	7/20/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106586	364	CTI
2015	July	7/20/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106596	364	CTI
2015	July	7/20/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106603	364	CTI
2015	July	7/20/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106614	364	CTI
2015	July	7/20/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106621	364	CTI
2015	July	7/20/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106557	419	CTI
2015	July	7/20/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106574	419	CTI
2015	July	7/20/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106589	419	CTI
2015	July	7/20/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106598	419	CTI
2015	July	7/20/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106607	419	CTI
2015	July	7/20/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106617	419	CTI
2015	July	7/21/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106627	412	CTI
2015	July	7/21/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106631	412	CTI
2015	July	7/21/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106635	412	CTI
2015	July	7/21/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106639	412	CTI
2015	July	7/21/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106646	412	CTI
2015	July	7/21/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106657	412	CTI
2015	July	7/21/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106661	412	CTI
2015	July	7/21/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106624	364	CTI
2015	July	7/21/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106629	364	CTI
2015	July	7/21/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106633	364	CTI
2015	July	7/21/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106637	364	CTI
2015	July	7/21/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106644	364	CTI
2015	July	7/21/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106654	364	CTI
2015	July	7/21/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106658	364	CTI
2015	July	7/21/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106662	364	CTI
2015	July	7/21/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106638	419	CTI
2015	July	7/21/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106645	419	CTI
2015	July	7/21/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106655	419	CTI
2015	July	7/21/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106660	419	CTI

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2015	July	7/23/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106720	28	RINO
2015	July	7/23/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106740	28	RINO
2015	July	7/23/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106757	28	RINO
2015	July	7/23/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106772	28	RINO
2015	July	7/23/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106782	28	RINO
2015	July	7/23/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106793	28	RINO
2015	July	7/23/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106731	10	RINO
2015	July	7/23/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106751	10	RINO
2015	July	7/23/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106767	10	RINO
2015	July	7/23/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106781	10	RINO
2015	July	7/23/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106791	10	RINO
2015	July	7/23/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106728	9	RINO
2015	July	7/23/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106749	9	RINO
2015	July	7/23/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106766	9	RINO
2015	July	7/23/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106779	9	RINO
2015	July	7/23/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106790	9	RINO
2015	July	7/23/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106723	26	RINO
2015	July	7/23/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106742	26	RINO
2015	July	7/23/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106760	26	RINO
2015	July	7/23/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106775	26	RINO
2015	July	7/23/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106786	26	RINO
2015	July	7/23/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106796	26	RINO
2015	July	7/24/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106815	28	RINO
2015	July	7/24/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106829	28	RINO
2015	July	7/24/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106851	28	RINO
2015	July	7/24/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106824	26	RINO
2015	July	7/24/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106849	26	RINO
2015	July	7/24/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106812	10	RINO
2015	July	7/24/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106826	10	RINO
2015	July	7/24/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106847	10	RINO
2015	July	7/24/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106861	10	RINO
2015	July	7/24/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106819	9	RINO
2015	July	7/24/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106840	9	RINO
2015	July	7/24/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106585	9	RINO
2015	July	7/27/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106900	3201	SS

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2015	July	7/27/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106896	991	MCCANN
2015	July	7/27/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106925	991	MCCANN
2015	July	7/27/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	106951	991	MCCANN
2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107102	425	CTI
2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107118	425	CTI
2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107129	425	CTI
2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107141	425	CTI
2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107147	425	CTI
2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107155	425	CTI
2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107169	425	CTI
2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107176	425	CTI
2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107104	426	CTI
2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107119	426	CTI
2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107132	426	CTI
2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107150	426	CTI
2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107164	426	CTI
2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107172	426	CTI
2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107109	422	CTI
2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107125	422	CTI
2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107137	422	CTI
2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107151	422	CTI
2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107166	422	CTI
2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107174	422	CTI
2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107110	412	CTI
2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107126	412	CTI
2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107138	412	CTI
2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107146	412	CTI
2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107154	412	CTI
2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107170	412	CTI
2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107106	DT04	CTI
2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107124	DT04	CTI
2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107134	DT04	CTI
2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107144	DT04	CTI
2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107149	DT04	CTI
2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107157	DT04	CTI

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2015	July	7/29/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107171	DT04	CTI
2015	July	7/30/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107179	424	CTI
2015	July	7/30/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107187	424	CTI
2015	July	7/30/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107194	424	CTI
2015	July	7/30/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107198	424	CTI
2015	July	7/30/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107180	419	CTI
2015	July	7/30/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107188	419	CTI
2015	July	7/30/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107181	411	CTI
2015	July	7/30/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107189	411	CTI
2015	July	7/30/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107182	410	CTI
2015	July	7/30/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107190	410	CTI
2015	July	7/30/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107183	425	CTI
2015	August	8/4/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107298	426	CTI
2015	August	8/4/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107308	426	CTI
2015	August	8/4/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107320	426	CTI
2015	August	8/4/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107300	422	CTI
2015	August	8/4/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107309	422	CTI
2015	August	8/4/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107322	422	CTI
2015	August	8/4/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107301	412	CTI
2015	August	8/4/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107310	412	CTI
2015	August	8/4/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107323	412	CTI
2015	August	8/4/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107302	420	CTI
2015	August	8/4/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107313	420	CTI
2015	August	8/4/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107326	420	CTI
2015	August	8/4/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107331	420	CTI
2015	August	8/4/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107338	420	CTI
2015	August	8/4/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107342	420	CTI
2015	August	8/4/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107305	364	CTI
2015	August	8/4/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107316	364	CTI
2015	August	8/4/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107327	364	CTI
2015	August	8/4/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107333	364	CTI
2015	August	8/4/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107339	364	CTI
2015	August	8/4/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107347	364	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107605	424	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107617	424	CTI

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2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107634	424	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107647	424	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107661	424	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107673	424	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107606	419	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107620	419	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107633	419	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107645	419	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107660	419	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107671	419	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107684	419	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107607	411	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107621	411	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107635	411	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107648	411	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107662	411	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107674	411	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107608	410	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107623	410	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107637	410	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107652	410	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107665	410	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107675	410	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107610	417	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107625	417	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107639	417	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107653	417	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107667	417	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107676	417	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107612	425	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107627	425	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107640	425	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107657	425	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107669	425	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107682	425	CTI

Year	Mth	Delivery Date	Project #	Project Name	Source	Destination	Ticket #	Truck #	Hauler
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107614	426	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107628	426	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107642	426	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107659	426	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107670	426	CTI
2015	August	8/11/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107683	426	CTI
2015	August	8/12/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107692	410	CTI
2015	August	8/12/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107706	410	CTI
2015	August	8/12/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107716	410	CTI
2015	August	8/12/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107732	410	CTI
2015	August	8/12/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107742	410	CTI
2015	August	8/12/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107691	411	CTI
2015	August	8/12/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107705	411	CTI
2015	August	8/12/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107715	411	CTI
2015	August	8/12/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107730	411	CTI
2015	August	8/12/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107741	411	CTI
2015	August	8/12/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107694	417	CTI
2015	August	8/12/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107707	417	CTI
2015	August	8/12/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107718	417	CTI
2015	August	8/12/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107733	417	CTI
2015	August	8/12/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107743	417	CTI
2015	August	8/12/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107690	419	CTI
2015	August	8/12/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107702	419	CTI
2015	August	8/12/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107714	419	CTI
2015	August	8/12/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107727	419	CTI
2015	August	8/12/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107738	419	CTI
2015	August	8/12/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107688	424	CTI
2015	August	8/12/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107701	424	CTI
2015	August	8/12/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107712	424	CTI
2015	August	8/12/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107723	424	CTI
2015	August	8/12/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107737	424	CTI
2015	August	8/12/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107695	425	CTI
2015	August	8/12/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107709	425	CTI
2015	August	8/12/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107721	425	CTI
2015	August	8/12/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107736	425	CTI

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2015	August	8/12/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107747	425	CTI
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107765	419	CTI
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107782	419	CTI
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107800	419	CTI
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107816	419	CTI
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107831	419	CTI
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107764	424	CTI
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107779	424	CTI
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107798	424	CTI
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107815	424	CTI
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107828	424	CTI
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107849	424	CTI
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107861	424	CTI
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107771	SS108	SS
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107794	SS108	SS
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107814	SS108	SS
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107823	SS108	SS
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107842	SS108	SS
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107857	SS108	SS
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107770	SS127	SS
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107793	SS127	SS
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107813	SS127	SS
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107825	SS127	SS
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107846	SS127	SS
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107860	SS127	SS
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107767	SS169	SS
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107785	SS169	SS
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107804	SS169	SS
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107817	SS169	SS
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107833	SS169	SS
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107852	SS169	SS
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107769	SS171	SS
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107787	SS171	SS
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107809	SS171	SS
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107819	SS171	SS

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2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107840	SS171	SS
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107859	SS171	SS
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107774	SS43	SS
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107802	SS43	SS
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107818	SS43	SS
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107838	SS43	SS
2015	August	8/13/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107856	SS43	SS
2015	August	8/14/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107875	341	CTI
2015	August	8/14/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107869	410	CTI
2015	August	8/14/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107893	410	CTI
2015	August	8/14/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107868	411	CTI
2015	August	8/14/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107891	411	CTI
2015	August	8/14/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107871	417	CTI
2015	August	8/14/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107867	419	CTI
2015	August	8/14/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107874	420	CTI
2015	August	8/14/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107873	425	CTI
2015	August	8/14/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107906	EH7T	SS
2015	August	8/14/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107907	NL60T	SS
2015	August	8/14/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107901	SS100	SS
2015	August	8/14/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107897	SS127	SS
2015	August	8/14/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107892	SS129	SS
2015	August	8/14/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107898	SS97	SS
2015	August	8/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107935	425	CTI
2015	August	8/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107937	SS169	
2015	August	8/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107939	SS31	
2015	August	8/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107941	SS108	
2015	August	8/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107943	SS129	
2015	August	8/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107945	SS127	
2015	August	8/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107947	SS97	
2015	August	8/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107949	SS100	
2015	August	8/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107955	356	CTI
2015	August	8/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107968	356	CTI
2015	August	8/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107969	SS169	
2015	August	8/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107972	SS31	
2015	August	8/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107973	SS108	

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2015	August	8/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107974	SS37	
2015	August	8/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107975	SS129	
2015	August	8/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107976	SS127	
2015	August	8/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107977	SS97	
2015	August	8/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107979	SS100	
2015	August	8/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107981	SS169	
2015	August	8/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107984	425	CTI
2015	August	8/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107987	SS109	
2015	August	8/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107988	SS37	
2015	August	8/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107989	SS129	
2015	August	8/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107990	SS127	
2015	August	8/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107991	SS97	
2015	August	8/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107993	SS100	
2015	August	8/17/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	107994	426	CTI
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108005	426	CTI
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108006	SS169	SS
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108007	SS109	
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108008	SS31	
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108009	SS108	
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108011	SS127	
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108013	426	CTI
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108014	SS169	SS
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108015	SS109	
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108017	SS31	
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108019	SS108	
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108021	SS127	
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108023	426	CTI
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108027	SS169	SS
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108028	SS109	
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108032	SS31	
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108034	SS108	
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108035	SS127	
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108036	426	CTI
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108038	SS169	SS
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108041	SS109	

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2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108043	SS31	
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108045	SS108	
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108046	SS127	
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108047	426	CTI
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108049	SS169	SS
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108050	SS109	
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108052	SS31	
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108055	SS127	
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108057	SS108	
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108058	426	CTI
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108059	SS169	SS
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108061	SS109	
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108067	SS31	SS
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108068	SS127	SS
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108069	SS108	SS
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108070	356	CTI
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108071	426	CTI
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108073	SS169	SS
2015	August	8/18/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108075	SS109	SS
2015	August	8/19/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108087	SS169	SS
2015	August	8/19/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108088	SS109	
2015	August	8/19/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108092	SS117	
2015	August	8/19/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108094	SS127	
2015	August	8/19/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108096	SS31	
2015	August	8/19/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108099	SS37	
2015	August	8/19/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108103	SS169	SS
2015	August	8/19/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108105	356	CTI
2015	August	8/19/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108107	SS109	
2015	August	8/19/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108110	SS117	
2015	August	8/19/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108113	SS127	
2015	August	8/19/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108116	SS31	
2015	August	8/19/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108140	356	CTI
2015	August	8/20/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108242	SS169	
2015	August	8/20/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108243	SS31	
2015	August	8/20/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108249	SS37	

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2015	August	8/20/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108251	419	CTI
2015	August	8/20/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108253	SS127	
2015	August	8/21/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108307	SS169	SS
2015	August	8/21/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108308	SS127	
2015	August	8/21/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108311	SS31	
2015	August	8/21/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108313	SS129	
2015	August	8/21/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108315	SS37	
2015	August	8/21/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108317	410	
2015	August	8/21/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108409	SS169	SS
2015	August	8/21/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108410	SS127	SS
2015	August	8/21/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108413	410	CTI
2015	August	8/21/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108418	SS31	SS
2015	August	8/24/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108425	SS169	
2015	August	8/24/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108426	SS31	
2015	August	8/24/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108428	SS37	
2015	August	8/24/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108430		
2015	August	8/24/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108432		
2015	August	8/24/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108433		
2015	August	8/24/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108441	SS169	
2015	August	8/24/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108443	SS31	
2015	August	8/24/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108445	SS37	
2015	August	8/24/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108448		
2015	August	8/24/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108456	SS169	
2015	August	8/24/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108458	SS37	
2015	August	8/24/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108462	SS31	
2015	August	8/24/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108469	SS169	
2015	August	8/24/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108472	SS37	
2015	August	8/24/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108497	SS31	SS
2015	August	8/26/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108687		
2015	August	8/26/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108688		
2015	August	8/26/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108689		
2015	August	8/26/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108709		
2015	August	8/26/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108714		
2015	August	8/26/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108718		
2015	August	8/26/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108734		

Year	Mth	Delivery Date	Project #	Project Name	Source	Destination	Ticket #	Truck #	Hauler
2015	August	8/26/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108740		
2015	August	8/26/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108742		
2015	August	8/26/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108755		
2015	August	8/27/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108858		
2015	August	8/27/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108859		
2015	August	8/27/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108862		
2015	August	8/27/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108863		
2015	August	8/27/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108865		
2015	August	8/27/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108867		
2015	August	8/28/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108897		
2015	August	8/28/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108898		
2015	August	8/28/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108900		
2015	August	8/28/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108902		
2015	August	8/28/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108905		
2015	August	8/28/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108906		
2015	August	8/28/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108908		
2015	August	8/28/2015	15-020	9th & Lenora	Job Site	WASTE MANAGEMENT	108909		

469.00

14,245.26 **Subtotal: 836,909.03**

Quantity	Units	Rate	Billable Value
15.08	Tons	58.75	885.95
16.47	Tons	58.75	967.61
14.64	Tons	58.75	860.10
13.87	Tons	58.75	814.86
16.43	Tons	58.75	965.26
14.14	Tons	58.75	830.73
30.15	Tons	58.75	1,771.31
31.11	Tons	58.75	1,827.71
29.51	Tons	58.75	1,733.71
30.31	Tons	58.75	1,780.71
30.18	Tons	58.75	1,773.08
32.74	Tons	58.75	1,923.48
30.98	Tons	58.75	1,820.08
28.92	Tons	58.75	1,699.05
27.43	Tons	58.75	1,611.51
32.27	Tons	58.75	1,895.86
30.99	Tons	58.75	1,820.66
32.29	Tons	58.75	1,897.04
31.72	Tons	58.75	1,863.55
30.62	Tons	58.75	1,798.93
32.87	Tons	58.75	1,931.11
25.36	Tons	58.75	1,489.90
32.80	Tons	58.75	1,927.00
30.38	Tons	58.75	1,784.83
31.79	Tons	58.75	1,867.66
29.16	Tons	58.75	1,713.15
29.31	Tons	58.75	1,721.96
28.40	Tons	58.75	1,668.50
25.96	Tons	58.75	1,525.15
32.17	Tons	58.75	1,889.99
28.25	Tons	58.75	1,659.69
27.77	Tons	58.75	1,631.49

Quantity	Units	Rate	Billable Value
28.40	Tons	58.75	1,668.50
32.04	Tons	58.75	1,882.35
33.46	Tons	58.75	1,965.78
32.34	Tons	58.75	1,899.98
29.39	Tons	58.75	1,726.66
31.41	Tons	58.75	1,845.34
30.31	Tons	58.75	1,780.71
32.94	Tons	58.75	1,935.23
28.42	Tons	58.75	1,669.68
30.64	Tons	58.75	1,800.10
28.95	Tons	58.75	1,700.81
29.91	Tons	58.75	1,757.21
33.44	Tons	58.75	1,964.60
31.38	Tons	58.75	1,843.58
34.69	Tons	58.75	2,038.04
32.45	Tons	58.75	1,906.44
34.04	Tons	58.75	1,999.85
33.01	Tons	58.75	1,939.34
32.40	Tons	58.75	1,903.50
32.06	Tons	58.75	1,883.53
31.31	Tons	58.75	1,839.46
31.78	Tons	58.75	1,867.08
30.11	Tons	58.75	1,768.96
32.85	Tons	58.75	1,929.94
31.49	Tons	58.75	1,850.04
34.06	Tons	58.75	2,001.03
33.89	Tons	58.75	1,991.04
30.52	Tons	58.75	1,793.05
30.34	Tons	58.75	1,782.48
32.15	Tons	58.75	1,888.81
31.07	Tons	58.75	1,825.36
31.89	Tons	58.75	1,873.54
33.03	Tons	58.75	1,940.51
33.39	Tons	58.75	1,961.66
29.83	Tons	58.75	1,752.51

Quantity	Units	Rate	Billable Value
29.25	Tons	58.75	1,718.44
30.41	Tons	58.75	1,786.59
30.23	Tons	58.75	1,776.01
33.88	Tons	58.75	1,990.45
29.42	Tons	58.75	1,728.43
31.61	Tons	58.75	1,857.09
27.68	Tons	58.75	1,626.20
30.32	Tons	58.75	1,781.30
30.94	Tons	58.75	1,817.73
30.39	Tons	58.75	1,785.41
31.81	Tons	58.75	1,868.84
31.26	Tons	58.75	1,836.53
33.93	Tons	58.75	1,993.39
28.25	Tons	58.75	1,659.69
29.07	Tons	58.75	1,707.86
31.63	Tons	58.75	1,858.26
31.62	Tons	58.75	1,857.68
32.83	Tons	58.75	1,928.76
32.95	Tons	58.75	1,935.81
29.92	Tons	58.75	1,757.80
29.50	Tons	58.75	1,733.13
31.20	Tons	58.75	1,833.00
31.53	Tons	58.75	1,852.39
29.39	Tons	58.75	1,726.66
31.16	Tons	58.75	1,830.65
30.15	Tons	58.75	1,771.31
26.90	Tons	58.75	1,580.38
30.66	Tons	58.75	1,801.28
29.57	Tons	58.75	1,737.24
28.93	Tons	58.75	1,699.64
28.99	Tons	58.75	1,703.16
28.90	Tons	58.75	1,697.88
30.25	Tons	58.75	1,777.19
29.19	Tons	58.75	1,714.91
29.74	Tons	58.75	1,747.23

Quantity	Units	Rate	Billable Value
30.33	Tons	58.75	1,781.89
26.31	Tons	58.75	1,545.71
28.48	Tons	58.75	1,673.20
27.77	Tons	58.75	1,631.49
28.47	Tons	58.75	1,672.61
28.30	Tons	58.75	1,662.63
28.45	Tons	58.75	1,671.44
30.83	Tons	58.75	1,811.26
31.61	Tons	58.75	1,857.09
33.64	Tons	58.75	1,976.35
30.96	Tons	58.75	1,818.90
28.14	Tons	58.75	1,653.23
31.03	Tons	58.75	1,823.01
31.08	Tons	58.75	1,825.95
31.06	Tons	58.75	1,824.78
32.11	Tons	58.75	1,886.46
28.46	Tons	58.75	1,672.03
29.25	Tons	58.75	1,718.44
29.77	Tons	58.75	1,748.99
29.28	Tons	58.75	1,720.20
29.73	Tons	58.75	1,746.64
30.49	Tons	58.75	1,791.29
28.86	Tons	58.75	1,695.53
26.43	Tons	58.75	1,552.76
29.86	Tons	58.75	1,754.28
30.57	Tons	58.75	1,795.99
32.27	Tons	58.75	1,895.86
32.02	Tons	58.75	1,881.18
29.01	Tons	58.75	1,704.34
33.01	Tons	58.75	1,939.34
33.14	Tons	58.75	1,946.98
30.93	Tons	58.75	1,817.14
30.60	Tons	58.75	1,797.75
32.23	Tons	58.75	1,893.51
31.24	Tons	58.75	1,835.35

Quantity	Units	Rate	Billable Value
26.83	Tons	58.75	1,576.26
25.48	Tons	58.75	1,496.95
26.27	Tons	58.75	1,543.36
31.09	Tons	58.75	1,826.54
28.70	Tons	58.75	1,686.13
29.29	Tons	58.75	1,720.79
30.53	Tons	58.75	1,793.64
31.48	Tons	58.75	1,849.45
28.00	Tons	58.75	1,645.00
30.43	Tons	58.75	1,787.76
31.63	Tons	58.75	1,858.26
31.35	Tons	58.75	1,841.81
31.06	Tons	58.75	1,824.78
29.64	Tons	58.75	1,741.35
32.51	Tons	58.75	1,909.96
30.35	Tons	58.75	1,783.06
29.61	Tons	58.75	1,739.59
29.76	Tons	58.75	1,748.40
29.06	Tons	58.75	1,707.28
30.01	Tons	58.75	1,763.09
32.78	Tons	58.75	1,925.83
31.09	Tons	58.75	1,826.54
30.43	Tons	58.75	1,787.76
31.58	Tons	58.75	1,855.33
31.65	Tons	58.75	1,859.44
32.60	Tons	58.75	1,915.25
30.91	Tons	58.75	1,815.96
29.04	Tons	58.75	1,706.10
31.09	Tons	58.75	1,826.54
30.64	Tons	58.75	1,800.10
30.92	Tons	58.75	1,816.55
31.72	Tons	58.75	1,863.55
31.26	Tons	58.75	1,836.53
33.43	Tons	58.75	1,964.01
31.56	Tons	58.75	1,854.15

Quantity	Units	Rate	Billable Value
32.81	Tons	58.75	1,927.59
32.14	Tons	58.75	1,888.23
33.00	Tons	58.75	1,938.75
31.45	Tons	58.75	1,847.69
31.47	Tons	58.75	1,848.86
32.91	Tons	58.75	1,933.46
32.68	Tons	58.75	1,919.95
32.82	Tons	58.75	1,928.18
30.83	Tons	58.75	1,811.26
32.50	Tons	58.75	1,909.38
32.85	Tons	58.75	1,929.94
31.47	Tons	58.75	1,848.86
31.65	Tons	58.75	1,859.44
31.49	Tons	58.75	1,850.04
29.02	Tons	58.75	1,704.93
29.50	Tons	58.75	1,733.13
31.19	Tons	58.75	1,832.41
32.58	Tons	58.75	1,914.08
30.24	Tons	58.75	1,776.60
30.51	Tons	58.75	1,792.46
32.43	Tons	58.75	1,905.26
30.43	Tons	58.75	1,787.76
31.30	Tons	58.75	1,838.88
30.45	Tons	58.75	1,788.94
31.23	Tons	58.75	1,834.76
30.15	Tons	58.75	1,771.31
30.74	Tons	58.75	1,805.98
30.27	Tons	58.75	1,778.36
30.73	Tons	58.75	1,805.39
31.38	Tons	58.75	1,843.58
31.81	Tons	58.75	1,868.84
31.19	Tons	58.75	1,832.41
29.13	Tons	58.75	1,711.39
29.88	Tons	58.75	1,755.45
28.95	Tons	58.75	1,700.81

Quantity	Units	Rate	Billable Value
29.36	Tons	58.75	1,724.90
32.79	Tons	58.75	1,926.41
31.61	Tons	58.75	1,857.09
29.94	Tons	58.75	1,758.98
30.51	Tons	58.75	1,792.46
30.85	Tons	58.75	1,812.44
30.31	Tons	58.75	1,780.71
33.73	Tons	58.75	1,981.64
32.09	Tons	58.75	1,885.29
31.79	Tons	58.75	1,867.66
30.80	Tons	58.75	1,809.50
32.18	Tons	58.75	1,890.58
30.18	Tons	58.75	1,773.08
31.13	Tons	58.75	1,828.89
31.37	Tons	58.75	1,842.99
31.77	Tons	58.75	1,866.49
28.12	Tons	58.75	1,652.05
31.96	Tons	58.75	1,877.65
29.94	Tons	58.75	1,758.98
32.13	Tons	58.75	1,887.64
32.08	Tons	58.75	1,884.70
35.05	Tons	58.75	2,059.19
33.13	Tons	58.75	1,946.39
29.57	Tons	58.75	1,737.24
29.81	Tons	58.75	1,751.34
31.22	Tons	58.75	1,834.18
31.55	Tons	58.75	1,853.56
28.59	Tons	58.75	1,679.66
26.76	Tons	58.75	1,572.15
33.46	Tons	58.75	1,965.78
29.94	Tons	58.75	1,758.98
29.77	Tons	58.75	1,748.99
30.99	Tons	58.75	1,820.66
31.65	Tons	58.75	1,859.44
29.03	Tons	58.75	1,705.51

Quantity	Units	Rate	Billable Value
29.90	Tons	58.75	1,756.63
29.40	Tons	58.75	1,727.25
32.41	Tons	58.75	1,904.09
32.74	Tons	58.75	1,923.48
30.51	Tons	58.75	1,792.46
31.33	Tons	58.75	1,840.64
26.84	Tons	58.75	1,576.85
30.15	Tons	58.75	1,771.31
30.45	Tons	58.75	1,788.94
31.58	Tons	58.75	1,855.33
32.05	Tons	58.75	1,882.94
30.48	Tons	58.75	1,790.70
28.61	Tons	58.75	1,680.84
27.77	Tons	58.75	1,631.49
34.48	Tons	58.75	2,025.70
32.18	Tons	58.75	1,890.58
27.92	Tons	58.75	1,640.30
27.81	Tons	58.75	1,633.84
28.83	Tons	58.75	1,693.76
31.81	Tons	58.75	1,868.84
31.42	Tons	58.75	1,845.93
29.94	Tons	58.75	1,758.98
29.11	Tons	58.75	1,710.21
28.91	Tons	58.75	1,698.46
33.36	Tons	58.75	1,959.90
33.05	Tons	58.75	1,941.69
30.94	Tons	58.75	1,817.73
27.02	Tons	58.75	1,587.43
28.93	Tons	58.75	1,699.64
33.39	Tons	58.75	1,961.66
32.14	Tons	58.75	1,888.23
27.64	Tons	58.75	1,623.85
27.02	Tons	58.75	1,587.43
30.47	Tons	58.75	1,790.11
33.73	Tons	58.75	1,981.64

Quantity	Units	Rate	Billable Value
32.18	Tons	58.75	1,890.58
31.05	Tons	58.75	1,824.19
31.69	Tons	58.75	1,861.79
31.16	Tons	58.75	1,830.65
30.21	Tons	58.75	1,774.84
31.75	Tons	58.75	1,865.31
27.16	Tons	58.75	1,595.65
33.20	Tons	58.75	1,950.50
30.42	Tons	58.75	1,787.18
30.51	Tons	58.75	1,792.46
30.87	Tons	58.75	1,813.61
33.84	Tons	58.75	1,988.10
31.81	Tons	58.75	1,868.84
27.14	Tons	58.75	1,594.48
29.01	Tons	58.75	1,704.34
28.68	Tons	58.75	1,684.95
30.10	Tons	58.75	1,768.38
29.14	Tons	58.75	1,711.98
31.13	Tons	58.75	1,828.89
29.89	Tons	58.75	1,756.04
30.77	Tons	58.75	1,807.74
30.35	Tons	58.75	1,783.06
29.24	Tons	58.75	1,717.85
31.15	Tons	58.75	1,830.06
32.74	Tons	58.75	1,923.48
31.85	Tons	58.75	1,871.19
32.16	Tons	58.75	1,889.40
30.65	Tons	58.75	1,800.69
28.70	Tons	58.75	1,686.13
32.36	Tons	58.75	1,901.15
32.32	Tons	58.75	1,898.80
30.83	Tons	58.75	1,811.26
32.39	Tons	58.75	1,902.91
29.46	Tons	58.75	1,730.78
30.33	Tons	58.75	1,781.89

Quantity	Units	Rate	Billable Value
32.00	Tons	58.75	1,880.00
31.49	Tons	58.75	1,850.04
30.26	Tons	58.75	1,777.78
30.22	Tons	58.75	1,775.43
30.55	Tons	58.75	1,794.81
32.59	Tons	58.75	1,914.66
31.05	Tons	58.75	1,824.19
23.46	Tons	58.75	1,378.28
31.37	Tons	58.75	1,842.99
31.01	Tons	58.75	1,821.84
31.56	Tons	58.75	1,854.15
30.43	Tons	58.75	1,787.76
30.24	Tons	58.75	1,776.60
32.63	Tons	58.75	1,917.01
30.61	Tons	58.75	1,798.34
30.60	Tons	58.75	1,797.75
30.05	Tons	58.75	1,765.44
30.01	Tons	58.75	1,763.09
30.46	Tons	58.75	1,789.53
29.55	Tons	58.75	1,736.06
30.78	Tons	58.75	1,808.33
30.69	Tons	58.75	1,803.04
32.69	Tons	58.75	1,920.54
31.93	Tons	58.75	1,875.89
30.93	Tons	58.75	1,817.14
31.51	Tons	58.75	1,851.21
34.02	Tons	58.75	1,998.68
31.1	Tons	58.75	1,827.13
29.69	Tons	58.75	1,744.29
30.64	Tons	58.75	1,800.10
6.65	Tons	58.75	390.69
10.27	Tons	58.75	603.36
32.15	Tons	58.75	1,888.81
30.76	Tons	58.75	1,807.15
29.92	Tons	58.75	1,757.80

Quantity	Units	Rate	Billable Value
30.28	Tons	58.75	1,778.95
32.29	Tons	58.75	1,897.04
29.58	Tons	58.75	1,737.83
30.53	Tons	58.75	1,793.64
30.73	Tons	58.75	1,805.39
29.96	Tons	58.75	1,760.15
29.73	Tons	58.75	1,746.64
30.48	Tons	58.75	1,790.70
29.79	Tons	58.75	1,750.16
31.76	Tons	58.75	1,865.90
28.78	Tons	58.75	1,690.83
29.05	Tons	58.75	1,706.69
30.97	Tons	58.75	1,819.49
29.52	Tons	58.75	1,734.30
29.6	Tons	58.75	1,739.00
30.1	Tons	58.75	1,768.38
29.7	Tons	58.75	1,744.88
29.64	Tons	58.75	1,741.35
29.42	Tons	58.75	1,728.43
29.61	Tons	58.75	1,739.59
29.82	Tons	58.75	1,751.93
31.68	Tons	58.75	1,861.20
32.51	Tons	58.75	1,909.96
30.49	Tons	58.75	1,791.29
30.47	Tons	58.75	1,790.11
31.13	Tons	58.75	1,828.89
31.97	Tons	58.75	1,878.24
32.16	Tons	58.75	1,889.40
31.6	Tons	58.75	1,856.50
30.11	Tons	58.75	1,768.96
31.17	Tons	58.75	1,831.24
32.15	Tons	58.75	1,888.81
31.97	Tons	58.75	1,878.24
31.29	Tons	58.75	1,838.29
32.14	Tons	58.75	1,888.23

Quantity	Units	Rate	Billable Value
30.99	Tons	58.75	1,820.66
31.72	Tons	58.75	1,863.55
30.44	Tons	58.75	1,788.35
30.48	Tons	58.75	1,790.70
30.46	Tons	58.75	1,789.53
31.72	Tons	58.75	1,863.55
30.93	Tons	58.75	1,817.14
30.98	Tons	58.75	1,820.08
31.19	Tons	58.75	1,832.41
31.55	Tons	58.75	1,853.56
30.64	Tons	58.75	1,800.10
31.23	Tons	58.75	1,834.76
30.98	Tons	58.75	1,820.08
31.94	Tons	58.75	1,876.48
31.02	Tons	58.75	1,822.43
10.81	Tons	58.75	635.09
30.18	Tons	58.75	1,773.08
32.78	Tons	58.75	1,925.83
30.13	Tons	58.75	1,770.14
31.46	Tons	58.75	1,848.28
31.52	Tons	58.75	1,851.80
32.46	Tons	58.75	1,907.03
32.05	Tons	58.75	1,882.94
30.21	Tons	58.75	1,774.84
30.55	Tons	58.75	1,794.81
32.1	Tons	58.75	1,885.88
9.51	Tons	58.75	558.71
31.35	Tons	58.75	1,841.81
31.49	Tons	58.75	1,850.04
30.65	Tons	58.75	1,800.69
29.46	Tons	58.75	1,730.78
9.89	Tons	58.75	581.04
32.04	Tons	58.75	1,882.35
30.9	Tons	58.75	1,815.38
31.85	Tons	58.75	1,871.19

Quantity	Units	Rate	Billable Value
31.2	Tons	58.75	1,833.00
31.79	Tons	58.75	1,867.66
31.63	Tons	58.75	1,858.26
31.24	Tons	58.75	1,835.35
30.18	Tons	58.75	1,773.08
31.44	Tons	58.75	1,847.10
31.24	Tons	58.75	1,835.35
32.22	Tons	58.75	1,892.93
31.11	Tons	58.75	1,827.71
31.32	Tons	58.75	1,840.05
31.93	Tons	58.75	1,875.89
30.52	Tons	58.75	1,793.05
31.16	Tons	58.75	1,830.65
30.53	Tons	58.75	1,793.64
31.46	Tons	58.75	1,848.28
31.64	Tons	58.75	1,858.85
32.57	Tons	58.75	1,913.49
32.99	Tons	58.75	1,938.16
31.67	Tons	58.75	1,860.61
33.20	Tons	58.75	1,950.50
33.00	Tons	58.75	1,938.75
32.12	Tons	58.75	1,887.05
32.95	Tons	58.75	1,935.81
32.33	Tons	58.75	1,899.39
31.34	Tons	58.75	1,841.23
31.88	Tons	58.75	1,872.95
32.73	Tons	58.75	1,922.89
32.40	Tons	58.75	1,903.50
32.08	Tons	58.75	1,884.70
33.48	Tons	58.75	1,966.95
29.02	Tons	58.75	1,704.93
27.99	Tons	58.75	1,644.41
32.20	Tons	58.75	1,891.75
27.87	Tons	58.75	1,637.36
29.21	Tons	58.75	1,716.09

Quantity	Units	Rate	Billable Value
28.60	Tons	58.75	1,680.25
28.17	Tons	58.75	1,654.99
29.86	Tons	58.75	1,754.28
31.02	Tons	58.75	1,822.43
29.48	Tons	58.75	1,731.95
27.57	Tons	58.75	1,619.74
29.89	Tons	58.75	1,756.04
28.98	Tons	58.75	1,702.58
29.53	Tons	58.75	1,734.89
30.39	Tons	58.75	1,785.41
34.21	Tons	58.75	2,009.84
31.13	Tons	58.75	1,828.89
33.40	Tons	58.75	1,962.25
31.25	Tons	58.75	1,835.94
33.50	Tons	58.75	1,968.13
33.77	Tons	58.75	1,983.99
33.84	Tons	58.75	1,988.10

Tonnage by Day by Location

Year	2015
Mth	(All)
Destination	WASTE MANAGEMENT

Sum of Quantity	Column Labels
Row Labels	**Tons**
6/16/2015	90.63
7/8/2015	366.88
7/9/2015	244.70
7/10/2015	232.30
7/13/2015	341.21
7/15/2015	387.57
7/17/2015	410.06
7/20/2015	400.19
7/21/2015	573.38
7/23/2015	655.55
7/24/2015	368.93
7/27/2015	109.82
7/29/2015	1,018.01
7/30/2015	354.12
8/4/2015	647.42
8/11/2015	1,330.28
8/12/2015	910.21
8/13/2015	1,262.22
8/14/2015	453.45
8/17/2015	785.71
8/18/2015	1,218.90
8/19/2015	362.70
8/20/2015	157.78
8/21/2015	312.83
8/24/2015	513.97
8/26/2015	298.48
8/27/2015	176.47
8/28/2015	261.49
Grand Total	**14,245.26**

Year	2015
Mth	June
Destination	(blank)

Sum of Quantity	Column Labels
Row Labels	
Grand Total	

APPENDIX H

Exploration Logs by Others

SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS GRAPH	SYMBOLS LETTER	TYPICAL DESCRIPTIONS
COARSE GRAINED SOILS	GRAVEL AND GRAVELLY SOILS	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES
				GP	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES
	MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
				GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES
MORE THAN 50% RETAINED ON NO. 200 SIEVE	SAND AND SANDY SOILS	CLEAN SANDS (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS
				SP	POORLY-GRADED SANDS, GRAVELLY SAND
	MORE THAN 50% OF COARSE FRACTION PASSING NO. 4 SIEVE	SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)		SM	SILTY SANDS, SAND - SILT MIXTURES
				SC	CLAYEY SANDS, SAND - CLAY MIXTURES
FINE GRAINED SOILS	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS, ROCK FLOUR, CLAYEY SILTS WITH SLIGHT PLASTICITY
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
MORE THAN 50% PASSING NO. 200 SIEVE	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS SILTY SOILS
				CH	INORGANIC CLAYS OF HIGH PLASTICITY
				OH	ORGANIC CLAYS AND SILTS OF MEDIUM TO HIGH PLASTICITY
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

NOTE: Multiple symbols are used to indicate borderline or dual soil classifications

ADDITIONAL MATERIAL SYMBOLS

SYMBOLS GRAPH	SYMBOLS LETTER	TYPICAL DESCRIPTIONS
	AC	Asphalt Concrete
	CC	Cement Concrete
	CR	Crushed Rock/ Quarry Spalls
	TS	Topsoil/ Forest Duff/Sod

Groundwater Contact

Measured groundwater level in exploration, well, or piezometer

Measured free product in well or piezometer

Graphic Log Contact

Distinct contact between soil strata or geologic units

Approximate location of soil strata change within a geologic soil unit

Material Description Contact

Distinct contact between soil strata or geologic units

Approximate location of soil strata change within a geologic soil unit

Sampler Symbol Descriptions

2.4-inch I.D. split barrel

Standard Penetration Test (SPT)

Shelby tube

Piston

Direct-Push

Bulk or grab

Blowcount is recorded for driven samplers as the number of blows required to advance sampler 12 inches (or distance noted). See exploration log for hammer weight and drop.

A "P" indicates sampler pushed using the weight of the drill rig.

Laboratory / Field Tests

%F	Percent fines
AL	Atterberg limits
CA	Chemical analysis
CP	Laboratory compaction test
CS	Consolidation test
DS	Direct shear
HA	Hydrometer analysis
MC	Moisture content
MD	Moisture content and dry density
OC	Organic content
PM	Permeability or hydraulic conductivity
PI	Plasticity index
PP	Pocket penetrometer
PPM	Parts per million
SA	Sieve analysis
TX	Triaxial compression
UC	Unconfined compression
VS	Vane shear

Sheen Classification

NS	No Visible Sheen
SS	Slight Sheen
MS	Moderate Sheen
HS	Heavy Sheen
NT	Not Tested

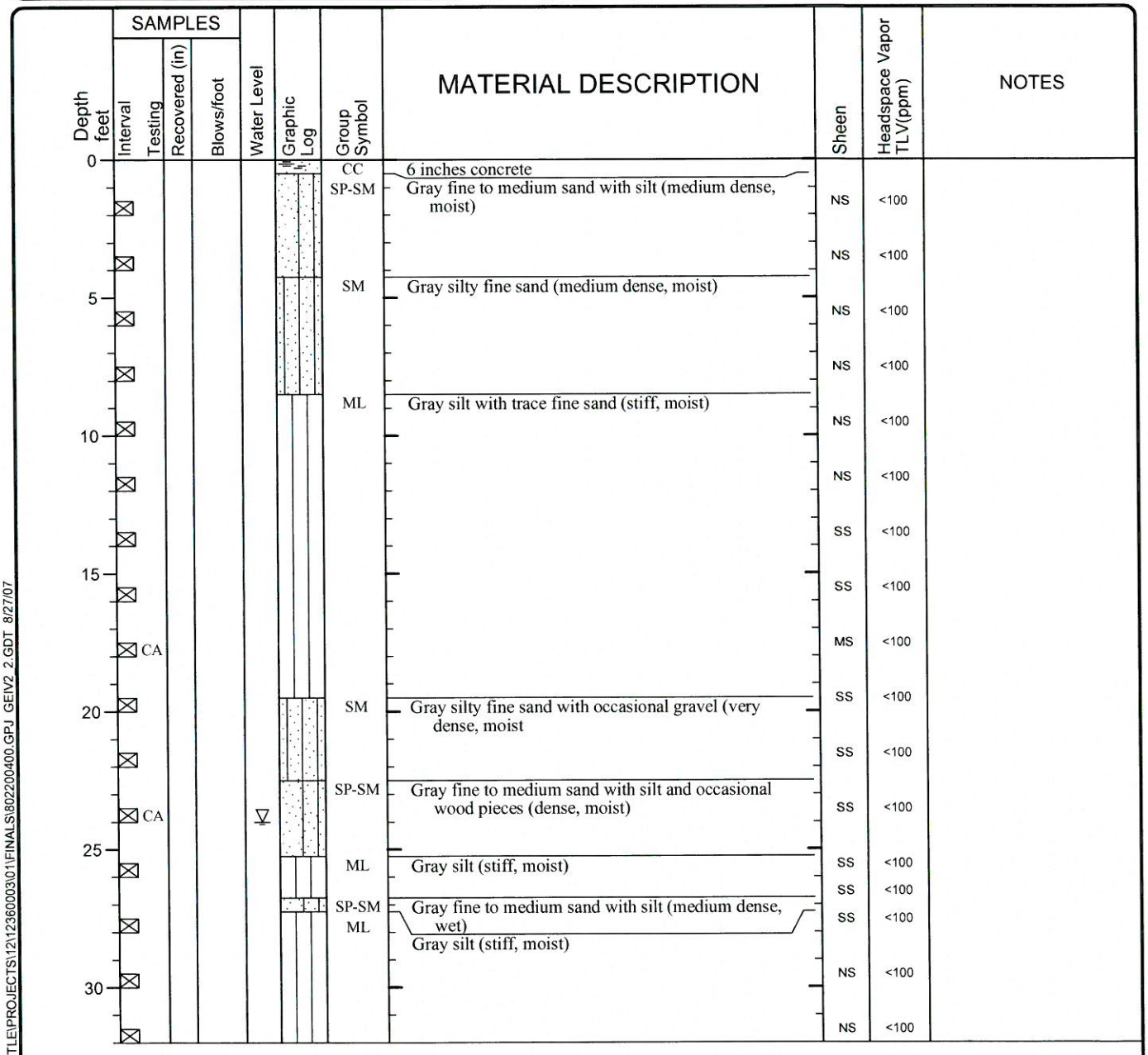
NOTE: The reader must refer to the discussion in the report text and the logs of explorations for a proper understanding of subsurface conditions. Descriptions on the logs apply only at the specific exploration locations and at the time the explorations were made; they are not warranted to be representative of subsurface conditions at other locations or times.

KEY TO EXPLORATION LOGS

GeoEngineers

FIGURE A-1

Date(s) Drilled	08/12/02	Logged By	GJA	Checked By	TMK
Drilling Contractor	ESN Drilling	Drilling Method	Direct Push	Sampling Methods	Split-spoon Sampler
Auger Data		Hammer Data		Drilling Equipment	Limited Access Rig
Total Depth (ft)	32	Surface Elevation (ft)		Groundwater Level (ft. bgs)	Approximately 24
Datum/ System					



Note: See Figure 3 for explanation of symbols

LOG OF BORING B-1

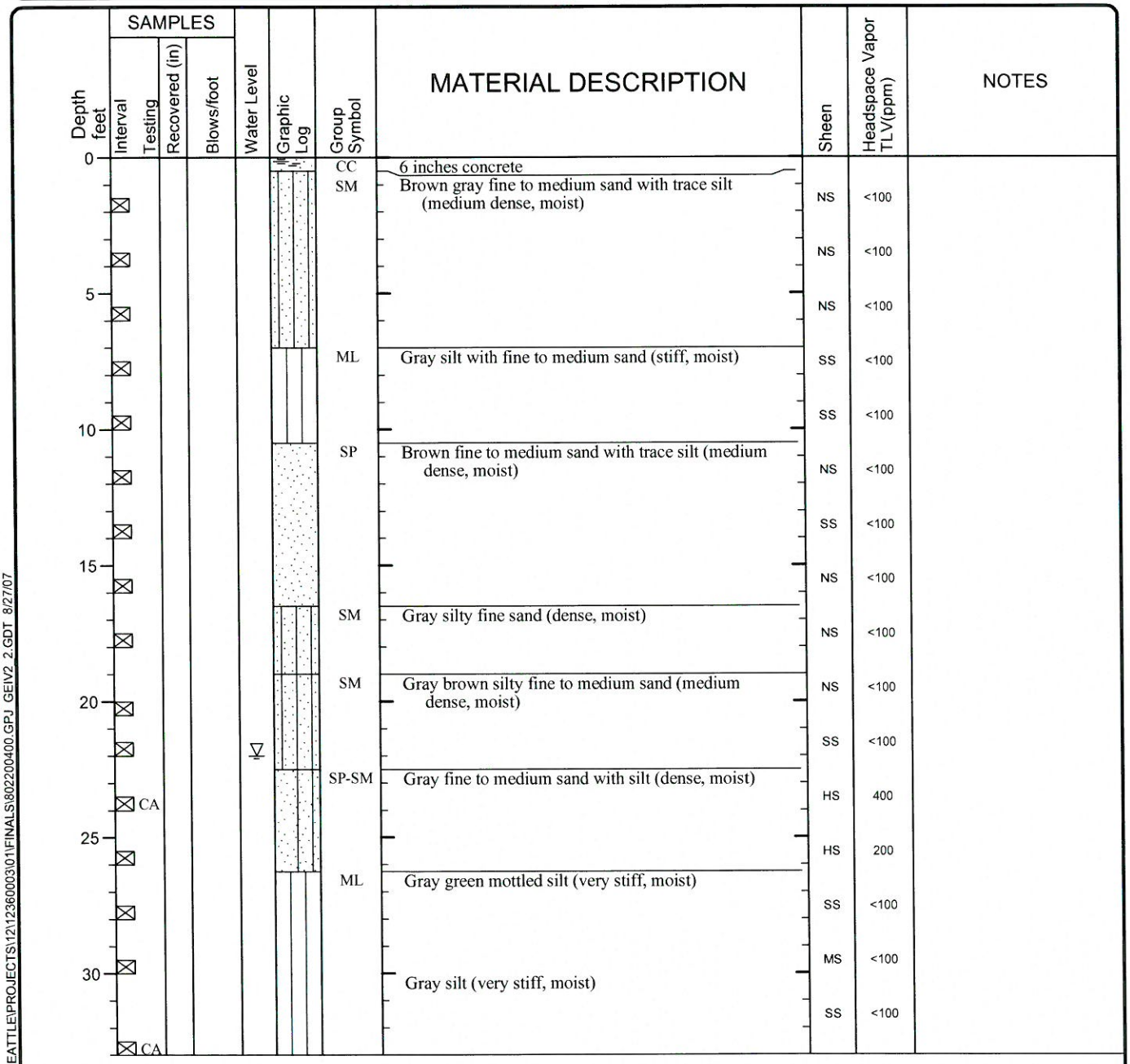
GeoEngineers

Project: Cornish College, 9th & Lenora
Project Location: Seattle, Washington
Project Number: 8022-004-00

Figure: 10
Sheet 1 of 1

8022-004-00 GEI ENVBORING 2.1.0 W:\SEATTLE\PROJECTS\12\12360003\01\FINALS\802200400.GPJ GEIV2_2.GDT 8/27/07

Date(s) Drilled	08/12/02	Logged By	GJA	Checked By	TMK
Drilling Contractor	ESN Drilling	Drilling Method	Direct Push	Sampling Methods	Split-spoon Sampler
Auger Data		Hammer Data		Drilling Equipment	Limited Access Rig
Total Depth (ft)	33	Surface Elevation (ft)		Groundwater Level (ft. bgs)	Approximately 22
Datum/ System					



Note: See Figure 3 for explanation of symbols

8022-004-00 GEI ENVBORING 2.1.0 W:\SEATTLE\PROJECTS\12\123600003\101\FINALS\802200400.GPJ GEIV2_2.GDT 8/27/07

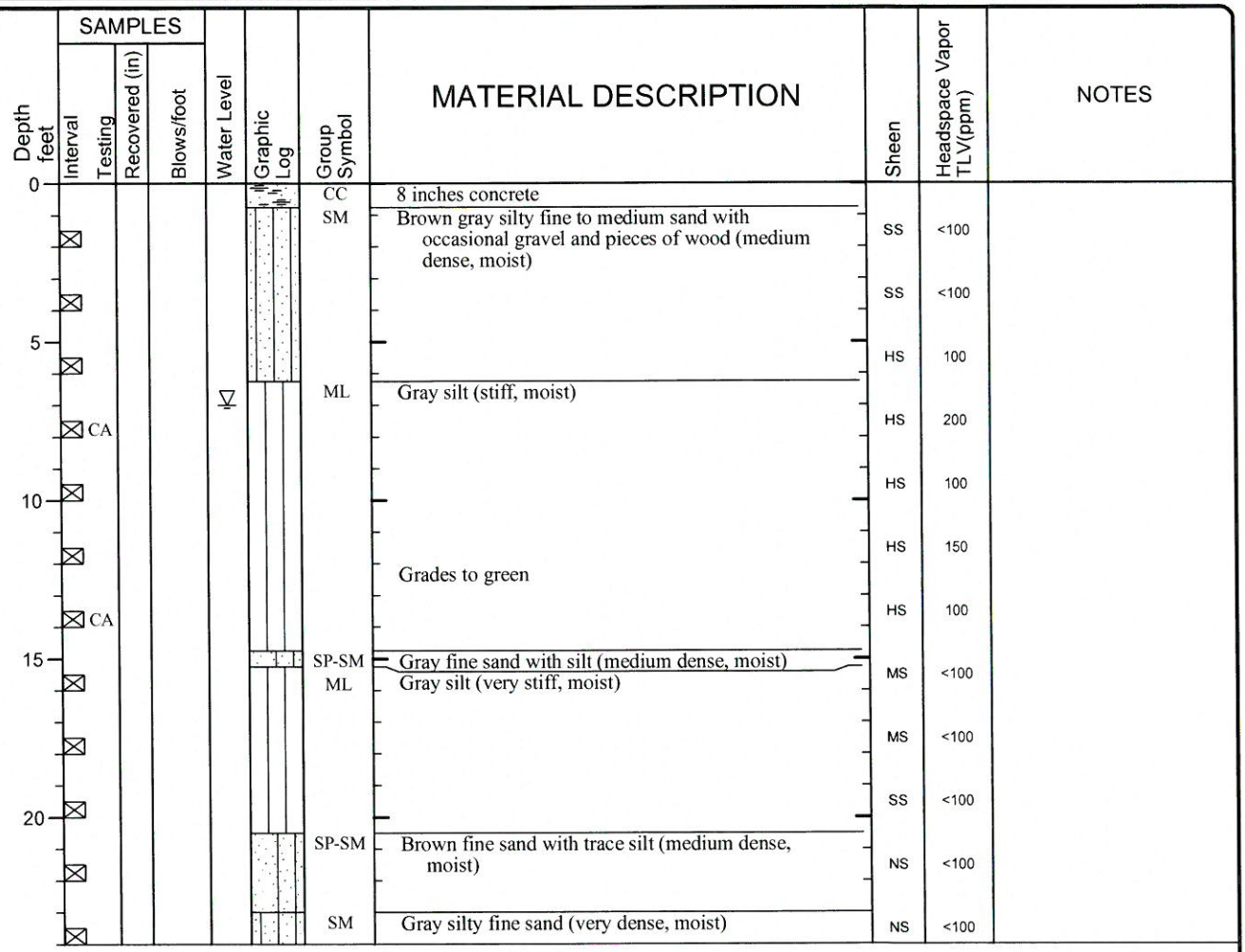
LOG OF BORING B-2

GeoEngineers

Project: Cornish College, 9th & Lenora
Project Location: Seattle, Washington
Project Number: 8022-004-00

Figure: 11
Sheet 1 of 1

Date(s) Drilled	08/12/02	Logged By	GJA	Checked By	TMK
Drilling Contractor	ESN Drilling	Drilling Method	Direct Push	Sampling Methods	Split-spoon Sampler
Auger Data		Hammer Data		Drilling Equipment	Limited Access Rig
Total Depth (ft)	24	Surface Elevation (ft)		Groundwater Level (ft. bgs)	Approximately 7
Datum/ System					



Note: See Figure 3 for explanation of symbols

LOG OF BORING B-3

GeoEngineers

Project: Cornish College, 9th & Lenora
Project Location: Seattle, Washington
Project Number: 8022-004-00

Figure: 12
Sheet 1 of 1

8022-004-00 GEI ENVBORING 2.1.0 W:\SEATTLE\PROJECTS\12\12360003\01\FINALS\802200400.GPJ GEIV2_2.GDT 8/27/07

Drilled Start 9/2/2014 End 9/2/2014	Total Depth (ft) 35	Logged By FK Checked By DAC	Driller Cascade Drilling, LP	Drilling Method Continuous
Surface Elevation (ft) 69 Vertical Datum NAVD 88		Hammer Data		Drilling Equipment GeoProbe 6600
Easting (X) Northing (Y)		System Datum		Groundwater Date Measured / Depth to Water (ft) / Elevation (ft): Not encountered
Notes:				

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name / Testing	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0								CC	4-inches concrete			
			48						SM	Brown silty fine to medium sand with occasional gravel (loose, moist) (fill)			
						1					SS	<1	
									SM	Dark brown silty fine to medium sand with wood chips and organics (loose, moist)			
65						2 CA					MS	<1	Creosote odor
	5		60						SM	Brown-gray silty fine to medium sand with occasional gravel (loose, moist)			
						3					SS	<1	
									ML	Gray sandy silt (medium stiff, moist)			
60						4 CA					SS	<1	
	10		60			5					NS	<1	
						6					NS	<1	
55						7 CA			ML	Gray-brown sandy silt (medium stiff, moist)	NS	<1	
	15		52										
						8			SP-SM	Gray sand with silt (medium dense, moist)	NS	<1	
50													
	20		56			9				Grades to brown	NS	<1	
											NS	<1	
45													
	25		60								NS	<1	
40													
	30		60										
35											NS	<1	
	35												

Note: See Figure A-1 for explanation of symbols.

Log of Boring DP-1

GeoEngineers

Project: GID 9th and Lenora Development
Project Location: Seattle, Washington
Project Number: 21138-001-01

Figure A-2
Sheet 1 of 1

Seattle - Date:9/11/14 Path:\\SEA\PROJECTS\21\21138001\GINT\21138001.GPJ DBTemplate\LibTemplate\GEOENGINEERS8.GDT/GEI8_ENVIRONMENTAL_STANDARD

Drilled	Start	End	Total Depth (ft)	Logged By	Checked By	Driller	Drilling Method
	9/2/2014	9/2/2014	20	FK	DAC	Cascade Drilling, LP	Continuous

Surface Elevation (ft) / Vertical Datum	69 NAVD 88	Hammer Data	Drilling Equipment: GeoProbe 6600
Easting (X) / Northing (Y)		System Datum	Groundwater — Date Measured / Depth to Water (ft) / Elevation (ft): Not encountered
Notes:			

Elevation (feet)	Depth (feet)	Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name / Testing	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0								CC	4-inches concrete			
			48			1			SM	Brown-gray silty fine to medium sand with occasional gravel, wood, organics, and brick debris	SS	<1	
65						2 CA					SS	<1	Petroleum odor
	5		60			3			ML	Gray silt (stiff, moist)	SS	<1	Petroleum odor
						4 CA					MS	<1	Petroleum odor
60	10		48						SM	Gray silty fine to medium sand (medium dense, moist)			
						5					MS	<1	Petroleum odor
55						6 CA					NS	<1	
	15		36						SM	Gray-brown silty fine to medium sand (medium dense, moist)			
						7					NS	<1	
50	20					8					NS	<1	

Note: See Figure A-1 for explanation of symbols.

Log of Boring DP-2

GeoEngineers

Project: GID 9th and Lenora Development
Project Location: Seattle, Washington
Project Number: 21138-001-01

Figure A-3
Sheet 1 of 1

Seattle: Date:9/11/14 Path:\\SEA\PROJECTS\21211380001\GINT\21113800101.GPJ DBTemplate\LibTemplate:GEOENGINEERS8.GDT/GEI8_ENVIRONMENTAL_STANDARD

Drilled	Start 9/2/2014	End 9/2/2014	Total Depth (ft) 30	Logged By FK / Checked By DAC	Driller Cascade Drilling, LP	Drilling Method Continuous
Surface Elevation (ft) 85 NAVD 88			Hammer Data		Drilling Equipment GeoProbe 6600	
Easting (X) / Northing (Y)			System Datum		Groundwater: Date Measured / Depth to Water (ft) / Elevation (ft) — See remarks	
Notes:						

Elevation (feet)	Depth (feet)	Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name / Testing	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		0						AC	2-inches asphalt concrete			
									CC	4-inches concrete			
										No recovery			
80	5		0										
75	10		46			1			SM	Gray-brown silty fine to medium sand (loose, moist)	NS	<1	
						2							
70	15		56										
						3			SM	Gray silty fine to medium sand with occasional gravel, wood chips and concrete debris (medium dense, moist)	NS	<1	
65	20		52			4 CA			SM	Gray silty fine to medium sand with occasional gravel (dense, moist)	NS	<1	
										Becomes wet	NS	<1	Perched groundwater observed at 22 feet
60	25		58			5 CA				Becomes moist	NS	<1	
						6 CA					NS	<1	
55	30					7 CA					NS	<1	

Note: See Figure A-1 for explanation of symbols.

Log of Boring DP-3

GeoEngineers

Project: GID 9th and Lenora Development
Project Location: Seattle, Washington
Project Number: 21138-001-01

Figure A-4
Sheet 1 of 1

Seattle: Date:9/11/14 Path:\\SEA\PROJECTS\21\21138001\GINT\21138001.GPJ DBTemplate\LibTemplate\GEOENGINEERS8.GDT\GEIB_ENVIRONMENTAL_STANDARD

Drilled	Start	End	Total Depth (ft)	Logged By	Checked By	Driller	Drilling Method
	9/2/2014	9/2/2014	30	FK	DAC	Cascade Drilling, LP	Continuous

Surface Elevation (ft) 86 Vertical Datum NAVD 88	Hammer Data	Drilling Equipment	GeoProbe 6600
Easting (X) Northing (Y)	System Datum	Groundwater Date Measured	Depth to Water (ft) / Elevation (ft) See remarks
Notes:			

Elevation (feet)	Depth (feet)	Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name / Testing	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		44			1			AC	2-inches asphalt concrete			
									CC	4-inches concrete			
									SM	Brown silty fine to medium sand (loose, moist) (fill)	NS	<1	
						2 CA					NS	<1	
85	5		26							No recovery			
80						3			SM	Gray-brown silty fine to medium sand with occasional gravel (medium dense, moist)	NS	<1	
	10		40			4					NS	<1	
75	15		52			5					NS	<1	
70	20		56			6 CA					NS	<1	
						7				Trace wood chips	NS	<1	Perched groundwater observed at 23 feet
65						8 CA			SM	Gray silt with fine to medium sand, occasional gravel and oranics (dense, wet)	NS	<1	
60	25		58										
						9 CA				Grades to moist	NS	<1	
	30					10					NS	<1	

Note: See Figure A-1 for explanation of symbols.

Log of Boring DP-4

GeoEngineers

Project: GID 9th and Lenora Development
Project Location: Seattle, Washington
Project Number: 21138-001-01

Figure A-5
Sheet 1 of 1

Seattle: Date:9/11/14 Path:\SEA\PROJECTS\21\21138001\GINT\21138001.GPJ DBTemplate\LibTemplate GEOENGINEERS8.GDT/GEI8_ENVIRONMENTAL_STANDARD

Drilled	Start	End	Total Depth (ft)	Logged By	Checked By	Driller	Drilling Method
	9/2/2014	9/2/2014	30	FK	DAC	Cascade Drilling, LP	Continuous

Surface Elevation (ft) / Vertical Datum	86 NAVD 88	Hammer Data	Drilling Equipment: GeoProbe 6600
Easting (X) / Northing (Y)		System Datum	Groundwater — Date Measured / Depth to Water (ft) / Elevation (ft): See remarks
Notes:			

Elevation (feet)	Depth (feet)	Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name / Testing	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
85	0		20			1 CA			AC	2-inches asphalt concrete			
									CC	4-inches concrete			
									SM	Brown silty fine to medium sand (loose, moist) (fill)	NS	<1	
80	5		42			2				No recovery			
									SM	Brown silty fine to medium sand with occasional gravel (very loose, moist)	NS	<1	
75	10		23			3					NS	<1	
70	15		48			4					NS	<1	
65	20		56			5				Grades to loose with wood chips	NS	<1	
						6 CA					NS	<1	
						7 CA			SM	Gray silty fine to medium sand with organics (loose, wet)	NS	<1	Perched groundwater observed at 24 feet
60	25		60						ML	Gray silt with fine to medium sand with occasional gravel (dense, moist)			
						8 CA					NS	<1	
	30					9					NS	<1	

Note: See Figure A-1 for explanation of symbols.

Log of Boring DP-5

GeoEngineers

Project:	GID 9th and Lenora Development
Project Location:	Seattle, Washington
Project Number:	21138-001-01

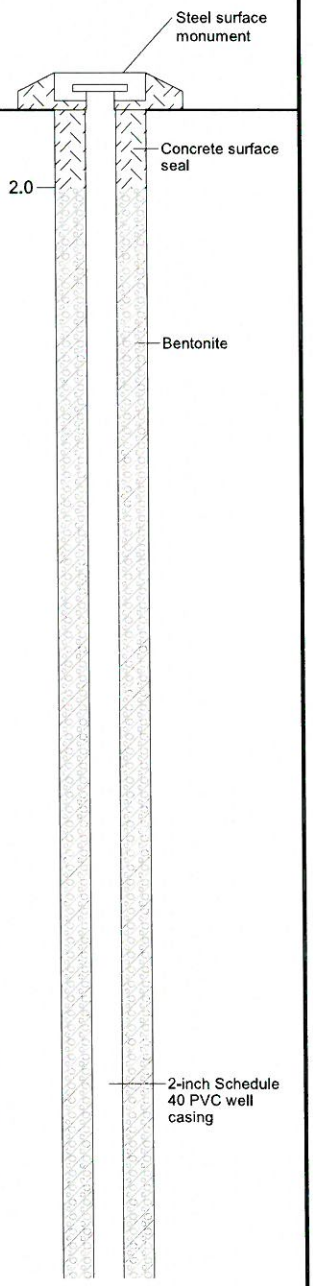
Figure A-6
Sheet 1 of 1

Seattle. Date:9/11/14 Path:\\SEA\PROJECTS\21\21138001\GINT\21138001.GPJ DBTemplate\LibTemplate\GEOENGINEERS8.GDT/GEI8_ENVIRONMENTAL_STANDARD

Drilled Start 12/19/2013	End 12/19/2013	Total Depth (ft) 80.5	Logged By CEW / Checked By MWS	Driller Boretec, Inc.	Drilling Method Hollow-Stem Auger
Hammer Data: Rope & Cathead, 140 (lbs) / 30 (in) Drop			Drilling Equipment: EC55 Track-Mounted Drill Rig		DOE Well I.D.: BHZ-904 A 2 (in) well was installed on 12/19/2013 to a depth of 80 (ft).
Surface Elevation (ft) Vertical Datum: 69.17			Top of Casing Elevation (ft): 68.87		Groundwater: Date Measured 12/27/2013; Depth to Water (ft) 53.3; Elevation (ft) 15.9
Easting (X) Northing (Y)			Horizontal Datum		
Notes:					

Elevation (feet)	Depth (feet)	Interval Recovered (in)	Blows/foot	Collected Sample	Sample Name	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Moisture Content, %	Dry Density, (pcf)
	0							CC	12-inches portland cement concrete		
								SM	Brown silty fine to medium sand with occasional gravel (loose to medium dense, moist) (fill)		
65		3	10		1						
	5	12	13		2				Wood debris in sample		
								SM	Brown silty fine to medium sand (medium dense, moist) (recent deposits)		
		3	16		3						
60								SM	Light brown silty fine to medium sand (medium dense, moist)		
	10	16	16		4 %F				%F = 16	11	
								SM	Brown silty fine to medium sand with occasional gravel (medium dense, moist)		
		11	16		5 %F				Wood fragments and organic matter in sample %F = 14	12	
55								SM	Brown silty fine to medium sand with gravel (dense to very dense, moist) (glacially consolidated soils)		
	15	11	34		6						
		15	79/9"		7				Till-like		
50											
	20	11	79		8						
45											
	25	11	77/11"		9						
								SM	Brown silty fine to medium sand with gravel and occasional cobbles (very dense, moist) (till-like)		
40									Rough drilling		
	30										

WELL LOG



Note: See Figure A-1 for explanation of symbols.

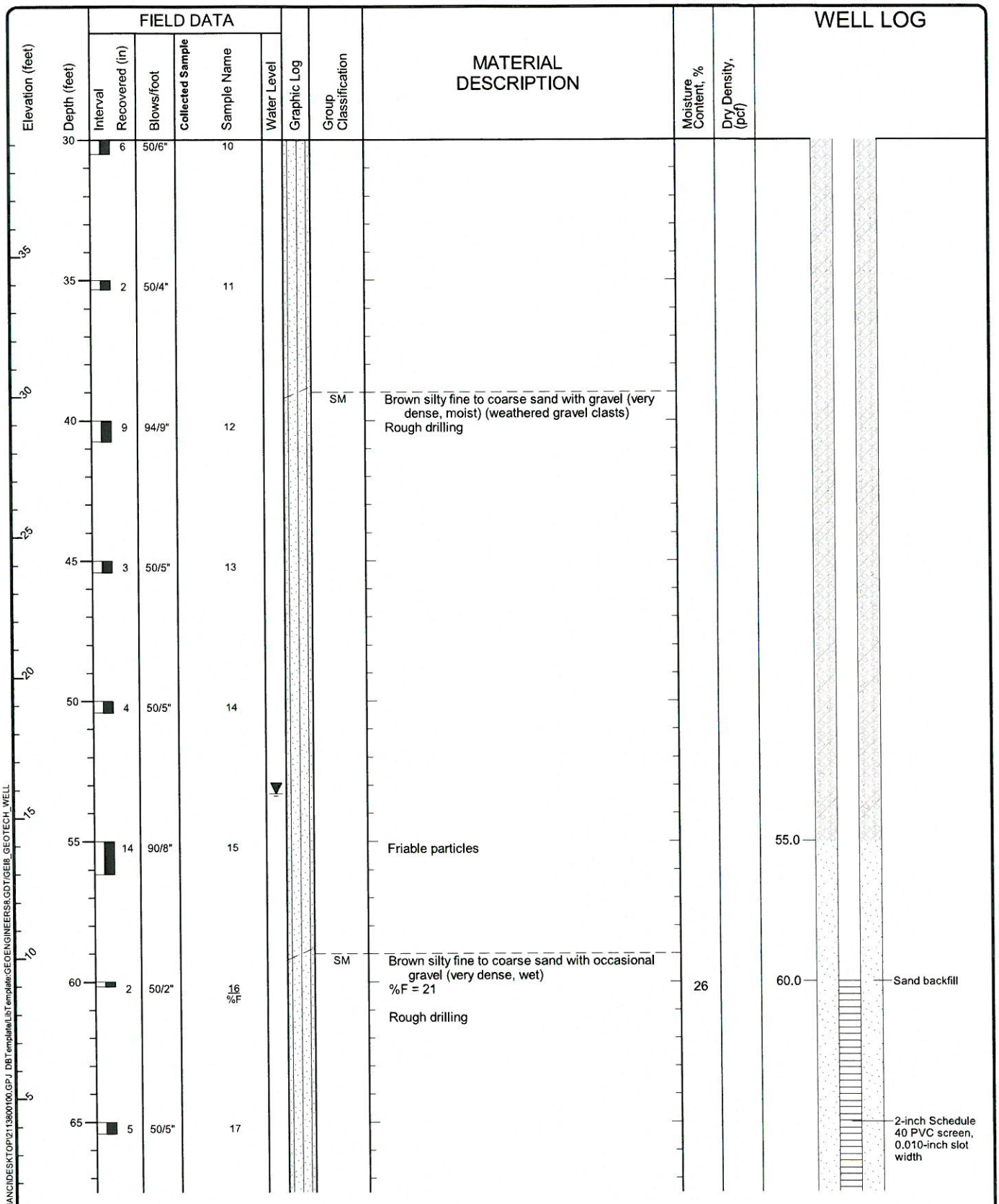
Log of Boring G-1

GeoEngineers

Project: 9th and Lenora Development
Project Location: Seattle, Washington
Project Number: 21138-001-00

Figure A-2
Sheet 1 of 3

Redmond Date:7/1/14 Path:C:\USERS\KJANC\DESKTOP\21138000100.GPJ DBTemplate\LibTemplate\GEOENGINEERS8.GDT\GEIB_GEOTECH_WELL



Note: See Figure A-1 for explanation of symbols.

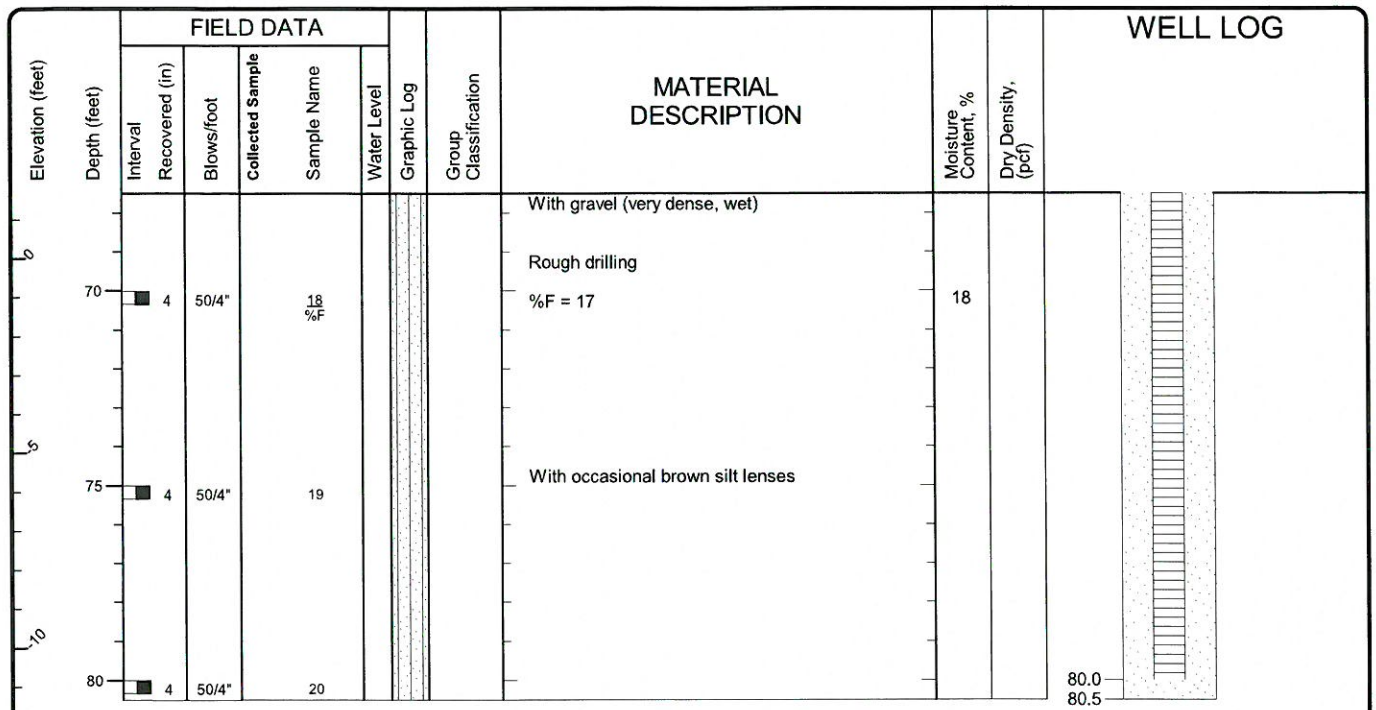
Log of Boring G-1 (continued)

GeoEngineers

Project:	9th and Lenora Development
Project Location:	Seattle, Washington
Project Number:	21138-001-00

Figure A-2
Sheet 2 of 3

Redmond: Date:7/1/14 Path:C:\USERS\KJANCI\DESKTOP\21138000100.GPJ DBTemplate\LibTemplate\GEOENGINEERS8.GDT\GEI8_GEOTECH_WELL



Note: See Figure A-1 for explanation of symbols.

Log of Boring G-1 (continued)

GeoEngineers

Project:	9th and Lenora Development
Project Location:	Seattle, Washington
Project Number:	21138-001-00

Figure A-2
Sheet 3 of 3

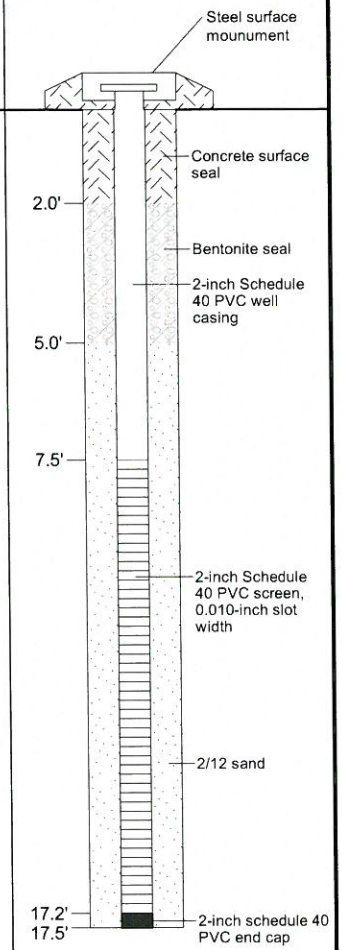
Redmond: Date:7/1/14 Path:C:\USERS\KJANCI\DESKTOP\21138000100.GPJ DBTemplate\LibTemplate\GEOENGINEERS8.GDT\GEI8_GEOTECH_WELL

Drilled Start 7/16/2013	End 7/16/2013	Total Depth (ft) 23	Logged By CRB / Checked By	Driller Cascade Drilling	Drilling Method Direct Push
Hammer Data N/A			Drilling Equipment Geoprobe 54LT		DOE Well I.D.: BIC 621 A 2 (in) well was installed on 7/16/2013 to a depth of 17.5 (ft).
Surface Elevation (ft) Vertical Datum Undetermined			Top of Casing Elevation (ft)		Groundwater Date Measured / Depth to Water (ft) / Elevation (ft)
Easting (X) Northing (Y)			Horizontal Datum		
Notes:					

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)
	0		36						CC	8 inches concrete slab		
									SP	Brown moist silty sand with gravel		<1
												<1
						MW-01-3.0 CA					SS	
	5		50						ML	Black silt with sand (ash?) (burned appearance)	NS	
						MW-01-6.0					NS	
									ML	Brown to gray silt with sand, trace fine gravel (native)		<1
						MW-01-8.0					NS	
												<1
	10		48						CL	Gray clay (moist)	NS	
						MW-01-12.0			ML	Brown sandy silt with scattered fine gravel	NS	<1
									SP	Brown poorly graded fine to medium sand with thin interbedded lenses of silt (moist)		
	15		20			MW-01-15.0					NS	<1
									SM	Brown silty sand (moist)		<1
						MW-01-19.0					NS	
	20										NS	<1
						MW-01-23.0						<1

Refusal at 23 feet

WELL LOG



Note: See Figure A-1 for explanation of symbols.

Log of Monitoring Well MW-01

GeoEngineers

Project: Cornish College - 9th and Lenora
Project Location: Seattle, Washington
Project Number: 8022-012-00

Figure A-2
Sheet 1 of 1

Seattle: Date:7/30/13 Path:C:\USERS\KJANCI\DESKTOP\8022012000.GPJ DBTemplate\LibTemplate\GEOENGINEERS8.GDT\GEIB_ENVIRONMENTAL_WELL

APPENDIX I

Report Limitations and Guidelines for Use

REPORT LIMITATIONS AND USE GUIDELINES

Reliance Conditions for Third Parties

This report was prepared for the exclusive use of the Client. No other party may rely on this report or the product of our services without the express written consent of Aspect Consulting, LLC (Aspect). This limitation is to provide our firm with reasonable protection against liability claims by third parties with whom there would otherwise be no contractual conditions or limitations and guidelines governing their use of the report. Within the limitations of scope, schedule and budget, our services have been executed in accordance with our Agreement with the Client and recognized standards of professionals in the same locality and involving similar conditions.

Services for Specific Purposes, Persons and Projects

Aspect has performed the services in general accordance with the scope and limitations of our Agreement. This report has been prepared for the exclusive use of the Client and their authorized third parties, approved in writing by Aspect. This report is not intended for use by others, and the information contained herein is not applicable to other properties.

This report is not, and should not, be construed as a warranty or guarantee regarding the presence or absence of hazardous substances or petroleum products that may affect the subject property. The report is not intended to make any representation concerning title or ownership to the subject property. If real property records were reviewed, they were reviewed for the sole purpose of determining the subject property's historical uses. All findings, conclusions, and recommendations stated in this report are based on the data and information provided to Aspect, current use of the subject property, and observations and conditions that existed on the date and time of the report.

Aspect structures its services to meet the specific needs of our clients. Because each environmental study is unique, each environmental report is unique, prepared solely for the specific client and subject property. This report should not be applied for any purpose or project except the purpose described in the Agreement.

This Report Is Project-Specific

Aspect considered a number of unique, project-specific factors when establishing the Scope of Work for this project and report. You should not rely on this report if it was:

- Not prepared for you
- Not prepared for the specific purpose identified in the Agreement
- Not prepared for the specific real property assessed
- Completed before important changes occurred concerning the subject property, project or governmental regulatory actions

If changes are made to the project or subject property after the date of this report, Aspect should be retained to assess the impact of the changes with respect to the conclusions contained in the report.

Geoscience Interpretations

The geoscience practices (geotechnical engineering, geology, and environmental science) require interpretation of spatial information that can make them less exact than other engineering and natural science disciplines. It is important to recognize this limitation in evaluating the content of the report. If you are unclear how these "Report Limitations and Use Guidelines" apply to your project or site, you should contact Aspect.

Discipline-Specific Reports Are Not Interchangeable

The equipment, techniques and personnel used to perform an environmental study differ significantly from those used to perform a geotechnical or geologic study and vice versa. For that reason, a geotechnical engineering or geologic report does not usually address any environmental findings, conclusions or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. Similarly, environmental reports are not used to address geotechnical or geologic concerns regarding the subject property.

Environmental Regulations Are Not Static

Some hazardous substances or petroleum products may be present near the subject property in quantities or under conditions that may have led, or may lead, to contamination of the subject property, but are not included in current local, state or federal regulatory definitions of hazardous substances or petroleum products or do not otherwise present potential liability. Changes may occur in the standards for appropriate inquiry or regulatory definitions of hazardous substance and petroleum products; therefore, this report has a limited useful life.

Property Conditions Change Over Time

This report is based on conditions that existed at the time the study was performed. The findings and conclusions of this report may be affected by the passage of time (for example, Phase I ESA reports are applicable for 180 days), by events such as a change in property use or occupancy, or by natural events, such as floods, earthquakes, slope failure or groundwater fluctuations. If more than six months have passed since issuance of our report, or if any of the described events may have occurred following the issuance of the report, you should contact Aspect so that we may evaluate whether changed conditions affect the continued reliability or applicability of our conclusions and recommendations.

Phase I ESAs – Uncertainty Remains After Completion

Aspect has performed the services in general accordance with the scope and limitations of our Agreement and the current version of the "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process", ASTM E1527, and U.S. Environmental Protection Agency (EPA)'s Federal Standard 40 CFR Part 312 "Innocent Landowners, Standards for Conducting All Appropriate Inquiries".

No ESA can wholly eliminate uncertainty regarding the potential for recognized environmental conditions in connection with subject property. Performance of an ESA study is intended to reduce, but not eliminate, uncertainty regarding the potential for environmental conditions affecting the subject property. There is always a potential that areas with contamination that were not identified during this ESA exist at the subject property or in the study area. Further evaluation of such potential would require additional research, subsurface exploration, sampling and/or testing.

Historical Information Provided by Others

Aspect has relied upon information provided by others in our description of historical conditions and in our review of regulatory databases and files. The available data does not provide definitive information with regard to all past uses, operations or incidents affecting the subject property or adjacent properties. Aspect makes no warranties or guarantees regarding the accuracy or completeness of information provided or compiled by others.

Exclusion of Mold, Fungus, Radon, Lead, and HBM

Aspect's services do not include the investigation, detection, prevention or assessment of the presence of molds, fungi, spores, bacteria, and viruses, and/or any of their byproducts. Accordingly, this report does not include any interpretations, recommendations, findings, or conclusions regarding the detection, assessment, prevention or abatement of molds, fungi, spores, bacteria, and viruses, and/or any of their byproducts. Aspect's services also do not include the investigation or assessment of hazardous building materials (HBM) such as asbestos, polychlorinated biphenyls (PCBs) in light ballasts, lead based paint, asbestos-containing building materials, urea-formaldehyde insulation in on-site structures or debris or any other HBMs. Aspect's services do not include an evaluation of radon or lead in drinking water, unless specifically requested.

APPENDIX C

Ecology Request for 2020 Opinion Letter

DEPARTMENT OF ECOLOGY
State of Washington

Voluntary Cleanup Program

Washington State Department of Ecology
Toxics Cleanup Program

REQUEST FOR OPINION FORM

Use this form to request a written opinion on your planned or completed independent remedial action under the Voluntary Cleanup Program (VCP). Attach to this form the plans or reports documenting the remedial action. Please submit only one form for each request.

Step 1: IDENTIFY HAZARDOUS WASTE SITE

Please identify below the hazardous waste site for which you are requesting a written opinion under the VCP. This information may be found on the VCP Agreement.

Facility/Site Name: Lenora Building Site	
Facility/Site Address: 820 Lenora Street (Formerly 2101 9th Avenue), Seattle WA	
Facility/Site No: 91413494	VCP Project No.: NW2980

Step 2: REQUEST WRITTEN OPINION ON PLAN OR REPORT

What type of independent remedial action plan or report are you submitting to Ecology for review under the VCP? Please check all that apply.

- ☐ Remedial investigation plan
- ☐ Remedial investigation report
- ☐ Feasibility study report
- ☐ Property cleanup* plan (* cleanup of one or more parcels located within the Site)
- ☐ Property cleanup* report
- ☐ Site cleanup plan
- ☐ Site cleanup report
- ☒ Other – please specify: Cleanup Action Report Ammendment

Do you want Ecology to provide you with a written opinion on the planned or completed independent remedial action?

☒ Yes ☐ No

Please note that Ecology's opinion will be limited to:

- Whether the planned or completed remedial action at the site meets the substantive requirements of the Model Toxics Control Act (MTCA), and/or
- Whether further remedial action is necessary at the site under MTCA.

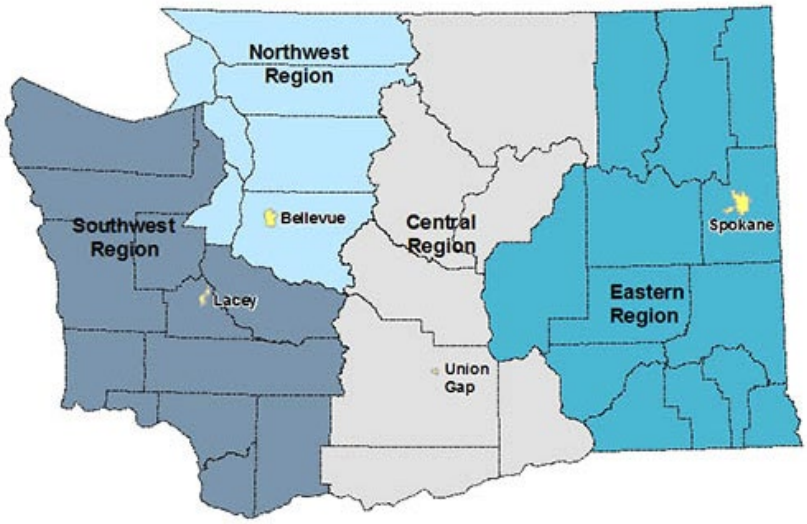
Step 3: REPRESENTATIONS AND SIGNATURE

The undersigned representative of the Customer hereby certifies that he or she is fully authorized to request services from Ecology under the Agreement for this VCP Project.

Name:	Title:	
Signature:	Date:	
Organization:		
Mailing address:		
City:	State:	Zip code:
Phone:	Fax:	E-mail:

Step 4: SUBMITTAL

Please mail your completed form and the independent remedial action plan or report that you are requesting Ecology review to the site manager Ecology assigned to your Site. If a site manager has not yet been assigned, please mail your completed form to the Ecology regional office for the County in which your Site is located.



Northwest Region: Attn: VCP Coordinator 3190 160th Ave. SE Bellevue, WA 98008-5452	**Central Region:** Attn: VCP Coordinator 1250 West Alder St. Union Gap, WA 98903-0009
Southwest Region: Attn: VCP Coordinator P.O. Box 47775 Olympia, WA 98504-7775	**Eastern Region:** Attn: VCP Coordinator N. 4601 Monroe Spokane WA 99205-1295

If you need this publication in an alternate format, please call the Toxics Cleanup Program at 360-407-7170. Persons with hearing loss can call 711 for Washington Relay Service. Persons with a speech disability can call 877-833-6341.

ECY 070-219 (revised July 2015)

APPENDIX D

GeoEngineers 2016 FS

Remedial Investigation/Feasibility Study

Ninth and Lenora Redevelopment
2101 9th Avenue
Seattle, Washington
Facility/Site #91413494
Cleanup Site ID: 1802
VCP Project No. NW2980

for
Ninth and Lenora LLC

March 24, 2016

GeoEngineers
Earth Science + Technology

Remedial Investigation/Feasibility Study

Ninth and Lenora Redevelopment
2101 9th Avenue
Seattle, Washington
Facility/Site #91413494
Cleanup Site ID: 1802
VCP Project No. NW2980

for
Ninth and Lenora LLC

March 24, 2016

GeoEngineers

Plaza 600 Building
600 Stewart Street, Suite 1700
Seattle, Washington 98101
206.728.2674

Remedial Investigation/Feasibility Study

Ninth and Lenora Redevelopment
2101 9th Avenue
Seattle, Washington

GeoEngineers File No. 21138-001-03

March 24, 2016

Prepared for:

Ninth and Lenora LLC
c/o GID Urban Development Acquisitions, LLC
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High Street Tower, 27th Floor
Boston, Massachusetts 02110

Attention: Jeffrey Lowenberg

Prepared by:

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Principal

State of Washington
346
Licensed Geologist
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FK:DAC:leh

cc: Washington State Department of Ecology, Northwest Regional Office

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.

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EXECUTIVE SUMMARY

This document presents the Remedial Investigation and Feasibility Study (RI/FS) for the Ninth and Lenora development property (herein referred to as the "subject property") located in the Denny Triangle neighborhood and bounded by retail properties, 9th Avenue, Lenora Street, and an alley in downtown Seattle, Washington. The subject property is shown relative to surrounding physical features in the Vicinity Map, Figure 1. The subject property was enrolled in the Voluntary Cleanup Program (VCP) administered by the Washington State Department of Ecology (Ecology) on June 8, 2015. The subject property is registered in Ecology databases as Facility/Site No. 91413494, Cleanup Site ID: 1802, and VCP Project No. NW2980. It is important to note that characterization information reported in this RI was collected before, and during, construction activities. The cleanup action at the subject property occurred concurrently with construction/redevelopment; and as a result, a Cleanup Action Report was prepared by GeoEngineers, Inc. (GeoEngineers) as a companion document that will be submitted to Ecology together with this RI/FS to support the request for a No Further Action Determination (NFA) for the subject property. The Cleanup Action Report documents that all contaminated soil was removed from within the bounds of the subject property. In addition, groundwater is deep (greater than 50 feet) with over 40 feet of separation from contamination that was removed and there is no evidence that groundwater is contaminated at the subject property. All work conducted at the Site has been performed in accordance with the requirements of the Model Toxics Control Act (MTCA) and its implementing regulations found in Washington Administrative Code (WAC) 173-340 (collectively MTCA).

The subject property consists of two parcels encompassing approximately 0.49-acres and a limited west portion (0.025 acre) of the public alley. The City of Seattle (City) will own the remainder (0.032 acre) of the alley. The alley ownership will transfer in 2017 to 2018 at the conclusion of the project (see Figure 2). The North Parcel (King County Parcel 0660000540) was the former location of Enterprise, a car rental company; and the South Parcel (King County Parcel 0660000545) was the former location of a 2-story office/warehouse building with the Woodside Braseth Gallery on the ground floor, office space upstairs, and a garage below. At the time of this report, the subject property is currently under redevelopment consisting of a 42-story residential tower with some retail space and six levels of subgrade parking.

The "Site" consists of those areas where hazardous substances in excess of applicable cleanup levels have come to be located as a result of the historical release of hazardous substances from the subject property. Therefore, the "Site" includes the subject property, a limited portion of Lenora Street, and a limited southeast portion of the alley. Historic potential sources of contamination include: a wood yard, printing facility, metal shop, and vehicle servicing/auto restoration garages. Also, the following historic facilities were identified: a former boiler room, chimney and furnace, former car wash area, one former petroleum underground storage tank (UST; removed in 2002), one closed-in-place petroleum UST and related fill ports and piping, and undocumented fill that was imported to the subject property. Localized petroleum contaminated native soil was identified as part of the UST removal and decommissioning activities in 2002 and 2015. In addition to petroleum hydrocarbons, metals were identified in soil and groundwater and carcinogenic polycyclic aromatic hydrocarbons (cPAHs) were identified in soil, as part of this RI.

The following is a summary of the conclusions of this RI/FS.

Soil

Soil primarily contaminated with petroleum hydrocarbons, PAHs and to a lesser extent with gasoline-range hydrocarbons, benzene, xylenes, (associated with the USTs) and/or lead (observed at only two locations in fill soil) was identified in areas where historic sources of contamination and/or imported fill exist at the subject property. Contaminated soil also was identified in a limited portion of the adjacent rights-of-way (Lenora Street and the alley). Based on the findings of the RI, contaminated soil at the "Site" (subject property, Lenora Street, and the alley) was fully delineated and addressed in this RI/FS and during the Cleanup Action in accordance with MTCA requirements.

Gasoline and benzene contamination (greater than MTCA Method A cleanup levels) was detected in fill soil within the utility excavation performed in 9th Avenue, and cPAHs and metals contamination (greater than MTCA Method A cleanup levels) was identified in shallow fill soil at one location on the City-owned adjacent triangular parcel (GEI-2, King County Parcel 0660000485; located south of the subject property across the alley). However, this contamination is not associated with releases from the subject property based on the chemical analytical data and therefore is not part of the Site. Rather, the 9th Avenue contamination is related to either an undocumented localized spill of hydrocarbons within 9th Avenue or originated from an unknown off-property/upgradient source across 9th Avenue. The contamination in Triangle Parcel is related to surficial and localized conditions around a catch basin resulting from former commercial use of the general area or related to undocumented imported fill placed at the Triangle Parcel.

Perched Water

Please note that for this project and the RI/FS Report, the surface of 9th Avenue (approximate Elevation 87 feet) is considered as the ground surface. Perched water beneath the Site was intermittently encountered during remedial investigations at a depth of 27 feet below ground surface (bgs); corresponding to approximate Elevation 60 feet NAVD88. Although petroleum hydrocarbons (in B-2 and B-3) and metals (arsenic, chromium, lead, and/or mercury [in B-3 only]) were detected at concentrations greater than MTCA Method A cleanup levels in perched water these results are not representative of groundwater quality at the Site. Because these discrete, one-time samples were obtained directly from the boreholes of borings they are considered to be reconnaissance samples. These samples were biased high for contaminants because silt particles were present in the samples as a result of the sampling process. Perched water is not a media of concern at this Site because it was not encountered within the mass excavation limits. Additionally, groundwater samples collected from monitoring wells completed to the regional aquifer beneath the Site (approximate Elevation 14 feet, NAVD88) were tested and did not contain contaminants of concern at levels of regulatory significance as represented in the next section of this Executive Summary.

Groundwater

Groundwater was observed at depths of approximately 53.3 and 55.39 feet (approximate Elevations 16 and 14 feet, NAVD88) in monitoring well G-1 (measured from the local ground surface at G-1 which was approximately 69 feet, NAVD88), at the subject property. Groundwater samples obtained and tested in April 2014 and July 2015 from G-1, screened within the regional aquifer showed that arsenic, chromium, and lead were present at concentrations less than MTCA Method A cleanup levels and petroleum hydrocarbons were not detected. Additionally, a groundwater sample from an existing off-property monitoring well MW-5 located across Lenora Street indicated no detections of petroleum. Monitoring well locations are shown in Figure 2 and corresponding Elevations of G-1 and MW-5 are shown on Figure 5 and Figure 6, respectively. Therefore, based on the groundwater chemical data, the aquifer beneath the Site is not impacted.

Cleanup Action

A cleanup action was conducted at the subject property concurrent with redevelopment activities. Although the cleanup action is reported separately, a brief summary of the cleanup action is included in this RI/FS report because observations and chemical analytical testing completed during construction excavation supports the understanding of the magnitude and extent of contamination identified at the Site. For a detailed description of the cleanup action, remedial excavation areas, characterization and/or confirmation soil samples obtained, and soil disposal information, please refer to our Cleanup Action Report submitted under separate cover.

Redevelopment activities at the subject property included excavation to a depth of approximately 80 feet bgs (approximate Elevation 7 feet, NAVD88). The cleanup consisted of excavation and permitted off-site disposal of all contaminated soil exceeding cleanup levels completed at the subject property in conjunction with the redevelopment project. Additionally, the cleanup action included the removal of USTs and related fill ports and piping at the subject property. The contaminated soil excavation and handling/disposal activities were completed in full accordance with GeoEngineers "9th and Lenora Construction Contingency Plan" dated December 12, 2014 which was submitted to Ecology in December 2014, prior to construction.

During the concurrent construction and remedial excavation, it was not practicable to excavate limited areas of residual contaminated soil extending beyond the subject property boundaries (into Lenora Street and the alley). The FS portion of this report will demonstrate that the residual contaminated soil that remains off-property in limited portions of rights-of-way does not pose a threat to human health or the environment and could not practicably be removed due to significant utility, foundation and street infrastructure without expending disproportionate cost for commensurate environmental benefit. Additionally, soil in these areas remains capped by the rights-of-way pavement and is situated well above the deep regional groundwater table which is greater than 50 feet beneath the subject property. For these reasons, the cleanup action is permanent to the maximum extent practicable as required by the MTCA. GeoEngineers proposes use of an Environmental Covenant in accordance with WAC 173-340-440 to implement appropriate institutional controls in the areas of rights-of-way (Lenora Street and the alley) where residual soil contamination remains in-place. This action will require the agreement of the City of Seattle.

Ninth and Lenora LLC is performing the RI/FS in accordance with Ecology's Voluntary Cleanup Program, MTCA and associated implementing regulations (i.e., Chapter 173-340 WAC). The objective of the RI/FS and subsequent remedial actions is to provide the basis for issuance of an opinion from Ecology stating that no further remedial action is necessary at the subject property (a property-specific NFA Determination).

This Executive Summary should be used only in the context of the full report for which it is intended.

1.0 INTRODUCTION

This document presents the Remedial Investigation and Feasibility Study (RI/FS) for the Ninth and Lenora development property (herein referred to as the "subject property") located in the Denny Triangle neighborhood and bounded by retail properties, 9th Avenue, Lenora Street, and a public alley in downtown Seattle, Washington. The subject property consists of two parcels (North Parcel [King County Parcel 0660000540] with a physical address 2118 Westlake Avenue and South Parcel [King County Parcel 0660000545] with a physical address of 2101 9th Avenue) encompassing approximately 0.49-acres and a limited west portion (0.025 acre) of an alley. The City of Seattle (City) will own the remainder (0.032 acre) of the alley (see Figure 2). The alley ownership will transfer in 2017 to 2018 at the conclusion of the redevelopment project. The City of Seattle also owns a triangular parcel located southwest of the subject property (across the alley) which is slated to become a public park. Some site characterization was completed as part of this RI on the City's 9th Avenue, Lenora Street, alley and triangular parcel.

Please note that for this project, the surface of 9th Avenue (approximate Elevation 87 feet, NAVD88) is considered as the ground surface. The approximate surface elevations of Lenora Street, alley, and Triangular Parcel are 87, 69, and 67 feet; respectively. The subject property grades drop about 10 feet from southeast to northwest (ranging from approximate Elevation 87 feet in the southeast to approximate Elevation 75 feet in the northwest).

2.0 SCOPE AND PURPOSE

The objective of this document is to present the results of the RI/FS, including an evaluation of feasible cleanup actions to address soil contamination at the Site. The results of previously completed investigations and RI activities are presented to describe the nature and extent of contamination at the subject property. Ninth and Lenora LLC is performing the RI/FS in accordance with the Washington State Department of Ecology (Ecology) Voluntary Cleanup Program (VCP), the Model Toxics Control Act (MTCA) and associated implementing regulations (i.e., Chapter 173-340 Washington Administrative Code [WAC]). The objective of the RI/FS and subsequent remedial actions is to facilitate issuance of an opinion from Ecology stating that no further remedial action is necessary at the subject property (a property-specific NFA Determination).

3.0 PROPERTY DESCRIPTION AND BACKGROUND

As indicated in the Introduction, the subject property is located in the Denny Triangle neighborhood and bounded by retail properties, 9th Avenue, Lenora Street, and an alley in downtown Seattle, Washington and consists of two parcels (North Parcel [King County Parcel 0660000540] and South Parcel [King County Parcel 0660000545] encompassing approximately 0.49-acres, and a limited west portion (0.025 acre) of an alley.

The North Parcel of the subject property was the former location of Enterprise, a car rental company. The South Parcel of the subject property was the former location of a 2-story office/warehouse building with the Woodside Braseth Gallery on the ground floor, office space upstairs, and a garage below. At the time of this report, the buildings had been demolished and the subject property was under redevelopment consisting of a 42-story residential tower with some retail space and six levels of subgrade parking. The subject

property was enrolled in the VCP administered by Ecology on June 8, 2015 (Facility/Site No. 91413494, Cleanup Site ID: 1802, and VCP Project No. NW2980). The subject property location relative to surrounding physical features is shown in the attached Figure 1. The subject property layout is shown in attached Figure 2.

It is important to note that characterization information reported in this RI was collected before, and during, construction activities. A cleanup action at the subject property occurred concurrently with construction/redevelopment; and as a result, a Cleanup Action Report was prepared by GeoEngineers, Inc. (GeoEngineers) as a companion document to be submitted to Ecology along with this RI/FS. The Cleanup Action Report documents that all contaminated soil was removed from within the bounds of the subject property. In addition, groundwater is not contaminated. This RI/FS report utilizes and reports on the soil chemical analytical information that was obtained during remedial investigations completed prior to subject property redevelopment, utility-related excavations outside the mass excavation limits, and during construction excavation. All work conducted at the Site has been performed in full accordance with the requirements of MTCA and its implementing regulations found in WAC 173-340 (collectively MTCA).

Previous subject property uses include historical boiler and furnace/chimney systems associated with the former subject property buildings), one former underground storage tank (UST; removed in 2002) and one existing closed-in-place UST, UST-related elements (e.g., fill ports, piping, etc.), former car washing areas, historic property uses (such as wood yard, printing facility, metal shops, and former vehicle servicing/auto restoration garage), unknown housekeeping practices of former property occupants, and likely undocumented fill that may have been imported to the subject property. More detail on historic property use is provided in Section 3.1.

The "Site" as defined by Ecology's MTCA (Chapter 173-340) is those areas where hazardous substances have come to be located as a result of the historical release of hazardous substances related to the historic site uses. Based on the soil data obtained as part of the RI and additional information that was obtained during construction excavation, the Site appears to extend beyond portions of the subject property boundaries into limited portions of the adjacent Lenora Street and adjacent alley.

The mass excavation which occurred from July 2015 through September 2015 extended from lot-line to lot-line to an approximate depth of 80 feet (approximate Elevation 7 feet, NAVD88) below the 9th Avenue right-of-way surface grade (approximate Elevation 87 feet—considered ground surface for this study). All contaminated soil within the subject property boundaries identified over the course of the RI and construction activities was removed as part of the construction excavation. The contaminated soil excavation and handling/disposal activities were completed in full accordance with GeoEngineers "9th and Lenora Construction Contingency Plan" dated December 12, 2014 which was submitted to Ecology in December 2014, prior to construction. For a description of the cleanup action, remedial excavation areas, characterization and confirmation soil samples obtained, and soil disposal information, please refer to our Cleanup Action Report submitted under separate cover.

3.1. Historic Operations and Property Uses

GeoEngineers completed a Phase I Environmental Site Assessment (ESA) report for the subject property in September 2002, October 2007, and a Phase I ESA update in August 2013. The following is a summary of our research and findings from the 2007 and 2013 Phase I ESAs. The approximate locations of historical features referenced in the following summary are shown on the attached Figure 2.

2118 Westlake Avenue (North Parcel - 0660000540)

Based on the historic fire insurance (Sanborn) maps, the parcel was undeveloped in 1905. A small structure (possibly a store) and parking were present on the parcel in 1936. Based on the tax records, a single-story office building with basement was constructed between 1946 and 1948 and was used by Westlake Chevrolet Company for car sales, storage and repair. The tax assessor records indicate that a boiler house was also present on the parcel and the building was heated by hot water and an oil burner. Based on our review of documents obtained from the City of Seattle Department of Construction and Land Use (DCLU) (now known as Department of Planning and Development, DPD), a permit was issued to Westlake Chevrolet in 1980 to construct an underground tunnel in order to provide access to the basement of the single-story building from the underground parking garage located on parcel 0660000485 (the City of Seattle owned Triangle Parcel).

Based on our review of the ownership records, Westlake Chevrolet Company owned this parcel from 1946 until the mid-1980s (for car sales and possibly auto repair) when Mr. Howard Anderson (father of Mr. Chuck Anderson, the property owner in 2007) acquired the parcel. Based on our interview with Mr. Chuck Anderson, the parcel was occupied by a used car sales office until 1990s and Enterprise had leased the parcel since 1993. Mr. Chuck Anderson indicated that fill from an unknown source may have been brought to the parcels during the construction of the building.

2101 9th Avenue (South Parcel - 0660000545)

Based on the historic fire insurance (Sanborn) maps and tax assessment records, the parcel was undeveloped from at least 1893 until approximately 1905 when a “wood yard” was located on the parcel. A two-story office/retail building on the parcel was constructed in 1924 as a garage. The building contained a “sump” (possibly the basement catch basin), and was originally heated by an oil burner. A building plan dated 1924 indicated a “wash rack” in the basement of the building.

Based on our review of the City Directories, the parcel was used by Westlake Chevrolet Company as an auto repair facility between the 1940s and the 1970s. The parcel was reportedly used as a printing facility during the 1980s and 1990s, and included a camera area, dark room and bindery area, based on the site building plan dated 1981. Ihler Automotive, Print Management, Metal Solutions and JLR Design Group occupied the building in 1996. A metal shop is shown in the west corner of the basement in 1998 building plans.

Based on our review of the ownership records, this parcel was owned by a lumber company (likely Providence Lumber Co.) from at least 1905 to 1924 when Mr. G.L. Seibert acquired the parcel, according to City engineering records. From 1926 to at least 1935, the Victor Improvement Company owned the parcel. Westlake Chevrolet Company leased the parcel from approximately 1943 to 1977. Peter Frank and Associate Printers occupied the parcel in 1983 through 1994, according to city directories. Mr. Gary Pidig (deceased) owned the parcel from approximately 1988 to 1997 when Mr. David Murphy of Murphy Varey, P.S., acquired the parcel in 1997. Based on our interview with Mrs. Vicky Clayton, Cornish College Cornish College of Arts had owned the parcel since 2003.

Both parcels are currently under redevelopment and all former improvements were demolished during construction excavation in 2015.

3.2. Subject Property Conditions

GeoEngineers completed geotechnical and environmental subsurface explorations at the subject property to depths ranging between approximately 7 and 86.5 feet below subject property ground surface. A summary of subject property surface and subsurface conditions is provided below.

3.2.1. Surface Conditions

Existing subject property grades drop about 10 feet from southeast to northwest (ranging from approximate Elevation 87 feet in the southeast to approximate Elevation 75 feet in the northwest). The alley along the west side of the subject property historically provided access to the lowest level of the former building and slopes down from approximate Elevation 75 feet near Westlake Avenue to approximate Elevation 69 feet near the entrance to the former below grade garage of the former 2101 9th Avenue building. The alley does not extend through to Lenora Street. A permanent slope currently exists between the end of the alley and Lenora Street. At the time of this report, subject property buildings were demolished for redevelopment.

3.2.2. Subsurface Soil Conditions

The soils encountered at the site consist of relatively shallow fill overlying recent deposits and competent glacially consolidated soils. Fill generally consists of loose to medium dense silty sand with variable gravel and cobble content and occasional brick, charcoal or wood debris. Based on historical research, the block is located on the eastern edge of the 1928-1930 Denny Regrade, and portions of this area are reported to have up to 25 feet of fill as part of the regrade process. The thickness of fill encountered in the explorations completed at the site ranged from approximately 6 to 15 feet.

The recent deposits typically consist of soft to hard silt and clay with occasional sand interbeds and variable gravel content or medium dense to dense sand with variable silt and gravel content. The glacially consolidated soils were encountered below the fill and recent deposits, where present. The glacially consolidated soils encountered in the explorations were typically till-like deposits, which consist of very dense silty sand with gravel and variable cobble and boulder content with isolated layers of hard silt and clay.

3.2.3. Perched Water Conditions

Although perched water was encountered intermittently in some of the site characterization explorations completed during remedial investigations, it was not encountered within the mass excavation limits at the subject property.

3.2.4. Groundwater Conditions

The static groundwater table associated with the regional aquifer was measured in former monitoring well G-1 on December 27, 2013 and July 1, 2014. The measured depth was approximately 53.30 feet and 55.39 (approximate Elevations 16 and 14 feet, NAVD88) respectively; below the local subject property ground surface (approximate Elevation 69 feet, NAVD88) at G-1 location. The approximate location and local elevation of G-1 is shown in Figure 2 and Figure 5, respectively.

3.2.5. Soil Vapor Conditions

Soil vapor conditions were not evaluated at the subject property because the planned construction excavation depth of approximately 80 feet below ground surface (bgs; approximate Elevation 7 feet) results

in the removal of all source material that could result in vapor generation. The construction excavation depth is below the 9th Avenue ground surface (approximate Elevation 87 feet, NAVD88) which is considered as the ground surface for this project. The surface elevations within the subject property boundaries ranged from approximately 87 feet in the southeast to approximately 75 feet in the northwest portions of the subject property.

4.0 REMEDIAL INVESTIGATION

This section summarizes the results of remedial investigation (RI) activities conducted at the subject property and immediate vicinity. The purpose of the RI is to collect data and information necessary to define the extent of contamination and to characterize the soil and groundwater beneath the Site sufficiently to support selection of a MTCA-compliant final remedy. Ninth and Lenora LLC is performing the RI in accordance with the Ecology VCP, MTCA and associated implementing regulations (i.e., Chapter 173-340 WAC).

4.1. Summary of Remedial Investigations

GeoEngineers completed several geotechnical and environmental explorations at the subject property and immediate vicinity to evaluate subsurface conditions. Twenty-six explorations (soil borings B-1 through B-9, and HA-1 in February 2002, soil borings GEI-1 through GEI-6 in October 2007, soil borings GEI-7 and GEI-8 and a shallow monitoring well MW-01 in July 2013, soil borings G-2, E-1, and E-2, and a deep monitoring well G-1 in December 2013, and borings DP-1 through DP-5 in November 2014) were completed to depths ranging from approximately 7 and 86.5 feet to evaluate soil and perched water conditions. GeoEngineers completed a shallow monitoring well (MW-01) to an approximate depth of 18 feet and a deep monitoring well (G-1) to an approximate depth of 86.5 feet to evaluate groundwater quality beneath the subject property. GeoEngineers utilized data from an existing off-property monitoring well (MW-5) located on the east sidewalk of Lenora Street. MW-5 was completed by GeoEngineers in 1993 to an approximate depth of 60 feet below local ground surface for a different project currently developed as Washington Talking Book Braille Library located opposite to the subject property across Lenora Street. All depths indicated in this paragraph are measured from the respective local ground surfaces prevailing at the time these explorations were completed. Following is a brief summary of the remedial investigations testing and results:

- **Soil**. Forty-nine soil samples were tested for petroleum (gasoline-, and/or diesel-, and/or heavy oil-range hydrocarbons), 31 samples were tested for benzene, ethylbenzene, toluene, and xylenes (BETX), 20 soil samples were tested for one or more metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver), 19 soil samples were tested for polycyclic aromatic hydrocarbons (PAHs), and nine soil samples were tested for semi-volatile organic compounds (SVOCs). According to the chemical analytical data, soil primarily contaminated with petroleum hydrocarbons, PAHs and to a lesser extent with gasoline-range hydrocarbons, benzene, xylenes, (associated with the USTs) and/or lead (observed at two locations in fill soil) was identified in fill soil at the Site. The historic property uses (wood yard, printing facility, metal shop, and vehicle servicing/auto restoration garages), historic facilities (former boiler room, chimney and furnace, former car wash area, one former petroleum UST (removed in 2002), one closed-in-place petroleum UST and related fill ports and piping), and undocumented fill that was imported to the Site are the potential sources of identified soil contamination.
- **Perched Water**. Six discrete, one-time perched water samples were obtained directly from the boreholes of the borings where encountered. Five samples were tested for petroleum (gasoline-, and/or diesel-, and/or heavy oil-range hydrocarbons), four samples were tested for BETX, and three samples

were tested for volatile organic compounds (VOCs). Although petroleum hydrocarbons (in B-2 and B-3) and metals (arsenic, chromium, lead, and/or mercury [in B-3 only]) were detected at concentrations greater than MTCA Method A cleanup levels in perched water; these results are not representative of groundwater quality at the Site. Because these discrete, one-time samples were obtained directly from the boreholes of borings they should be considered reconnaissance samples. These samples were biased high for contaminants because silt particles were present in the samples as a result of the sampling process. Perched water is not a media of concern at this Site because it was not encountered within the mass excavation limits. Additionally, groundwater samples collected from monitoring wells completed to the regional aquifer beneath the Site (approximate Elevation 14 feet, NAVD88) were tested and did not contain contaminants of concern at levels of regulatory significance as represented below.

- **Groundwater**. Shallow monitoring well MW-01 was observed dry on the days of sampling. Groundwater samples were collected from deep monitoring well G-1 in December 2013, April 2014, and July 2015. Samples were tested for petroleum (gasoline-, diesel-, and heavy oil-range hydrocarbons), and/or BETX, and/or metals (arsenic, chromium, lead, and mercury). Groundwater samples obtained and tested from G-1, screened within the regional aquifer, showed that arsenic, chromium, and lead were present at concentrations less than MTCA Method A cleanup levels and petroleum hydrocarbons were not detected. Additionally, a September 1993 groundwater sample from an existing off-property monitoring well MW-5 previously installed by GeoEngineers located across Lenora Street indicated no petroleum detections.

Additionally, soil was further characterized upon discovery as either contaminated or impacted soil during construction activities (such as mass excavation, off-property utility excavations, and the installation of shoring walls) starting in April 2015. Definitions of contaminated and impacted soil are as follows: *"contaminated"* is soil that exceeds MTCA Method A cleanup levels and physical evidence of contamination (moderate to heavy sheen, odor, staining) is observed; whereas, *"impacted"* is soil that has concentrations of contaminants less than cleanup levels but greater than background and physical evidence of contamination (slight sheen, odor, staining) is observed. These definitions are consistent with those identified in GeoEngineers "9th and Lenora Construction Contingency Plan" dated December 12, 2014 which was submitted to Ecology in December 2014, prior to construction. Following sections provide a summary of the results of each exploration and a brief summary of characterization activities of contaminated and impacted soil encountered during construction.

Soil chemical analytical results from the remedial investigations are summarized in Tables 1 and 2. Perched water and groundwater chemical analytical results from the remedial investigations are summarized in Tables 3 and 4. The approximate location of all remedial investigation explorations are shown on attached Figure 2. The approximate location of soil characterization samples obtained during construction and a graphical summary of soil chemical analytical data is shown on attached Figure 3. A graphical summary of petroleum hydrocarbons and metals chemical analytical data in perched water and groundwater is shown in attached Figure 4. Subsurface cross-sections of the subject property and vicinity using chemical analytical data generated from remedial investigations are shown in attached Figures 5 through 7. A copy of all remedial investigations explorations logs is presented in Appendix B. A copy of the laboratory reports is presented in Appendix C.

4.1.1. Construction-Phase Site Characterization, GeoEngineers, Inc., April 2015 through June 2015

During excavation activities for installing a deep sewer east of the subject property, GeoEngineers obtained soil samples to characterize soil in 9th Avenue. GeoEngineers also obtained soil samples from the east property boundary to evaluate whether soil exceeding MTCA cleanup levels for benzene in boring B-1 was a localized condition or more extensive and potentially present at the subject property (benzene wasn't present on the subject property and appeared to be localized within a limited area in 9th Avenue).

Soil chemical results from the construction phase characterization is summarized in Table 5. Laboratory reports are included in Appendix C. A brief summary of soil sampling and testing results from the above locations is presented below:

- **Deep Sewer Utility Excavation – 9th Avenue**. The utility excavation was completed in the 9th Avenue right-of-way for installing a deep sewer tie-in associated with the planned redevelopment. The utility excavation was completed adjacent to former boring B-1. Benzene was identified at an approximate elevation of 69 feet in boring B-1 completed within 9th Avenue in 2002. The utility excavation measured approximately 25 long (northwest to southeast) by 20 feet wide (northeast to southwest) with a maximum depth of approximately 35 feet bgs (approximate Elevation 55 feet). Samples were obtained from approximate elevations ranging between 82 and 57 feet to characterize soil generated during the utility excavation. Gasoline-range hydrocarbons and benzene were detected at concentrations greater than MTCA cleanup levels in samples from east sidewall of the utility excavation (farthest from the subject property boundary). Benzene, diesel- and heavy oil-range hydrocarbons were detected at concentrations less than MTCA cleanup levels in samples from other sidewalls of the utility excavation. Based on the soil chemical data, excavated soil from the ground surface to an approximate depth of 23 feet bgs (Elevation 67 feet) was considered contaminated. Soil below Elevation 67 was considered non-contaminated. The approximate extent of utility excavation and soil sample locations are shown on attached Figure 3.
- **East Boundary of Subject Property**. GeoEngineers obtained soil samples from approximate elevations ranging between 81 and 69 feet from the east property boundary (southeast shoring wall area) during construction excavation activities to evaluate whether MTCA exceeding benzene contamination identified in soil (Elevation 69 feet) at boring B-1 extended onto or was otherwise connected with releases from the subject property. According to the chemical analytical results, benzene was not detected in any of the soil samples. Therefore, benzene contamination is limited to a localized area within 9th Avenue, did not result from a release on the subject property and is not part of the Site. Subsurface conditions at the east property boundary are graphically shown in cross-section C-C′.

Based on the soil sampling and testing results from the utility excavation in 9th Avenue and southeast portion of the subject property, not only was contaminated soil removed from the utility excavation within 9th Avenue, the chemical analytical data and observations made by GeoEngineers demonstrated that the gasoline and benzene contamination identified in 9th Avenue has not sourced from nor migrated to the subject property and either was a localized spill of hydrocarbons within 9th Avenue or originated from an unknown off-property/upgradient source across 9th Avenue.

4.2. Conceptual Site Model

4.2.1. Potential Exposure Pathways

Exposure pathways describe the mechanism by which an individual or population is exposed or has the potential to be exposed to hazardous substances at, or originating from a Site [WAC 340-350 (7)(e)(ii)]. The following sections summarize our evaluation of the potential exposure pathways for the subject property. Please note that some of the pathways described in the sections below were evaluated using information obtained during mass excavation which was underway as part property redevelopment/construction.

4.2.1.1. Groundwater to Surface Water

The static groundwater table associated with the regional aquifer was measured in the former monitoring well G-1 on December 27, 2013 and July 1, 2014. The measured depth was approximately 53.3 feet and 55.39 (approximate Elevations 16 and 14 feet, NAVD88) respectively; below local subject property ground surface elevation at monitoring well G-1 (approximately 69 feet, NAVD88). Groundwater was not contaminated based on chemical analytical testing. Additionally, construction excavation was completed to depths of approximately 80 feet bgs (approximate Elevation 7 feet, NAVD88). Also, there is no nearby surface water discharge point for groundwater. Therefore, the groundwater to surface water pathway is not complete at the Site.

4.2.1.2. Soil to Groundwater

The mass excavation area encompassed a few insignificant areas of localized and isolated groundwater (associated with the regional aquifer) which were dewatered/drained as part of the construction excavation and removed from within the subject property boundaries. The static groundwater table associated with the regional aquifer was measured in the former monitoring well G-1 on December 27, 2013 and July 1, 2014. The measured depth was approximately 53.3 feet and 55.39 (approximate Elevations 16 and 14 feet, NAVD88) respectively; below the subject property ground surface (approximate Elevation 69 feet, NAVD88) respectively. Contaminated soil was observed at shallow depths (approximately 1 to 18 feet below subject property ground surface corresponding to Elevations 68 to 51 feet, NAVD88). Additionally, construction excavation was completed to a much greater depth of approximately 80 feet bgs (approximate Elevation 7 feet, NAVD88) as measured from the project-specific ground surface of 9th Avenue (Elevation 87 feet, NAVD88).

A limited volume of soil contamination remains in portions of the Site beyond subject property boundaries beneath a localized section of the Lenora Street sidewalk, and the alley. This soil, although present at the Site is vertically separated from the groundwater table by about 40 feet (from around Elevation 51 to 14 feet, NAVD88). The likelihood of soil to groundwater contaminant migration is very low because of the significant vertical separation of the contaminated soil horizon from the groundwater table, the presence of lower permeability glacially consolidated soils, and the removal of contamination sources (USTs and impacted soil). Also, groundwater samples obtained and tested in April 2014 and July 2015 from monitoring well G-1, screened within the regional aquifer confirm this hypothesis and showed that arsenic, chromium, and lead were present at concentrations less than MTCA Method A cleanup levels and petroleum hydrocarbons were not detected; and September 1993 groundwater sample from an existing off-property monitoring well (MW-5) located across Lenora Street indicated no petroleum detections. As a result, the soil to groundwater pathway is not complete at the Site.

4.2.1.3. Soil Direct Contact

Contaminated soil present at the subject property at approximate elevations ranging between 68 and 51 feet presented a risk to direct contact to construction workers after existing buildings and overlying soil were removed as part of the redevelopment activities. This pathway was eliminated by the construction excavation to approximate Elevation of 10 feet, which included removal of the contaminated soil within the subject property boundaries. The contaminated soil excavation and handling/disposal activities were completed in full accordance with GeoEngineers "9th and Lenora Construction Contingency Plan" dated December 12, 2014 which was submitted to Ecology in December 2014, prior to construction. The limited soil contamination (greater than MTCA Method A Cleanup levels) in portions of the Site that extend beyond the subject property boundaries into localized sections of the Lenora Street sidewalk and the alley will remain capped by the paved surfaces of the rights-of-way; therefore, the soil to direct contact pathway is not complete at the Site.

4.2.1.4. Soil to Vapor Inhalation

Petroleum contaminated soil that existed at the subject property at approximate elevations ranging between 68 and 51 feet prior to construction may have resulted in vapor intrusion risk. This pathway was eliminated by the construction excavation and removal of the contaminated soil at the subject property. The contaminated soil excavation and handling/disposal activities were completed in full accordance with GeoEngineers "9th and Lenora Construction Contingency Plan" dated December 12, 2014 which was submitted to Ecology in December 2014, prior to construction. Excavation to depths of approximate elevation of 7 feet was completed as part of redevelopment activities at the subject property. The planned excavation area encompassed all identified areas of contaminated soil within subject property boundaries. A limited amount of petroleum contaminated soil (a mix of toluene and weathered gasoline-, and heavy oil-range hydrocarbons) in portions of the Site that extend beyond the subject property boundaries into localized sections of the Lenora Street sidewalk and the alley will remain capped by the paved surfaces of the rights-of-way and will not be situated beneath buildings or structures where soil vapor could accumulate; therefore, the soil to vapor inhalation pathway is not complete at the Site.

5.0 FEASIBILITY STUDY

This section summarizes the results of the Feasibility Study (FS) conducted for the subject property. The purpose of the FS is to develop and evaluate alternative cleanup actions for the Site. The FS is in accordance with the Ecology VCP requirements, MTCA and associated implementing regulations (i.e., WAC Chapter 173-340-120(4)(b)).

5.1. Basis for Cleanup Action

This section presents the basis for the cleanup action for the subject property based on current Site conditions. There are three distinct elements that form the basis for the cleanup action: 1) the site-specific cleanup standards and points of compliance, 2) the locations of media requiring cleanup action, and 3) the redevelopment excavation activities for the subject property.

5.1.1. Cleanup Standards

Cleanup standards consist of: 1) cleanup levels that are protective of human health and the environment, and 2) the point of compliance at which the cleanup levels must be met. Cleanup standards adopted for this FS are summarized in Tables A and B.

5.1.1.1. Cleanup Levels

Cleanup levels for soil and groundwater that are protective of human health and the environment and that address the relevant exposure pathways are outlined in this section. MTCA Method A soil and groundwater cleanup levels were adopted based on (a) the simplicity of this cleanup action and the chemicals of concern listed below, (b) the default, most conservative unrestricted use scenario, and (c) the protection of construction and excavation workers in a direct contact scenario. The direct contact scenario for construction and excavation workers was addressed by removal of contaminated soil in accordance with GeoEngineers "9th and Lenora Construction Contingency Plan" dated December 12, 2014 which was submitted to Ecology in December 2014, prior to construction.

TABLE A. OVERVIEW OF SOIL CLEANUP STANDARDS

Constituent	Cleanup Level for Soil Milligrams per kilogram (mg/kg)
Primary Chemicals of Concern	
Diesel-Range Hydrocarbons	2,000
Heavy Oil-Range Hydrocarbons	2,000
Total Naphthalenes	5
Total cPAHs	100,000
Secondary Chemicals of Concern	
Gasoline-Range Hydrocarbons	30/100
Benzene	0.03
Toluene	7
Total Xylenes	9
Lead	250
Point of Compliance based on MTCA	*Throughout the Soil Column*

Notes:

Cleanup level for gasoline-range petroleum hydrocarbons is 30 mg/kg when benzene is present and 100 mg/kg when benzene is not present.

TABLE B. OVERVIEW OF GROUNDWATER CLEANUP STANDARDS

Constituent	Cleanup Level for Groundwater Micrograms per liter (µg/L)
Gasoline-Range Hydrocarbons	800
Diesel-Range Hydrocarbons	500
Heavy Oil-Range Hydrocarbons	500
Benzene	5
Toluene	700
Ethylbenzene	1,000
Xylenes	1,000

Constituent	Cleanup Level for Groundwater
	Micrograms per liter (µg/L)
Arsenic	5
Total Chromium	50
Lead	15
Mercury	2
Point of Compliance based on MTCA	*At regional water table*

5.1.1.2. Points of Compliance

Under MTCA, the point of compliance is the point or location on a site where the cleanup levels must be attained. The standard point of compliance for the proposed human health based-direct contact soil cleanup levels outlined in Table A is throughout the soil column. The direct contact point of compliance is a depth of 15 feet bgs. For this project, the MTCA direct contact point of compliance depth of 15 feet is measured from the subject property ground surface (approximate Elevation 69 feet, NAVD88). Contaminated soil was identified from approximately 1 to 18 feet below subject property ground surface (approximate Elevations 68 to 51 feet, NAVD88), based on chemical concentrations observed during the remedial investigations and construction excavation. The MTCA Method A cleanup levels chosen for this site are based on protection of groundwater and/or direct contact developed for unrestricted land use. The point of compliance for groundwater is throughout the Site at the regional water table. However, because groundwater was shown to be deep (55 feet below subject property ground surface; Elevation 14 feet, NAVD88), and had a separation of about 40 feet between identified soil contamination and the groundwater table, the soil to groundwater pathway was shown to not be complete for this site. Nevertheless, construction excavation (base of excavation approximate Elevation 10 feet, NAVD88) extended below the documented soil contamination (approximate Elevation 51 feet, NAVD88) and all of the contaminated soil was removed from within the bounds of the property. Therefore, both the direct contact and soil to groundwater points of compliance were achieved at the property as a result of this cleanup action.

5.1.2. Cleanup Action Evaluation

Based on the results of RI activities performed at the Site (summarized in Section 4.0), soil primarily contaminated with petroleum hydrocarbons, PAHs and to a lesser extent with gasoline-range hydrocarbons, benzene, xylenes, (associated with the USTs) and/or lead (observed at two locations in fill soil) at concentrations exceeding cleanup levels needed remediation to achieve protection of human health and the environment. There were two approaches to remediation at this Site:

1. Excavation within the bounds of the subject property, and
2. Engineering and institutional controls off-property.

Subject Property. The construction excavation at the subject property consisted of excavation of the entire subject property to approximately 80 feet bgs (approximate Elevation 7 feet) which resulted in removal of all contaminated soil from the subject property. The redevelopment excavation encompassed all of the soil contamination within subject property; therefore, the cleanup actions for the subject property consisted of remedial excavation and off-site permitted disposal of contaminated soil. Due to the extent of the redevelopment excavation, and because contamination was not documented in groundwater beneath the

subject property at concentrations exceeding MTCA Method A Cleanup levels and the lack of other pathways of concern, evaluation of additional cleanup action alternatives were not necessary in this FS for the subject property.

Site/Off-Property. A limited volume of Petroleum (gasoline- and heavy oil-range hydrocarbons) and PAHs-contaminated soil remains in two small areas; the first extending beyond the south subject property boundary beneath the Lenora Street sidewalk and the second extending beyond the west subject property beneath the alley. This residual contaminated soil cannot be removed because:

- **Lenora Street.** Contaminated soil is located approximately 24 feet deep (in Lenora Street) which requires significant shoring for excavation, a multitude of utilities are present, and closure of Lenora Street will have a significant adverse impact on downtown traffic that would likely not be permitted by City of Seattle Department of Transportation (SDOT).
- **Alley.** Presence of infrastructure elements in the alley associated with the triangular parcel shoring wall and an underground parking garage structural and foundation elements (concrete footings and walls) that also supports the Lenora Street stability.

For both Lenora Street and the alley, these infrastructure elements cannot be demolished to access a limited volume of the contaminated soil as it will undermine the structural integrity of nearby improvements including the City ROWs. Also, the contaminated soil will remain capped by asphalt/concrete paved sidewalks, streets and/or alleys. Therefore, evaluation of additional cleanup action alternatives for remaining Site areas was not necessary for this FS.

This conclusion complies with WAC 173-340-360 related to Selection of Cleanup Actions. Additionally, our cleanup action evaluation for the Site included a disproportionate cost analysis (DCA) which evaluated whether a cleanup action uses permanent solutions to the maximum extent practicable relative to the "threshold requirements" and "other requirements" under MTCA. Our DCA analysis shows that the cost to conduct additional excavation (or any in-situ remediation) into the Lenora Street and alley (rights-of-way) would result in disproportionate cost for the marginal environmental benefit return. The details of DCA area discussed in later sections (Section 5.2.3) of this report.

5.1.3. Development and Description of Cleanup Action Alternatives

As stated in the previous section, because construction excavation resulted in the removal of all contaminated soil within the bounds of the subject property and groundwater was not contaminated, no additional cleanup action alternatives were evaluated for the subject property. However, in this section, cleanup action alternatives to address remaining contamination at the Site (in the Lenora Street and the alley) are developed through a process of screening applicable remediation technologies and assembling the technologies into a set of cleanup action alternatives. We evaluated three alternatives for remediating contaminated soil with MTCA Method A cleanup levels within the alley and Lenora Street.

1. Alternative 1 – Institutional and Engineering Controls
2. Alternative 2 – Remedial Excavation
3. Alternative 3 – Chemical Oxidation In-Situ Remediation

Alternative 1 (Institutional and Engineering Controls through capping) will be shown to be the preferred remedy through the analysis in the following sections, Tables 6 and 7, and because of the results of a Disproportionate Cost Analysis as outlined in Section 5.2.3.

5.2. Cleanup Action Evaluation Criteria

This section presents a description of the threshold and other requirements for cleanup actions under MTCA and the additional criteria used in this FS to evaluate the cleanup action alternatives.

5.2.1. Threshold Requirements

Cleanup actions performed under MTCA must comply with several basic requirements. Cleanup action alternatives that do not comply with these criteria are not considered MTCA-compliant cleanup actions. As provided in WAC 173-340-360(2)(a), the four threshold requirements for cleanup actions are:

- Protection of human health and the environment;
- Compliance with cleanup standards (see WAC 173-340-700 through 173-340-760);
- Compliance with applicable state and federal laws (see WAC 173-340-710); and
- Provision for compliance monitoring (see WAC 173-340-410 and 173-340-720 through 173-340-760).

5.2.1.1. Protection of Human Health and the Environment

The results of cleanup actions performed under MTCA must ensure that both human health and the environment are protected.

5.2.1.2. Compliance with Cleanup Standards

Compliance with cleanup standards requires, in part, that cleanup levels are met at the applicable points of compliance. If a remedial action does not comply with cleanup standards, the remedial action is an interim action, not a cleanup action. When a cleanup action involves containment of soils with hazardous substance concentrations exceeding cleanup levels at the point of compliance, the cleanup action may be determined to comply with cleanup standards, provided the requirements specified in WAC 173-340-740(6)(f) are met. Our cleanup action evaluation for the Site included a DCA which evaluated whether a cleanup action uses permanent solutions to the maximum extent practicable.

5.2.1.3. Compliance with Applicable State and Federal Laws

Cleanup actions conducted under MTCA must comply with applicable state and federal laws. The term "applicable state and federal laws" includes legally applicable requirements and those requirements that Ecology determines to be relevant and appropriate as described in WAC 173-340-710. A list of site specific Applicable or Relevant and Appropriate Requirements (ARARs) is presented in attached Table 6.

5.2.1.4. Provision for Compliance Monitoring

The cleanup action must allow for compliance monitoring in accordance with WAC 173-340-410. Compliance monitoring consists of protection monitoring, performance monitoring and confirmational monitoring. Protection monitoring is conducted to confirm that human health and the environment are adequately protected during construction and the operation and maintenance period of a cleanup action. Performance monitoring is conducted to confirm that the cleanup action has attained cleanup standards and, if appropriate, remediation levels or other performance standards. Confirmational monitoring (groundwater and/or soil) is conducted to confirm the long-term effectiveness of the cleanup action once cleanup standards and, if appropriate, remediation levels or other performance standards have been

attained. Groundwater is not a media of concern because representative groundwater from well G-1 was tested and no contaminants of concern were identified before remedial action was conducted so groundwater compliance monitoring is not required.

5.2.2. Other MTCA Requirements

Under MTCA, when selecting from the alternatives that meet the minimum requirements described above, the alternatives shall be further evaluated against the following additional criteria. Table 7 provides the detail behind each of the three remedial alternatives screened against these "Other MTCA Requirements." Each of the alternatives and compliance criteria are scored against one another to establish the benefits and/or disadvantages of one alternative over another.

- **Use permanent solutions to the maximum extent practicable** [WAC 173-340-360(2)(b)(i)]. MTCA requires that when selecting from cleanup action alternatives that fulfill the threshold requirements, the selected action shall use permanent solutions to the maximum extent practicable [WAC 173-340-360(2)(b)(i)]. MTCA specifies that the permanence of these qualifying alternatives shall be evaluated by balancing the costs and benefits of each of the alternatives using a "disproportionate cost analysis" in accordance with WAC 173-340-360(3)(e). The criteria for conducting this analysis are described in Section 5.2.3 below.
- **Provide a reasonable restoration time frame** [WAC 173-340-360(2)(b)(ii)]. In accordance with WAC 173-340-360(2)(b)(ii), MTCA places a preference on those cleanup action alternatives that, while equivalent in other respects, can be implemented in a shorter period of time. MTCA includes a summary of factors to be considered in evaluating whether a cleanup action provides for a reasonable restoration time frame [WAC 173-340-360(4)(b)].
- **Consideration of Public Concerns**. For VCP sites, there is no direct opportunity for the public to comment on planned cleanup actions. However, information is available to the public through Ecology's Site Register, and the public could comment on any planned actions. In addition, the redevelopment was subject to a full State Environmental Policy Act (SEPA) process review. In addition, Ninth and Lenora LLC has been working with the City since the inception and entire design of the project. Discussions are ongoing with the City regarding future use of the City-owned triangular parcel as a public park.

5.2.3. MTCA Disproportionate Cost Analysis

The MTCA disproportionate cost analysis (DCA) is used to evaluate which of the alternatives that meet the threshold requirements are permanent to the maximum extent practicable. This analysis involves comparing the costs and benefits of alternatives and selecting the alternative with incremental costs that are not disproportionate to the incremental benefits. The evaluation criteria for the disproportionate cost analysis are specified in WAC 173-340-360(2) and WAC 173 340-360(3), and include protectiveness, permanence, cost, long-term effectiveness, management of short-term risks, implementability and consideration of public concerns.

Redevelopment excavation resulted in remedial excavation of known contaminated media at the subject property. Based on the extent of the construction excavation, additional cleanup action alternatives were not considered necessary for the subject property because all cleanup standards were met. A limited volume of weathered petroleum (gasoline- and heavy oil-range hydrocarbons) and PAH-contaminated soil remaining in areas of the Site extending beyond the subject property boundaries at depth under Lenora

Street and the alley cannot be removed as outlined in Section 5.1.2. A MTCA DCA was performed to evaluate the three remedial alternatives (capping, excavation, in-situ remediation) for soil remaining in areas of the Site extending beyond the subject property boundaries into the rights-of-way (Lenora Street sidewalk and alley).

As outlined in WAC 173-340-360(3)(e), MTCA provides a methodology that uses the criteria below to determine whether the costs associated with each cleanup alternative are disproportionate relative to the incremental benefit of the alternative above the next lowest-cost alternative. The comparison of benefits relative to costs may be quantitative, but will often be qualitative. Costs are disproportionate to benefits if the incremental costs of the more permanent alternative exceed the incremental degree of benefits achieved by the other lower-cost alternative [WAC-173-340-360(e)(i)]. Where two or more alternatives are equal in benefits, Ecology selects the less costly alternative [WAC 173-340-360(e)(ii)(c)].

Our DCA analysis shows that the cost to conduct additional excavation (or any in-situ remediation) beneath Lenora Street and the alley (rights-of-way) would result in disproportionate cost for the marginal environmental benefit. Each of the MTCA criteria used in the DCA is described below. The DCA evaluation is outlined in Table 7.

5.2.3.1. Protectiveness

The overall protectiveness of a cleanup action alternative is evaluated based on several factors. First, the extent to which human health and the environment are protected and the degree to which overall risk at a site is reduced are considered. Both on-site and off-site risk reduction resulting from implementing the alternative are considered. Excavation is the most protective with capping and in-situ remediation having equivalent protectiveness.

5.2.3.2. Permanence

MTCA specifies that when selecting a cleanup action alternative, preference shall be given to actions that are "permanent solutions to the maximum extent practicable." Evaluation criteria include the degree to which the alternative permanently reduces the toxicity, mobility or mass of hazardous substances; the effectiveness of the alternative in destroying the hazardous substances; the reduction or elimination of hazardous substance releases and sources of releases; the degree of irreversibility of waste treatment processes; and the characteristics and quantity of treatment residuals generated. Excavation is the most permanent with in-situ remediation being slightly more permanent than capping.

5.2.3.3. Cost

The analysis of cleanup action alternative costs under MTCA includes all costs associated with implementing an alternative including design, construction, long-term monitoring and institutional controls. Costs are intended to be comparable among different alternatives to assist in the overall analysis of relative costs and benefits of the alternatives. The costs to implement an alternative include the cost of construction, the net present value of any long-term costs and agency oversight costs. Long-term costs include operation and maintenance costs, monitoring costs, equipment replacement costs and the cost of maintaining institutional controls. Unit costs used to develop overall remediation costs for this FS were derived using a combination of published engineering reference manuals (i.e., R.S. Means); construction cost estimates solicited from applicable vendors and contractors; a review of actual costs incurred during similar applicable projects; and professional judgment. Capping is the least costly with excavation and in-situ remediation having similar costs (over an order of magnitude higher than capping).

5.2.3.4. Long-Term Effectiveness

Long-term effectiveness is a parameter that expresses the degree of certainty that the alternative will be successful in maintaining compliance with cleanup standards over the long-term performance of the cleanup action. The MTCA regulations contain a specific preference ranking for different types of technologies that will be considered as part of the comparative analysis. The ranking places the highest preference on technologies such as reuse/recycling, treatment, immobilization/solidification, and disposal in an engineered, lined, and monitored facility. Lower preference rankings are applied for technologies such as on-site isolation/containment with attendant engineered controls, and institutional controls and monitoring. Excavation has the highest long-term effectiveness with in-situ remediation being slightly more effective than capping.

5.2.3.5. Management of Short-term Risks

Evaluation of this criterion considers the relative magnitude and complexity of actions required to maintain protection of human health and the environment during implementation of the cleanup action. Cleanup actions carry short-term risks such as potential mobilization of contaminants during construction or safety risks typical of large construction projects. Some short-term risks can be managed through best practices during project design and construction, while other risks are inherent to project alternatives and can offset the long-term benefits of an alternative. All three alternatives are similar in their short term risks.

5.2.3.6. Implementability

Implementability is an overall metric expressing the relative difficulty and uncertainty of implementing the cleanup action. Evaluation of implementability includes consideration of technical factors such as the availability of mature technologies and experienced contractors to accomplish the cleanup work. It also includes administrative factors associated with permitting and completing the cleanup. Capping is the most implementable with excavation and in-situ remediation being very difficult to implement in rights-of-way because the limited volume of weathered petroleum (gasoline- and heavy oil-range hydrocarbons) and PAH-contaminated soil remaining in areas of the Site extending beyond the subject property boundaries at depth under Lenora Street and the alley cannot be removed as outlined in Section 5.1.2. Excavation and in-situ remediation are anticipated to have over an order of magnitude higher complexity than capping.

5.2.4. Consideration of Public Concerns

For VCP sites, there is no direct opportunity for the public to comment on planned cleanup actions. However, information is available to the public through Ecology's Site Register and the public could comment on any planned actions. All three alternatives are similar related to public concerns. Ninth and Lenora LLC has been working with the City since the inception and entire design of the project. Discussions are ongoing with the City regarding future use of the City-owned triangular parcel as a public park.

5.3. Evaluation of Cleanup Action

5.3.1. On-Property Cleanup Action

All contaminated soil was removed from within the bounds of the subject property and no further action is warranted per the minimum requirements for cleanup actions (WAC 173-340-360(2)(a)(b)).

5.3.2. Off-Property Cleanup Action – Alternatives Analysis Summary

Contaminated soil remains in rights-of-way (petroleum and/or PAHs-contaminated soil beneath Lenora Street sidewalk and alley). Three alternatives were considered for remedial action of remaining

contaminated soil beneath rights-of-way: (1) capping, (2) excavation, (3) in-situ chemical oxidation treatment (see Table 7 [evaluation of alternatives] and 8 [alternative rankings] for description of the cleanup alternatives).

Neither remedial excavation nor in-situ treatment were practicable to remediate remaining contaminated soil beneath rights-of-way. Utilities, city infrastructure and heavy traffic make excavation and/or the installation of any treatment systems within the rights-of-way impracticable.

Additionally, the cost to implement an in-situ cleanup system and/or to remove soil is disproportionate to its environmental benefit and evaluated in the MTCA DCA in Section 5.2.3. Contaminated soil in the rights-of-way remains capped by pavement and is situated well above the deep regional groundwater table beneath the Site. GeoEngineers proposes (1) development of an Environmental Covenant in accordance with WAC 173-340-440, with institutional controls that restrict future use and activities in the areas of Lenora Street, and the public alley rights-of-way where residual soil contamination remains in place. The remaining contaminated soil meets the minimum requirements for a cleanup action per Section 173-340-360(2) and the remaining contaminated soil is capped beneath pavement restricting direct contact with contaminated soil. Therefore, the combination of this remedy (capping) and institutional controls is permanent and meets the intent of Section 173-340-440(6) (regarding primary reliance on institutional controls).

5.4. MTCA Disproportionate Cost Analysis

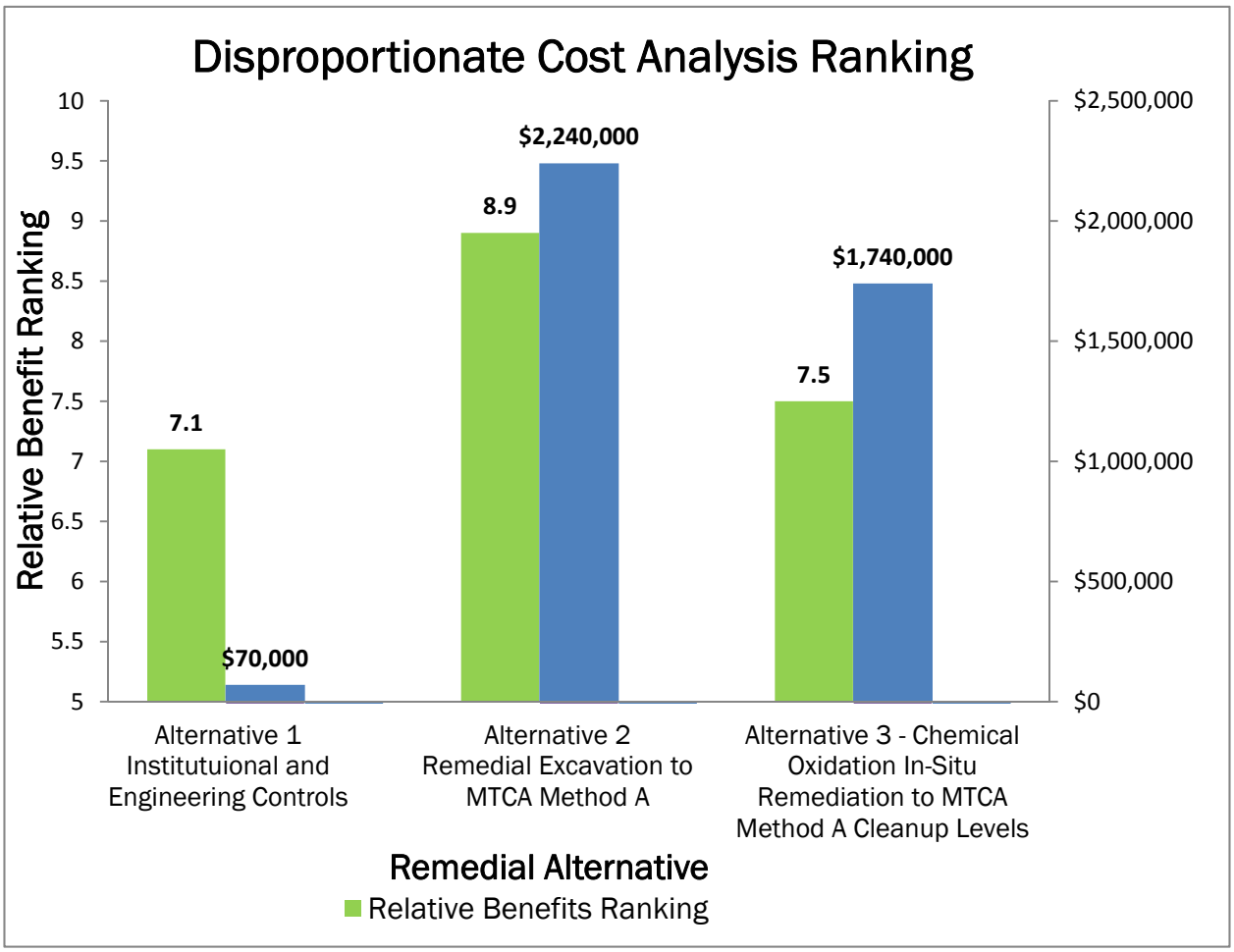
A MTCA DCA is used to determine if a cleanup alternative is permanent to the maximum extent practicable and meets the criteria in WAC 173-340-360(F)(i – vii) and discussed in Section 5.2.3.

The remedial Alternatives (capping, excavation, in-situ chemical oxidation treatment) were evaluated based on the relative benefits ranking factors of the DCA. Using a numeric scoring scale of 1 (lowest) to 10 (highest) and the methodology described above in Section 5.2.3 and in Table 7, each individual criterion is evaluated based on how it applies to each alternative. Costs for the remedial alternatives are based on similar projects GeoEngineers has performed as well as cost estimates provided by a qualified contractor. A cost analysis for each Alternative is presented in the Remedial Excavation Scenarios – Cost Estimates, dated December 28, 2015, attached in Appendix C. Table 7 presents the results of this analysis, including the total scores for each alternative and the determination of disproportionate cost.

All of the alternatives developed in this FS for off-property, remaining contaminated soil meet each of the four MTCA threshold requirements described for cleanup actions: protection of human health and the environment, compliance with cleanup standards, compliance with applicable state and federal regulations and provision for compliance monitoring.

- Alternative 1 (Capping) is the most practicable and implementable remedial alternative. It does not remove any of the residual contaminated soil (no additional source removal). Engineering and institutional controls are utilized to protect human health and the environment (i.e. the cap prevents human direct contact of contaminated soil and groundwater).
- Alternative 2 (Excavation) is the most invasive and difficult to implement. It utilizes soil removal, resulting in removal of soil exceeding the most restrictive cleanup levels (MTCA Method A) throughout the site. Alternative 2 is thus the most permanent solution and forms the baseline cleanup action alternative [WAC 173-340350(8)(c)(ii)(A) and 173-340-360(3)(e)(ii)(B)].

- Alternative 3 (In-Situ Treatment) is a more permanent solution than Alternative 1, because injection of chemical oxidation products increase the breakdown of petroleum contaminated soil exceeding the site-specific MTCA Method A cleanup levels, rather than maintaining the existing "cap" and implementing institutional controls. However, this remedial approach is not implementable. Injection is a very invasive and difficult remedy to implement because of: (1) the logistical factors outlined in Section 5.1.2 and (2) the presence of highly consolidated glacial soils have very poor radius of influence for chemical injection, and (3) the likely damage to subsurface utilities present in Lenora Street due to corrosive injections.



Based on the relative benefits ranking element of the DCA, the highest ranking, yet very costly and difficult to implement, cleanup action alternative is Alternative 2 (excavation). The high relative benefits rankings of Alternatives 2 (excavation) and 3 (in-situ remediation) compared to Alternative 1 (capping) are largely due to the contaminant mass removal achieved through removal or treatment of soil. However, because of the much higher incremental cost for Alternatives 2 and 3 (higher costs associated with permitting, design, and implementation costs relative to a small amount of contaminated soil to be removed), the costs associated with Alternatives 2 and 3 were determined to be disproportionate to the increased level of permanence achieved relative to Alternative 1. As a result, Alternative 1 emerges as the recommended alternative even though it had a slightly lower ranking when compared to the ranking of Alternatives 2 or 3.

5.5. Preferred Remedial Alternative

Based on the DCA, remedial Alternative 1 – Capping (Institutional and Engineering Controls) is the preferred alternative for residual off-property impacted soil because it meets the minimum thresholds and other requirements as follows:

- **Uses permanent solutions to the maximum extent practicable** [WAC 173-340-360(2)(b)(i)] as demonstrated by the disproportionate cost analysis.
- **Provides a reasonable restoration time frame** [WAC 173-340-360(2)(b)(ii)]. The cap(s) already exist as paved sidewalks and/or city streets or alleys.
- **Considers Public Concerns**. For VCP sites, there is no direct opportunity for the public to comment on planned cleanup actions. However, information is available to the public through Ecology's Site Register, and the public could comment on any planned actions. In addition, significant coordination with the City of Seattle is ongoing as a part of the redevelopment process.

Although Alternatives 2 and 3 provide a higher degree of permanence, they do so at a much higher cost (more than 10 to 11 times higher) than Alternative 1, without a proportional incremental increase in environmental benefits. Although a limited volume of weathered petroleum contaminants are left in place above the most restrictive MTCA Method A cleanup levels with Alternative 1, exposure to these contaminants is very unlikely because this contamination is capped by a city sidewalk, significant utilities and street improvements in downtown Seattle. In addition, Alternatives 2 and 3 are not implementable.

6.0 CONCLUSIONS

The Remedial Investigation completed for the site documented the presence of point source petroleum-contaminated soil around USTs located in the southwest corner of the property. This contamination extended off-property into the Lenora Street and adjacent alley (rights-of-way). Soil primarily contaminated with petroleum hydrocarbons, PAHs and to a lesser extent with gasoline-range hydrocarbons, benzene, xylenes, (associated with the USTs) and/or lead (observed at only two locations in fill soil) was identified on the subject property to depths ranging from approximately 1 to 18 feet below local subject property ground surface. The data obtained as part of the RI demonstrated that groundwater beneath the Site was (a) observed at depths of approximately 53.3 and 55.39 feet below subject property ground surface (approximate Elevations 16 and 14 feet NAVD88), in former monitoring well G-1 and (b) groundwater samples obtained in April 2014 and July 2015 from the regional aquifer (former G-1) indicated that metals (arsenic, chromium, and lead) were present at concentrations less than MTCA Method A cleanup levels and petroleum hydrocarbons were non-detect, respectively. Additionally, a September 1993 groundwater sample from an existing monitoring well MW-5 installed by GeoEngineers located across Lenora Street indicated no petroleum impacts. Therefore, groundwater is not a media of concern at the Site.

Based on this RI/FS, the selected remedy was remedial excavation and off-property permitted disposal for all areas of the subject property. The selected remedy dovetailed with property redevelopment. Some of the data collected during the RI/FS occurred before and during remedial excavation which provided a benefit to capture and report on unknowns discovered during property redevelopment in both this RI/FS report and a companion Cleanup Action Report (both reports will be submitted to Ecology as part of a Voluntary Cleanup Program submittal). Redevelopment activities at the subject property included excavation to a depth of approximately 80 feet bgs (approximate Elevation 7 feet). As a result, all

contaminated soil identified at the subject property was removed as part of the redevelopment excavation. The cleanup action at the subject property also included decommissioning of existing monitoring wells and removal of closed-in-place USTs at the subject property.

During the concurrent construction and remedial excavation, it was not practicable to excavate contaminated soil extending beyond the subject property boundaries. A limited volume of weathered petroleum (gasoline- and heavy oil-range hydrocarbons) and PAH-contaminated soil remains in two small areas; the first extending beyond the south subject property boundary at depth under Lenora Street and the second extending beyond the west subject property beneath the alley. This residual contaminated soil cannot be removed because:

- **Lenora Street.** Contaminated soil is located approximately 24 feet deep (in Lenora Street) which would require significant shoring for excavation, a multitude of utilities are present, and closure of Lenora Street would have an adverse impact on downtown traffic.
- **Alley.** Presence of infrastructure elements in the alley associated with the triangular parcel shoring wall and an underground parking garage structural and foundation elements (concrete footings and walls) that also supports the Lenora Street stability prevent excavation and removal of the impacted soil.

For both Lenora Street and the alley, these infrastructure elements cannot be demolished to access a limited volume of the contaminated soil as it will undermine the structural integrity of nearby improvements. Also, the contaminated soil will remain capped by asphalt/concrete paved sidewalks, streets and/or alleys. Therefore, additional cleanup action alternatives for remaining Site areas was not implementable.

As described in this FS the small volume of residual contaminated soil that remains off-property in rights-of-way does not pose a threat to human health or the environment and could not practicably be removed due to significant infrastructure in heavily trafficked downtown Seattle, without expending disproportionate cost for commensurate environmental benefit. Additional remedial alternatives were evaluated and a disproportionate cost analysis conducted to demonstrate that capping contaminated soil in the rights-of-way was an appropriate, cost effective and permanent to the maximum extent practicable remedy as required by MTCA. Our DCA analysis shows that the cost to conduct additional excavation (or any in-situ remediation) into the Lenora Street and alley (rights-of-way) would result in highly disproportionate cost for the environmental benefit. Contaminated soil that remains capped in these areas by the rights-of-way pavement is vertically separated from the underlying regional groundwater by more than 40 feet beneath the Site. GeoEngineers proposes recordation of an Environmental Covenant in accordance with WAC 173-340-440, with institutional controls that restrict future use and activities in the areas of Lenora Street sidewalk and alley (rights-of-way) where residual soil contamination remains capped. The selected remedial alternative (capping) of remaining limited contaminated soil in rights-of-way meets the minimum thresholds and other requirements of MTCA and does not rely primarily on institutional controls within the Site as a whole.

The objective of the cleanup actions evaluated by the RI/FS at the Site is to obtain a written determination issued by Ecology stating that no further remedial action is necessary at the subject property (a property-specific NFA Determination).

7.0 REFERENCES

GeoEngineers, 2014 (d). "Construction Contingency Plan – Contaminated Soil and Groundwater Management, 9th and Lenora Development, 2118 Westlake Avenue/2101 9th Avenue, Seattle, Washington" dated December 12, 2014.

GeoEngineers, 2015. "Cleanup Action Report, 9th and Lenora Development, Seattle, Washington" dated December 28, 2015.

TABLES

GeoEngineers

Table 1

Soil Field Screening and Chemical Analytical Data[1]
BETX, Petroleum Hydrocarbons, and Metals

Ninth Avenue and Lenora Street

Seattle, Washington

Exploration Location[2]	Approximate Surface Elevation[3] (feet)	Sample Identification	Sample Depth (feet bgs)	Approximate Sample Elevation (feet)	Field Screening[4]		BETX[5] (mg/kg)				Petroleum Hydrocarbons (mg/kg)			Total Metals[8] (mg/kg)							
					Sheen	Headspace Vapor (ppm)	Benzene	Ethyl benzene	Toluene	Total Xylenes	Gasoline Range[6]	Diesel Range[7]	Heavy Oil Range[7]	Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Selenium	Silver
September 2014 Explorations[9]																					
DP-1	69	DP-1-4.0	4.0	65.0	MS	<1	--	--	--	--	--	**250**	**1,500**	<11	--	<1.1	**35**	30	<0.56	--	--
		DP-1-8.0	8.0	61.0	SS	<1	--	--	--	--	--	<29	<59	<12	--	<0.59	**70**	<5.9	<0.29	--	--
		DP-1-14.0	14.0	55.0	NS	<1	--	--	--	--	--	<32	<65	--	--	--	--	--	--	--	--
		DP-1-20.0	20.0	49.0	NS	<1	--	--	--	--	--	<28	<58	--	--	--	--	--	--	--	--
DP-2	69	DP-2-4.0	4.0	65.0	SS	<1	--	--	--	--	--	**380**	**1,900**	<11	--	<1.1	**28**	**22**	<0.53	--	--
		DP-2-8.0	8.0	61.0	MS	<1	--	--	--	--	--	**2,900**	**15,000**	<13	--	<0.63	**52**	**22**	<0.31	--	--
		DP-2-14.0	14.0	55.0	NS	<1	--	--	--	--	--	<33	<65	--	--	--	--	--	--	--	--
DP-3	85	DP-3-20.0	20.0	65.0	NS	<1	<0.020	<0.054	<0.054	<0.108	**10**	<28	<56	--	--	--	--	--	--	--	--
		DP-3-24.0	24.0	61.0	NS	<1	<0.020	<0.063	<0.063	<0.126	<6.3	<30	<60	--	--	--	--	--	--	--	--
		DP-3-28.0	28.0	57.0	NS	<1	<0.020	<0.072	<0.072	<0.144	<7.2	<33	<66	--	--	--	--	--	--	--	--
DP-4	86	DP-4-4.0	4.0	82.0	NS	<1	--	--	--	--	--	<27	<54	--	--	--	--	--	--	--	--
		DP-4-20.0	20.0	66.0	NS	<1	<0.020	<0.061	<0.061	<0.122	<6.1	<28	<55	--	--	--	--	--	--	--	--
		DP-4-24.0	24.0	62.0	NS	<1	<0.020	<0.063	<0.063	<0.126	<6.3	<31	<62	--	--	--	--	--	--	--	--
		DP-4-28.0	28.0	58.0	NS	<1	<0.020	<0.066	<0.066	<0.132	<6.6	<32	<63	--	--	--	--	--	--	--	--
DP-5	86	DP-5-2.0	2.0	84.0	NS	<1	--	--	--	--	--	<27	**580**	--	--	--	--	--	--	--	--
		DP-5-22.0	22.0	64.0	NS	<1	<0.020	<0.059	<0.059	<0.118	<5.9	<29	<59	--	--	--	--	--	--	--	--
		DP-5-24.0	24.0	62.0	NS	<1	<0.020	<0.059	<0.059	<0.118	<5.9	<29	<58	--	--	--	--	--	--	--	--
		DP-5-28.0	28.0	58.0	NS	<1	<0.020	<0.068	<0.068	<0.136	<6.8	<30	<61	--		--	--	--	--	--	--
July 2013 Explorations[10]																					
MW-01	70	MW-01-3.0	3.0	67.0	SS	<1	<0.0250	<0.0375	**0.0319**	<0.025	<6.25	<22.2	<55.5	**4.02**	--	<0.179	**36.9**	**25.8**	<0.286	--	--
GEI-7	69	GEI-7-4.0	4.0	65.0	SS	<1	<0.0237	<0.0356	<0.0237	<0.0237	<5.93	<21.1	<52.9	**2.59**	--	<0.183	**30.4**	**10.5**	<0.292	--	--
		GEI-7-6.0	6.0	63.0	NS	<1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GEI-8	69	GEI-8-1.0	1.0	68.0	SS	<1	<0.0190	<0.0286	<0.0190	<0.0190	<4.76	<20.7	**789**	**6.42**	--	**1.43**	**39.6**	**375**	<0.263	--	--
		GEI-8-7.0	7.0	62.0	NS	<1	--	--	--	--	--	--	--	--	--	--	--	**6.17**	--	--	--
MTCA Method A or B Cleanup Level for Unrestricted Land Use							0.03	6	7	9	30/100[17]	2,000	2,000	20	16,000[18]	2	2,000[19]	250	2	400[18]	400[18]
Natural Background Soil Metals Concentrations in the Puget Sound[20]							--	--	--	--	--	--	--	7	ne	1	48	24	0.07	ne	ne

Exploration Location[2]	Approximate Surface Elevation[3] (feet)	Sample Identification	Sample Depth (feet bgs)	Approximate Sample Elevation (feet)	Field Screening[4]		BETX[5] (mg/kg)				Petroleum Hydrocarbons (mg/kg)			Total Metals[8] (mg/kg)							
					Sheen	Headspace (ppm)	Benzene	Ethyl benzene	Toluene	Total Xylenes	Gasoline Range[6]	Diesel Range[7]	Heavy Oil Range[7]	Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Selenium	Silver
December 2013 Explorations[9]																					
E-1	70	E-1-5-12.5	12.5	57.5	SS	<1	<0.020	<0.072	<0.072	<0.072	<7.2	<32	<64	<13	--	<0.64	**58**	<6.4	<0.32	--	--
E-2	70	E-2-1-2.5	2.5	67.5	NS	<1	<0.020	<0.059	<0.059	<0.059	<5.9	**34**	**150**	<11	--	<0.57	**38**	**28**	<0.28	**--**	--
G-1	70	G-1-2-10.0	10.0	60.0	SS	<1	<0.020	<0.057	<0.057	<0.057	<5.7	<33	**67**	<11	--	<0.55	**42**	<5.5	<0.28	--	--
G-2	70	G-2-2-5.0	5.0	65.0	NS	<1	<0.020	<0.078	<0.078	<0.078	<7.8	<28	<55	<13	--	<0.66	**48**	**17**	<0.33	**--**	--
July 2007 Explorations[11]																					
GEI-1	67	GEI-1-4	4.0	63.0	NS	<1	--	--	--	--	<20	<50	<100	--	--	--	--	--	--	--	--
		GEI-1-12	12.0	55.0	NS	<1	--	--	--	--	<20	<50	<100	--	--	--	--	--	--	--	--
GEI-2	67	GEI-2-4	4.0	63.0	SS	<1	<0.01	<0.01	<0.01	<0.01	<20	**310**	**1,100**	<5	**720**	**3.6**	**26**	**1,200**	**0.31**	<5	<5
		GEI-2-10	10.0	57.0	NS	<1	--	--	--	--	<20	<50	<100	--	--	--	--	--	--	--	--
GEI-3	67	GEI-3-8.0	8.0	59.0	NS	<1	--	--	--	--	<20	<50	<100	--	--	--	--	--	--	--	--
GEI-4	67	GEI-4-5.0	5.0	62.0	NS	<1	--	--	--	--	<20	<50	<100	--	--	--	--	--	--	--	--
GEI-5	69	GEI-5-6	6.0	63.0	NS	<1	<0.01	<0.01	<0.01	<0.01	<20	<50	<100	<5	**53**	<1	**31**	<5	<0.02	<5	<5
GEI-6	69	GEI-6-4	4.0	65.0	NS	<1	--	--	--	--	<20	<50	<100	--	--	--	--	--	--	--	--
August 2002 Explorations[11]																					
B-1	87	B-1-18.0	18.0	69.0	MS	<100	**0.23**	<0.05	<0.05	<0.2	<3	**120**	**310**	--	--	--	--	--	--	--	--
		B-1-24.0	24.0	63.0	SS	<100	<0.03	<0.05	<0.05	<0.2	<3	<25	<50	--	--	--	--	--	--	--	--
B-2	86	B-2-24.0	24.0	62.0	HS	400	<0.6[12]	<1	**11**	<3	**2400[13]**	<500	**18,000**	--	--	--	--	--	--	--	--
		B-2-32.5	32.5	53.5	SS	<100	<0.03	<0.05	<0.05	<0.2	<3	<25	**99**	--	--	--	--	--	--	--	--
B-3	69	B-3-8.0	8.0	61.0	HS	200	<0.03	<0.05	<0.05	<0.2	<12	**93**	**850**	**6.0**	--	<0.59	**51**	<7.1	**0.03**	--	**--**
		B-3-14.0	14.0	55.0	HS	100	<0.03	<0.05	<0.05	<0.2	<3	<25	**82**	**9.1**	--	<0.64	**41**	<7.7	**0.04**	--	**--**
B-4	69	B-4-10.5	10.5	58.5	SS	<100	<0.03	<0.05	<0.05	<0.2	<3	**95**	**140**	<3.3	--	<0.55	**15**	<6.6	**0.06**	--	**--**
		B-4-14.0	14.0	55.0	SS	<100	<0.03	<0.05	<0.05	<0.2	<3	<25	<50	<4.0	--	<0.66	**56**	<7.9	**0.06**	--	**--**
B-5	69	B-5-10.0	10.0	59.0	HS	200	--	--	--	--	--	**130[14]**	**230**	--	--	--	--	--	--	--	--
B-6	69	B-6-10.0	10.0	59.0	SS	<100	<0.03	<0.05	<0.05	<0.2	<3	<25	<50	<7.6	--	<1.3	**60**	<15	**0.10**	--	**--**
B-7	69	B-7-4.0	4.0	65.0	SS	<100	<0.03	<0.05	<0.05	<0.2	<3	<25	<50	<2.8	--	<0.47	**23**	**890**	**0.08**	**--**	**--**
B-8	69	B-8-8.0	8.0	61.0	NS	<100	<0.03	<0.05	<0.05	<0.2	<3	<25	<50	--	--	--	--	--	--	--	--
B-9	69	B-9-8.0	8.0	61.0	SS	<100	<0.03	<0.05	<0.05	<0.2	<3	<25	<50	--	--	--	--	--	--	--	--
HA-1[15]	69	HA-1-2.0	2.0	67.0	HS	<100	<0.01	<0.01	<0.01	<0.01	--	<1,300	**28,000**	--	--	--	--	--	--	--	--
		HA-1-4.0	4.0	65.0	HS	<100	--	--	--	--	--	<630	**19,000**	--	--	--	--	--	--	--	--
September 1993 Offsite Monitoring Well[16]																					
MW-5	86	MW-5-9	45.0	41.0	NS	<1	ND	ND	ND	ND	<1.0	<10	<25	--	--	--	--	**--**	--	**--**	--
MTCA Method A or B Cleanup Level for Unrestricted Land Use							0.03	6	7	9	30/100[17]	2,000	2,000	20	16,000[18]	2	2,000[19]	250	2	400[18]	400[18]
Natural Background Soil Metals Concentrations in the Puget Sound[20]							--	--	--	--	--	--	--	7	ne	1	48	24	0.07	ne	ne

Notes on Page 3

Notes:

[1]A copy of laboratory reports documneting chemical analytical data is presented in Appendix B.

[2]Approximate exploration locations are shown on attached Figure 2.

[3]Elevations based on Topographic Survey drawing provided from Bush, Roed & Hitchings, Sheet 2 of 3, dated 11/13.

[4]Field screening methods are described in Appendix A.

[5]BETX analyzed by EPA Method 8021B and/or EPA Method 8260.

[6]Gasoline-range hydrocarbons analyzed by Northwest Method NWTPH-Gx Extended or petroleum hydrocarbon identification using Northwest Method NWTPH-HCID.

[7]Diesel- and heavy oil-range hydrocarbons analyzed by Northwest Method NWTPH-Dx Extended with a silica gel cleanup or petroleum hydrocarbon identification using Northwest Method NWTPH-HCID.

[8]Total metals analyzed by EPA Method 6020/7471 and/or EPA Method 6010C/7471B.

[9]Chemical analytical testing performed by OnSite Environmental Laboratory in Redmond, Washington.

[10]Chemical analytical testing by Fremont Analytical in Seattle, Washington.

[11]Chemical analytical testing by CCI Analytical Laboratories in Everett, Washington.

[12]Detection limit is greater than the MTCA Method A cleanup level. According to the laboratory, the elevated limit was due to matrix interence.

[13]Laboartory identified detection as mineral spirits.

[14]The laboratory analytical report indicated that this result was biased due to overlap from the heavy oil range hydrocarbons

[15]Soil in vicinity of HA-1 partially excavated during 2002 UST closure. Refer to 2002 Environmental Tank Services Report for information on soil condition in vicinity of remaining UST.

[16]Chemical analytical testing by North Creek Analytical Laboratories, Inc. in Redmond, Washington.

[17]When benzene is present, the gasoline range cleanup level is 30 mg/kg. When benzene is not present the gasoline range cleanup level is 100 mg/kg.

[18]Method A Cleanup level not available, Method B Cleanup level was used.

[19]Cleanup level for Chromium III.

[20]90th Percentile for natural background soil metals concentrations in Puget Sound region, Department of Ecology, publication #94-115, dated October 1994.

-- = Not tested

bgs = below ground surface

HS = Heavy sheen

mg/kg = milligrams per kilogram

MS = Moderate sheen

MTCA = Model Toxics Control Act

ne = not established

NS = No sheen

ppm = parts per million

SS = Slight sheen

Bold value indicates analyte was detected at the listed concentration.

Shading indicates analyte detected at concentration exceeding the MTCA Method A or B cleanup level for unrestricted land use.

Table 2

Soil Chemical Analytical Data
PAHs and SVOCs
Ninth Avenue and Lenora Street
Seattle, Washington

Exploration Location[1]	Surface Elevation[2] (feet)	Sample Identification	Sample Depth (feet bgs)	Sample Elevation (feet)	Polycyclic Aromatic Hydrocarbons (PAHs)[3] (µg/kg)																Total cPAHs[4] (µg/kg)	SVOCs[3] (µg/kg)			
					Non-carcinogenic PAHs									Carcinogenic PAHs											
					Naphthalenes[5]	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo(g,h,i) perylene	Benzo(a) anthracene	Chrysene	Benzo(b) fluoranthene	Benzo(j,k) fluoranthene	Benzo(a) pyrene	Indeno (1,2,3-cd) pyrene	Dibenzo(a,h) anthracene	TEQ	Butylbenzyl-phthalate	Diethylphthalate	bis(2-Ethylhexyl) adipate	Di-n-butylphthalate
September 2014 Explorations[6]																									
DP-1	69	DP-1-4.0	4.0	65.0	**890**	**57**	**53**	**170**	**660**	**75**	**480**	**420**	**140**	**220**	**260**	**180**	**140**	**220**	**120**	**55**	**294.1**	--	--	--	--
		DP-1-8.0	8.0	61.0	<7.8	<7.8	<7.8	<7.8	<7.8	<7.8	<7.8	<7.8	<7.8	<7.8	<7.8	<7.8	<7.8	<7.8	<7.8	<7.8	5.88	--	--	--	--
DP-2	69	DP-2-4.0	4.0	65.0	**220**	<14	**19**	**34**	**130**	**27**	**160**	**140**	**28**	**60**	**63**	**32**	**37**	**48**	**26**	<14	**64.83**	--	--	--	--
		DP-2-8.0	8.0	61.0	**9,960**	**44**	**180**	**310**	**650**	**64**	**45**	**350**	**110**	**120**	**120**	**58**	**20**	**100**	**26**	**14**	**125**	--	--	--	--
		DP-2-14.0	14.0	55.0	**55**	<8.7	<8.7	<8.7	<8.7	<8.7	<8.7	<8.7	<8.7	<8.7	<8.7	<8.7	<8.7	<8.7	<8.7	<8.7	6.56	--	--	--	--
DP-4	86	DP-4-4.0	4.0	82.0	<7.2	<7.2	<7.2	<7.2	<7.2	<7.2	<7.2	<7.2	<7.2	<7.2	<7.2	<7.2	<7.2	<7.2	<7.2	<7.2	5.43	--	--	--	--
December 2013 Explorations[6]																									
E-1	70	E-1-5-12.5	12.5	57.5	<8.6	<8.6	<8.6	<8.6	<8.6	<8.6	<8.6	<8.6	<8.6	<8.6	<8.6	<8.6	<8.6	<8.6	<8.6	<8.6	6.55	<43	<210	<43	<43
E-2	70	E-2-1-2.5	2.5	67.5	**9.3**	<7.6	<7.6	<7.6	**31**	**8.4**	**41**	**42**	**21**	**23**	**24**	**39**	**17**	**26**	**16**	<7.6	**36**	<38	<190	<38	<38
G-1	70	G-1-2-10.0	10.0	60.0	<7.4	<7.4	<7.4	<7.4	<7.4	<7.4	<7.4	**12**	<7.4	<7.4	<7.4	<7.4	<7.4	<7.4	<7.4	<7.4	5.6	<37	<180	**64**	<37
July 2013 Explorations[7]																									
MW-01	70	MW-01-3.0	3.0	67.0	<87.0	<87.0	<87.0	<87.0	<87.0	<87.0	<87.0	<87.0	<87.0	<87.0	<87.0	<87.0	<87.0	<87.0	<87.0	<87.0	**65.7**	<109	**397**	<109	<109
GEI-7	69	GEI-7-4.0	4.0	65.0	**129**	<92.2	**194**	**122**	**1,010**	**179**	**690**	**701**	**170**	**204**	**217**	**285**	**127**	**273**	**158**	<92.2	**357**	<115	**506**	**347**	<115
		GEI-7-6.0	6.0	63.0	--	--	--	--	--	--	--	--	--	<52.4	<52.4	<52.4	<52.4	<52.4	<52.4	<52.4	**39.4**	--	--	--	--
GEI-8	69	GEI-8-1.0	1.0	68.0	<85.5	<85.5	<85.5	<85.5	**146**	<85.5	**162**	**165**	**92.2**	**97.0**	<85.5	**159**	<85.5	**92.7**	<85.5	<85.5	**132**	<107	**448**	**363**	**217**
		GEI-8-7.0	7.0	62.0	--	--	--	--	--	--	--	--	--	<60.1	<60.1	<60.1	<60.1	<60.1	<60.1	<60.1	**45.4**	--	--	--	--
July 2007 Explorations[8]																									
GEI-2	67	GEI-2-4	4.0	63.0	**330**	**40**	**20**	**40**	**280**	**60**	**350**	**320**	**110**	**140**	**170**	**100**	**110**	**140**	**80**	**30**	**190**	--	--	--	--
GEI-5	69	GEI-5-6	6.0	63.0	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	**10**	--	--	--	--
August 2002 Explorations[8]																									
B-5	69	B-5-10.0	10.0	59.0	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	75.5	<100	<100	<130	<130
B-8	69	B-8-8.0	8.0	61.0	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	75.5	<100	<100	<130	<130
HA-1[9]	69	HA-1-4.0	4.0	65.0	**8,900**	<600	<600	<600	**840**	<600	**950**	**750**	<600	**770**	<600	<600	<600	<600	<600	<600	**500**	**13,000**[10]	<600	<780	5,000[6]
MTCA Method A or B Cleanup Level for Unrestricted Land Use					5,000[11]	ne	48,000[12]	3,200[9]	ne	24,000[12]	3,200[12]	2,400	ne	1,400[12]	140,000[12]	1,400[12]	14,000[12]	100	1,400[12]	140[12]	100	16,000[12]	64,000[12]	1,600[12]	8,000[12]

Notes:

[1]Approximate exploration locations shown on attached Figure 2.

[2]Elevations based on Topographic Survey drawing provided from Bush, Roed & Hitchings, Sheet 2 of 3, dated 11/13.

[3]Semi-volatile aromatic hydrocarbons (SVOCs), including polycyclic aromatic hydrocarbons (PAHs), analyzed by EPA Method 8270 and/or 8270D/SIM.

[4]Total carcinogenic PAHs (cPAHs) calculated using the toxicity equivalency (TEQ) methodology specified in WAC 173-340-780(8). cPAHs that were not detected were assigned half the value of the detection limit for these calculations.

[5]Listed concentration is sum of naphthalene, 2-methylnaphthalene, and 1-methylnaphthalene.

[6]Chemical analytical testing by OnSite Environmental, Inc. in Redomnd, Washington. A copy of the laboratory report is presented in Appendix B.

[7]Chemical analytical testing by Fremont Analytical in Seattle, Washington.

[8]Chemical analytical testing by CCI Analytical Laboratories in Everett, Washington.

[9]Soil in vicinity of HA-1 partially excavated during 2002 UST closure. Refer to 2002 Environmental Tank Services Report for information on soil condition in vicinity of remaining UST.

[10]The laboratory analytical report indicated that the detected concentration of this analyte was likely due to laboratory contamination.

[11]MTCA Method A Cleanup level for Naphthalenes

[12]MTCA Method B Cleanup level

-- = not tested

bgs = below ground surface

MTCA = Model Toxics Control Act

ne = not established

µg/kg = micrograms per kilogram

Bold value indicates analyte was detected at the listed concentration.

Shading indicates analyte detected at concentration exceeding the MTCA Method A or B cleanup level.

Table 3

Summary of Perched Water and Groundwater Chemical Analytical Data

BETX, Petroleum Hydrocarbons, and VOCs

Ninth Avenue and Lenora Street

Seattle, Washington

Sample Identification[1]	BETX[2] (µg/L)				Total Petroleum Hydrocarbons (µg/L)			VOCs[5] (µg/L)
	Benzene	Ethylbenzene	Toluene	Xylenes	Gasoline Range[3]	Diesel Range[4]	Heavy Oil Range[4]	
July 2015 - Groundwater water Samples[6]								
G-1-W-071715	<1.0	<1.0	<1.0	<2.0	<100	<260	<410	--
September 2014 - Perched water Samples[6]								
DP-3-W	<1.0	<1.0	<1.0	<2.0	<100	<270	<430	--
DP-4-W	<1.0	<1.0	<1.0	<2.0	<100	**310**	<450	--
DP-5-W	<1.0	<1.0	<1.0	<2.0	<100	<310	<490	--
December 2013 - Grab Groundwater Sample[6]								
G-1-20131223	<0.20	<0.20	<1.0	**1.27**	<100	<260	<410	1,2-Dichloroethane **0.49** 1,2,4-Trimethylbenzene **0.24**
August 2002 - Perched Water Samples[7]								
B-1	--	--	--	--	--	--	--	<2.0
B-2	<10[8]	**39**	<10	**170**	**28,000**	<25,000[8]	**540,000**	<2.0
B-3	--	--	--	--	--	**73,000**	**470,000**	<2.0
September 1993 - Groundwater sample from offsite Monitoring Well MW-5[9]								
MW-5	ND	ND	ND	ND	<50	<250	<750[10]	Acetone **18**[11]
MTCA Method A Cleanup Level	5	700	1,000	1,000	800	500	500	1,2-Dichloroethane = 5 1,2,4-Trimethylbenzene = NE Acetone = 7,200

Notes:

[1]Approximate sample locations are shown in Figure 2.

[2]Analyzed by EPA Method 8021 and/or EPA Method 8021B.

[3]Analyzed by Ecology Method NWTPH-Gx.

[4]Analyzed by Ecology Method NWTPH-Dx.

[5]Analyzed by EPA Method 8260 and/or EPA Method 8260C. Only detected analytes are listed in the table.

[6]Chemical analyses conducted by Onsite Environmental of Redmond, Washington. A copy of the laboratory report is presented in Appendix B.

[6]Chemical analyses conducted by CCI Laboratory of Everett, Washington.

[8]Detection limit exceeds cleanup level. According to the lab, the elevated detection limit is due to unavoidable matrix interference.

[9]Chemical analyses conducted by North Creek Analytical Laboratory of Redmond, Washington.

[10]Detection limit exceeds current cleanup level. Detection limits were below the applicable cleanup level at the time of analysis.

[11]Acetone was also detected in trip blanks. Therefore, the acetone detection in this sample was determined to be caused by laboratory operation.

-- = Not analyzed

µg/L = micrograms per liter

MTCA = Model Toxics Control Act

ND = Not detected

NE = Method A or B cleanup level not established

Bold value indicates analyte was detected at the listed concentration.

Shading indicates analyte detected at concentration exceeding the MTCA Method A or B cleanup level for unrestricted land use.

Table 4

Summary of Perched Water and Groundwater Chemical Analytical Data

Metals

Ninth Avenue and Lenora Street
Seattle, Washington

Sample Identification[1]	Sample Date	Total Metals[3] (mg/L)				Dissolved Metals[4] (mg/L)
		Arsenic	Total Chromium	Lead	Mercury	Total Chromium
Groundwater sample from onsite Monitoring Well G-1[5]						
G-1	4/21/2014	**0.0037**	**0.033[6]**	**0.0014**	<0.0005	<0.0005
Perched Water Samples[5,7]						
DP-3-W	9/2/2014	**0.025**	**0.09**	**0.0125**	<0.0005	--
DP-4-W	9/2/2014	**0.082**	**0.72**	**0.084**	**0.00061**	--
DP-5-W	9/2/2014	**0.043**	**0.31**	**0.041**	<0.0005	--
B-2	1/31/2002	**0.010**	**0.07**	**0.069**	<0.0002	--
B-3	1/31/2002	**0.10**	**3.2**	**8.1**	**0.0037**	--
MTCA Method A Cleanup Level		0.005	0.050	0.015	0.002	0.05

Notes:

[1]Approximate exploration locations are shown in Figure 2.

[2]Analyzed by EPA Method 8270D/SIM.

[3]Analyzed by EPA Methods 200.8 and 6000/7000 Series. Only detected analytes are listed.

[4]Analyzed by EPA Method 200.8.

[5]Chemical analyses conducted by Onsite Environmental of Redmond, Washington. G-1 was additionally analyzed for semivolatiles. No compounds were detected above the practical quantitation limit.

[6]Sample result shown is result of analysis of the April 21, 2014 sample from well G-1. Total chromium was detected in a December 2013 grab groundwater sample at a concentration of 0.052 mg/L. The slight elevation of the 2013 sample above the MCTA Method A cleanup limit was the result of turbidity in the sample. See text for further explanation.

[7]Chemical analyses of September 2014 samples conducted by Onsite Environmental Labaoratory in Redmond, Washington and January 2002 samples by CCI Laboratory of Everett, Washington. The discrete, one-time samples were obtained directly from the boreholes of borings B-2 (south) and B-3 (southwest) in 2002 and should be considered reconnaissance samples. These perched water samples were biased high for metals because silt particles were incorporated into the sample bottles and does not represent groundwater conditions at the subject property. Sample G-1 obtianed from a monitoring well is representative of groundwater quality, at the subject property. See report text for further explanation.

-- = Not analyzed

mg/L = milligrams per liter

MTCA = Model Toxics Control Act

Bold value indicates analyte was detected at the listed concentration.

Shading indicates analyte detected at concentration exceeding the MTCA Method A or B cleanup level for unrestricted land use.

Table 5

Soil Field Screening and Chemical Analytical Data[1]

BETX and Petroleum Hydrocarbons

Ninth Avenue and Lenora Street

Seattle, Washington

Exploration Location[2]	Approximate Surface Elevation[3] (feet)	Sample Identification	Sample Depth (feet bgs)	Approximate Sample Elevation (feet)	Field Screening[4]		BETX[5] (mg/kg)				Petroleum Hydrocarbons (mg/kg)		
					Sheen	Headspace Vapor (ppm)	Benzene	Ethylbenzene	Toluene	Total Xylenes	Gasoline Range[6]	Diesel Range[7]	Heavy Oil Range[7]
9th Avenue Deep Sewer Utility Excavation Samples[8]													
UTL9-S	87	UTL9-S-5.0	5.0	82.0	NS	<1	<0.020	<0.064	<0.064	<0.064	<6.4	--	--
		UTL9-S-15.0	15.0	72.0	NS	<1	**0.022**	<0.049	<0.049	**0.057**	<4.9	<29	<57
		UTL9-S-20.0	20.0	67.0	NS	<1	**0.029**	<0.050	<0.050	**0.164**	<5.0	--	--
		UTL9-S-23.0	23.0	57.0	NS	<1	<0.020	<0.053	<0.053	<0.053	<5.3	<28	<56
		UTL9-S-30.0	30.0	57.0	NS	<1	<0.020	<0.086	<0.086	<0.086	<8.6	--	--
UTL9-N		UTL9-N-5.0	5.0	82.0	NS	<1	<0.020	<0.055	<0.055	<0.055	<5.5	--	--
		UTL9-N-18.0	18.0	69.0	MS	13	<0.020	<0.059	<0.059	<0.059	<5.9	**180**	**1700**
UTL9-E		UTL9-E-15.0	15.0	72.0	SS	<1	**0.06**	<0.060	<0.060	<0.060	<6.0	**34**	<59
		UTL9-E-18.0	18.0	69.0	SS	5	0.052	<0.065	<0.065	<0.065	**50**	--	--
East Shoring Walls[8]													
EX-1	87	EX-1-6.0	6.0	81.0	NS	<1	<0.020	<0.051	<0.051	<0.051	<5.1	--	--
		EX-1-12.0	12.0	75.0	NS	<1	<0.020	<0.059	<0.059	<0.059	<5.9	<27	<55
		EX-1-18.0	18.0	69.0	NS	<1	<0.020	<0.061	<0.061	<0.061	<6.1	<28	**68**
MTCA Method A or B Cleanup Level for Unrestricted Land Use							0.03	6	7	9	30/100[9]	2,000	2,000

Notes:

[1]A copy of laboratory reports documenting chemical analytical data is presented in Appendix B.

[2]Approximate exploration locations are shown on attached Figure 2 and/or Figure 3.

[3]Elevations based on Topographic Survey drawing provided from Bush, Roed & Hitchings, Sheet 2 of 3, dated 11/13.

[4]Field screening methods are described in Appendix A.

[5]BETX analyzed by EPA Method 8021B and/or EPA Method 8260.

[6]Gasoline-range hydrocarbons analyzed by Northwest Method NWTPH-Gx Extended or petroleum hydrocarbon identification using Northwest Method NWTPH-HCID.

[7]Diesel- and heavy oil-range hydrocarbons analyzed by Northwest Method NWTPH-Dx Extended with a silica gel cleanup or petroleum hydrocarbon identification using Northwest Method NWTPH-HCID.

[8]Chemical analytical testing performed by OnSite Environmental Laboratory in Redmond, Washington.

[9]When benzene is present, the gasoline range cleanup level is 30 mg/kg. When benzene is not present the gasoline range cleanup level is 100 mg/kg.

-- = Not tested

bgs = below ground surface

HS = Heavy sheen; MS = Moderate sheen; NS = No sheen

mg/kg = milligrams per kilogram

MTCA = Model Toxics Control Act

ppm = parts per million

Bold value indicates analyte was detected at the listed concentration.

Shading indicates analyte detected at concentration exceeding the MTCA Method A or B cleanup level for unrestricted land use.

Table 6

Site Specific Applicable or Relevant and Appropriate Requirements (ARARs)

Ninth Avenue and Lenora Street

Seattle, Washington

Authorizing Statute	Implementing Regulation	Description	Rationale
Potential Chemical-Specific ARARs			
Hazardous Waste Management; Chapter 70.105D RCW	Washington Model Toxics Control Act Cleanup Regulation; Chapter 173-340 WAC	Establishes groundwater and soil cleanup levels.	Potentially applicable to contaminated soil at the Site.
Potential Action-Specific ARARs			
Hazardous Waste Management; Chapter 70.105D RCW	Selection of Cleanup Actions; WAC 173-340-350	Minimum requirements and procedures for conducting remedial investigation and feasibility studies.	Applicable to remedial action selection and implementation.
Hazardous Waste Management; Chapter 70.105D RCW	Institutional Controls; WAC 173-340-440	Institutional control requirements.	Potentially applicable to remedial action selection and implementation.
Hazardous Waste Management; Chapter 70.105D RCW	Compliance Monitoring Requirements; WAC 173-340-410, -720(9), -730(7), -740(7), and -745(8)	Compliance monitoring requirements for soil, groundwater, and surface water.	Potentially applicable to remedial action selection and implementation.
Ecology Area of Contamination Policy	8/20/1991 Interprogram Policy	Allows movement/placement of excavated contaminated material within the regulated site without triggering dangerous waste designation.	Potentially applicable for containment remedial alternatives.
Water Well Construction; Chapter 18.104 RCW	Minimum Standards for Construction and Maintenance of Wells; Chapter 173-160 WAC	Applies to the construction and maintenance of monitoring wells	Potentially applicable to wells constructed for groundwater withdrawal and monitoring and decommissioning of existing or future wells.
Hazardous Waste Management; Chapter 70.105 RCW	Dangerous Waste Regulations; Chapter 173-303 WAC	Applies if dangerous wastes are generated during remedial program	These regulations must be fully complied with for any off site disposal of waste determined to be dangerous waste. This would only apply to upland remedial options as dredged sediment is exempt from waste classification.
Washington State Water Pollution Control Act; Chapter 90.48 RCW	NPDES Permit Program; Chapter 173-220 WAC	Applicable to the discharge of pollutants and other wastes and materials to the surface waters of the state	Not applicable
State Environmental Policy Act (SEPA); Chapter 43.21C.110 RCW	SEPA Rules; Chapter 197-11 WAC	Applies if future construction/remedial action occurs at the site	Applies if future construction/ remedial action occurs at the site.
Solid Waste Management; Chapter 43.21A RCW	Minimum Functional Standards for Solid Waste Handling WAC 173-304	Establishes minimum functional standards for the handling of solid waste.	Applies if non-dangerous wastes are generated during remedial action
Transportation of Hazardous Material; 49 USC 5101-5127	Hazardous Materials Regulations; 49 CFR Parts 171 through 180	Regulations that govern the transportation of hazardous materials.	Applies to any hazardous materials transported off-site as part of remediation.
Hazardous Waste-Land Disposal Restrictions; USEPA	40 CFR 268/22 CCR 66268	Establishes land disposal restrictions and treatment standards for hazardous wastes applicable to generators.	Any hazardous wastes generated as a result of on-site activities or by treatment systems must meet land disposal restriction requirements.
Washington State Clean Air Act; Chapter 70.94 RCW	General Requirements for Air Pollution Sources; Chapter 173-400 WAC. Controls for New Sources of Toxic Air Pollutants; Chapter 173-460 WAC	Establishes technically feasible and reasonably attainable standards and rules generally applicable to the control and/or prevention of the emission of air contaminants.	May apply to remedial alternatives that produce emissions to air.

Table 7

Evaluation of Alternatives and Applied Technologies

Ninth Avenue and Lenora Street

Seattle, Washington

Remedial Alternative	Alternative 1 - Institutional and Engineering Controls	Alternative 2 - Remedial Excvation to MTCA Method A Cleanup Levels	Alternative 3 - Chemical Oxidation In-Situ Remediation to MTCA Method A Cleanup Levels
Alternative Description	■ Leave in place remaining soil with contaminant concentrations exceeding MTCA Method A cleanup levels. ■ Contaminated soil remaining in Lenora Street Sidewalk and the Alley capped. ■ Conduct opportunistic source removal during construction excavation for any future redevelopment. ■ Implement environmental covenant with institutional controls that restrict future use and activities in the areas of Lenora Street Sidewalk and public Alley (rights-of-way) where residual soil contamination remains in place.	■ Excavate approximately 500 cubic yards of petroleum contaminated soil from the Lenora Street sidewalk and Alley portion of the Site and dispose of the excavated soil at a permitted off-site landfill. ■ Contaminated soil remaining adjacent to the south and west shoring wall capped. ■ Implement environmental covenant with institutional controls that restrict future use and activities in the areas of public rights-of-way where residual soil contamination remains in place.	■ Leave in place remaining soil with contaminant concentrations exceeding MTCA Method A cleanup levels. ■ Complete two or more phases of chemical oxidation insitu remediation, such as Regenesis Regenox, in the petroleum contaminated soil. ■ Collect performance and characterization soil samples. ■ Contaminated soil remaining adjacent to the south and west shoring wall capped. ■ Implement environmental covenant with institutional controls that restrict future use and activities in the areas of public rights-of-way where residual soil contamination remains in place.
Compliance with MTCA Threshold Criteria			
Protection of Human Health and the Environment	**Yes** - Alternative would protect human health and the environment through a combination of engineering and institutional controls.	**Yes -** Alternative would protect human health and the environment through a combination of source removal and engineering and institutional controls.	**Yes -** Alternative would protect human health and the environment through a combination of in-situ soil and groundwater treatment and engineering and institutional controls.
Compliance With Cleanup Standards	**Yes -** Alternative is expected to comply with cleanup standards. This alternative utilizes institutional controls to prevent exposure to soil and groundwater left in place containing contaminants exceeding cleanup levels. Compliance would rely on long-term monitoring and maintenance of institutional controls. Future development of property could potentially require additional environmental cleanup or special provisions.	**Yes -** Alternative is expected to comply with cleanup standards to the greatest extent practicable. Removal of soil results in the reduction of contaminant concentrations.	**Yes -** Alternative is expected to comply with cleanup standards. This alternative utilizes source removal and institutional controls to prevent exposure to soil left in place containing contaminants exceeding cleanup levels. Compliance would rely on long-term monitoring and maintenance of institutional controls.

Compliance With Applicable State and Federal Regulations	**Yes -** Alternative complies with applicable state and federal regulations. Future development of Lenora Street and public Alley rights-of-way would involve additional opportunistic source removal.	**Yes -** Alternative complies with applicable state and federal regulations. Future development of property would not require additional environmental cleanup or special provisions.	**Yes -** Alternative complies with applicable state and federal regulations.
Provision for Compliance Monitoring	**Yes -** Alternative includes provisions for compliance monitoring.	**Yes -** Alternative includes provisions for compliance monitoring.	**Yes -** Alternative includes provisions for compliance monitoring.
Restoration Time Frame			
Restoration Time Frame	Restoration time frame is relatively short. Primary cleanup action components have already been implemented. The time frame for long-term monitoring is unknown. Potential future maintenance of institutional controls and coordination of proper handling and disposal of contaminated soil during future site development may extend the restoration time frame of this alternative.	Restoration time frame is relatively short. This remedial scenario makes assumptions that include selected building reconstruction and street improvements and extreme shoring situations to access contaminated soil. Time frame of design and excavation is approximately 6 - 12 months. The time frame for long-term monitoring is unknown.	Restoration time frame is unpredictable. Significant unknowns and unquantifiable elements exist relative to cost and timeframes.
Relative Benefits Ranking (Scored from 1-lowest to 10-highest)			
Protectiveness	Score = 6 Achieves a medium level of overall protectiveness as this alternative would leave in place contaminated soil, and protectiveness would rely on maintenance of institutional controls to prevent exposure.	Score = 10 Achieves a high level of overall protectiveness as a result of removing the gasoline contaminated source material at the Site.	Score = 7 Achieves a medium-high level of overall protectiveness as a result of in-situ treatment of the soil that poses risk to human and ecological receptors at the Site. Possible challenges to complete in-situ remediation due to access issues from underground utilities and dense low-permeability native soil.
Permanence	Score = 7 Achieves a medium level of permanence, primarily through the use of the concrete sidewalks and asphalt roadway as a cap. This achieves a reduction of toxicity and mobility, but relies on natural attenuation methods to achieve a reduction of mass. Future sidewalk and roadway improvement projects may require modification of the remedy.	Score = 10 Achieves a high level of permanence through the removal and disposal of mass, toxicity, and mobility of Site contaminants.	Score = 9 Achieves a high level of permanent reduction of mass, toxicity, and mobility of hazardous substances at the Site through use of in-situ soil treatment. This alternative would reduce the extent feasible the need to perform additional actions as the result of future development.

Long-Term Effectiveness	Score = 6 This Alternative achieves a medium level of long-term effectiveness. The use of existing concrete sidewalk and asphalt roadway cap leaves soil on site that exceeds cleanup levels. The use of institutional controls reduces the risk to human health and the environment from the residual contamination left in place. Future sidewalk and roadway improvement projects may require modification of the remedy.	Score = 10 This Alternative achieves a high level of long-term effectiveness. The addition of removal of contaminated soil in the Lenora Street and public Alley rights-of-way portion of the site increases the long-term effectiveness of the Alternative by preventing cap failure and potential for exposure to contaminated soil.	Score = 9 Reduces mass, toxicity, and mobility of hazardous substances at the site to concentrations less than the MTCA Method A Cleanup Levels.
Management of Short-Term Risks	Score = 10 Short-term risks are low with this alternative due to the lack of construction activities involved in completing the components of the alternative. The concrete sidewalk and asphalt roadway capping prevention components have been completed.	Score = 10 Short-term risks are moderately low with this alternative. The soil removal included in this Alternative involves additional soil excavation that is not expected to pose significant risks to the public.	Score = 8 Short-term risks associated with this alternative would be moderately low. This alternative involves selective drilling and injection/monitoring well installation overlying remaining contaminated soil to be removed. This modification and subsequent reconstruction would involve difficult construction methods and would increase the risk to construction and remediation personnel.
Technical and Admin. Implementability	Score = 10 Easily implemented. No active cleanup activities required. Administrative implementability of institutional controls is high.	Score = 1 Difficult to implement due to the extreme technical planning associated with shoring and excavation below Lenora Street sidewalk and public Alley. Excavation of contaminated fill from beneath the Lenora Street sidewalk and public Alley portions of the Site involves a minor volume of soil, but utilizes standard excavation methods. Additionally, it will require a great deal of coordination, permitting and engineering to temporarily reroute utilities and traffic concerns. Administrative implementability of institutional controls is high.	Score = 3 Difficult to implement due to a great deal of coordination, permitting to complete injections in 5th Avenue. Follow up performance monitoring and injections will be required and will likely need to be completed in night-time hours due to the heavy traffic flow of the location in Downtown Seattle.
Consideration of Public Concerns	Score = 7 Further migration of contaminants away from the immediate source and toward off-site properties, which could result in concerns by the public and nearby property owners.	Score = 8 Addresses the contaminants and exposure pathways of greatest concern. Poses little risk and is expected to be of minimal concern to the public with the exception of utility and traffic disruptions.However, the extensive remediation construction required to remove a limited amount of remaining contaminated soil would not be expected to be seen as cost effective by the public.	Score = 7 Addresses the contaminants and exposure pathways of greatest concern using aggressive in-situ technologies. However, the extensive remediation construction required to remove a limited amount of remaining contaminated soil would not be expected to be seen as cost effective by the public.

Table 8

Summary of MTCA Evaluation and Ranking of Cleanup Action Alternatives

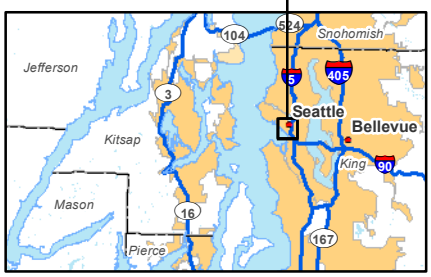
Ninth Avenue and Lenora Street

Seattle, Washington

Remedial Alternative	Alternative 1 - Institutional and Engineering Controls	Alternative 2 - Remedial Excvation to MTCA Method A Cleanup Levels	Alternative 3 - Chemical Oxidation In-Situ Remediation to MTCA Method A Cleanup Levels
Compliance with MTCA Threshold Criteria	Yes	Yes	Yes
Restoration Time Frame	Minimal	6 to 60 months	1-5 years
Relative Benefits Ranking			
Protectiveness (weighted as 30%)	1.8	3.0	2.1
Permanence (weighted as 20%)	1.4	2.0	1.8
Long-Term Effectiveness (weighted as 20%)	1.2	2.0	1.8
Management of Short-Term Risks (weighted as 10%)	1.0	1.0	0.8
Technical and Administrative Implementability (weighted as 10%)	1.0	0.1	0.3
Consideration of Public Concerns (weighted as 10%)	0.7	0.8	0.7
Total of Scores	**7.1**	**8.9**	**7.5**
Disproportionate Cost Analysis			
Probable Remedy Cost (+50%/-30%, rounded)	$70,000	$2,240,000	$1,740,000
Costs Disproportionate to Incremental Benefits	NO	YES	YES
Practicability of Remedy	Practicable	Not Practicable	Not Practicable
Remedy Permanent to Maximum Extent Practicable	No	Yes	Yes
Overall Alternative Ranking	**1st**	**3rd**	**2nd**

FIGURES

GeoEngineers



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Feet

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.
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Data Sources: ESRI Data & Maps, Street Maps 2005

Transverse Mercator, Zone 10 N North, North American Datum 1983
North arrow oriented to grid north

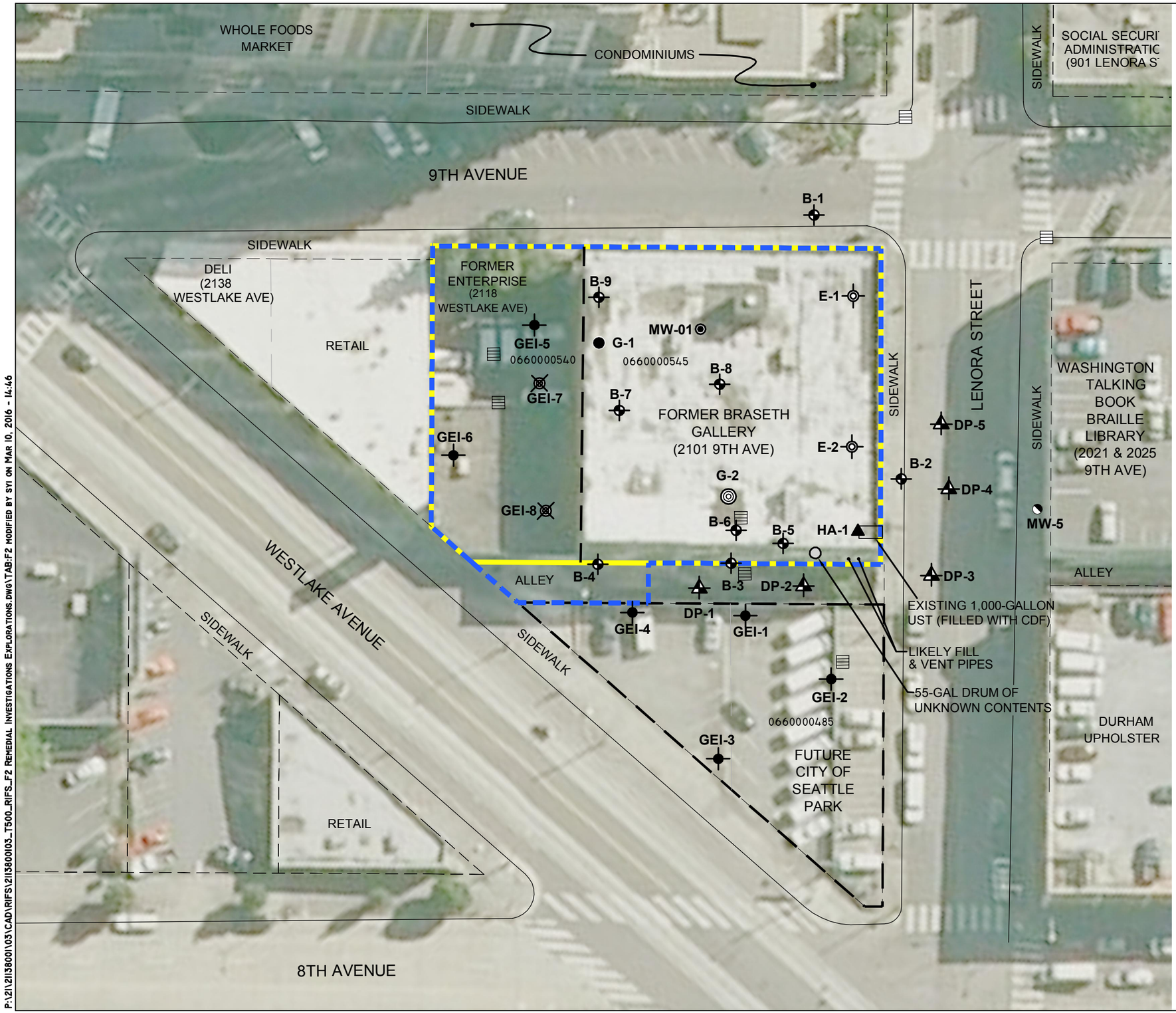
Vicinity Map

9th and Lenora Development
Seattle, Washington

GeoEngineers

Figure 1

Office: Redmond Path: \\red\projects\21\21138001\GIS\2113800100_F1_VicinityMap.mxd Map Revised: 9/10/2014 EL



P:\21\21I3800\03\CAD\RIFS\21I3800103_T500_RIFS_F2 REMEDIAL INVESTIGATIONS EXPLORATIONS.DWG\TAB:F2 MODIFIED BY SYI ON MAR 10, 2016 - 14:46

Legend:

- Subject Property Boundary
- Mass Excavation Limits
- DP-1 — Direct-Push Boring (GeoEngineers, Sep. 2014)
- E-2 — Soil Boring (GeoEngineers, Dec. 2013)
- G-1 — Monitoring Well (GeoEngineers, Dec. 2013)
- G-2 — Soil Boring (GeoEngineers, Dec. 2013)
- GEI-7 — Soil Boring (GeoEngineers, July 2013)
- MW-01 — Monitoring Well (GeoEngineers, July 2013)
- GEI-1 — Soil Boring (GeoEngineers, July 2007)
- HA-1 — Hand Auger Boring (GeoEngineers, Aug. 2002)
- B-2 — Direct-Push Boring (GeoEngineers, Aug. 2002)
- MW-5 — Offsite Monitoring Well (GeoEngineers, Sep. 1993)
- Catch Basin
- (2101 9TH AVE) — Property Address
- 0660000545 — Parcel Number
- UST — Underground Storage Tank
- CDF — Controlled Density Fill
- Parcel Line

N W E S

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FEET

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. can not 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.

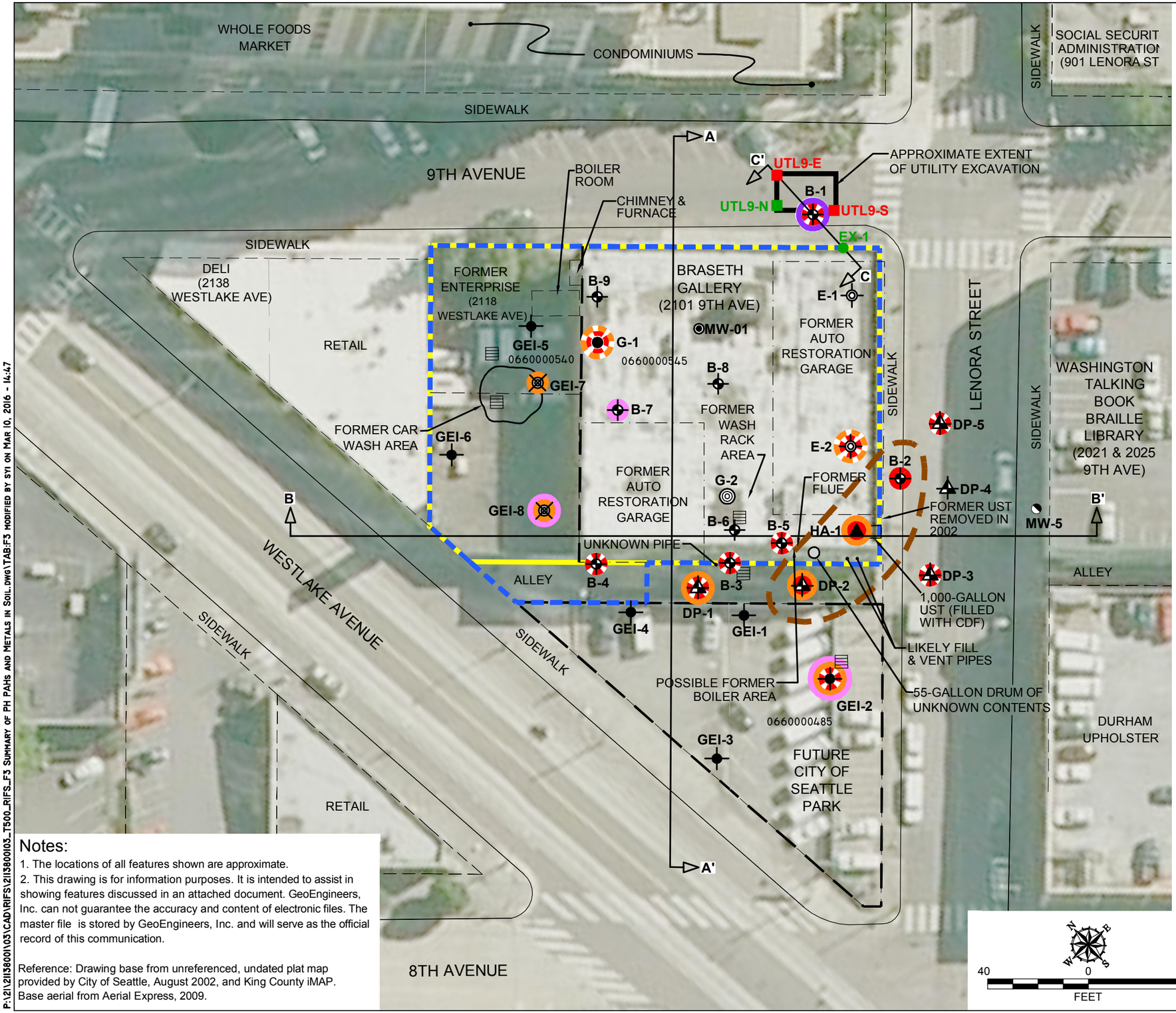
Reference: Drawing base from unreferenced, undated plat map provided by City of Seattle, August 2002, and King County iMAP. Base aerial from Aerial Express, 2009.

Remedial Investigations Explorations

9th and Lenora Development
Seattle, Washington

GeoEngineers

Figure 2



Legend:

- Subject Property Boundary
- Mass Excavation Limits
- UTL9-N — Soil Sample Location
- DP-1 — Direct-Push Boring (GeoEngineers, Sep. 2014)
- E-2 — Soil Boring (GeoEngineers, Dec. 2013)
- G-1 — Monitoring Well (GeoEngineers, Dec. 2013)
- G-2 — Soil Boring (GeoEngineers, Dec. 2013)
- GEI-7 — Soil Boring (GeoEngineers, July 2013)
- MW-01 — Monitoring Well (GeoEngineers, July 2013)
- GEI-1 — Soil Boring (GeoEngineers, July 2007)
- HA-1 — Hand Auger Boring (GeoEngineers, Aug. 2002)
- B-2 — Direct-Push Boring (GeoEngineers, Aug. 2002)
- MW-5 — Offsite Monitoring Well (GeoEngineers, Sep. 1993)
- (2101 9TH AVE) — Property Address
- 0660000545 — Parcel Number
- UST — Underground Storage Tank
- CDF — Controlled Density Fill
- CUL — Applicable MTCA Method A Cleanup Level
- PAHs — Polycyclic Aromatic Hydrocarbons
- Parcel Line
- Estimated Footprint of Former Structures
- Petroleum hydrocarbons detected at concentrations above CUL
- Petroleum hydrocarbons detected at concentrations below CUL
- PAHs detected at concentrations above CUL
- PAHs detected at concentrations below CUL
- Metals detected at concentrations above CUL
- Benzene detected at concentrations above CUL
- Interpreted extent of petroleum-contaminated soil with MTCA exceedance
- Benzene and Gasoline Detected at a concentration greater than the MTCA Method A Cleanup Level
- Gasoline and Benzene not detected
- A — A' — Approximate cross section location

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. can not 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.

Reference: Drawing base from unreferenced, undated plat map provided by City of Seattle, August 2002, and King County iMAP. Base aerial from Aerial Express, 2009.

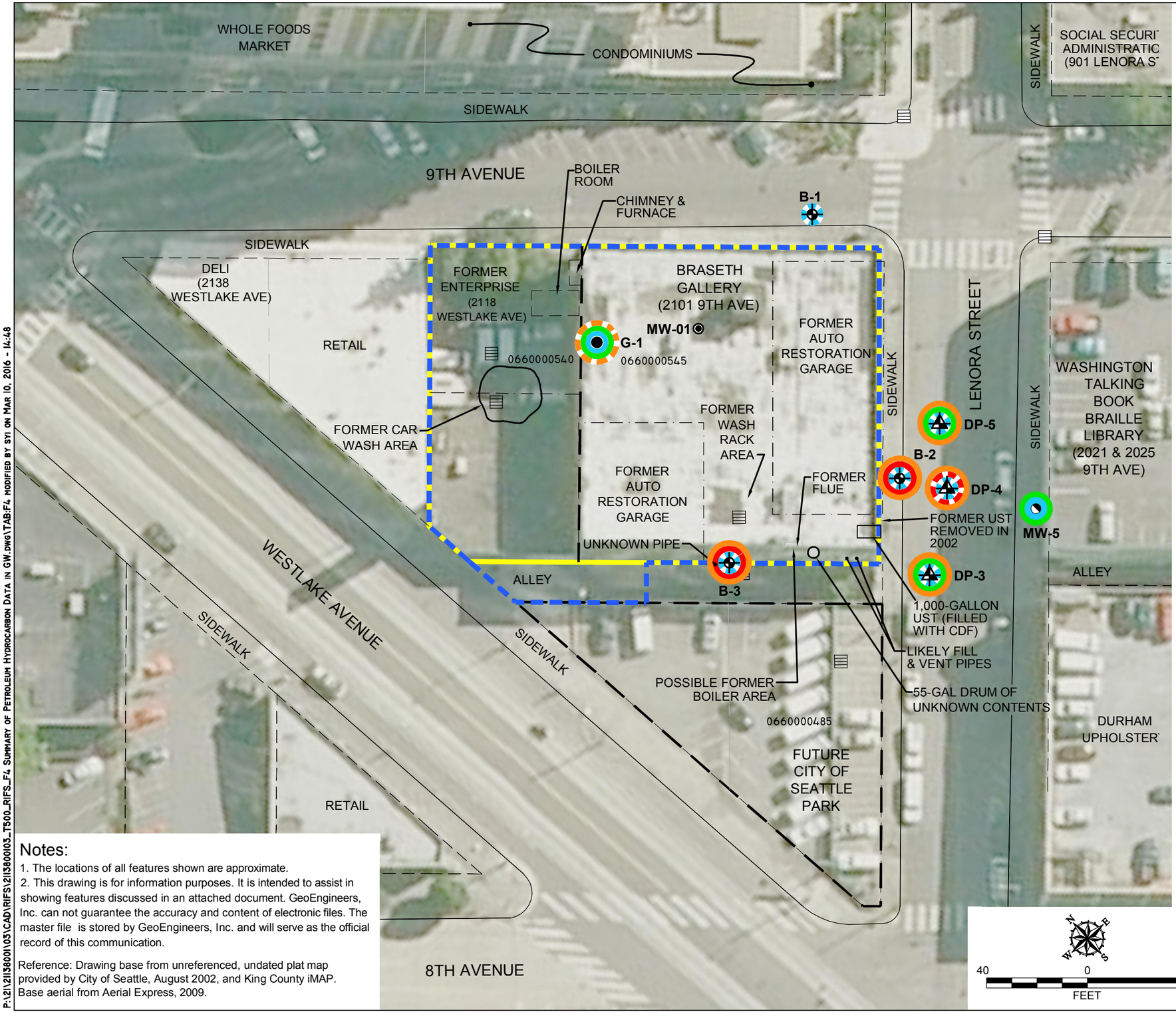
Summary of Petroleum Hydrocarbons, PAHs, and Metals Data in Soil

9th and Lenora Development
Seattle, Washington

GeoEngineers

Figure 3

P:\21\2II3800\03\CAD\RIFS\2II3800103_T500_RIFS_F3 SUMMARY OF PH PAHS AND METALS IN SOIL.DWG\TAB:F3 MODIFIED BY SYI ON MAR 10, 2016 - 14:47



Legend:

- Subject Property Boundary
- Mass Excavation Limits
- DP-1 — Direct-Push Boring (GeoEngineers, Sep. 2014)
- G-1 — Monitoring Well (GeoEngineers, Dec. 2013)
- MW-01 — Monitoring Well (GeoEngineers, July 2013)
- B-2 — Direct-Push Boring (GeoEngineers, Aug. 2002)
- MW-5 — Offsite Monitoring Well (GeoEngineers, Sep. 1993)
- Catch Basin
- (2101 9TH AVE) — Property Address
- 0660000545 — Parcel Number
- UST — Underground Storage Tank
- CDF — Controlled Density Fill
- CUL — Applicable MTCA Method A Cleanup Level
- Parcel Line
- Estimated Footprint of Former Structures
- Groundwater Sample from Monitoring Well
- Perched Water Sample from Boring
- Petroleum hydrocarbons detected at concentrations above CUL
- Petroleum hydrocarbons detected at concentrations below CUL
- Metals detected at concentrations above CUL
- Metals detected at concentrations below CUL
- Petroleum hydrocarbons not detected

Notes:

1. Benzene was not detected in B-1.
2. MW-01 was dry. Monitoring wells G-1 and MW-01 were decommissioned in July 2015, prior to mass excavation.
3. The discrete, one-time perched water samples were obtained directly from the boreholes of borings B-2, B-3 in 2002 and DP-3, DP-4, and DP-5 in 2014. These perched water samples should be considered reconnaissance samples. These samples were biased high for metals because silt particles were incorporated into the sample bottles and do not represent groundwater conditions at the subject property. Sample G-1 obtained from a monitoring well is representative of groundwater quality, at the subject property. Sample MW-5 obtained from a monitoring well is representative of groundwater quality, at the Lenora Street. See report text for further explanation.

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. can not 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.

Reference: Drawing base from unreferenced, undated plat map provided by City of Seattle, August 2002, and King County iMAP. Base aerial from Aerial Express, 2009.

N W E S

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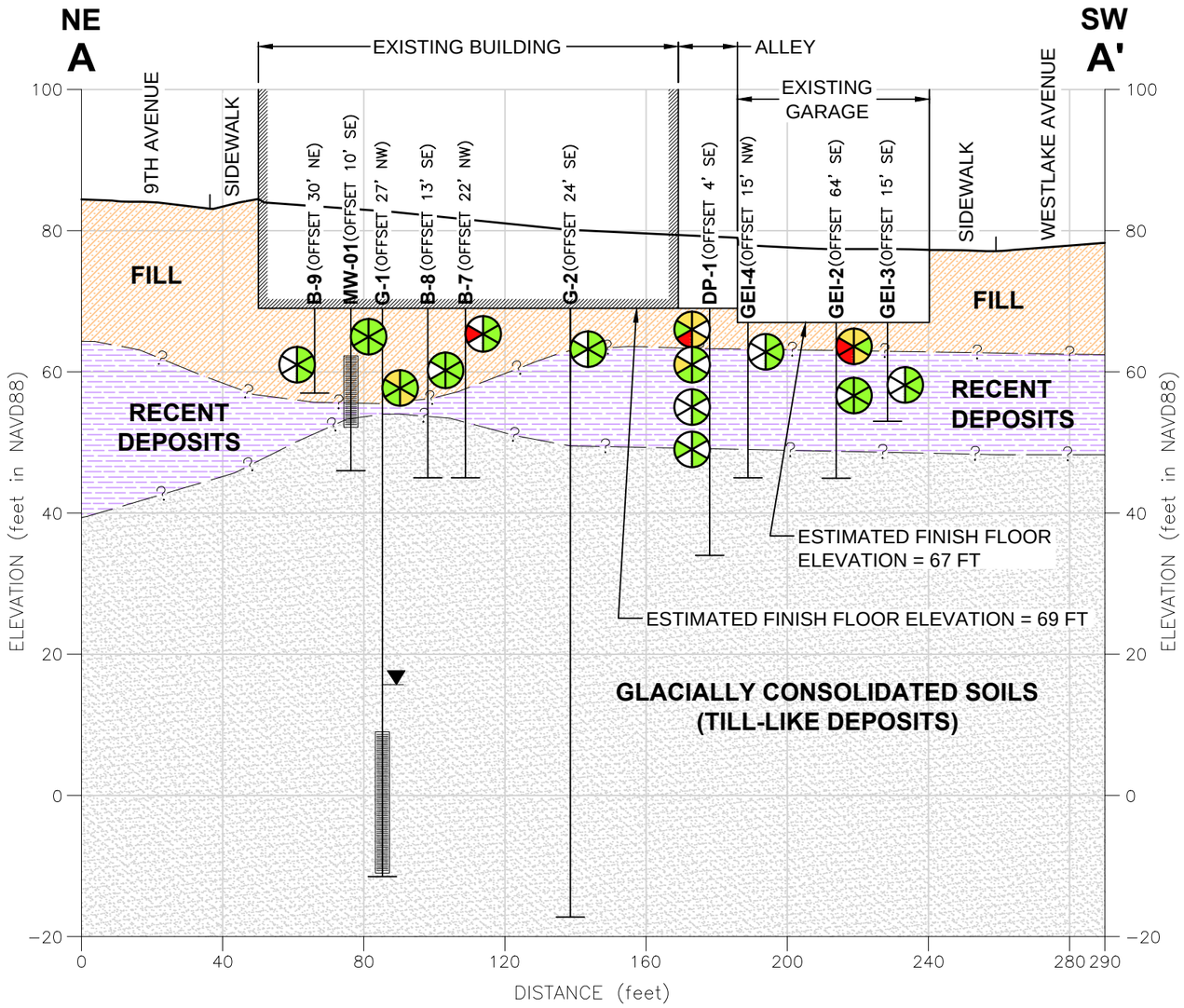
Summary of Petroleum Hydrocarbons and Metals Data in Perched Water and Groundwater

9th and Lenora Development
Seattle, Washington

GeoEngineers

Figure 4

P:\21\21I3800\03\CAD\RIFS\21I3800103_T500_RIFS_F4 SUMMARY OF PETROLEUM HYDROCARBON DATA IN GW.DWG\TAB:F4 MODIFIED BY SYI ON MAR 10, 2016 - 14:48



EXPLANATION:

Chemical Analytical Results of Discrete Soil Samples

PAHs — Diesel–Range Petroleum Hydrocarbons
Metals — Gasoline–Range Petroleum Hydrocarbons
cPAHs — Heavy Oil–Range Petroleum Hydrocarbons

- Detected at a concentration greater than the MTCA Method A Cleanup Level
- Detected at a concentration less than the MTCA Method A Cleanup Level
- Metals detected at concentrations similar to Natural Background Concentrations. Other analytes not detected
- Not Analyzed

PAHs — Polycyclic aromatic hydrocarbons

cPAHs — carcinogenic PAHs

B-7 (OFFSET 22' NW) — Boring number and approximate location

Groundwater level observed in monitoring well

Perched groundwater observed during drilling

Soil contact

Screen location

Fill

Recent deposits

Glacially consolidated soils (till–like deposits)

Notes:
1. The subsurface conditions shown are based on interpolation between widely spaced explorations and should be considered approximate; actual subsurface conditions may vary from those shown.
2. Refer to Figure 3 for location of Cross Section.
3. This figure is for informational purposes only. It is intended to assist in the identification of features discussed in a related document. Data were compiled from sources as listed in this figure. The data sources do not guarantee these data are accurate or complete. There may have been updates to the data since the publication of this figure. This figure is a copy of a master document. The master hard copy is stored by GeoEngineers, Inc. and will serve as the official document of record.

40 0 40
Horizontal Scale in Feet

20 0 20
Vertical Scale in Feet
Vertical Exaggeration: 2X

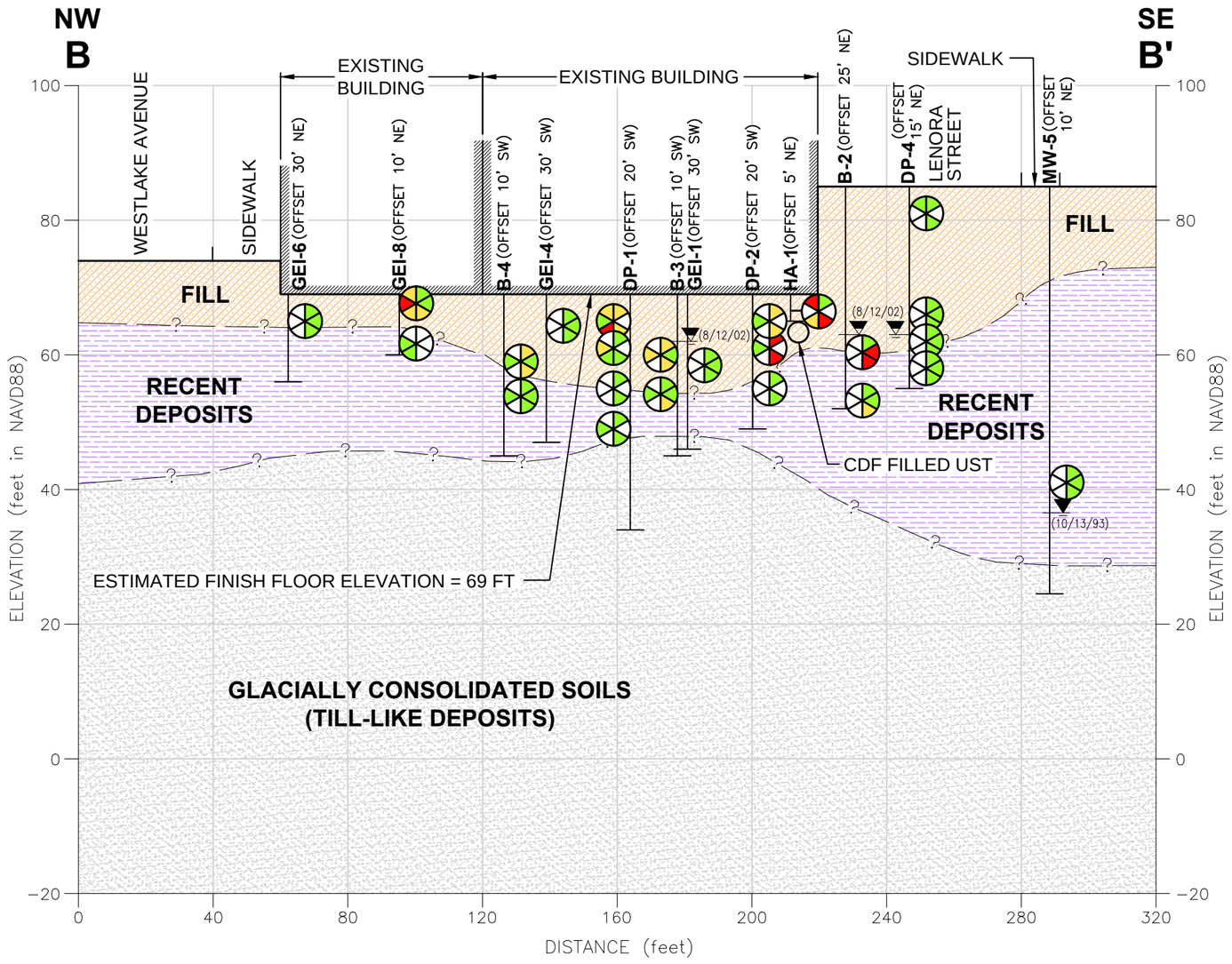
Cross Section A-A'

9th and Lenora Development
Seattle, Washington

GeoEngineers

Figure 5

W:\Projects\21\21380001\03\CAD\RIFS\21I3800103_T500_RIFS_F5_F6_F7 Cross Sections A-A' _B-B' _C-C'.dwg\TAB:F5 modified by SYI on Dec 16, 2015 - 0:21



EXPLANATION:

Chemical Analytical Results of Discrete Soil Samples

PAHs — Diesel–Range Petroleum Hydrocarbons
Metals — Gasoline–Range Petroleum Hydrocarbons
cPAHs — Heavy Oil–Range Petroleum Hydrocarbons

- Detected at a concentration greater than the MTCA Method A Cleanup Level
- Detected at a concentration less than the MTCA Method A Cleanup Level
- Metals detected at concentrations similar to Natural Background Concentrations. Other analytes not detected
- Not Analyzed

PAHs — Polycyclic aromatic hydrocarbons

cPAHs — carcinogenic PAHs

B-2 (OFFSET 25' NE) — Boring number and approximate location

Groundwater level observed in monitoring well

Perched groundwater observed during drilling

? — Soil contact

UST — Underground storage tank

CDF — Controlled density fill

Fill

Recent deposits

Glacially consolidated soils (till–like deposits)

Notes:
1. The subsurface conditions shown are based on interpolation between widely spaced explorations and should be considered approximate; actual subsurface conditions may vary from those shown.
2. Refer to Figure 3 for location of Cross Section.
3. This figure is for informational purposes only. It is intended to assist in the identification of features discussed in a related document. Data were compiled from sources as listed in this figure. The data sources do not guarantee these data are accurate or complete. There may have been updates to the data since the publication of this figure. This figure is a copy of a master document. The master hard copy is stored by GeoEngineers, Inc. and will serve as the official document of record.

40 0 40
Horizontal Scale in Feet
20 0 20
Vertical Scale in Feet
Vertical Exaggeration: 2X

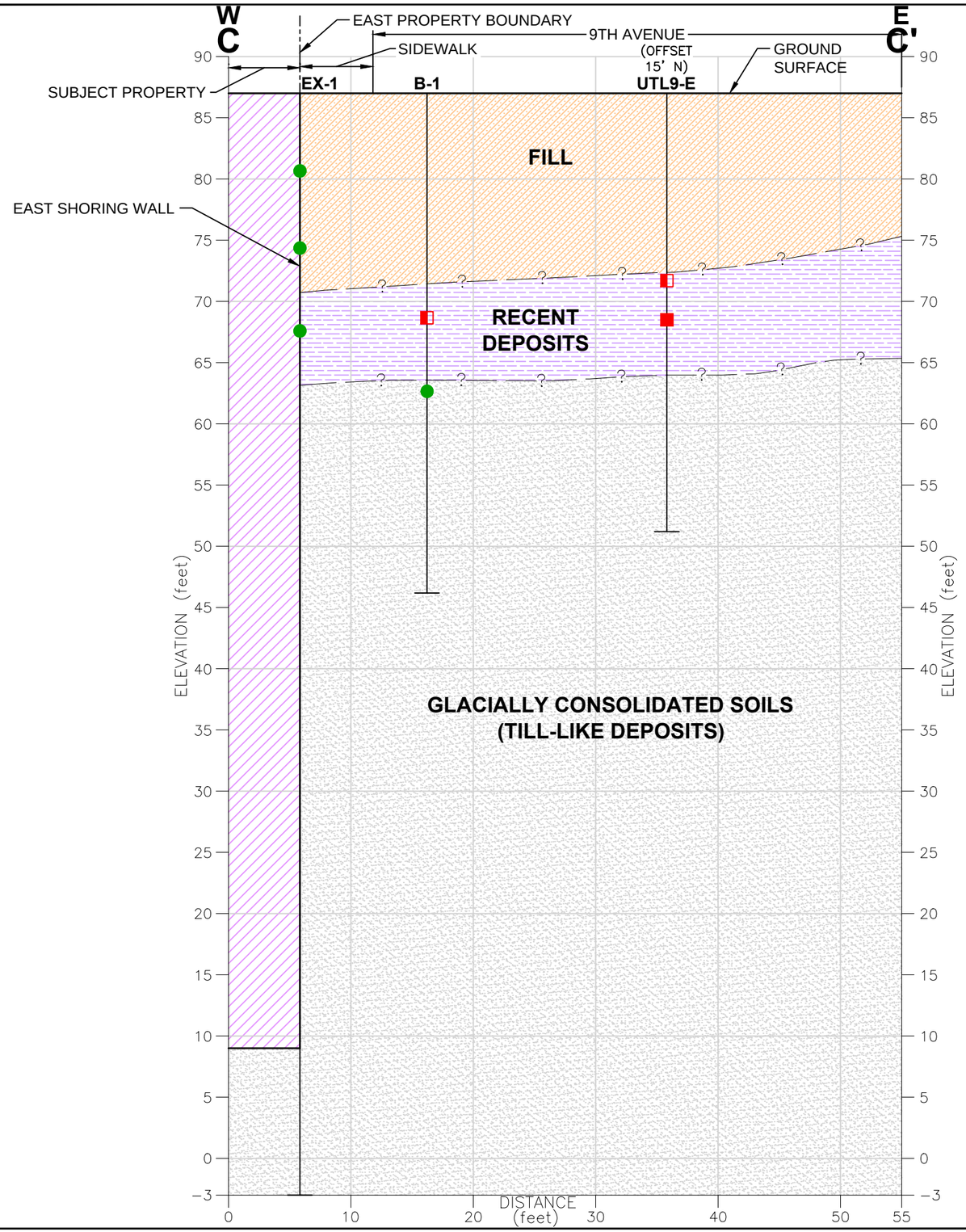
Cross Section B-B'

9th and Lenora Development
Seattle, Washington

GeoEngineers

Figure 6

W:\PROJECTS\21\2113800\03\CAD\RIFS\2113800103_T500_RIFS_F5_F6_F7 CROSS SECTIONS A-A'_B-B'_C-C'.DWG\TAB:F6 MODIFIED BY SYI ON DEC 16, 2015 - 0:21



EXPLANATION:

- Benzene and Gasoline Detected at a concentration greater than the MTCA Method A Cleanup Level
- Benzene Detected at a concentration greater than the MTCA Method A Cleanup Level
- Gasoline and Benzene not detected

MTCA Model Toxics Control Act

(OFFSET 15' N) **UTL9-E** Sample number and approximate location

Soil contact

Fill

Recent deposits

Glacially consolidated soils (till–like deposits)

Soil at the subject property was excavated to an approximate elevation of 9 feet during mass excavation

10 0 10
Horizontal Scale in Feet

10 0 10
Vertical Scale in Feet
Vertical Exaggeration: 1X

Notes:
1. The subsurface conditions shown are based on interpolation between widely spaced explorations and should be considered approximate; actual subsurface conditions may vary from those shown.
2. Refer to Figure 3 for location of Cross Section.
3. This figure is for informational purposes only. It is intended to assist in the identification of features discussed in a related document. Data were compiled from sources as listed in this figure. The data sources do not guarantee these data are accurate or complete. There may have been updates to the data since the publication of this figure. This figure is a copy of a master document. The master hard copy is stored by GeoEngineers, Inc. and will serve as the official document of record.

Cross Section C-C'

9th and Lenora Development
Seattle, Washington

GeoEngineers

Figure 7

W:\Projects\21213800\03\CAD\RIFS\21213800103_T500_RIFS_F5_F6_F7 Cross Sections A-A'_B-B'_C-C'.dwg\TAB:F7 Modified by SYI on Dec 18, 2015 - 1:25

APPENDICES

GeoEngineers

APPENDIX A
Field Procedures

APPENDIX A
FIELD PROCEDURES

Remedial Investigations Explorations – Soil Sample Collection and Handling

Prior to drilling activities, an underground utility locate was conducted in the area of the proposed boring locations to identify subsurface utilities and/or potential underground physical hazards. The underground utility check consisted of contacting a local utility alert service (1-call), hiring a private utility locating company, and communications with UW regarding the concrete Utility Tunnel located beneath the Site.

Subsurface conditions at the Site were evaluated by completing direct-push and/or hollow-stem auger explorations using equipment owned and operated by multiple Washington State-licensed drilling companies between 2002 and 2014. Both direct-push and hollow-stem auger drilling was conducted in general accordance with Washington Administrative Code (WAC) 173-760. Continuous soil cores were obtained from the direct push borings using 1.5-inch diameter, 5-foot long stainless steel sampler rods driven with a pneumatic hammer. Soil samples were collected in clean, plastic 1.5-inch diameter disposable liners. The liners were placed inside the sampling rod and then hydraulically driven or pushed into the soil at the selected sampling depth. Soil samples were obtained from the hollow-stem augered borings at 2.5- to 5-foot depth intervals for field screening and possible chemical analysis. Soil samples from the borings were obtained using a 2.5-inch diameter, split barrel sampler. The sampler was driven a maximum of 18 inches by a 140-pound weight falling a vertical distance of approximately 30 inches. The number of blows needed to advance the sampler the final 12 inches or other specified distance is indicated to the left of the corresponding sample notation on the boring logs. Using new disposable gloves, soil from the spit-barrel sampler was placed in clean containers provided by the testing laboratory (OnSite Environmental Inc. of Redmond, Washington). The remaining portion of the sample was placed in a plastic bag for field screening. The drilling equipment was decontaminated by steam cleaning prior to drilling each boring.

A representative from our staff selected the exploration locations and observed and classified the soil encountered. The borings were extended to approximate depths of 15 feet below the ground surface (bgs). Soil in the explorations was visually classified in general accordance with ASTM D 2488-94. The boring logs are presented in Figures A-1 through A-25.

Selected samples from the borings were submitted for chemical analysis based on field screening results. The soil samples were placed in a cooler with ice for transport to the analytical laboratory. Standard chain-of-custody procedures were followed in transporting the soil samples to the analytical laboratory.

Utility Excavation – Soil Sample Collection and Handling

Soil samples were obtained from the excavation area using a clean nitrile-gloved hand from the excavator bucket. Each sample was placed in laboratory-prepared jars and filled to minimize headspace. Gloves were changed between samples to prevent cross-contamination. The samples were placed in an iced cooler pending transport to the analytical laboratory.

Each sample submitted for chemical analysis was identified by a unique sample designation that corresponded to its mapped sample location and depth below ground surface. Chain-of-custody procedures were followed in transporting the samples to the laboratory.

Field Screening of Soil Samples

A representative from our staff performed field screening of soil samples obtained from the excavation. Field screening results are used as a general guideline to delineate areas with possible petroleum hydrocarbons. In addition, screening results are used to aid in the selection of soil samples for chemical analysis. The screening methods used include: 1) visual screening, and 2) water sheen screening.

Visual screening consists of inspecting the soil for stains indicative of petroleum hydrocarbons. Visual screening is generally more effective when hydrocarbons are heavier, such as motor oil, or when hydrocarbon concentrations are high. Water sheen screening is a more sensitive methods that can be effective in detecting contamination at concentrations less than regulatory cleanup levels. However, field screening results are site-specific. The effectiveness of field screening varies with temperature, moisture content, organic content, soil type and age of contaminant. The presence or absence of a sheen does not necessarily indicate the presence or absence of petroleum hydrocarbons.

Water sheen screening involves placing soil in 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. Natural organic matter in the soil may produce a slight sheen.
Moderate Sheen (MS)	Light to heavy sheen; may have some color/iridescence; spread is irregular to flowing, may be rapid; 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 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 the photoionization detector (PID) is inserted into the bag. The PID measures the concentration of photoionizable gases and vapors in the sample bag headspace. The PID is designed to quantify photoionizable gases and vapors up to 2,000 parts per million (ppm), and is calibrated with isobutylene. A lower threshold of significance of 1 ppm is used in application.

Field screening results are site- and exploration- specific. The results may vary with temperature, moisture content, soil lithology, organic content and type of contaminant. The presence or absence of sheen does not necessarily confirm the presence or absence of contaminants in a sample.

Groundwater Monitoring Well Drilling and Installation

Two monitoring wells (MW-01 and G-1) were completed at the subject property in 2013 and an off-property monitoring well (MW-5) was completed on east sidewalk of Lenora Street in 1993 to evaluate groundwater conditions and water quality at the Site. Monitoring well construction details are shown on the boring logs in this Appendix.

Protective steel monuments were installed over the wells and flush with the surrounding pavement or ground surface. The monitoring wells MW-01 and G-1 at the subject property were decommissioned by a Washington State-licensed driller in July 2015 to facilitate construction excavation.

Groundwater Monitoring Well Development

All monitoring wells except MW-01 were developed shortly after well installation to allow the sand pack to settle, remove fine soil particles from the wells and sand pack, and to establish hydraulic connection between the well and the surrounding saturated soil. Well MW-01 was observed to be dry. Prior to development, the depth to water in the well and well depth was measured and recorded. The wells were developed using a combination of surging and pumping until at least five well casing volumes were removed and turbidity of pumped water was acceptable.

Decontamination Procedures

Drilling equipment was steam cleaned before drilling each boring/well. Decontamination rinse water was collected in drums and managed as investigation waste at the time remedial investigations from 2002 to 2014.

Groundwater Sampling

The depth to groundwater in wells G-1 and MW-5 was measured relative to ground surface using an electric water level indicator inside the well casing. MW-01 was observed to be dry. The electric indicator was cleaned with a Liqui-Nox® solution wash and a distilled water rinse prior to each measurement. The depth to groundwater measurements are discussed in the report text.

Groundwater sample were obtained from monitoring wells G-1 and MW-5 using a polyvinyl chloride (PVC) bailer. Approximately three well volumes of water was purged from each well prior to collecting the groundwater samples. The groundwater samples were collected in the field in laboratory-prepared sample containers and kept cool during transport to the analytical laboratory. The sample containers were filled completely to eliminate headspace in the container. Hydrochloric acid (a preservative) was present in the bottles used for collection of water samples for analysis of petroleum hydrocarbons. Standard chain-of-custody procedures were followed in transporting the groundwater samples to the analytical laboratory.

APPENDIX B
Exploration Logs

Date(s) Drilled	7/30/2007	Logged By	HS	Checked By	DAC
Drilling Contractor	ESN Northwest	Drilling Method	Direct Push	Sampling Methods	Geoprobe macrocore sampler with acetate liner
Auger Data	N/A	Hammer Data	Pneumatic	Drilling Equipment	Limited access rig
Total Depth (ft)	23	Surface Elevation (ft)		Groundwater Level (ft. bgs)	Not Encountered
Vertical Datum		Datum/ System		Easting(x): Northing(y):	

Depth feet	SAMPLES: Interval	SAMPLES: Recovered (in)	SAMPLES: Blows/foot	SAMPLES: Sub-Sample Number	SAMPLES: Testing	Water Level	Graphic Log	Group Symbol	MATERIAL DESCRIPTION	Sheen	Headspace Vapor TLV (ppm)	NOTES
0								CC	3 inches concrete	NS	<1	
								SM	Brown silty fine to medium sand with occasional organics (medium dense, moist)			
									Brown silty fine to medium sand (medium dense, moist)			
					CA					NS	<1	
5									Brown silty fine sand with occasional gravel (medium dense, wet)			
										NS	<1	
								ML	Bluish-gray silt (stiff, moist)			
									Gray silt (stiff, moist)	NS	<1	
10										NS	<1	
					CA				Gray silt (soft, moist)	NS	<1	
								SP	Brown fine sand (dense, moist)	NS	<1	
15								ML	Gray silt (soft, moist)	NS	<1	
										NS	<1	
								SP	Brown fine to medium sand (dense, moist)			
20										NS	<1	
										NS	<1	
									Refusal at 23 feet			
25												
30												
35												

Note: See Figure 3 for explanation of symbols.

V6_ENVBORING W:\SEATTLE\PROJECTS\12\12360003\01\FINALS\1236000301.GPJ GEIV6_1.GDT 8/27/07

LOG OF BORING GEI-1

GeoEngineers

Project: 2118 Westlake Avenue and 2101 9th Avenue
Project Location: Seattle, Washington
Project Number: 12360-003-01

Figure 4
Sheet 1 of 1

Date(s) Drilled	7/30/2007	Logged By	HS	Checked By	DAC
Drilling Contractor	ESN Northwest	Drilling Method	Direct Push	Sampling Methods	Geoprobe macrocore sampler with acetate liner
Auger Data	N/A	Hammer Data	Pneumatic	Drilling Equipment	Limited access rig
Total Depth (ft)	22	Surface Elevation (ft)		Groundwater Level (ft. bgs)	Not Encountered
Vertical Datum		Datum/ System		Easting(x): Northing(y):	

Depth feet	SAMPLES: Interval	SAMPLES: Recovered (in)	SAMPLES: Blows/foot	SAMPLES: Sub-Sample Number	SAMPLES: Testing	Water Level	Graphic Log	Group Symbol	MATERIAL DESCRIPTION	Sheen	Headspace Vapor TLV (ppm)	NOTES
0								CC	3 inches concrete			
								SW	Brown fine to coarse sand with occasional brick fragments (loose, moist)	SS	<1	
					CA			ML	Gray with reddish orange mottling silt (stiff, moist)	SS	<1	
5										NS	<1	
										NS	<1	
								SM	Brown silty fine sand (medium dense, moist)			
10					CA				Brown silt with sand (stiff, moist)			
								ML	Brown silt with sand (stiff, moist)	NS	<1	
										NS	<1	
								SP	Brown fine to medium sand (dense, dry)	NS	<1	
15										NS	<1	
										NS	<1	
20										NS	<1	
									Refusal at 22 feet			
25												
30												
35												

Note: See Figure 3 for explanation of symbols.

LOG OF BORING GEI-2

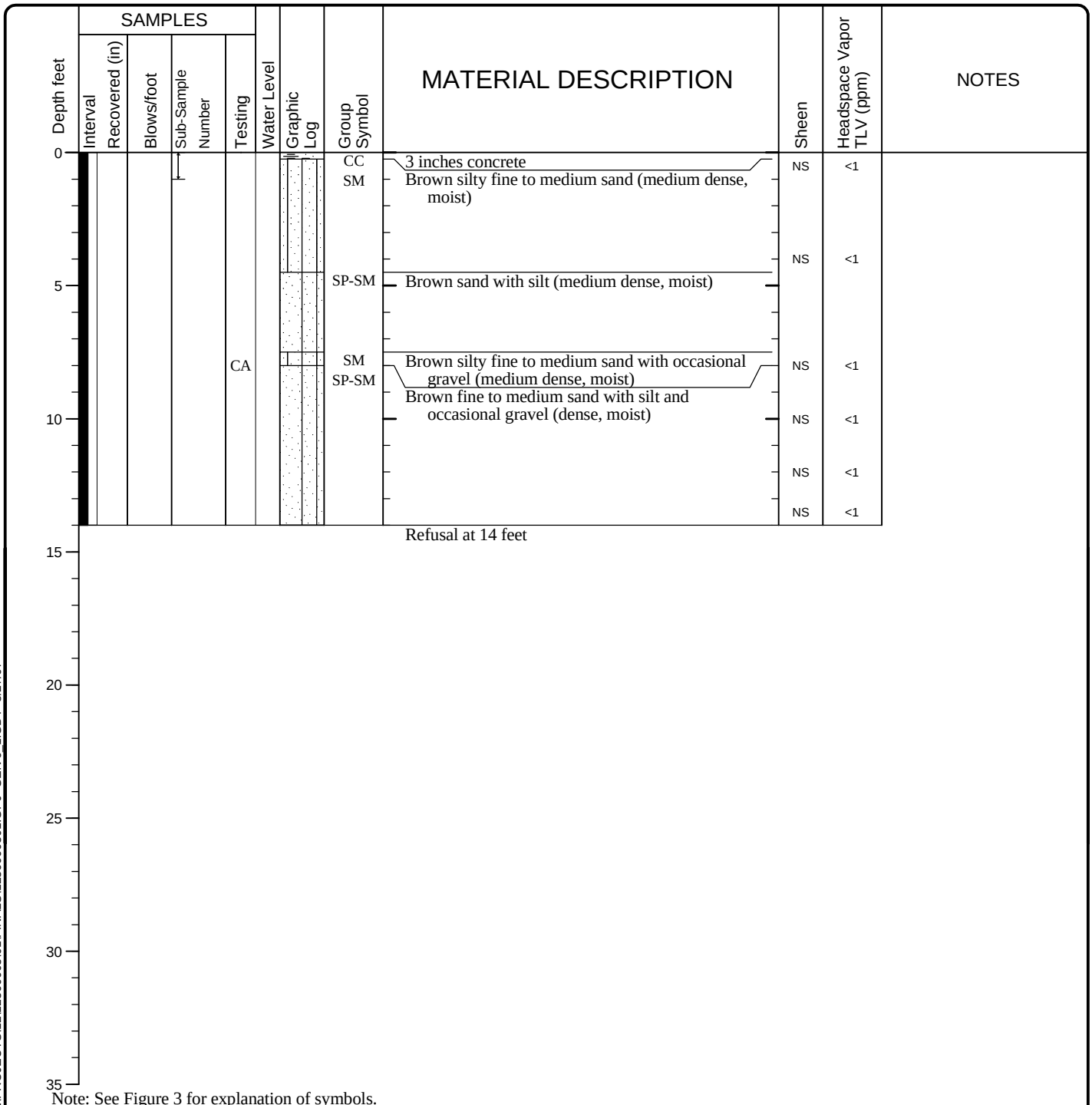
GeoEngineers

Project: 2118 Westlake Avenue and 2101 9th Avenue
Project Location: Seattle, Washington
Project Number: 12360-003-01

Figure 5
Sheet 1 of 1

V6_ENVBORING W:\SEATTLE\PROJECTS\12\12360003\01\FINALS\1236000301.GPJ GEIV6_1.GDT 8/27/07

Date(s) Drilled	7/30/2007	Logged By	HS	Checked By	DAC
Drilling Contractor	ESN Northwest	Drilling Method	Direct Push	Sampling Methods	Geoprobe macrocore sampler with acetate liner
Auger Data	N/A	Hammer Data	Pneumatic	Drilling Equipment	Limited access rig
Total Depth (ft)	14	Surface Elevation (ft)		Groundwater Level (ft. bgs)	Not Encountered
Vertical Datum		Datum/ System		Easting(x): Northing(y):	



Note: See Figure 3 for explanation of symbols.

LOG OF BORING GEI-3

GeoEngineers

Project: 2118 Westlake Avenue and 2101 9th Avenue
Project Location: Seattle, Washington
Project Number: 12360-003-01

Figure 6
Sheet 1 of 1

V6_ENVBORING W:\SEATTLE\PROJECTS\12\12360003\01\FINALS\1236000301.GPJ GEIV6_1.GDT 8/27/07

Date(s) Drilled	7/30/2007	Logged By	HS	Checked By	DAC
Drilling Contractor	ESN Northwest	Drilling Method	Direct Push	Sampling Methods	Geoprobe macrocore sampler with acetate liner
Auger Data	N/A	Hammer Data	Pneumatic	Drilling Equipment	Limited access rig
Total Depth (ft)	22	Surface Elevation (ft)		Groundwater Level (ft. bgs)	Not Encountered
Vertical Datum		Datum/ System		Easting(x): Northing(y):	

Depth feet	SAMPLES: Interval	SAMPLES: Recovered (in)	SAMPLES: Blows/foot	SAMPLES: Sub-Sample Number	SAMPLES: Testing	Water Level	Graphic Log	Group Symbol	MATERIAL DESCRIPTION	Sheen	Headspace Vapor TLV (ppm)	NOTES
0								CC	3 inches concrete			
								SP	Brown fine sand with trace silt and occasional organics (loose, moist)	NS	<1	
								SM	Brown silty fine to medium sand with occasional gravel (medium dense, moist)			
										NS	<1	
5					CA			ML	Bluish-gray silt (stiff, moist)	NS	<1	
										NS	<1	
								SM	Brown silty fine sand (medium dense, wet)	NS	<1	
10								SP	Brown fine sand (medium dense, dry)			
										NS	<1	
										NS	<1	
15										NS	<1	
20									Brown fine sand (medium dense, dry)	NS	<1	
									Refusal at 22 feet			
25												
30												
35												

Note: See Figure 3 for explanation of symbols.

LOG OF BORING GEI-4

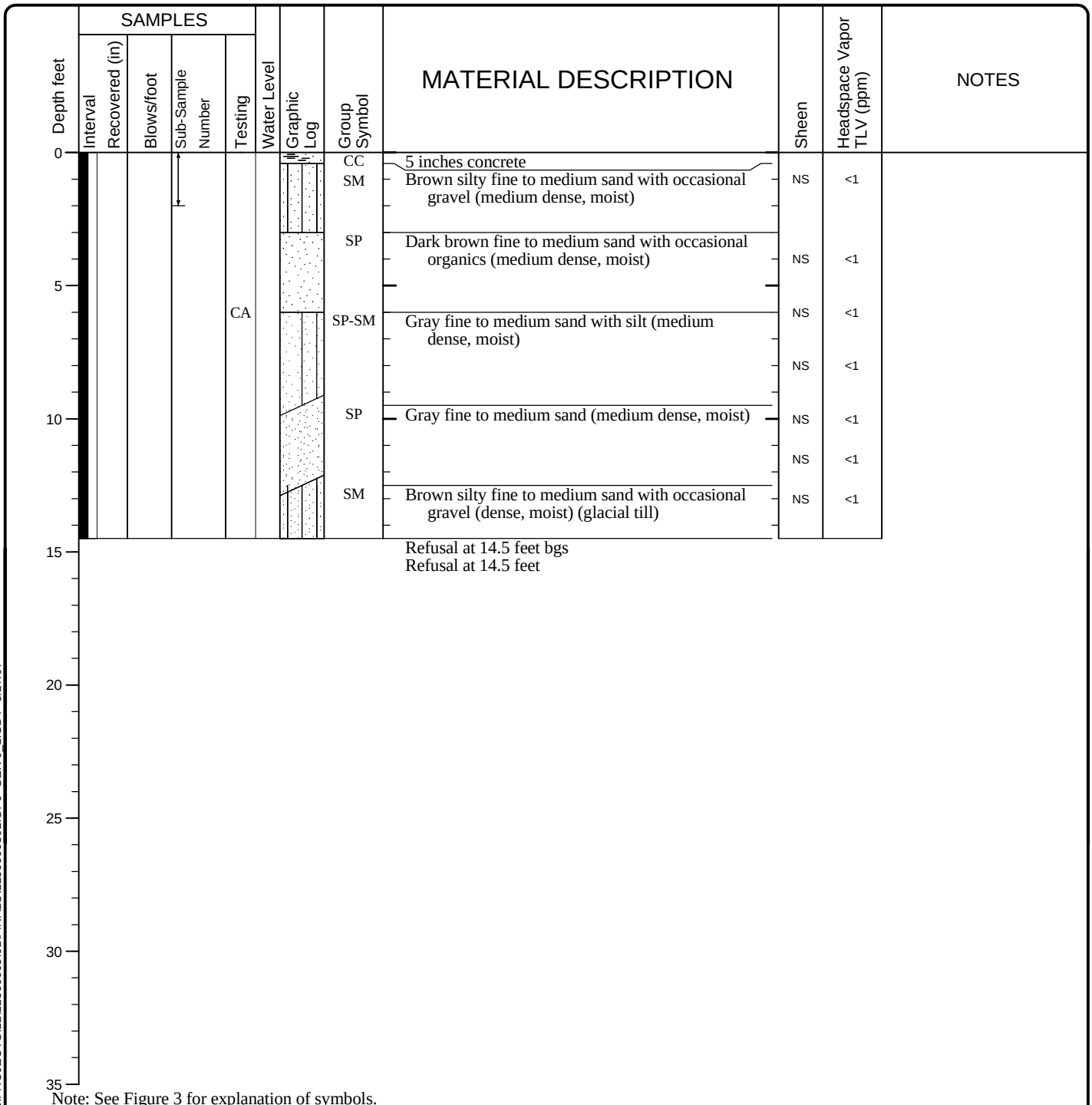
GeoEngineers

Project: 2118 Westlake Avenue and 2101 9th Avenue
Project Location: Seattle, Washington
Project Number: 12360-003-01

Figure 7
Sheet 1 of 1

V6_ENVBORING W:\SEATTLE\PROJECTS\12\12360003\01\FINALS\1236000301.GPJ GEIV6_1.GDT 8/27/07

Date(s) Drilled	7/30/2007	Logged By	HS	Checked By	DAC
Drilling Contractor	ESN Northwest	Drilling Method	Direct Push	Sampling Methods	Geoprobe macrocore sampler with acetate liner
Auger Data	N/A	Hammer Data	Pneumatic	Drilling Equipment	Limited access rig
Total Depth (ft)	14.5	Surface Elevation (ft)		Groundwater Level (ft. bgs)	Not Encountered
Vertical Datum		Datum/ System		Easting(x): Northing(y):	



Note: See Figure 3 for explanation of symbols.

V6_ENVBORING W:\SEATTLE\PROJECTS\12\12360003\01\FINALS\12360003O1.GPJ GEIV6_1.GDT 8/27/07

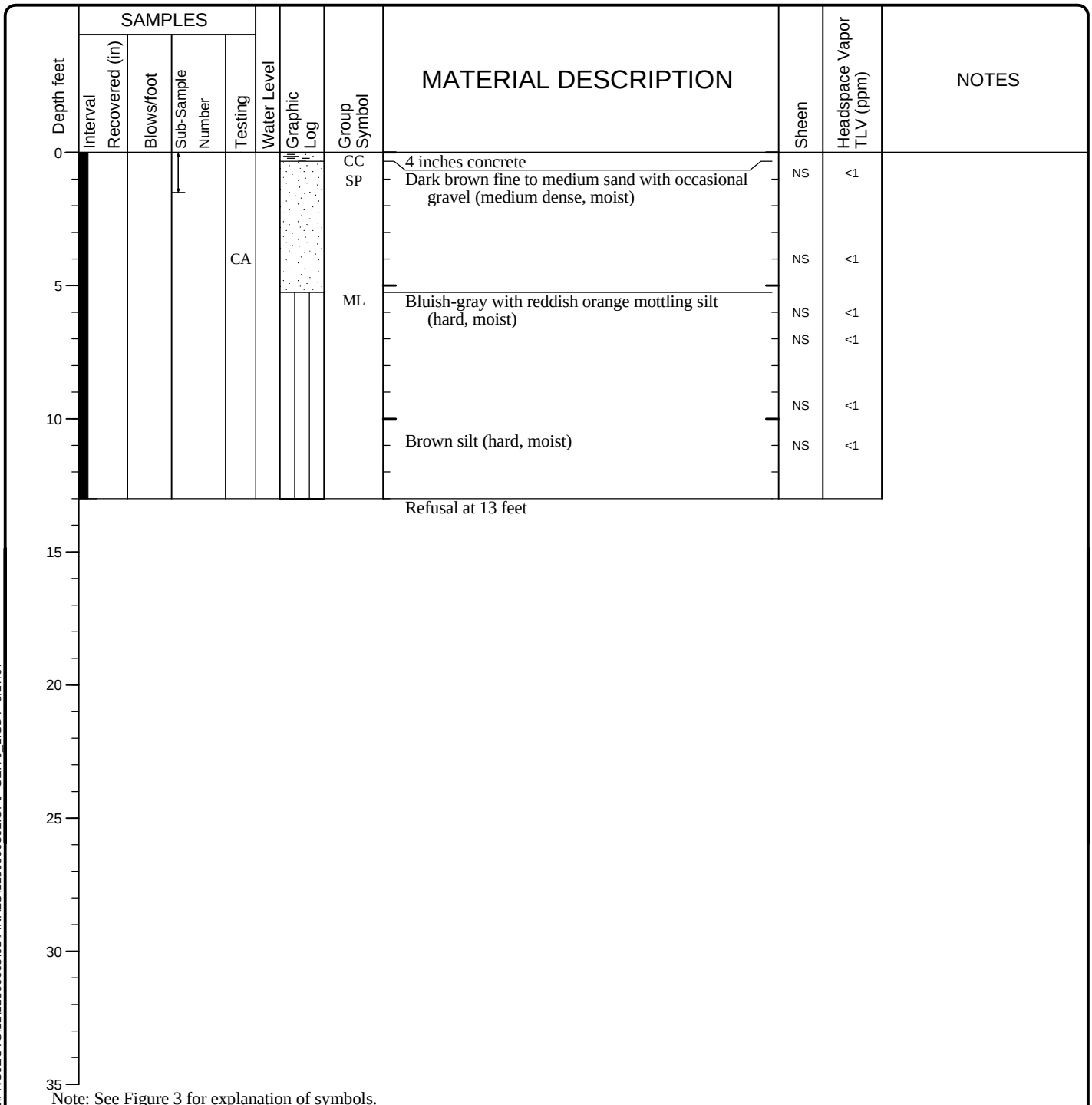
LOG OF BORING GEI-5

GeoEngineers

Project: 2118 Westlake Avenue and 2101 9th Avenue
Project Location: Seattle, Washington
Project Number: 12360-003-01

Figure 8
Sheet 1 of 1

Date(s) Drilled	7/30/2007	Logged By	HS	Checked By	DAC
Drilling Contractor	ESN Northwest	Drilling Method	Direct Push	Sampling Methods	Geoprobe macrocore sampler with acetate liner
Auger Data	N/A	Hammer Data	Pneumatic	Drilling Equipment	Limited access rig
Total Depth (ft)	13	Surface Elevation (ft)		Groundwater Level (ft. bgs)	Not Encountered
Vertical Datum		Datum/ System		Easting(x): Northing(y):	



Note: See Figure 3 for explanation of symbols.

LOG OF BORING GEI-6

GeoEngineers

Project: 2118 Westlake Avenue and 2101 9th Avenue
Project Location: Seattle, Washington
Project Number: 12360-003-01

Figure 9
Sheet 1 of 1

V6_ENVBORING W:\SEATTLE\PROJECTS\12\12360003\01\FINALS\1236000301.GPJ GEIV6_1.GDT 8/27/07

Date(s) Drilled	08/12/02	Logged By	GJA	Checked By	TMK
Drilling Contractor	ESN Drilling	Drilling Method	Direct Push	Sampling Methods	Split-spoon Sampler
Auger Data		Hammer Data		Drilling Equipment	Limited Access Rig
Total Depth (ft)	32	Surface Elevation (ft)		Groundwater Level (ft. bgs)	Approximately 24
Datum/ System					

Depth feet	SAMPLES Interval	Testing	Recovered (in)	Blows/foot	Water Level	Graphic Log	Group Symbol	MATERIAL DESCRIPTION	Sheen	Headspace Vapor TLV(ppm)	NOTES
0							CC	6 inches concrete			
							SP-SM	Gray fine to medium sand with silt (medium dense, moist)	NS	<100	
									NS	<100	
5							SM	Gray silty fine sand (medium dense, moist)	NS	<100	
									NS	<100	
							ML	Gray silt with trace fine sand (stiff, moist)	NS	<100	
10									NS	<100	
									SS	<100	
15									SS	<100	
		CA							MS	<100	
20							SM	Gray silty fine sand with occasional gravel (very dense, moist	SS	<100	
									SS	<100	
		CA			▽		SP-SM	Gray fine to medium sand with silt and occasional wood pieces (dense, moist)	SS	<100	
25							ML	Gray silt (stiff, moist)	SS	<100	
									SS	<100	
							SP-SM	Gray fine to medium sand with silt (medium dense, wet)	SS	<100	
							ML	Gray silt (stiff, moist)			
30									NS	<100	
									NS	<100	

Note: See Figure 3 for explanation of symbols

LOG OF BORING B-1

GeoEngineers

Project: Cornish College, 9th & Lenora
Project Location: Seattle, Washington
Project Number: 8022-004-00

Figure: 10
Sheet 1 of 1

8022-004-00 GEI_ENVBORING_2.1.0 W:\SEATTLE\PROJECTS\12\12360003\01\FINALS\802200400.GPJ GEIV2_2.GDT 8/27/07

Date(s) Drilled	08/12/02	Logged By	GJA	Checked By	TMK
Drilling Contractor	ESN Drilling	Drilling Method	Direct Push	Sampling Methods	Split-spoon Sampler
Auger Data		Hammer Data		Drilling Equipment	Limited Access Rig
Total Depth (ft)	33	Surface Elevation (ft)		Groundwater Level (ft. bgs)	Approximately 22
Datum/ System					

Depth feet	SAMPLES Interval	Testing	Recovered (in)	Blows/foot	Water Level	Graphic Log	Group Symbol	MATERIAL DESCRIPTION	Sheen	Headspace Vapor TLV(ppm)	NOTES
0							CC	6 inches concrete			
							SM	Brown gray fine to medium sand with trace silt (medium dense, moist)	NS	<100	
									NS	<100	
5									NS	<100	
							ML	Gray silt with fine to medium sand (stiff, moist)	SS	<100	
									SS	<100	
10							SP	Brown fine to medium sand with trace silt (medium dense, moist)	NS	<100	
									SS	<100	
15									NS	<100	
							SM	Gray silty fine sand (dense, moist)	NS	<100	
							SM	Gray brown silty fine to medium sand (medium dense, moist)	NS	<100	
20					▽				SS	<100	
		CA					SP-SM	Gray fine to medium sand with silt (dense, moist)	HS	400	
25									HS	200	
							ML	Gray green mottled silt (very stiff, moist)	SS	<100	
									MS	<100	
30								Gray silt (very stiff, moist)	SS	<100	
		CA									

Note: See Figure 3 for explanation of symbols

LOG OF BORING B-2

GeoEngineers

Project: Cornish College, 9th & Lenora
Project Location: Seattle, Washington
Project Number: 8022-004-00

Figure: 11
Sheet 1 of 1

8022-004-00 GEI_ENVBORING_2.1.0 W:\SEATTLE\PROJECTS\12\12360003\01\FINALS\802200400.GPJ GEIV2_2.GDT 8/27/07

Date(s) Drilled	08/12/02	Logged By	GJA	Checked By	TMK
Drilling Contractor	ESN Drilling	Drilling Method	Direct Push	Sampling Methods	Split-spoon Sampler
Auger Data		Hammer Data		Drilling Equipment	Limited Access Rig
Total Depth (ft)	24	Surface Elevation (ft)		Groundwater Level (ft. bgs)	Approximately 7
Datum/ System					

Depth feet	SAMPLES Interval	Testing	Recovered (in)	Blows/foot	Water Level	Graphic Log	Group Symbol	MATERIAL DESCRIPTION	Sheen	Headspace Vapor TLV(ppm)	NOTES
0							CC	8 inches concrete			
							SM	Brown gray silty fine to medium sand with occasional gravel and pieces of wood (medium dense, moist)	SS	<100	
									SS	<100	
5									HS	100	
					▽		ML	Gray silt (stiff, moist)			
		CA							HS	200	
10									HS	100	
									HS	150	
								Grades to green			
		CA							HS	100	
15							SP-SM	Gray fine sand with silt (medium dense, moist)	MS	<100	
							ML	Gray silt (very stiff, moist)			
									MS	<100	
									SS	<100	
20							SP-SM	Brown fine sand with trace silt (medium dense, moist)	NS	<100	
							SM	Gray silty fine sand (very dense, moist)	NS	<100	

Note: See Figure 3 for explanation of symbols

LOG OF BORING B-3

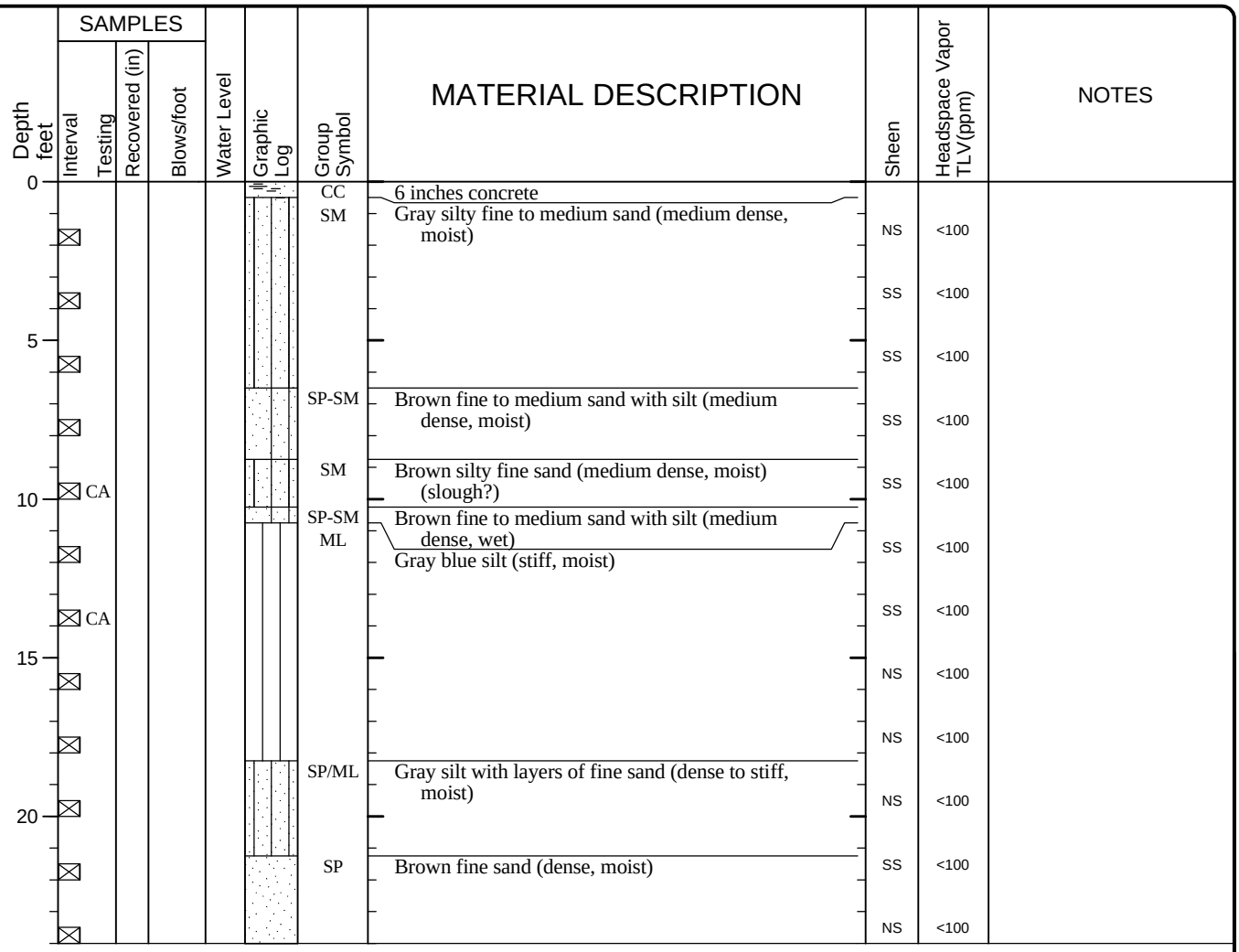
GeoEngineers

Project: Cornish College, 9th & Lenora
Project Location: Seattle, Washington
Project Number: 8022-004-00

Figure: 12
Sheet 1 of 1

8022-004-00 GEI_ENVBORING_2.1.0 W:\SEATTLE\PROJECTS\12\12360003\01\FINALS\802200400.GPJ GEIV2_2.GDT 8/27/07

Date(s) Drilled	08/12/02	Logged By	GJA	Checked By	TMK
Drilling Contractor	ESN Drilling	Drilling Method	Direct Push	Sampling Methods	Split-spoon Sampler
Auger Data		Hammer Data		Drilling Equipment	Limited Access Rig
Total Depth (ft)	24	Surface Elevation (ft)		Groundwater Level (ft. bgs)	None observed
Datum/ System					



Note: See Figure 3 for explanation of symbols

LOG OF BORING B-4

GeoEngineers

Project: Cornish College, 9th & Lenora
Project Location: Seattle, Washington
Project Number: 8022-004-00

Figure: 13
Sheet 1 of 1

8022-004-00 GEI_ENVBORING_2.1.0 W:\SEATTLE\PROJECTS\12\12360003\01\FINALS\802200400.GPJ GEIV2_2.GDT 8/27/07

Date(s) Drilled	08/13/02	Logged By	GJA	Checked By	TMK
Drilling Contractor	ESN Drilling	Drilling Method	Direct Push	Sampling Methods	Split-spoon Sampler
Auger Data		Hammer Data		Drilling Equipment	Truck-mounted Rig
Total Depth (ft)	20	Surface Elevation (ft)		Groundwater Level (ft. bgs)	13
Datum/ System					

Depth feet	SAMPLES Interval	Testing	Recovered (in)	Blows/foot	Water Level	Graphic Log	Group Symbol	MATERIAL DESCRIPTION	Sheen	Headspace Vapor TLV(ppm)	NOTES
0							CC	8 inches concrete			
							SM	Gray silty fine to medium sand with occasional gravel (medium dense, moist)	SS	<100	
								Grades to dark brown black silty fine sand with wood	SS	<100	
5								Grades to dark gray with occasional gravel	SS	100	
							ML	Gray silt with wood pieces (medium stiff, moist)	MS	400	
							SM	Gray silty fine to medium sand with free product (medium dense, moist)	HS	200	
10		CA					ML	Gray silt with trace fine sand (stiff, moist)	HS	100	
							SM	Gray fine sand with silt (medium dense, wet)	HS	<100	
							ML	Gray silt (stiff, moist)	MS	<100	
15							SP-SM	Gray fine sand with silt (dense, moist)	MS	<100	
							ML	Gray silt (stiff, moist)	NS	<100	
20											

Note: See Figure 3 for explanation of symbols

LOG OF BORING B-5

GeoEngineers

Project: Cornish College, 9th & Lenora
Project Location: Seattle, Washington
Project Number: 8022-004-00

Figure: 14
Sheet 1 of 1

8022-004-00 GEI_ENVBORING_2.1.0 W:\SEATTLE\PROJECTS\12\12360003\01\FINALS\802200400.GPJ GEIV2_2.GDT 8/27/07

Date(s) Drilled	08/13/02	Logged By	GJA	Checked By	TMK
Drilling Contractor	ESN Drilling	Drilling Method	Direct Push	Sampling Methods	Split-spoon Sampler
Auger Data		Hammer Data		Drilling Equipment	Truck-mounted Rig
Total Depth (ft)	24	Surface Elevation (ft)		Groundwater Level (ft. bgs)	None observed
Datum/ System					

Depth feet	SAMPLES Interval	Testing	Recovered (in)	Blows/foot	Water Level	Graphic Log	Group Symbol	MATERIAL DESCRIPTION	Sheen	Headspace Vapor TLV(ppm)	NOTES
0							CC	8 inches concrete			
							SM	Brown silty fine to medium sand with occasional gravel (medium dense, moist)	NS	<100	
									NS	<100	
5							SM	Gray silty fine to medium sand with occasional gravel (medium dense, moist)	SS	<100	
								Rock in sampler	--	--	
							ML	Gray silty with trace fine sand (stiff, moist)	SS	<100	
10		CA							SS	<100	
								Grades to medium stiff, wet	SS	<100	
15								Grades to brown	SS	<100	
							SP	Gray fine sand with trace silt (dense, moist)	SS	<100	
20									SS	<100	
							SP-SM	Gray fine to medium sand with silt (dense, moist)	NS	<100	
									NS	<100	

Note: See Figure 3 for explanation of symbols

LOG OF BORING B-6

GeoEngineers

Project: Cornish College, 9th & Lenora
Project Location: Seattle, Washington
Project Number: 8022-004-00

Figure: 15
Sheet 1 of 1

8022-004-00 GEI_ENVBORING_2.1.0 W:\SEATTLE\PROJECTS\12\12360003\01\FINALS\802200400.GPJ GEIV2_2.GDT 8/27/07

Date(s) Drilled	08/13/02	Logged By	GJA	Checked By	TMK
Drilling Contractor	ESN Drilling	Drilling Method	Direct Push	Sampling Methods	Split-spoon Sampler
Auger Data		Hammer Data		Drilling Equipment	Truck-mounted Rig
Total Depth (ft)	24	Surface Elevation (ft)		Groundwater Level (ft. bgs)	None observed
Datum/ System					

Depth feet	SAMPLES Interval	Testing	Recovered (in)	Blows/foot	Water Level	Graphic Log	Group Symbol	MATERIAL DESCRIPTION	Sheen	Headspace Vapor TLV(ppm)	NOTES
0							CC	8 inches concrete			
							SM	Brown silty fine to medium sand with occasional gravel (medium dense, moist)	NS	<100	
		CA							SS	<100	
5									NS	<100	
								Grades to gray brown silty fine sand (dense, moist)			
10								Grades to gray	NS	<100	
									NS	<100	
							SP-SM	Gray fine sand with silt (dense, moist)	NS	<100	
15								Grades to brown	NS	<100	
								Grades to gray fine to medium sand with silt	NS	<100	
20									NS	<100	
							SP-SM	Gray fine to medium sand with silt and occasional gravel (medium dense, moist)	NS	<100	

Note: See Figure 3 for explanation of symbols

LOG OF BORING B-7

GeoEngineers

Project: Cornish College, 9th & Lenora
Project Location: Seattle, Washington
Project Number: 8022-004-00

Figure: 16
Sheet 1 of 1

8022-004-00 GEI_ENVBORING_2.1.0 W:\SEATTLE\PROJECTS\12\12360003\01\FINALS\802200400.GPJ GEIV2_2.GDT 8/27/07

Date(s) Drilled	08/13/02	Logged By	GJA	Checked By	TMK
Drilling Contractor	ESN Drilling	Drilling Method	Direct Push	Sampling Methods	Split-spoon Sampler
Auger Data		Hammer Data		Drilling Equipment	Truck-mounted Rig
Total Depth (ft)	24	Surface Elevation (ft)		Groundwater Level (ft. bgs)	None observed
Datum/ System					

Depth feet	SAMPLES Interval	Testing	Recovered (in)	Blows/foot	Water Level	Graphic Log	Group Symbol	MATERIAL DESCRIPTION	Sheen	Headspace Vapor TLV(ppm)	NOTES
0							CC	8 inches concrete			
							SM	Brown silty fine to medium sand with occasional gravel (loose, moist)	NS	<100	
									SS	<100	
5							SP-SM	Brown fine to medium sand with silt and occasional gravel (medium dense, moist)	NS	<100	
		CA							NS	<100	
							SM	Gray silty fine sand with occasional gravel (dense, moist)	NS	<100	
10							ML	Gray silt (stiff, moist)			
							SP-SM	Gray fine sand with silt (dense, moist)	NS	<100	
									NS	<100	
15								Grades to moist to wet	NS	<100	
							SP	Gray fine sand with trace silt (very dense, moist)	NS	<100	
							SP	Brown fine sand with trace silt (very dense, moist)	NS	<100	
20									NS	<100	
									NS	<100	

Note: See Figure 3 for explanation of symbols

LOG OF BORING B-8

GeoEngineers

Project: Cornish College, 9th & Lenora
Project Location: Seattle, Washington
Project Number: 8022-004-00

Figure: 17
Sheet 1 of 1

8022-004-00 GEI_ENVBORING_2.1.0 W:\SEATTLE\PROJECTS\12\12360003\01\FINALS\802200400.GPJ GEIV2_2.GDT 8/27/07

Date(s) Drilled	08/13/02	Logged By	GJA	Checked By	TMK
Drilling Contractor	ESN Drilling	Drilling Method	Direct Push	Sampling Methods	Split-spoon Sampler
Auger Data		Hammer Data		Drilling Equipment	Truck-mounted Rig
Total Depth (ft)	12	Surface Elevation (ft)		Groundwater Level (ft. bgs)	None observed
Datum/ System					

Depth feet	SAMPLES Interval	Testing	Recovered (in)	Blows/foot	Water Level	Graphic Log	Group Symbol	MATERIAL DESCRIPTION	Sheen	Headspace Vapor TLV(ppm)	NOTES
0							CC	6 inches concrete			
							SM	Brown silty fine to medium sand with occasional gravel (medium dense, moist)	NS	<100	
									NS	<100	
5									NS	<100	
		CA						Grades to gray silty fine sand with trace gravel (dense, moist)	SS	<100	
									NS	<100	
10								Grades to without trace gravel	NS	<100	

Note: See Figure 3 for explanation of symbols

LOG OF BORING B-9

GeoEngineers

Project: Cornish College, 9th & Lenora
Project Location: Seattle, Washington
Project Number: 8022-004-00

Figure: 18
Sheet 1 of 1

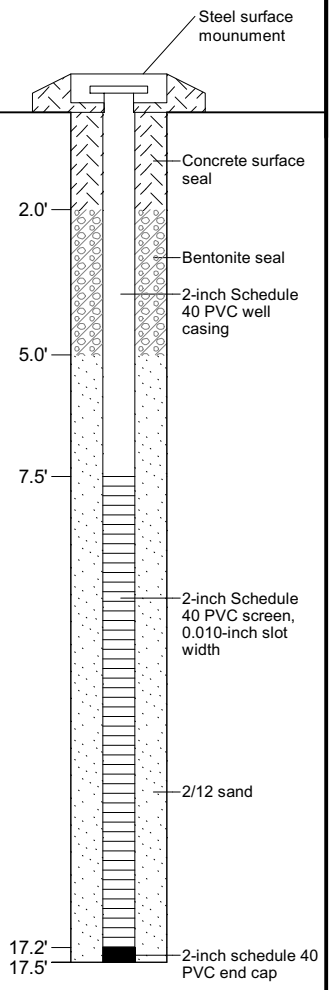
8022-004-00 GEI_ENVBORING_2.1.0 W:\SEATTLE\PROJECTS\12\12360003\01\FINALS\802200400.GPJ GEIV2_2.GDT 8/27/07

Drilled Start 7/16/2013 End 7/16/2013	Total Depth (ft) 23	Logged By CRB Checked By	Driller Cascade Drilling	Drilling Method Direct Push	
Hammer Data N/A		Drilling Equipment Geoprobe 54LT		DOE Well I.D.: BIC 621 A 2 (in) well was installed on 7/16/2013 to a depth of 17.5 (ft).	
Surface Elevation (ft) Vertical Datum Undetermined		Top of Casing Elevation (ft)		Groundwater Date Measured / Depth to Water (ft) / Elevation (ft)	
Easting (X) Northing (Y)		Horizontal Datum			
Notes:					

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)
	0		36						CC	8 inches concrete slab		
									SP	Brown moist silty sand with gravel		<1
												<1
						MW-01-3.0 CA					SS	
	5		50						ML	Black silt with sand (ash?) (burned appearance)	NS	
						MW-01-6.0					NS	
									ML	Brown to gray silt with sand, trace fine gravel (native)		<1
						MW-01-8.0					NS	
												<1
	10		48						CL	Gray clay (moist)	NS	
						MW-01-12.0			ML	Brown sandy silt with scattered fine gravel	NS	<1
									SP	Brown poorly graded fine to medium sand with thin interbedded lenses of silt (moist)		
	15		20			MW-01-15.0					NS	<1
									SM	Brown silty sand (moist)		<1
						MW-01-19.0					NS	
	20										NS	<1
						MW-01-23.0						<1

Refusal at 23 feet

WELL LOG



Note: See Figure A-1 for explanation of symbols.

Log of Monitoring Well MW-01

GeoEngineers

Project:	Cornish College - 9th and Lenora
Project Location:	Seattle, Washington
Project Number:	8022-012-00

Figure A-2
Sheet 1 of 1

Seattle: Date:7/30/13 Path:C:\USERS\KJANC\DESKTOP\80220120O.GPJ DBTemplate/LibTemplate:GEOENGINEERS8.GDT/GEI8_ENVIRONMENTAL_WELL

Drilled Start 7/16/2013	End 7/16/2013	Total Depth (ft) 7	Logged By CRB / Checked By	Driller Cascade Drilling	Drilling Method Direct Push
Surface Elevation (ft) / Vertical Datum Undetermined		Hammer Data N/A		Drilling Equipment 7730 DI-Geoprobe	
Easting (X) / Northing (Y)		System Datum		Groundwater: Date Measured / Depth to Water (ft) / Elevation (ft)	
Notes:					

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name / Testing	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		22						SM	Black silty sand with gravel, burned debris, brick fragments, wood chunks (moist)		<1	
						GEI-7-2.0				(burned appearance)	SS	<1	
			14										
						GEI-7-4.0 CA				Becomes gray and lacks wood (fill)	SS	<1	
	5												
			12			GEI-7-6.0 CA			SM	Brown silty sand (moist) (native)	NS	<1	
										Refusal at 7 feet			

Note: See Figure A-1 for explanation of symbols.

Log of Boring GEI-7

GeoEngineers

Project: Cornish College - 9th and Lenora
Project Location: Seattle, Washington
Project Number: 8022-012-00

Figure A-3
Sheet 1 of 1

Seattle: Date:7/30/13 Path:C:\USERS\KJANC\DESKTOP\80220120O.GPJ DBTemplate/LibTemplate:GEOENGINEERS8.GDT/GEI8_ENVIRONMENTAL_STANDARD

Drilled Start 7/16/2013	End 7/16/2013	Total Depth (ft) 9	Logged By CRB / Checked By	Driller Cascade Drilling	Drilling Method Direct Push
Surface Elevation (ft) / Vertical Datum Undetermined			Hammer Data N/A		Drilling Equipment Geoprobe 54LT
Easting (X) / Northing (Y)			System Datum		Groundwater: Date Measured / Depth to Water (ft) / Elevation (ft)
Notes:					

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample / Sample Name Testing	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0							CC	5 inches concrete			
					GEI-8-1.0 CA			SM	Brown silty fine to coarse sand with gravel, burned appearance; orange weathering (moist)	SS	<1	
			14		GEI-8-3.0				Grades with increased silt content, perched water (fill)	NS	<1	
	5							ML	Gray silt with sand and fine sand interbeds; orange weathering (moist) (native)	NS	<1	
			30		GEI-8-7.0 CA				Trace fine gravel, angular, bedding	NS	<1	
									Refusal at 9 feet			

Note: See Figure A-1 for explanation of symbols.

Log of Boring GEI-8

GeoEngineers

Project: Cornish College - 9th and Lenora
Project Location: Seattle, Washington
Project Number: 8022-012-00

Figure A-4
Sheet 1 of 1

Seattle: Date:7/30/13 Path:C:\USERS\KJANC\DESKTOP\80220120O.GPJ DBTemplate/LibTemplate:GEOENGINEERS8.GDT/GEI8_ENVIRONMENTAL_STANDARD

Drilled	Start	End	Total Depth (ft)	Logged By	Checked By	Driller	Drilling Method
	2/27/2012	2/27/2012	85.5	TML	HPD	Geologic Drill Exploration, Inc.	Hollow Stem Auger

Hammer Data	Rope & Cathead 140 (lbs) / 30 (in) Drop	Drilling Equipment	Diedrich D50
Surface Elevation (ft) Vertical Datum	81 NAVD88	Top of Casing Elevation (ft)	80.70
Easting (X) Northing (Y)		Horizontal Datum	

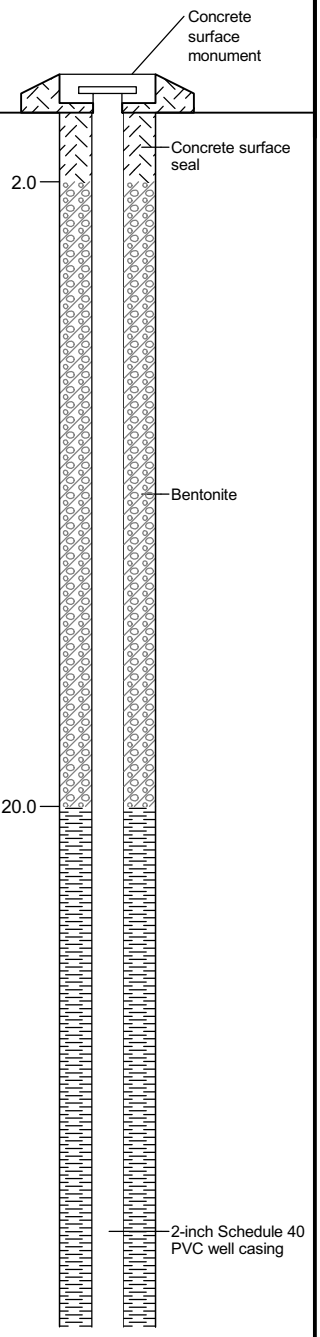
Licensing agency well number: **BHJ178**
A 2 (in) well was installed on 2/27/2012 to a depth of 84.75 (ft).

Groundwater Date Measured	Depth to Water (ft)	Elevation (ft)
3/9/2012	59.9	21.10

Notes:

Elevation (feet)	Depth (feet)	Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Moisture Content, %	Dry Density, (pcf)
80	0								AC	2 inches asphalt		
									SM	Brown silty fine to medium sand with gravel and debris (wood, brick) (moist) (fill)		
			6			1						
			10	12		2 CA			SM	Dark brown silty fine to medium sand with gravel (loose to medium dense, moist)		
75	5		10	5		3 CA				(Charcoal fragments, moist)		
			12	8		4 CA			SM	Light brown silty fine to medium sand with occasional gravel (loose, moist) (brick fragments)		
70	10		22	6		5				(Wood debris)		
			24	12		6			ML	Light brown silt with sand and occasional fine to medium sand layers (stiff, moist) (orange mottling)		
65	15		19	17		7 CA			SM	Light brown silty fine to medium sand (medium dense, moist) (recent deposits)		
				16		8			SP-SM	Yellowish brown fine to coarse sand with silt (medium dense, moist)		
60	20		18	28		9 %F				(MC = 18%; %F = 7)		
			14	11		10				Becomes grayish brown		
55	25		5	17		11			SM	Gray-brown silty fine to medium sand (medium dense, moist) (Driller noted cobbles)		
50	30		16	87/10"		12			SM	Grayish brown silty fine to medium sand with gravel (very dense, moist) (till-like deposits)		
	35											

WELL LOG



Note: See Figure A-1 for explanation of symbols.

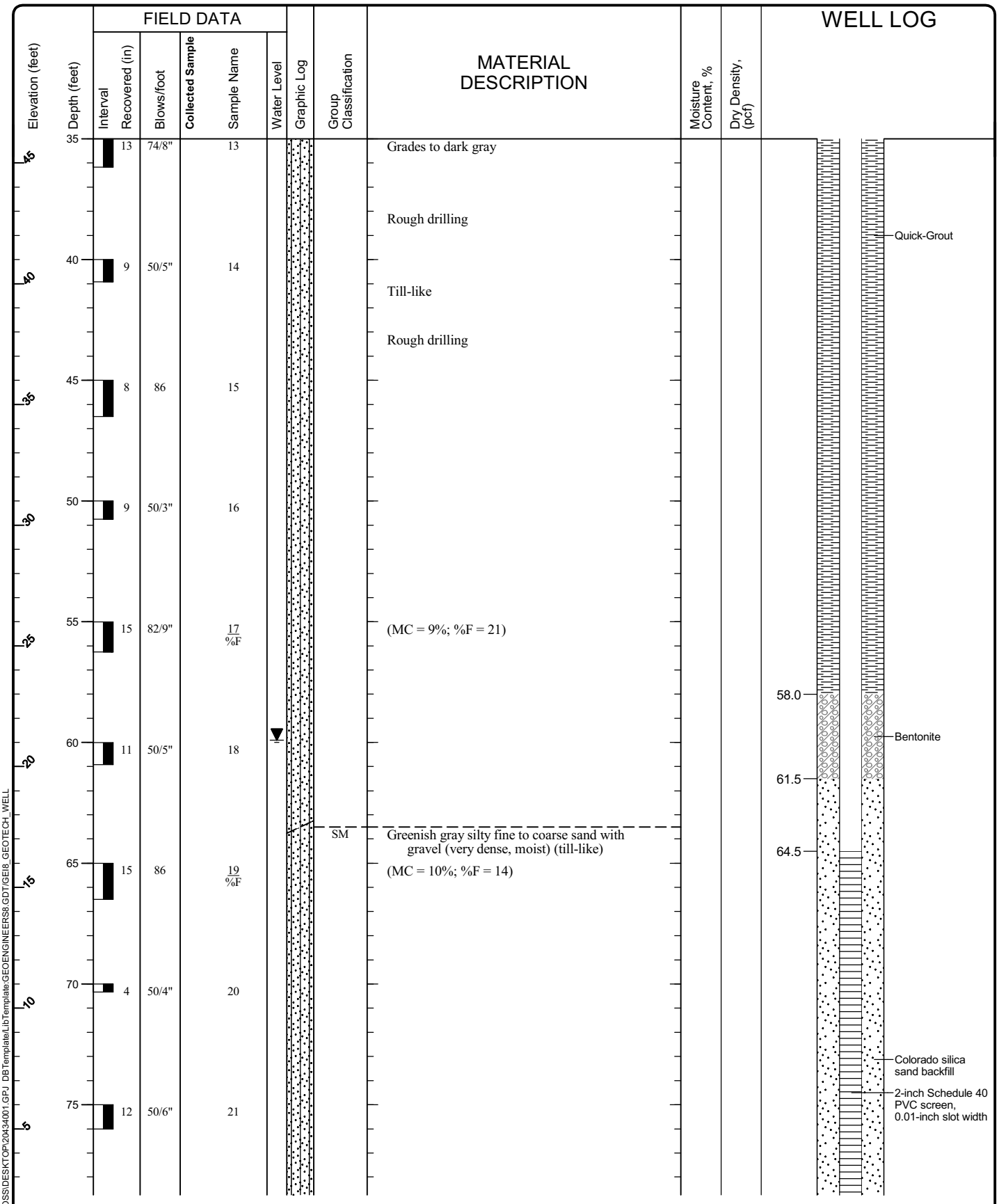
Log of Monitoring Well MW20-3

GeoEngineers

Project: Rufus 2.0 Development
Project Location: Seattle, Washington
Project Number: 20434-001-02

Figure A-19
Sheet 1 of 3

Seattle: Date:5/7/12 Path:C:\USERS\CVOSS\DESKTOP\20434001.GPJ DBTemplate\LibTemplate\GEOENGINEERS8.GDT/GEI8_GEOTECH_WELL



Note: See Figure A-1 for explanation of symbols.

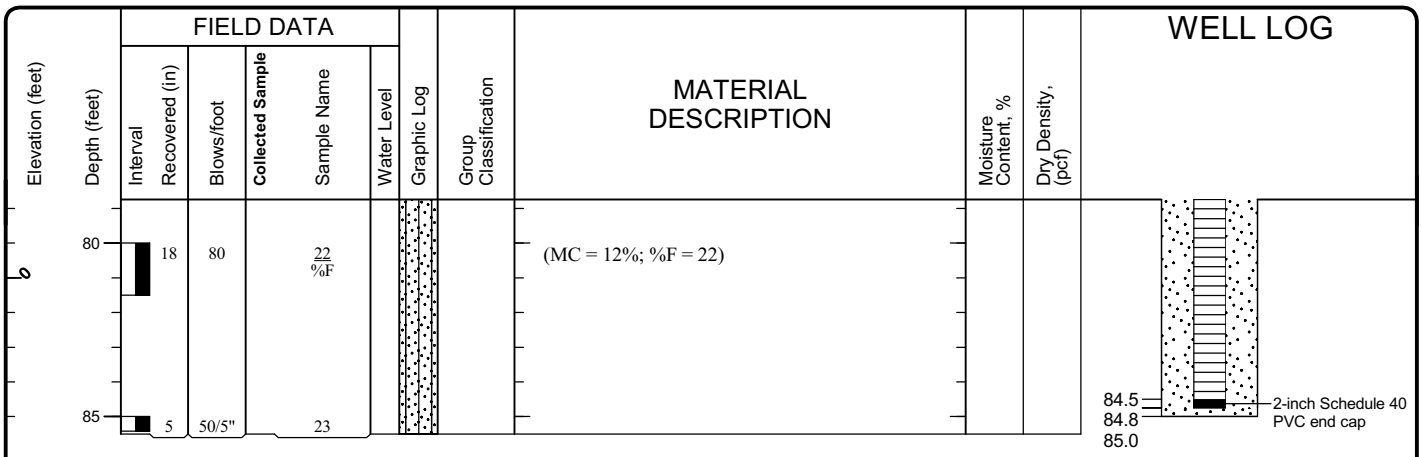
Log of Monitoring Well MW20-3 (continued)

GeoEngineers

Project: Rufus 2.0 Development
Project Location: Seattle, Washington
Project Number: 20434-001-02

Figure A-19
Sheet 2 of 3

Seattle: Date:5/7/12 Path:C:\USERS\CVOSS\DESKTOP\20434001.GPJ DBTemplate\LibTemplate\GEOENGINEERS8.GDT/GEI8_GEOTECH_WELL



Note: See Figure A-1 for explanation of symbols.

Log of Monitoring Well MW20-3 (continued)

GeoEngineers

Project: Rufus 2.0 Development
Project Location: Seattle, Washington
Project Number: 20434-001-02

Figure A-19
Sheet 3 of 3

Seattle: Date:5/7/12 Path:C:\USERS\CVOSS\DESKTOP\20434001.GPJ DBTemplate\LibTemplate:GEOENGINEERS8.GDT/GEI8_GEOTECH_WELL

Drilled	Start	End	Total Depth (ft)	Logged By	Checked By	Driller	Drilling Method
	2/27/2012	2/27/2012	76	CB	HPD	Geologic Drill Exploration, Inc.	Hollow Stem Auger

Surface Elevation (ft) / Vertical Datum	Hammer Data	Drilling Equipment
80.5 NAVD88	Rope & Cathead 140 (lbs) / 30 (in) Drop	Diedrich D50

Easting (X) / Northing (Y)	System Datum	Groundwater		
		Date Measured	Depth to Water (ft)	Elevation (ft)
		2/27/2012	50.0	30.5

Notes:

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	Blows/foot	Collected Sample / Sample Name Testing	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Moisture Content, %	Dry Density, (pcf)	REMARKS
80	0						AC	1 inch asphalt			
		6 / 11	3	1 / 2			SM	Dark brown silty fine to medium sand with gravel and occasional silt pockets and asphalt fragments (moist) (fill)			
							ML	Brown silt with sand, gravel and trace organics (soft to medium stiff, moist)			
75	5	10	6	3 / CA				With black weathering and debris			
		10	9	4 / CA			ML	Dark gray sandy silt with brick fragments (stiff, moist)			
70	10		10	5 / CA			ML	Brown sandy silt with occasional gravel (stiff to very stiff, moist)			
		8	31	6 / CA							Brick fragments
							ML	Grayish brown silt with sand (stiff to very stiff, moist)			
65	15	15	21	7 / CA							
		10	11	8				With trace sand, becomes moist to wet			
					▽						
60	20	10	19	9 / CA			SM	Grayish brown silty fine to medium sand (medium dense, wet) (recent deposits)			
		6	32	10 / CA							
							SM	Grayish brown silty fine to medium sand wityh gravel and occasional interbedded silt layers (very dense, moist) (till-like deposits)			
55	25	10	99	11 / CA							Rough drilling
		13	55	12							
50	30	13	89/7"	13			SM	Grayish brown silty fine to medium sand with occasional gravel (very dense, moist)			Rough drilling Orange mottling
							SM	Grayish brown silty fine to coarse sand with occasional gravel (very dense, moist)			
	35										

Note: See Figure A-1 for explanation of symbols.

Log of Boring B20-3

GeoEngineers

Project: Rufus 2.0 Development
Project Location: Seattle, Washington
Project Number: 20434-001-02

Figure A-22
Sheet 1 of 2

Seattle: Date:5/7/12 Path:C:\USERS\CVOSS\DESKTOP\20434001.GPJ DBTemplate\LibTemplate\GEOENGINEERS8.GDT/GEI8_GEOTECH_STANDARD

Elevation (feet)	Depth (feet)	Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Moisture Content, %	Dry Density, (pcf)	REMARKS
	35		10	50/4"		14 %F							MC = 11%; %F = 22
									SM	Dark gray silty fine to coarse sand with gravel (very dense, moist)			
40	40		3	50/3"		15							Rough drilling Till-like
35	45		5	50/5"		16 %F							Rough drilling MC = 8%; %F = 20
30	50		6	50/6"		17 %F/CA	▽			Becomes wet			Rough drilling MC = 13%; %F = 23
									SM	Dark gray silty fine to medium sand with gravel (very dense, moist to wet)			
25	55		17	91/11"		18							Rough drilling Till-like
20	60		16	91/10"		19				Becomes orange-brown			
									SM	Gray silty fine to coarse sand with occasional gravel (very dense, moist)			
15	65		10	50/4"		20 %F							Orange weathering MC = 14%; %F = 33
10	70		3	50/3"		21							Rough drilling
5	75		7	50/4"		22			SM	Orange-brown silty fine to medium sand with gravel (very dense, moist to wet)			

Note: See Figure A-1 for explanation of symbols.

Log of Boring B20-3 (continued)

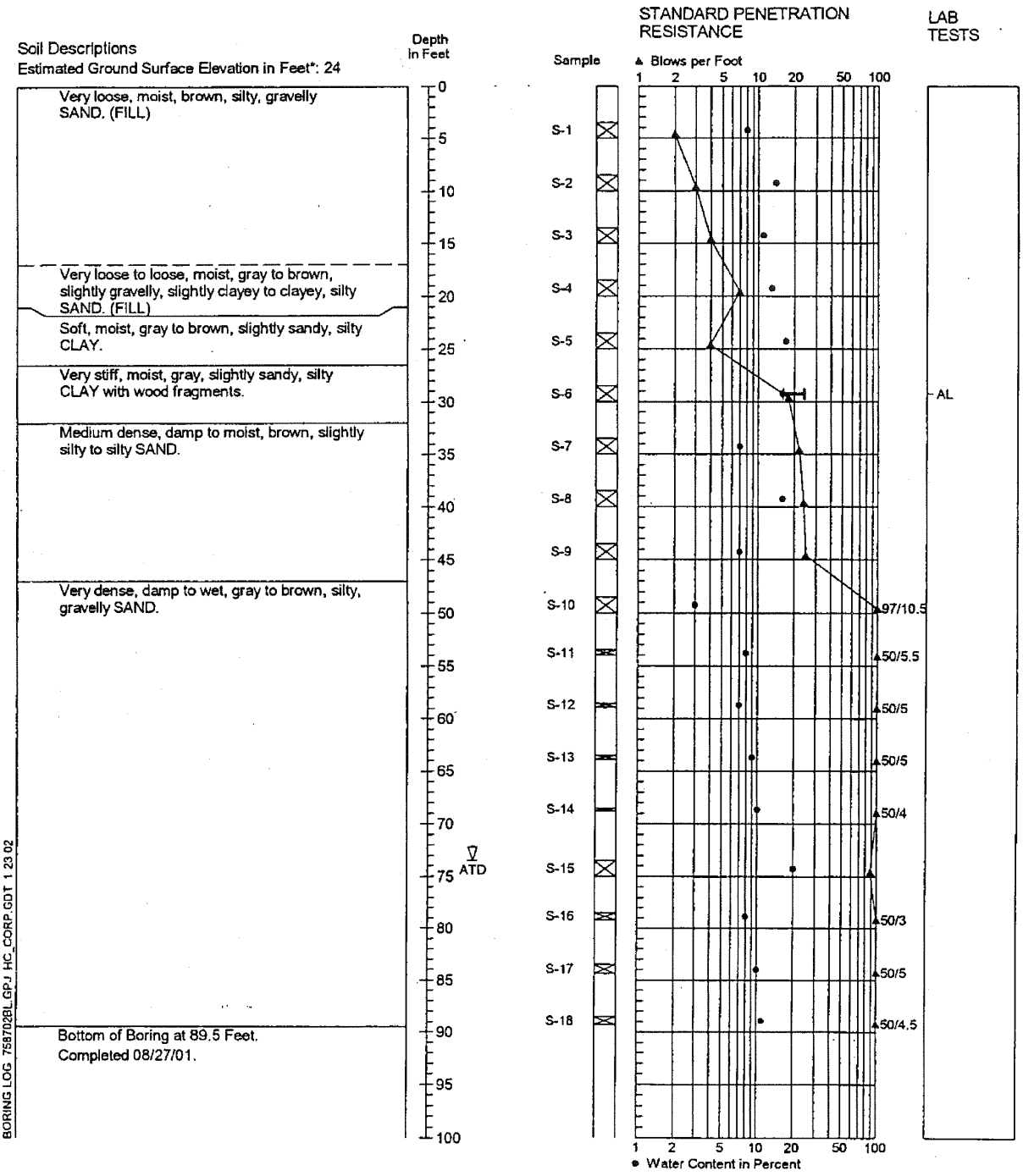
GeoEngineers

Project: Rufus 2.0 Development
Project Location: Seattle, Washington
Project Number: 20434-001-02

Figure A-22
Sheet 2 of 2

Seattle Date:5/7/12 Path:C:\USERS\CVOSS\DESKTOP\20434001.GPJ DBTemplate\LibTemplate\GEOENGINEERS8.GDT/GEI8_GEOTECH_STANDARD

Boring Log HC-4A



1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Groundwater level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.
4. * Elevations are Project Datum.

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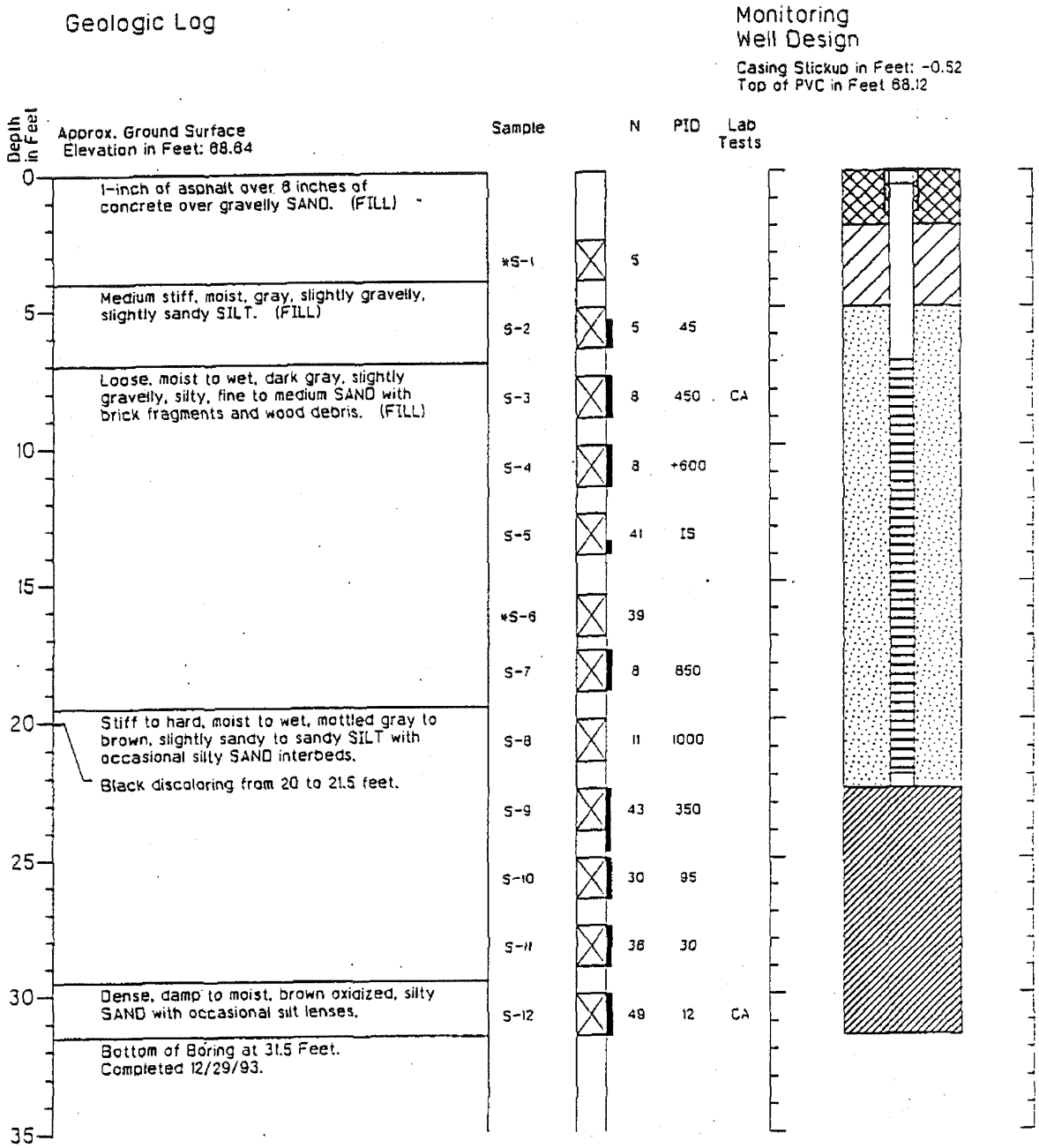
7587-02 08/01

Figure A-5

Boring Log and Construction Data for Monitoring Well HC-1



1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Ground water level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

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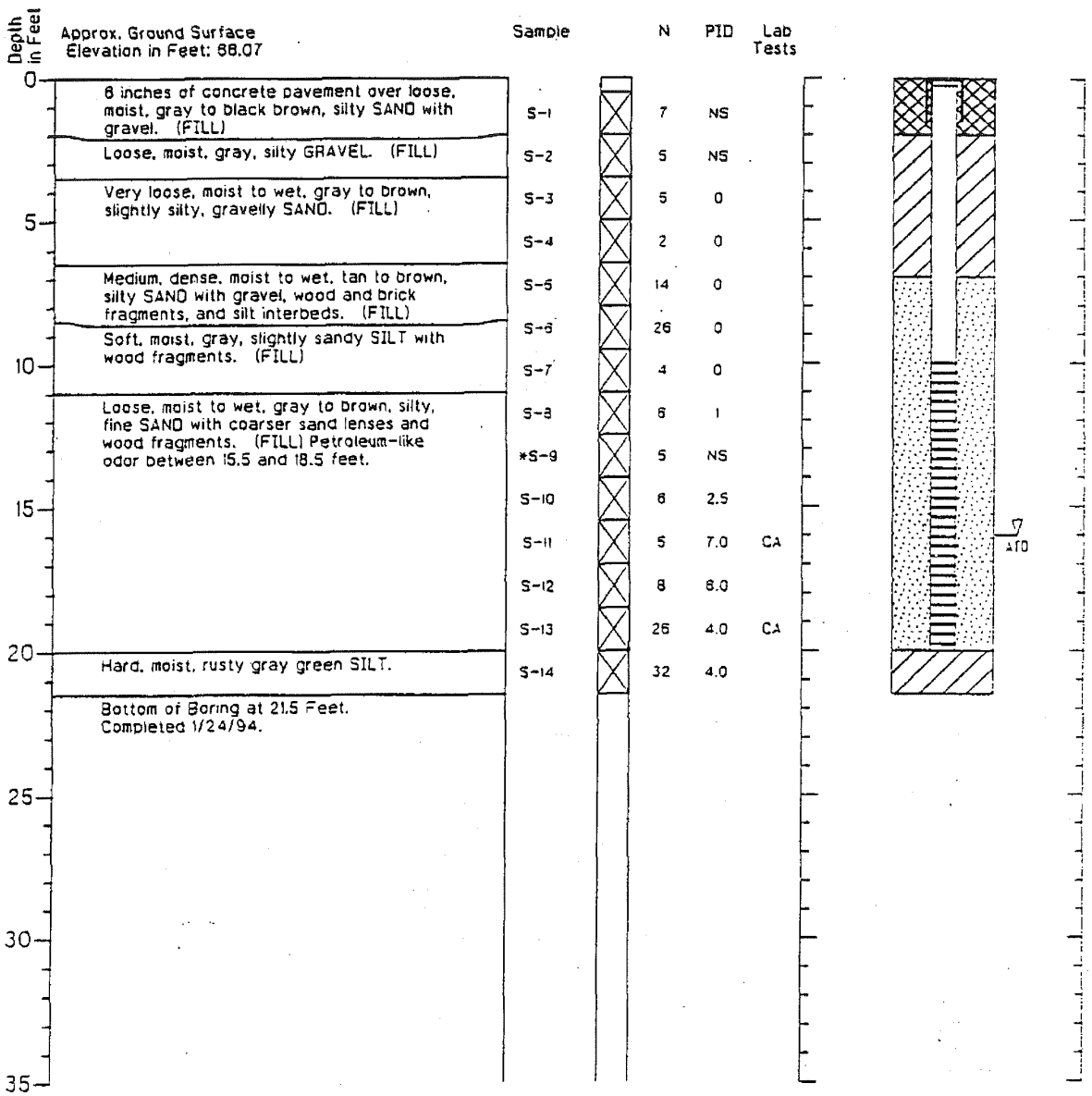
3866-02 12/93
7587-02 1/02
Figure A-7

Boring Log and Construction Data for Monitoring Well HC-5

Geologic Log

Monitoring Well Design

Casing Stickup in Feet: -0.25
Top of PVC in Feet 65.82

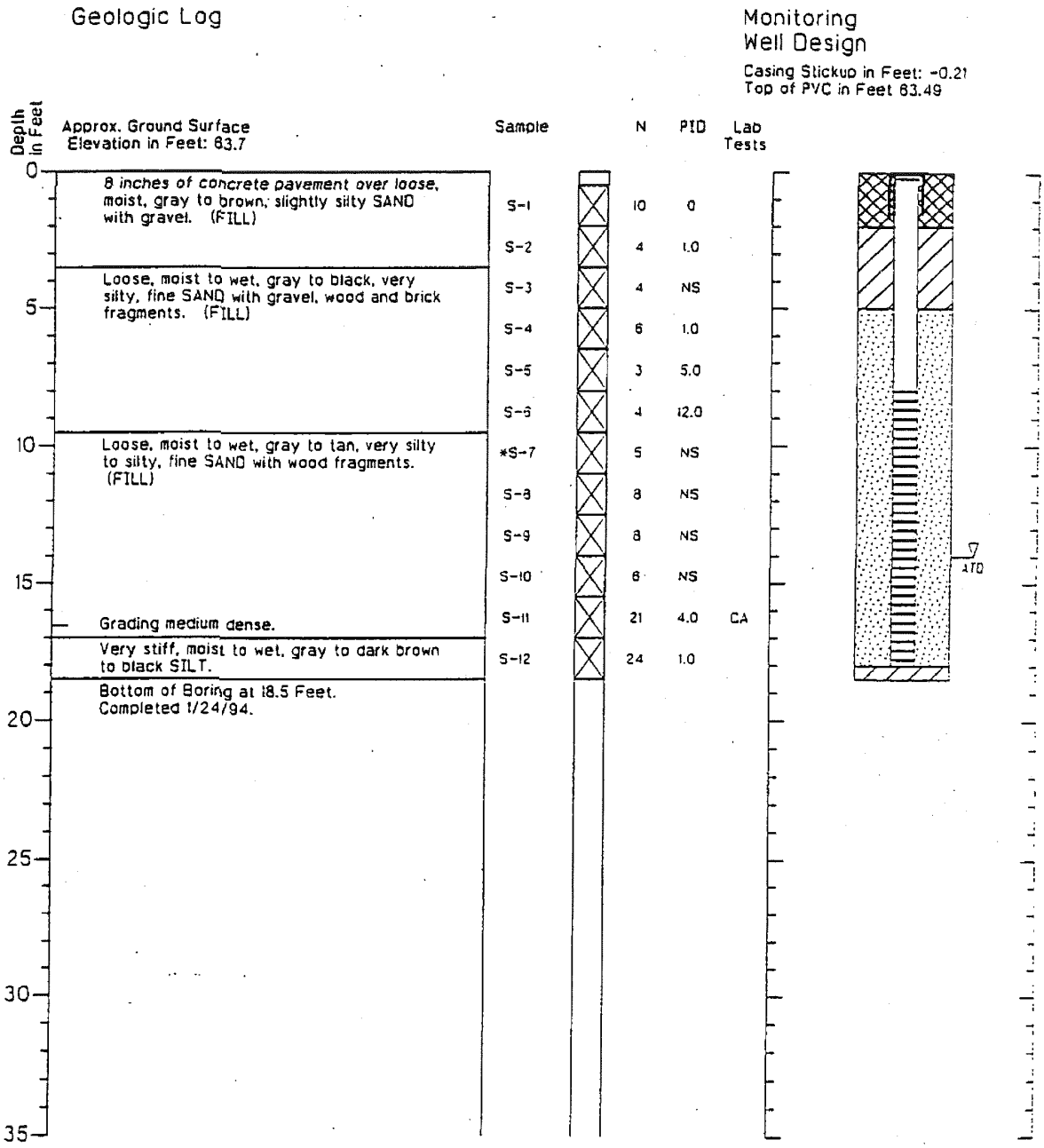


1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Ground water level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

HARTCROWSER

3866-02 1/94
7587-02 1/02
Figure A-11

Boring Log and Construction Data for Monitoring Well HC-6



1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Soil descriptions and stratum lines are interpretive and actual changes may be gradual.
3. Ground water level, if indicated, is at time of drilling (ATD) or for date specified. Level may vary with time.

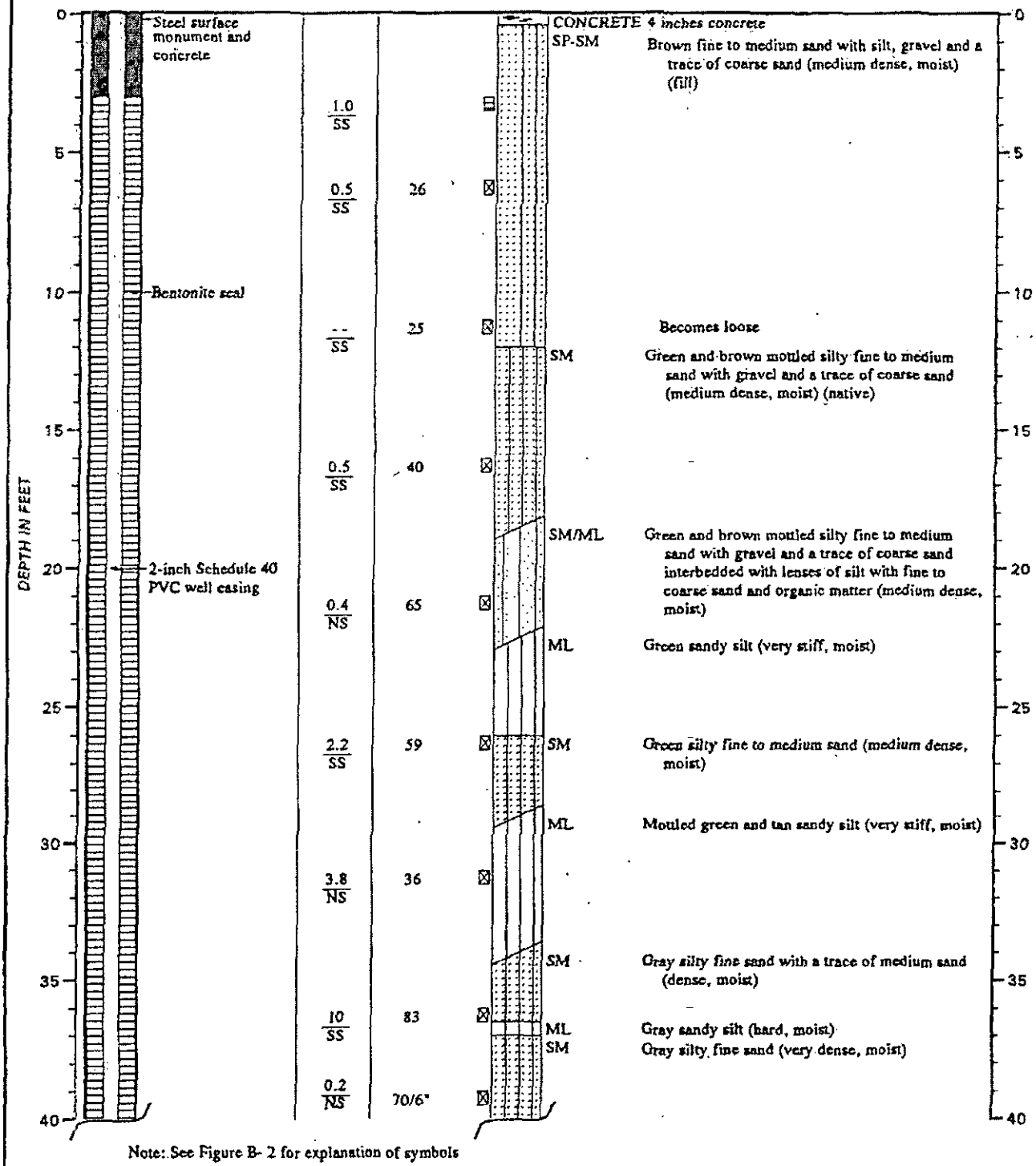
HARTCROWSER

3866-02 1/94
7587-02 1/02
Figure A-12

MONITORING WELL MW-5

WELL SCHEMATIC

Casing Elevation (ft.): 75.77
Casing Stickup (ft.): -0.25



Note: See Figure B- 2 for explanation of symbols

:SCW:CMS 4/17/98

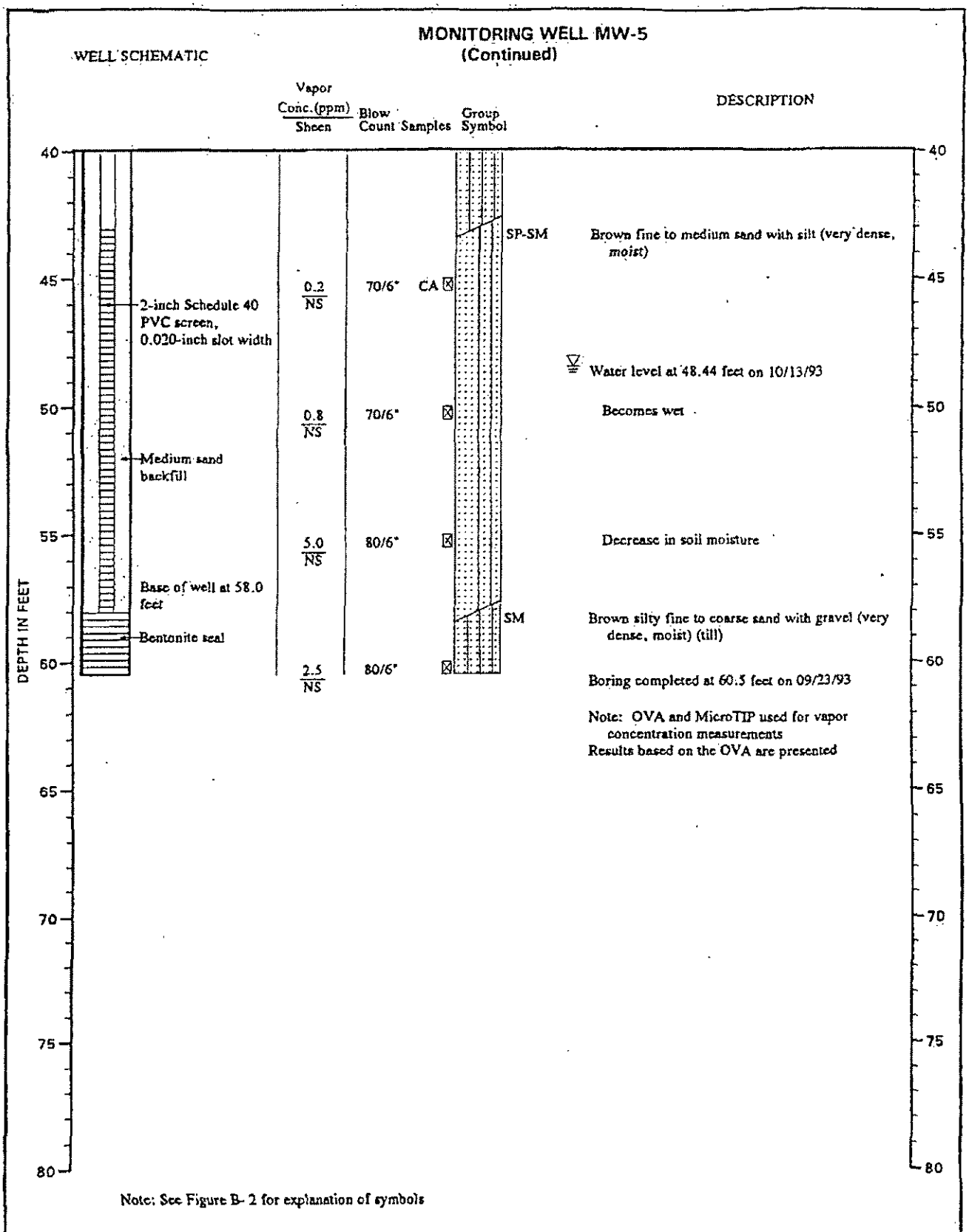
2720-002-R2B

Geo Engineers

LOG OF MONITORING WELL

FIGURE B-6

MONITORING WELL MW-5
(Continued)



Note: See Figure B- 2 for explanation of symbols

:SCW:CMS 4/17/98

2720-002-R2B

Geo Engineers

LOG OF MONITORING WELL

FIGURE B-6

SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS GRAPH	SYMBOLS LETTER	TYPICAL DESCRIPTIONS
COARSE GRAINED SOILS	GRAVEL AND GRAVELLY SOILS	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES
				GP	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES
	MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
				GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES
MORE THAN 50% RETAINED ON NO. 200 SIEVE	SAND AND SANDY SOILS	CLEAN SANDS (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS
				SP	POORLY-GRADED SANDS, GRAVELLY SAND
	MORE THAN 50% OF COARSE FRACTION PASSING NO. 4 SIEVE	SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)		SM	SILTY SANDS, SAND - SILT MIXTURES
				SC	CLAYEY SANDS, SAND - CLAY MIXTURES
FINE GRAINED SOILS	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS, ROCK FLOUR, CLAYEY SILTS WITH SLIGHT PLASTICITY
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
MORE THAN 50% PASSING NO. 200 SIEVE	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS SILTY SOILS
				CH	INORGANIC CLAYS OF HIGH PLASTICITY
				OH	ORGANIC CLAYS AND SILTS OF MEDIUM TO HIGH PLASTICITY
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

NOTE: Multiple symbols are used to indicate borderline or dual soil classifications

ADDITIONAL MATERIAL SYMBOLS

SYMBOLS GRAPH	SYMBOLS LETTER	TYPICAL DESCRIPTIONS
	AC	Asphalt Concrete
	CC	Cement Concrete
	CR	Crushed Rock/ Quarry Spalls
	TS	Topsoil/ Forest Duff/Sod

Groundwater Contact

Measured groundwater level in exploration, well, or piezometer

Measured free product in well or piezometer

Graphic Log Contact

Distinct contact between soil strata or geologic units

Approximate location of soil strata change within a geologic soil unit

Material Description Contact

Distinct contact between soil strata or geologic units

Approximate location of soil strata change within a geologic soil unit

Sampler Symbol Descriptions

2.4-inch I.D. split barrel

Standard Penetration Test (SPT)

Shelby tube

Piston

Direct-Push

Bulk or grab

Blowcount is recorded for driven samplers as the number of blows required to advance sampler 12 inches (or distance noted). See exploration log for hammer weight and drop.

A "P" indicates sampler pushed using the weight of the drill rig.

Laboratory / Field Tests

%F	Percent fines
AL	Atterberg limits
CA	Chemical analysis
CP	Laboratory compaction test
CS	Consolidation test
DS	Direct shear
HA	Hydrometer analysis
MC	Moisture content
MD	Moisture content and dry density
OC	Organic content
PM	Permeability or hydraulic conductivity
PI	Plasticity index
PP	Pocket penetrometer
PPM	Parts per million
SA	Sieve analysis
TX	Triaxial compression
UC	Unconfined compression
VS	Vane shear

Sheen Classification

NS	No Visible Sheen
SS	Slight Sheen
MS	Moderate Sheen
HS	Heavy Sheen
NT	Not Tested

NOTE: The reader must refer to the discussion in the report text and the logs of explorations for a proper understanding of subsurface conditions. Descriptions on the logs apply only at the specific exploration locations and at the time the explorations were made; they are not warranted to be representative of subsurface conditions at other locations or times.

KEY TO EXPLORATION LOGS

GeoEngineers

FIGURE A-1

Drilled Start 12/19/2013 End 12/19/2013	Total Depth (ft) 21	Logged By CEW Checked By MWS	Driller Boretec, Inc.	Drilling Method Hollow-Stem Auger
Surface Elevation (ft) Vertical Datum 69		Hammer Data Rope & Cathead 140 (lbs) / 30 (in) Drop		Drilling Equipment EC55 Track-Mounted Drill Rig
Easting (X) Northing (Y)		System Datum		Groundwater Date Measured / Depth to Water (ft) / Elevation (ft)
Notes:				

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	Blows/foot	Collected Sample: Sample Name / Testing	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0						CC	12-inches portland cement concrete			
							SM	Brown silty fine to medium sand with occasional gravel (loose to medium dense, moist) (fill)			
65		3	10					No sample taken at 2.5 feet, too little recovery	NS	<1	No odor
	5	12	13	1				Wood debris in sample	NS	<1	No odor
							SM	Brown silty fine to medium sand (medium dense, moist) (fill)			
		3	16					No sample taken at 7.5 feet, too little recovery	SS	<1	No odor
60							SM	Light brown silty fine sand (medium dense, moist)			
	10	16	16	2 CA					SS	<1	No odor
							SM	Brown silty fine sand with occasional gravel (medium dense, moist)			
		11	16					Wood fragments and organic matter in sample No sample taken at 12.5 feet, too little recovery			
55							SM	Brown silty fine to medium sand with gravel (dense to very dense, moist) (glacially consolidated soils)			
	15	11	34	3					NS	<1	No odor
		15	79/9"					Becomes till-like	NS	<1	No odor
50											
	20	11	79					No sample taken at 20 feet bgs			

Note: See Figure A-1 for explanation of symbols.

Log of Boring G-1

GeoEngineers

Project: 9th and Lenora Development
Project Location: Seattle, Washington
Project Number: 21138-001-00

Figure A-2
Sheet 1 of 1

Redmond: Date:1/23/14 Path:\\RED\PROJECTS\21\21138001\GINT\21138000100.GPJ DBTemplate/LibTemplate:GEOENGINEERS8.GDT/GEI8_ENVIRONMENTAL_STANDARD

Drilled Start 12/20/2013 End 12/20/2013	Total Depth (ft) 21.5	Logged By CEW Checked By MWS	Driller Boretec, Inc.	Drilling Method Hollow-Stem Auger
Surface Elevation (ft) Vertical Datum 69		Hammer Data Rope & Cathead 140 (lbs) / 30 (in) Drop		Drilling Equipment EC55 Track-Mounted Drill Rig
Easting (X) Northing (Y)		System Datum		Groundwater Date Measured / Depth to Water (ft) / Elevation (ft)
Notes:				

Elevation (feet)	Depth (feet)	Interval Recovered (in)	Blows/foot	Collected Sample Sample Name Testing	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0						CC	9½ inches portlant cement concrete			
							SM	Grayish brown silty fine to medium sand with gravel (medium dense, moist) (fill)			
65		15	13	1					NS	<1	No odor
	5	9.5	8	2 CA					NS	<1	No odor Wood debris in sample
							CL	Grayish brown lean clay (very stiff, moist) (recent deposits)			
60		14	17	3					NS	<1	No odor
	10	8	15	4					NS	<1	No odor Wood debris in sample
							SM	Grayish silty fine sand (medium dense, moist)			
55		9	21	5					NS	<1	No odor Wood debris and 5 inches of organic matter in sample
							ML	Grayish brown silt (very stiff, moist to wet)			
	15	14	22	6					NS	<1	No odor Perched groundwater encountered at approximately 15 feet
							SP	Brown and orange-brown silty fine sand (medium dense, moist)			
50		16	25	7					NS	<1	No odor
	20	16	39				SP	Light brown silty fine sand (dense, moist) (glacially consolidated soils) No sample taken at 20 feet bgs			

Note: See Figure A-1 for explanation of symbols.

Log of Boring G-2

GeoEngineers

Project: 9th and Lenora Development
Project Location: Seattle, Washington
Project Number: 21138-001-00

Figure A-3
Sheet 1 of 1

Redmond: Date:1/23/14 Path:\\RED\PROJECTS\21\21138001\GINT\21138001GPJ DBTemplate/LibTemplate:GEOENGINEERS8.GDT/GEI8_ENVIRONMENTAL_STANDARD

Drilled Start 12/20/2013 End 12/20/2013	Total Depth (ft) 20	Logged By CEW Checked By WLT	Driller Cascade Drilling LP	Drilling Method Continuous
Surface Elevation (ft) Vertical Datum Undetermined		Hammer Data		Drilling Equipment Geoprobe 7730DT
Easting (X) Northing (Y)		System Datum		Groundwater Date Measured / Depth to Water (ft) / Elevation (ft)
Notes:				

Elevation (feet)	Depth (feet)	Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name / Testing	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		38						CC	10 inches concrete			
									SM	Dark brown with light brown lenses silty fine to medium sand with occasional gravel (medium dense, moist)			
						1					NS	<1	No odor
	5		60			2					NS	<1	No odor
										Trace organics (wood) encountered at 7 feet			Perched groundwater encountered from 6.5 to 9 feet
						3					NS	<1	No odor
									ML	Dark gray/black silt with trace fine sand (medium dense, moist)			
	10		60			4			ML	Ligh gray silt with trace fine sand (medium dense, moist)	NS	<1	No odor
						5 CA					SS	<1	No odor
									SP-SM	Gray fine to medium sand with trace silt (medium dense, wet)			Perched groundwater encountered from 14 to 19 feet
									ML	Gray-brown silt with trace fine sand (medium dense, wet)			
	15		60			6					NS	<1	No odor
									SP-SM	Gray fine to medium sand with trace silt (medium dense, moist)			
						7			ML	Gray silt with trace fine sand (medium dense, moist)	NS	<1	No odor
									SP-SM	Orange-brown lenses of fine to medium sand (dense, moist)			
									ML	Gray silt with trace fine sand (medium dense, moist)			
						8			SP-SM		NS	<1	No odor
	20									Gray-light brown fine to medium sand with trace silt (loose, moist)			

Note: See Figure A-1 for explanation of symbols.

Log of Boring E-1

GeoEngineers

Project: 9th and Lenora Development
Project Location: Seattle, Washington
Project Number: 21138-001-00

Figure A-5
Sheet 1 of 1

Redmond: Date:1/23/14 Path:\\RED\PROJECTS\21\21138001\GINT\21138000100.GPJ DBTemplate/LibTemplate:GEOENGINEERS8.GDT/GEI8_ENVIRONMENTAL_STANDARD

Drilled Start	End	Total Depth (ft)	Logged By / Checked By	Driller	Drilling Method
12/20/2013	12/20/2013	20	CEW / WLT	Cascade Drilling LP	Continuous

Surface Elevation (ft) Vertical Datum	Hammer Data	Drilling Equipment
Undetermined		Geoprobe 7730DT

Easting (X) Northing (Y)	System Datum	Groundwater: Date Measured	Depth to Water (ft)	Elevation (ft)

Notes:

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name / Testing	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		35						CC	10 inches of concrete			
									SM	Dark brown silty fine to coarse sand with trace gravel (dense, moist) Bits of metal at approximately 1 foot Black lense from 1 to 2 feet			
						1 CA					NS	<1	No odor
	5		48			2					NS	<1	No odor
						3							
									ML	Dark gray/brown silt with trace fine sand (dense, moist)			
	10		55			4					NS	<1	No odor
										Light gray silt with trace fine sand (dense, moist) Native soil at approximately 12 feet			
						5			SP-SM	Light gray sand with occasional silt (dense, moist)	NS	<1	No odor
									ML	Light gray silt with trace fine sand (dense, moist)			
									SP-SM	Light gray sand with silt (dense, moist)			Overburden caused plug to jam in sampler
	15		52			6			ML	Light gray silt with trace fine sand (dense, moist)	NS	<1	No odor
						7					NS	<1	No odor
									SP-SM	Light brown with orange mottling fine sand with silt (dense, moist)			
	20					8					NS	<1	No odor

Note: See Figure A-1 for explanation of symbols.

Log of Boring E-2

GeoEngineers

Project: 9th and Lenora Development
Project Location: Seattle, Washington
Project Number: 21138-001-00

Figure A-4
Sheet 1 of 1

Redmond: Date:1/23/14 Path:\\RED\PROJECTS\21\21138001\GINT\21138000100.GPJ DBTemplate/LibTemplate:GEOENGINEERS8.GDT/GEI8_ENVIRONMENTAL_STANDARD

SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS GRAPH	SYMBOLS LETTER	TYPICAL DESCRIPTIONS
COARSE GRAINED SOILS	GRAVEL AND GRAVELLY SOILS	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES
				GP	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES
	MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
				GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES
MORE THAN 50% RETAINED ON NO. 200 SIEVE	SAND AND SANDY SOILS	CLEAN SANDS (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS
				SP	POORLY-GRADED SANDS, GRAVELLY SAND
	MORE THAN 50% OF COARSE FRACTION PASSING NO. 4 SIEVE	SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)		SM	SILTY SANDS, SAND - SILT MIXTURES
				SC	CLAYEY SANDS, SAND - CLAY MIXTURES
FINE GRAINED SOILS	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS, ROCK FLOUR, CLAYEY SILTS WITH SLIGHT PLASTICITY
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
MORE THAN 50% PASSING NO. 200 SIEVE	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS SILTY SOILS
				CH	INORGANIC CLAYS OF HIGH PLASTICITY
				OH	ORGANIC CLAYS AND SILTS OF MEDIUM TO HIGH PLASTICITY
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

NOTE: Multiple symbols are used to indicate borderline or dual soil classifications

ADDITIONAL MATERIAL SYMBOLS

SYMBOLS GRAPH	SYMBOLS LETTER	TYPICAL DESCRIPTIONS
	AC	Asphalt Concrete
	CC	Cement Concrete
	CR	Crushed Rock/ Quarry Spalls
	TS	Topsoil/ Forest Duff/Sod

Groundwater Contact

Measured groundwater level in exploration, well, or piezometer

Measured free product in well or piezometer

Graphic Log Contact

Distinct contact between soil strata or geologic units

Approximate location of soil strata change within a geologic soil unit

Material Description Contact

Distinct contact between soil strata or geologic units

Approximate location of soil strata change within a geologic soil unit

Sampler Symbol Descriptions

2.4-inch I.D. split barrel

Standard Penetration Test (SPT)

Shelby tube

Piston

Direct-Push

Bulk or grab

Blowcount is recorded for driven samplers as the number of blows required to advance sampler 12 inches (or distance noted). See exploration log for hammer weight and drop.

A "P" indicates sampler pushed using the weight of the drill rig.

Laboratory / Field Tests

%F	Percent fines
AL	Atterberg limits
CA	Chemical analysis
CP	Laboratory compaction test
CS	Consolidation test
DS	Direct shear
HA	Hydrometer analysis
MC	Moisture content
MD	Moisture content and dry density
OC	Organic content
PM	Permeability or hydraulic conductivity
PI	Plasticity index
PP	Pocket penetrometer
PPM	Parts per million
SA	Sieve analysis
TX	Triaxial compression
UC	Unconfined compression
VS	Vane shear

Sheen Classification

NS	No Visible Sheen
SS	Slight Sheen
MS	Moderate Sheen
HS	Heavy Sheen
NT	Not Tested

NOTE: The reader must refer to the discussion in the report text and the logs of explorations for a proper understanding of subsurface conditions. Descriptions on the logs apply only at the specific exploration locations and at the time the explorations were made; they are not warranted to be representative of subsurface conditions at other locations or times.

KEY TO EXPLORATION LOGS

GeoEngineers

FIGURE A-1

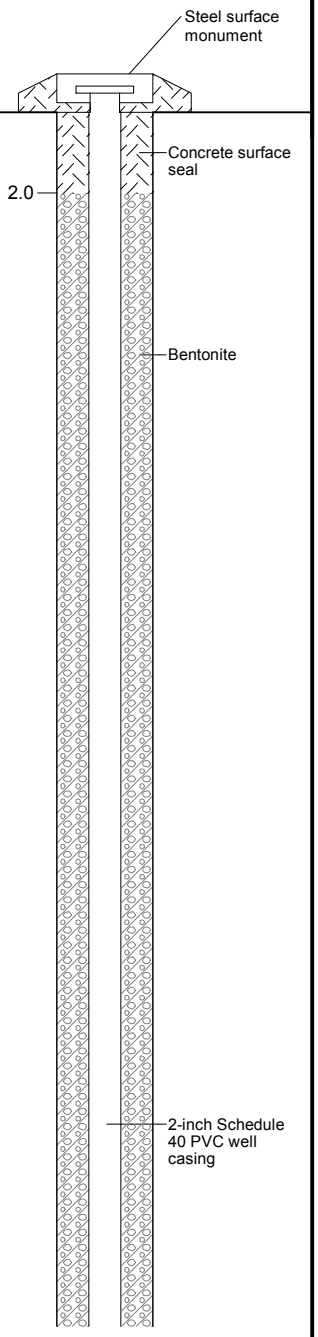
Drilled Start 12/19/2013	End 12/19/2013	Total Depth (ft) 80.5	Logged By CEW / Checked By MWS	Driller Boretec, Inc.	Drilling Method Hollow-Stem Auger

Hammer Data: Rope & Cathead, 140 (lbs) / 30 (in) Drop		Drilling Equipment: EC55 Track-Mounted Drill Rig	DOE Well I.D.: BHZ-904 A 2 (in) well was installed on 12/19/2013 to a depth of 80 (ft).
Surface Elevation (ft) Vertical Datum: 69.17		Top of Casing Elevation (ft): 68.87	Groundwater: Date Measured 12/27/2013; Depth to Water (ft) 53.3; Elevation (ft) 15.9
Easting (X) Northing (Y)		Horizontal Datum	

Notes:

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	Blows/foot	Collected Sample	Sample Name	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Moisture Content, %	Dry Density, (pcf)
	0							CC	12-inches portland cement concrete		
								SM	Brown silty fine to medium sand with occasional gravel (loose to medium dense, moist) (fill)		
65		3	10		1						
	5	12	13		2				Wood debris in sample		
								SM	Brown silty fine to medium sand (medium dense, moist) (recent deposits)		
		3	16		3						
60								SM	Light brown silty fine to medium sand (medium dense, moist)		
	10	16	16		4 %F				%F = 16	11	
								SM	Brown silty fine to medium sand with occasional gravel (medium dense, moist)		
		11	16		5 %F				Wood fragments and organic matter in sample %F = 14	12	
55								SM	Brown silty fine to medium sand with gravel (dense to very dense, moist) (glacially consolidated soils)		
	15	11	34		6						
		15	79/9"		7				Till-like		
50											
	20	11	79		8						
45											
	25	11	77/11"		9						
								SM	Brown silty fine to medium sand with gravel and occasional cobbles (very dense, moist) (till-like)		
40									Rough drilling		
	30										

WELL LOG



Note: See Figure A-1 for explanation of symbols.

Redmond: Date:7/1/14 Path:C:\USERS\KJANC\DESKTOP\21138000100.GPJ DBTemplate\LibTemplate\GEOENGINEERS8.GDT/GEI8_GEOTECH_WELL

Log of Boring G-1

GeoEngineers

Project: 9th and Lenora Development
Project Location: Seattle, Washington
Project Number: 21138-001-00

Figure A-2
Sheet 1 of 3

Elevation (feet)	Depth (feet)	Interval Recovered (in)	Blows/foot	Collected Sample	Sample Name	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Moisture Content, %	Dry Density, (pcf)	WELL LOG
	30	6	50/6"		10							
35	35	2	50/4"		11							
30								SM	Brown silty fine to coarse sand with gravel (very dense, moist) (weathered gravel clasts) Rough drilling			
	40	9	94/9"		12							
25	45	3	50/5"		13							
20	50	4	50/5"		14	▼						
15	55	14	90/8"		15				Friable particles			55.0
10								SM	Brown silty fine to coarse sand with occasional gravel (very dense, wet) %F = 21 Rough drilling	26		60.0 — Sand backfill
	60	2	50/2"		16 %F							
5	65	5	50/5"		17							2-inch Schedule 40 PVC screen, 0.010-inch slot width

Note: See Figure A-1 for explanation of symbols.

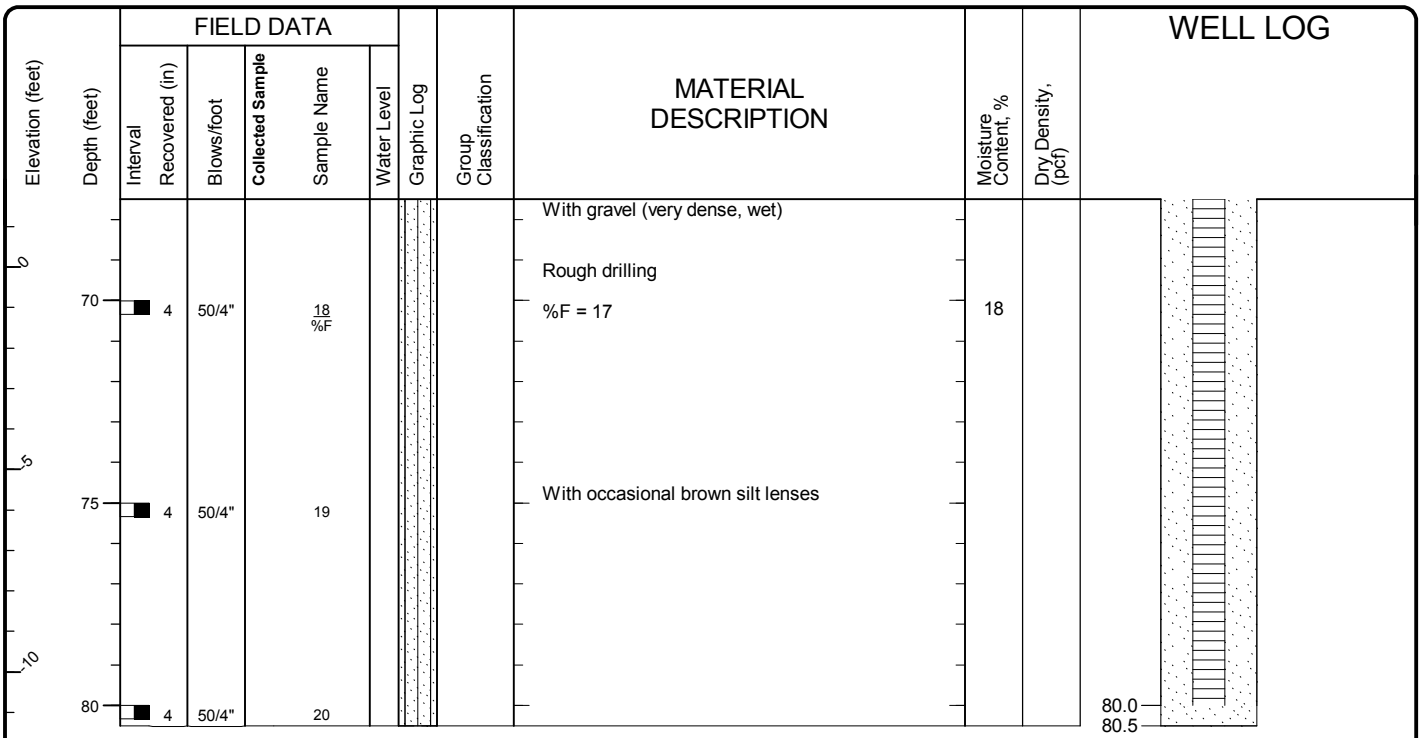
Log of Boring G-1 (continued)

GeoEngineers

Project: 9th and Lenora Development
Project Location: Seattle, Washington
Project Number: 21138-001-00

Figure A-2
Sheet 2 of 3

Redmond: Date:7/1/14 Path:C:\USERS\KJANC\DESKTOP\21138001OO.GPJ DBTemplate\LibTemplate\GEOENGINEERS8.GDT/GEI8_GEOTECH_WELL



Note: See Figure A-1 for explanation of symbols.

Log of Boring G-1 (continued)

GeoEngineers

Project:	9th and Lenora Development
Project Location:	Seattle, Washington
Project Number:	21138-001-00

Figure A-2
Sheet 3 of 3

Redmond: Date:7/1/14 Path:C:\USERS\KJANC\DESKTOP\21138000100.GPJ DBTemplate\LibTemplate\GEOENGINEERS8.GDT/GEI8_GEOTECH_WELL

Drilled Start 12/20/2013 End 12/20/2013	Total Depth (ft) 86.25	Logged By CEW Checked By MWS	Driller Boretec, Inc.	Drilling Method Hollow-Stem Auger
Surface Elevation (ft) Vertical Datum 69.17		Hammer Data Rope & Cathead 140 (lbs) / 30 (in) Drop		Drilling Equipment EC55 Track-Mounted Drill Rig
Easting (X) Northing (Y)		System Datum		Groundwater Date Measured / Depth to Water (ft) / Elevation (ft)
Notes:				

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	Blows/foot	Collected Sample: Sample Name Testing	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Moisture Content, %	Dry Density, (pcf)	REMARKS
	0						CC	9½ inches portlant cement concrete			
							SM	Grayish brown silty fine to medium sand with gravel (medium dense, moist) (fill)			
65		15	13	1							
	5	9.5	8	2							Wood debris in sample
							CL	Grayish brown lean clay (very stiff, moist) (recent deposits)			
		14	17	3							
60	10	8	15	4							Wood debris in sample
							SM	Grayish brown silty fine sand (medium dense, moist)			
		9	21	5							Wood debris and 3 inches of organic matter in sample
55							ML	Grayish brown silt (very stiff, moist to wet)			
	15	14	22	6							
							SP	Brown and orange-brown silty fine sand (medium dense, moist)			
		16	25	7							
50							SM	Light brown silty fine to medium sand (dense, moist) (glacially consolidated soils)	9		%F = 37
	20	16	39	8 %F							
							SP-SM	Light brown fine to medium sand with silt (dense to very dense, moist)	4		%F = 9
45		18	44	9 %F							
	25	14	50/4"	10 %F					3		%F = 12 Rough drilling
							SM	Brown silty fine to medium sand with gravel and occasional cobbles (very dense, moist) (till-like)			
40	30										

Note: See Figure A-1 for explanation of symbols.

Redmond: Date:7/1/14 Path:C:\USERS\KJANC\DESKTOP\21138000100.GPJ DBTemplate\LibTemplate\GEOENGINEERS8.GDT/GEI8_GEOTECH_STANDARD

Log of Boring G-2

GeoEngineers

Project: 9th and Lenora Development
Project Location: Seattle, Washington
Project Number: 21138-001-00

Figure A-3
Sheet 1 of 3

Elevation (feet)	Depth (feet)	Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name / Testing	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Moisture Content, %	Dry Density, (pcf)	REMARKS
	30		5	50/5"		11 %F				Grades to fine to coarse	6		%F = 26 Rough drilling
35													
	35		11	79/11"		12 %F				Grades to fine to medium	7		%F = 24
30													
	40		6	50/6"		13							
25													
	45		2	50/2"		14							
									SM	Brown silty fine to coarse sand with gravel (very dense, moist) (weathered gravel clasts)			
20													
	50		5	50/5"		15							Rough drilling
15													
	55		3	50/3"		16							
10													
	60		12	50/6"		17							
5													
	65		6	50/6"		18							

Note: See Figure A-1 for explanation of symbols.

Redmond: Date:7/1/14 Path:C:\USERS\KJANC\DESKTOP\21138000100.GPJ DBTemplate\LibTemplate\GEOENGINEERS8.GDT/GEI8_GEOTECH_STANDARD

Log of Boring G-2 (continued)

GeoEngineers

Project: 9th and Lenora Development
Project Location: Seattle, Washington
Project Number: 21138-001-00

Elevation (feet)	Depth (feet)	FIELD DATA: Interval Recovered (in)	FIELD DATA: Blows/foot	FIELD DATA: Collected Sample / Sample Name Testing	FIELD DATA: Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Moisture Content, %	Dry Density, (pcf)	REMARKS
0	70	11	92/11"	19				Grades to moist to wet			
-5	75	12	90	20			SM	Brown silty fine to coarse sand with gravel (very dense, wet) (till-like)			
-10	80	18	90	21							
-15	85		94/9"	22							

Note: See Figure A-1 for explanation of symbols.

Log of Boring G-2 (continued)

GeoEngineers

Project: 9th and Lenora Development
Project Location: Seattle, Washington
Project Number: 21138-001-00

Figure A-3
Sheet 3 of 3

Redmond: Date:7/1/14 Path:C:\USERS\KJANC\DESKTOP\21138000100.GPJ DBTemplate\LibTemplate\GEOENGINEERS8.GDT/GEI8_GEOTECH_STANDARD

SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS GRAPH	SYMBOLS LETTER	TYPICAL DESCRIPTIONS
COARSE GRAINED SOILS	GRAVEL AND GRAVELLY SOILS	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES
				GP	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES
	MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
				GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES
MORE THAN 50% RETAINED ON NO. 200 SIEVE	SAND AND SANDY SOILS	CLEAN SANDS (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS
				SP	POORLY-GRADED SANDS, GRAVELLY SAND
	MORE THAN 50% OF COARSE FRACTION PASSING NO. 4 SIEVE	SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)		SM	SILTY SANDS, SAND - SILT MIXTURES
				SC	CLAYEY SANDS, SAND - CLAY MIXTURES
FINE GRAINED SOILS	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS, ROCK FLOUR, CLAYEY SILTS WITH SLIGHT PLASTICITY
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
MORE THAN 50% PASSING NO. 200 SIEVE	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS SILTY SOILS
				CH	INORGANIC CLAYS OF HIGH PLASTICITY
				OH	ORGANIC CLAYS AND SILTS OF MEDIUM TO HIGH PLASTICITY
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

NOTE: Multiple symbols are used to indicate borderline or dual soil classifications

ADDITIONAL MATERIAL SYMBOLS

SYMBOLS GRAPH	SYMBOLS LETTER	TYPICAL DESCRIPTIONS
	AC	Asphalt Concrete
	CC	Cement Concrete
	CR	Crushed Rock/ Quarry Spalls
	TS	Topsoil/ Forest Duff/Sod

Groundwater Contact

Measured groundwater level in exploration, well, or piezometer

Measured free product in well or piezometer

Graphic Log Contact

Distinct contact between soil strata or geologic units

Approximate location of soil strata change within a geologic soil unit

Material Description Contact

Distinct contact between soil strata or geologic units

Approximate location of soil strata change within a geologic soil unit

Sampler Symbol Descriptions

2.4-inch I.D. split barrel

Standard Penetration Test (SPT)

Shelby tube

Piston

Direct-Push

Bulk or grab

Blowcount is recorded for driven samplers as the number of blows required to advance sampler 12 inches (or distance noted). See exploration log for hammer weight and drop.

A "P" indicates sampler pushed using the weight of the drill rig.

Laboratory / Field Tests

%F	Percent fines
AL	Atterberg limits
CA	Chemical analysis
CP	Laboratory compaction test
CS	Consolidation test
DS	Direct shear
HA	Hydrometer analysis
MC	Moisture content
MD	Moisture content and dry density
OC	Organic content
PM	Permeability or hydraulic conductivity
PI	Plasticity index
PP	Pocket penetrometer
PPM	Parts per million
SA	Sieve analysis
TX	Triaxial compression
UC	Unconfined compression
VS	Vane shear

Sheen Classification

NS	No Visible Sheen
SS	Slight Sheen
MS	Moderate Sheen
HS	Heavy Sheen
NT	Not Tested

NOTE: The reader must refer to the discussion in the report text and the logs of explorations for a proper understanding of subsurface conditions. Descriptions on the logs apply only at the specific exploration locations and at the time the explorations were made; they are not warranted to be representative of subsurface conditions at other locations or times.

KEY TO EXPLORATION LOGS

GeoEngineers

FIGURE A-1

Drilled Start 9/2/2014 End 9/2/2014	Total Depth (ft) 35	Logged By FK Checked By DAC	Driller Cascade Drilling, LP	Drilling Method Continuous	
Surface Elevation (ft) 69 Vertical Datum NAVD 88		Hammer Data		Drilling Equipment GeoProbe 6600	
Easting (X) Northing (Y)		System Datum		Groundwater Date Measured / Depth to Water (ft) / Elevation (ft)	
Notes:				Not encountered	

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name / Testing	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		48						CC	4-inches concrete			
									SM	Brown silty fine to medium sand with occasional gravel (loose, moist) (fill)			
						1					SS	<1	
65									SM	Dark brown silty fine to medium sand with wood chips and organics (loose, moist)			
						2 CA					MS	<1	Creosote odor
	5		60						SM	Brown-gray silty fine to medium sand with occasional gravel (loose, moist)			
						3					SS	<1	
									ML	Gray sandy silt (medium stiff, moist)			
60						4 CA					SS	<1	
	10		60			5					NS	<1	
						6					NS	<1	
55						7 CA			ML	Gray-brown sandy silt (medium stiff, moist)	NS	<1	
	15		52			8			SP-SM	Gray sand with silt (medium dense, moist)	NS	<1	
50													
	20		56			9				Grades to brown	NS	<1	
											NS	<1	
45													
	25		60								NS	<1	
40													
	30		60										
											NS	<1	
35	35												

Note: See Figure A-1 for explanation of symbols.

Log of Boring DP-1

GeoEngineers

Project: GID 9th and Lenora Development
Project Location: Seattle, Washington
Project Number: 21138-001-01

Figure A-2
Sheet 1 of 1

Seattle: Date:9/11/14 Path:\\SEA\PROJECTS\21211380001\GINT\21138001.GPJ DBTemplate/LibTemplate:GEOENGINEERS8.GDT/GEI8_ENVIRONMENTAL_STANDARD

Drilled	Start	End	Total Depth (ft)	Logged By	Driller	Drilling Method
	9/2/2014	9/2/2014	20	FK Checked By DAC	Cascade Drilling, LP	Continuous

Surface Elevation (ft) Vertical Datum	Hammer Data	Drilling Equipment
69 NAVD 88		GeoProbe 6600

Easting (X) Northing (Y)	System Datum	Groundwater Date Measured	Depth to Water (ft)	Elevation (ft)
			Not encountered	

Notes:

Elevation (feet)	Depth (feet)	Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0								CC	4-inches concrete			
			48						SM	Brown-gray silty fine to medium sand with occasional gravel, wood, organics, and brick debris			
						1					SS	<1	
65						2 CA					SS	<1	Petroleum odor
	5		60						ML	Gray silt (stiff, moist)			
						3					SS	<1	Petroleum odor
60						4 CA					MS	<1	Petroleum odor
	10		48						SM	Gray silty fine to medium sand (medium dense, moist)			
						5					MS	<1	Petroleum odor
55						6 CA					NS	<1	
	15		36						SM	Gray-brown silty fine to medium sand (medium dense, moist)			
						7					NS	<1	
50													
	20					8					NS	<1	

Note: See Figure A-1 for explanation of symbols.

Log of Boring DP-2

GeoEngineers

Project: GID 9th and Lenora Development
Project Location: Seattle, Washington
Project Number: 21138-001-01

Figure A-3
Sheet 1 of 1

Seattle: Date:9/11/14 Path:\\SEA\PROJECTS\21211380001\GINT\21138001.GPJ DBTemplate/LibTemplate:GEOENGINEERS8.GDT/GEI8_ENVIRONMENTAL_STANDARD

Drilled: Start 9/2/2014 End 9/2/2014	Total Depth (ft): 30	Logged By: FK Checked By: DAC	Driller: Cascade Drilling, LP	Drilling Method: Continuous	
Surface Elevation (ft): 85 Vertical Datum: NAVD 88	Hammer Data:	Drilling Equipment: GeoProbe 6600			
Easting (X): Northing (Y):	System Datum:	Groundwater: Date Measured / Depth to Water (ft) / Elevation (ft)			
Notes:		See remarks			

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name / Testing	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	0		0						AC	2-inches asphalt concrete			
									CC	4-inches concrete			
										No recovery			
80	5		0										
75	10		46			1			SM	Gray-brown silty fine to medium sand (loose, moist)	NS	<1	
						2							
70	15		56										
						3			SM	Gray silty fine to medium sand with occasional gravel, wood chips and concrete debris (medium dense, moist)	NS	<1	
65	20		52			4 CA			SM	Gray silty fine to medium sand with occasional gravel (dense, moist)	NS	<1	
										Becomes wet	NS	<1	Perched groundwater observed at 22 feet
60	25		58			5 CA				Becomes moist	NS	<1	
						6 CA					NS	<1	
55	30					7 CA					NS	<1	

Note: See Figure A-1 for explanation of symbols.

Log of Boring DP-3

GeoEngineers

Project: GID 9th and Lenora Development
Project Location: Seattle, Washington
Project Number: 21138-001-01

Figure A-4
Sheet 1 of 1

Seattle: Date:9/11/14 Path:\\SEA\PROJECTS\21211380001\GINT\21138001010.GPJ DBTemplate/LibTemplate:GEOENGINEERS8.GDT/GEI8_ENVIRONMENTAL_STANDARD

Drilled	Start 9/2/2014	End 9/2/2014	Total Depth (ft) 30	Logged By FK / Checked By DAC	Driller Cascade Drilling, LP	Drilling Method Continuous
Surface Elevation (ft) 86 / Vertical Datum NAVD 88			Hammer Data		Drilling Equipment GeoProbe 6600	
Easting (X) / Northing (Y)			System Datum		Groundwater: Date Measured / Depth to Water (ft) / Elevation (ft)	
Notes:					See remarks	

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name / Testing	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
85	0		44			1			AC	2-inches asphalt concrete			
									CC	4-inches concrete			
									SM	Brown silty fine to medium sand (loose, moist) (fill)	NS	<1	
						2 CA					NS	<1	
80	5		26							No recovery			
						3			SM	Gray-brown silty fine to medium sand with occasional gravel (medium dense, moist)	NS	<1	
75	10		40			4					NS	<1	
70	15		52			5					NS	<1	
65	20		56			6 CA					NS	<1	
						7				Trace wood chips	NS	<1	Perched groundwater observed at 23 feet
60	25		58			8 CA			SM	Gray silt with fine to medium sand, occasional gravel and oranics (dense, wet)	NS	<1	
						9 CA				Grades to moist	NS	<1	
	30					10					NS	<1	

Note: See Figure A-1 for explanation of symbols.

Log of Boring DP-4

GeoEngineers

Project: GID 9th and Lenora Development
Project Location: Seattle, Washington
Project Number: 21138-001-01

Figure A-5
Sheet 1 of 1

Seattle: Date:9/11/14 Path:\\SEA\PROJECTS\21211380001\GINT\21138001.GPJ DBTemplate/LibTemplate:GEOENGINEERS8.GDT/GEI8_ENVIRONMENTAL_STANDARD

Drilled	Start	End	Total Depth (ft)	Logged By	Driller	Drilling Method
	9/2/2014	9/2/2014	30	FK Checked By DAC	Cascade Drilling, LP	Continuous

Surface Elevation (ft) Vertical Datum	Hammer Data	Drilling Equipment
86 NAVD 88		GeoProbe 6600

Easting (X) Northing (Y)	System Datum	Groundwater Date Measured / Depth to Water (ft) / Elevation (ft)
		See remarks

Notes:

Elevation (feet)	Depth (feet)	FIELD DATA: Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name / Testing	Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
85	0								AC	2-inches asphalt concrete			
									CC	4-inches concrete			
									SM	Brown silty fine to medium sand (loose, moist) (fill)			
			20			1 CA					NS	<1	
80	5		42							No recovery			
						2			SM	Brown silty fine to medium sand with occasional gravel (very loose, moist)	NS	<1	
75	10		23			3					NS	<1	
70	15		48			4					NS	<1	
65	20		56			5					NS	<1	
						6 CA				Grades to loose with wood chips	NS	<1	
						7 CA			SM	Gray silty fine to medium sand with organics (loose, wet)	NS	<1	Perched groundwater observed at 24 feet
60	25		60						ML	Gray silt with fine to medium sand with occasional gravel (dense, moist)			
						8 CA					NS	<1	
	30					9					NS	<1	

Note: See Figure A-1 for explanation of symbols.

Log of Boring DP-5

GeoEngineers

Project: GID 9th and Lenora Development
Project Location: Seattle, Washington
Project Number: 21138-001-01

Figure A-6
Sheet 1 of 1

Seattle: Date:9/11/14 Path:\\SEA\PROJECTS\21211380001\GINT\21138001.GPJ DBTemplate/LibTemplate:GEOENGINEERS8.GDT/GEI8_ENVIRONMENTAL_STANDARD

APPENDIX C
Chemical Analytical Data Program

APPENDIX C
CHEMICAL ANALYTICAL DATA PROGRAM

Analytical Methods

Chain-of-custody procedures were followed during the transport of the field samples to the analytical laboratory. The samples were held in cold storage pending extraction and/or analysis. The analytical results, analytical methods reference and laboratory quality control records are included in this appendix. The analytical results are also 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 validity of 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.

Analytical Data Review Summary

No 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.

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

April 29, 2015

Fasih Khan
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03, T300
Laboratory Reference No. 1504-253

Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on April 28, 2015.

Please note that this is a *revised* report, and replaces the original due to revisions of the sample identifications.

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,

David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: April 29, 2015
Samples Submitted: April 28, 2015
Laboratory Reference: 1504-253
Project: 21138-001-03, T300

Case Narrative

Samples were collected on April 28, 2015 and received by the laboratory on April 28, 2015. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that 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 preserved with either Methanol or Sodium Bisulfate.

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.

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: April 29, 2015
Samples Submitted: April 28, 2015
Laboratory Reference: 1504-253
Project: 21138-001-03, T300

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
UTL9-S-5.0	04-253-02	Soil	4-28-15	4-28-15	
UTL9-N-5.0	04-253-04	Soil	4-28-15	4-28-15	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: April 29, 2015
Samples Submitted: April 28, 2015
Laboratory Reference: 1504-253
Project: 21138-001-03, T300

NWTPH-Gx/BTEX

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UTL9-S-5.0**					
Laboratory ID:	04-253-02					
Benzene	**ND**	0.020	EPA 8021B	4-28-15	4-28-15	
Toluene	**ND**	0.064	EPA 8021B	4-28-15	4-28-15	
Ethyl Benzene	**ND**	0.064	EPA 8021B	4-28-15	4-28-15	
m,p-Xylene	**ND**	0.064	EPA 8021B	4-28-15	4-28-15	
o-Xylene	**ND**	0.064	EPA 8021B	4-28-15	4-28-15	
Gasoline	**ND**	6.4	NWTPH-Gx	4-28-15	4-28-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*121*	*68-123*				
Client ID:	**UTL9-N-5.0**					
Laboratory ID:	04-253-04					
Benzene	**ND**	0.020	EPA 8021B	4-28-15	4-28-15	
Toluene	**ND**	0.055	EPA 8021B	4-28-15	4-28-15	
Ethyl Benzene	**ND**	0.055	EPA 8021B	4-28-15	4-28-15	
m,p-Xylene	**ND**	0.055	EPA 8021B	4-28-15	4-28-15	
o-Xylene	**ND**	0.055	EPA 8021B	4-28-15	4-28-15	
Gasoline	**ND**	5.5	NWTPH-Gx	4-28-15	4-28-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*121*	*68-123*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: April 29, 2015
Samples Submitted: April 28, 2015
Laboratory Reference: 1504-253
Project: 21138-001-03, T300

NWTPH-Gx/BTEX
QUALITY CONTROL

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0428S1					
Benzene	**ND**	0.020	EPA 8021B	4-28-15	4-28-15	
Toluene	**ND**	0.050	EPA 8021B	4-28-15	4-28-15	
Ethyl Benzene	**ND**	0.050	EPA 8021B	4-28-15	4-28-15	
m,p-Xylene	**ND**	0.050	EPA 8021B	4-28-15	4-28-15	
o-Xylene	**ND**	0.050	EPA 8021B	4-28-15	4-28-15	
Gasoline	**ND**	5.0	NWTPH-Gx	4-28-15	4-28-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*87*	*68-123*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	04-253-02										
	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						*121*	*121*	*68-123*			
SPIKE BLANKS											
Laboratory ID:	SB0428S1										
	SB	SBD	SB	SBD		SB	SBD				
Benzene	**0.917**	**0.957**	1.00	1.00		**92**	**96**	75-117	4	13	
Toluene	**0.934**	**0.971**	1.00	1.00		**93**	**97**	78-118	4	12	
Ethyl Benzene	**0.934**	**0.970**	1.00	1.00		**93**	**97**	78-118	4	12	
m,p-Xylene	**0.955**	**0.983**	1.00	1.00		**96**	**98**	78-121	3	13	
o-Xylene	**0.946**	**0.982**	1.00	1.00		**95**	**98**	77-119	4	13	
Surrogate:											
Fluorobenzene						*88*	*90*	*68-123*			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: April 29, 2015
Samples Submitted: April 28, 2015
Laboratory Reference: 1504-253
Project: 21138-001-03, T300

% MOISTURE

Date Analyzed: 4-28-15

Client ID	Lab ID	% Moisture
UTL9-S-5.0	04-253-02	13
UTL9-N-5.0	04-253-04	14

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

OnSite Environmental Inc.

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-napthalene) 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

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: GEOENGINEERS
Project Number: 21138-001-03, T300
Project Name: 9th & LENORA PROJECT
Project Manager: FASIH KHAN
Sampled by: FASIH KHAN

Turnaround Request (in working days)
(Check One)
☒ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☐ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Laboratory Number: 04-253

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	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		HOLD				% Moisture
1	UTL9-W-5.0 (W DS 5.1)	4/28/15	1330	S	2																		⊗				
2	UTL9-S-5.0	↓	1410	↓	2		⊗																				X
3	UTL9-E-5.0		1420		2		·																⊗				
4	UTL9-N-5.0 (N DS 5.0)		1400		2		⊗																				X

	Signature	Company	Date	Time	Comments/Special Instructions
Relinquished		GEI	4/28/15	1545	
Received		COE	4/28/15	1545	
Relinquished					
Received					
Relinquished					
Received					
Reviewed/Date		Reviewed/Date			Chromatograms with final report ☐

Data Package: Standard ☐ Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ _____

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

April 30, 2015

Fasih Khan
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03
Laboratory Reference No. 1504-270

Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on April 29, 2015.

Please note that this is a *revised* report, and replaces the original due to revisions of the sample identifications.

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,

David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: April 30, 2015
Samples Submitted: April 29, 2015
Laboratory Reference: 1504-270
Project: 21138-001-03

Case Narrative

Samples were collected on April 29, 2015 and received by the laboratory on April 29, 2015. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that 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 preserved with either Methanol or Sodium Bisulfate.

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.

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: April 30, 2015
Samples Submitted: April 29, 2015
Laboratory Reference: 1504-270
Project: 21138-001-03

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
UTL9-S-15.0	04-270-01	Soil	4-29-15	4-29-15	
UTL9-S-20.0	04-270-02	Soil	4-29-15	4-29-15	
UTL9-S-23.0	04-270-03	Soil	4-29-15	4-29-15	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: April 30, 2015
Samples Submitted: April 29, 2015
Laboratory Reference: 1504-270
Project: 21138-001-03

NWTPH-Gx/BTEX

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UTL9-S-15.0**					
Laboratory ID:	04-270-01					
Benzene	**0.022**	0.020	EPA 8021B	4-29-15	4-29-15	
Toluene	**ND**	0.049	EPA 8021B	4-29-15	4-29-15	
Ethyl Benzene	**ND**	0.049	EPA 8021B	4-29-15	4-29-15	
m,p-Xylene	**0.057**	0.049	EPA 8021B	4-29-15	4-29-15	
o-Xylene	**ND**	0.049	EPA 8021B	4-29-15	4-29-15	
Gasoline	**ND**	4.9	NWTPH-Gx	4-29-15	4-29-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*119*	*68-123*				
Client ID:	**UTL9-S-20.0**					
Laboratory ID:	04-270-02					
Benzene	**0.029**	0.020	EPA 8021B	4-29-15	4-29-15	
Toluene	**ND**	0.050	EPA 8021B	4-29-15	4-29-15	
Ethyl Benzene	**ND**	0.050	EPA 8021B	4-29-15	4-29-15	
m,p-Xylene	**0.084**	0.050	EPA 8021B	4-29-15	4-29-15	
o-Xylene	**0.080**	0.050	EPA 8021B	4-29-15	4-29-15	
Gasoline	**ND**	5.0	NWTPH-Gx	4-29-15	4-29-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*121*	*68-123*				
Client ID:	**UTL9-S-23.0**					
Laboratory ID:	04-270-03					
Benzene	**ND**	0.020	EPA 8021B	4-29-15	4-29-15	
Toluene	**ND**	0.053	EPA 8021B	4-29-15	4-29-15	
Ethyl Benzene	**ND**	0.053	EPA 8021B	4-29-15	4-29-15	
m,p-Xylene	**ND**	0.053	EPA 8021B	4-29-15	4-29-15	
o-Xylene	**ND**	0.053	EPA 8021B	4-29-15	4-29-15	
Gasoline	**ND**	5.3	NWTPH-Gx	4-29-15	4-29-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*116*	*68-123*				

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Date of Report: April 30, 2015
Samples Submitted: April 29, 2015
Laboratory Reference: 1504-270
Project: 21138-001-03

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UTL9-S-15.0**					
Laboratory ID:	04-270-01					
Diesel Range Organics	**ND**	29	NWTPH-Dx	4-29-15	4-29-15	
Lube Oil Range Organics	**ND**	57	NWTPH-Dx	4-29-15	4-29-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*87*	*50-150*				
Client ID:	**UTL9-S-23.0**					
Laboratory ID:	04-270-03					
Diesel Range Organics	**ND**	28	NWTPH-Dx	4-29-15	4-29-15	
Lube Oil Range Organics	**ND**	56	NWTPH-Dx	4-29-15	4-29-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*90*	*50-150*				

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Date of Report: April 30, 2015
Samples Submitted: April 29, 2015
Laboratory Reference: 1504-270
Project: 21138-001-03

NWTPH-Gx/BTEX
QUALITY CONTROL

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0429S1					
Benzene	**ND**	0.020	EPA 8021B	4-29-15	4-29-15	
Toluene	**ND**	0.050	EPA 8021B	4-29-15	4-29-15	
Ethyl Benzene	**ND**	0.050	EPA 8021B	4-29-15	4-29-15	
m,p-Xylene	**ND**	0.050	EPA 8021B	4-29-15	4-29-15	
o-Xylene	**ND**	0.050	EPA 8021B	4-29-15	4-29-15	
Gasoline	**ND**	5.0	NWTPH-Gx	4-29-15	4-29-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*88*	*68-123*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	04-254-01										
	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						*93*	*93*	*68-123*			
MATRIX SPIKES											
Laboratory ID:	04-254-12										
	MS	MSD	MS	MSD		MS	MSD				
Benzene	**0.848**	**0.950**	1.00	1.00	ND	**85**	**95**	71-122	11	21	
Toluene	**0.870**	**0.960**	1.00	1.00	ND	**87**	**96**	77-124	10	17	
Ethyl Benzene	**0.877**	**0.969**	1.00	1.00	ND	**88**	**97**	77-121	10	19	
m,p-Xylene	**0.890**	**0.969**	1.00	1.00	ND	**89**	**97**	78-124	8	19	
o-Xylene	**0.882**	**0.967**	1.00	1.00	ND	**88**	**97**	75-117	9	13	
Surrogate:											
Fluorobenzene						*96*	*94*	*68-123*			

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Date of Report: April 30, 2015
Samples Submitted: April 29, 2015
Laboratory Reference: 1504-270
Project: 21138-001-03

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0429S1					
Diesel Range Organics	**ND**	25	NWTPH-Dx	4-29-15	4-29-15	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	4-29-15	4-29-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*84*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE										
Laboratory ID:	04-256-03									
	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						*81* *82*	*50-150*			

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Date of Report: April 30, 2015
Samples Submitted: April 29, 2015
Laboratory Reference: 1504-270
Project: 21138-001-03

% MOISTURE

Date Analyzed: 4-29-15

Client ID	Lab ID	% Moisture
UTL9-S-15.0	04-270-01	12
UTL9-S-20.0	04-270-02	12
UTL9-S-23.0	04-270-03	11

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

OnSite Environmental Inc.

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-napthalene) 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

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Chain of Custody

Page 1 of 1

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: GEOENGINEERS
Project Number: 21138-001-03
Project Name: 9th & LENORA PROJECT
Project Manager: FASIH KHAN
Sampled by: FASIH KHAN

Turnaround Request (in working days)
(Check One)
☒ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☐ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Laboratory Number: 04-270

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	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
1	UTL9-S-15.0	4/29/15	0930	S	2		⊗		⊗													↓
2	UTL9-S-20.0	↓	1000	S	2		⊗															
3	UTL9-S-23.0	↓	1025	S	2		⊗		⊗													

	Signature	Company	Date	Time
Relinquished		GEO	4/29/15	1240
Received		ONE	4/29/15	1240
Relinquished				
Received				
Relinquished				
Received				

Comments/Special Instructions
Results by 10.00 a.m on 4/30/15.

Reviewed/Date
Reviewed/Date
Chromatograms with final report ☐

Data Package: Standard ☐ Level III ☐ Level IV ☐
Electronic Data Deliverables (EDDs) ☐ _____

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

May 1, 2015

Fasih Khan
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03
Laboratory Reference No. 1504-279

Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on April 29, 2015.

Please note that this is a *revised* report, and replaces the original due to revisions of the sample identifications.

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,

David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: May 1, 2015
Samples Submitted: April 29, 2015
Laboratory Reference: 1504-279
Project: 21138-001-03

Case Narrative

Samples were collected on April 29, 2015 and received by the laboratory on April 29, 2015. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that 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 preserved with either Methanol or Sodium Bisulfate.

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.

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: May 1, 2015
Samples Submitted: April 29, 2015
Laboratory Reference: 1504-279
Project: 21138-001-03

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
UTL9-N-18.0	04-279-03	Soil	4-29-15	4-29-15	
UTL9-E-15.0	04-279-06	Soil	4-29-15	4-29-15	
UTL9-E-18.0	04-279-07	Soil	4-29-15	4-29-15	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: May 1, 2015
Samples Submitted: April 29, 2015
Laboratory Reference: 1504-279
Project: 21138-001-03

NWTPH-Gx/BTEX

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UTL9-N-18.0**					
Laboratory ID:	04-279-03					
Benzene	**ND**	0.020	EPA 8021B	4-30-15	4-30-15	
Toluene	**ND**	0.059	EPA 8021B	4-30-15	4-30-15	
Ethyl Benzene	**ND**	0.059	EPA 8021B	4-30-15	4-30-15	
m,p-Xylene	**ND**	0.059	EPA 8021B	4-30-15	4-30-15	
o-Xylene	**ND**	0.059	EPA 8021B	4-30-15	4-30-15	
Gasoline	**ND**	5.9	NWTPH-Gx	4-30-15	4-30-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*109*	*68-123*				
Client ID:	**UTL9-E-15.0**					
Laboratory ID:	04-279-06					
Benzene	**0.060**	0.020	EPA 8021B	4-30-15	4-30-15	
Toluene	**ND**	0.060	EPA 8021B	4-30-15	4-30-15	
Ethyl Benzene	**ND**	0.060	EPA 8021B	4-30-15	4-30-15	
m,p-Xylene	**ND**	0.060	EPA 8021B	4-30-15	4-30-15	
o-Xylene	**ND**	0.060	EPA 8021B	4-30-15	4-30-15	
Gasoline	**ND**	6.0	NWTPH-Gx	4-30-15	4-30-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*110*	*68-123*				
Client ID:	**UTL9-E-18.0**					
Laboratory ID:	04-279-07					
Benzene	**0.052**	0.020	EPA 8021B	4-30-15	4-30-15	
Toluene	**ND**	0.065	EPA 8021B	4-30-15	4-30-15	
Ethyl Benzene	**ND**	0.065	EPA 8021B	4-30-15	4-30-15	
m,p-Xylene	**ND**	0.065	EPA 8021B	4-30-15	4-30-15	
o-Xylene	**ND**	0.065	EPA 8021B	4-30-15	4-30-15	
Gasoline	**50**	6.5	NWTPH-Gx	4-30-15	4-30-15	O
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*111*	*68-123*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: May 1, 2015
Samples Submitted: April 29, 2015
Laboratory Reference: 1504-279
Project: 21138-001-03

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UTL9-N-18.0**					
Laboratory ID:	04-279-03					
Diesel Range Organics	**180**	150	NWTPH-Dx	4-29-15	4-30-15	N
Lube Oil	**1700**	300	NWTPH-Dx	4-29-15	4-30-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*85*	*50-150*				
Client ID:	**UTL9-E-15.0**					
Laboratory ID:	04-279-06					
Diesel Range Organics	**34**	30	NWTPH-Dx	4-29-15	4-29-15	
Lube Oil Range Organics	**ND**	59	NWTPH-Dx	4-29-15	4-29-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*77*	*50-150*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: May 1, 2015
Samples Submitted: April 29, 2015
Laboratory Reference: 1504-279
Project: 21138-001-03

NWTPH-Gx/BTEX
QUALITY CONTROL

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0430S1					
Benzene	**ND**	0.020	EPA 8021B	4-30-15	4-30-15	
Toluene	**ND**	0.050	EPA 8021B	4-30-15	4-30-15	
Ethyl Benzene	**ND**	0.050	EPA 8021B	4-30-15	4-30-15	
m,p-Xylene	**ND**	0.050	EPA 8021B	4-30-15	4-30-15	
o-Xylene	**ND**	0.050	EPA 8021B	4-30-15	4-30-15	
Gasoline	**ND**	5.0	NWTPH-Gx	4-30-15	4-30-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*87*	*68-123*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	04-279-03										
	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						*109*	*116*	*68-123*			
SPIKE BLANKS											
Laboratory ID:	SB0430S1										
	SB	SBD	SB	SBD		SB	SBD				
Benzene	**0.947**	**0.940**	1.00	1.00		**95**	**94**	75-117	1	13	
Toluene	**0.952**	**0.947**	1.00	1.00		**95**	**95**	78-118	1	12	
Ethyl Benzene	**0.952**	**0.950**	1.00	1.00		**95**	**95**	78-118	0	12	
m,p-Xylene	**0.956**	**0.960**	1.00	1.00		**96**	**96**	78-121	0	13	
o-Xylene	**0.953**	**0.959**	1.00	1.00		**95**	**96**	77-119	1	13	
Surrogate:											
Fluorobenzene						*90*	*90*	*68-123*			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: May 1, 2015
Samples Submitted: April 29, 2015
Laboratory Reference: 1504-279
Project: 21138-001-03

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0429S1					
Diesel Range Organics	**ND**	25	NWTPH-Dx	4-29-15	4-29-15	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	4-29-15	4-29-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*84*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	04-279-06										
	ORIG	DUP									
Diesel Range Organics	**29.1**	**ND**	NA	NA		NA		NA	NA	NA	
Lube Oil Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Surrogate:											
o-Terphenyl						*77*	*78*	*50-150*			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: May 1, 2015
Samples Submitted: April 29, 2015
Laboratory Reference: 1504-279
Project: 21138-001-03

% MOISTURE

Date Analyzed: 4-29&30-15

Client ID	Lab ID	% Moisture
UTL9-N-18.0	04-279-03	16
UTL9-E-15.0	04-279-06	15
UTL9-E-18.0	04-279-07	20

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

OnSite Environmental Inc.

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-napthalene) 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

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: GEOENGINEERS
Project Number: 21138-001-03
Project Name: 9th & LENORA PROJECT
Project Manager: FASIH KHAN
Sampled by: FASIH KHAN

Turnaround Request (in working days)
(Check One)
- [X] Same Day
- [ ] 1 Day
- [ ] 2 Days
- [ ] 3 Days
- [ ] Standard (7 Days) (TPH analysis 5 Days)
- [ ] _____ (other)

Laboratory Number: 04-279

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	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		HOLD					% Moisture
1	UTL9-~~W~~N-10.0 DB 4/30/15	4/29/15	1300	S	2																		X					
2	UTL9-~~W~~N-15.0		1320																				X					
3	UTL9-~~W~~N-18.0		1340				X		X																			X
4	UTL9-~~W~~N-25.0		1350																				X					
5	UTL9-E-10.0		1400																				X					
6	UTL9-E-15.0		1410				X		X																			X
7	UTL9-E-18.0	↓	1420	↓	↓		O																X NO					O

	Signature	Company	Date	Time
Relinquished		GEI	4/29/15	1630
Received		CONC	4/29/15	1630
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions
O-Added 4/30/15. DB (Same day)

Chromatograms with final report ☐

Data Package: Standard ☐ Level III ☐ Level IV ☐

Electronic Data Deliverables (EDDs) ☐ _____

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

May 6, 2015

Fasih Khan
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03
Laboratory Reference No. 1505-024

Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on May 5, 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,

David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: May 6, 2015
Samples Submitted: May 5, 2015
Laboratory Reference: 1505-024
Project: 21138-001-03

Case Narrative

Samples were collected on May 5, 2015 and received by the laboratory on May 5, 2015. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that 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 preserved with either Methanol or Sodium Bisulfate.

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.

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: May 6, 2015
Samples Submitted: May 5, 2015
Laboratory Reference: 1505-024
Project: 21138-001-03

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
UTL9-S-30.0	05-024-01	Soil	5-5-15	5-5-15	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: May 6, 2015
Samples Submitted: May 5, 2015
Laboratory Reference: 1505-024
Project: 21138-001-03

NWTPH-Gx/BTEX

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UTL9-S-30.0**					
Laboratory ID:	05-024-01					
Benzene	**ND**	0.020	EPA 8021B	5-5-15	5-5-15	
Toluene	**ND**	0.086	EPA 8021B	5-5-15	5-5-15	
Ethyl Benzene	**ND**	0.086	EPA 8021B	5-5-15	5-5-15	
m,p-Xylene	**ND**	0.086	EPA 8021B	5-5-15	5-5-15	
o-Xylene	**ND**	0.086	EPA 8021B	5-5-15	5-5-15	
Gasoline	**ND**	8.6	NWTPH-Gx	5-5-15	5-5-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*123*	*68-123*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: May 6, 2015
Samples Submitted: May 5, 2015
Laboratory Reference: 1505-024
Project: 21138-001-03

NWTPH-Gx/BTEX
QUALITY CONTROL

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0505S1					
Benzene	**ND**	0.020	EPA 8021B	5-5-15	5-5-15	
Toluene	**ND**	0.050	EPA 8021B	5-5-15	5-5-15	
Ethyl Benzene	**ND**	0.050	EPA 8021B	5-5-15	5-5-15	
m,p-Xylene	**ND**	0.050	EPA 8021B	5-5-15	5-5-15	
o-Xylene	**ND**	0.050	EPA 8021B	5-5-15	5-5-15	
Gasoline	**ND**	5.0	NWTPH-Gx	5-5-15	5-5-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*89*	*68-123*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	05-024-01										
	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						*123*	*123*	*68-123*			
SPIKE BLANKS											
Laboratory ID:	SB0505S1										
	SB	SBD	SB	SBD		SB	SBD				
Benzene	**0.964**	**0.956**	1.00	1.00		**96**	**96**	75-117	1	13	
Toluene	**0.941**	**0.960**	1.00	1.00		**94**	**96**	78-118	2	12	
Ethyl Benzene	**0.961**	**0.962**	1.00	1.00		**96**	**96**	78-118	0	12	
m,p-Xylene	**0.969**	**0.964**	1.00	1.00		**97**	**96**	78-121	1	13	
o-Xylene	**0.949**	**0.964**	1.00	1.00		**95**	**96**	77-119	2	13	
Surrogate:											
Fluorobenzene						*89*	*91*	*68-123*			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: May 6, 2015
Samples Submitted: May 5, 2015
Laboratory Reference: 1505-024
Project: 21138-001-03

% MOISTURE

Date Analyzed: 5-5-15

Client ID	Lab ID	% Moisture
UTL9-S-30.0	05-024-01	21

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

OnSite Environmental Inc.

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-napthalene) 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.

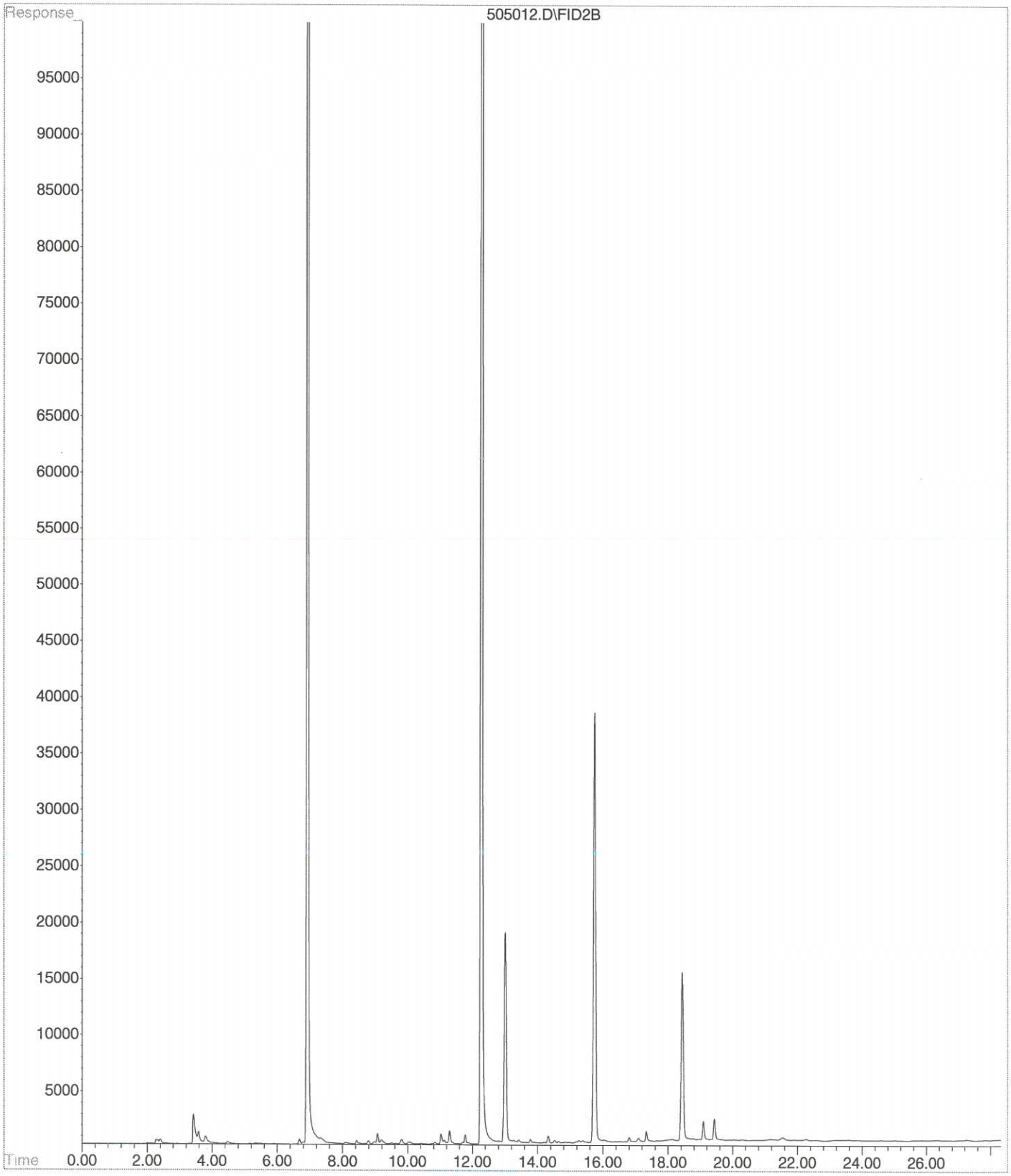
Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

File : X:\BTEX\DARYL\DATA\D150505\505012.D
Operator :
Acquired : 5 May 2015 16:25 using AcqMethod 150327B.M
Instrument : Daryl
Sample Name: 05-024-01s
Misc Info : V2-36-17
Vial Number: 12



Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: GEOENGINEERS
Project Number: 21138-001-03
Project Name: 9th & LENORA PROJECT
Project Manager: FASIH KHAN
Sampled by: FASIH KHAN

Turnaround Request (in working days)

(Check One)

- [X] Same Day
- [ ] 1 Day
- [ ] 2 Days
- [ ] 3 Days
- [ ] Standard (7 Days) (TPH analysis 5 Days)
- [ ] _____ (other)

Laboratory Number: 05-024

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	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		HOLD				% Moisture
1	UTL9-S-30.0	5/5/15	1315	S	2		X																				X
2	UTL9-S-35.0	5/5/15	1350	S	2																		X				

	Signature	Company	Date	Time	Comments/Special Instructions
Relinquished		GEO	5/5/15	1425	
Received		ONSITE	5/5/15	1425	
Relinquished					
Received					
Relinquished					
Received					
Reviewed/Date		Reviewed/Date			Chromatograms with final report ☐

Data Package: Standard ☐ Level III ☐ Level IV ☐

Electronic Data Deliverables (EDDs) ☐ _____

OnSite Environmental Inc.

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

July 29, 2015

Fasih Khan
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03
Laboratory Reference No. 1507-215

Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on July 27, 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,

David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 29, 2015
Samples Submitted: July 27, 2015
Laboratory Reference: 1507-215
Project: 21138-001-03

Case Narrative

Samples were collected on July 27, 2015 and received by the laboratory on July 27, 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.

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 29, 2015
Samples Submitted: July 27, 2015
Laboratory Reference: 1507-215
Project: 21138-001-03

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
EX-1-18.0	07-215-01	Soil	7-27-15	7-27-15	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 29, 2015
Samples Submitted: July 27, 2015
Laboratory Reference: 1507-215
Project: 21138-001-03

NWTPH-Gx/BTEX

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**EX-1-18.0**					
Laboratory ID:	07-215-01					
Benzene	**ND**	0.020	EPA 8021B	7-28-15	7-28-15	
Toluene	**ND**	0.061	EPA 8021B	7-28-15	7-28-15	
Ethyl Benzene	**ND**	0.061	EPA 8021B	7-28-15	7-28-15	
m,p-Xylene	**ND**	0.061	EPA 8021B	7-28-15	7-28-15	
o-Xylene	**ND**	0.061	EPA 8021B	7-28-15	7-28-15	
Gasoline	**ND**	6.1	NWTPH-Gx	7-28-15	7-28-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*95*	*68-123*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 29, 2015
Samples Submitted: July 27, 2015
Laboratory Reference: 1507-215
Project: 21138-001-03

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**EX-1-18.0**					
Laboratory ID:	07-215-01					
Diesel Range Organics	**ND**	28	NWTPH-Dx	7-28-15	7-28-15	
Lube Oil	**68**	56	NWTPH-Dx	7-28-15	7-28-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*97*	*50-150*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 29, 2015
Samples Submitted: July 27, 2015
Laboratory Reference: 1507-215
Project: 21138-001-03

NWTPH-Gx/BTEX
QUALITY CONTROL

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0728S1					
Benzene	**ND**	0.020	EPA 8021B	7-28-15	7-28-15	
Toluene	**ND**	0.050	EPA 8021B	7-28-15	7-28-15	
Ethyl Benzene	**ND**	0.050	EPA 8021B	7-28-15	7-28-15	
m,p-Xylene	**ND**	0.050	EPA 8021B	7-28-15	7-28-15	
o-Xylene	**ND**	0.050	EPA 8021B	7-28-15	7-28-15	
Gasoline	**ND**	5.0	NWTPH-Gx	7-28-15	7-28-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*88*	*68-123*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	07-072-04										
	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*	*120*	*68-123*			
SPIKE BLANKS											
Laboratory ID:	SB0728S1										
	SB	SBD	SB	SBD		SB	SBD				
Benzene	**0.992**	**1.04**	1.00	1.00		**99**	**104**	75-117	5	13	
Toluene	**0.978**	**1.02**	1.00	1.00		**98**	**102**	78-118	4	12	
Ethyl Benzene	**0.965**	**1.00**	1.00	1.00		**97**	**100**	78-118	4	12	
m,p-Xylene	**0.976**	**1.02**	1.00	1.00		**98**	**102**	78-121	4	13	
o-Xylene	**0.967**	**1.01**	1.00	1.00		**97**	**101**	77-119	4	13	
Surrogate:											
Fluorobenzene						*88*	*92*	*68-123*			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 29, 2015
Samples Submitted: July 27, 2015
Laboratory Reference: 1507-215
Project: 21138-001-03

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0728S2					
Diesel Range Organics	**ND**	25	NWTPH-Dx	7-28-15	7-28-15	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	7-28-15	7-28-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*96*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	07-194-05										
	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						*93*	*97*	*50-150*			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 29, 2015
Samples Submitted: July 27, 2015
Laboratory Reference: 1507-215
Project: 21138-001-03

% MOISTURE

Date Analyzed: 7-28-15

Client ID	Lab ID	% Moisture
EX-1-18.0	07-215-01	10

This report pertains to the samples analyzed in accordance with the chain of custody,
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OnSite Environmental Inc.

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-napthalene) 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

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: GEOENGINEERS
Project Number: 21138-001-03
Project Name: 9th & LENORA PROJECT
Project Manager: FASIH KHAN
Sampled by: FASIH KHAN

Turnaround Request (in working days)

(Check One)

- ☐ Same Day
- ☐ 1 Day
- ☒ 2 Days
- ☐ 3 Days
- ☐ Standard (7 Days) (TPH analysis 5 Days)
- ☐ _____ (other)

Laboratory Number: 07-215

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	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			HOLD			% Moisture
1	EX-1-18.0	7/27/15	0930	S	2		X		X																		P
2	G-1-72715	7/27/15	0945	W	1																			X			

	Signature	Company	Date	Time
Relinquished		GEI	7/27/15	1440
Received		GEI	7/27/15	1440
Relinquished				
Received				
Relinquished				
Received				

Comments/Special Instructions

Reviewed/Date

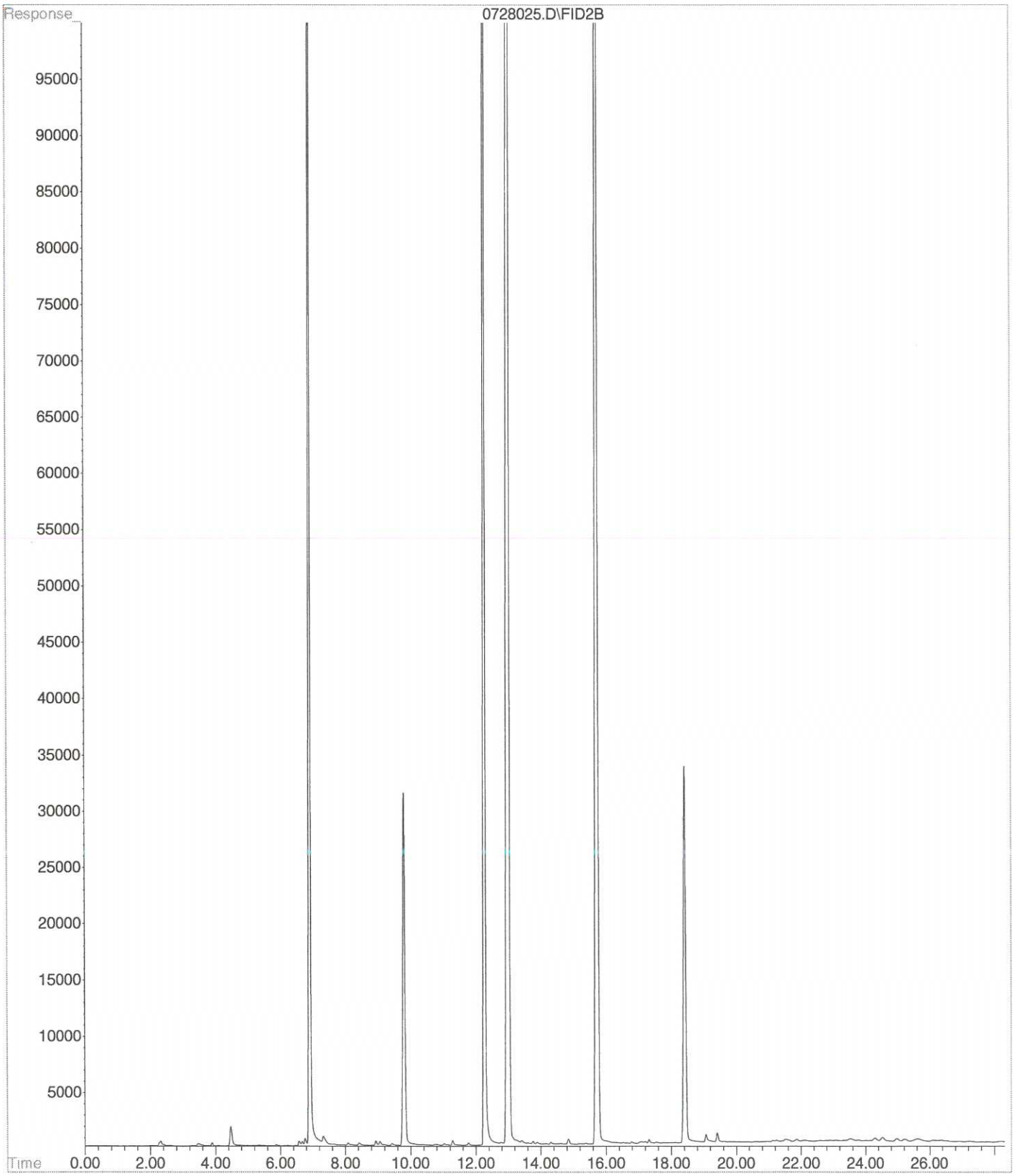
Reviewed/Date

Chromatograms with final report ☐

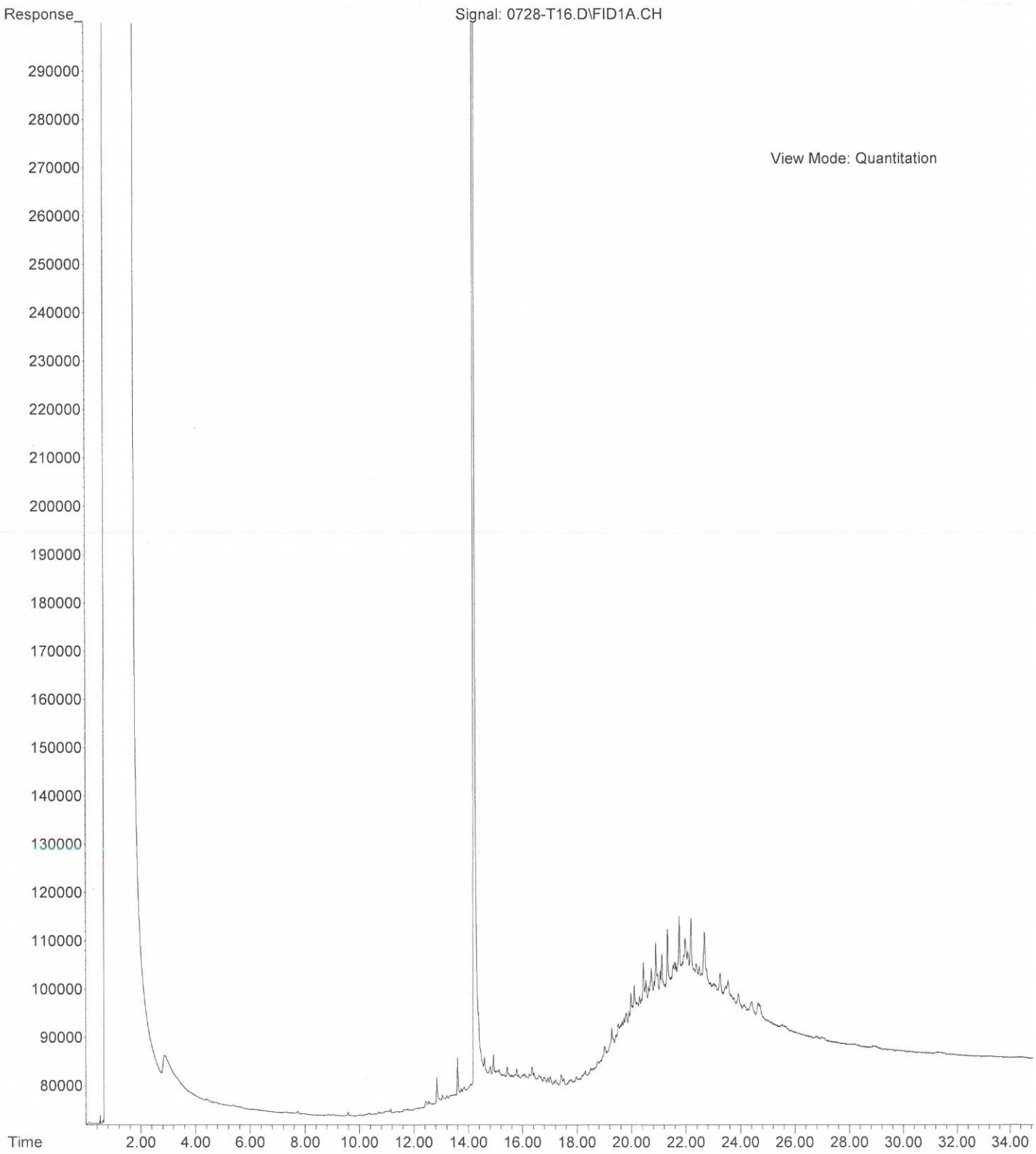
Data Package: Standard ☐ Level III ☐ Level IV ☐

Electronic Data Deliverables (EDDs) ☐ _____

File : D:\BTEX\DATA\D150728\0728025.D
Operator :
Acquired : 29 Jul 2015 00:05 using AcqMethod 150709B.M
Instrument : Daryl
Sample Name: 07-215-01s
Misc Info :
Vial Number: 25



File :X:\DIESELS\TERI\DATA\T150728\0728-T16.D
Operator : ZT
Acquired : 29 Jul 2015 10:23 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 07-215-01 RR
Misc Info :
Vial Number: 16



OnSite Environmental Inc.

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

August 3, 2015

Fasih Khan
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03
Laboratory Reference No. 1507-206

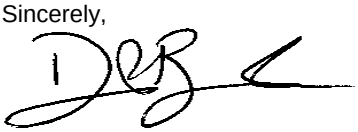
Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on July 24, 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,



David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 3, 2015
Samples Submitted: July 24, 2015
Laboratory Reference: 1507-206
Project: 21138-001-03

Case Narrative

Samples were collected on July 24, 2015 and received by the laboratory on July 24, 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 preserved with either Methanol or Sodium Bisulfate.

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.

This report pertains to the samples analyzed in accordance with the chain of custody,
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Date of Report: August 3, 2015
Samples Submitted: July 24, 2015
Laboratory Reference: 1507-206
Project: 21138-001-03

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
SS-1	07-206-01	Soil	7-24-15	7-24-15	
SS-2	07-206-02	Soil	7-24-15	7-24-15	
SS-3	07-206-03	Soil	7-24-15	7-24-15	
SS-4	07-206-04	Soil	7-24-15	7-24-15	
EX-1-12.0	07-206-05	Soil	7-24-15	7-24-15	

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Date of Report: August 3, 2015
Samples Submitted: July 24, 2015
Laboratory Reference: 1507-206
Project: 21138-001-03

NWTPH-Gx/BTEX

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**EX-1-12.0**					
Laboratory ID:	07-206-05					
Benzene	**ND**	0.020	EPA 8021B	7-28-15	7-29-15	
Toluene	**ND**	0.059	EPA 8021B	7-28-15	7-29-15	
Ethyl Benzene	**ND**	0.059	EPA 8021B	7-28-15	7-29-15	
m,p-Xylene	**ND**	0.059	EPA 8021B	7-28-15	7-29-15	
o-Xylene	**ND**	0.059	EPA 8021B	7-28-15	7-29-15	
Gasoline	**ND**	5.9	NWTPH-Gx	7-28-15	7-29-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*120*	*68-123*				

This report pertains to the samples analyzed in accordance with the chain of custody,
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Date of Report: August 3, 2015
Samples Submitted: July 24, 2015
Laboratory Reference: 1507-206
Project: 21138-001-03

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SS-1**					
Laboratory ID:	07-206-01					
Diesel Range Organics	**56**	33	NWTPH-Dx	7-27-15	7-28-15	
Lube Oil Range Organics	**350**	67	NWTPH-Dx	7-27-15	7-28-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*57*	*50-150*				
Client ID:	**SS-2**					
Laboratory ID:	07-206-02					
Diesel Range Organics	**44**	29	NWTPH-Dx	7-27-15	7-27-15	
Lube Oil Range Organics	**210**	58	NWTPH-Dx	7-27-15	7-27-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*65*	*50-150*				
Client ID:	**SS-3**					
Laboratory ID:	07-206-03					
Diesel Range Organics	**74**	32	NWTPH-Dx	7-27-15	7-28-15	
Lube Oil Range Organics	**650**	65	NWTPH-Dx	7-27-15	7-28-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*74*	*50-150*				
Client ID:	**SS-4**					
Laboratory ID:	07-206-04					
Diesel Range Organics	**70**	30	NWTPH-Dx	7-27-15	7-27-15	
Lube Oil Range Organics	**380**	59	NWTPH-Dx	7-27-15	7-27-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*65*	*50-150*				
Client ID:	**EX-1-12.0**					
Laboratory ID:	07-206-05					
Diesel Range Organics	**ND**	27	NWTPH-Dx	7-27-15	7-27-15	
Lube Oil Range Organics	**ND**	55	NWTPH-Dx	7-27-15	7-27-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*61*	*50-150*				

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Date of Report: August 3, 2015
Samples Submitted: July 24, 2015
Laboratory Reference: 1507-206
Project: 21138-001-03

cPAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SS-1**					
Laboratory ID:	07-206-01					
Benzo[a]anthracene	**0.048**	0.0089	EPA 8270D/SIM	7-29-15	7-30-15	
Chrysene	**0.049**	0.0089	EPA 8270D/SIM	7-29-15	7-30-15	
Benzo[b]fluoranthene	**0.043**	0.0089	EPA 8270D/SIM	7-29-15	7-30-15	
Benzo(j,k)fluoranthene	**0.013**	0.0089	EPA 8270D/SIM	7-29-15	7-30-15	
Benzo[a]pyrene	**0.041**	0.0089	EPA 8270D/SIM	7-29-15	7-30-15	
Indeno(1,2,3-c,d)pyrene	**0.026**	0.0089	EPA 8270D/SIM	7-29-15	7-30-15	
Dibenz[a,h]anthracene	**ND**	0.0089	EPA 8270D/SIM	7-29-15	7-30-15	
Benzo[g,h,i]perylene	**0.031**	0.0089	EPA 8270D/SIM	7-29-15	7-30-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*67*	*32 - 114*				
Pyrene-d10	*59*	*33 - 121*				
Terphenyl-d14	*74*	*31 - 116*				

This report pertains to the samples analyzed in accordance with the chain of custody,
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Date of Report: August 3, 2015
Samples Submitted: July 24, 2015
Laboratory Reference: 1507-206
Project: 21138-001-03

cPAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SS-2**					
Laboratory ID:	07-206-02					
Benzo[a]anthracene	**0.38**	0.0077	EPA 8270D/SIM	7-29-15	7-31-15	
Chrysene	**0.35**	0.0077	EPA 8270D/SIM	7-29-15	7-31-15	
Benzo[b]fluoranthene	**0.35**	0.0077	EPA 8270D/SIM	7-29-15	7-31-15	
Benzo(j,k)fluoranthene	**0.12**	0.0077	EPA 8270D/SIM	7-29-15	7-31-15	
Benzo[a]pyrene	**0.33**	0.0077	EPA 8270D/SIM	7-29-15	7-31-15	
Indeno(1,2,3-c,d)pyrene	**0.19**	0.0077	EPA 8270D/SIM	7-29-15	7-31-15	
Dibenz[a,h]anthracene	**0.050**	0.0077	EPA 8270D/SIM	7-29-15	7-31-15	
Benzo[g,h,i]perylene	**0.18**	0.0077	EPA 8270D/SIM	7-29-15	7-31-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*77*	*32 - 114*				
Pyrene-d10	*74*	*33 - 121*				
Terphenyl-d14	*95*	*31 - 116*				

This report pertains to the samples analyzed in accordance with the chain of custody,
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Date of Report: August 3, 2015
Samples Submitted: July 24, 2015
Laboratory Reference: 1507-206
Project: 21138-001-03

cPAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SS-3**					
Laboratory ID:	07-206-03					
Benzo[a]anthracene	**0.010**	0.0086	EPA 8270D/SIM	7-29-15	7-31-15	
Chrysene	**0.010**	0.0086	EPA 8270D/SIM	7-29-15	7-31-15	
Benzo[b]fluoranthene	**0.010**	0.0086	EPA 8270D/SIM	7-29-15	7-31-15	
Benzo(j,k)fluoranthene	**ND**	0.0086	EPA 8270D/SIM	7-29-15	7-31-15	
Benzo[a]pyrene	**ND**	0.0086	EPA 8270D/SIM	7-29-15	7-31-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0086	EPA 8270D/SIM	7-29-15	7-31-15	
Dibenz[a,h]anthracene	**ND**	0.0086	EPA 8270D/SIM	7-29-15	7-31-15	
Benzo[g,h,i]perylene	**ND**	0.0086	EPA 8270D/SIM	7-29-15	7-31-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*69*	*32 - 114*				
Pyrene-d10	*70*	*33 - 121*				
Terphenyl-d14	*78*	*31 - 116*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 3, 2015
Samples Submitted: July 24, 2015
Laboratory Reference: 1507-206
Project: 21138-001-03

cPAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SS-4**					
Laboratory ID:	07-206-04					
Benzo[a]anthracene	**0.10**	0.016	EPA 8270D/SIM	7-29-15	7-30-15	
Chrysene	**0.11**	0.016	EPA 8270D/SIM	7-29-15	7-30-15	
Benzo[b]fluoranthene	**0.13**	0.016	EPA 8270D/SIM	7-29-15	7-30-15	
Benzo(j,k)fluoranthene	**0.035**	0.016	EPA 8270D/SIM	7-29-15	7-30-15	
Benzo[a]pyrene	**0.095**	0.016	EPA 8270D/SIM	7-29-15	7-30-15	
Indeno(1,2,3-c,d)pyrene	**0.081**	0.016	EPA 8270D/SIM	7-29-15	7-30-15	
Dibenz[a,h]anthracene	**0.017**	0.016	EPA 8270D/SIM	7-29-15	7-30-15	
Benzo[g,h,i]perylene	**0.090**	0.016	EPA 8270D/SIM	7-29-15	7-30-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*69*	*32 - 114*				
Pyrene-d10	*62*	*33 - 121*				
Terphenyl-d14	*81*	*31 - 116*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 3, 2015
Samples Submitted: July 24, 2015
Laboratory Reference: 1507-206
Project: 21138-001-03

NWTPH-Gx/BTEX
QUALITY CONTROL

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0728S1					
Benzene	**ND**	0.020	EPA 8021B	7-28-15	7-28-15	
Toluene	**ND**	0.050	EPA 8021B	7-28-15	7-28-15	
Ethyl Benzene	**ND**	0.050	EPA 8021B	7-28-15	7-28-15	
m,p-Xylene	**ND**	0.050	EPA 8021B	7-28-15	7-28-15	
o-Xylene	**ND**	0.050	EPA 8021B	7-28-15	7-28-15	
Gasoline	**ND**	5.0	NWTPH-Gx	7-28-15	7-28-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*88*	*68-123*				

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE										
Laboratory ID:	07-072-04									
	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*	*120*	*68-123*		
SPIKE BLANKS										
Laboratory ID:	SB0728S1									
	SB	SBD	SB	SBD		SB	SBD			
Benzene	**0.992**	**1.04**	1.00	1.00		**99**	**104**	75-117	5	13
Toluene	**0.978**	**1.02**	1.00	1.00		**98**	**102**	78-118	4	12
Ethyl Benzene	**0.965**	**1.00**	1.00	1.00		**97**	**100**	78-118	4	12
m,p-Xylene	**0.976**	**1.02**	1.00	1.00		**98**	**102**	78-121	4	13
o-Xylene	**0.967**	**1.01**	1.00	1.00		**97**	**101**	77-119	4	13
Surrogate:										
Fluorobenzene						*88*	*92*	*68-123*		

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 3, 2015
Samples Submitted: July 24, 2015
Laboratory Reference: 1507-206
Project: 21138-001-03

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0727S1					
Diesel Range Organics	**ND**	25	NWTPH-Dx	7-27-15	7-27-15	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	7-27-15	7-27-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*55*	*50-150*				

DUPLICATE									
Laboratory ID:	07-206-05								
	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					*61*	*74*	*50-150*		

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 3, 2015
Samples Submitted: July 24, 2015
Laboratory Reference: 1507-206
Project: 21138-001-03

cPAHs EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0729S1					
Benzo[a]anthracene	**ND**	0.0067	EPA 8270D/SIM	7-29-15	7-29-15	
Chrysene	**ND**	0.0067	EPA 8270D/SIM	7-29-15	7-29-15	
Benzo[b]fluoranthene	**ND**	0.0067	EPA 8270D/SIM	7-29-15	7-29-15	
Benzo(j,k)fluoranthene	**ND**	0.0067	EPA 8270D/SIM	7-29-15	7-29-15	
Benzo[a]pyrene	**ND**	0.0067	EPA 8270D/SIM	7-29-15	7-29-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0067	EPA 8270D/SIM	7-29-15	7-29-15	
Dibenz[a,h]anthracene	**ND**	0.0067	EPA 8270D/SIM	7-29-15	7-29-15	
Benzo[g,h,i]perylene	**ND**	0.0067	EPA 8270D/SIM	7-29-15	7-29-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*80*	*32 - 114*				
Pyrene-d10	*86*	*33 - 121*				
Terphenyl-d14	*83*	*31 - 116*				

This report pertains to the samples analyzed in accordance with the chain of custody,
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Date of Report: August 3, 2015
Samples Submitted: July 24, 2015
Laboratory Reference: 1507-206
Project: 21138-001-03

cPAHs EPA 8270D/SIM
MS/MSD QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	07-205-01										
	MS	MSD	MS	MSD		MS	MSD				
Naphthalene	**0.0727**	**0.0740**	0.0833	0.0833	ND	87	89	44 - 107	2	29	
Acenaphthylene	**0.0728**	**0.0727**	0.0833	0.0833	ND	87	87	44 - 121	0	27	
Acenaphthene	**0.0725**	**0.0726**	0.0833	0.0833	ND	87	87	47 - 109	0	26	
Fluorene	**0.0744**	**0.0761**	0.0833	0.0833	ND	89	91	49 - 115	2	28	
Phenanthrene	**0.0755**	**0.0751**	0.0833	0.0833	ND	91	90	45 - 114	1	26	
Anthracene	**0.0976**	**0.0997**	0.0833	0.0833	ND	117	120	43 - 140	2	27	
Fluoranthene	**0.0780**	**0.0764**	0.0833	0.0833	ND	94	92	44 - 126	2	27	
Pyrene	**0.0776**	**0.0758**	0.0833	0.0833	ND	93	91	43 - 125	2	27	
Benzo[a]anthracene	**0.0817**	**0.0820**	0.0833	0.0833	ND	98	98	42 - 134	0	27	
Chrysene	**0.0750**	**0.0752**	0.0833	0.0833	ND	90	90	45 - 114	0	27	
Benzo[b]fluoranthene	**0.0696**	**0.0742**	0.0833	0.0833	ND	84	89	38 - 131	6	33	
Benzo(j,k)fluoranthene	**0.0660**	**0.0671**	0.0833	0.0833	ND	79	81	44 - 114	2	34	
Benzo[a]pyrene	**0.0747**	**0.0745**	0.0833	0.0833	ND	90	89	40 - 136	0	29	
Indeno(1,2,3-c,d)pyrene	**0.0701**	**0.0710**	0.0833	0.0833	ND	84	85	45 - 126	1	30	
Dibenz[a,h]anthracene	**0.0728**	**0.0735**	0.0833	0.0833	ND	87	88	46 - 121	1	28	
Benzo[g,h,i]perylene	**0.0744**	**0.0739**	0.0833	0.0833	ND	89	89	43 - 120	1	31	
Surrogate:											
2-Fluorobiphenyl						*80*	*80*	*32 - 114*			
Pyrene-d10						*84*	*85*	*33 - 121*			
Terphenyl-d14						*83*	*87*	*31 - 116*			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 3, 2015
Samples Submitted: July 24, 2015
Laboratory Reference: 1507-206
Project: 21138-001-03

% MOISTURE

Date Analyzed: 7-27-15

Client ID	Lab ID	% Moisture
SS-1	07-206-01	25
SS-2	07-206-02	14
SS-3	07-206-03	23
SS-4	07-206-04	15
EX-1-12.0	07-206-05	8

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OnSite Environmental Inc.

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-napthalene) 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

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Chain of Custody

Page 1 of 1

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Laboratory Number: 07-206

Company: GEOENGINEERS
Project Number: 21138-001-05
Project Name: 9th & LENORA SITE
Project Manager: FASIH KHAN
Sampled by: FASIH KHAN

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☒ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	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	cPAHs ONLY					% Moisture
1	SS-1	7/24/15	0900	S	1				X													X					X
2	SS-2	↓	0910	↓	1				X													X					
3	SS-3		0930		1				X													X					
4	SS-4		0940		1				X													X					
5	EX-1-12.0	↓	1130	↓	2		X		X																		↓

	Signature	Company	Date	Time
Relinquished		GEI	7/24/15	1623
Received		OSE	7/24/15	1623
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

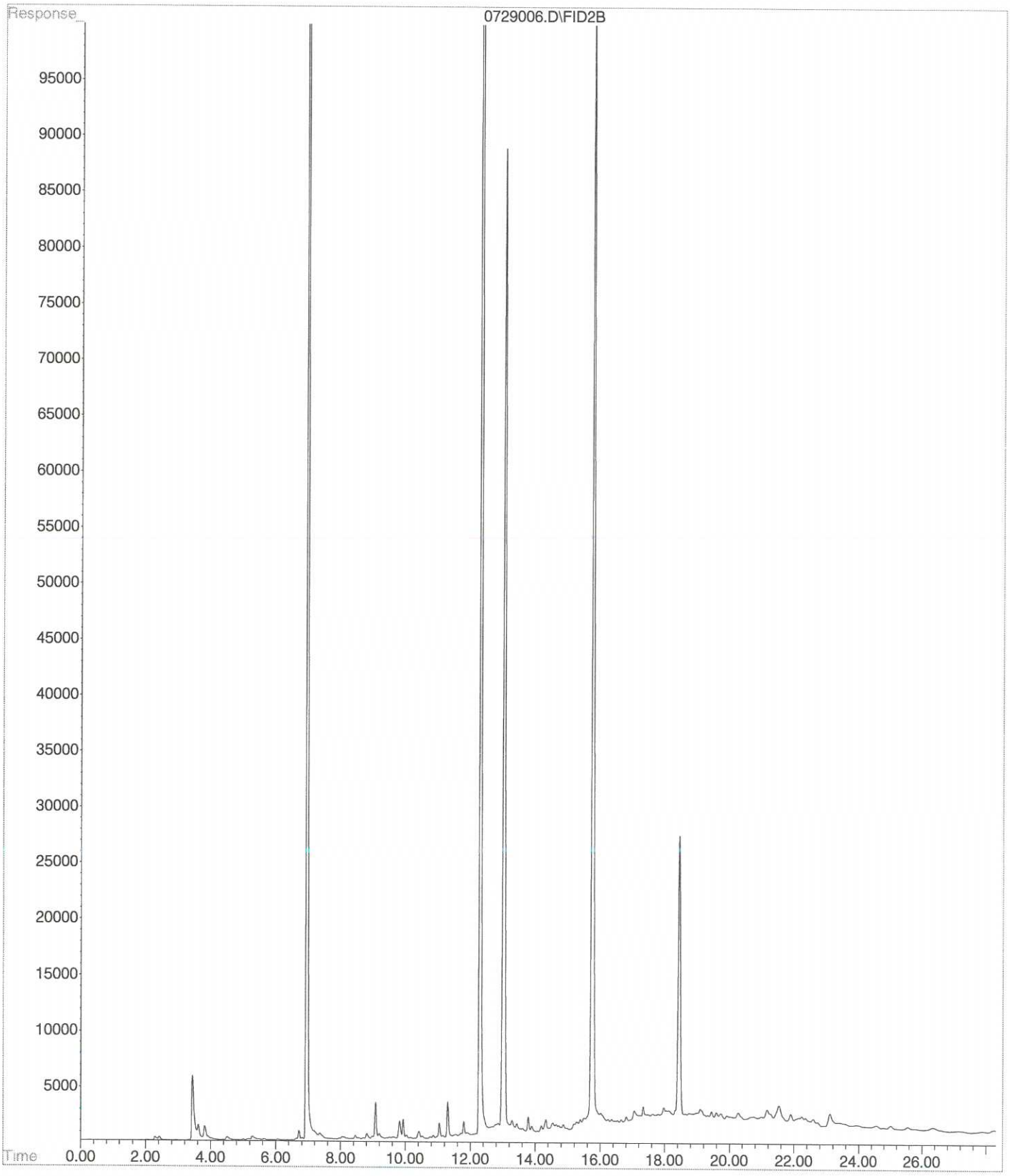
Comments/Special Instructions

Chromatograms with final report ☐

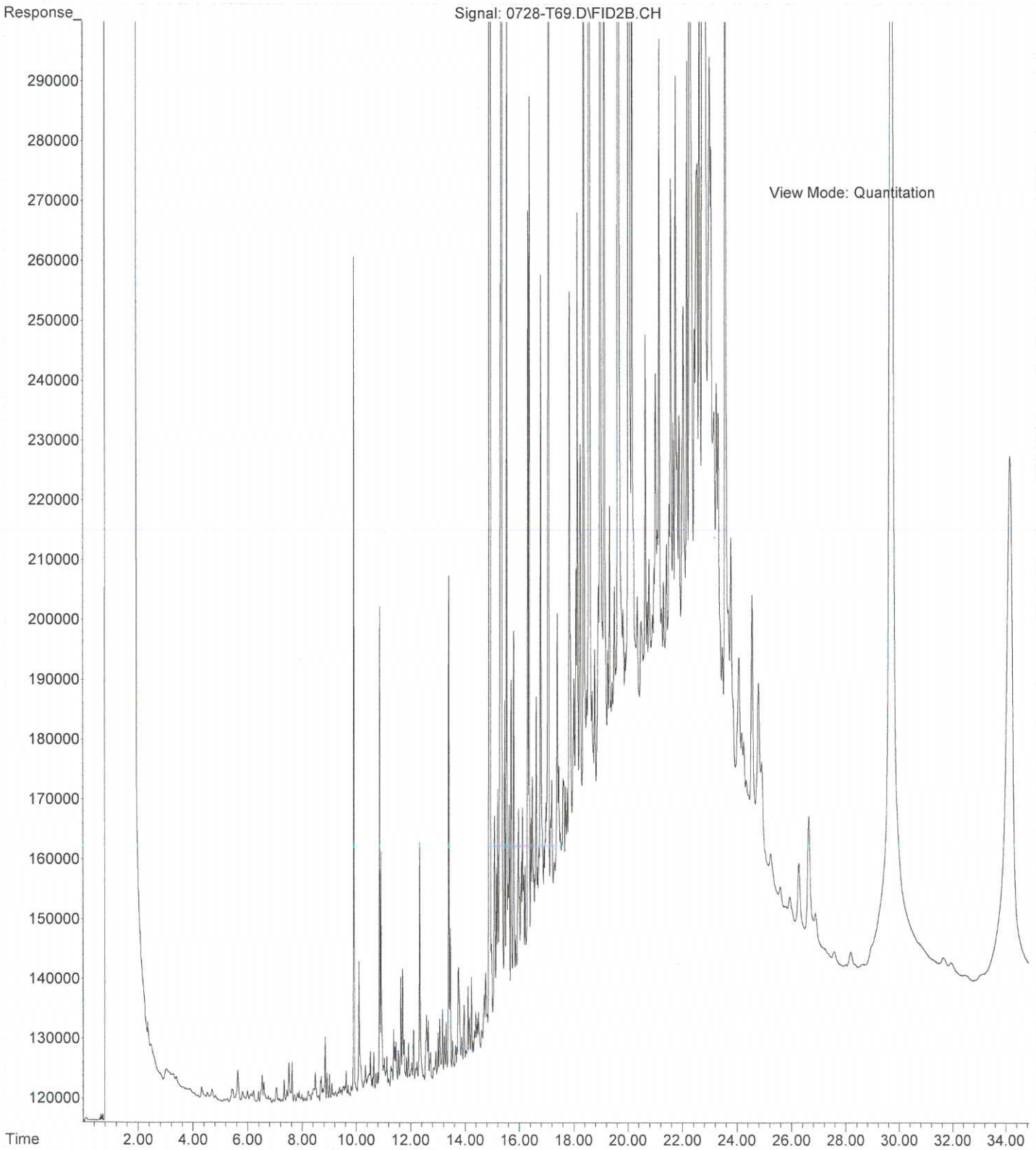
Data Package: Standard ☐ Level III ☐ Level IV ☐

Electronic Data Deliverables (EDDs) ☐ _____

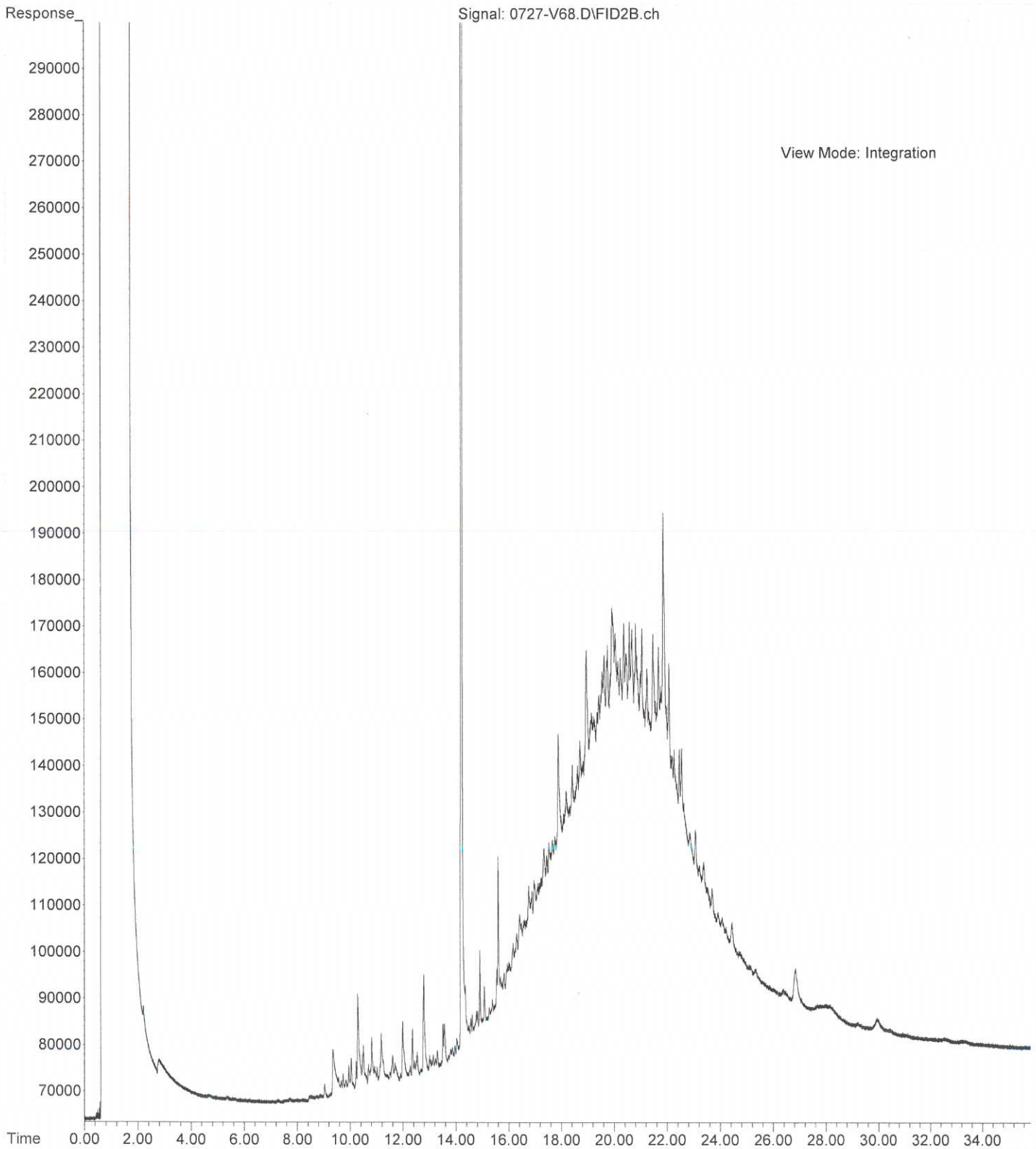
File : D:\BTEX\DATA\D150729\0729006.D
Operator :
Acquired : 29 Jul 2015 13:16 using AcqMethod 150709B.M
Instrument : Daryl
Sample Name: 07-206-05 RRR
Misc Info :
Vial Number: 6



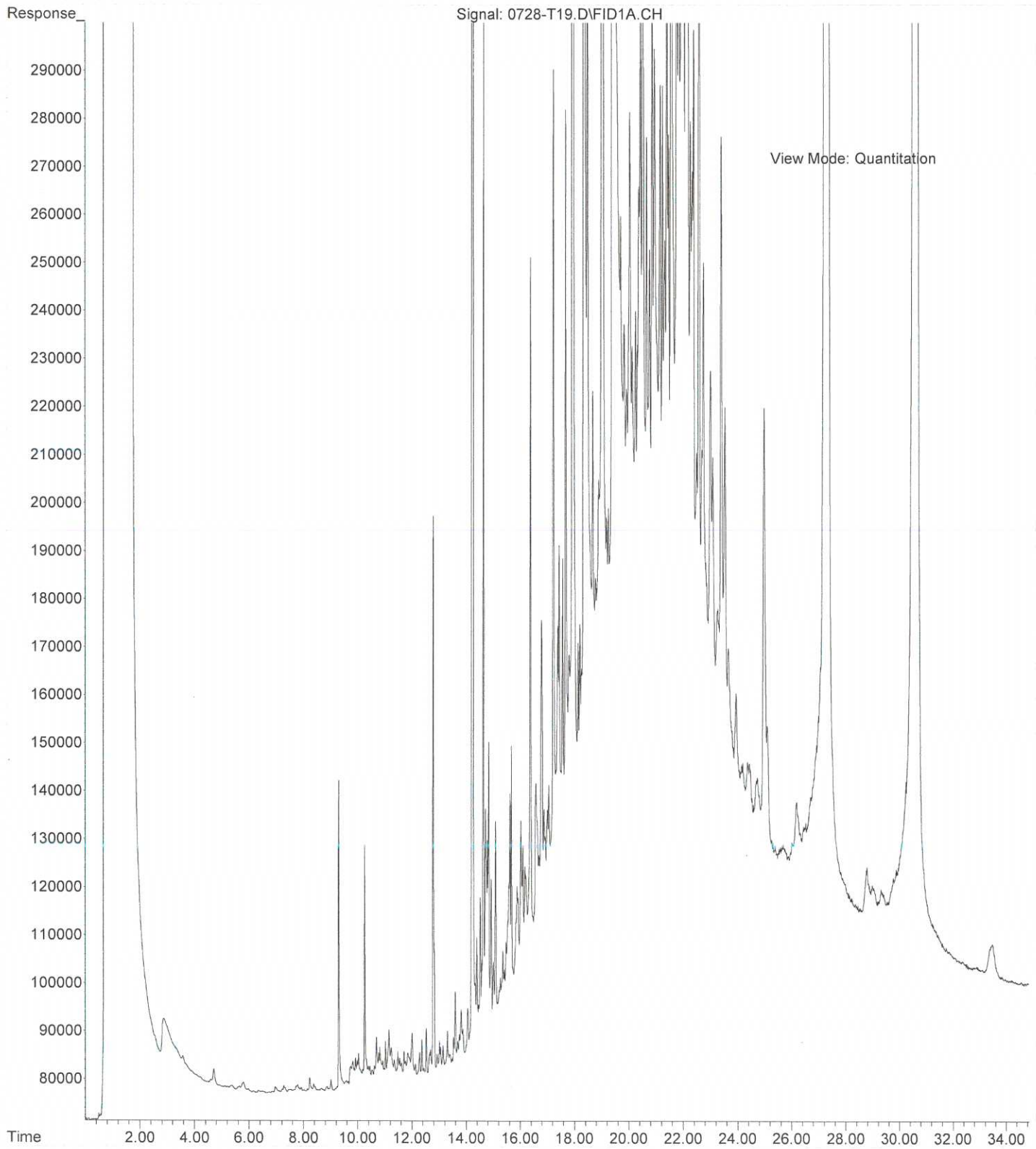
File :X:\DIESELS\TERI\DATA\T150728.SEC\0728-T69.D
Operator : ZT
Acquired : 29 Jul 2015 12:53 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 07-206-01 RR
Misc Info :
Vial Number: 69



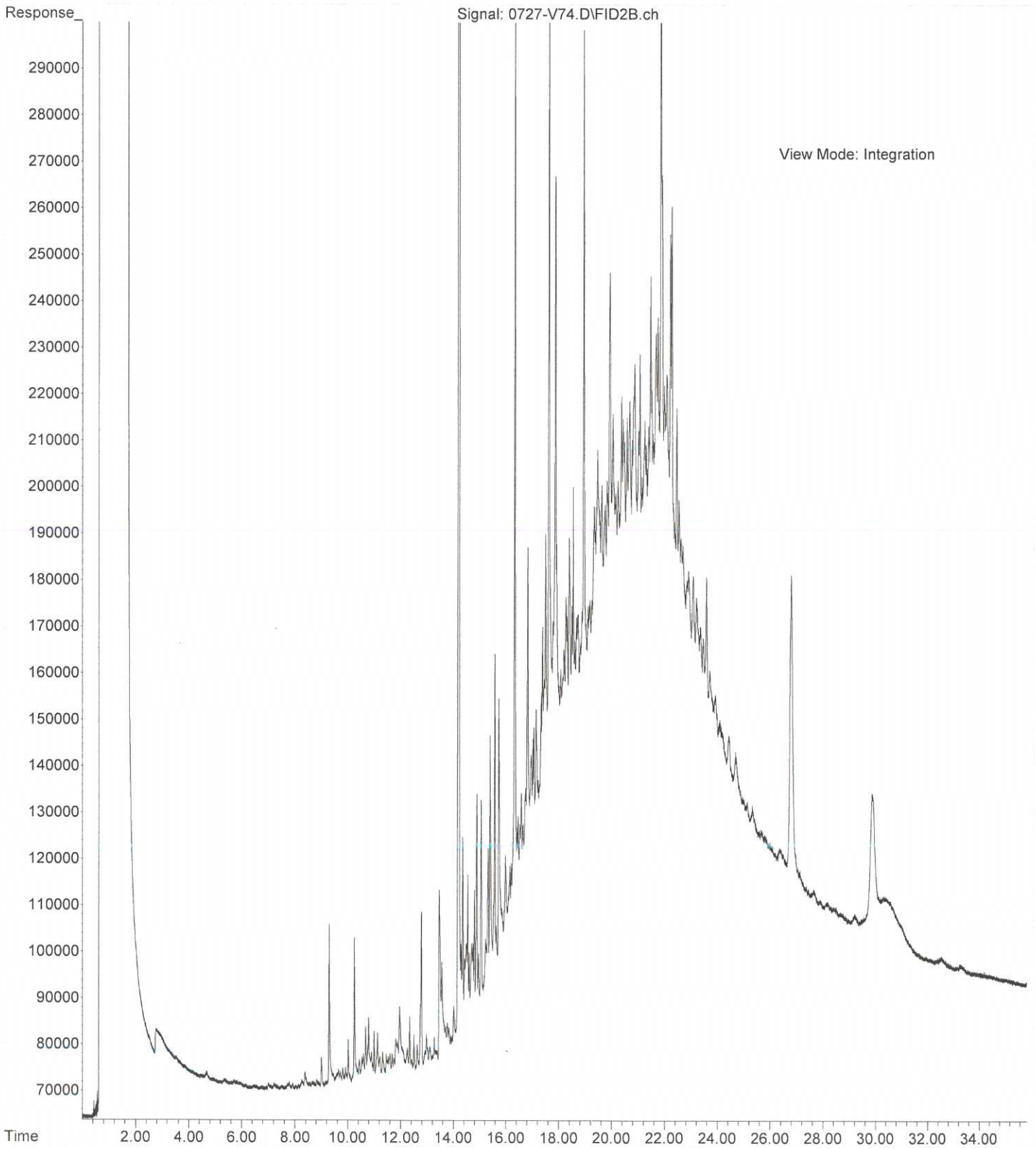
File :X:\DIESELS\VIGO\DATA\V150727.SEC\0727-V68.D
Operator :
Acquired : 28 Jul 2015 00:38 using AcqMethod V150209F.M
Instrument : Vigo
Sample Name: 07-206-02
Misc Info :
Vial Number: 68



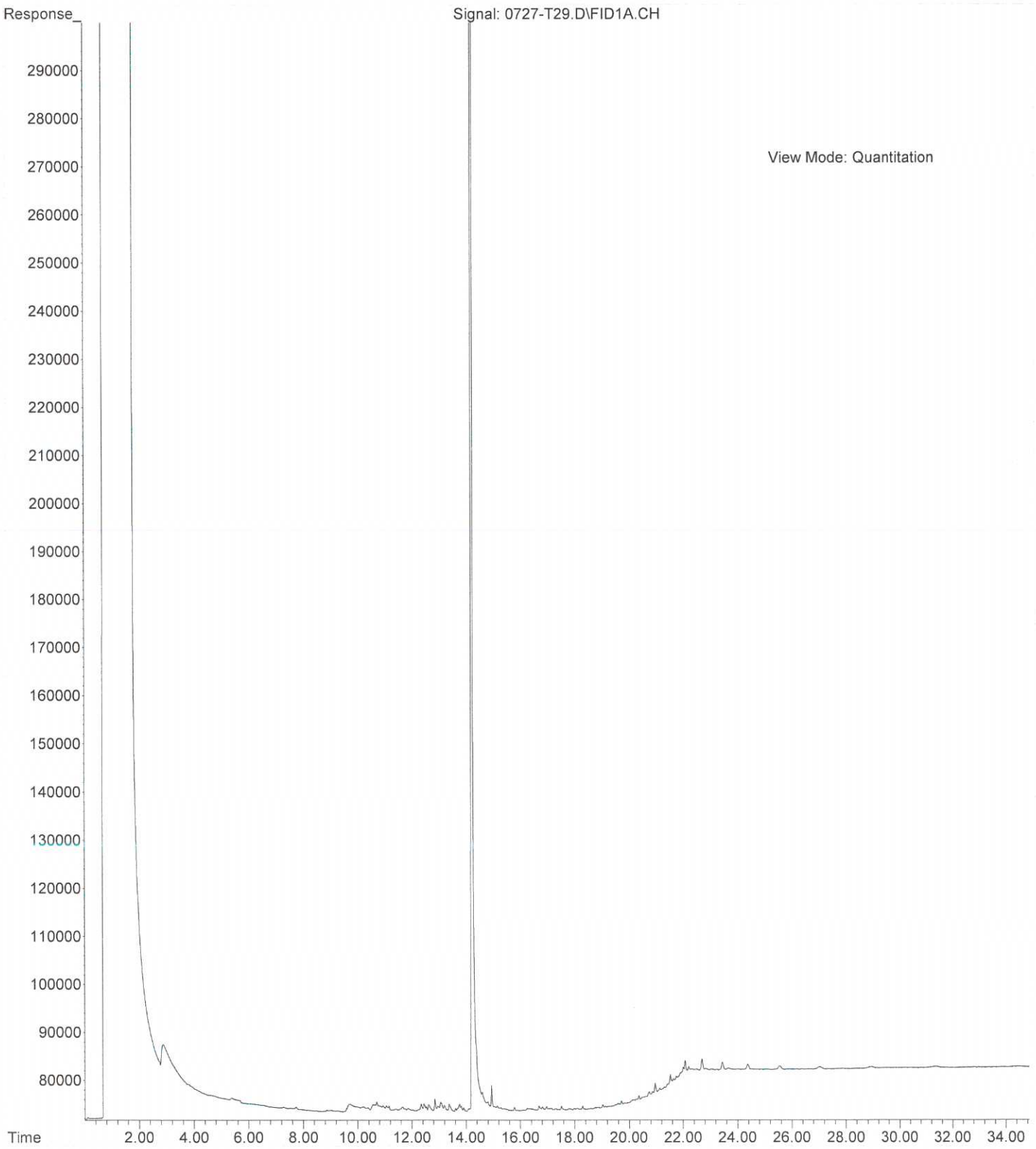
File :X:\DIESELS\TERI\DATA\T150728\0728-T19.D
Operator : ZT
Acquired : 29 Jul 2015 12:53 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 07-206-03 RR
Misc Info :
Vial Number: 19



File :X:\DIESELS\VIGO\DATA\V150727.SEC\0727-V74.D
Operator :
Acquired : 28 Jul 2015 4:43 using AcqMethod V150209F.M
Instrument : Vigo
Sample Name: 07-206-04
Misc Info :
Vial Number: 74



File :X:\DIESELS\TERI\DATA\T150727\0727-T29.D
Operator : ZT
Acquired : 28 Jul 2015 8:42 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 07-206-05
Misc Info :
Vial Number: 29



OnSite Environmental Inc.

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

August 3, 2015

Fasih Khan
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03
Laboratory Reference No. 1507-254

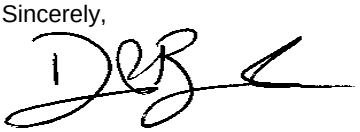
Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on July 31, 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,



David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 3, 2015
Samples Submitted: July 31, 2015
Laboratory Reference: 1507-254
Project: 21138-001-03

Case Narrative

Samples were collected on July 31, 2015 and received by the laboratory on July 31, 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.

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Date of Report: August 3, 2015
Samples Submitted: July 31, 2015
Laboratory Reference: 1507-254
Project: 21138-001-03

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
SS-5	07-254-01	Soil	7-31-15	7-31-15	

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Date of Report: August 3, 2015
Samples Submitted: July 31, 2015
Laboratory Reference: 1507-254
Project: 21138-001-03

NWTPH-Gx/BTEX

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SS-5**					
Laboratory ID:	07-254-01					
Benzene	**ND**	0.022	EPA 8021B	7-31-15	7-31-15	
Toluene	**ND**	0.11	EPA 8021B	7-31-15	7-31-15	
Ethyl Benzene	**ND**	0.11	EPA 8021B	7-31-15	7-31-15	
m,p-Xylene	**ND**	0.11	EPA 8021B	7-31-15	7-31-15	
o-Xylene	**ND**	0.11	EPA 8021B	7-31-15	7-31-15	
Gasoline	**ND**	11	NWTPH-Gx	7-31-15	7-31-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*90*	*68-123*				

This report pertains to the samples analyzed in accordance with the chain of custody,
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Date of Report: August 3, 2015
Samples Submitted: July 31, 2015
Laboratory Reference: 1507-254
Project: 21138-001-03

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SS-5**					
Laboratory ID:	07-254-01					
Diesel Range Organics	**ND**	40	NWTPH-Dx	7-31-15	7-31-15	U1
Lube Oil	**300**	55	NWTPH-Dx	7-31-15	7-31-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*70*	*50-150*				

This report pertains to the samples analyzed in accordance with the chain of custody,
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Date of Report: August 3, 2015
Samples Submitted: July 31, 2015
Laboratory Reference: 1507-254
Project: 21138-001-03

NWTPH-Gx/BTEX
QUALITY CONTROL

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0731S2					
Benzene	**ND**	0.020	EPA 8021B			
Toluene	**ND**	0.050	EPA 8021B			
Ethyl Benzene	**ND**	0.050	EPA 8021B			
m,p-Xylene	**ND**	0.050	EPA 8021B			
o-Xylene	**ND**	0.050	EPA 8021B			
Gasoline	**ND**	5.0	NWTPH-Gx			
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*86*	*68-123*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	07-212-01										
	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						*93*	*93*	*68-123*			
SPIKE BLANKS											
Laboratory ID:	SB0731S1										
	SB	SBD	SB	SBD		SB	SBD				
Benzene	**0.985**	**1.03**	1.00	1.00		**99**	**103**	75-117	4	13	
Toluene	**0.971**	**1.02**	1.00	1.00		**97**	**102**	78-118	5	12	
Ethyl Benzene	**0.957**	**1.00**	1.00	1.00		**96**	**100**	78-118	4	12	
m,p-Xylene	**0.972**	**1.02**	1.00	1.00		**97**	**102**	78-121	5	13	
o-Xylene	**0.960**	**0.994**	1.00	1.00		**96**	**99**	77-119	3	13	
Surrogate:											
Fluorobenzene						*89*	*93*	*68-123*			

This report pertains to the samples analyzed in accordance with the chain of custody,
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Date of Report: August 3, 2015
Samples Submitted: July 31, 2015
Laboratory Reference: 1507-254
Project: 21138-001-03

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0731S1					
Diesel Range Organics	**ND**	25	NWTPH-Dx	7-31-15	7-31-15	
Lube Oil Range	**ND**	50	NWTPH-Dx	7-31-15	7-31-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*61*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	07-242-02										
	ORIG	DUP									
Diesel Fuel #2	**4950**	**3390**	NA	NA		NA		NA	37	NA	
Lube Oil Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	U1
Surrogate:											
o-Terphenyl						*121*	*111*	*50-150*			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 3, 2015
Samples Submitted: July 31, 2015
Laboratory Reference: 1507-254
Project: 21138-001-03

% MOISTURE

Date Analyzed: 7-31-15

Client ID	Lab ID	% Moisture
SS-5	07-254-01	8

This report pertains to the samples analyzed in accordance with the chain of custody,
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OnSite Environmental Inc.

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-napthalene) 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

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Chain of Custody

Page 1 of 1

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Laboratory Number: 07-254

Company: GEOENGINEERS
Project Number: 21138-001-03
Project Name: 9th & LENORA PROJECT
Project Manager: FASIH KHAN
Sampled by: FASIH KHAN

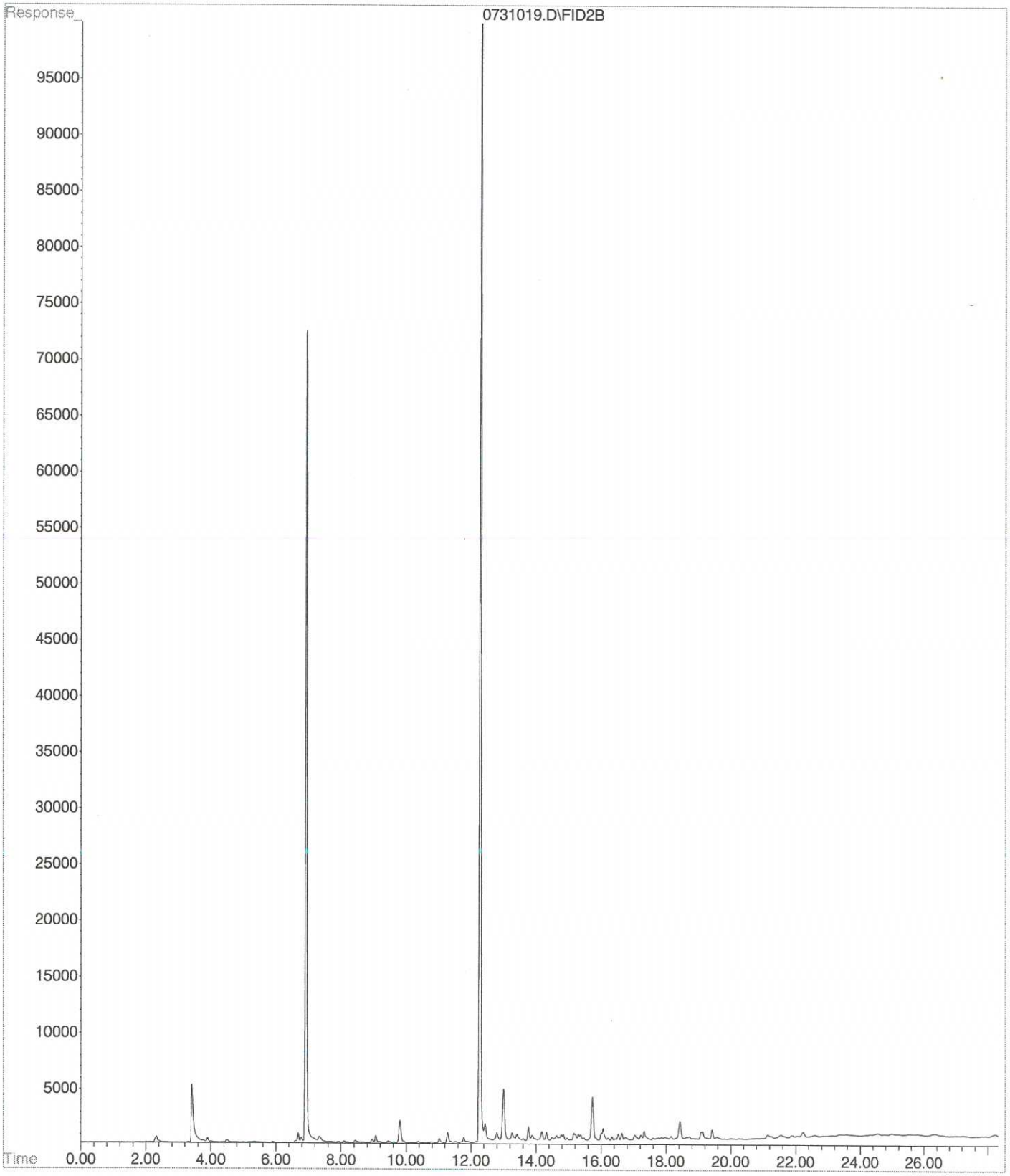
Turnaround Request (in working days)
(Check One)
☐ Same Day ☒ 1 Day
☐ 2 Days ☐ 3 Days
☐ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	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
1	SS-5	7/31/15	0930	S	2		⊗		⊗													X

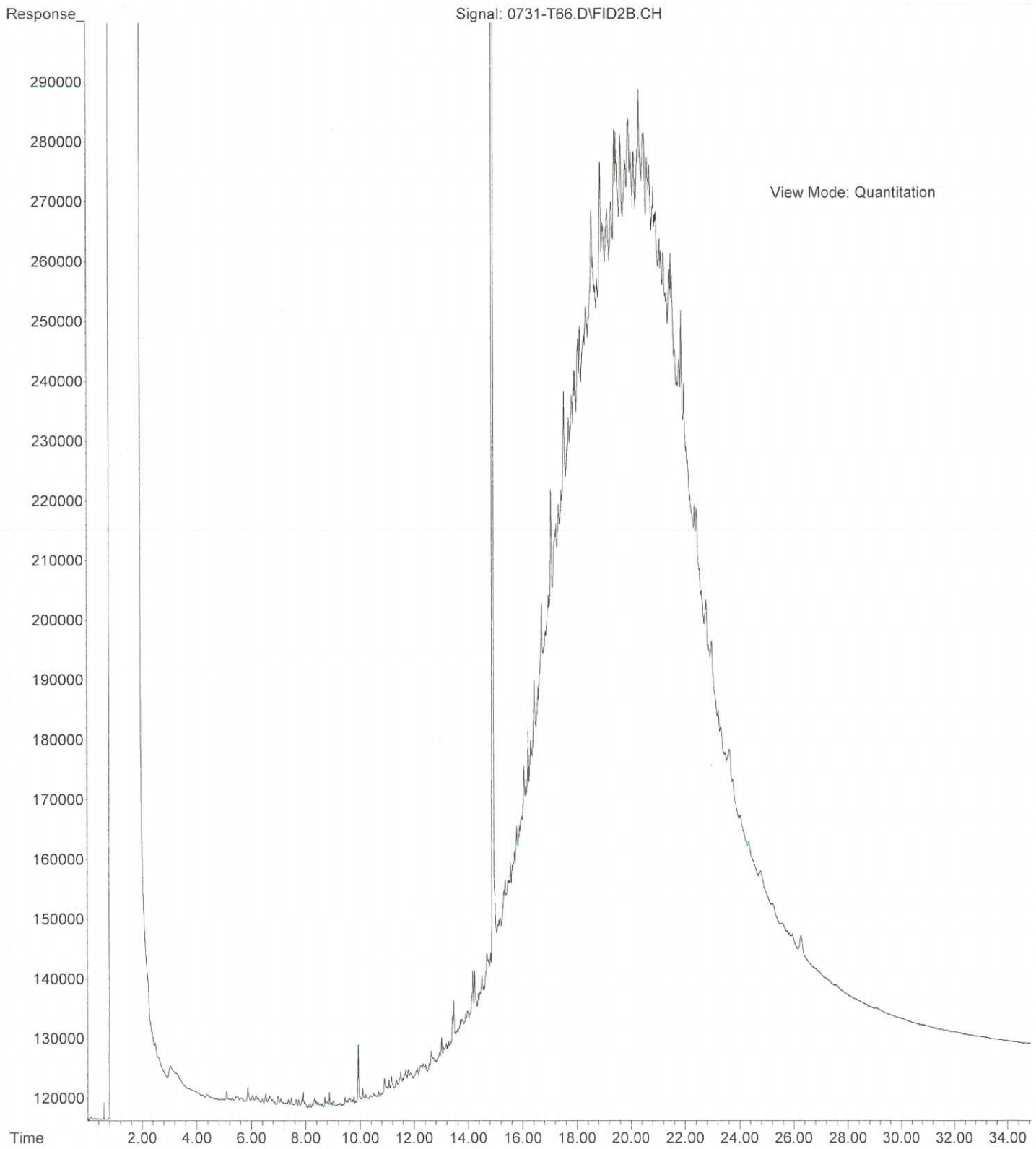
	Signature	Company	Date	Time	Comments/Special Instructions
Relinquished		GEI	7/31/15	1155	
Received		CORE	7/31/15	1155	
Relinquished					
Received					
Relinquished					
Received					
Reviewed/Date		Reviewed/Date			Chromatograms with final report ☐

Data Package: Standard ☐ Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ _____

File : D:\BTEX\DATA\D150731\0731019.D
Operator :
Acquired : 1 Aug 2015 00:24 using AcqMethod 150709B.M
Instrument : Daryl
Sample Name: 07-254-01 1:100
Misc Info :
Vial Number: 19



File :X:\DIESELS\TERI\DATA\T150731.SEC\0731-T66.D
Operator : ZT
Acquired : 01 Aug 2015 0:27 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 07-254-01
Misc Info :
Vial Number: 66



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

August 7, 2015

Fasih Khan
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03
Laboratory Reference No. 1508-030

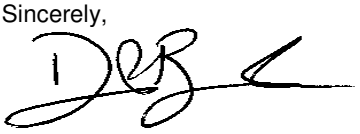
Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on August 6, 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,



David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 7, 2015
Samples Submitted: August 6, 2015
Laboratory Reference: 1508-030
Project: 21138-001-03

Case Narrative

Samples were collected on August 5, 2015 and received by the laboratory on August 6, 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.

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 7, 2015
Samples Submitted: August 6, 2015
Laboratory Reference: 1508-030
Project: 21138-001-03

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
SS-6	08-030-01	Soil	8-5-15	8-6-15	
SS-7	08-030-02	Soil	8-5-15	8-6-15	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 7, 2015
Samples Submitted: August 6, 2015
Laboratory Reference: 1508-030
Project: 21138-001-03

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SS-6**					
Laboratory ID:	08-030-01					
Diesel Range Organics	**610**	31	NWTPH-Dx	8-6-15	8-6-15	N
Lube Oil	**2900**	63	NWTPH-Dx	8-6-15	8-6-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*72*	*50-150*				
Client ID:	**SS-7**					
Laboratory ID:	08-030-02					
Diesel Range Organics	**43**	35	NWTPH-Dx	8-6-15	8-6-15	
Lube Oil Range Organics	**120**	69	NWTPH-Dx	8-6-15	8-6-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*85*	*50-150*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 7, 2015
Samples Submitted: August 6, 2015
Laboratory Reference: 1508-030
Project: 21138-001-03

cPAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SS-6**					
Laboratory ID:	08-030-01					
Benzo[a]anthracene	**0.40**	0.017	EPA 8270D/SIM	8-6-15	8-7-15	
Chrysene	**0.40**	0.017	EPA 8270D/SIM	8-6-15	8-7-15	
Benzo[b]fluoranthene	**0.37**	0.0084	EPA 8270D/SIM	8-6-15	8-6-15	
Benzo(j,k)fluoranthene	**0.13**	0.0084	EPA 8270D/SIM	8-6-15	8-6-15	
Benzo[a]pyrene	**0.38**	0.0084	EPA 8270D/SIM	8-6-15	8-6-15	
Indeno(1,2,3-c,d)pyrene	**0.23**	0.0084	EPA 8270D/SIM	8-6-15	8-6-15	
Dibenz[a,h]anthracene	**0.046**	0.0084	EPA 8270D/SIM	8-6-15	8-6-15	
Benzo[g,h,i]perylene	**0.23**	0.0084	EPA 8270D/SIM	8-6-15	8-6-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*77*	*32 - 114*				
Pyrene-d10	*53*	*33 - 121*				
Terphenyl-d14	*86*	*31 - 116*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 7, 2015
Samples Submitted: August 6, 2015
Laboratory Reference: 1508-030
Project: 21138-001-03

cPAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SS-7**					
Laboratory ID:	08-030-02					
Benzo[a]anthracene	**ND**	0.0093	EPA 8270D/SIM	8-6-15	8-6-15	
Chrysene	**ND**	0.0093	EPA 8270D/SIM	8-6-15	8-6-15	
Benzo[b]fluoranthene	**ND**	0.019	EPA 8270D/SIM	8-6-15	8-7-15	
Benzo(j,k)fluoranthene	**ND**	0.019	EPA 8270D/SIM	8-6-15	8-7-15	
Benzo[a]pyrene	**ND**	0.019	EPA 8270D/SIM	8-6-15	8-7-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.019	EPA 8270D/SIM	8-6-15	8-7-15	
Dibenz[a,h]anthracene	**ND**	0.019	EPA 8270D/SIM	8-6-15	8-7-15	
Benzo[g,h,i]perylene	**ND**	0.019	EPA 8270D/SIM	8-6-15	8-7-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*69*	*32 - 114*				
Pyrene-d10	*63*	*33 - 121*				
Terphenyl-d14	*82*	*31 - 116*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 7, 2015
Samples Submitted: August 6, 2015
Laboratory Reference: 1508-030
Project: 21138-001-03

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0806S1					
Diesel Range Organics	**ND**	25	NWTPH-Dx	8-6-15	8-6-15	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	8-6-15	8-6-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*88*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE										
Laboratory ID:	08-031-01									
	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						*93* *95*	*50-150*			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 7, 2015
Samples Submitted: August 6, 2015
Laboratory Reference: 1508-030
Project: 21138-001-03

cPAHs EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0806S2					
Benzo[a]anthracene	**ND**	0.0067	EPA 8270D/SIM	8-6-15	8-6-15	
Chrysene	**ND**	0.0067	EPA 8270D/SIM	8-6-15	8-6-15	
Benzo[b]fluoranthene	**ND**	0.0067	EPA 8270D/SIM	8-6-15	8-6-15	
Benzo(j,k)fluoranthene	**ND**	0.0067	EPA 8270D/SIM	8-6-15	8-6-15	
Benzo[a]pyrene	**ND**	0.0067	EPA 8270D/SIM	8-6-15	8-6-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0067	EPA 8270D/SIM	8-6-15	8-6-15	
Dibenz[a,h]anthracene	**ND**	0.0067	EPA 8270D/SIM	8-6-15	8-6-15	
Benzo[g,h,i]perylene	**ND**	0.0067	EPA 8270D/SIM	8-6-15	8-6-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*86*	*32 - 114*				
Pyrene-d10	*90*	*33 - 121*				
Terphenyl-d14	*99*	*31 - 116*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 7, 2015
Samples Submitted: August 6, 2015
Laboratory Reference: 1508-030
Project: 21138-001-03

cPAHs 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:	SB0806S2									
	SB	SBD	SB	SBD	SB	SBD				
Naphthalene	**0.0712**	**0.0711**	0.0833	0.0833	85	85	63 - 113	0	19	
Acenaphthylene	**0.0654**	**0.0731**	0.0833	0.0833	79	88	61 - 125	11	16	
Acenaphthene	**0.0684**	**0.0698**	0.0833	0.0833	82	84	66 - 113	2	16	
Fluorene	**0.0747**	**0.0731**	0.0833	0.0833	90	88	60 - 117	2	16	
Phenanthrene	**0.0723**	**0.0693**	0.0833	0.0833	87	83	63 - 116	4	12	
Anthracene	**0.0966**	**0.0845**	0.0833	0.0833	116	101	66 - 146	13	19	
Fluoranthene	**0.0733**	**0.0718**	0.0833	0.0833	88	86	60 - 125	2	13	
Pyrene	**0.0718**	**0.0682**	0.0833	0.0833	86	82	66 - 126	5	15	
Benzo[a]anthracene	**0.0646**	**0.0661**	0.0833	0.0833	78	79	60 - 128	2	15	
Chrysene	**0.0749**	**0.0781**	0.0833	0.0833	90	94	60 - 117	4	13	
Benzo[b]fluoranthene	**0.0668**	**0.0694**	0.0833	0.0833	80	83	60 - 131	4	16	
Benzo(j,k)fluoranthene	**0.0687**	**0.0690**	0.0833	0.0833	82	83	57 - 126	0	20	
Benzo[a]pyrene	**0.0700**	**0.0713**	0.0833	0.0833	84	86	62 - 136	2	16	
Indeno(1,2,3-c,d)pyrene	**0.0640**	**0.0645**	0.0833	0.0833	77	77	60 - 127	1	19	
Dibenz[a,h]anthracene	**0.0653**	**0.0665**	0.0833	0.0833	78	80	62 - 133	2	22	
Benzo[g,h,i]perylene	**0.0628**	**0.0658**	0.0833	0.0833	75	79	63 - 129	5	22	
Surrogate:										
2-Fluorobiphenyl					*83*	*86*	*32 - 114*			
Pyrene-d10					*90*	*87*	*33 - 121*			
Terphenyl-d14					*92*	*88*	*31 - 116*			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 7, 2015
Samples Submitted: August 6, 2015
Laboratory Reference: 1508-030
Project: 21138-001-03

% MOISTURE

Date Analyzed: 8-6-15

Client ID	Lab ID	% Moisture
SS-6	08-030-01	20
SS-7	08-030-02	28

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

OnSite Environmental Inc.

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-napthalene) 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.

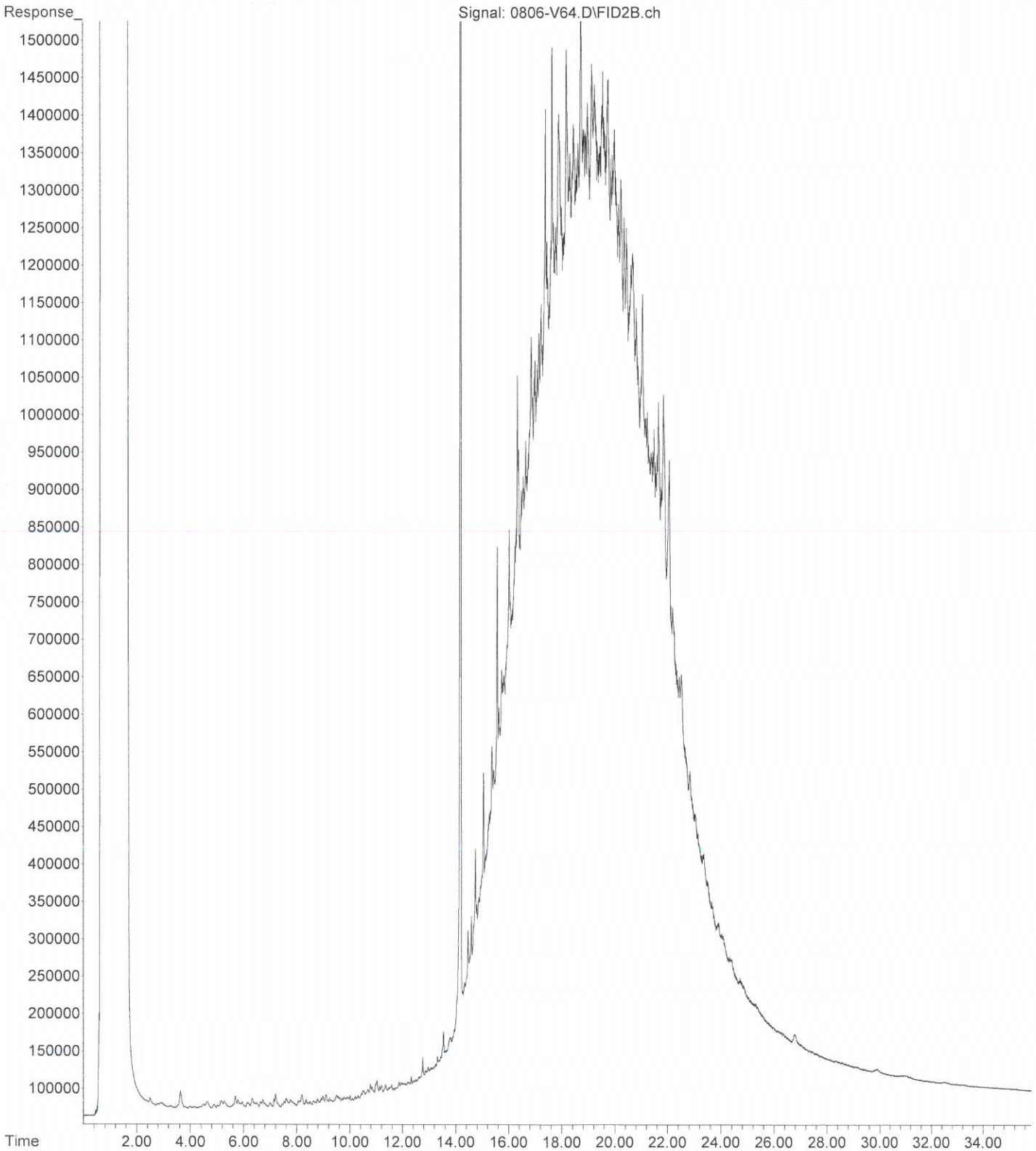
Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

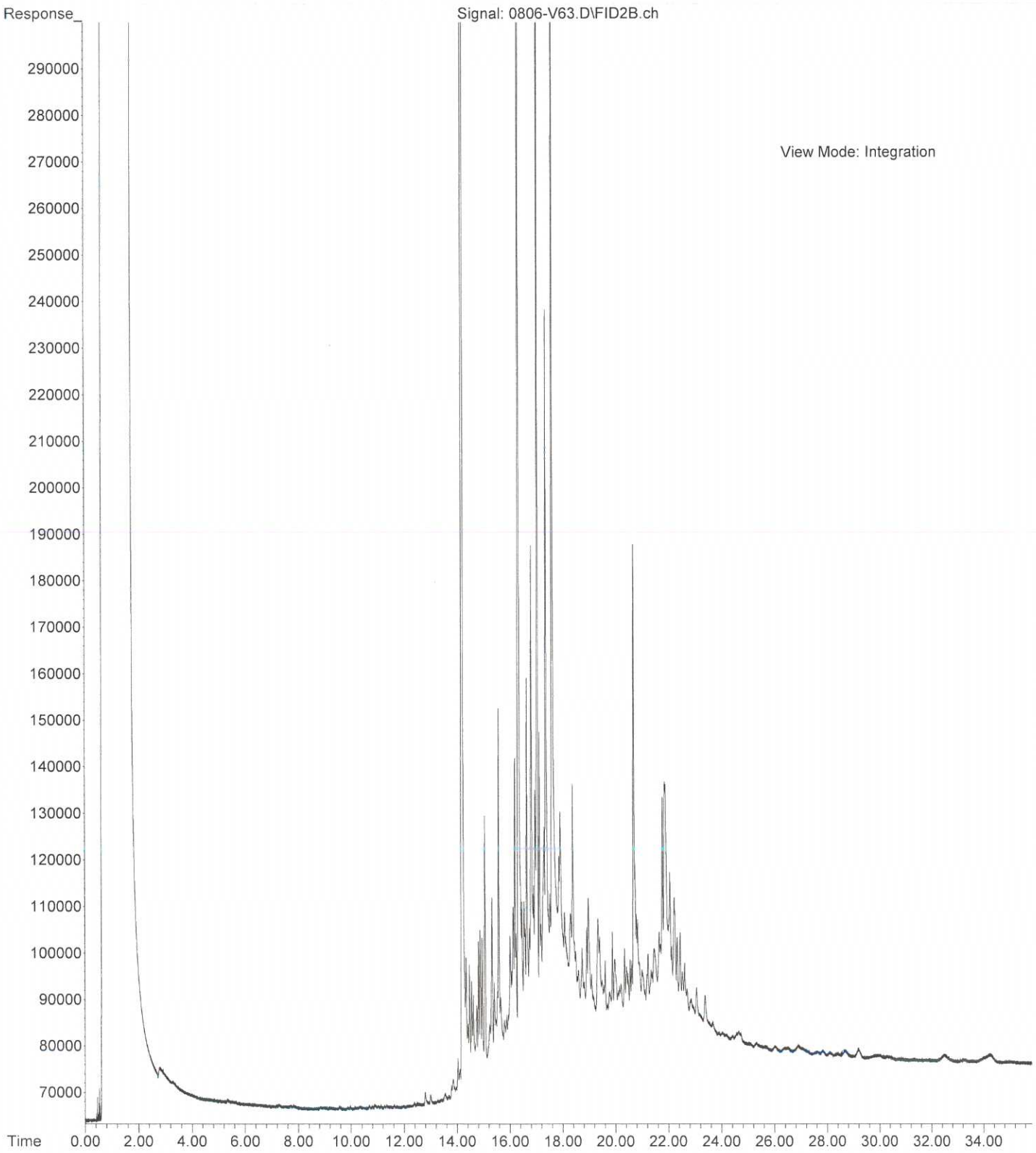
ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

File :X:\DIESELS\VIGO\DATA\V150806.SEC\0806-V64.D
Operator :
Acquired : 6 Aug 2015 22:08 using AcqMethod V150209F.M
Instrument : Vigo
Sample Name: 08-030-01
Misc Info :
Vial Number: 64



File :X:\DIESELS\VIGO\DATA\V150806.SEC\0806-V63.D
Operator :
Acquired : 6 Aug 2015 21:27 using AcqMethod V150209F.M
Instrument : Vigo
Sample Name: 08-030-02
Misc Info :
Vial Number: 63



Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: GEOENGINEERS
Project Number: 21138-001-03
Project Name: 9th & LENORA PROJECT
Project Manager: FASIH KHAN
Sampled by: FASIH KHAN

Turnaround Request (in working days)

(Check One)

- ☐ Same Day
- ☒ 1 Day
- ☐ 2 Days
- ☐ 3 Days
- ☐ Standard (7 Days) (TPH analysis 5 Days)
- ☐ _____ (other)

Laboratory Number: 08-030

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	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	cPAHs ONLY					% Moisture
1	SS-6	8/5/15	0930	S	1				X													X					X
2	SS-7	8/5/15	1330	S	1				X													X					X

	Signature	Company	Date	Time
Relinquished		GEI	8/6/15	0740
Received		OSE	8.6.15	7:40
Relinquished				
Received				
Relinquished				
Received				

Comments/Special Instructions

Reviewed/Date

Reviewed/Date

Chromatograms with final report ☐

Data Package: Standard ☐ Level III ☐ Level IV ☐

Electronic Data Deliverables (EDDs) ☐ _____

OnSite Environmental Inc.

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

August 14, 2015

Fasih Khan
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03
Laboratory Reference No. 1508-100

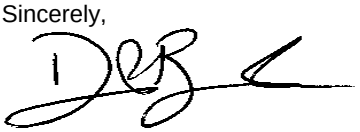
Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on August 12, 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,



David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 14, 2015
Samples Submitted: August 12, 2015
Laboratory Reference: 1508-100
Project: 21138-001-03

Case Narrative

Samples were collected on August 10 and 11, 2015 and received by the laboratory on August 12, 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.

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 14, 2015
Samples Submitted: August 12, 2015
Laboratory Reference: 1508-100
Project: 21138-001-03

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
SS-8	08-100-01	Soil	8-10-15	8-12-15	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 14, 2015
Samples Submitted: August 12, 2015
Laboratory Reference: 1508-100
Project: 21138-001-03

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SS-8**					
Laboratory ID:	08-100-01					
Diesel Range Organics	**ND**	35	NWTPH-Dx	8-12-15	8-12-15	
Lube Oil	**76**	71	NWTPH-Dx	8-12-15	8-12-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*77*	*50-150*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 14, 2015
Samples Submitted: August 12, 2015
Laboratory Reference: 1508-100
Project: 21138-001-03

cPAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SS-8**					
Laboratory ID:	08-100-01					
Benzo[a]anthracene	**0.019**	0.0094	EPA 8270D/SIM	8-13-15	8-13-15	
Chrysene	**0.026**	0.0094	EPA 8270D/SIM	8-13-15	8-13-15	
Benzo[b]fluoranthene	**0.025**	0.0094	EPA 8270D/SIM	8-13-15	8-13-15	
Benzo(j,k)fluoranthene	**ND**	0.0094	EPA 8270D/SIM	8-13-15	8-13-15	
Benzo[a]pyrene	**0.015**	0.0094	EPA 8270D/SIM	8-13-15	8-13-15	
Indeno(1,2,3-c,d)pyrene	**0.014**	0.0094	EPA 8270D/SIM	8-13-15	8-13-15	
Dibenz[a,h]anthracene	**ND**	0.0094	EPA 8270D/SIM	8-13-15	8-13-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*66*	*32 - 114*				
Pyrene-d10	*57*	*33 - 121*				
Terphenyl-d14	*63*	*31 - 116*				

This report pertains to the samples analyzed in accordance with the chain of custody,
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Date of Report: August 14, 2015
Samples Submitted: August 12, 2015
Laboratory Reference: 1508-100
Project: 21138-001-03

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0812S1					
Diesel Range Organics	**ND**	25	NWTPH-Dx	8-12-15	8-12-15	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	8-12-15	8-12-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*76*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE										
Laboratory ID:	08-091-01									
	ORIG	DUP								
Diesel Range	**ND**	**ND**	NA	NA		NA	NA	NA	NA	U1
Lube Oil	**150**	**143**	NA	NA		NA	NA	5	NA	
Surrogate:										
o-Terphenyl						*87* *90*	*50-150*			

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Date of Report: August 14, 2015
Samples Submitted: August 12, 2015
Laboratory Reference: 1508-100
Project: 21138-001-03

cPAHs EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0813S2					
Benzo[a]anthracene	**ND**	0.0067	EPA 8270D/SIM	8-13-15	8-13-15	
Chrysene	**ND**	0.0067	EPA 8270D/SIM	8-13-15	8-13-15	
Benzo[b]fluoranthene	**ND**	0.0067	EPA 8270D/SIM	8-13-15	8-13-15	
Benzo(j,k)fluoranthene	**ND**	0.0067	EPA 8270D/SIM	8-13-15	8-13-15	
Benzo[a]pyrene	**ND**	0.0067	EPA 8270D/SIM	8-13-15	8-13-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0067	EPA 8270D/SIM	8-13-15	8-13-15	
Dibenz[a,h]anthracene	**ND**	0.0067	EPA 8270D/SIM	8-13-15	8-13-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*100*	*32 - 114*				
Pyrene-d10	*88*	*33 - 121*				
Terphenyl-d14	*90*	*31 - 116*				

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Date of Report: August 14, 2015
Samples Submitted: August 12, 2015
Laboratory Reference: 1508-100
Project: 21138-001-03

cPAHs EPA 8270D/SIM
MS/MSD QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	08-100-01										
	MS	MSD	MS	MSD		MS	MSD				
Naphthalene	**0.144**	**0.168**	0.167	0.167	0.0371	64	78	44 - 107	15	29	
Acenaphthylene	**0.105**	**0.113**	0.167	0.167	ND	63	68	44 - 121	7	27	
Acenaphthene	**0.118**	**0.119**	0.167	0.167	ND	71	71	47 - 109	1	26	
Fluorene	**0.126**	**0.123**	0.167	0.167	ND	75	74	49 - 115	2	28	
Phenanthrene	**0.177**	**0.158**	0.167	0.167	0.0609	70	58	45 - 114	11	26	
Anthracene	**0.169**	**0.160**	0.167	0.167	0.00766	97	91	43 - 140	5	27	
Fluoranthene	**0.136**	**0.125**	0.167	0.167	0.0225	68	61	44 - 126	8	27	
Pyrene	**0.151**	**0.122**	0.167	0.167	0.0197	79	61	43 - 125	21	27	
Benzo[a]anthracene	**0.135**	**0.127**	0.167	0.167	0.0134	73	68	42 - 134	6	27	
Chrysene	**0.132**	**0.126**	0.167	0.167	0.0182	68	65	45 - 114	5	27	
Benzo[b]fluoranthene	**0.129**	**0.128**	0.167	0.167	0.0176	67	66	38 - 131	1	33	
Benzo(j,k)fluoranthene	**0.116**	**0.103**	0.167	0.167	ND	69	62	44 - 114	12	34	
Benzo[a]pyrene	**0.124**	**0.116**	0.167	0.167	0.0104	68	63	40 - 136	7	29	
Indeno(1,2,3-c,d)pyrene	**0.112**	**0.110**	0.167	0.167	0.0101	61	60	45 - 126	2	30	
Dibenz[a,h]anthracene	**0.103**	**0.102**	0.167	0.167	ND	62	61	46 - 121	1	28	
Benzo[g,h,i]perylene	**0.114**	**0.111**	0.167	0.167	0.0105	62	60	43 - 120	3	31	
Surrogate:											
2-Fluorobiphenyl						*64*	*74*	*32 - 114*			
Pyrene-d10						*76*	*64*	*33 - 121*			
Terphenyl-d14						*91*	*70*	*31 - 116*			

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Date of Report: August 14, 2015
Samples Submitted: August 12, 2015
Laboratory Reference: 1508-100
Project: 21138-001-03

% MOISTURE

Date Analyzed: 8-12-15

Client ID	Lab ID	% Moisture
SS-8	08-100-01	29

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OnSite Environmental Inc.

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-napthalene) 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

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Laboratory Number: 08-100

Company: GeoEngineers
Project Number: 21138-001-03
Project Name: 9th & Lenora Project
Project Manager: Fasih Khan
Sampled by: Fasih Khan

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☒ 2 Days ☐ 3 Days
☐ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	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	cPAHs Only		HOLD				% Moisture
1	SS-8	8/10/15	1015	S	1				X													X						X
2	SW-UST-PCS	8/11/15	1140	S	1																			X				

	Signature	Company	Date	Time
Relinquished		GE	8/12/15	0930
Received		GEL	8/12/15	0930
Relinquished				
Received				
Relinquished				
Received				

Comments/Special Instructions

Reviewed/Date

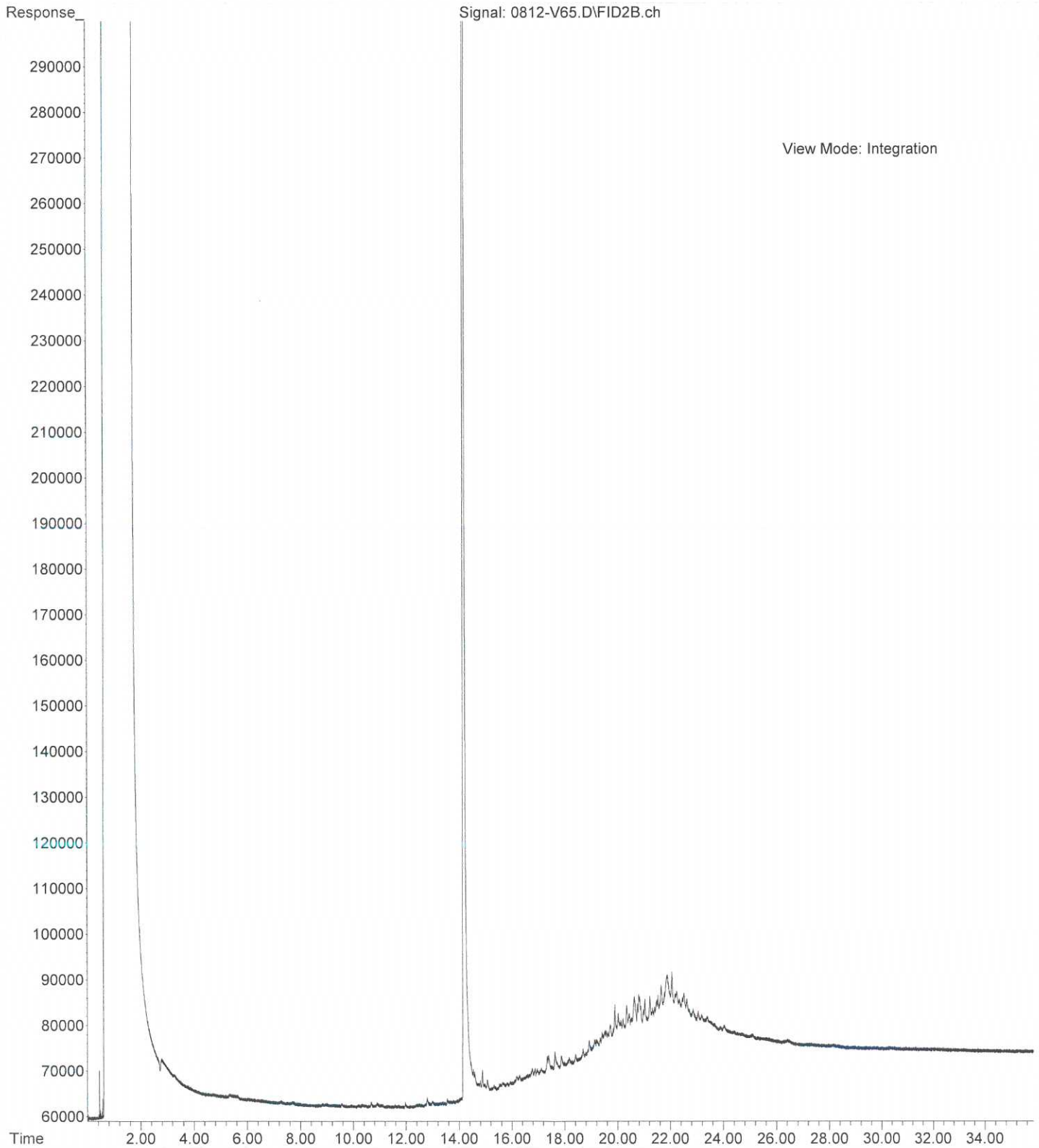
Reviewed/Date

Chromatograms with final report ☐

Data Package: Standard ☐ Level III ☐ Level IV ☐

Electronic Data Deliverables (EDDs) ☐ _____

File :X:\DIESELS\VIGO\DATA\V150812.SEC\0812-V65.D
Operator :
Acquired : 12 Aug 2015 21:58 using AcqMethod V150209F.M
Instrument : Vigo
Sample Name: 08-100-01
Misc Info :
Vial Number: 65



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

August 28, 2015

Fasih Khan
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03
Laboratory Reference No. 1508-267

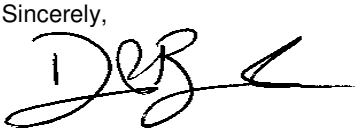
Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on August 27, 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,



David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody,
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Date of Report: August 28, 2015
Samples Submitted: August 27, 2015
Laboratory Reference: 1508-267
Project: 21138-001-03

Case Narrative

Samples were collected on August 26, 2015 and received by the laboratory on August 27, 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.

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Date of Report: August 28, 2015
Samples Submitted: August 27, 2015
Laboratory Reference: 1508-267
Project: 21138-001-03

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
UST2 EX-E-35.0	08-267-01	Soil	8-26-15	8-27-15	
UST2 EX-B1-35.0	08-267-02	Soil	8-26-15	8-27-15	

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Date of Report: August 28, 2015
Samples Submitted: August 27, 2015
Laboratory Reference: 1508-267
Project: 21138-001-03

NWTPH-Gx/BTEX

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST2 EX-E-35.0**					
Laboratory ID:	08-267-01					
Benzene	**ND**	0.020	EPA 8021B	8-27-15	8-27-15	
Toluene	**ND**	0.069	EPA 8021B	8-27-15	8-27-15	
Ethyl Benzene	**ND**	0.069	EPA 8021B	8-27-15	8-27-15	
m,p-Xylene	**ND**	0.069	EPA 8021B	8-27-15	8-27-15	
o-Xylene	**ND**	0.069	EPA 8021B	8-27-15	8-27-15	
Gasoline	**ND**	6.9	NWTPH-Gx	8-27-15	8-27-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*89*	*68-123*				
Client ID:	**UST2 EX-B1-35.0**					
Laboratory ID:	08-267-02					
Benzene	**ND**	0.020	EPA 8021B	8-27-15	8-27-15	
Toluene	**ND**	0.063	EPA 8021B	8-27-15	8-27-15	
Ethyl Benzene	**ND**	0.063	EPA 8021B	8-27-15	8-27-15	
m,p-Xylene	**ND**	0.063	EPA 8021B	8-27-15	8-27-15	
o-Xylene	**ND**	0.063	EPA 8021B	8-27-15	8-27-15	
Gasoline	**ND**	6.3	NWTPH-Gx	8-27-15	8-27-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*83*	*68-123*				

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Date of Report: August 28, 2015
Samples Submitted: August 27, 2015
Laboratory Reference: 1508-267
Project: 21138-001-03

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST2 EX-E-35.0**					
Laboratory ID:	08-267-01					
Diesel Range Organics	**ND**	32	NWTPH-Dx	8-27-15	8-27-15	
Lube Oil Range Organics	**ND**	64	NWTPH-Dx	8-27-15	8-27-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*90*	*50-150*				
Client ID:	**UST2 EX-B1-35.0**					
Laboratory ID:	08-267-02					
Diesel Range Organics	**ND**	26	NWTPH-Dx	8-27-15	8-27-15	
Lube Oil Range Organics	**ND**	53	NWTPH-Dx	8-27-15	8-27-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*83*	*50-150*				

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Date of Report: August 28, 2015
Samples Submitted: August 27, 2015
Laboratory Reference: 1508-267
Project: 21138-001-03

PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST2 EX-E-35.0**					
Laboratory ID:	08-267-01					
Naphthalene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
2-Methylnaphthalene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
1-Methylnaphthalene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Acenaphthylene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Acenaphthene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Fluorene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Phenanthrene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Anthracene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Fluoranthene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Pyrene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[a]anthracene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Chrysene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[b]fluoranthene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo(j,k)fluoranthene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[a]pyrene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Dibenz[a,h]anthracene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[g,h,i]perylene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*62*	*32 - 114*				
Pyrene-d10	*60*	*33 - 121*				
Terphenyl-d14	*63*	*31 - 116*				

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Date of Report: August 28, 2015
Samples Submitted: August 27, 2015
Laboratory Reference: 1508-267
Project: 21138-001-03

PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST2 EX-B1-35.0**					
Laboratory ID:	08-267-02					
Naphthalene	**ND**	0.0070	EPA 8270D/SIM	8-27-15	8-27-15	
2-Methylnaphthalene	**ND**	0.0070	EPA 8270D/SIM	8-27-15	8-27-15	
1-Methylnaphthalene	**ND**	0.0070	EPA 8270D/SIM	8-27-15	8-27-15	
Acenaphthylene	**ND**	0.0070	EPA 8270D/SIM	8-27-15	8-27-15	
Acenaphthene	**ND**	0.0070	EPA 8270D/SIM	8-27-15	8-27-15	
Fluorene	**ND**	0.0070	EPA 8270D/SIM	8-27-15	8-27-15	
Phenanthrene	**ND**	0.0070	EPA 8270D/SIM	8-27-15	8-27-15	
Anthracene	**ND**	0.0070	EPA 8270D/SIM	8-27-15	8-27-15	
Fluoranthene	**ND**	0.0070	EPA 8270D/SIM	8-27-15	8-27-15	
Pyrene	**ND**	0.0070	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[a]anthracene	**ND**	0.0070	EPA 8270D/SIM	8-27-15	8-27-15	
Chrysene	**ND**	0.0070	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[b]fluoranthene	**ND**	0.0070	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo(j,k)fluoranthene	**ND**	0.0070	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[a]pyrene	**ND**	0.0070	EPA 8270D/SIM	8-27-15	8-27-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0070	EPA 8270D/SIM	8-27-15	8-27-15	
Dibenz[a,h]anthracene	**ND**	0.0070	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[g,h,i]perylene	**ND**	0.0070	EPA 8270D/SIM	8-27-15	8-27-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*55*	*32 - 114*				
Pyrene-d10	*52*	*33 - 121*				
Terphenyl-d14	*54*	*31 - 116*				

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Date of Report: August 28, 2015
Samples Submitted: August 27, 2015
Laboratory Reference: 1508-267
Project: 21138-001-03

NWTPH-Gx/BTEX
QUALITY CONTROL

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0827S1					
Benzene	**ND**	0.020	EPA 8021B	8-27-15	8-27-15	
Toluene	**ND**	0.050	EPA 8021B	8-27-15	8-27-15	
Ethyl Benzene	**ND**	0.050	EPA 8021B	8-27-15	8-27-15	
m,p-Xylene	**ND**	0.050	EPA 8021B	8-27-15	8-27-15	
o-Xylene	**ND**	0.050	EPA 8021B	8-27-15	8-27-15	
Gasoline	**ND**	5.0	NWTPH-Gx	8-27-15	8-27-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*84*	*68-123*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	08-267-01										
	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						*89*	*94*	*68-123*			
SPIKE BLANKS											
Laboratory ID:	SB0827S1										
	SB	SBD	SB	SBD		SB	SBD				
Benzene	**0.887**	**0.952**	1.00	1.00		**89**	**95**	75-117	7	13	
Toluene	**0.891**	**0.943**	1.00	1.00		**89**	**94**	78-118	6	12	
Ethyl Benzene	**0.883**	**0.925**	1.00	1.00		**88**	**93**	78-118	5	12	
m,p-Xylene	**0.903**	**0.980**	1.00	1.00		**90**	**98**	78-121	8	13	
o-Xylene	**0.891**	**0.916**	1.00	1.00		**89**	**92**	77-119	3	13	
Surrogate:											
Fluorobenzene						*82*	*84*	*68-123*			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 28, 2015
Samples Submitted: August 27, 2015
Laboratory Reference: 1508-267
Project: 21138-001-03

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0827S1					
Diesel Range Organics	**ND**	25	NWTPH-Dx	8-27-15	8-27-15	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	8-27-15	8-27-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*94*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	08-267-02										
	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						*83*	*87*	*50-150*			

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Date of Report: August 28, 2015
Samples Submitted: August 27, 2015
Laboratory Reference: 1508-267
Project: 21138-001-03

PAHs EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0827S1					
Naphthalene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
2-Methylnaphthalene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
1-Methylnaphthalene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Acenaphthylene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Acenaphthene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Fluorene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Phenanthrene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Anthracene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Fluoranthene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Pyrene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[a]anthracene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Chrysene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[b]fluoranthene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo(j,k)fluoranthene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[a]pyrene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Dibenz[a,h]anthracene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[g,h,i]perylene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*82*	*32 - 114*				
Pyrene-d10	*87*	*33 - 121*				
Terphenyl-d14	*92*	*31 - 116*				

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Date of Report: August 28, 2015
Samples Submitted: August 27, 2015
Laboratory Reference: 1508-267
Project: 21138-001-03

PAHs EPA 8270D/SIM
MS/MSD QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	08-263-03										
	MS	MSD	MS	MSD		MS	MSD				
Naphthalene	**0.0583**	**0.0615**	0.0833	0.0833	ND	70	74	44 - 107	5	29	
Acenaphthylene	**0.0581**	**0.0652**	0.0833	0.0833	ND	70	78	44 - 121	12	27	
Acenaphthene	**0.0579**	**0.0636**	0.0833	0.0833	ND	70	76	47 - 109	9	26	
Fluorene	**0.0620**	**0.0653**	0.0833	0.0833	ND	74	78	49 - 115	5	28	
Phenanthrene	**0.0598**	**0.0638**	0.0833	0.0833	ND	72	77	45 - 114	6	26	
Anthracene	**0.100**	**0.110**	0.0833	0.0833	ND	120	132	43 - 140	10	27	
Fluoranthene	**0.0584**	**0.0641**	0.0833	0.0833	ND	70	77	44 - 126	9	27	
Pyrene	**0.0582**	**0.0636**	0.0833	0.0833	ND	70	76	43 - 125	9	27	
Benzo[a]anthracene	**0.0680**	**0.0727**	0.0833	0.0833	ND	82	87	42 - 134	7	27	
Chrysene	**0.0597**	**0.0654**	0.0833	0.0833	ND	72	79	45 - 114	9	27	
Benzo[b]fluoranthene	**0.0602**	**0.0651**	0.0833	0.0833	ND	72	78	38 - 131	8	33	
Benzo(j,k)fluoranthene	**0.0575**	**0.0636**	0.0833	0.0833	ND	69	76	44 - 114	10	34	
Benzo[a]pyrene	**0.0580**	**0.0638**	0.0833	0.0833	ND	70	77	40 - 136	10	29	
Indeno(1,2,3-c,d)pyrene	**0.0580**	**0.0623**	0.0833	0.0833	ND	70	75	45 - 126	7	30	
Dibenz[a,h]anthracene	**0.0597**	**0.0646**	0.0833	0.0833	ND	72	78	46 - 121	8	28	
Benzo[g,h,i]perylene	**0.0579**	**0.0626**	0.0833	0.0833	ND	70	75	43 - 120	8	31	
Surrogate:											
2-Fluorobiphenyl						*67*	*84*	*32 - 114*			
Pyrene-d10						*71*	*78*	*33 - 121*			
Terphenyl-d14						*75*	*84*	*31 - 116*			

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Date of Report: August 28, 2015
Samples Submitted: August 27, 2015
Laboratory Reference: 1508-267
Project: 21138-001-03

% MOISTURE

Date Analyzed: 8-27-15

Client ID	Lab ID	% Moisture
UST2 EX-E-35.0	08-267-01	22
UST2 EX-B1-35.0	08-267-02	5

This report pertains to the samples analyzed in accordance with the chain of custody,
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OnSite Environmental Inc.

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-napthalene) 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

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: GEOENGINEERS
Project Number: 21138-001-03
Project Name: 9th & LENORA PROJECT
Project Manager: FASIH KHAN
Sampled by: FASIH KHAN

Turnaround Request (in working days)
(Check One)
☒ Same Day ~~☒ 1 Day~~ 2
☐ 2 Days ☐ 3 Days
☐ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Laboratory Number: 08-267

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	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
1	VST2EX-E-35.0	8/26/15	0930	S	2		⊗		⊗				⊗									X
2	VST2EX-B1-35.0	8/26/15	0940	S	2		⊗		⊗				⊗									X

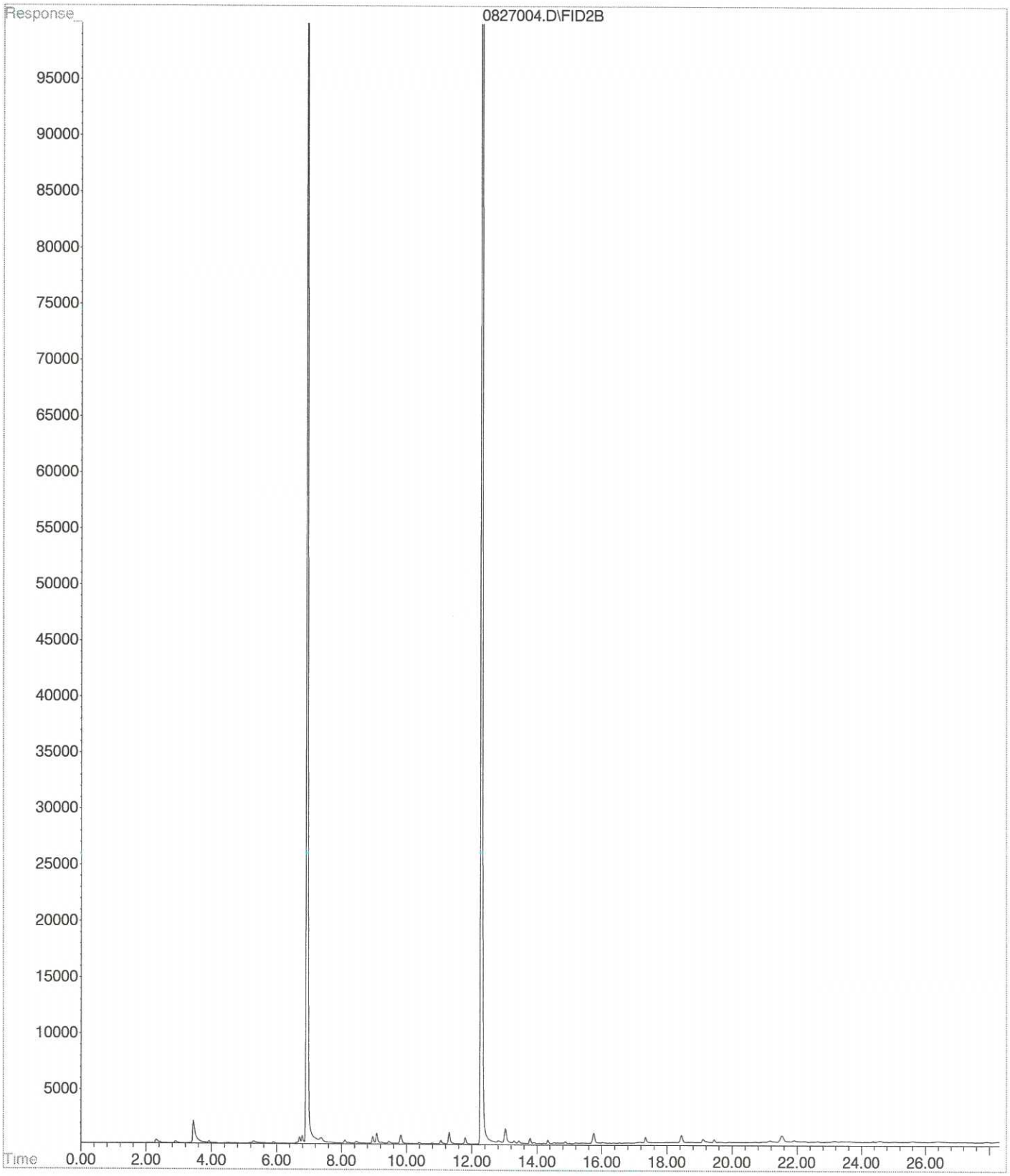
	Signature	Company	Date	Time
Relinquished		GEI	8/27/15	0855
Received		OSE	8/27/15	0855
Relinquished				
Received				
Relinquished				
Received				

Comments/Special Instructions
Only Gx/BTEX and Dx analysis on One-DAY TAT.
PAHs on 2-day TAT.

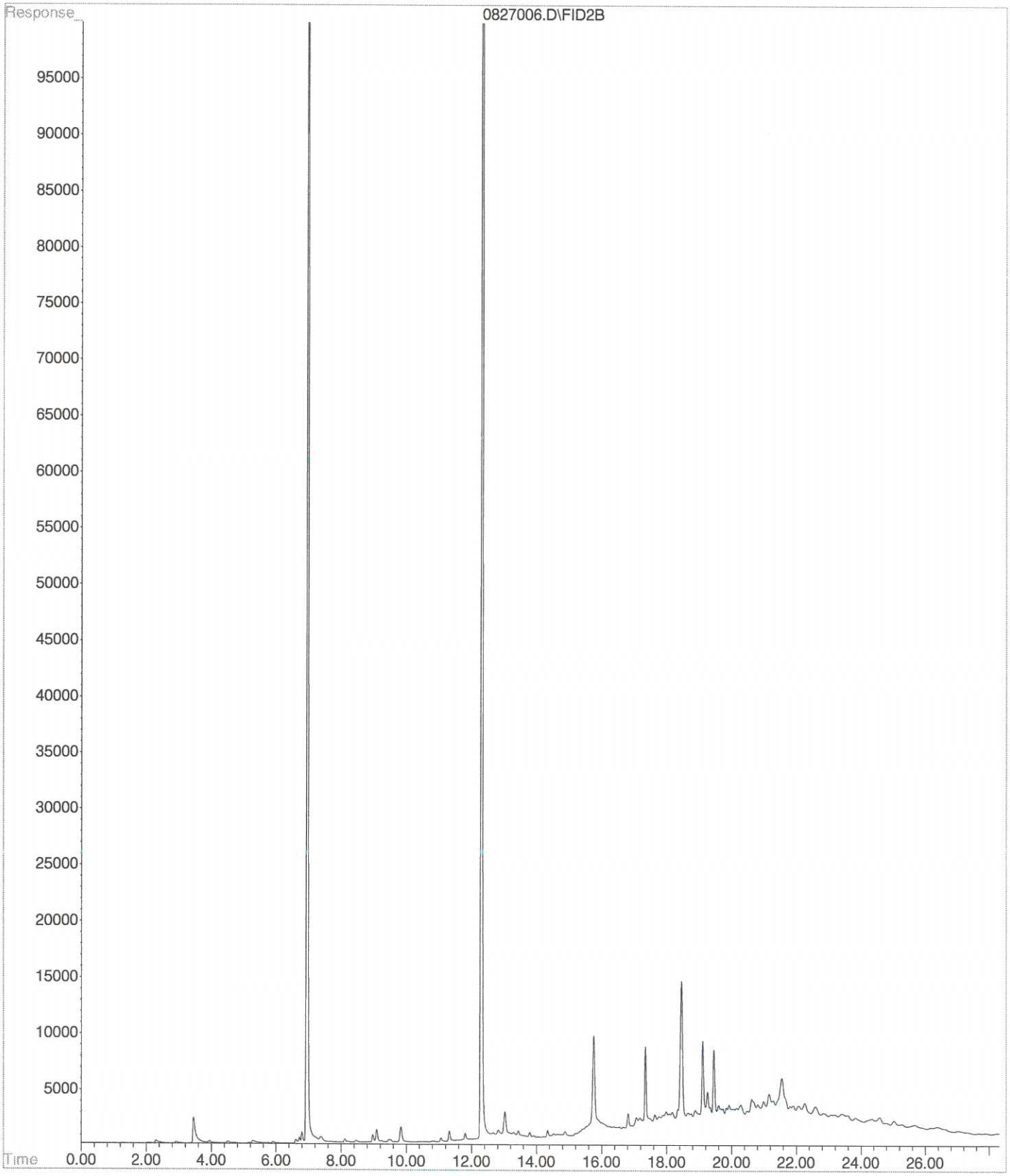
Reviewed/Date
Reviewed/Date
Chromatograms with final report ☐

Data Package: Standard ☐ Level III ☐ Level IV ☐
Electronic Data Deliverables (EDDs) ☐ _____

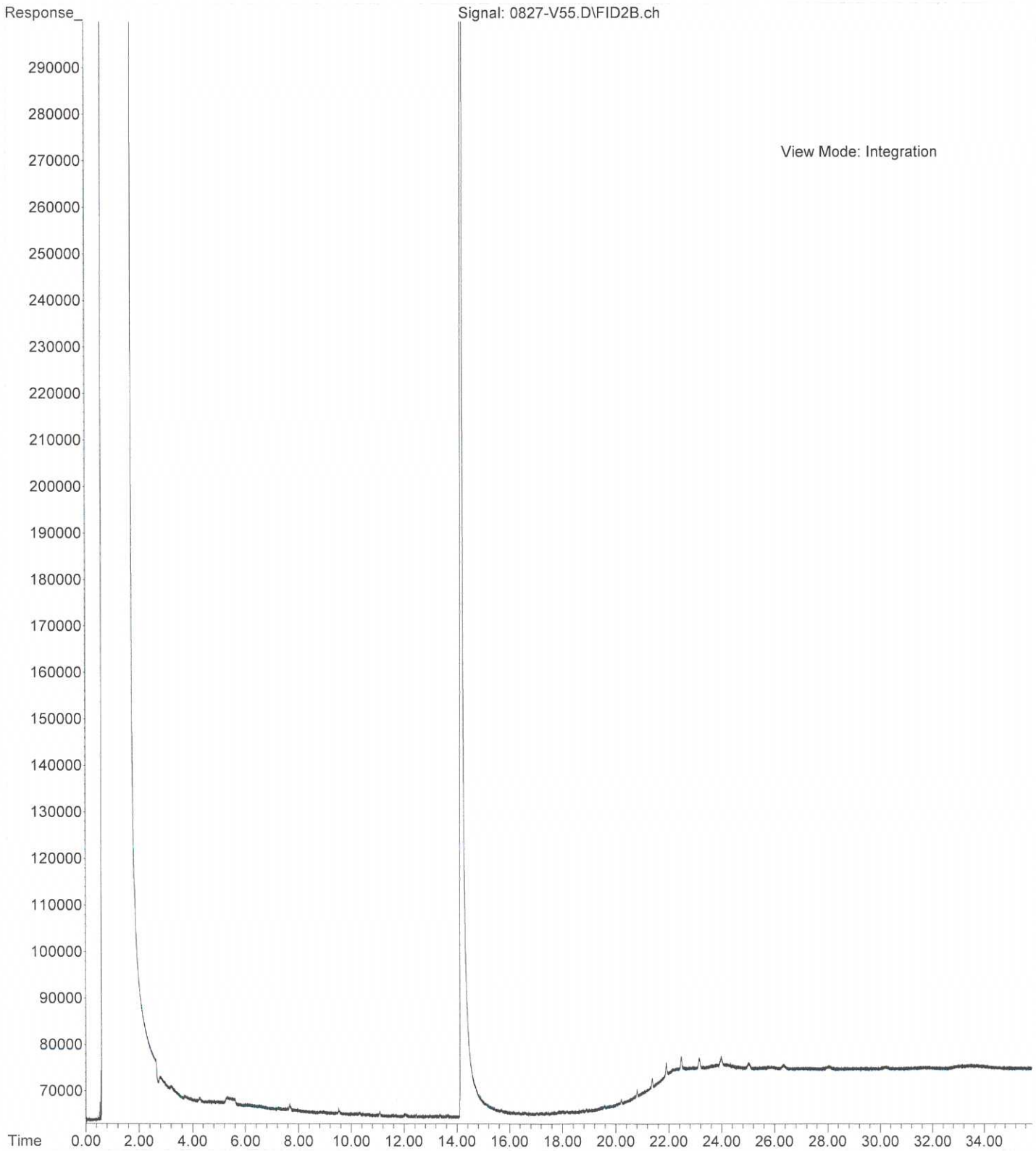
File : X:\BTEX\DARYL\DATA\D150827\0827004.D
Operator :
Acquired : 27 Aug 2015 12:40 using AcqMethod 150709B.M
Instrument : Daryl
Sample Name: 08-267-01s
Misc Info : V2-37-21
Vial Number: 4



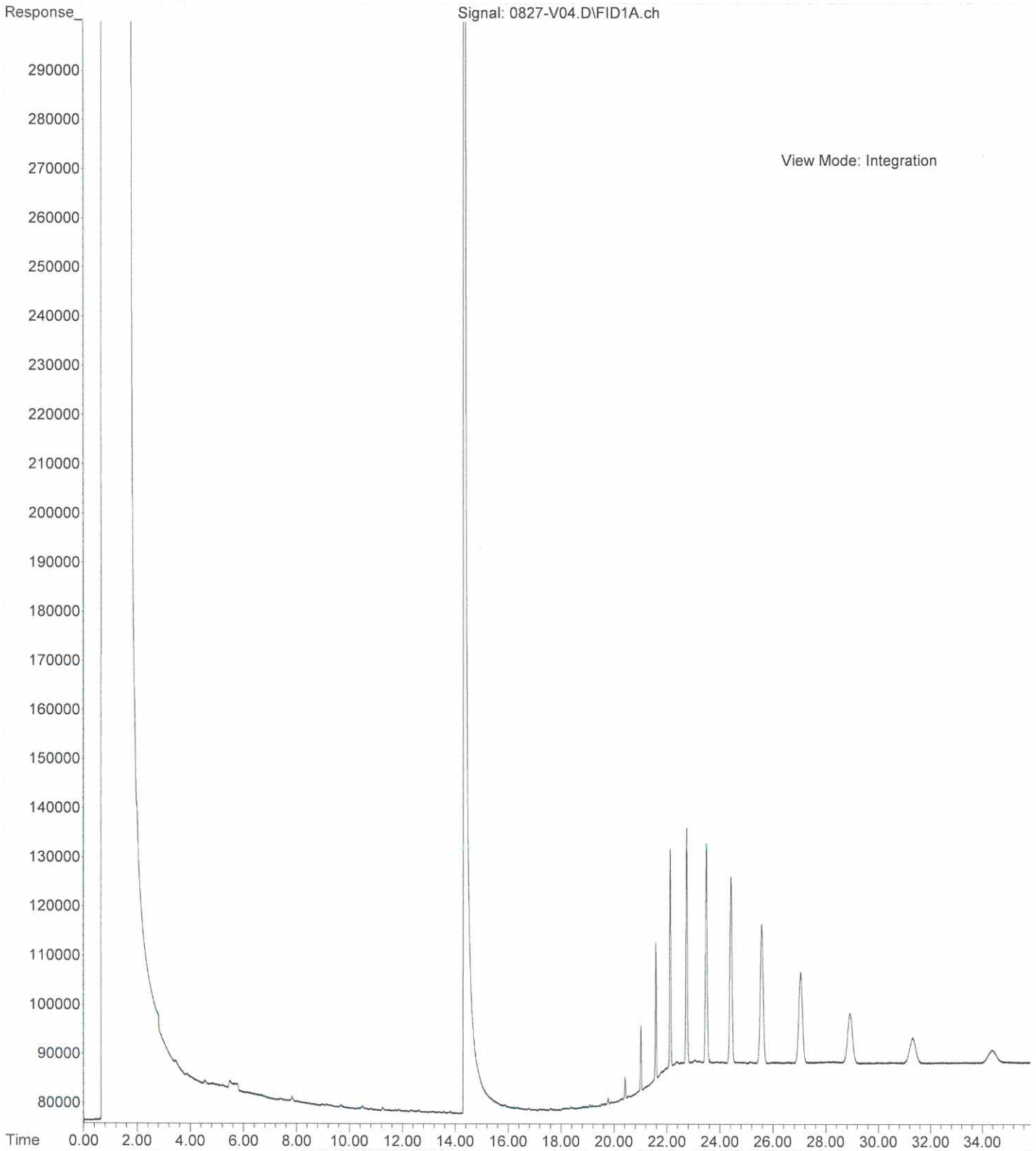
File : X:\BTEX\DARYL\DATA\D150827\0827006.D
Operator :
Acquired : 27 Aug 2015 13:49 using AcqMethod 150709B.M
Instrument : Daryl
Sample Name: 08-267-02s
Misc Info : V2-37-21
Vial Number: 6



File : X:\DIESELS\VIGO\DATA\V150827.SEC\0827-V55.D
Operator :
Acquired : 27 Aug 2015 13:12 using AcqMethod V150507F.M
Instrument : Vigo
Sample Name: 08-267-01
Misc Info :
Vial Number: 55



File :X:\DIESELS\VIGO\DATA\V150827\0827-V04.D
Operator :
Acquired : 27 Aug 2015 12:30 using AcqMethod V150507F.M
Instrument : Vigo
Sample Name: 08-267-02
Misc Info :
Vial Number: 4



OnSite Environmental Inc.

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

August 21, 2015

Fasih Khan
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03
Laboratory Reference No. 1508-200

Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on August 19, 2915.

Please note that this is a *revised* report, and replaces the original due to a revision of the sample identification.

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,

David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 21, 2015
Samples Submitted: August 19, 2915
Laboratory Reference: 1508-200
Project: 21138-001-03

Case Narrative

Samples were collected on August 18, 2015 and received by the laboratory on August 19, 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.

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Date of Report: August 21, 2015
Samples Submitted: August 19, 2915
Laboratory Reference: 1508-200
Project: 21138-001-03

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
HOIST-EX-7.0	08-200-01	Soil	8-18-15	8-19-15	
UST2EX-S1-24.0	08-200-02	Soil	8-18-15	8-19-15	

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Date of Report: August 21, 2015
Samples Submitted: August 19, 2915
Laboratory Reference: 1508-200
Project: 21138-001-03

NWTPH-Gx/BTEX

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST2EX-S1-24.0**					
Laboratory ID:	08-200-02					
Benzene	**ND**	0.020	EPA 8021B	8-19-15	8-19-15	
Toluene	**ND**	0.076	EPA 8021B	8-19-15	8-19-15	
Ethyl Benzene	**ND**	0.076	EPA 8021B	8-19-15	8-19-15	
m,p-Xylene	**ND**	0.076	EPA 8021B	8-19-15	8-19-15	
o-Xylene	**ND**	0.076	EPA 8021B	8-19-15	8-19-15	
Gasoline	**ND**	7.6	NWTPH-Gx	8-19-15	8-19-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*87*	*68-123*				

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Date of Report: August 21, 2015
Samples Submitted: August 19, 2915
Laboratory Reference: 1508-200
Project: 21138-001-03

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**HOIST-EX-7.0**					
Laboratory ID:	08-200-01					
Diesel Range Organics	**ND**	31	NWTPH-Dx	8-20-15	8-20-15	
Lube Oil Range Organics	**ND**	62	NWTPH-Dx	8-20-15	8-20-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*71*	*50-150*				
Client ID:	**UST2EX-S1-24.0**					
Laboratory ID:	08-200-02					
Diesel Range Organics	**ND**	33	NWTPH-Dx	8-20-15	8-20-15	
Lube Oil Range Organics	**ND**	65	NWTPH-Dx	8-20-15	8-20-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*73*	*50-150*				

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Date of Report: August 21, 2015
Samples Submitted: August 19, 2915
Laboratory Reference: 1508-200
Project: 21138-001-03

NWTPH-Gx/BTEX
QUALITY CONTROL

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0819S1					
Benzene	**ND**	0.020	EPA 8021B	8-19-15	8-19-15	
Toluene	**ND**	0.050	EPA 8021B	8-19-15	8-19-15	
Ethyl Benzene	**ND**	0.050	EPA 8021B	8-19-15	8-19-15	
m,p-Xylene	**ND**	0.050	EPA 8021B	8-19-15	8-19-15	
o-Xylene	**ND**	0.050	EPA 8021B	8-19-15	8-19-15	
Gasoline	**ND**	5.0	NWTPH-Gx	8-19-15	8-19-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*81*	*68-123*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	08-097-01										
	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						*86*	*87*	*68-123*			
SPIKE BLANKS											
Laboratory ID:	SB0819S1										
	SB	SBD	SB	SBD		SB	SBD				
Benzene	**0.876**	**0.912**	1.00	1.00		**88**	**91**	75-117	4	13	
Toluene	**0.866**	**0.906**	1.00	1.00		**87**	**91**	78-118	5	12	
Ethyl Benzene	**0.851**	**0.892**	1.00	1.00		**85**	**89**	78-118	5	12	
m,p-Xylene	**0.865**	**0.906**	1.00	1.00		**87**	**91**	78-121	5	13	
o-Xylene	**0.866**	**0.902**	1.00	1.00		**87**	**90**	77-119	4	13	
Surrogate:											
Fluorobenzene						*81*	*85*	*68-123*			

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Date of Report: August 21, 2015
Samples Submitted: August 19, 2915
Laboratory Reference: 1508-200
Project: 21138-001-03

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0820S1					
Diesel Range Organics	**ND**	25	NWTPH-Dx	8-20-15	8-20-15	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	8-20-15	8-20-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*111*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	08-203-04										
	ORIG	DUP									
Diesel Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Lube Oil	**71.9**	**65.6**	NA	NA		NA		NA	9	NA	
Surrogate:											
o-Terphenyl						*101*	*95*	*50-150*			

This report pertains to the samples analyzed in accordance with the chain of custody,
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Date of Report: August 21, 2015
Samples Submitted: August 19, 2915
Laboratory Reference: 1508-200
Project: 21138-001-03

% MOISTURE

Date Analyzed: 8-20-15

Client ID	Lab ID	% Moisture
HOIST-EX-7.0	08-200-01	19
UST2EX-S1-24.0	08-200-02	23

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

OnSite Environmental Inc.

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-napthalene) 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

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Laboratory Number: 08-200

Company: GEOENGINEERS
Project Number: 21138-001-03
Project Name: 9th & LENORA PROJECT
Project Manager: FASIH KHAN
Sampled by: FASIH KHAN

Turnaround Request (in working days)
(Check One)
☐ Same Day ☒ 1 Day
☐ 2 Days ☐ 3 Days
☐ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX 8/27	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
1	HOIST-EX-7.0	8/18/15	1005	S	1				⊗													X
2	~~SW-B2-24.0~~ DB 8/21	8/19/15	1330	S	2			⊗	⊗													↓
	~~UST2EX-S2-24.0~~																					
	UST2EX-S1-24.0 DB 12/29/15																					

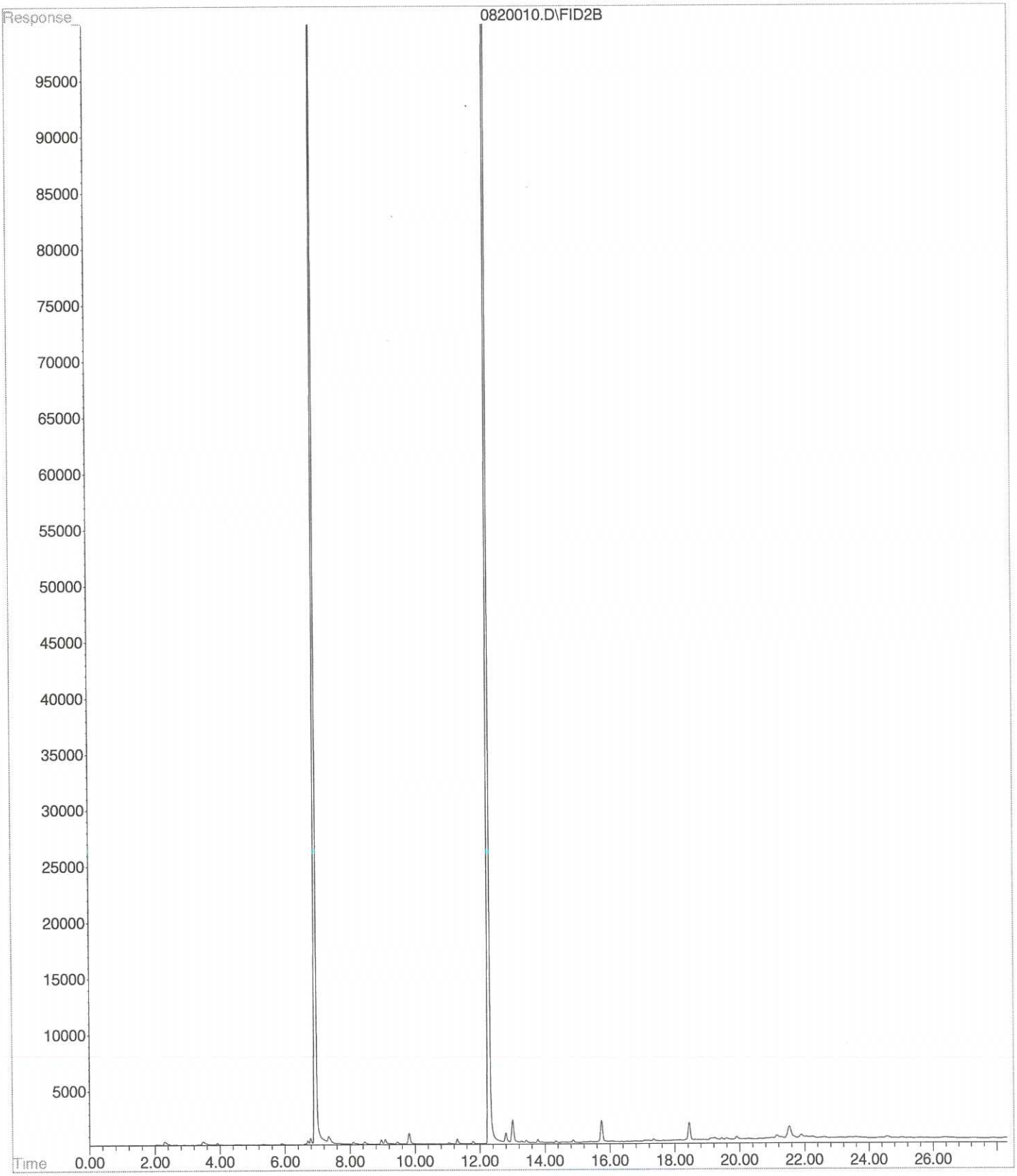
	Signature	Company	Date	Time
Relinquished		GEI	8/19/15	1615
Received		OSE	8/19/15	1615
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

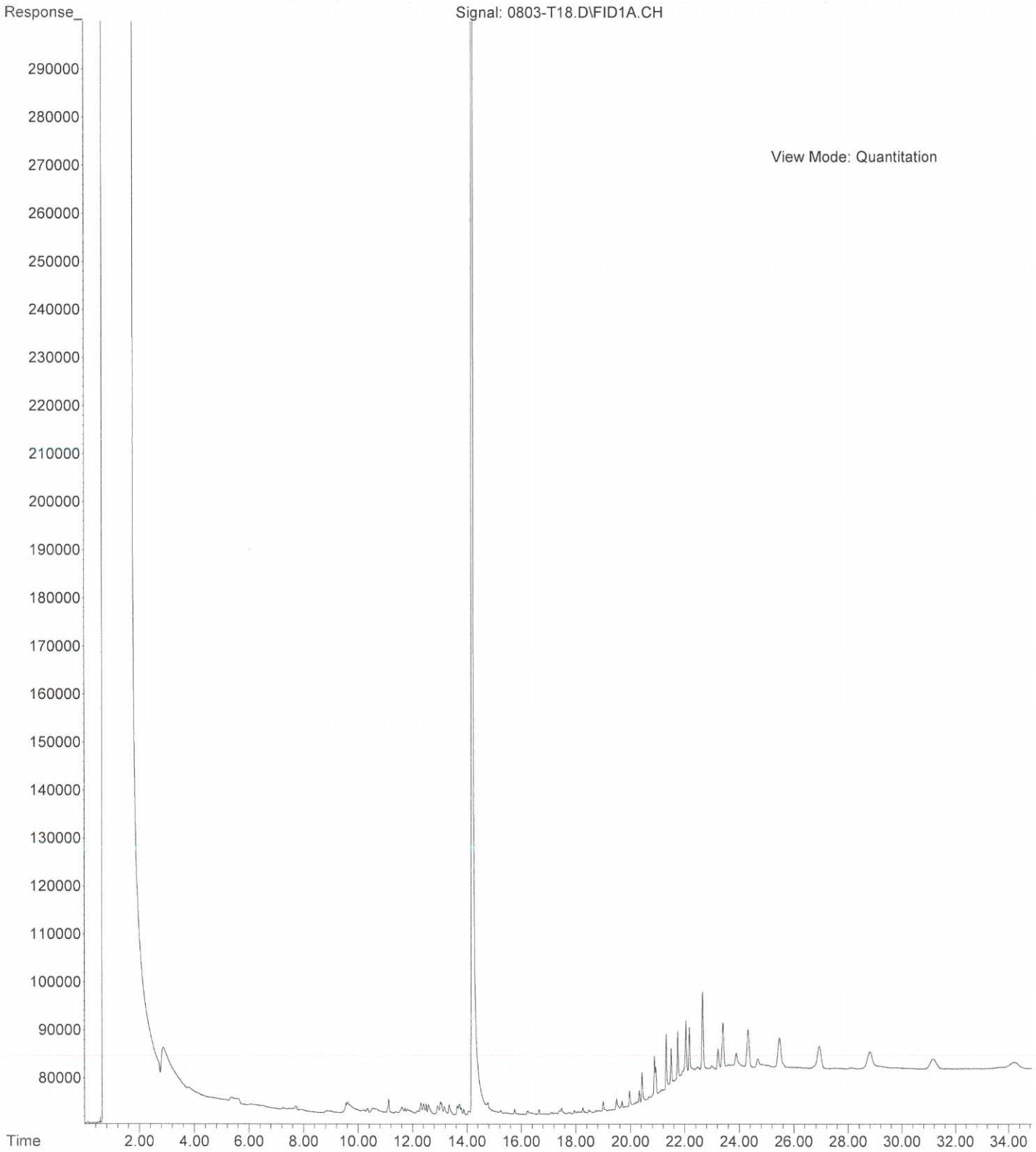
Chromatograms with final report ☐

Data Package: Standard ☐ Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ _____

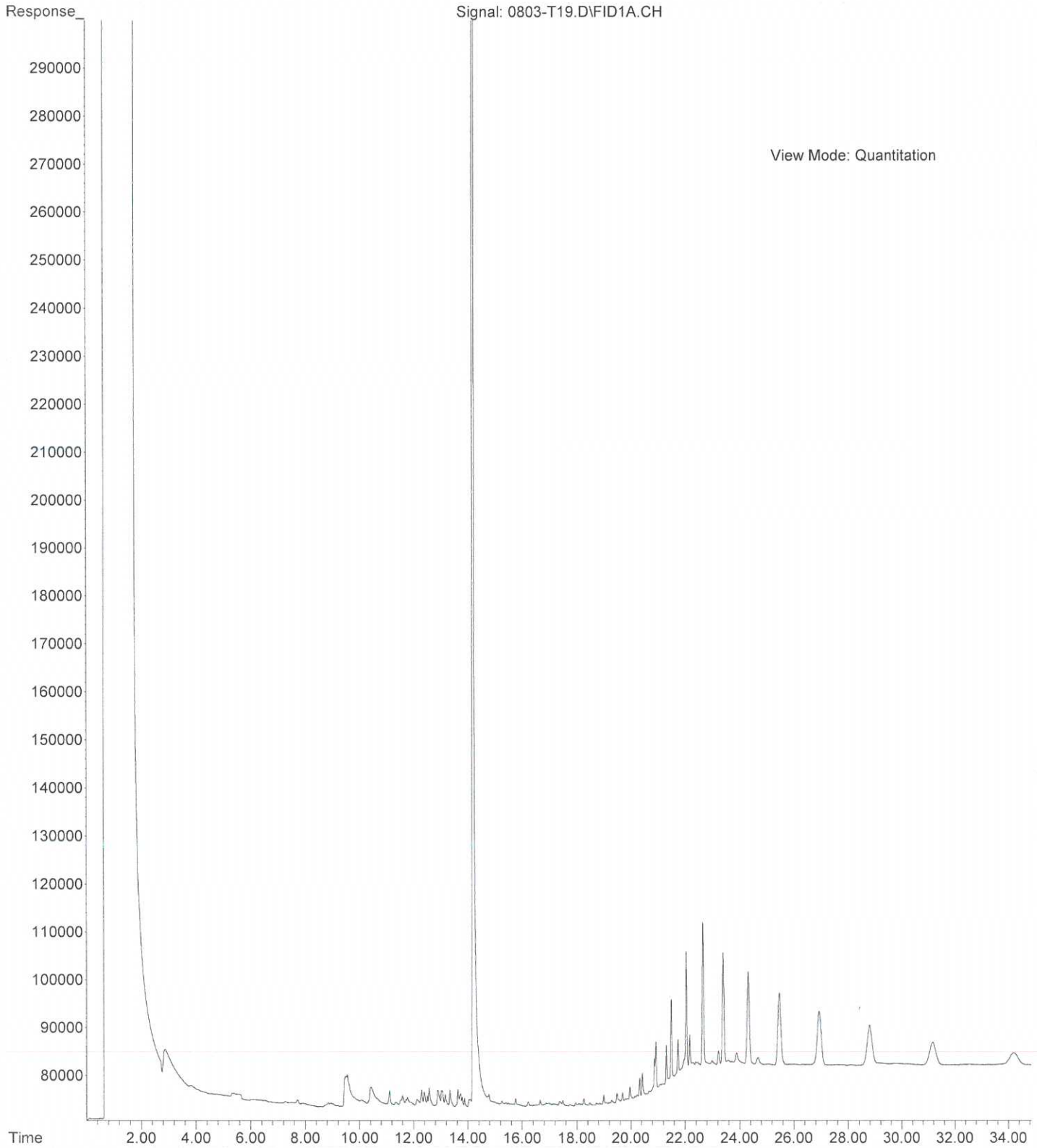
File : X:\BTEX\DARYL\DATA\D150820\0820010.D
Operator :
Acquired : 20 Aug 2015 19:20 using AcqMethod 150709B.M
Instrument : Daryl
Sample Name: 08-200-02s
Misc Info : V2-37-21
Vial Number: 10



File :X:\DIESELS\TERI\DATA\T150820\0803-T18.D
Operator : ZT
Acquired : 21 Aug 2015 3:40 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 08-200-01
Misc Info :
Vial Number: 18



File : X:\DIESELS\TERI\DATA\T150820\0803-T19.D
Operator : ZT
Acquired : 21 Aug 2015 4:23 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 08-200-02
Misc Info :
Vial Number: 19



OnSite Environmental Inc.

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

August 25, 2015

Fasih Khan
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03
Laboratory Reference No. 1508-216

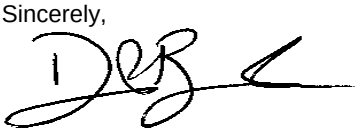
Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on August 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,



David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 25, 2015
Samples Submitted: August 21, 2015
Laboratory Reference: 1508-216
Project: 21138-001-03

Case Narrative

Samples were collected on August 20, 2015 and received by the laboratory on August 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.

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Date of Report: August 25, 2015
Samples Submitted: August 21, 2015
Laboratory Reference: 1508-216
Project: 21138-001-03

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
UST2EX-E-24.0	08-216-01	Soil	8-20-15	8-21-15	
UST2EX-S2-22.0	08-216-02	Soil	8-20-15	8-21-15	
UST2EX-W1-22.0	08-216-03	Soil	8-20-15	8-21-15	
UST2EX-W1-24.0	08-216-04	Soil	8-20-15	8-21-15	
UST2EX-W2-24.0	08-216-05	Soil	8-20-15	8-21-15	

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Date of Report: August 25, 2015
Samples Submitted: August 21, 2015
Laboratory Reference: 1508-216
Project: 21138-001-03

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST2EX-E-24.0**					
Laboratory ID:	08-216-01					
Diesel Range Organics	**ND**	32	NWTPH-Dx	8-21-15	8-21-15	
Lube Oil Range Organics	**ND**	64	NWTPH-Dx	8-21-15	8-21-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*95*	*50-150*				
Client ID:	**UST2EX-S2-22.0**					
Laboratory ID:	08-216-02					
Diesel Range Organics	**ND**	31	NWTPH-Dx	8-21-15	8-21-15	
Lube Oil Range Organics	**ND**	61	NWTPH-Dx	8-21-15	8-21-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*86*	*50-150*				
Client ID:	**UST2EX-W1-22.0**					
Laboratory ID:	08-216-03					
Diesel Range Organics	**ND**	32	NWTPH-Dx	8-21-15	8-21-15	
Lube Oil Range Organics	**ND**	64	NWTPH-Dx	8-21-15	8-21-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*97*	*50-150*				
Client ID:	**UST2EX-W1-24.0**					
Laboratory ID:	08-216-04					
Diesel Range Organics	**1700**	33	NWTPH-Dx	8-21-15	8-21-15	
Lube Oil	**19000**	1300	NWTPH-Dx	8-21-15	8-24-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*---*	*50-150*				S
Client ID:	**UST2EX-W2-24.0**					
Laboratory ID:	08-216-05					
Diesel Range Organics	**ND**	32	NWTPH-Dx	8-21-15	8-21-15	
Lube Oil Range Organics	**ND**	63	NWTPH-Dx	8-21-15	8-21-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*88*	*50-150*				

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Date of Report: August 25, 2015
Samples Submitted: August 21, 2015
Laboratory Reference: 1508-216
Project: 21138-001-03

PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST2EX-E-24.0**					
Laboratory ID:	08-216-01					
Naphthalene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
2-Methylnaphthalene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
1-Methylnaphthalene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Acenaphthylene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Acenaphthene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Fluorene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Phenanthrene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Anthracene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Fluoranthene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Pyrene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo[a]anthracene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Chrysene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo[b]fluoranthene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo(j,k)fluoranthene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo[a]pyrene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Dibenz[a,h]anthracene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo[g,h,i]perylene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*85*	*32 - 114*				
Pyrene-d10	*68*	*33 - 121*				
Terphenyl-d14	*83*	*31 - 116*				

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Date of Report: August 25, 2015
Samples Submitted: August 21, 2015
Laboratory Reference: 1508-216
Project: 21138-001-03

PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST2EX-S2-22.0**					
Laboratory ID:	08-216-02					
Naphthalene	**0.0088**	0.0081	EPA 8270D/SIM	8-21-15	8-22-15	
2-Methylnaphthalene	**0.029**	0.0081	EPA 8270D/SIM	8-21-15	8-22-15	
1-Methylnaphthalene	**0.019**	0.0081	EPA 8270D/SIM	8-21-15	8-22-15	
Acenaphthylene	**ND**	0.0081	EPA 8270D/SIM	8-21-15	8-22-15	
Acenaphthene	**ND**	0.0081	EPA 8270D/SIM	8-21-15	8-22-15	
Fluorene	**ND**	0.0081	EPA 8270D/SIM	8-21-15	8-22-15	
Phenanthrene	**ND**	0.0081	EPA 8270D/SIM	8-21-15	8-22-15	
Anthracene	**ND**	0.0081	EPA 8270D/SIM	8-21-15	8-22-15	
Fluoranthene	**ND**	0.0081	EPA 8270D/SIM	8-21-15	8-22-15	
Pyrene	**ND**	0.0081	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo[a]anthracene	**ND**	0.0081	EPA 8270D/SIM	8-21-15	8-22-15	
Chrysene	**ND**	0.0081	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo[b]fluoranthene	**ND**	0.0081	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo(j,k)fluoranthene	**ND**	0.0081	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo[a]pyrene	**ND**	0.0081	EPA 8270D/SIM	8-21-15	8-22-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0081	EPA 8270D/SIM	8-21-15	8-22-15	
Dibenz[a,h]anthracene	**ND**	0.0081	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo[g,h,i]perylene	**ND**	0.0081	EPA 8270D/SIM	8-21-15	8-22-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*77*	*32 - 114*				
Pyrene-d10	*69*	*33 - 121*				
Terphenyl-d14	*83*	*31 - 116*				

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Date of Report: August 25, 2015
Samples Submitted: August 21, 2015
Laboratory Reference: 1508-216
Project: 21138-001-03

PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST2EX-W1-22.0**					
Laboratory ID:	08-216-03					
Naphthalene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
2-Methylnaphthalene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
1-Methylnaphthalene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Acenaphthylene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Acenaphthene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Fluorene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Phenanthrene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Anthracene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Fluoranthene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Pyrene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo[a]anthracene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Chrysene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo[b]fluoranthene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo(j,k)fluoranthene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo[a]pyrene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Dibenz[a,h]anthracene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo[g,h,i]perylene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*79*	*32 - 114*				
Pyrene-d10	*70*	*33 - 121*				
Terphenyl-d14	*87*	*31 - 116*				

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Date of Report: August 25, 2015
Samples Submitted: August 21, 2015
Laboratory Reference: 1508-216
Project: 21138-001-03

PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST2EX-W1-24.0**					
Laboratory ID:	08-216-04					
Naphthalene	**1.3**	0.044	EPA 8270D/SIM	8-21-15	8-24-15	
2-Methylnaphthalene	**2.8**	0.044	EPA 8270D/SIM	8-21-15	8-24-15	
1-Methylnaphthalene	**1.9**	0.044	EPA 8270D/SIM	8-21-15	8-24-15	
Acenaphthylene	**0.036**	0.0089	EPA 8270D/SIM	8-21-15	8-24-15	
Acenaphthene	**0.080**	0.044	EPA 8270D/SIM	8-21-15	8-24-15	
Fluorene	**0.16**	0.044	EPA 8270D/SIM	8-21-15	8-24-15	
Phenanthrene	**0.40**	0.044	EPA 8270D/SIM	8-21-15	8-24-15	
Anthracene	**0.15**	0.044	EPA 8270D/SIM	8-21-15	8-24-15	
Fluoranthene	**0.21**	0.044	EPA 8270D/SIM	8-21-15	8-24-15	
Pyrene	**0.42**	0.044	EPA 8270D/SIM	8-21-15	8-24-15	
Benzo[a]anthracene	**0.17**	0.044	EPA 8270D/SIM	8-21-15	8-24-15	
Chrysene	**0.15**	0.044	EPA 8270D/SIM	8-21-15	8-24-15	
Benzo[b]fluoranthene	**0.12**	0.044	EPA 8270D/SIM	8-21-15	8-24-15	
Benzo(j,k)fluoranthene	**ND**	0.044	EPA 8270D/SIM	8-21-15	8-24-15	
Benzo[a]pyrene	**0.11**	0.044	EPA 8270D/SIM	8-21-15	8-24-15	
Indeno(1,2,3-c,d)pyrene	**0.072**	0.044	EPA 8270D/SIM	8-21-15	8-24-15	
Dibenz[a,h]anthracene	**ND**	0.044	EPA 8270D/SIM	8-21-15	8-24-15	
Benzo[g,h,i]perylene	**0.13**	0.044	EPA 8270D/SIM	8-21-15	8-24-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*74*	*32 - 114*				
Pyrene-d10	*73*	*33 - 121*				
Terphenyl-d14	*100*	*31 - 116*				

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Date of Report: August 25, 2015
Samples Submitted: August 21, 2015
Laboratory Reference: 1508-216
Project: 21138-001-03

PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST2EX-W2-24.0**					
Laboratory ID:	08-216-05					
Naphthalene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
2-Methylnaphthalene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
1-Methylnaphthalene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Acenaphthylene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Acenaphthene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Fluorene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Phenanthrene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Anthracene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Fluoranthene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Pyrene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo[a]anthracene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Chrysene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo[b]fluoranthene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo(j,k)fluoranthene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo[a]pyrene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Dibenz[a,h]anthracene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo[g,h,i]perylene	**ND**	0.0085	EPA 8270D/SIM	8-21-15	8-22-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*67*	*32 - 114*				
Pyrene-d10	*59*	*33 - 121*				
Terphenyl-d14	*73*	*31 - 116*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 25, 2015
Samples Submitted: August 21, 2015
Laboratory Reference: 1508-216
Project: 21138-001-03

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0821S1					
Diesel Range Organics	**ND**	25	NWTPH-Dx	8-21-15	8-21-15	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	8-21-15	8-21-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*101*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	08-215-04										
	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						*111*	*99*	*50-150*			

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Date of Report: August 25, 2015
Samples Submitted: August 21, 2015
Laboratory Reference: 1508-216
Project: 21138-001-03

PAHs EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0821S1					
Naphthalene	**ND**	0.0067	EPA 8270D/SIM	8-21-15	8-22-15	
2-Methylnaphthalene	**ND**	0.0067	EPA 8270D/SIM	8-21-15	8-22-15	
1-Methylnaphthalene	**ND**	0.0067	EPA 8270D/SIM	8-21-15	8-22-15	
Acenaphthylene	**ND**	0.0067	EPA 8270D/SIM	8-21-15	8-22-15	
Acenaphthene	**ND**	0.0067	EPA 8270D/SIM	8-21-15	8-22-15	
Fluorene	**ND**	0.0067	EPA 8270D/SIM	8-21-15	8-22-15	
Phenanthrene	**ND**	0.0067	EPA 8270D/SIM	8-21-15	8-22-15	
Anthracene	**ND**	0.0067	EPA 8270D/SIM	8-21-15	8-22-15	
Fluoranthene	**ND**	0.0067	EPA 8270D/SIM	8-21-15	8-22-15	
Pyrene	**ND**	0.0067	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo[a]anthracene	**ND**	0.0067	EPA 8270D/SIM	8-21-15	8-22-15	
Chrysene	**ND**	0.0067	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo[b]fluoranthene	**ND**	0.0067	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo(j,k)fluoranthene	**ND**	0.0067	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo[a]pyrene	**ND**	0.0067	EPA 8270D/SIM	8-21-15	8-22-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0067	EPA 8270D/SIM	8-21-15	8-22-15	
Dibenz[a,h]anthracene	**ND**	0.0067	EPA 8270D/SIM	8-21-15	8-22-15	
Benzo[g,h,i]perylene	**ND**	0.0067	EPA 8270D/SIM	8-21-15	8-22-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*99*	*32 - 114*				
Pyrene-d10	*77*	*33 - 121*				
Terphenyl-d14	*96*	*31 - 116*				

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Date of Report: August 25, 2015
Samples Submitted: August 21, 2015
Laboratory Reference: 1508-216
Project: 21138-001-03

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:	SB0821S1									
	SB	SBD	SB	SBD	SB	SBD				
Naphthalene	**0.0683**	**0.0624**	0.0833	0.0833	82	75	63 - 113	9	19	
Acenaphthylene	**0.0731**	**0.0651**	0.0833	0.0833	88	78	61 - 125	12	16	
Acenaphthene	**0.0755**	**0.0669**	0.0833	0.0833	91	80	66 - 113	12	16	
Fluorene	**0.0681**	**0.0614**	0.0833	0.0833	82	74	60 - 117	10	16	
Phenanthrene	**0.0645**	**0.0576**	0.0833	0.0833	77	69	63 - 116	11	12	
Anthracene	**0.104**	**0.0933**	0.0833	0.0833	125	112	66 - 146	11	19	
Fluoranthene	**0.0610**	**0.0560**	0.0833	0.0833	73	67	60 - 125	9	13	
Pyrene	**0.0679**	**0.0632**	0.0833	0.0833	82	76	66 - 126	7	15	
Benzo[a]anthracene	**0.0805**	**0.0740**	0.0833	0.0833	97	89	60 - 128	8	15	
Chrysene	**0.0647**	**0.0606**	0.0833	0.0833	78	73	60 - 117	7	13	
Benzo[b]fluoranthene	**0.0654**	**0.0623**	0.0833	0.0833	79	75	60 - 131	5	16	
Benzo(j,k)fluoranthene	**0.0702**	**0.0631**	0.0833	0.0833	84	76	57 - 126	11	20	
Benzo[a]pyrene	**0.0710**	**0.0655**	0.0833	0.0833	85	79	62 - 136	8	16	
Indeno(1,2,3-c,d)pyrene	**0.0687**	**0.0628**	0.0833	0.0833	82	75	60 - 127	9	19	
Dibenz[a,h]anthracene	**0.0655**	**0.0607**	0.0833	0.0833	79	73	62 - 133	8	22	
Benzo[g,h,i]perylene	**0.0689**	**0.0637**	0.0833	0.0833	83	76	63 - 129	8	22	
Surrogate:										
2-Fluorobiphenyl					*105*	*84*	*32 - 114*			
Pyrene-d10					*82*	*76*	*33 - 121*			
Terphenyl-d14					*99*	*94*	*31 - 116*			

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Date of Report: August 25, 2015
Samples Submitted: August 21, 2015
Laboratory Reference: 1508-216
Project: 21138-001-03

% MOISTURE

Date Analyzed: 8-21-15

Client ID	Lab ID	% Moisture
UST2EX-E-24.0	08-216-01	22
UST2EX-S2-22.0	08-216-02	18
UST2EX-W1-22.0	08-216-03	22
UST2EX-W1-24.0	08-216-04	25
UST2EX-W2-24.0	08-216-05	21

This report pertains to the samples analyzed in accordance with the chain of custody,
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OnSite Environmental Inc.

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-napthalene) 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

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Chain of Custody

Page 1 of 1

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Laboratory Number: 08-216

Company: GEOENGINEERS
Project Number: 21138-001-03
Project Name: 9th & CENORA PROJECT
Project Manager: FASIH KHAN
Sampled by: FASIH KHAN

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☒ 2 Days ☐ 3 Days
☐ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	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		1 DAY TAT				% Moisture
1	~~SW~~ UST2EX-E-24.0	8/20/15	1330	S	1				X				X										X				X
2	~~SW~~ UST2EX-S2-22.0	↓	1130	↓	↓				X				X										X				X
3	~~SW~~ UST2EX-W1-22.0		1310						X				X										X				X
4	~~SW~~ UST2EX-W1-24.0		1230						X				X										X				X
5	~~SW~~ UST2EX-W2-24.0	↓	1410	↓	↓				X				X										X				X

	Signature	Company	Date	Time
Relinquished		GEI	8/21/15	0835
Received		OSE	8/21/15	0835
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

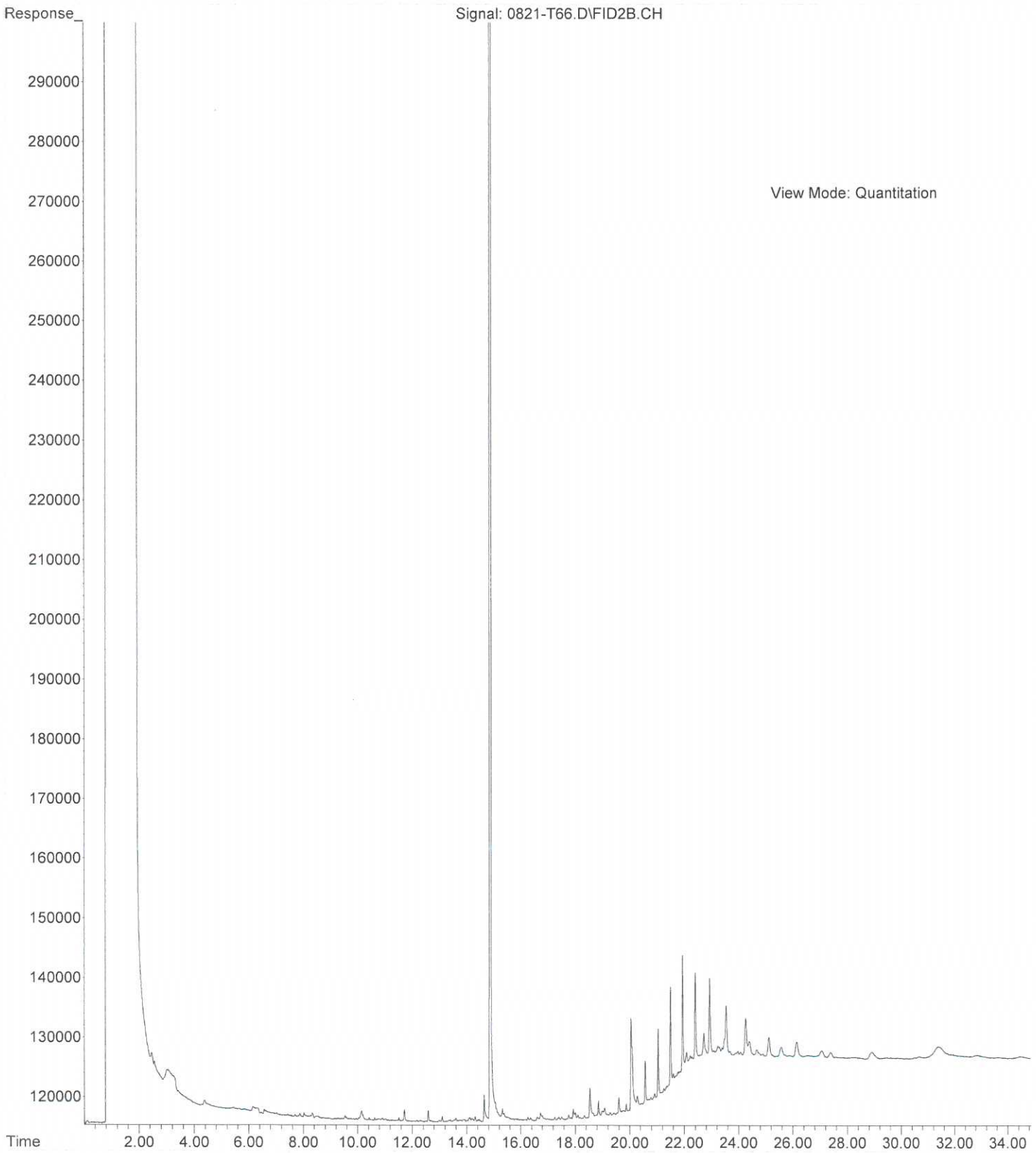
Comments/Special Instructions

Chromatograms with final report ☐

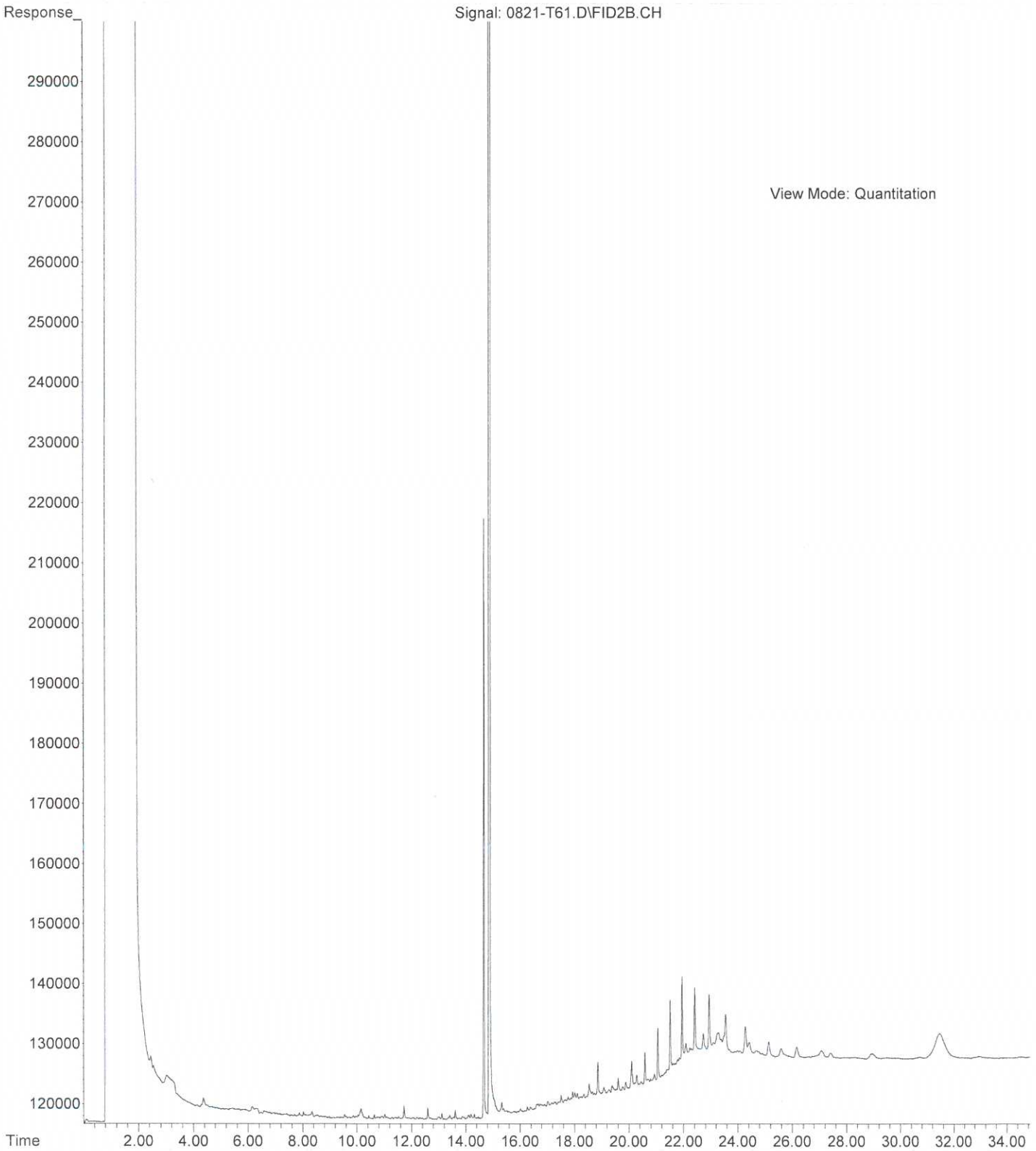
Data Package: Standard ☐ Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ _____

20

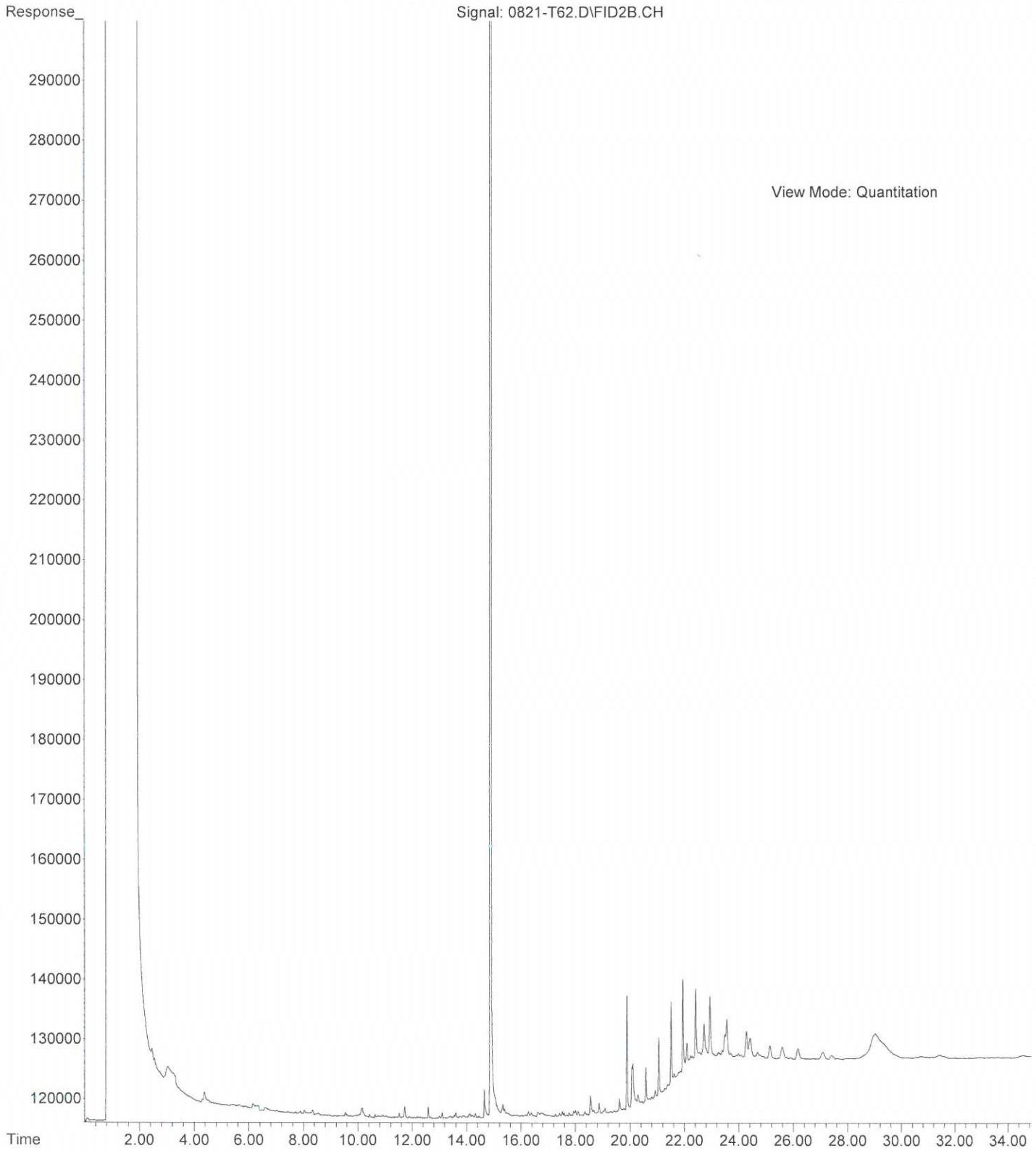
File : X:\DIESELS\TERI\DATA\T150821.SEC\0821-T66.D
Operator : ZT
Acquired : 21 Aug 2015 23:45 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 08-216-01
Misc Info :
Vial Number: 66



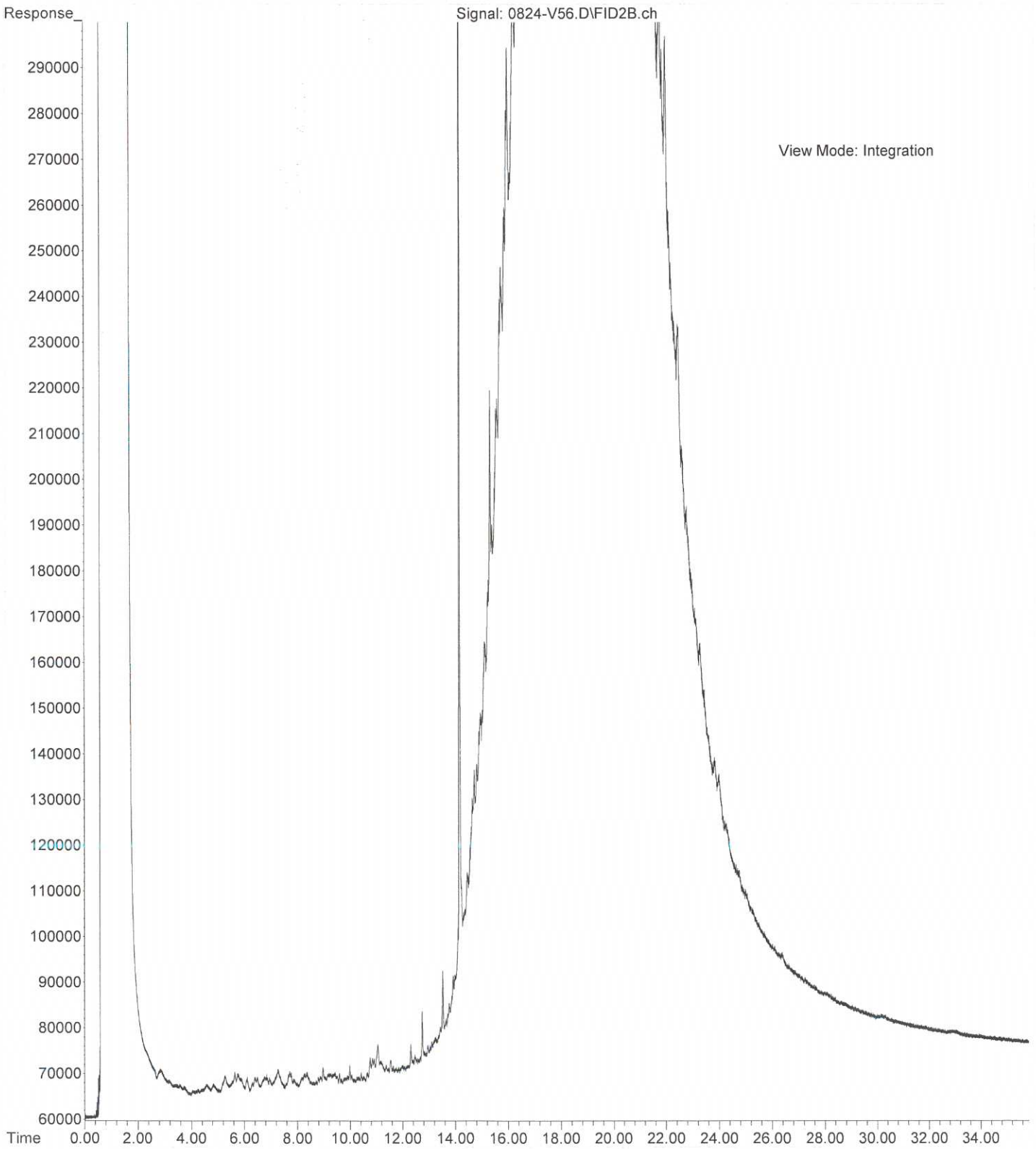
File : X:\DIESELS\TERI\DATA\T150821.SEC\0821-T61.D
Operator : ZT
Acquired : 21 Aug 2015 20:09 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 08-216-02
Misc Info :
Vial Number: 61



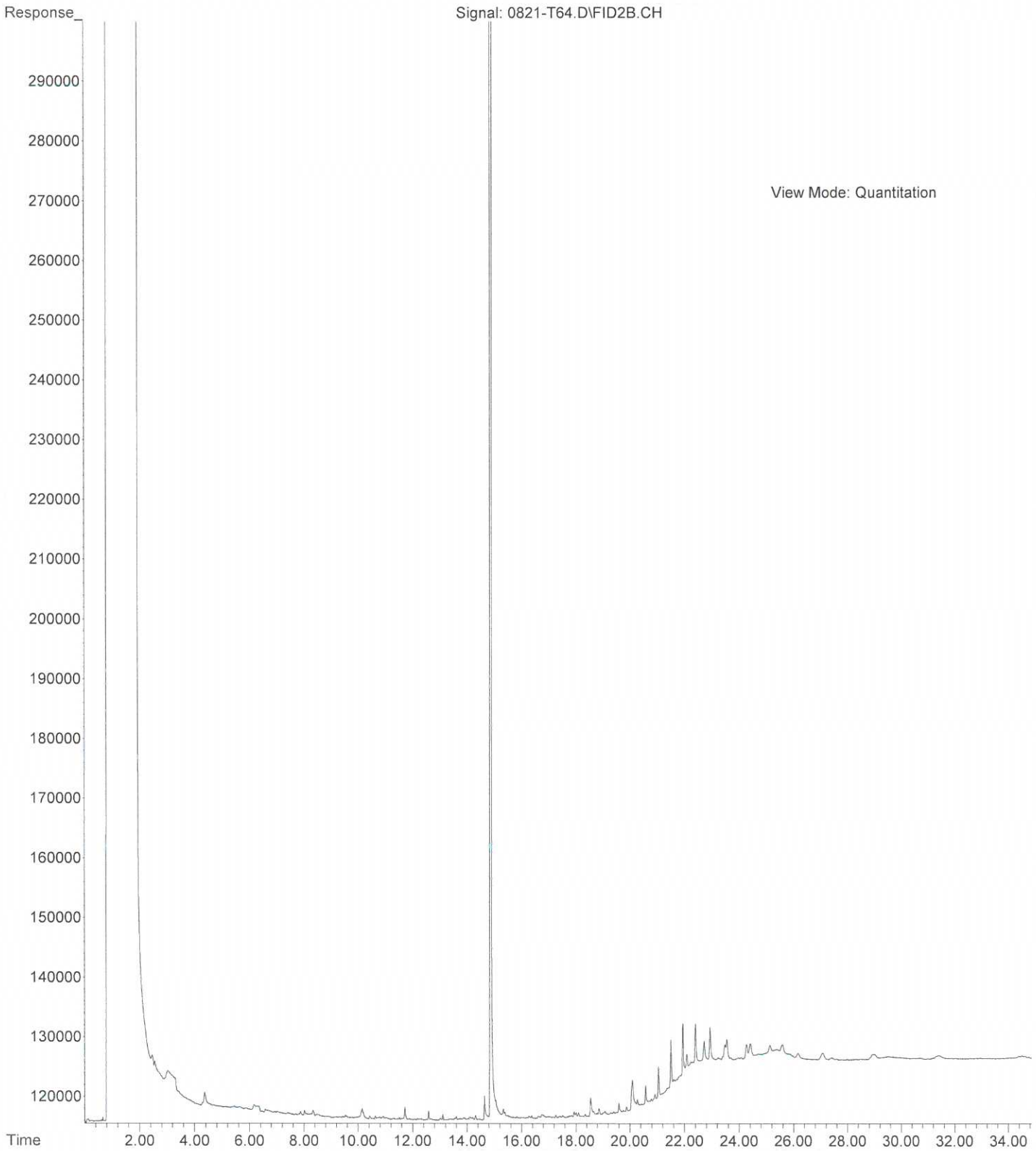
File : X:\DIESELS\TERI\DATA\T150821.SEC\0821-T62.D
Operator : ZT
Acquired : 21 Aug 2015 20:52 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 08-216-03
Misc Info :
Vial Number: 62



File :X:\DIESELS\VIGO\DATA\V150824.SEC\0824-V56.D
Operator :
Acquired : 24 Aug 2015 12:57 using AcqMethod V150507F.M
Instrument : Vigo
Sample Name: 08-216-04 20X
Misc Info :
Vial Number: 56



File : X:\DIESELS\TERI\DATA\T150821.SEC\0821-T64.D
Operator : ZT
Acquired : 21 Aug 2015 22:19 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 08-216-05
Misc Info :
Vial Number: 64



OnSite Environmental Inc.

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

September 1, 2015

Fasih Khan
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03
Laboratory Reference No. 1508-268

Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on August 27, 2015.

Please note that this is a *revised* report, and replaces the original due to a revision of the sample identification.

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,

David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: September 1, 2015
Samples Submitted: August 27, 2015
Laboratory Reference: 1508-268
Project: 21138-001-03

Case Narrative

Samples were collected on August 26, 2015 and received by the laboratory on August 27, 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.

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Date of Report: September 1, 2015
Samples Submitted: August 27, 2015
Laboratory Reference: 1508-268
Project: 21138-001-03

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
UST2 EX-N-33.0	08-268-01	Soil	8-26-15	8-27-15	
UST2 EX-W3-30.0	08-268-02	Soil	8-26-15	8-27-15	

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Date of Report: September 1, 2015
Samples Submitted: August 27, 2015
Laboratory Reference: 1508-268
Project: 21138-001-03

NWTPH-Gx/BTEX

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST2 EX-N-33.0**					
Laboratory ID:	08-268-01					
Benzene	**ND**	0.020	EPA 8021B	8-27-15	8-27-15	
Toluene	**ND**	0.064	EPA 8021B	8-27-15	8-27-15	
Ethyl Benzene	**ND**	0.064	EPA 8021B	8-27-15	8-27-15	
m,p-Xylene	**ND**	0.064	EPA 8021B	8-27-15	8-27-15	
o-Xylene	**ND**	0.064	EPA 8021B	8-27-15	8-27-15	
Gasoline	**ND**	6.4	NWTPH-Gx	8-27-15	8-27-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*97*	*68-123*				
Client ID:	**UST2 EX-W3-30.0**					
Laboratory ID:	08-268-02					
Benzene	**ND**	0.020	EPA 8021B	8-27-15	8-27-15	
Toluene	**ND**	0.064	EPA 8021B	8-27-15	8-27-15	
Ethyl Benzene	**ND**	0.064	EPA 8021B	8-27-15	8-27-15	
m,p-Xylene	**ND**	0.064	EPA 8021B	8-27-15	8-27-15	
o-Xylene	**ND**	0.064	EPA 8021B	8-27-15	8-27-15	
Gasoline	**ND**	6.4	NWTPH-Gx	8-27-15	8-27-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*111*	*68-123*				

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Date of Report: September 1, 2015
Samples Submitted: August 27, 2015
Laboratory Reference: 1508-268
Project: 21138-001-03

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST2 EX-N-33.0**					
Laboratory ID:	08-268-01					
Diesel Range Organics	**ND**	33	NWTPH-Dx	8-27-15	8-31-15	
Lube Oil Range Organics	**ND**	66	NWTPH-Dx	8-27-15	8-31-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*79*	*50-150*				
Client ID:	**UST2 EX-W3-30.0**					
Laboratory ID:	08-268-02					
Diesel Range Organics	**ND**	32	NWTPH-Dx	8-27-15	8-31-15	
Lube Oil Range Organics	**ND**	65	NWTPH-Dx	8-27-15	8-31-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*99*	*50-150*				

This report pertains to the samples analyzed in accordance with the chain of custody,
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Date of Report: September 1, 2015
Samples Submitted: August 27, 2015
Laboratory Reference: 1508-268
Project: 21138-001-03

PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST2 EX-N-33.0**					
Laboratory ID:	08-268-01					
Naphthalene	**ND**	0.0088	EPA 8270D/SIM	8-27-15	8-27-15	
2-Methylnaphthalene	**ND**	0.0088	EPA 8270D/SIM	8-27-15	8-27-15	
1-Methylnaphthalene	**ND**	0.0088	EPA 8270D/SIM	8-27-15	8-27-15	
Acenaphthylene	**ND**	0.0088	EPA 8270D/SIM	8-27-15	8-27-15	
Acenaphthene	**ND**	0.0088	EPA 8270D/SIM	8-27-15	8-27-15	
Fluorene	**ND**	0.0088	EPA 8270D/SIM	8-27-15	8-27-15	
Phenanthrene	**ND**	0.0088	EPA 8270D/SIM	8-27-15	8-27-15	
Anthracene	**ND**	0.0088	EPA 8270D/SIM	8-27-15	8-27-15	
Fluoranthene	**ND**	0.0088	EPA 8270D/SIM	8-27-15	8-27-15	
Pyrene	**ND**	0.0088	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[a]anthracene	**ND**	0.0088	EPA 8270D/SIM	8-27-15	8-27-15	
Chrysene	**ND**	0.0088	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[b]fluoranthene	**ND**	0.0088	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo(j,k)fluoranthene	**ND**	0.0088	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[a]pyrene	**ND**	0.0088	EPA 8270D/SIM	8-27-15	8-27-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0088	EPA 8270D/SIM	8-27-15	8-27-15	
Dibenz[a,h]anthracene	**ND**	0.0088	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[g,h,i]perylene	**ND**	0.0088	EPA 8270D/SIM	8-27-15	8-27-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*58*	*32 - 114*				
Pyrene-d10	*57*	*33 - 121*				
Terphenyl-d14	*60*	*31 - 116*				

This report pertains to the samples analyzed in accordance with the chain of custody,
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Date of Report: September 1, 2015
Samples Submitted: August 27, 2015
Laboratory Reference: 1508-268
Project: 21138-001-03

PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST2 EX-W3-30.0**					
Laboratory ID:	08-268-02					
Naphthalene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
2-Methylnaphthalene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
1-Methylnaphthalene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Acenaphthylene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Acenaphthene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Fluorene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Phenanthrene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Anthracene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Fluoranthene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Pyrene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[a]anthracene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Chrysene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[b]fluoranthene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo(j,k)fluoranthene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[a]pyrene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Dibenz[a,h]anthracene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[g,h,i]perylene	**ND**	0.0086	EPA 8270D/SIM	8-27-15	8-27-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*65*	*32 - 114*				
Pyrene-d10	*56*	*33 - 121*				
Terphenyl-d14	*59*	*31 - 116*				

This report pertains to the samples analyzed in accordance with the chain of custody,
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Date of Report: September 1, 2015
Samples Submitted: August 27, 2015
Laboratory Reference: 1508-268
Project: 21138-001-03

NWTPH-Gx/BTEX
QUALITY CONTROL

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0827S1					
Benzene	**ND**	0.020	EPA 8021B	8-27-15	8-27-15	
Toluene	**ND**	0.050	EPA 8021B	8-27-15	8-27-15	
Ethyl Benzene	**ND**	0.050	EPA 8021B	8-27-15	8-27-15	
m,p-Xylene	**ND**	0.050	EPA 8021B	8-27-15	8-27-15	
o-Xylene	**ND**	0.050	EPA 8021B	8-27-15	8-27-15	
Gasoline	**ND**	5.0	NWTPH-Gx	8-27-15	8-27-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*84*	*68-123*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	08-267-01										
	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						*89*	*94*	*68-123*			
SPIKE BLANKS											
Laboratory ID:	SB0827S1										
	SB	SBD	SB	SBD		SB	SBD				
Benzene	**0.887**	**0.952**	1.00	1.00		**89**	**95**	75-117	7	13	
Toluene	**0.891**	**0.943**	1.00	1.00		**89**	**94**	78-118	6	12	
Ethyl Benzene	**0.883**	**0.925**	1.00	1.00		**88**	**93**	78-118	5	12	
m,p-Xylene	**0.903**	**0.980**	1.00	1.00		**90**	**98**	78-121	8	13	
o-Xylene	**0.891**	**0.916**	1.00	1.00		**89**	**92**	77-119	3	13	
Surrogate:											
Fluorobenzene						*82*	*84*	*68-123*			

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Date of Report: September 1, 2015
Samples Submitted: August 27, 2015
Laboratory Reference: 1508-268
Project: 21138-001-03

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0827S3					
Diesel Range Organics	**ND**	25	NWTPH-Dx	8-27-15	8-31-15	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	8-27-15	8-31-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*108*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	08-246-02										
	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						*103*	*93*	*50-150*			

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Date of Report: September 1, 2015
Samples Submitted: August 27, 2015
Laboratory Reference: 1508-268
Project: 21138-001-03

PAHs EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0827S1					
Naphthalene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
2-Methylnaphthalene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
1-Methylnaphthalene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Acenaphthylene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Acenaphthene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Fluorene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Phenanthrene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Anthracene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Fluoranthene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Pyrene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[a]anthracene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Chrysene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[b]fluoranthene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo(j,k)fluoranthene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[a]pyrene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Dibenz[a,h]anthracene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Benzo[g,h,i]perylene	**ND**	0.0067	EPA 8270D/SIM	8-27-15	8-27-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*82*	*32 - 114*				
Pyrene-d10	*87*	*33 - 121*				
Terphenyl-d14	*92*	*31 - 116*				

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Date of Report: September 1, 2015
Samples Submitted: August 27, 2015
Laboratory Reference: 1508-268
Project: 21138-001-03

PAHs EPA 8270D/SIM
MS/MSD QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	08-263-03										
	MS	MSD	MS	MSD		MS	MSD				
Naphthalene	**0.0583**	**0.0615**	0.0833	0.0833	ND	70	74	44 - 107	5	29	
Acenaphthylene	**0.0581**	**0.0652**	0.0833	0.0833	ND	70	78	44 - 121	12	27	
Acenaphthene	**0.0579**	**0.0636**	0.0833	0.0833	ND	70	76	47 - 109	9	26	
Fluorene	**0.0620**	**0.0653**	0.0833	0.0833	ND	74	78	49 - 115	5	28	
Phenanthrene	**0.0598**	**0.0638**	0.0833	0.0833	ND	72	77	45 - 114	6	26	
Anthracene	**0.100**	**0.110**	0.0833	0.0833	ND	120	132	43 - 140	10	27	
Fluoranthene	**0.0584**	**0.0641**	0.0833	0.0833	ND	70	77	44 - 126	9	27	
Pyrene	**0.0582**	**0.0636**	0.0833	0.0833	ND	70	76	43 - 125	9	27	
Benzo[a]anthracene	**0.0680**	**0.0727**	0.0833	0.0833	ND	82	87	42 - 134	7	27	
Chrysene	**0.0597**	**0.0654**	0.0833	0.0833	ND	72	79	45 - 114	9	27	
Benzo[b]fluoranthene	**0.0602**	**0.0651**	0.0833	0.0833	ND	72	78	38 - 131	8	33	
Benzo(j,k)fluoranthene	**0.0575**	**0.0636**	0.0833	0.0833	ND	69	76	44 - 114	10	34	
Benzo[a]pyrene	**0.0580**	**0.0638**	0.0833	0.0833	ND	70	77	40 - 136	10	29	
Indeno(1,2,3-c,d)pyrene	**0.0580**	**0.0623**	0.0833	0.0833	ND	70	75	45 - 126	7	30	
Dibenz[a,h]anthracene	**0.0597**	**0.0646**	0.0833	0.0833	ND	72	78	46 - 121	8	28	
Benzo[g,h,i]perylene	**0.0579**	**0.0626**	0.0833	0.0833	ND	70	75	43 - 120	8	31	
Surrogate:											
2-Fluorobiphenyl						*67*	*84*	*32 - 114*			
Pyrene-d10						*71*	*78*	*33 - 121*			
Terphenyl-d14						*75*	*84*	*31 - 116*			

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Date of Report: September 1, 2015
Samples Submitted: August 27, 2015
Laboratory Reference: 1508-268
Project: 21138-001-03

% MOISTURE

Date Analyzed: 8-27-15

Client ID	Lab ID	% Moisture
UST2 EX-N-33.0	08-268-01	24
UST2 EX-W3-30.0	08-268-02	23

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OnSite Environmental Inc.

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-napthalene) 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

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: GEOENGINEERS
Project Number: 21138-001-03
Project Name: 9th & LENORA PROJECT
Project Manager: FASIH KHAN
Sampled by: FASIH KHAN

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☒ 2 Days ☐ 3 Days
☐ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

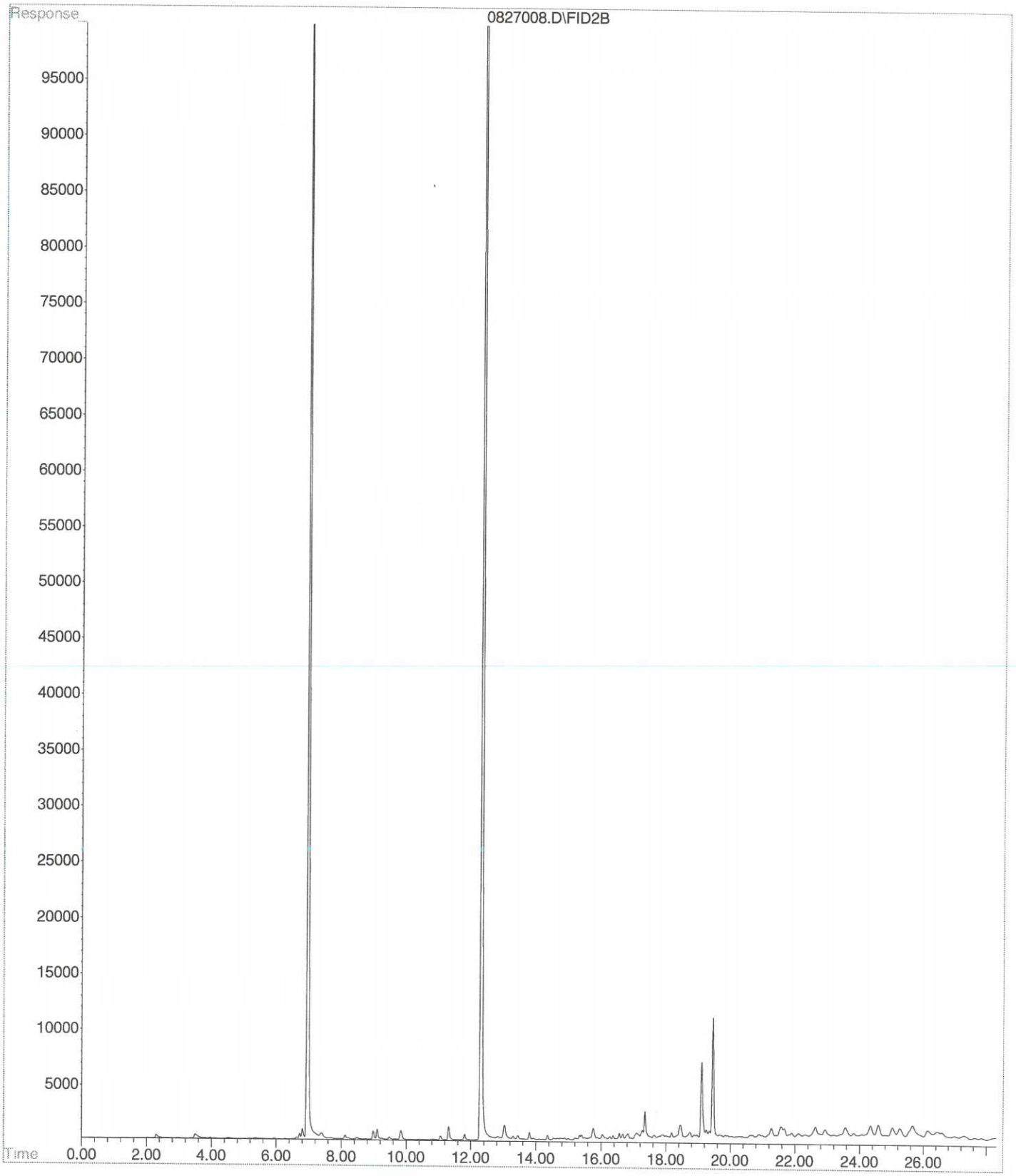
Laboratory Number: 08-268

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx/BTEX	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
1	VST2EX-N-33.0	8/26/15	1000	S	2			(X)	(X)				(X)														X
2	VST2EX-W3 ~~33.0~~ 30.0 DB	8/26/15	1045	S	2			(X)	(X)				(X)														X

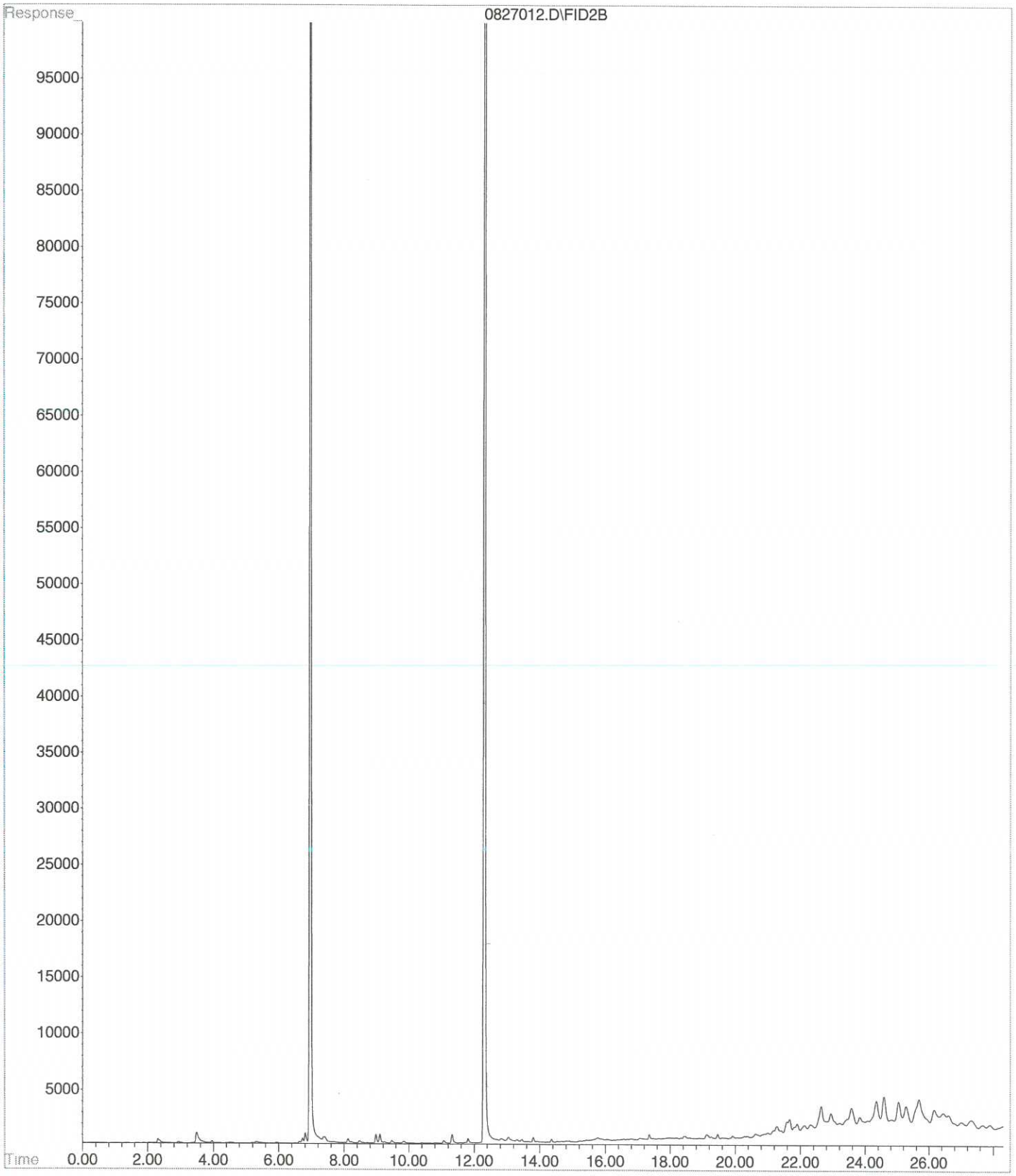
	Signature	Company	Date	Time	Comments/Special Instructions
Relinquished		GEI	8/27/15	0915	
Received			8/27/15	915	
Relinquished					
Received					
Relinquished					
Received					
Reviewed/Date		Reviewed/Date			Chromatograms with final report ☐

Data Package: Standard ☐ Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ _____

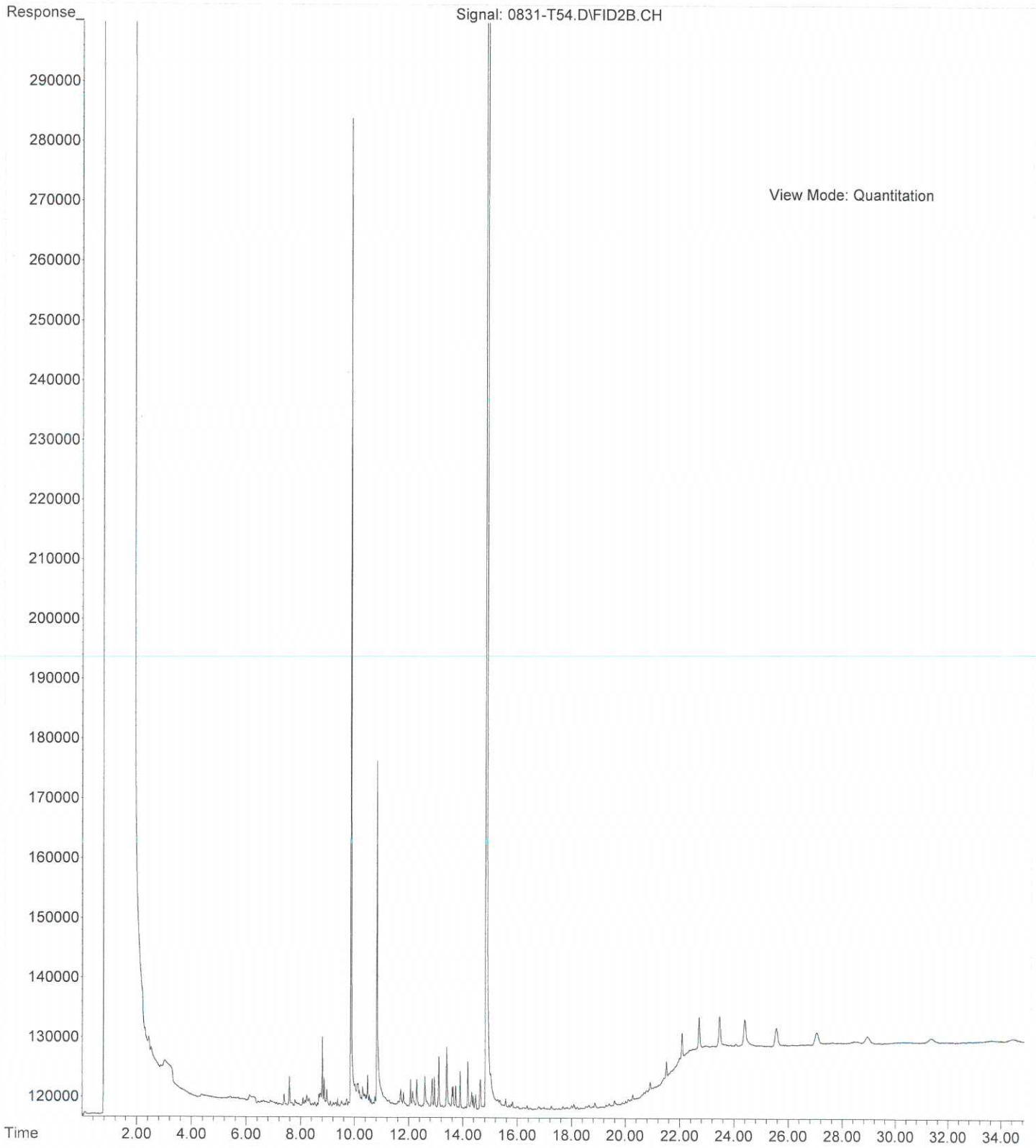
File : X:\BTEX\DARYL\DATA\D150827\0827008.D
Operator :
Acquired : 27 Aug 2015 14:59 using AcqMethod 150709B.M
Instrument : Daryl
Sample Name: 08-268-01s
Misc Info : V2-37-21
Vial Number: 8



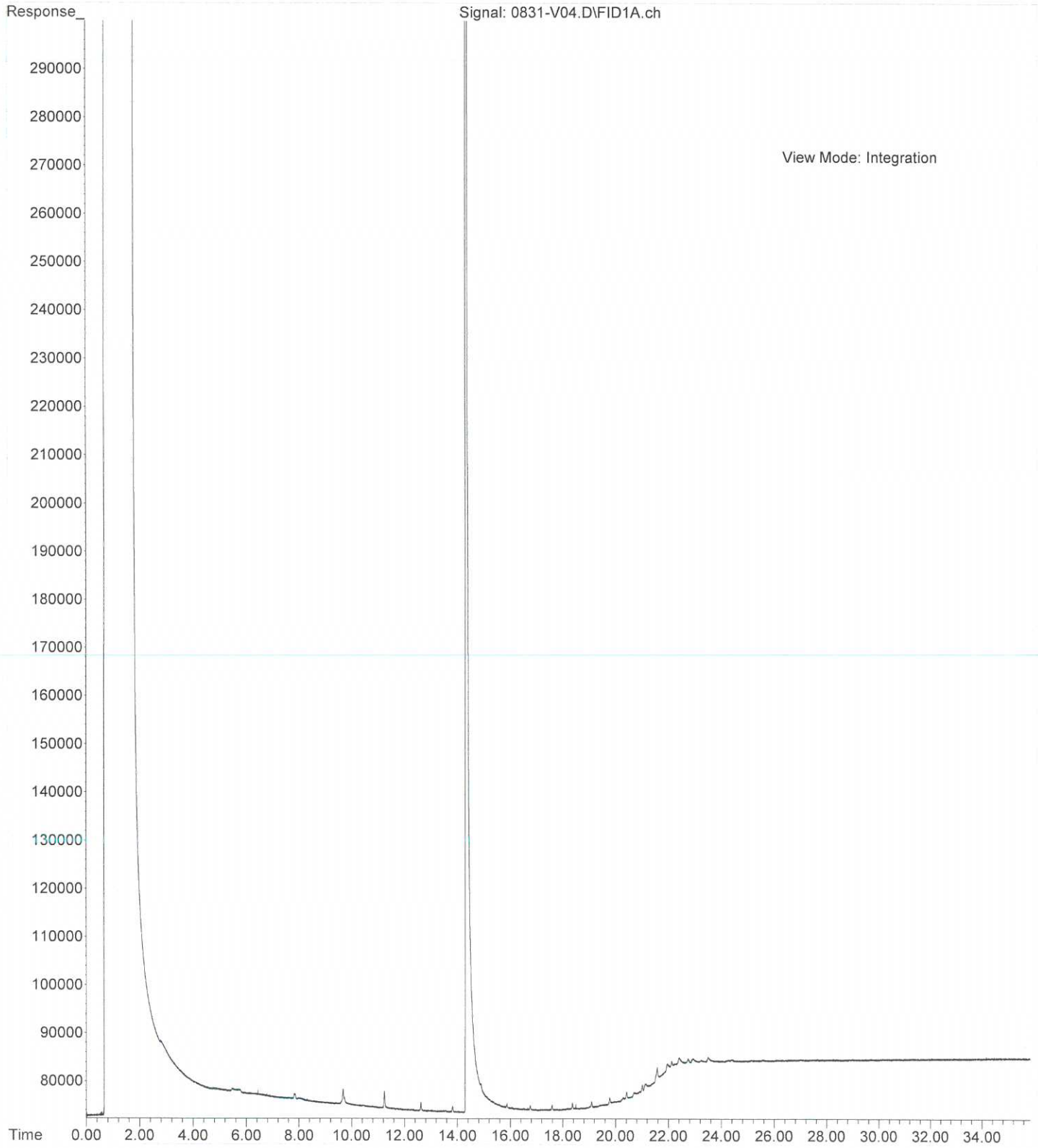
File : X:\BTEX\DARYL\DATA\D150827\0827012.D
Operator :
Acquired : 27 Aug 2015 17:33 using AcqMethod 150709B.M
Instrument : Daryl
Sample Name: 08-268-02s
Misc Info : V2-37-21
Vial Number: 12



File :X:\DIESELS\TERI\DATA\T150831.SEC\0831-T54.D
Operator : ZT
Acquired : 31 Aug 2015 11:33 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 08-268-01
Misc Info :
Vial Number: 54



File : X:\DIESELS\VIGO\DATA\V150831\0831-V04.D
Operator :
Acquired : 31 Aug 2015 11:56 using AcqMethod V150507F.M
Instrument : Vigo
Sample Name: 08-268-02
Misc Info :
Vial Number: 4



OnSite Environmental Inc.

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

August 21, 2015

Fasih Khan
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03
Laboratory Reference No. 1508-158

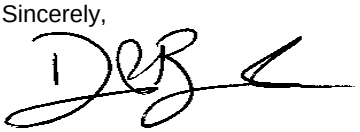
Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on August 17, 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,



David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 21, 2015
Samples Submitted: August 17, 2015
Laboratory Reference: 1508-158
Project: 21138-001-03

Case Narrative

Samples were collected on August 14, 2015 and received by the laboratory on August 17, 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.

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Date of Report: August 21, 2015
Samples Submitted: August 17, 2015
Laboratory Reference: 1508-158
Project: 21138-001-03

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
UST2-B-24.0	08-158-01	Soil	8-14-15	8-17-15	
UST2-S-22.0	08-158-02	Soil	8-14-15	8-17-15	
UST2-W-22.0	08-158-03	Soil	8-14-15	8-17-15	

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Date of Report: August 21, 2015
Samples Submitted: August 17, 2015
Laboratory Reference: 1508-158
Project: 21138-001-03

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST2-B-24.0**					
Laboratory ID:	08-158-01					
Diesel Range Organics	**2900**	620	NWTPH-Dx	8-17-15	8-19-15	M,N
Lube Oil	**40000**	1200	NWTPH-Dx	8-17-15	8-19-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	---	*50-150*				S
Client ID:	**UST2-S-22.0**					
Laboratory ID:	08-158-02					
Diesel Range Organics	**2500**	620	NWTPH-Dx	8-17-15	8-19-15	M,N
Lube Oil	**30000**	1200	NWTPH-Dx	8-17-15	8-19-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	---	*50-150*				S
Client ID:	**UST2-W-22.0**					
Laboratory ID:	08-158-03					
Diesel Range Organics	**4300**	340	NWTPH-Dx	8-17-15	8-18-15	M,N
Lube Oil	**29000**	690	NWTPH-Dx	8-17-15	8-18-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	---	*50-150*				S

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Date of Report: August 21, 2015
Samples Submitted: August 17, 2015
Laboratory Reference: 1508-158
Project: 21138-001-03

PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST2-B-24.0**					
Laboratory ID:	08-158-01					
Naphthalene	**6.7**	0.83	EPA 8270D/SIM	8-18-15	8-20-15	
2-Methylnaphthalene	**20**	0.83	EPA 8270D/SIM	8-18-15	8-20-15	
1-Methylnaphthalene	**12**	0.83	EPA 8270D/SIM	8-18-15	8-20-15	
Acenaphthylene	**0.32**	0.17	EPA 8270D/SIM	8-18-15	8-20-15	
Acenaphthene	**0.71**	0.17	EPA 8270D/SIM	8-18-15	8-20-15	
Fluorene	**1.2**	0.17	EPA 8270D/SIM	8-18-15	8-20-15	
Phenanthrene	**2.7**	0.17	EPA 8270D/SIM	8-18-15	8-20-15	
Anthracene	**0.91**	0.17	EPA 8270D/SIM	8-18-15	8-20-15	
Fluoranthene	**0.79**	0.17	EPA 8270D/SIM	8-18-15	8-20-15	
Pyrene	**1.8**	0.17	EPA 8270D/SIM	8-18-15	8-20-15	
Benzo[a]anthracene	**0.51**	0.17	EPA 8270D/SIM	8-18-15	8-20-15	
Chrysene	**0.87**	0.17	EPA 8270D/SIM	8-18-15	8-20-15	
Benzo[b]fluoranthene	**0.40**	0.17	EPA 8270D/SIM	8-18-15	8-20-15	
Benzo(j,k)fluoranthene	**0.072**	0.033	EPA 8270D/SIM	8-18-15	8-19-15	
Benzo[a]pyrene	**0.40**	0.17	EPA 8270D/SIM	8-18-15	8-20-15	
Indeno(1,2,3-c,d)pyrene	**0.24**	0.17	EPA 8270D/SIM	8-18-15	8-20-15	
Dibenz[a,h]anthracene	**0.036**	0.033	EPA 8270D/SIM	8-18-15	8-19-15	
Benzo[g,h,i]perylene	**0.72**	0.17	EPA 8270D/SIM	8-18-15	8-20-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*42*	*32 - 114*				
Pyrene-d10	*69*	*33 - 121*				
Terphenyl-d14	*56*	*31 - 116*				

This report pertains to the samples analyzed in accordance with the chain of custody,
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Date of Report: August 21, 2015
Samples Submitted: August 17, 2015
Laboratory Reference: 1508-158
Project: 21138-001-03

PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST2-S-22.0**					
Laboratory ID:	08-158-02					
Naphthalene	**6.7**	0.82	EPA 8270D/SIM	8-18-15	8-20-15	
2-Methylnaphthalene	**12**	0.82	EPA 8270D/SIM	8-18-15	8-20-15	
1-Methylnaphthalene	**6.8**	0.82	EPA 8270D/SIM	8-18-15	8-20-15	
Acenaphthylene	**0.10**	0.033	EPA 8270D/SIM	8-18-15	8-19-15	
Acenaphthene	**0.16**	0.16	EPA 8270D/SIM	8-18-15	8-20-15	
Fluorene	**0.44**	0.16	EPA 8270D/SIM	8-18-15	8-20-15	
Phenanthrene	**1.4**	0.16	EPA 8270D/SIM	8-18-15	8-20-15	
Anthracene	**0.49**	0.16	EPA 8270D/SIM	8-18-15	8-20-15	
Fluoranthene	**0.68**	0.16	EPA 8270D/SIM	8-18-15	8-20-15	
Pyrene	**1.3**	0.16	EPA 8270D/SIM	8-18-15	8-20-15	
Benzo[a]anthracene	**0.55**	0.16	EPA 8270D/SIM	8-18-15	8-20-15	
Chrysene	**0.68**	0.16	EPA 8270D/SIM	8-18-15	8-20-15	
Benzo[b]fluoranthene	**0.34**	0.16	EPA 8270D/SIM	8-18-15	8-20-15	
Benzo(j,k)fluoranthene	**0.072**	0.033	EPA 8270D/SIM	8-18-15	8-19-15	
Benzo[a]pyrene	**0.36**	0.16	EPA 8270D/SIM	8-18-15	8-20-15	
Indeno(1,2,3-c,d)pyrene	**0.25**	0.16	EPA 8270D/SIM	8-18-15	8-20-15	
Dibenz[a,h]anthracene	**ND**	0.033	EPA 8270D/SIM	8-18-15	8-19-15	
Benzo[g,h,i]perylene	**0.64**	0.16	EPA 8270D/SIM	8-18-15	8-20-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*56*	*32 - 114*				
Pyrene-d10	*79*	*33 - 121*				
Terphenyl-d14	*77*	*31 - 116*				

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Date of Report: August 21, 2015
Samples Submitted: August 17, 2015
Laboratory Reference: 1508-158
Project: 21138-001-03

PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST2-W-22.0**					
Laboratory ID:	08-158-03					
Naphthalene	**5.5**	0.46	EPA 8270D/SIM	8-18-15	8-20-15	
2-Methylnaphthalene	**8.9**	0.46	EPA 8270D/SIM	8-18-15	8-20-15	
1-Methylnaphthalene	**5.2**	0.46	EPA 8270D/SIM	8-18-15	8-20-15	
Acenaphthylene	**0.12**	0.092	EPA 8270D/SIM	8-18-15	8-20-15	
Acenaphthene	**0.14**	0.092	EPA 8270D/SIM	8-18-15	8-20-15	
Fluorene	**0.41**	0.092	EPA 8270D/SIM	8-18-15	8-20-15	
Phenanthrene	**1.2**	0.092	EPA 8270D/SIM	8-18-15	8-20-15	
Anthracene	**0.48**	0.092	EPA 8270D/SIM	8-18-15	8-20-15	
Fluoranthene	**0.86**	0.092	EPA 8270D/SIM	8-18-15	8-20-15	
Pyrene	**1.4**	0.092	EPA 8270D/SIM	8-18-15	8-20-15	
Benzo[a]anthracene	**0.59**	0.092	EPA 8270D/SIM	8-18-15	8-20-15	
Chrysene	**0.74**	0.092	EPA 8270D/SIM	8-18-15	8-20-15	
Benzo[b]fluoranthene	**0.67**	0.092	EPA 8270D/SIM	8-18-15	8-20-15	
Benzo(j,k)fluoranthene	**0.20**	0.092	EPA 8270D/SIM	8-18-15	8-20-15	
Benzo[a]pyrene	**0.44**	0.092	EPA 8270D/SIM	8-18-15	8-20-15	
Indeno(1,2,3-c,d)pyrene	**0.37**	0.092	EPA 8270D/SIM	8-18-15	8-20-15	
Dibenz[a,h]anthracene	**0.041**	0.037	EPA 8270D/SIM	8-18-15	8-19-15	
Benzo[g,h,i]perylene	**0.83**	0.092	EPA 8270D/SIM	8-18-15	8-20-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*51*	*32 - 114*				
Pyrene-d10	*63*	*33 - 121*				
Terphenyl-d14	*60*	*31 - 116*				

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Date of Report: August 21, 2015
Samples Submitted: August 17, 2015
Laboratory Reference: 1508-158
Project: 21138-001-03

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0817S2					
Diesel Range Organics	**ND**	25	NWTPH-Dx	8-17-15	8-18-15	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	8-17-15	8-18-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*105*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE										
Laboratory ID:	08-145-07									
	ORIG	DUP								
Diesel Range	**ND**	**ND**	NA	NA		NA	NA	NA	NA	U1,
Lube Oil	**5440**	**4100**	NA	NA		NA	NA	28	NA	
Surrogate:										
o-Terphenyl						--- ---	*50-150*			S,S

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Date of Report: August 21, 2015
Samples Submitted: August 17, 2015
Laboratory Reference: 1508-158
Project: 21138-001-03

PAHs EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0818S1					
Naphthalene	**ND**	0.033	EPA 8270D/SIM	8-18-15	8-18-15	
2-Methylnaphthalene	**ND**	0.033	EPA 8270D/SIM	8-18-15	8-18-15	
1-Methylnaphthalene	**ND**	0.033	EPA 8270D/SIM	8-18-15	8-18-15	
Acenaphthylene	**ND**	0.0067	EPA 8270D/SIM	8-18-15	8-18-15	
Acenaphthene	**ND**	0.0067	EPA 8270D/SIM	8-18-15	8-18-15	
Fluorene	**ND**	0.0067	EPA 8270D/SIM	8-18-15	8-18-15	
Phenanthrene	**ND**	0.0067	EPA 8270D/SIM	8-18-15	8-18-15	
Anthracene	**ND**	0.0067	EPA 8270D/SIM	8-18-15	8-18-15	
Fluoranthene	**ND**	0.0067	EPA 8270D/SIM	8-18-15	8-18-15	
Pyrene	**ND**	0.0067	EPA 8270D/SIM	8-18-15	8-18-15	
Benzo[a]anthracene	**ND**	0.0067	EPA 8270D/SIM	8-18-15	8-18-15	
Chrysene	**ND**	0.0067	EPA 8270D/SIM	8-18-15	8-18-15	
Benzo[b]fluoranthene	**ND**	0.0067	EPA 8270D/SIM	8-18-15	8-18-15	
Benzo(j,k)fluoranthene	**ND**	0.0067	EPA 8270D/SIM	8-18-15	8-18-15	
Benzo[a]pyrene	**ND**	0.0067	EPA 8270D/SIM	8-18-15	8-18-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0067	EPA 8270D/SIM	8-18-15	8-18-15	
Dibenz[a,h]anthracene	**ND**	0.0067	EPA 8270D/SIM	8-18-15	8-18-15	
Benzo[g,h,i]perylene	**ND**	0.0067	EPA 8270D/SIM	8-18-15	8-18-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*70*	*32 - 114*				
Pyrene-d10	*72*	*33 - 121*				
Terphenyl-d14	*90*	*31 - 116*				

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Date of Report: August 21, 2015
Samples Submitted: August 17, 2015
Laboratory Reference: 1508-158
Project: 21138-001-03

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:	SB0818S1									
	SB	SBD	SB	SBD	SB	SBD				
Acenaphthylene	**0.0754**	**0.0732**	0.0833	0.0833	91	88	61 - 125	3	16	
Acenaphthene	**0.0752**	**0.0719**	0.0833	0.0833	90	86	66 - 113	4	16	
Fluorene	**0.0787**	**0.0725**	0.0833	0.0833	94	87	60 - 117	8	16	
Phenanthrene	**0.0746**	**0.0741**	0.0833	0.0833	90	89	63 - 116	1	12	
Anthracene	**0.114**	**0.113**	0.0833	0.0833	137	136	66 - 146	1	19	
Fluoranthene	**0.0921**	**0.0828**	0.0833	0.0833	111	99	60 - 125	11	13	
Pyrene	**0.0802**	**0.0784**	0.0833	0.0833	96	94	66 - 126	2	15	
Benzo[a]anthracene	**0.0726**	**0.0774**	0.0833	0.0833	87	93	60 - 128	6	15	
Chrysene	**0.0709**	**0.0735**	0.0833	0.0833	85	88	60 - 117	4	13	
Benzo[b]fluoranthene	**0.0766**	**0.0748**	0.0833	0.0833	92	90	60 - 131	2	16	
Benzo(j,k)fluoranthene	**0.0786**	**0.0765**	0.0833	0.0833	94	92	57 - 126	3	20	
Benzo[a]pyrene	**0.0796**	**0.0795**	0.0833	0.0833	96	95	62 - 136	0	16	
Indeno(1,2,3-c,d)pyrene	**0.0824**	**0.0878**	0.0833	0.0833	99	105	60 - 127	6	19	
Dibenz[a,h]anthracene	**0.0753**	**0.0765**	0.0833	0.0833	90	92	62 - 133	2	22	
Benzo[g,h,i]perylene	**0.0769**	**0.0828**	0.0833	0.0833	92	99	63 - 129	7	22	
Surrogate:										
2-Fluorobiphenyl					*97*	*93*	*32 - 114*			
Pyrene-d10					*97*	*94*	*33 - 121*			
Terphenyl-d14					*97*	*111*	*31 - 116*			

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Date of Report: August 21, 2015
Samples Submitted: August 17, 2015
Laboratory Reference: 1508-158
Project: 21138-001-03

% MOISTURE

Date Analyzed: 8-17-15

Client ID	Lab ID	% Moisture
UST2-B-24.0	08-158-01	19
UST2-S-22.0	08-158-02	19
UST2-W-22.0	08-158-03	27

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OnSite Environmental Inc.

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-napthalene) 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

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: GeoEngineers
Project Number: 21138-001-03
Project Name: 9th & Lenora Project
Project Manager: Fasih Khan
Sampled by: Fasih Khan

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☒ 2 Days ☐ 3 Days
☐ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

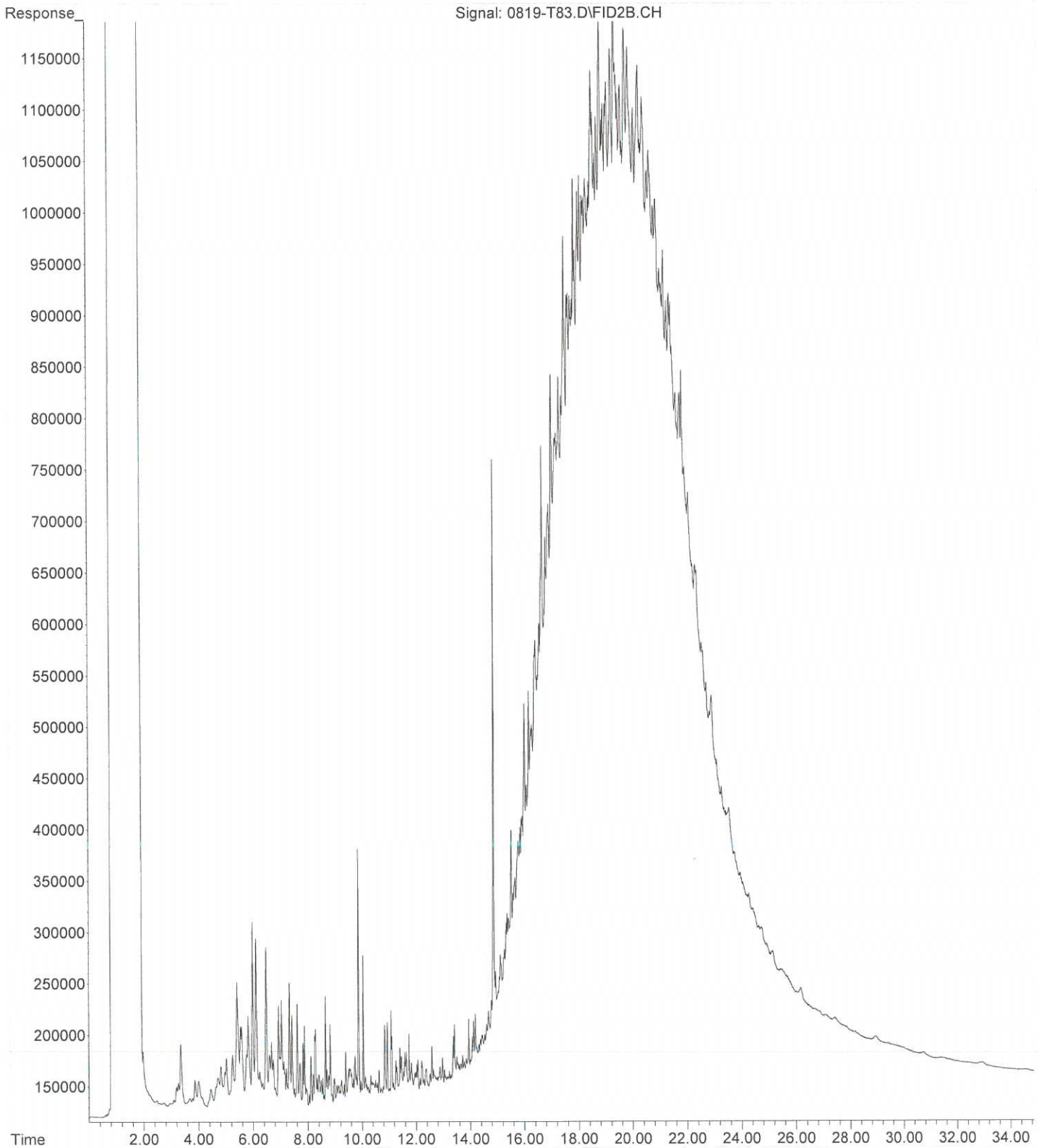
Laboratory Number: 08-158

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	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
1	UST2-B-24.0	8/14/15	1245	S	1				⊗				⊗														X
2	UST2-S-22.0	↓	1300	↓	↓				⊗				⊗														X
3	UST2-W-22.0	↓	1310	↓	↓				⊗				⊗														X

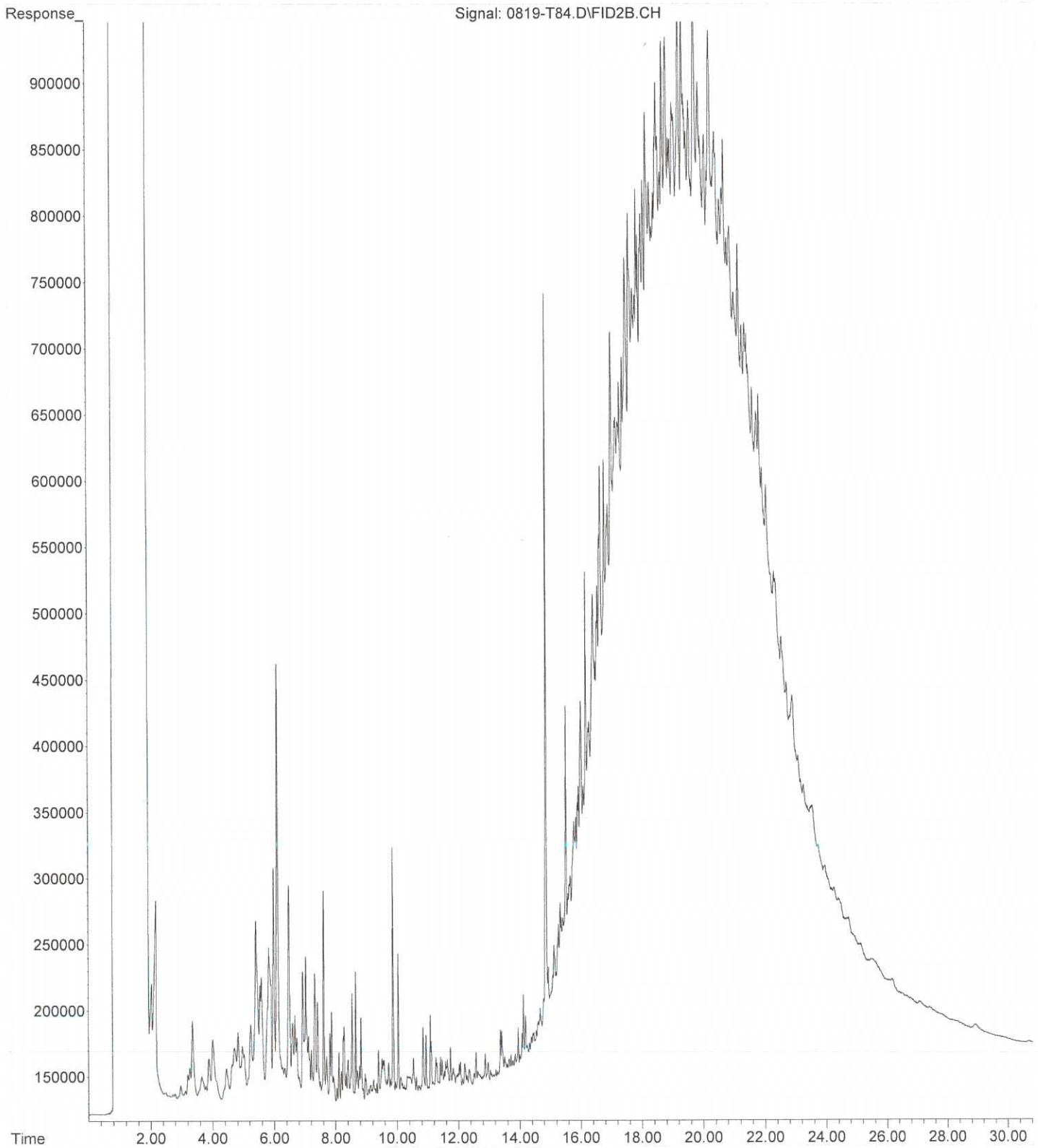
	Signature	Company	Date	Time	Comments/Special Instructions
Relinquished		GEI	8/17/15	0825	
Received		OSE	8.17.15	8:25A	
Relinquished					
Received					
Relinquished					
Received					
Reviewed/Date		Reviewed/Date			Chromatograms with final report ☐

Data Package: Standard ☐ Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ _____

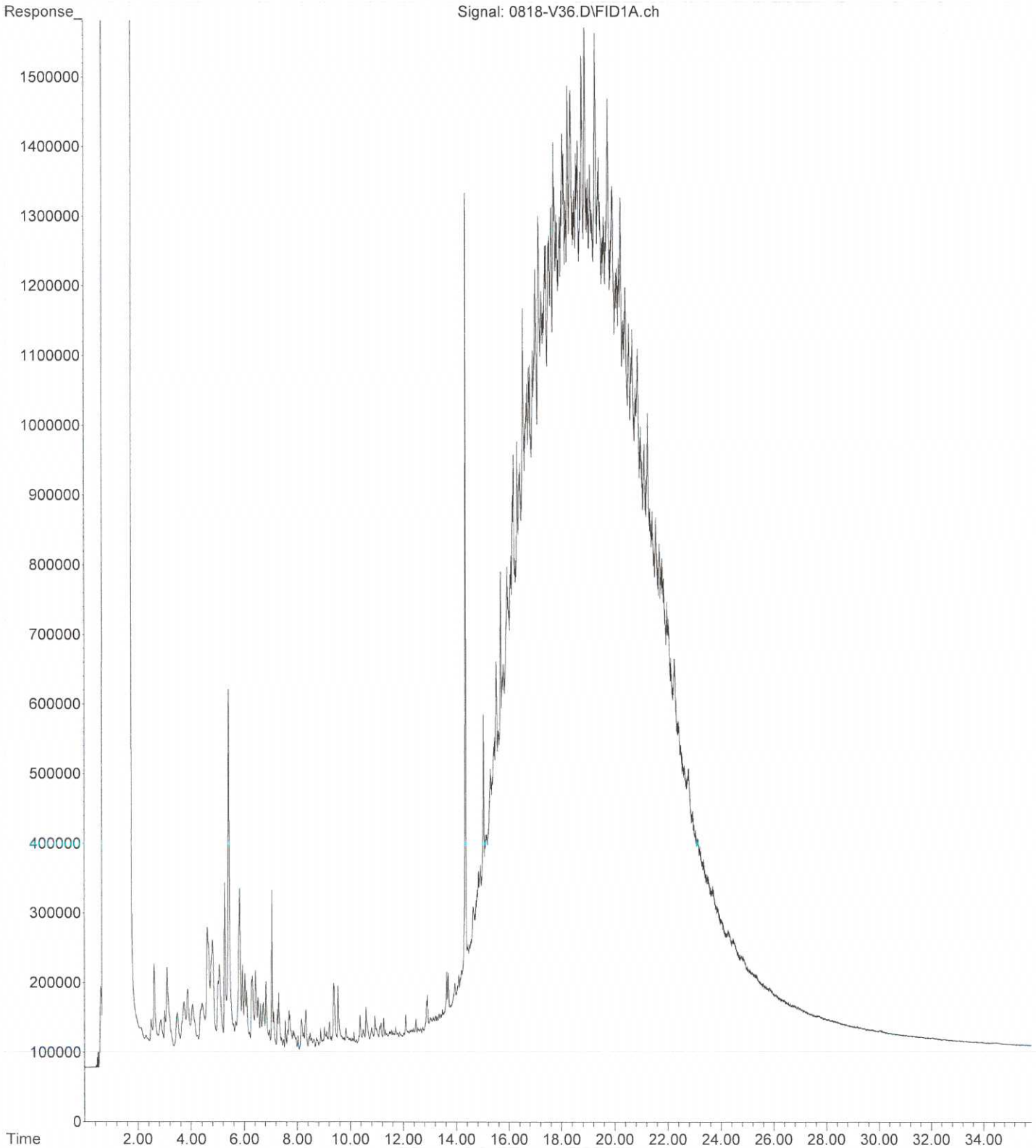
File :X:\DIESELS\TERI\DATA\T150819.SEC\0819-T83.D
Operator : ZT
Acquired : 20 Aug 2015 10:45 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 08-158-01 20X
Misc Info :
Vial Number: 83



File :X:\DIESELS\TERI\DATA\T150819.SEC\0819-T84.D
Operator : ZT
Acquired : 20 Aug 2015 11:28 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 08-158-02 20X
Misc Info :
Vial Number: 84



File : X:\DIESELS\VIGO\DATA\V150818\0818-V36.D
Operator :
Acquired : 19 Aug 2015 14:39 using AcqMethod V150507F.M
Instrument : Vigo
Sample Name: 08-158-03 10X
Misc Info :
Vial Number: 36



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

August 12, 2015

Fasih Khan
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03
Laboratory Reference No. 1508-101

Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on August 12, 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,

David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 12, 2015
Samples Submitted: August 12, 2015
Laboratory Reference: 1508-101
Project: 21138-001-03

Case Narrative

Samples were collected on August 11, 2015 and received by the laboratory on August 12, 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.

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Date of Report: August 12, 2015
Samples Submitted: August 12, 2015
Laboratory Reference: 1508-101
Project: 21138-001-03

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
SW-UST-PRODUCT	08-101-01	Product	8-11-15	8-12-15	

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Date of Report: August 12, 2015
Samples Submitted: August 12, 2015
Laboratory Reference: 1508-101
Project: 21138-001-03

NWTPH-HCID

Matrix: Product
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**SW-UST-PRODUCT**					
Laboratory ID:	08-101-01					
Gasoline Range Organics	**ND**	8600	NWTPH-HCID	8-12-15	8-12-15	U1
Diesel Fuel #2	**Detected**	2400	NWTPH-HCID	8-12-15	8-12-15	
Lube Oil	**Detected**	4800	NWTPH-HCID	8-12-15	8-12-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*106*	*50-150*				

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Date of Report: August 12, 2015
Samples Submitted: August 12, 2015
Laboratory Reference: 1508-101
Project: 21138-001-03

NWTPH-HCID
QUALITY CONTROL

Matrix: Product
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0812P1					
Gasoline Range Organics	**ND**	1000	NWTPH-HCID	8-12-15	8-12-15	
Diesel Range Organics	**ND**	2500	NWTPH-HCID	8-12-15	8-12-15	
Lube Oil Range Organics	**ND**	5000	NWTPH-HCID	8-12-15	8-12-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*85*	*50-150*				

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OnSite Environmental Inc.

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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.

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-napthalene) 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.

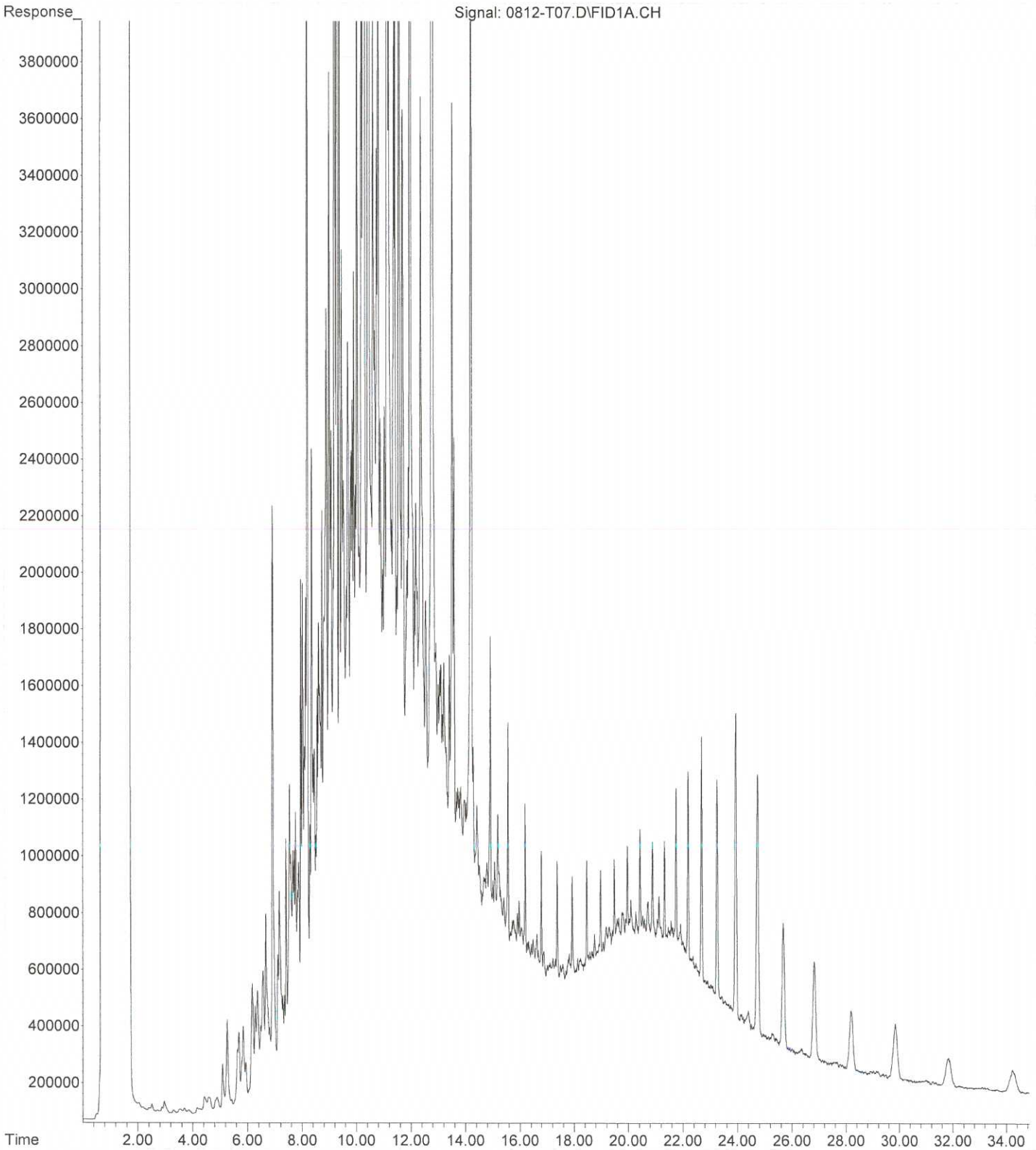
Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

File : X:\DIESELS\TERI\DATA\T150812\0812-T07.D
Operator : ZT
Acquired : 12 Aug 2015 15:35 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 08-101-01 HC P
Misc Info :
Vial Number: 7



Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: GEOENGINEERS
Project Number: 21138-001-03
Project Name: 9th & LENORA PROJECT
Project Manager: FASIH KHAN
Sampled by: FASIH KHAN

Turnaround Request (in working days)
(Check One)
☒ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☐ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Laboratory Number: 08-101

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	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
1	SW-UST-PRODUCT	8/11/15	0930	PRODUCT	1	X																					

	Signature	Company	Date	Time
Relinquished		GEO	8/12/15	0925
Received		GEO	8/12/15	0925
Relinquished				
Received				
Relinquished				
Received				

Comments/Special Instructions

Reviewed/Date
Reviewed/Date
Chromatograms with final report ☐

Data Package: Standard ☐ Level III ☐ Level IV ☐
Electronic Data Deliverables (EDDs) ☐ _____

OnSite Environmental Inc.

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

August 11, 2015

Fasih Khan
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03
Laboratory Reference No. 1508-031

Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on August 6, 2015.

Please note that this is a *revised* report, and replaces the original due to a revision of the sample identification.

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,

David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 11, 2015
Samples Submitted: August 6, 2015
Laboratory Reference: 1508-031
Project: 21138-001-03

Case Narrative

Samples were collected on August 4, 2015 and received by the laboratory on August 6, 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.

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 11, 2015
Samples Submitted: August 6, 2015
Laboratory Reference: 1508-031
Project: 21138-001-03

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
UST2EX-S1-20.0	08-031-01	Soil	8-4-15	8-6-15	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 11, 2015
Samples Submitted: August 6, 2015
Laboratory Reference: 1508-031
Project: 21138-001-03

NWTPH-Gx/BTEX

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST2EX-S1-20.0**					
Laboratory ID:	08-031-01					
Benzene	**ND**	0.020	EPA 8021B	8-7-15	8-7-15	
Toluene	**ND**	0.055	EPA 8021B	8-7-15	8-7-15	
Ethyl Benzene	**ND**	0.055	EPA 8021B	8-7-15	8-7-15	
m,p-Xylene	**ND**	0.055	EPA 8021B	8-7-15	8-7-15	
o-Xylene	**ND**	0.055	EPA 8021B	8-7-15	8-7-15	
Gasoline	**ND**	5.5	NWTPH-Gx	8-7-15	8-7-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*91*	*68-123*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 11, 2015
Samples Submitted: August 6, 2015
Laboratory Reference: 1508-031
Project: 21138-001-03

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST2EX-S1-20.0**					
Laboratory ID:	08-031-01					
Diesel Range Organics	**ND**	25	NWTPH-Dx	8-6-15	8-6-15	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	8-6-15	8-6-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*93*	*50-150*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 11, 2015
Samples Submitted: August 6, 2015
Laboratory Reference: 1508-031
Project: 21138-001-03

NWTPH-Gx/BTEX
QUALITY CONTROL

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0807S1					
Benzene	**ND**	0.020	EPA 8021B	8-7-15	8-7-15	
Toluene	**ND**	0.050	EPA 8021B	8-7-15	8-7-15	
Ethyl Benzene	**ND**	0.050	EPA 8021B	8-7-15	8-7-15	
m,p-Xylene	**ND**	0.050	EPA 8021B	8-7-15	8-7-15	
o-Xylene	**ND**	0.050	EPA 8021B	8-7-15	8-7-15	
Gasoline	**ND**	5.0	NWTPH-Gx	8-7-15	8-7-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*89*	*68-123*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	08-047-01										
	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						*89*	*89*	*68-123*			
SPIKE BLANKS											
Laboratory ID:	SB0807S1										
	SB	SBD	SB	SBD		SB	SBD				
Benzene	**1.03**	**1.03**	1.00	1.00		**103**	**103**	75-117	0	13	
Toluene	**1.02**	**1.02**	1.00	1.00		**102**	**102**	78-118	0	12	
Ethyl Benzene	**1.01**	**1.01**	1.00	1.00		**101**	**101**	78-118	0	12	
m,p-Xylene	**1.02**	**1.02**	1.00	1.00		**102**	**102**	78-121	0	13	
o-Xylene	**1.02**	**1.01**	1.00	1.00		**102**	**101**	77-119	1	13	
Surrogate:											
Fluorobenzene						*96*	*95*	*68-123*			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 11, 2015
Samples Submitted: August 6, 2015
Laboratory Reference: 1508-031
Project: 21138-001-03

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0806S1					
Diesel Range Organics	**ND**	25	NWTPH-Dx	8-6-15	8-6-15	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	8-6-15	8-6-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*88*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	08-031-01										
	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						*93*	*95*	*50-150*			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 11, 2015
Samples Submitted: August 6, 2015
Laboratory Reference: 1508-031
Project: 21138-001-03

% MOISTURE

Date Analyzed: 8-6-15

Client ID	Lab ID	% Moisture
UST2EX-S1-20.0	08-031-01	12

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

OnSite Environmental Inc.

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-napthalene) 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

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: GEOENGINEERS
Project Number: 21138-001-03
Project Name: 9th & LENORA PROJECT
Project Manager: FASIH KHAN
Sampled by: FASIH KHAN

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☒ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Laboratory Number: 08-031

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	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
1	~~EX SW-1 20.0~~ VST2EX-S1-20.0	8/4/15	1400	S	2		⊗		⊗																		X

	Signature	Company	Date	Time
Relinquished		GE	8/6/15	0745
Received			8-6-15	7:45A
Relinquished				
Received				
Relinquished				
Received				

Comments/Special Instructions

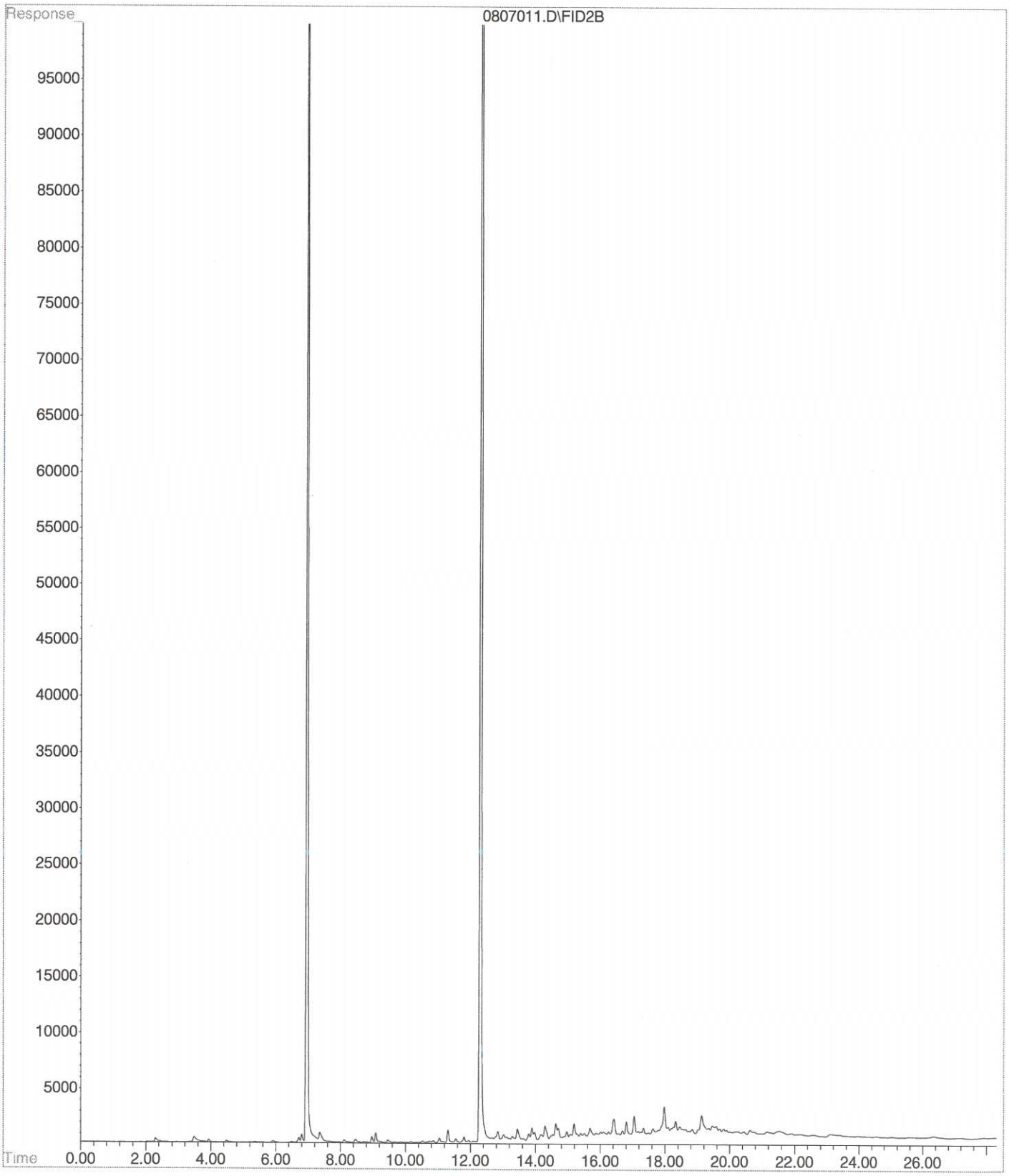
Reviewed/Date

Reviewed/Date

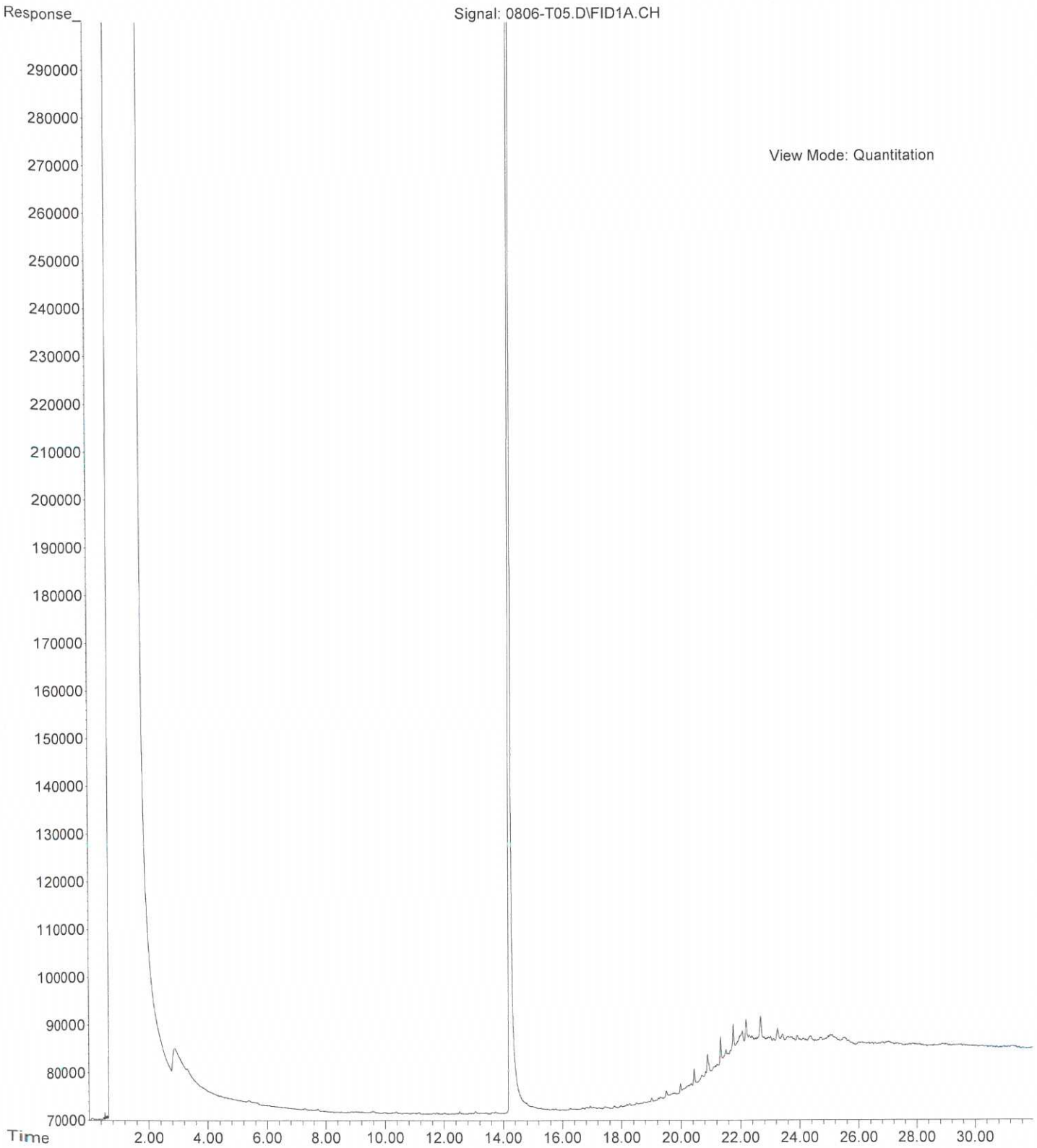
Chromatograms with final report ☐

Data Package: Standard ☐ Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ _____

File : X:\BTEX\DARYL\DATA\D150807\0807011.D
Operator :
Acquired : 7 Aug 2015 18:19 using AcqMethod 150709B.M
Instrument : Daryl
Sample Name: 08-031-01s
Misc Info : V2-37-21
Vial Number: 11



File :X:\DIESELS\TERI\DATA\T150806\0806-T05.D
Operator : ZT
Acquired : 06 Aug 2015 14:33 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 08-031-01
Misc Info :
Vial Number: 5



OnSite Environmental Inc.

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

September 2, 2015

Fasih Khan
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03
Laboratory Reference No. 1508-289R2

Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on August 28, 2015.

Please note that this is a *revised* report, and replaces the original due to a revision of the sample identification.

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,

David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: September 2, 2015
Samples Submitted: August 28, 2015
Laboratory Reference: 1508-289R2
Project: 21138-001-03

Case Narrative

Samples were collected on August 27 and 28, 2015 and received by the laboratory on August 28, 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.

PAHs EPA 8270D/SIM Analysis

The Spike Blank/Spike Blank Duplicate had one recovery slightly above control limits, due to a small upward bias in the instruments' calibration. No further action was taken.

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.

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: September 2, 2015
Samples Submitted: August 28, 2015
Laboratory Reference: 1508-289R2
Project: 21138-001-03

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
UST2EX-W2-30.0	08-289-01	Soil	8-28-15	8-28-15	
UST2EX-S2-24.0	08-289-02	Soil	8-27-15	8-28-15	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: September 2, 2015
Samples Submitted: August 28, 2015
Laboratory Reference: 1508-289R2
Project: 21138-001-03

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST2EX-W2-30.0**					
Laboratory ID:	08-289-01					
Diesel Range Organics	**240**	34	NWTPH-Dx	8-31-15	8-31-15	
Lube Oil	**1800**	68	NWTPH-Dx	8-31-15	8-31-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*82*	*50-150*				
Client ID:	**UST2EX-S2-24.0**					
Laboratory ID:	08-289-02					
Diesel Range Organics	**56**	34	NWTPH-Dx	8-31-15	8-31-15	
Lube Oil	**490**	68	NWTPH-Dx	8-31-15	8-31-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*76*	*50-150*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: September 2, 2015
Samples Submitted: August 28, 2015
Laboratory Reference: 1508-289R2
Project: 21138-001-03

PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST2EX-W2-30.0**					
Laboratory ID:	08-289-01					
Naphthalene	**0.18**	0.0091	EPA 8270D/SIM	8-31-15	8-31-15	
2-Methylnaphthalene	**0.89**	0.0091	EPA 8270D/SIM	8-31-15	8-31-15	
1-Methylnaphthalene	**0.65**	0.0091	EPA 8270D/SIM	8-31-15	8-31-15	
Acenaphthylene	**0.024**	0.0091	EPA 8270D/SIM	8-31-15	8-31-15	
Acenaphthene	**0.053**	0.0091	EPA 8270D/SIM	8-31-15	8-31-15	
Fluorene	**0.088**	0.0091	EPA 8270D/SIM	8-31-15	8-31-15	
Phenanthrene	**0.17**	0.0091	EPA 8270D/SIM	8-31-15	8-31-15	
Anthracene	**0.051**	0.0091	EPA 8270D/SIM	8-31-15	8-31-15	
Fluoranthene	**0.044**	0.0091	EPA 8270D/SIM	8-31-15	8-31-15	
Pyrene	**0.12**	0.0091	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[a]anthracene	**0.043**	0.0091	EPA 8270D/SIM	8-31-15	8-31-15	
Chrysene	**0.047**	0.0091	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[b]fluoranthene	**0.018**	0.0091	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo(j,k)fluoranthene	**ND**	0.0091	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[a]pyrene	**0.015**	0.0091	EPA 8270D/SIM	8-31-15	8-31-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0091	EPA 8270D/SIM	8-31-15	8-31-15	
Dibenz[a,h]anthracene	**ND**	0.0091	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[g,h,i]perylene	**0.027**	0.0091	EPA 8270D/SIM	8-31-15	8-31-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*65*	*32 - 114*				
Pyrene-d10	*77*	*33 - 121*				
Terphenyl-d14	*67*	*31 - 116*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: September 2, 2015
Samples Submitted: August 28, 2015
Laboratory Reference: 1508-289R2
Project: 21138-001-03

PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST2EX-S2-24.0**					
Laboratory ID:	08-289-02					
Naphthalene	**0.20**	0.0090	EPA 8270D/SIM	8-31-15	8-31-15	
2-Methylnaphthalene	**0.32**	0.0090	EPA 8270D/SIM	8-31-15	8-31-15	
1-Methylnaphthalene	**0.21**	0.0090	EPA 8270D/SIM	8-31-15	8-31-15	
Acenaphthylene	**ND**	0.0090	EPA 8270D/SIM	8-31-15	8-31-15	
Acenaphthene	**0.013**	0.0090	EPA 8270D/SIM	8-31-15	8-31-15	
Fluorene	**0.024**	0.0090	EPA 8270D/SIM	8-31-15	8-31-15	
Phenanthrene	**0.051**	0.0090	EPA 8270D/SIM	8-31-15	8-31-15	
Anthracene	**0.018**	0.0090	EPA 8270D/SIM	8-31-15	8-31-15	
Fluoranthene	**0.016**	0.0090	EPA 8270D/SIM	8-31-15	8-31-15	
Pyrene	**0.036**	0.0090	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[a]anthracene	**0.015**	0.0090	EPA 8270D/SIM	8-31-15	8-31-15	
Chrysene	**0.015**	0.0090	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[b]fluoranthene	**ND**	0.0090	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo(j,k)fluoranthene	**ND**	0.0090	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[a]pyrene	**ND**	0.0090	EPA 8270D/SIM	8-31-15	8-31-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0090	EPA 8270D/SIM	8-31-15	8-31-15	
Dibenz[a,h]anthracene	**ND**	0.0090	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[g,h,i]perylene	**0.011**	0.0090	EPA 8270D/SIM	8-31-15	8-31-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*48*	*32 - 114*				
Pyrene-d10	*45*	*33 - 121*				
Terphenyl-d14	*56*	*31 - 116*				

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Date of Report: September 2, 2015
Samples Submitted: August 28, 2015
Laboratory Reference: 1508-289R2
Project: 21138-001-03

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0831S1					
Diesel Range Organics	**ND**	25	NWTPH-Dx	8-31-15	8-31-15	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	8-31-15	8-31-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*110*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	08-287-04,09 Comp.										
	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						*107*	*112*	*50-150*			

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Date of Report: September 2, 2015
Samples Submitted: August 28, 2015
Laboratory Reference: 1508-289R2
Project: 21138-001-03

PAHs EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0831S1					
Naphthalene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
2-Methylnaphthalene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
1-Methylnaphthalene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Acenaphthylene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Acenaphthene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Fluorene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Phenanthrene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Anthracene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Fluoranthene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Pyrene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[a]anthracene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Chrysene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[b]fluoranthene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo(j,k)fluoranthene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[a]pyrene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Dibenz[a,h]anthracene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[g,h,i]perylene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*81*	*32 - 114*				
Pyrene-d10	*83*	*33 - 121*				
Terphenyl-d14	*90*	*31 - 116*				

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Date of Report: September 2, 2015
Samples Submitted: August 28, 2015
Laboratory Reference: 1508-289R2
Project: 21138-001-03

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:	SB0831S1									
	SB	SBD	SB	SBD	SB	SBD				
Naphthalene	**0.0711**	**0.0719**	0.0833	0.0833	85	86	63 - 113	1	19	
Acenaphthylene	**0.0748**	**0.0728**	0.0833	0.0833	90	87	61 - 125	3	16	
Acenaphthene	**0.0748**	**0.0732**	0.0833	0.0833	90	88	66 - 113	2	16	
Fluorene	**0.0753**	**0.0777**	0.0833	0.0833	90	93	60 - 117	3	16	
Phenanthrene	**0.0726**	**0.0724**	0.0833	0.0833	87	87	63 - 116	0	12	
Anthracene	**0.127**	**0.126**	0.0833	0.0833	152	151	66 - 146	1	19	II
Fluoranthene	**0.0717**	**0.0722**	0.0833	0.0833	86	87	60 - 125	1	13	
Pyrene	**0.0716**	**0.0716**	0.0833	0.0833	86	86	66 - 126	0	15	
Benzo[a]anthracene	**0.0826**	**0.0824**	0.0833	0.0833	99	99	60 - 128	0	15	
Chrysene	**0.0740**	**0.0746**	0.0833	0.0833	89	90	60 - 117	1	13	
Benzo[b]fluoranthene	**0.0711**	**0.0720**	0.0833	0.0833	85	86	60 - 131	1	16	
Benzo(j,k)fluoranthene	**0.0727**	**0.0735**	0.0833	0.0833	87	88	57 - 126	1	20	
Benzo[a]pyrene	**0.0699**	**0.0704**	0.0833	0.0833	84	85	62 - 136	1	16	
Indeno(1,2,3-c,d)pyrene	**0.0603**	**0.0632**	0.0833	0.0833	72	76	60 - 127	5	19	
Dibenz[a,h]anthracene	**0.0592**	**0.0627**	0.0833	0.0833	71	75	62 - 133	6	22	
Benzo[g,h,i]perylene	**0.0641**	**0.0668**	0.0833	0.0833	77	80	63 - 129	4	22	
Surrogate:										
2-Fluorobiphenyl					*88*	*87*	*32 - 114*			
Pyrene-d10					*82*	*83*	*33 - 121*			
Terphenyl-d14					*89*	*89*	*31 - 116*			

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Date of Report: September 2, 2015
Samples Submitted: August 28, 2015
Laboratory Reference: 1508-289R2
Project: 21138-001-03

% MOISTURE

Date Analyzed: 8-31-15

Client ID	Lab ID	% Moisture
UST2EX-W2-30.0	08-289-01	27
UST2EX-S2-24.0	08-289-02	26

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OnSite Environmental Inc.

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-napthalene) 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

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: GEOENGINEERS
Project Number: 21138-001-03
Project Name: 9th & LENORA PROJECT
Project Manager: FASIH KHAN
Sampled by: FASIH KHAN

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☒ 3 Days
☐ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Laboratory Number: 08-289

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	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
1	VST2EX-W2-30.0* DB 12/29/15	8/28/15	1320	S	2				(X)				(X)														X
2	VST2EX-S2-24.0	8/27/15	1240	S	2				(X)				(X)														X

	Signature	Company	Date	Time
Relinquished		GEI	8/28/15	1555
Received		Onsite	8-28-15	1555
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions
* HOT Sample

Chromatograms with final report ☐

Data Package: Standard ☐ Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐

OnSite Environmental Inc.

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

September 1, 2015

Fasih Khan
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03
Laboratory Reference No. 1508-288

Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on August 28, 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,

David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody,
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Date of Report: September 1, 2015
Samples Submitted: August 28, 2015
Laboratory Reference: 1508-288
Project: 21138-001-03

Case Narrative

Samples were collected on August 28, 2015 and received by the laboratory on August 28, 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.

PAHs EPA 8270D/SIM Analysis

The Spike Blank/Spike Blank Duplicate had one recovery slightly above control limits, due to a small upward bias in the instruments' calibration. No further action was taken.

Please note that any other QA/QC issues associated with these extractions and analyses will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: September 1, 2015
Samples Submitted: August 28, 2015
Laboratory Reference: 1508-288
Project: 21138-001-03

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
UST2EX-S1-33.0	08-288-01	Soil	8-28-15	8-28-15	
UST2EX-S2-33.0	08-288-02	Soil	8-28-15	8-28-15	
UST2EX-W1-33.0	08-288-03	Soil	8-28-15	8-28-15	
UST2EX-W2-33.0	08-288-04	Soil	8-28-15	8-28-15	
UST2EX-B2-36.0	08-288-05	Soil	8-28-15	8-28-15	

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Date of Report: September 1, 2015
Samples Submitted: August 28, 2015
Laboratory Reference: 1508-288
Project: 21138-001-03

NWTPH-Gx/BTEX

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST2EX-S1-33.0**					
Laboratory ID:	08-288-01					
Benzene	**ND**	0.020	EPA 8021B	8-28-15	8-28-15	
Toluene	**ND**	0.060	EPA 8021B	8-28-15	8-28-15	
Ethyl Benzene	**ND**	0.060	EPA 8021B	8-28-15	8-28-15	
m,p-Xylene	**ND**	0.060	EPA 8021B	8-28-15	8-28-15	
o-Xylene	**ND**	0.060	EPA 8021B	8-28-15	8-28-15	
Gasoline	**ND**	6.0	NWTPH-Gx	8-28-15	8-28-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*89*	*68-123*				
Client ID:	**UST2EX-S2-33.0**					
Laboratory ID:	08-288-02					
Benzene	**ND**	0.020	EPA 8021B	8-28-15	8-28-15	
Toluene	**ND**	0.069	EPA 8021B	8-28-15	8-28-15	
Ethyl Benzene	**ND**	0.069	EPA 8021B	8-28-15	8-28-15	
m,p-Xylene	**ND**	0.069	EPA 8021B	8-28-15	8-28-15	
o-Xylene	**ND**	0.069	EPA 8021B	8-28-15	8-28-15	
Gasoline	**ND**	6.9	NWTPH-Gx	8-28-15	8-28-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*86*	*68-123*				
Client ID:	**UST2EX-W1-33.0**					
Laboratory ID:	08-288-03					
Benzene	**ND**	0.020	EPA 8021B	8-28-15	8-28-15	
Toluene	**ND**	0.079	EPA 8021B	8-28-15	8-28-15	
Ethyl Benzene	**ND**	0.079	EPA 8021B	8-28-15	8-28-15	
m,p-Xylene	**ND**	0.079	EPA 8021B	8-28-15	8-28-15	
o-Xylene	**ND**	0.079	EPA 8021B	8-28-15	8-28-15	
Gasoline	**ND**	7.9	NWTPH-Gx	8-28-15	8-28-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*98*	*68-123*				

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Date of Report: September 1, 2015
Samples Submitted: August 28, 2015
Laboratory Reference: 1508-288
Project: 21138-001-03

NWTPH-Gx/BTEX

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST2EX-W2-33.0**					
Laboratory ID:	08-288-04					
Benzene	**ND**	0.020	EPA 8021B	8-28-15	8-28-15	
Toluene	**ND**	0.067	EPA 8021B	8-28-15	8-28-15	
Ethyl Benzene	**ND**	0.067	EPA 8021B	8-28-15	8-28-15	
m,p-Xylene	**ND**	0.067	EPA 8021B	8-28-15	8-28-15	
o-Xylene	**ND**	0.067	EPA 8021B	8-28-15	8-28-15	
Gasoline	**ND**	6.7	NWTPH-Gx	8-28-15	8-28-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*87*	*68-123*				
Client ID:	**UST2EX-B2-36.0**					
Laboratory ID:	08-288-05					
Benzene	**ND**	0.020	EPA 8021B	8-28-15	8-28-15	
Toluene	**ND**	0.073	EPA 8021B	8-28-15	8-28-15	
Ethyl Benzene	**ND**	0.073	EPA 8021B	8-28-15	8-28-15	
m,p-Xylene	**ND**	0.073	EPA 8021B	8-28-15	8-28-15	
o-Xylene	**ND**	0.073	EPA 8021B	8-28-15	8-28-15	
Gasoline	**ND**	7.3	NWTPH-Gx	8-28-15	8-28-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*90*	*68-123*				

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Date of Report: September 1, 2015
Samples Submitted: August 28, 2015
Laboratory Reference: 1508-288
Project: 21138-001-03

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST2EX-S1-33.0**					
Laboratory ID:	08-288-01					
Diesel Range Organics	**ND**	27	NWTPH-Dx	8-29-15	8-31-15	
Lube Oil Range Organics	**ND**	55	NWTPH-Dx	8-29-15	8-31-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*92*	*50-150*				
Client ID:	**UST2EX-S2-33.0**					
Laboratory ID:	08-288-02					
Diesel Range Organics	**ND**	32	NWTPH-Dx	8-29-15	8-31-15	
Lube Oil Range Organics	**ND**	63	NWTPH-Dx	8-29-15	8-31-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*103*	*50-150*				
Client ID:	**UST2EX-W1-33.0**					
Laboratory ID:	08-288-03					
Diesel Range Organics	**ND**	33	NWTPH-Dx	8-29-15	8-31-15	
Lube Oil Range Organics	**ND**	65	NWTPH-Dx	8-29-15	8-31-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*96*	*50-150*				
Client ID:	**UST2EX-W2-33.0**					
Laboratory ID:	08-288-04					
Diesel Range Organics	**ND**	31	NWTPH-Dx	8-29-15	8-31-15	
Lube Oil Range Organics	**ND**	62	NWTPH-Dx	8-29-15	8-31-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*88*	*50-150*				
Client ID:	**UST2EX-B2-36.0**					
Laboratory ID:	08-288-05					
Diesel Range Organics	**ND**	32	NWTPH-Dx	8-29-15	8-31-15	
Lube Oil Range Organics	**ND**	64	NWTPH-Dx	8-29-15	8-31-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*85*	*50-150*				

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Date of Report: September 1, 2015
Samples Submitted: August 28, 2015
Laboratory Reference: 1508-288
Project: 21138-001-03

PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST2EX-S1-33.0**					
Laboratory ID:	08-288-01					
Naphthalene	**ND**	0.0073	EPA 8270D/SIM	8-31-15	8-31-15	
2-Methylnaphthalene	**ND**	0.0073	EPA 8270D/SIM	8-31-15	8-31-15	
1-Methylnaphthalene	**ND**	0.0073	EPA 8270D/SIM	8-31-15	8-31-15	
Acenaphthylene	**ND**	0.0073	EPA 8270D/SIM	8-31-15	8-31-15	
Acenaphthene	**ND**	0.0073	EPA 8270D/SIM	8-31-15	8-31-15	
Fluorene	**ND**	0.0073	EPA 8270D/SIM	8-31-15	8-31-15	
Phenanthrene	**ND**	0.0073	EPA 8270D/SIM	8-31-15	8-31-15	
Anthracene	**ND**	0.0073	EPA 8270D/SIM	8-31-15	8-31-15	
Fluoranthene	**ND**	0.0073	EPA 8270D/SIM	8-31-15	8-31-15	
Pyrene	**ND**	0.0073	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[a]anthracene	**ND**	0.0073	EPA 8270D/SIM	8-31-15	8-31-15	
Chrysene	**ND**	0.0073	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[b]fluoranthene	**ND**	0.0073	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo(j,k)fluoranthene	**ND**	0.0073	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[a]pyrene	**ND**	0.0073	EPA 8270D/SIM	8-31-15	8-31-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0073	EPA 8270D/SIM	8-31-15	8-31-15	
Dibenz[a,h]anthracene	**ND**	0.0073	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[g,h,i]perylene	**ND**	0.0073	EPA 8270D/SIM	8-31-15	8-31-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*57*	*32 - 114*				
Pyrene-d10	*56*	*33 - 121*				
Terphenyl-d14	*61*	*31 - 116*				

This report pertains to the samples analyzed in accordance with the chain of custody,
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Date of Report: September 1, 2015
Samples Submitted: August 28, 2015
Laboratory Reference: 1508-288
Project: 21138-001-03

PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST2EX-S2-33.0**					
Laboratory ID:	08-288-02					
Naphthalene	**ND**	0.0084	EPA 8270D/SIM	8-31-15	8-31-15	
2-Methylnaphthalene	**ND**	0.0084	EPA 8270D/SIM	8-31-15	8-31-15	
1-Methylnaphthalene	**ND**	0.0084	EPA 8270D/SIM	8-31-15	8-31-15	
Acenaphthylene	**ND**	0.0084	EPA 8270D/SIM	8-31-15	8-31-15	
Acenaphthene	**ND**	0.0084	EPA 8270D/SIM	8-31-15	8-31-15	
Fluorene	**ND**	0.0084	EPA 8270D/SIM	8-31-15	8-31-15	
Phenanthrene	**ND**	0.0084	EPA 8270D/SIM	8-31-15	8-31-15	
Anthracene	**ND**	0.0084	EPA 8270D/SIM	8-31-15	8-31-15	
Fluoranthene	**ND**	0.0084	EPA 8270D/SIM	8-31-15	8-31-15	
Pyrene	**ND**	0.0084	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[a]anthracene	**ND**	0.0084	EPA 8270D/SIM	8-31-15	8-31-15	
Chrysene	**ND**	0.0084	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[b]fluoranthene	**ND**	0.0084	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo(j,k)fluoranthene	**ND**	0.0084	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[a]pyrene	**ND**	0.0084	EPA 8270D/SIM	8-31-15	8-31-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0084	EPA 8270D/SIM	8-31-15	8-31-15	
Dibenz[a,h]anthracene	**ND**	0.0084	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[g,h,i]perylene	**ND**	0.0084	EPA 8270D/SIM	8-31-15	8-31-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*52*	*32 - 114*				
Pyrene-d10	*49*	*33 - 121*				
Terphenyl-d14	*53*	*31 - 116*				

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Date of Report: September 1, 2015
Samples Submitted: August 28, 2015
Laboratory Reference: 1508-288
Project: 21138-001-03

PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST2EX-W1-33.0**					
Laboratory ID:	08-288-03					
Naphthalene	**0.040**	0.0087	EPA 8270D/SIM	8-31-15	8-31-15	
2-Methylnaphthalene	**0.021**	0.0087	EPA 8270D/SIM	8-31-15	8-31-15	
1-Methylnaphthalene	**0.021**	0.0087	EPA 8270D/SIM	8-31-15	8-31-15	
Acenaphthylene	**ND**	0.0087	EPA 8270D/SIM	8-31-15	8-31-15	
Acenaphthene	**ND**	0.0087	EPA 8270D/SIM	8-31-15	8-31-15	
Fluorene	**ND**	0.0087	EPA 8270D/SIM	8-31-15	8-31-15	
Phenanthrene	**ND**	0.0087	EPA 8270D/SIM	8-31-15	8-31-15	
Anthracene	**ND**	0.0087	EPA 8270D/SIM	8-31-15	8-31-15	
Fluoranthene	**ND**	0.0087	EPA 8270D/SIM	8-31-15	8-31-15	
Pyrene	**ND**	0.0087	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[a]anthracene	**ND**	0.0087	EPA 8270D/SIM	8-31-15	8-31-15	
Chrysene	**ND**	0.0087	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[b]fluoranthene	**ND**	0.0087	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo(j,k)fluoranthene	**ND**	0.0087	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[a]pyrene	**ND**	0.0087	EPA 8270D/SIM	8-31-15	8-31-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0087	EPA 8270D/SIM	8-31-15	8-31-15	
Dibenz[a,h]anthracene	**ND**	0.0087	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[g,h,i]perylene	**ND**	0.0087	EPA 8270D/SIM	8-31-15	8-31-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*64*	*32 - 114*				
Pyrene-d10	*60*	*33 - 121*				
Terphenyl-d14	*65*	*31 - 116*				

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Date of Report: September 1, 2015
Samples Submitted: August 28, 2015
Laboratory Reference: 1508-288
Project: 21138-001-03

PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST2EX-W2-33.0**					
Laboratory ID:	08-288-04					
Naphthalene	**ND**	0.0083	EPA 8270D/SIM	8-31-15	8-31-15	
2-Methylnaphthalene	**ND**	0.0083	EPA 8270D/SIM	8-31-15	8-31-15	
1-Methylnaphthalene	**ND**	0.0083	EPA 8270D/SIM	8-31-15	8-31-15	
Acenaphthylene	**ND**	0.0083	EPA 8270D/SIM	8-31-15	8-31-15	
Acenaphthene	**ND**	0.0083	EPA 8270D/SIM	8-31-15	8-31-15	
Fluorene	**ND**	0.0083	EPA 8270D/SIM	8-31-15	8-31-15	
Phenanthrene	**ND**	0.0083	EPA 8270D/SIM	8-31-15	8-31-15	
Anthracene	**ND**	0.0083	EPA 8270D/SIM	8-31-15	8-31-15	
Fluoranthene	**ND**	0.0083	EPA 8270D/SIM	8-31-15	8-31-15	
Pyrene	**ND**	0.0083	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[a]anthracene	**ND**	0.0083	EPA 8270D/SIM	8-31-15	8-31-15	
Chrysene	**ND**	0.0083	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[b]fluoranthene	**ND**	0.0083	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo(j,k)fluoranthene	**ND**	0.0083	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[a]pyrene	**ND**	0.0083	EPA 8270D/SIM	8-31-15	8-31-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0083	EPA 8270D/SIM	8-31-15	8-31-15	
Dibenz[a,h]anthracene	**ND**	0.0083	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[g,h,i]perylene	**ND**	0.0083	EPA 8270D/SIM	8-31-15	8-31-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*81*	*32 - 114*				
Pyrene-d10	*82*	*33 - 121*				
Terphenyl-d14	*88*	*31 - 116*				

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Date of Report: September 1, 2015
Samples Submitted: August 28, 2015
Laboratory Reference: 1508-288
Project: 21138-001-03

PAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST2EX-B2-36.0**					
Laboratory ID:	08-288-05					
Naphthalene	**ND**	0.0085	EPA 8270D/SIM	8-31-15	8-31-15	
2-Methylnaphthalene	**ND**	0.0085	EPA 8270D/SIM	8-31-15	8-31-15	
1-Methylnaphthalene	**ND**	0.0085	EPA 8270D/SIM	8-31-15	8-31-15	
Acenaphthylene	**ND**	0.0085	EPA 8270D/SIM	8-31-15	8-31-15	
Acenaphthene	**ND**	0.0085	EPA 8270D/SIM	8-31-15	8-31-15	
Fluorene	**ND**	0.0085	EPA 8270D/SIM	8-31-15	8-31-15	
Phenanthrene	**ND**	0.0085	EPA 8270D/SIM	8-31-15	8-31-15	
Anthracene	**ND**	0.0085	EPA 8270D/SIM	8-31-15	8-31-15	
Fluoranthene	**ND**	0.0085	EPA 8270D/SIM	8-31-15	8-31-15	
Pyrene	**ND**	0.0085	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[a]anthracene	**ND**	0.0085	EPA 8270D/SIM	8-31-15	8-31-15	
Chrysene	**ND**	0.0085	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[b]fluoranthene	**ND**	0.0085	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo(j,k)fluoranthene	**ND**	0.0085	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[a]pyrene	**ND**	0.0085	EPA 8270D/SIM	8-31-15	8-31-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0085	EPA 8270D/SIM	8-31-15	8-31-15	
Dibenz[a,h]anthracene	**ND**	0.0085	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[g,h,i]perylene	**ND**	0.0085	EPA 8270D/SIM	8-31-15	8-31-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*74*	*32 - 114*				
Pyrene-d10	*73*	*33 - 121*				
Terphenyl-d14	*78*	*31 - 116*				

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Date of Report: September 1, 2015
Samples Submitted: August 28, 2015
Laboratory Reference: 1508-288
Project: 21138-001-03

NWTPH-Gx/BTEX
QUALITY CONTROL

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0828S2					
Benzene	**ND**	0.020	EPA 8021B	8-28-15	8-28-15	
Toluene	**ND**	0.050	EPA 8021B	8-28-15	8-28-15	
Ethyl Benzene	**ND**	0.050	EPA 8021B	8-28-15	8-28-15	
m,p-Xylene	**ND**	0.050	EPA 8021B	8-28-15	8-28-15	
o-Xylene	**ND**	0.050	EPA 8021B	8-28-15	8-28-15	
Gasoline	**ND**	5.0	NWTPH-Gx	8-28-15	8-28-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*86*	*68-123*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	08-288-01										
	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						*89*	*88*	*68-123*			
SPIKE BLANKS											
Laboratory ID:	SB0828S1										
	SB	SBD	SB	SBD		SB	SBD				
Benzene	**0.870**	**0.951**	1.00	1.00		**87**	**95**	75-117	9	13	
Toluene	**0.875**	**0.967**	1.00	1.00		**88**	**97**	78-118	10	12	
Ethyl Benzene	**0.862**	**0.936**	1.00	1.00		**86**	**94**	78-118	8	12	
m,p-Xylene	**0.878**	**0.964**	1.00	1.00		**88**	**96**	78-121	9	13	
o-Xylene	**0.869**	**0.943**	1.00	1.00		**87**	**94**	77-119	8	13	
Surrogate:											
Fluorobenzene						*82*	*87*	*68-123*			

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Date of Report: September 1, 2015
Samples Submitted: August 28, 2015
Laboratory Reference: 1508-288
Project: 21138-001-03

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0829S1					
Diesel Range Organics	**ND**	25	NWTPH-Dx	8-29-15	8-31-15	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	8-29-15	8-31-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*96*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	08-247-04										
	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						*97*	*92*	*50-150*			

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Date of Report: September 1, 2015
Samples Submitted: August 28, 2015
Laboratory Reference: 1508-288
Project: 21138-001-03

PAHs EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0831S1					
Naphthalene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
2-Methylnaphthalene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
1-Methylnaphthalene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Acenaphthylene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Acenaphthene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Fluorene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Phenanthrene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Anthracene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Fluoranthene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Pyrene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[a]anthracene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Chrysene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[b]fluoranthene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo(j,k)fluoranthene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[a]pyrene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Dibenz[a,h]anthracene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Benzo[g,h,i]perylene	**ND**	0.0067	EPA 8270D/SIM	8-31-15	8-31-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*81*	*32 - 114*				
Pyrene-d10	*83*	*33 - 121*				
Terphenyl-d14	*90*	*31 - 116*				

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Date of Report: September 1, 2015
Samples Submitted: August 28, 2015
Laboratory Reference: 1508-288
Project: 21138-001-03

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:	SB0831S1									
	SB	SBD	SB	SBD	SB	SBD				
Naphthalene	**0.0711**	**0.0719**	0.0833	0.0833	85	86	63 - 113	1	19	
Acenaphthylene	**0.0748**	**0.0728**	0.0833	0.0833	90	87	61 - 125	3	16	
Acenaphthene	**0.0748**	**0.0732**	0.0833	0.0833	90	88	66 - 113	2	16	
Fluorene	**0.0753**	**0.0777**	0.0833	0.0833	90	93	60 - 117	3	16	
Phenanthrene	**0.0726**	**0.0724**	0.0833	0.0833	87	87	63 - 116	0	12	
Anthracene	**0.127**	**0.126**	0.0833	0.0833	152	151	66 - 146	1	19	II
Fluoranthene	**0.0717**	**0.0722**	0.0833	0.0833	86	87	60 - 125	1	13	
Pyrene	**0.0716**	**0.0716**	0.0833	0.0833	86	86	66 - 126	0	15	
Benzo[a]anthracene	**0.0826**	**0.0824**	0.0833	0.0833	99	99	60 - 128	0	15	
Chrysene	**0.0740**	**0.0746**	0.0833	0.0833	89	90	60 - 117	1	13	
Benzo[b]fluoranthene	**0.0711**	**0.0720**	0.0833	0.0833	85	86	60 - 131	1	16	
Benzo(j,k)fluoranthene	**0.0727**	**0.0735**	0.0833	0.0833	87	88	57 - 126	1	20	
Benzo[a]pyrene	**0.0699**	**0.0704**	0.0833	0.0833	84	85	62 - 136	1	16	
Indeno(1,2,3-c,d)pyrene	**0.0603**	**0.0632**	0.0833	0.0833	72	76	60 - 127	5	19	
Dibenz[a,h]anthracene	**0.0592**	**0.0627**	0.0833	0.0833	71	75	62 - 133	6	22	
Benzo[g,h,i]perylene	**0.0641**	**0.0668**	0.0833	0.0833	77	80	63 - 129	4	22	
Surrogate:										
2-Fluorobiphenyl					*88*	*87*	*32 - 114*			
Pyrene-d10					*82*	*83*	*33 - 121*			
Terphenyl-d14					*89*	*89*	*31 - 116*			

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Date of Report: September 1, 2015
Samples Submitted: August 28, 2015
Laboratory Reference: 1508-288
Project: 21138-001-03

% MOISTURE

Date Analyzed: 8-28-15

Client ID	Lab ID	% Moisture
UST2EX-S1-33.0	08-288-01	9
UST2EX-S2-33.0	08-288-02	21
UST2EX-W1-33.0	08-288-03	23
UST2EX-W2-33.0	08-288-04	19
UST2EX-B2-36.0	08-288-05	22

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OnSite Environmental Inc.

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-napthalene) 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

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: GEOENGINEERS
Project Number: 21138-001-03
Project Name: 9th & LENORA PROJECT
Project Manager: FASIH KHAN
Sampled by: FASIH KHAN

Turnaround Request (in working days)

(Check One)

- [x] Same Day (By 10 AM) (GBEx, Dx)
- [x] 1 Day
- [ ] 2 Days
- [ ] 3 Days
- [ ] Standard (7 Days) (TPH analysis 5 Days)
- [ ] _____ (other)

Laboratory Number: 08-288

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	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
1	UST2EX-S1-33.0	8/28/15	1242	S	2		X		X				X														X
2	UST2EX-S2-33.0		1251				X		X				X														X
3	UST2EX-W1-33.0		1010				X		X				X														X
4	UST2EX-W2-33.0		1015				X		X				X														X
5 ★	UST2EX-B2-36.0	↓	1310	↓	↓		X		X				X														X

	Signature	Company	Date	Time
Relinquished		GEI	8/28/15	1545
Received		Onsite	8-28-15	1545
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

PAH 2 day, except #5 (1 day TAT)

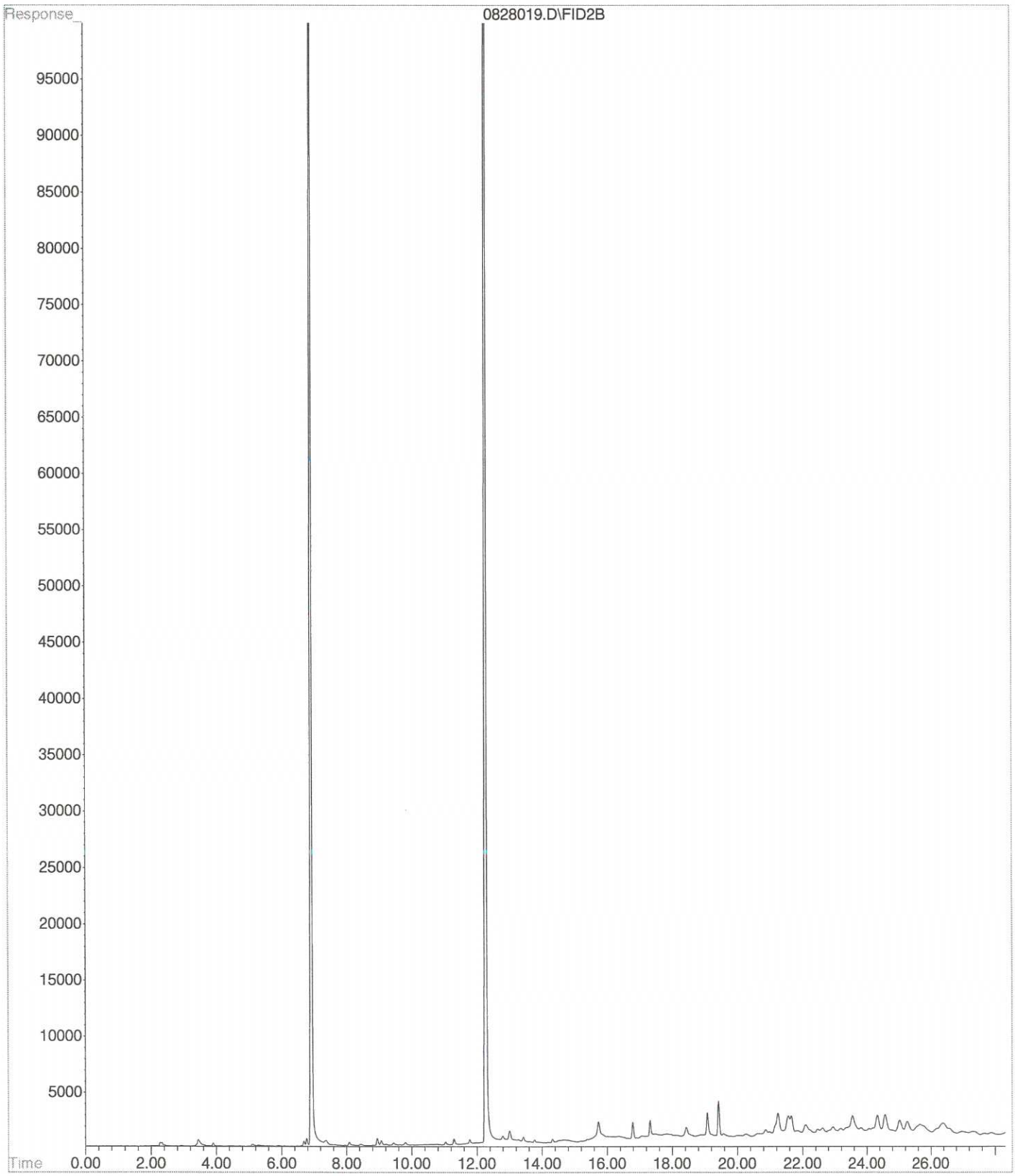
★ This Sample PAHs by Monday evening (Aug 31, 2015).

Chromatograms with final report ☐

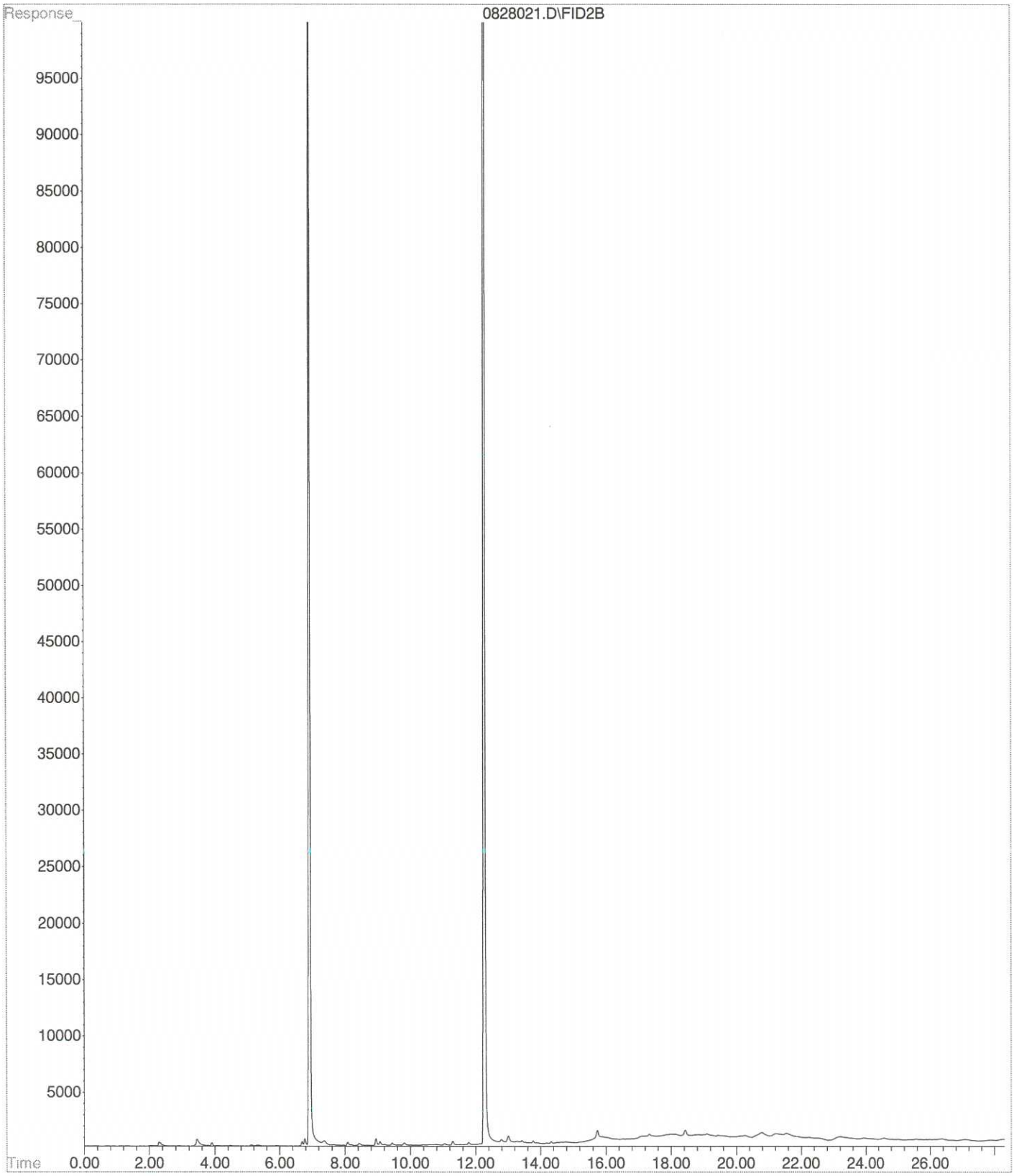
Data Package: Standard ☐ Level III ☐ Level IV ☐

Electronic Data Deliverables (EDDs) ☐ _____

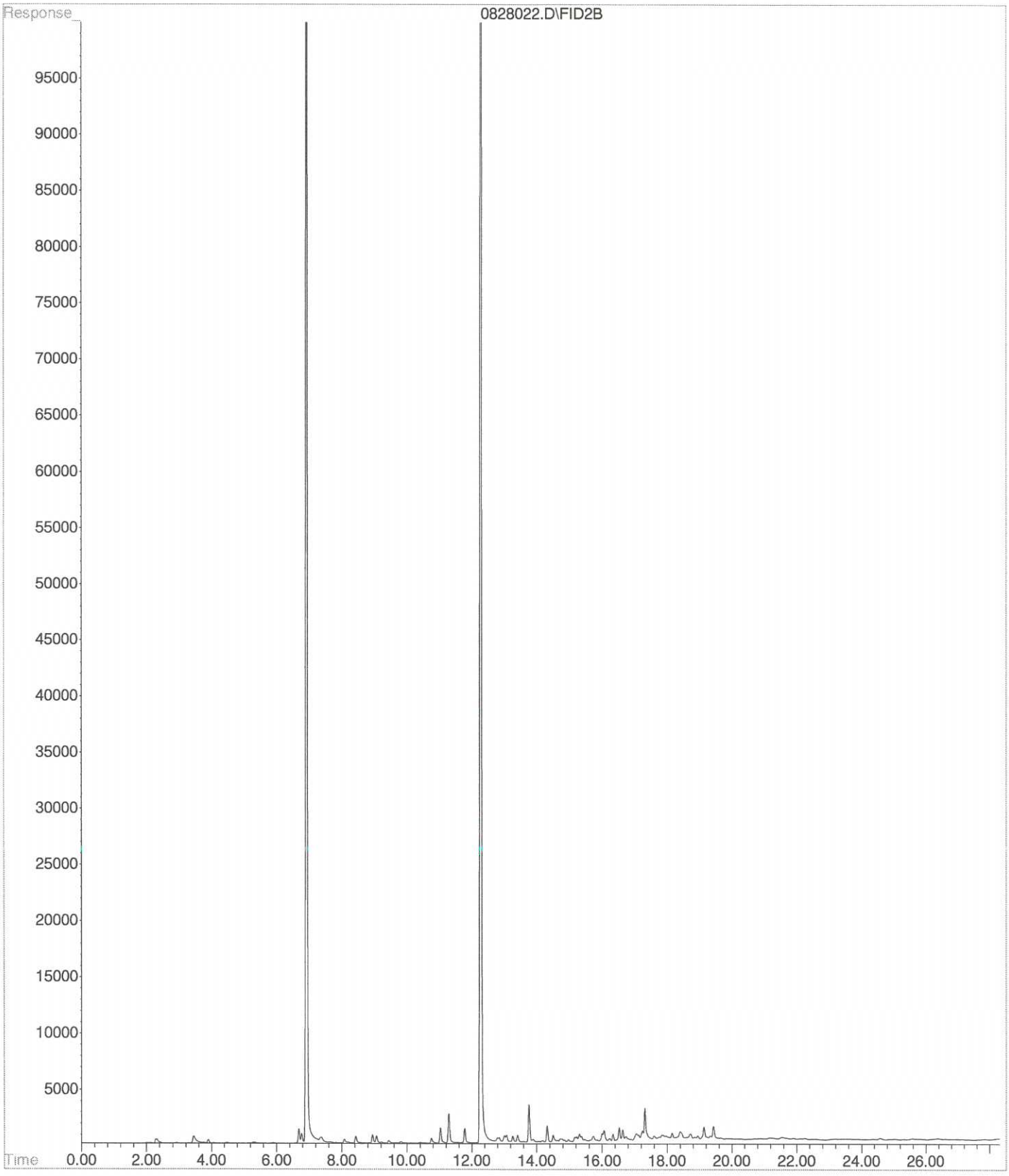
File : X:\BTEX\DARYL\DATA\D150828\0828019.D
Operator :
Acquired : 28 Aug 2015 23:29 using AcqMethod 150709B.M
Instrument : Daryl
Sample Name: 08-288-01s
Misc Info : V2-37-21
Vial Number: 19



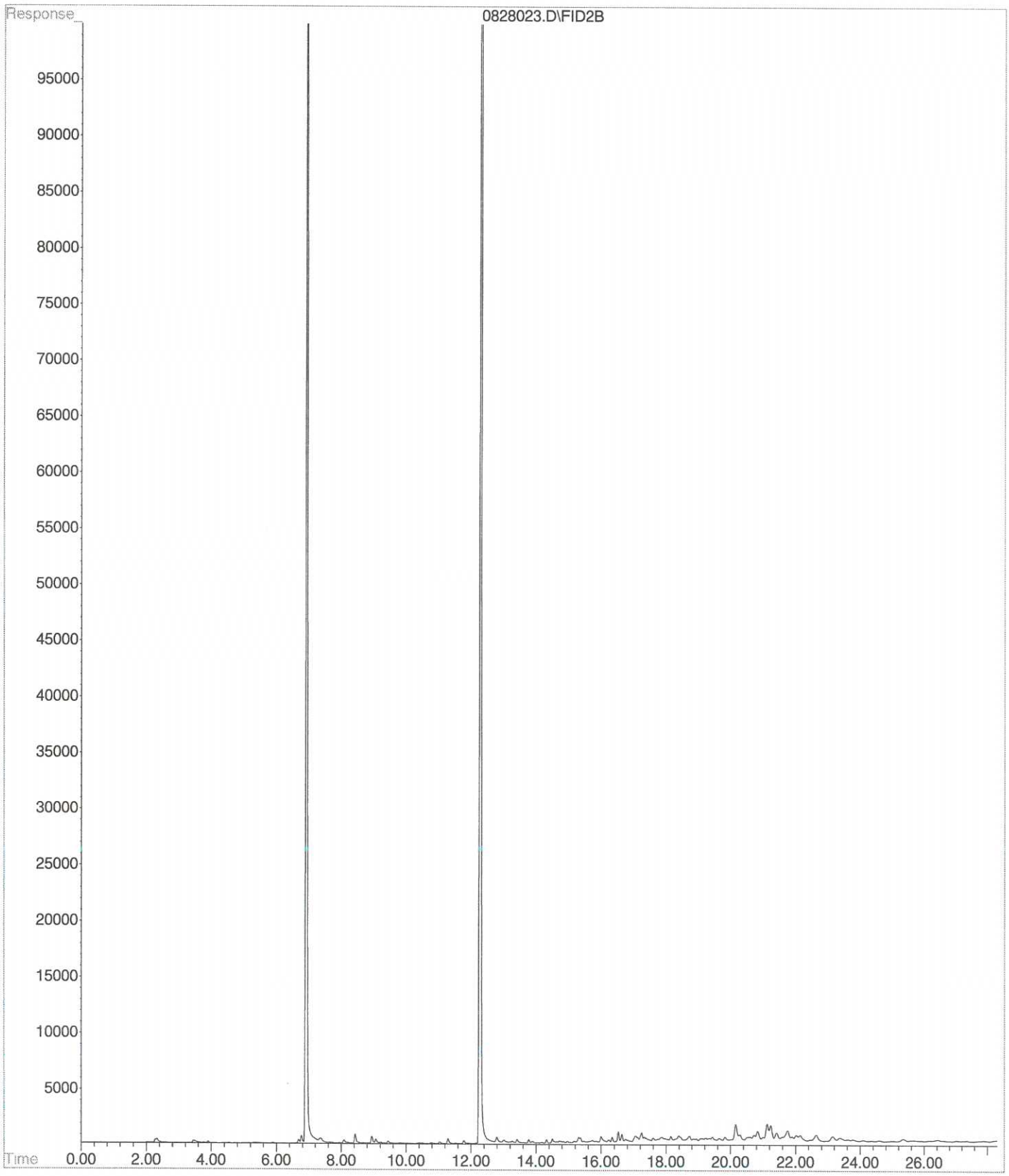
File : X:\BTEX\DARYL\DATA\D150828\0828021.D
Operator :
Acquired : 29 Aug 2015 00:36 using AcqMethod 150709B.M
Instrument : Daryl
Sample Name: 08-288-02s
Misc Info : V2-37-21
Vial Number: 21



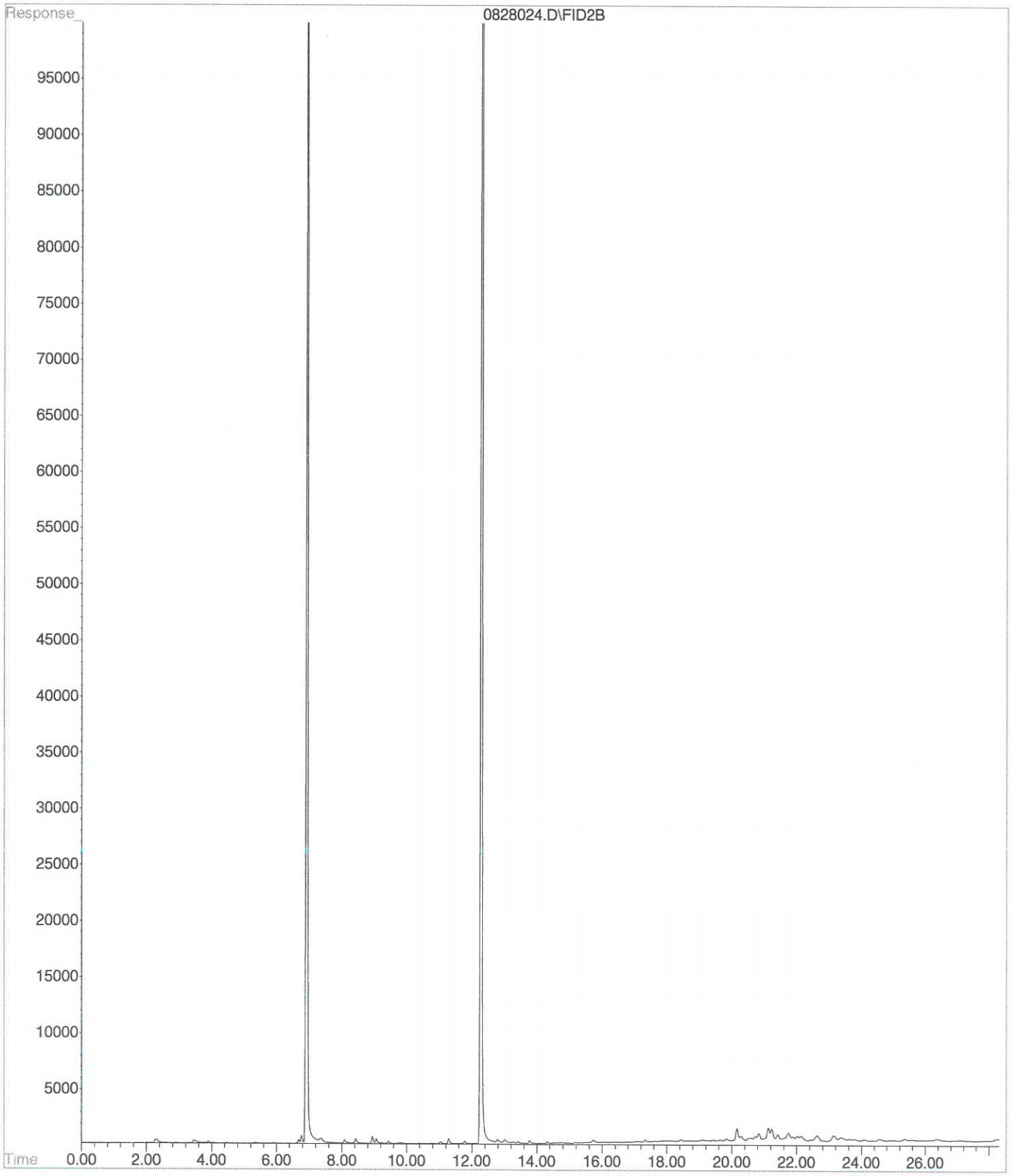
File : X:\BTEX\DARYL\DATA\D150828\0828022.D
Operator :
Acquired : 29 Aug 2015 1:10 using AcqMethod 150709B.M
Instrument : Daryl
Sample Name: 08-288-03s
Misc Info : V2-37-21
Vial Number: 22



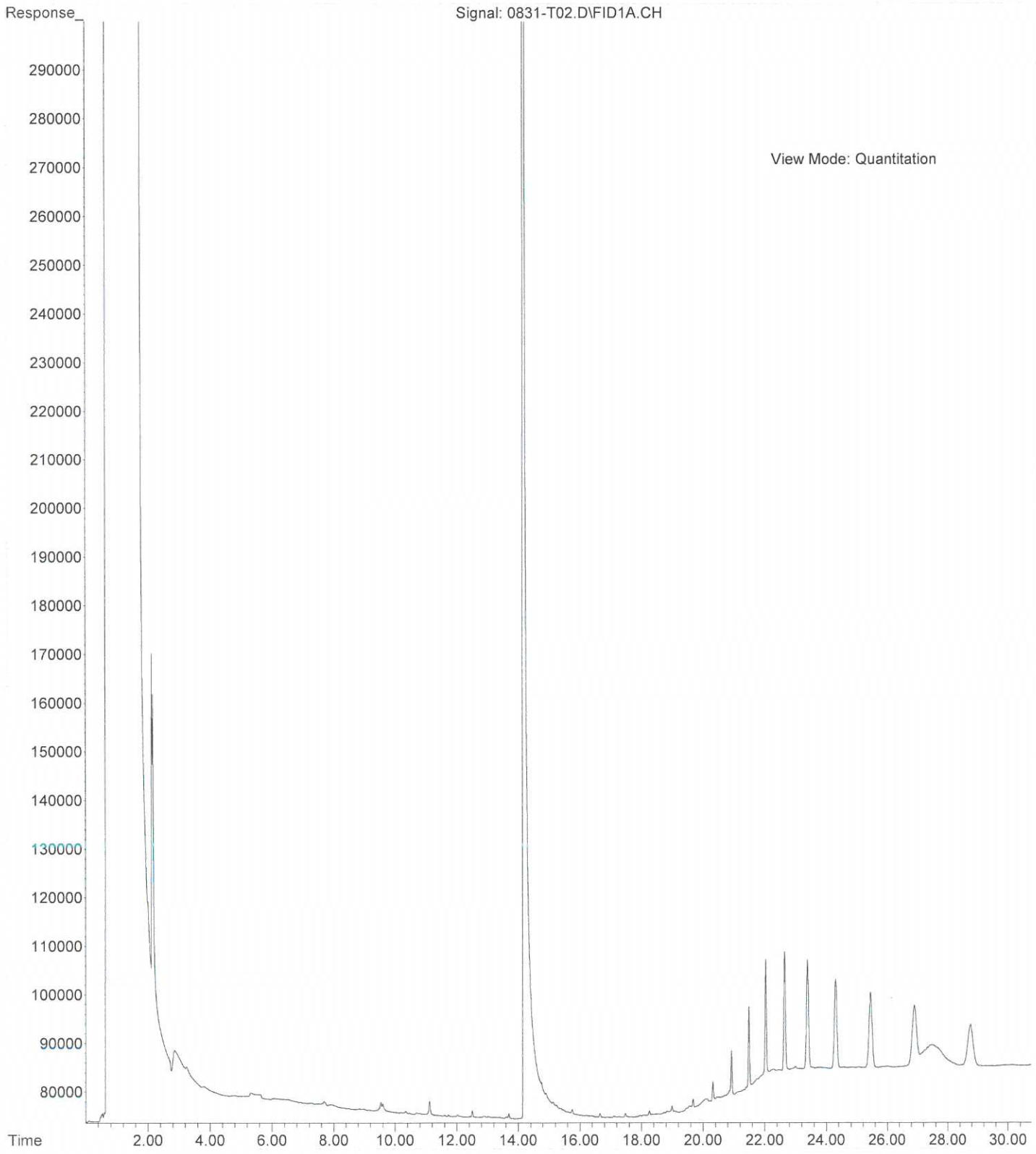
File : X:\BTEX\DARYL\DATA\D150828\0828023.D
Operator :
Acquired : 29 Aug 2015 1:43 using AcqMethod 150709B.M
Instrument : Daryl
Sample Name: 08-288-04s
Misc Info : V2-37-21
Vial Number: 23



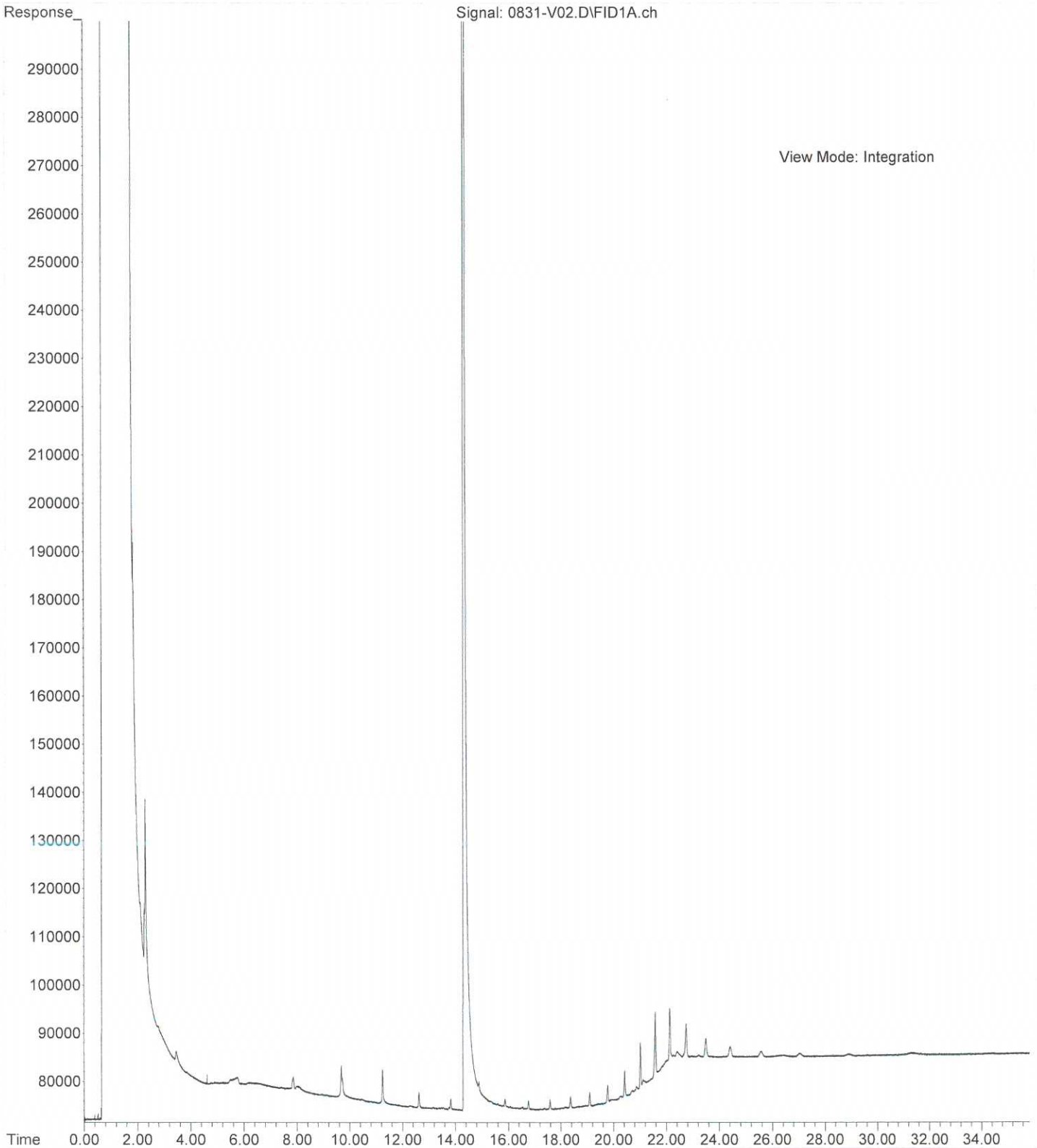
File : X:\BTEX\DARYL\DATA\D150828\0828024.D
Operator :
Acquired : 29 Aug 2015 2:16 using AcqMethod 150709B.M
Instrument : Daryl
Sample Name: 08-288-05s
Misc Info : V2-37-21
Vial Number: 24



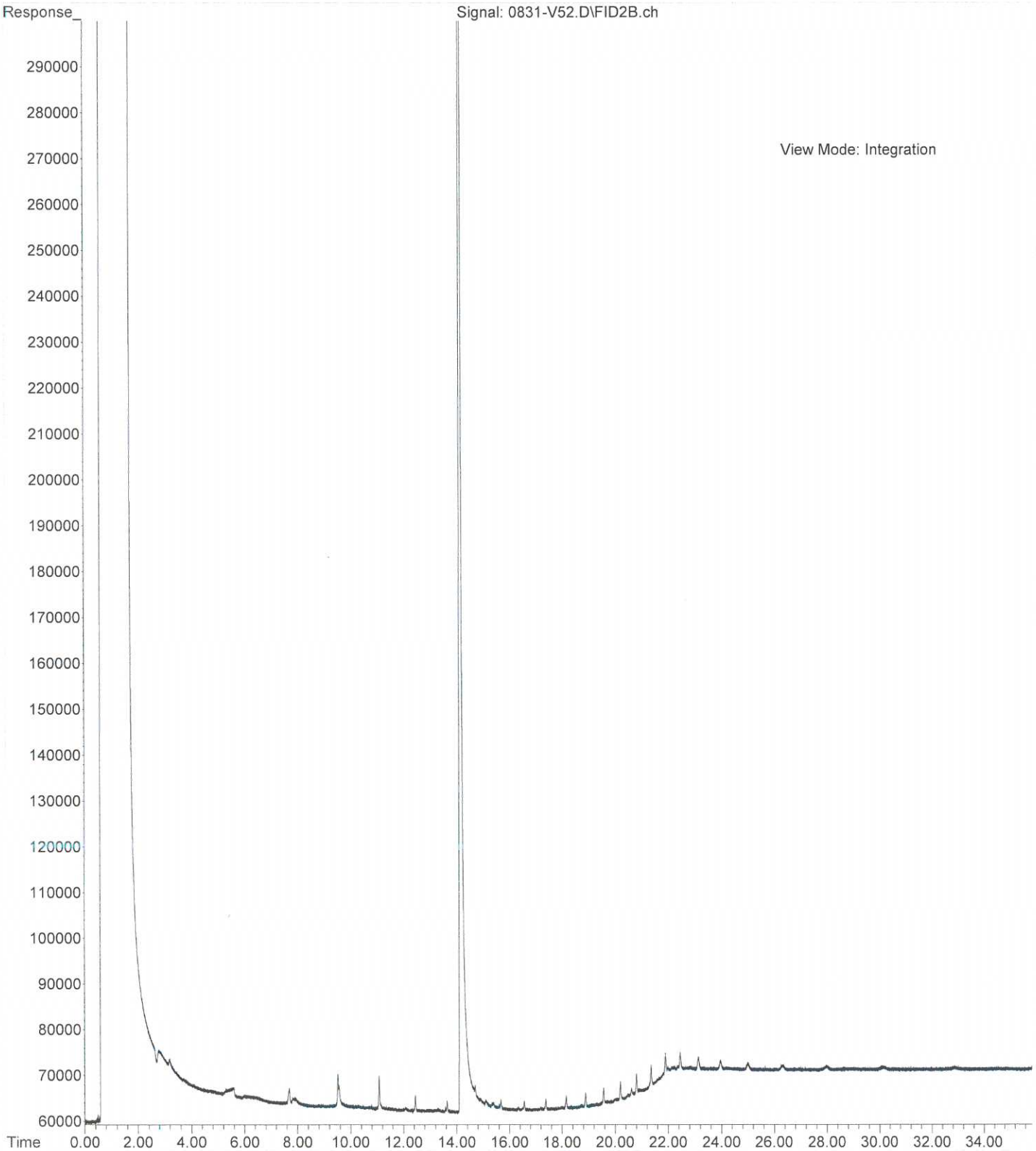
File : X:\DIESELS\TERI\DATA\T150831\0831-T02.D
Operator : ZT
Acquired : 31 Aug 2015 10:15 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 08-288-01
Misc Info :
Vial Number: 2



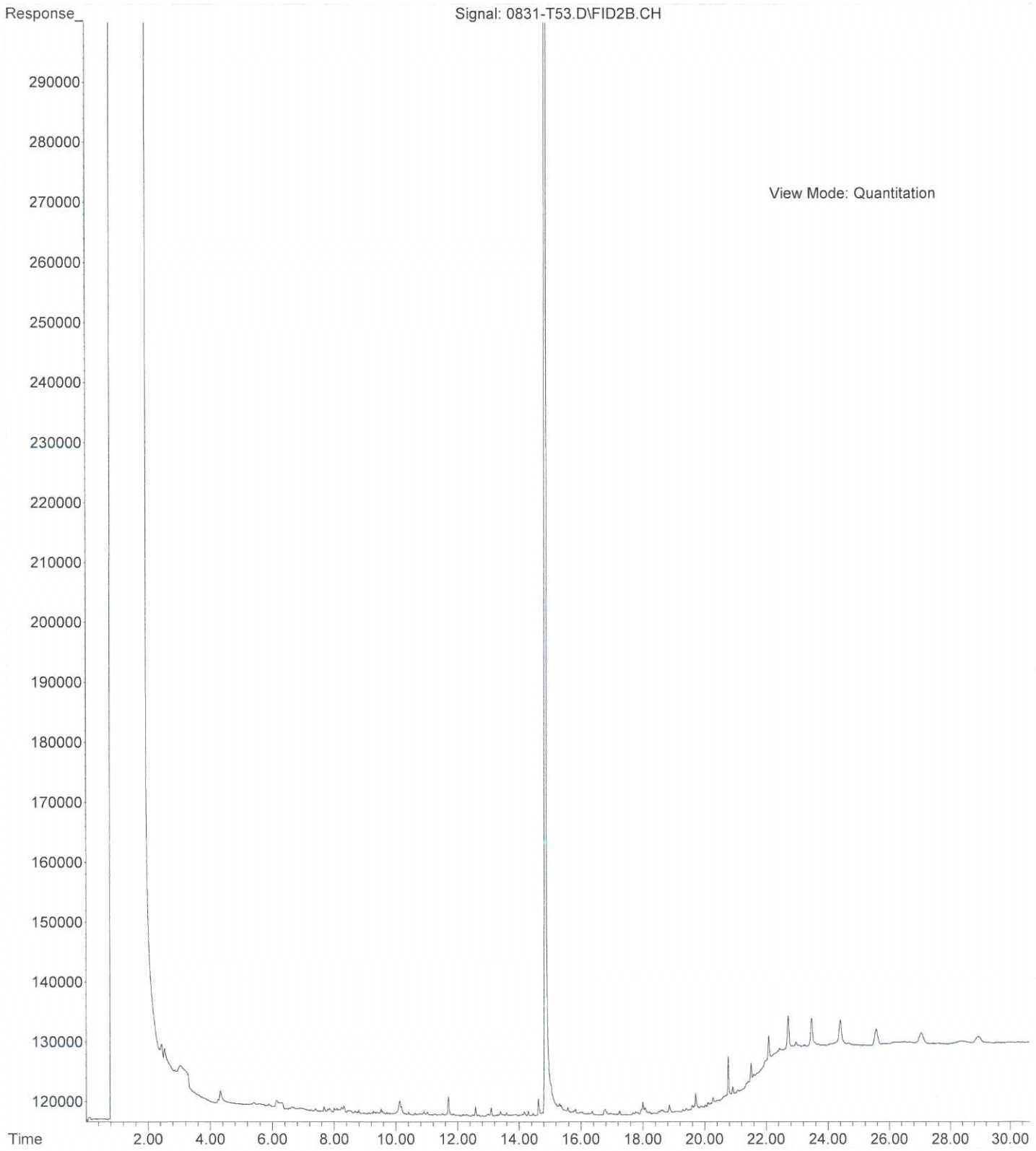
File : X:\DIESELS\VIGO\DATA\V150831\0831-V02.D
Operator :
Acquired : 31 Aug 2015 10:33 using AcqMethod V150507F.M
Instrument : Vigo
Sample Name: 08-288-02
Misc Info :
Vial Number: 2



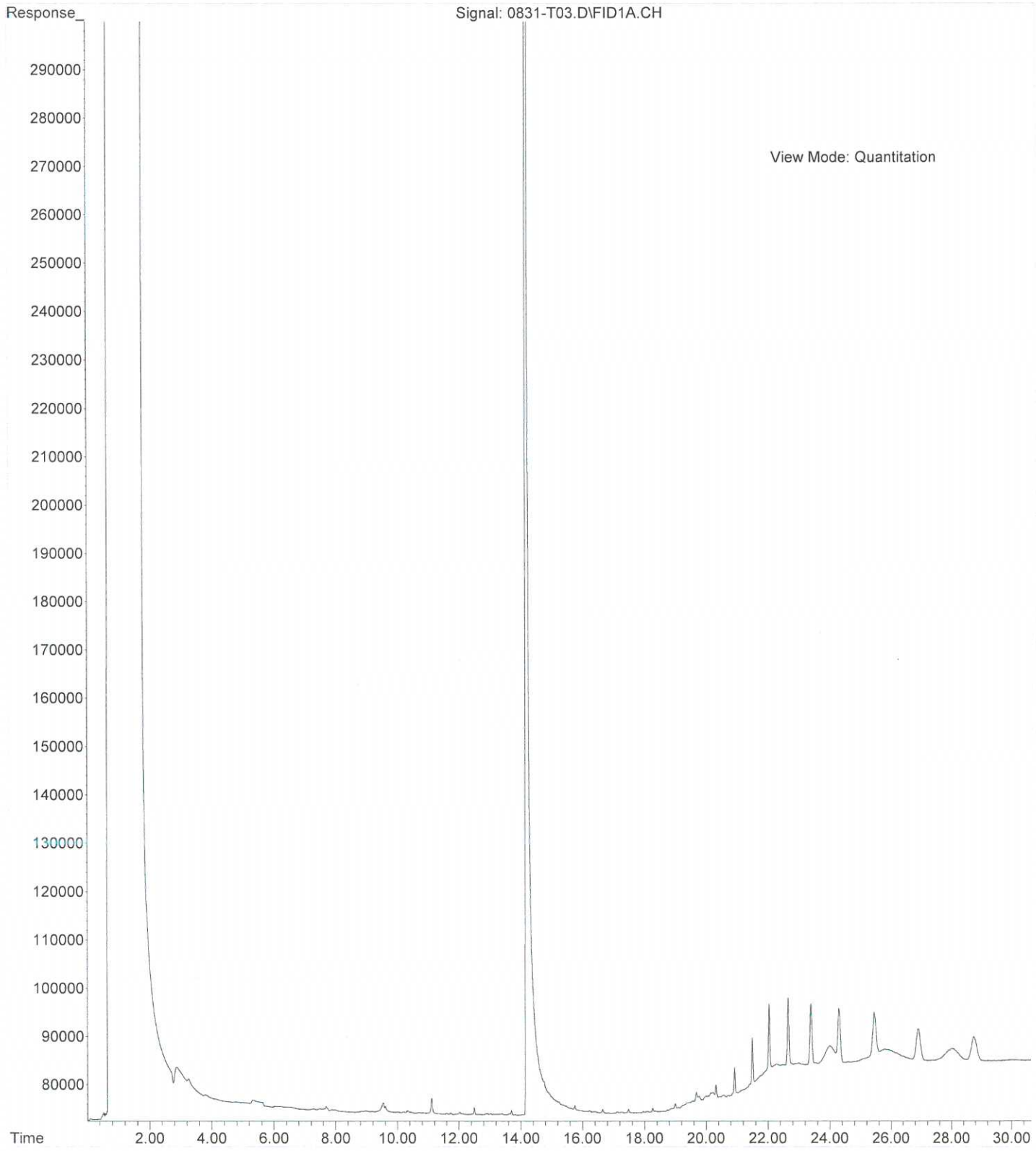
File : X:\DIESELS\VIGO\DATA\V150831.SEC\0831-V52.D
Operator :
Acquired : 31 Aug 2015 10:33 using AcqMethod V150507F.M
Instrument : Vigo
Sample Name: 08-288-03
Misc Info :
Vial Number: 52



File :X:\DIESELS\TERI\DATA\T150831.SEC\0831-T53.D
Operator : ZT
Acquired : 31 Aug 2015 10:54 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 08-288-04
Misc Info :
Vial Number: 53



File :X:\DIESELS\TERI\DATA\T150831\0831-T03.D
Operator : ZT
Acquired : 31 Aug 2015 10:54 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 08-288-05
Misc Info :
Vial Number: 3



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

August 13, 2015

Fasih Khan
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03
Laboratory Reference No. 1508-107

Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on August 12, 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,

David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 13, 2015
Samples Submitted: August 12, 2015
Laboratory Reference: 1508-107
Project: 21138-001-03

Case Narrative

Samples were collected on August 12, 2015 and received by the laboratory on August 12, 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.

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 13, 2015
Samples Submitted: August 12, 2015
Laboratory Reference: 1508-107
Project: 21138-001-03

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
ELEVTR-PRODUCT	08-107-01	Product	8-12-15	8-12-15	
HOIST-PRODUCT	08-107-02	Product	8-12-15	8-12-15	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 13, 2015
Samples Submitted: August 12, 2015
Laboratory Reference: 1508-107
Project: 21138-001-03

NWTPH-HCID

Matrix: Product
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**ELEVTR-PRODUCT**					
Laboratory ID:	08-107-01					
Gasoline Range Organics	**ND**	1400	NWTPH-HCID	8-12-15	8-12-15	U1
Diesel Range Organics	**Detected**	2500	NWTPH-HCID	8-12-15	8-12-15	N
Lube Oil	**Detected**	4900	NWTPH-HCID	8-12-15	8-12-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*85*	*50-150*				
Client ID:	**HOIST-PRODUCT**					
Laboratory ID:	08-107-02					
Gasoline Range Organics	**ND**	2300	NWTPH-HCID	8-12-15	8-12-15	U1
Diesel Range Organics	**Detected**	2400	NWTPH-HCID	8-12-15	8-12-15	N
Lube Oil	**Detected**	4800	NWTPH-HCID	8-12-15	8-12-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*97*	*50-150*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 13, 2015
Samples Submitted: August 12, 2015
Laboratory Reference: 1508-107
Project: 21138-001-03

NWTPH-HCID
QUALITY CONTROL

Matrix: Product
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0812P1					
Gasoline Range Organics	**ND**	1000	NWTPH-HCID	8-12-15	8-12-15	
Diesel Range Organics	**ND**	2500	NWTPH-HCID	8-12-15	8-12-15	
Lube Oil Range Organics	**ND**	5000	NWTPH-HCID	8-12-15	8-12-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*85*	*50-150*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

OnSite Environmental Inc.

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-napthalene) 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

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: GEOENGINEERS
Project Number: 21138-001-03
Project Name: 9th & LENORA PROJECT
Project Manager: FASIH KHAN
Sampled by: FASIH KHAN

Turnaround Request (in working days)

(Check One)

- [X] Same Day
- [ ] 1 Day
- [ ] 2 Days
- [ ] 3 Days
- [ ] Standard (7 Days) (TPH analysis 5 Days)
- [ ] _____ (other)

Laboratory Number: 08-107

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	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
1	ELEVTR-PRODUCT	8/12/15	1115	P	1	X																
2	HOIST-PRODUCT	8/12/15	1120	P	1	X																

	Signature	Company	Date	Time
Relinquished		GEI	8/12/15	1240
Received		GEI	8/12/15	1240
Relinquished				
Received				
Relinquished				
Received				

Comments/Special Instructions

Reviewed/Date

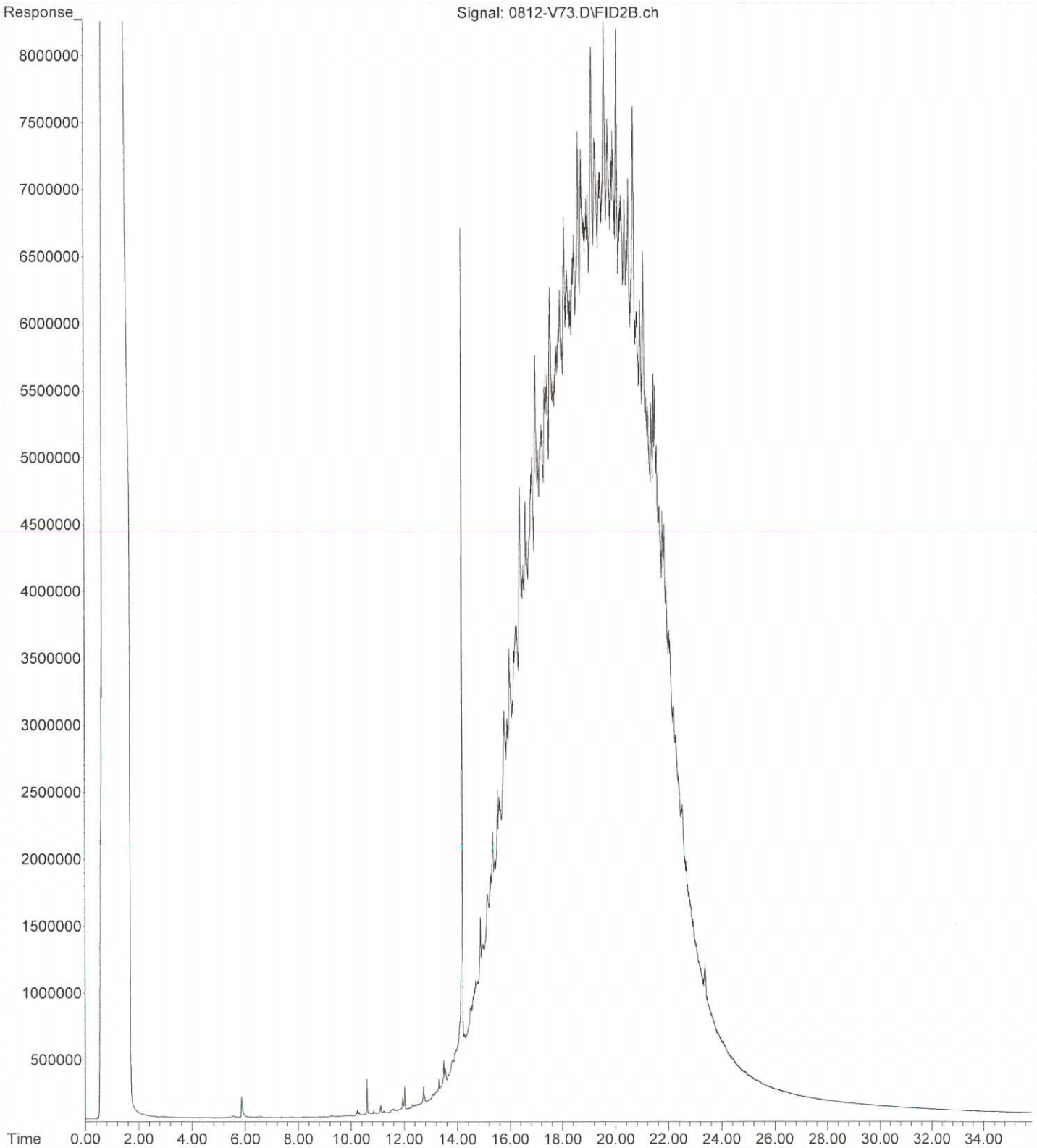
Reviewed/Date

Chromatograms with final report ☐

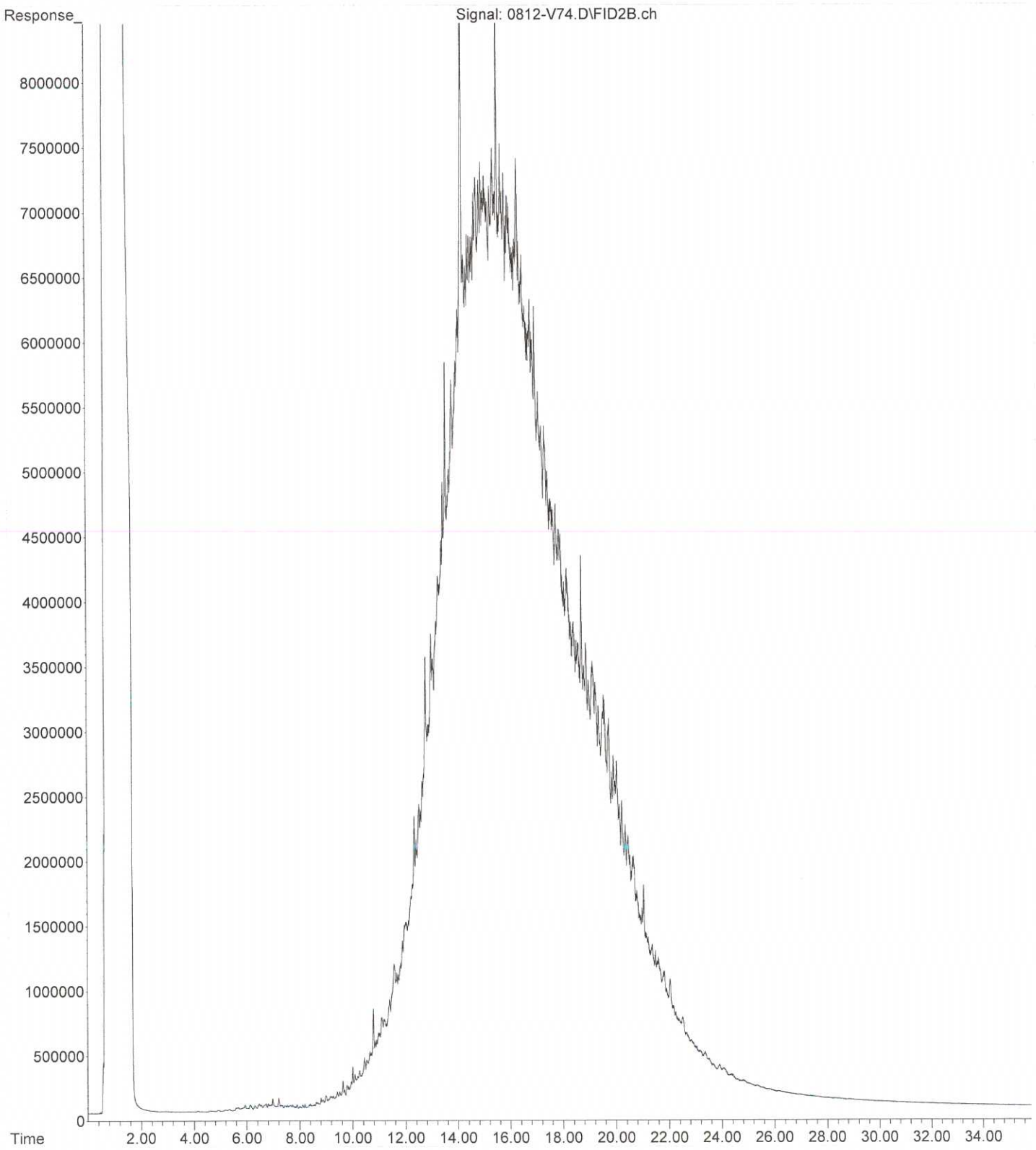
Data Package: Standard ☐ Level III ☐ Level IV ☐

Electronic Data Deliverables (EDDs) ☐ _____

File :X:\DIESELS\VIGO\DATA\V150812.SEC\0812-V73.D
Operator :
Acquired : 13 Aug 2015 3:29 using AcqMethod V150209F.M
Instrument : Vigo
Sample Name: 08-107-01
Misc Info :
Vial Number: 73



File :X:\DIESELS\VIGO\DATA\V150812.SEC\0812-V74.D
Operator :
Acquired : 13 Aug 2015 4:10 using AcqMethod V150209F.M
Instrument : Vigo
Sample Name: 08-107-02
Misc Info :
Vial Number: 74



OnSite Environmental Inc.

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

September 8, 2015

Fasih Khan
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03
Laboratory Reference No. 1509-041

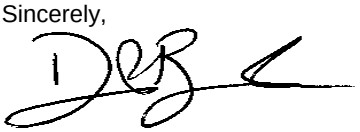
Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on September 2, 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,



David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: September 8, 2015
Samples Submitted: September 2, 2015
Laboratory Reference: 1509-041
Project: 21138-001-03

Case Narrative

Samples were collected on August 24, 25, and 26, 2015 and received by the laboratory on September 2, 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.

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: September 8, 2015
Samples Submitted: September 2, 2015
Laboratory Reference: 1509-041
Project: 21138-001-03

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
ELEVTREX-1-20.0	09-041-01	Soil	8-26-15	9-2-15	
MASSEX-4-9.0	09-041-02	Soil	8-24-15	9-2-15	
MASSEX-10-9.0	09-041-03	Soil	8-25-15	9-2-15	

This report pertains to the samples analyzed in accordance with the chain of custody,
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Date of Report: September 8, 2015
Samples Submitted: September 2, 2015
Laboratory Reference: 1509-041
Project: 21138-001-03

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**ELEVTREX-1-20.0**					
Laboratory ID:	09-041-01					
Diesel Range Organics	**ND**	28	NWTPH-Dx	9-3-15	9-3-15	
Lube Oil Range Organics	**ND**	56	NWTPH-Dx	9-3-15	9-3-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*80*	*50-150*				
Client ID:	**MASSEX-4-9.0**					
Laboratory ID:	09-041-02					
Diesel Range Organics	**ND**	28	NWTPH-Dx	9-3-15	9-3-15	
Lube Oil Range Organics	**ND**	56	NWTPH-Dx	9-3-15	9-3-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*75*	*50-150*				
Client ID:	**MASSEX-10-9.0**					
Laboratory ID:	09-041-03					
Diesel Range Organics	**ND**	28	NWTPH-Dx	9-3-15	9-3-15	
Lube Oil Range Organics	**ND**	56	NWTPH-Dx	9-3-15	9-3-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*75*	*50-150*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: September 8, 2015
Samples Submitted: September 2, 2015
Laboratory Reference: 1509-041
Project: 21138-001-03

cPAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**ELEVTREX-1-20.0**					
Laboratory ID:	09-041-01					
Benzo[a]anthracene	**ND**	0.0074	EPA 8270D/SIM	9-4-15	9-4-15	
Chrysene	**ND**	0.0074	EPA 8270D/SIM	9-4-15	9-4-15	
Benzo[b]fluoranthene	**ND**	0.0074	EPA 8270D/SIM	9-4-15	9-4-15	
Benzo(j,k)fluoranthene	**ND**	0.0074	EPA 8270D/SIM	9-4-15	9-4-15	
Benzo[a]pyrene	**ND**	0.0074	EPA 8270D/SIM	9-4-15	9-4-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0074	EPA 8270D/SIM	9-4-15	9-4-15	
Dibenz[a,h]anthracene	**ND**	0.0074	EPA 8270D/SIM	9-4-15	9-4-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*54*	*32 - 114*				
Pyrene-d10	*48*	*33 - 121*				
Terphenyl-d14	*49*	*31 - 116*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: September 8, 2015
Samples Submitted: September 2, 2015
Laboratory Reference: 1509-041
Project: 21138-001-03

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0903S1					
Diesel Range Organics	**ND**	25	NWTPH-Dx	9-3-15	9-3-15	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	9-3-15	9-3-15	
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:	09-036-01									
	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						*69* *79*	*50-150*			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: September 8, 2015
Samples Submitted: September 2, 2015
Laboratory Reference: 1509-041
Project: 21138-001-03

cPAHs EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0904S1					
Benzo[a]anthracene	**ND**	0.0067	EPA 8270D/SIM	9-4-15	9-4-15	
Chrysene	**ND**	0.0067	EPA 8270D/SIM	9-4-15	9-4-15	
Benzo[b]fluoranthene	**ND**	0.0067	EPA 8270D/SIM	9-4-15	9-4-15	
Benzo(j,k)fluoranthene	**ND**	0.0067	EPA 8270D/SIM	9-4-15	9-4-15	
Benzo[a]pyrene	**ND**	0.0067	EPA 8270D/SIM	9-4-15	9-4-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0067	EPA 8270D/SIM	9-4-15	9-4-15	
Dibenz[a,h]anthracene	**ND**	0.0067	EPA 8270D/SIM	9-4-15	9-4-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*89*	*32 - 114*				
Pyrene-d10	*82*	*33 - 121*				
Terphenyl-d14	*81*	*31 - 116*				

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Date of Report: September 8, 2015
Samples Submitted: September 2, 2015
Laboratory Reference: 1509-041
Project: 21138-001-03

cPAHs EPA 8270D/SIM
MS/MSD QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	09-041-01										
	MS	MSD	MS	MSD		MS	MSD				
Naphthalene	**0.0540**	**0.0470**	0.0833	0.0833	ND	65	56	44 - 107	14	29	
Acenaphthylene	**0.0634**	**0.0545**	0.0833	0.0833	ND	76	65	44 - 121	15	27	
Acenaphthene	**0.0565**	**0.0483**	0.0833	0.0833	ND	68	58	47 - 109	16	26	
Fluorene	**0.0579**	**0.0492**	0.0833	0.0833	ND	70	59	49 - 115	16	28	
Phenanthrene	**0.0559**	**0.0484**	0.0833	0.0833	ND	67	58	45 - 114	14	26	
Anthracene	**0.0949**	**0.0793**	0.0833	0.0833	ND	114	95	43 - 140	18	27	
Fluoranthene	**0.0546**	**0.0464**	0.0833	0.0833	ND	66	56	44 - 126	16	27	
Pyrene	**0.0542**	**0.0457**	0.0833	0.0833	ND	65	55	43 - 125	17	27	
Benzo[a]anthracene	**0.0638**	**0.0542**	0.0833	0.0833	ND	77	65	42 - 134	16	27	
Chrysene	**0.0547**	**0.0468**	0.0833	0.0833	ND	66	56	45 - 114	16	27	
Benzo[b]fluoranthene	**0.0532**	**0.0424**	0.0833	0.0833	ND	64	51	38 - 131	23	33	
Benzo(j,k)fluoranthene	**0.0464**	**0.0412**	0.0833	0.0833	ND	56	49	44 - 114	12	34	
Benzo[a]pyrene	**0.0522**	**0.0443**	0.0833	0.0833	ND	63	53	40 - 136	16	29	
Indeno(1,2,3-c,d)pyrene	**0.0483**	**0.0405**	0.0833	0.0833	ND	58	49	45 - 126	18	30	
Dibenz[a,h]anthracene	**0.0501**	**0.0422**	0.0833	0.0833	ND	60	51	46 - 121	17	28	
Benzo[g,h,i]perylene	**0.0502**	**0.0421**	0.0833	0.0833	ND	60	51	43 - 120	18	31	
Surrogate:											
2-Fluorobiphenyl						*67*	*57*	*32 - 114*			
Pyrene-d10						*59*	*50*	*33 - 121*			
Terphenyl-d14						*60*	*51*	*31 - 116*			

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Date of Report: September 8, 2015
Samples Submitted: September 2, 2015
Laboratory Reference: 1509-041
Project: 21138-001-03

% MOISTURE

Date Analyzed: 9-3-15

Client ID	Lab ID	% Moisture
ELEVTREX-1-20.0	09-041-01	10
MASSEX-4-9.0	09-041-02	11
MASSEX-10-9.0	09-041-03	10

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OnSite Environmental Inc.

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-napthalene) 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

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: GEOENGINEERS
Project Number: 21138-001-03
Project Name: 9th & LENORA PROJECT
Project Manager: FASIH KHAN
Sampled by: FASIH KHAN

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☒ 2 Days ☐ 3 Days
☐ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Laboratory Number: 09-041

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	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	cPAHs	% Moisture
1	ELEVTREX-1-20.0	8/26/15	0900	S	1				X													X	X
2	MASSEX-4-9.0	8/24/15	1310	↓	1				X														↓
3	MASSEX-10-9.0	8/25/15	1020	↓	1				X														

	Signature	Company	Date	Time
Relinquished		GEI	9/2/15	1800
Received		CORE	9/2/15	1800
Relinquished				
Received				
Relinquished				
Received				

Comments/Special Instructions

Reviewed/Date

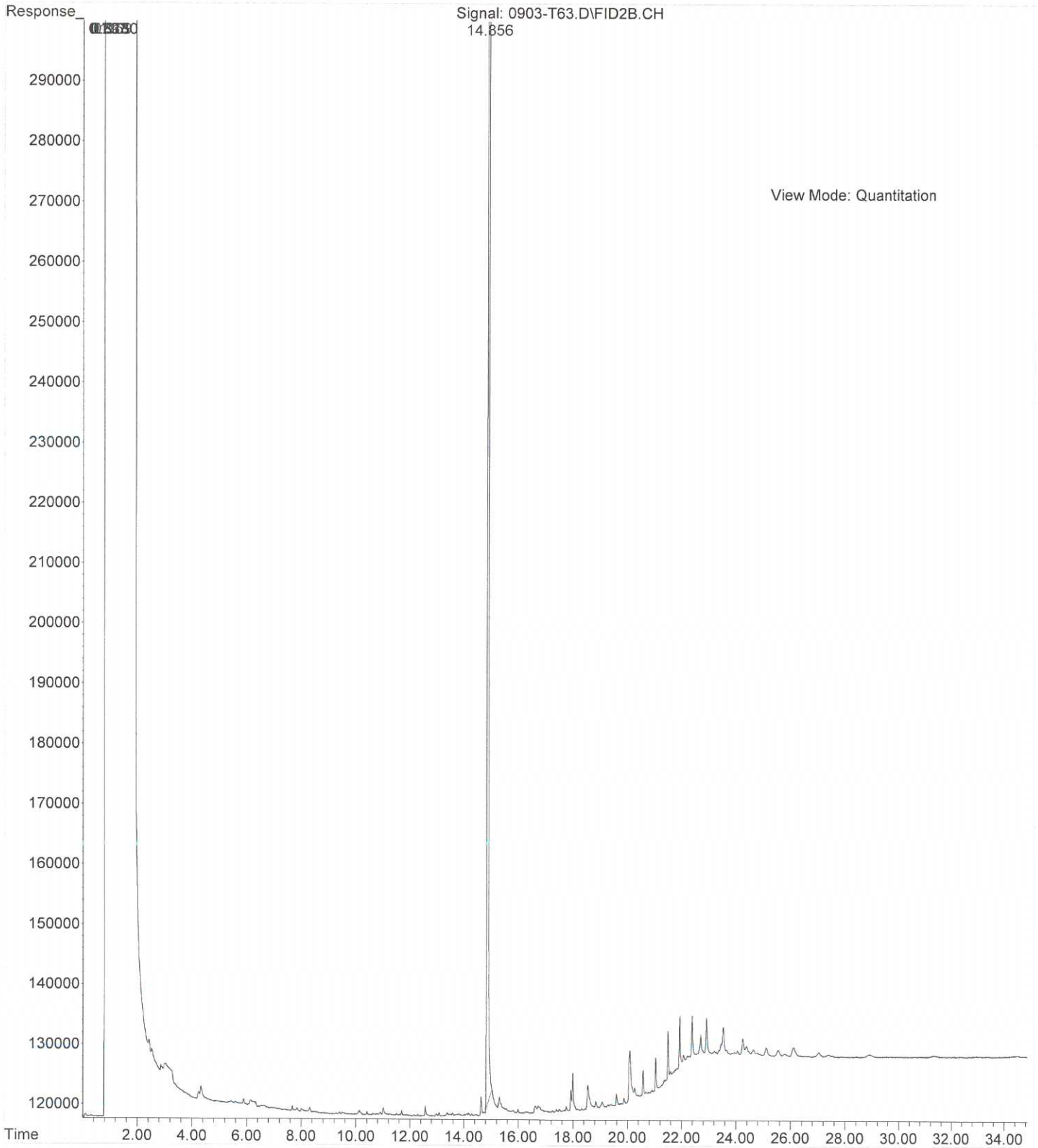
Reviewed/Date

Chromatograms with final report ☐

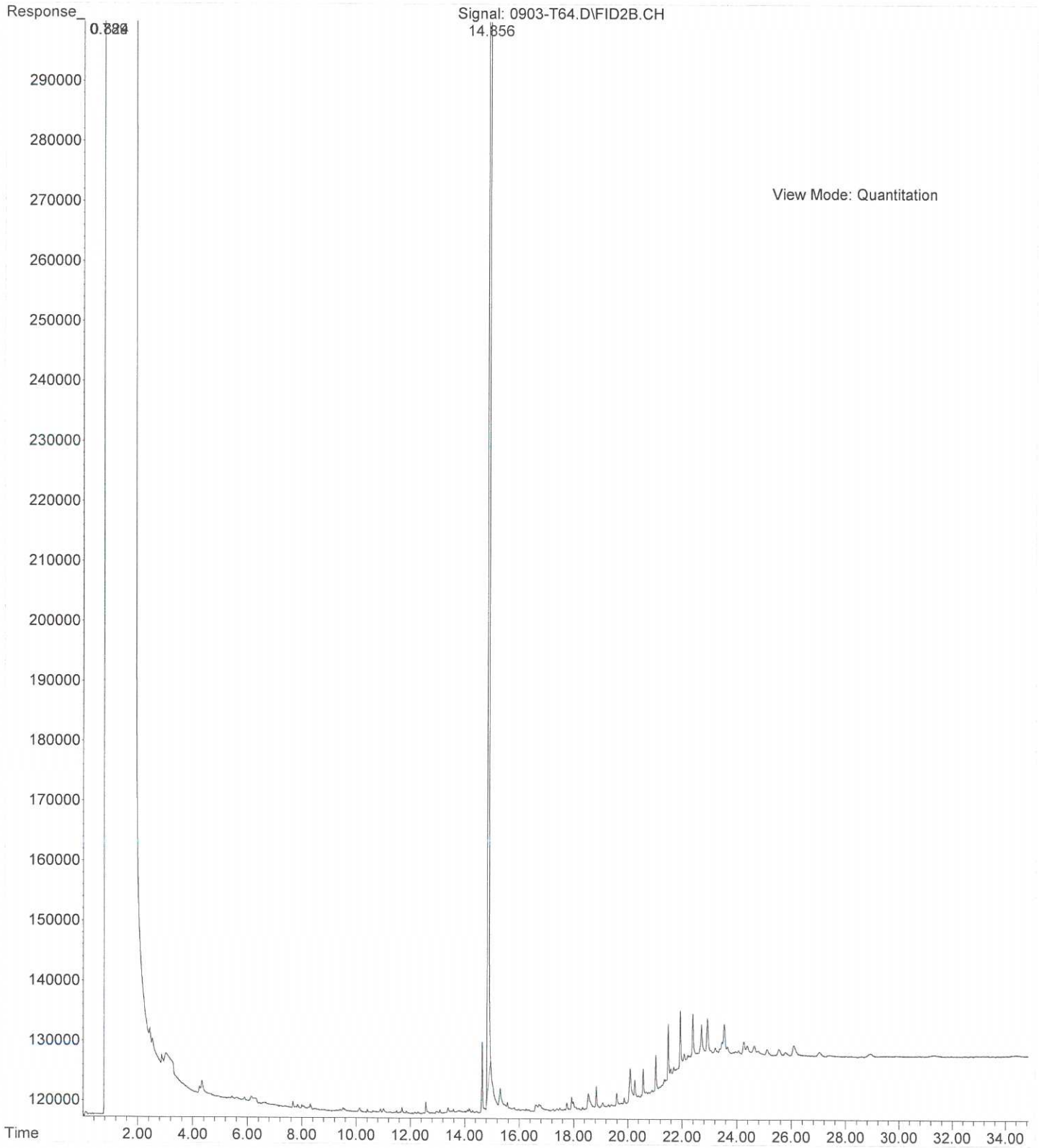
Data Package: Standard ☐ Level III ☐ Level IV ☐

Electronic Data Deliverables (EDDs) ☐ _____

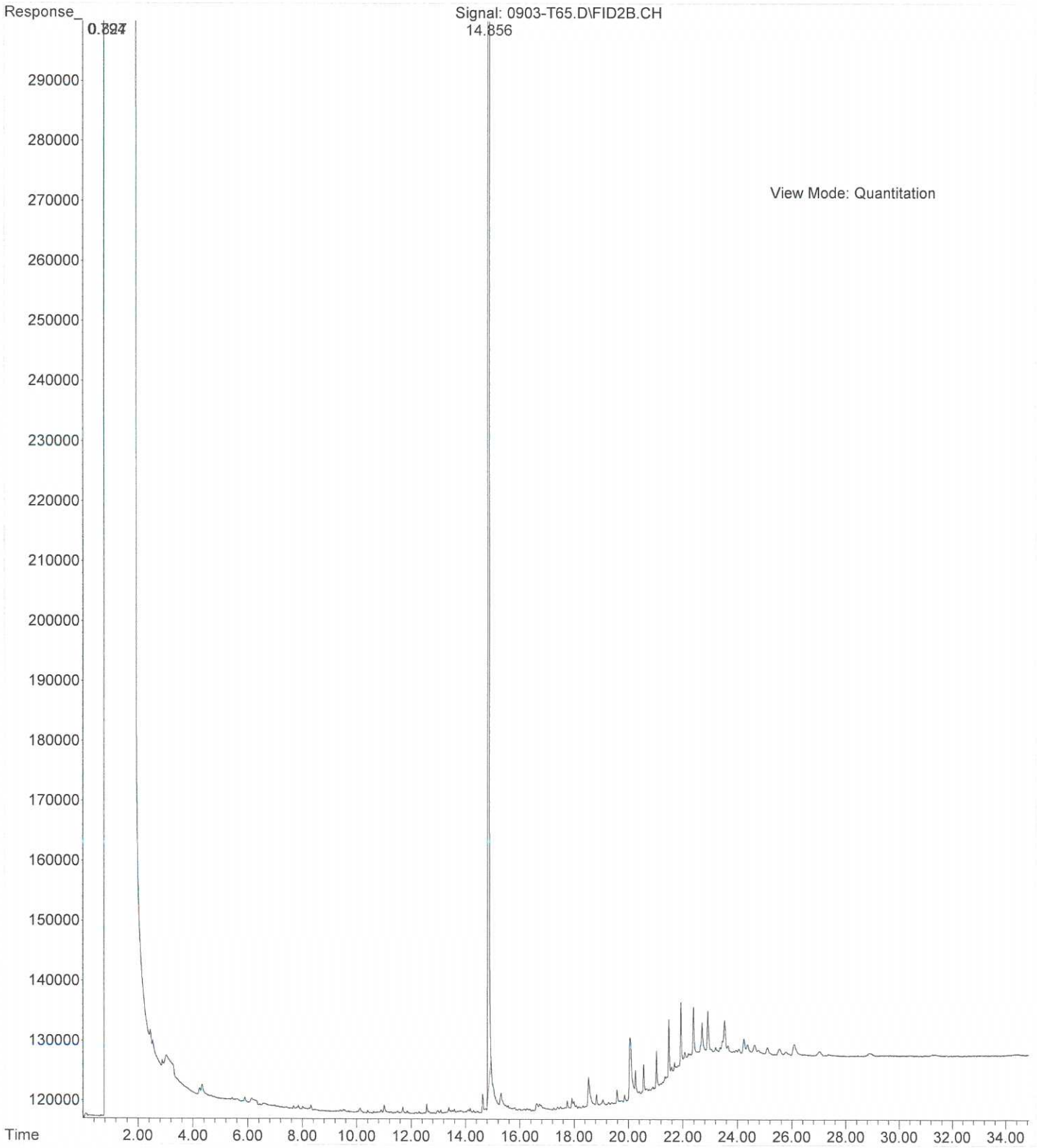
File : X:\DIESELS\TERI\DATA\T150903.SEC\0903-T63.D
Operator : ZT
Acquired : 03 Sep 2015 21:24 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 09-041-01
Misc Info :
Vial Number: 63



File :X:\DIESELS\TERI\DATA\T150903.SEC\0903-T64.D
Operator : ZT
Acquired : 03 Sep 2015 22:07 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 09-041-02
Misc Info :
Vial Number: 64



File :X:\DIESELS\TERI\DATA\T150903.SEC\0903-T65.D
Operator : ZT
Acquired : 03 Sep 2015 22:50 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 09-041-03
Misc Info :
Vial Number: 65



OnSite Environmental Inc.

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

August 31, 2015

Fasih Khan
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03
Laboratory Reference No. 1508-201

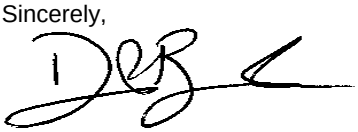
Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on August 19, 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,



David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 31, 2015
Samples Submitted: August 19, 2015
Laboratory Reference: 1508-201
Project: 21138-001-03

Case Narrative

Samples were collected on August 14, 15, 17, 18, and 19, 2015 and received by the laboratory on August 19, 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.

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Date of Report: August 31, 2015
Samples Submitted: August 19, 2015
Laboratory Reference: 1508-201
Project: 21138-001-03

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
MASSEX-1-10.0	08-201-01	Soil	8-14-15	8-19-15	
MASSEX-2-10.0	08-201-02	Soil	8-14-15	8-19-15	
MASSEX-3-7.0	08-201-03	Soil	8-15-15	8-19-15	
MASSEX-4-7.0	08-201-04	Soil	8-15-15	8-19-15	
MASSEX-5-7.0	08-201-05	Soil	8-17-15	8-19-15	
MASSEX-6-7.0	08-201-06	Soil	8-17-15	8-19-15	
MASSEX-7-7.0	08-201-07	Soil	8-18-15	8-19-15	
MASSEX-8-7.0	08-201-08	Soil	8-18-15	8-19-15	
MASSEX-9-8.0	08-201-09	Soil	8-19-15	8-19-15	
MASSEX-10-8.0	08-201-10	Soil	8-19-15	8-19-15	

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Date of Report: August 31, 2015
Samples Submitted: August 19, 2015
Laboratory Reference: 1508-201
Project: 21138-001-03

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MASSEX-1-10.0**					
Laboratory ID:	08-201-01					
Diesel Range Organics	**ND**	30	NWTPH-Dx	8-20-15	8-3-15	
Lube Oil Range Organics	**ND**	59	NWTPH-Dx	8-20-15	8-3-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*89*	*50-150*				

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Date of Report: August 31, 2015
Samples Submitted: August 19, 2015
Laboratory Reference: 1508-201
Project: 21138-001-03

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MASSEX-2-10.0**					
Laboratory ID:	08-201-02					
Diesel Range Organics	**ND**	30	NWTPH-Dx	8-26-15	8-26-15	
Lube Oil Range Organics	**ND**	59	NWTPH-Dx	8-26-15	8-26-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*82*	*50-150*				
Client ID:	**MASSEX-3-7.0**					
Laboratory ID:	08-201-03					
Diesel Range Organics	**ND**	30	NWTPH-Dx	8-26-15	8-26-15	
Lube Oil Range Organics	**ND**	60	NWTPH-Dx	8-26-15	8-26-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*82*	*50-150*				
Client ID:	**MASSEX-4-7.0**					
Laboratory ID:	08-201-04					
Diesel Range Organics	**ND**	29	NWTPH-Dx	8-26-15	8-26-15	
Lube Oil	**61**	58	NWTPH-Dx	8-26-15	8-26-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*85*	*50-150*				
Client ID:	**MASSEX-5-7.0**					
Laboratory ID:	08-201-05					
Diesel Range Organics	**ND**	31	NWTPH-Dx	8-26-15	8-26-15	
Lube Oil Range Organics	**ND**	61	NWTPH-Dx	8-26-15	8-26-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*81*	*50-150*				
Client ID:	**MASSEX-6-7.0**					
Laboratory ID:	08-201-06					
Diesel Range Organics	**ND**	30	NWTPH-Dx	8-26-15	8-26-15	
Lube Oil Range Organics	**ND**	59	NWTPH-Dx	8-26-15	8-26-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*79*	*50-150*				
Client ID:	**MASSEX-7-7.0**					
Laboratory ID:	08-201-07					
Diesel Range Organics	**ND**	31	NWTPH-Dx	8-26-15	8-26-15	
Lube Oil Range Organics	**ND**	63	NWTPH-Dx	8-26-15	8-26-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*82*	*50-150*				

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Date of Report: August 31, 2015
Samples Submitted: August 19, 2015
Laboratory Reference: 1508-201
Project: 21138-001-03

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MASSEX-8-7.0**					
Laboratory ID:	08-201-08					
Diesel Range Organics	**ND**	31	NWTPH-Dx	8-26-15	8-26-15	
Lube Oil Range Organics	**ND**	61	NWTPH-Dx	8-26-15	8-26-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*79*	*50-150*				
Client ID:	**MASSEX-9-8.0**					
Laboratory ID:	08-201-09					
Diesel Range Organics	**ND**	30	NWTPH-Dx	8-26-15	8-26-15	
Lube Oil Range Organics	**ND**	60	NWTPH-Dx	8-26-15	8-26-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*98*	*50-150*				
Client ID:	**MASSEX-10-8.0**					
Laboratory ID:	08-201-10					
Diesel Range Organics	**ND**	30	NWTPH-Dx	8-26-15	8-26-15	
Lube Oil	**66**	59	NWTPH-Dx	8-26-15	8-26-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*93*	*50-150*				

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Date of Report: August 31, 2015
Samples Submitted: August 19, 2015
Laboratory Reference: 1508-201
Project: 21138-001-03

cPAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MASSEX-1-10.0**					
Laboratory ID:	08-201-01					
Benzo[a]anthracene	**ND**	0.0079	EPA 8270D/SIM	8-20-15	8-20-15	
Chrysene	**ND**	0.0079	EPA 8270D/SIM	8-20-15	8-20-15	
Benzo[b]fluoranthene	**ND**	0.0079	EPA 8270D/SIM	8-20-15	8-20-15	
Benzo(j,k)fluoranthene	**ND**	0.0079	EPA 8270D/SIM	8-20-15	8-20-15	
Benzo[a]pyrene	**ND**	0.0079	EPA 8270D/SIM	8-20-15	8-20-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0079	EPA 8270D/SIM	8-20-15	8-20-15	
Dibenz[a,h]anthracene	**ND**	0.0079	EPA 8270D/SIM	8-20-15	8-20-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*71*	*32 - 114*				
Pyrene-d10	*66*	*33 - 121*				
Terphenyl-d14	*80*	*31 - 116*				

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Date of Report: August 31, 2015
Samples Submitted: August 19, 2015
Laboratory Reference: 1508-201
Project: 21138-001-03

cPAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MASSEX-2-10.0**					
Laboratory ID:	08-201-02					
Benzo[a]anthracene	**ND**	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Chrysene	**ND**	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[b]fluoranthene	**ND**	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo(j,k)fluoranthene	**ND**	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[a]pyrene	**ND**	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Dibenz[a,h]anthracene	**ND**	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*105*	*32 - 114*				
Pyrene-d10	*65*	*33 - 121*				
Terphenyl-d14	*109*	*31 - 116*				

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Date of Report: August 31, 2015
Samples Submitted: August 19, 2015
Laboratory Reference: 1508-201
Project: 21138-001-03

cPAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MASSEX-3-7.0**					
Laboratory ID:	08-201-03					
Benzo[a]anthracene	**ND**	0.0080	EPA 8270D/SIM	8-24-15	8-25-15	
Chrysene	**ND**	0.0080	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[b]fluoranthene	**ND**	0.0080	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo(j,k)fluoranthene	**ND**	0.0080	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[a]pyrene	**ND**	0.0080	EPA 8270D/SIM	8-24-15	8-25-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0080	EPA 8270D/SIM	8-24-15	8-25-15	
Dibenz[a,h]anthracene	**ND**	0.0080	EPA 8270D/SIM	8-24-15	8-25-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*69*	*32 - 114*				
Pyrene-d10	*69*	*33 - 121*				
Terphenyl-d14	*79*	*31 - 116*				

This report pertains to the samples analyzed in accordance with the chain of custody,
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Date of Report: August 31, 2015
Samples Submitted: August 19, 2015
Laboratory Reference: 1508-201
Project: 21138-001-03

cPAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MASSEX-4-7.0**					
Laboratory ID:	08-201-04					
Benzo[a]anthracene	**ND**	0.0078	EPA 8270D/SIM	8-24-15	8-25-15	
Chrysene	**ND**	0.0078	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[b]fluoranthene	**ND**	0.0078	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo(j,k)fluoranthene	**ND**	0.0078	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[a]pyrene	**ND**	0.0078	EPA 8270D/SIM	8-24-15	8-25-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0078	EPA 8270D/SIM	8-24-15	8-25-15	
Dibenz[a,h]anthracene	**ND**	0.0078	EPA 8270D/SIM	8-24-15	8-25-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*73*	*32 - 114*				
Pyrene-d10	*76*	*33 - 121*				
Terphenyl-d14	*87*	*31 - 116*				

This report pertains to the samples analyzed in accordance with the chain of custody,
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Date of Report: August 31, 2015
Samples Submitted: August 19, 2015
Laboratory Reference: 1508-201
Project: 21138-001-03

cPAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MASSEX-5-7.0**					
Laboratory ID:	08-201-05					
Benzo[a]anthracene	**ND**	0.0081	EPA 8270D/SIM	8-24-15	8-25-15	
Chrysene	**ND**	0.0081	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[b]fluoranthene	**ND**	0.0081	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo(j,k)fluoranthene	**ND**	0.0081	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[a]pyrene	**ND**	0.0081	EPA 8270D/SIM	8-24-15	8-25-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0081	EPA 8270D/SIM	8-24-15	8-25-15	
Dibenz[a,h]anthracene	**ND**	0.0081	EPA 8270D/SIM	8-24-15	8-25-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*64*	*32 - 114*				
Pyrene-d10	*71*	*33 - 121*				
Terphenyl-d14	*79*	*31 - 116*				

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Date of Report: August 31, 2015
Samples Submitted: August 19, 2015
Laboratory Reference: 1508-201
Project: 21138-001-03

cPAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MASSEX-6-7.0**					
Laboratory ID:	08-201-06					
Benzo[a]anthracene	**ND**	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Chrysene	**ND**	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[b]fluoranthene	**ND**	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo(j,k)fluoranthene	**ND**	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[a]pyrene	**ND**	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Dibenz[a,h]anthracene	**ND**	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*68*	*32 - 114*				
Pyrene-d10	*69*	*33 - 121*				
Terphenyl-d14	*79*	*31 - 116*				

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Date of Report: August 31, 2015
Samples Submitted: August 19, 2015
Laboratory Reference: 1508-201
Project: 21138-001-03

cPAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MASSEX-7-7.0**					
Laboratory ID:	08-201-07					
Benzo[a]anthracene	**ND**	0.0083	EPA 8270D/SIM	8-24-15	8-25-15	
Chrysene	**ND**	0.0083	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[b]fluoranthene	**ND**	0.0083	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo(j,k)fluoranthene	**ND**	0.0083	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[a]pyrene	**ND**	0.0083	EPA 8270D/SIM	8-24-15	8-25-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0083	EPA 8270D/SIM	8-24-15	8-25-15	
Dibenz[a,h]anthracene	**ND**	0.0083	EPA 8270D/SIM	8-24-15	8-25-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*62*	*32 - 114*				
Pyrene-d10	*66*	*33 - 121*				
Terphenyl-d14	*76*	*31 - 116*				

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Date of Report: August 31, 2015
Samples Submitted: August 19, 2015
Laboratory Reference: 1508-201
Project: 21138-001-03

cPAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MASSEX-8-7.0**					
Laboratory ID:	08-201-08					
Benzo[a]anthracene	**ND**	0.0081	EPA 8270D/SIM	8-24-15	8-25-15	
Chrysene	**ND**	0.0081	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[b]fluoranthene	**ND**	0.0081	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo(j,k)fluoranthene	**ND**	0.0081	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[a]pyrene	**ND**	0.0081	EPA 8270D/SIM	8-24-15	8-25-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0081	EPA 8270D/SIM	8-24-15	8-25-15	
Dibenz[a,h]anthracene	**ND**	0.0081	EPA 8270D/SIM	8-24-15	8-25-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*60*	*32 - 114*				
Pyrene-d10	*63*	*33 - 121*				
Terphenyl-d14	*70*	*31 - 116*				

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Date of Report: August 31, 2015
Samples Submitted: August 19, 2015
Laboratory Reference: 1508-201
Project: 21138-001-03

cPAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MASSEX-9-8.0**					
Laboratory ID:	08-201-09					
Benzo[a]anthracene	**ND**	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Chrysene	**ND**	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[b]fluoranthene	**ND**	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo(j,k)fluoranthene	**ND**	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[a]pyrene	**ND**	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Dibenz[a,h]anthracene	**ND**	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*68*	*32 - 114*				
Pyrene-d10	*67*	*33 - 121*				
Terphenyl-d14	*77*	*31 - 116*				

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Date of Report: August 31, 2015
Samples Submitted: August 19, 2015
Laboratory Reference: 1508-201
Project: 21138-001-03

cPAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MASSEX-10-8.0**					
Laboratory ID:	08-201-10					
Benzo[a]anthracene	**ND**	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Chrysene	**ND**	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[b]fluoranthene	**ND**	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo(j,k)fluoranthene	**ND**	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[a]pyrene	**ND**	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Dibenz[a,h]anthracene	**ND**	0.0079	EPA 8270D/SIM	8-24-15	8-25-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*61*	*32 - 114*				
Pyrene-d10	*63*	*33 - 121*				
Terphenyl-d14	*73*	*31 - 116*				

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Date of Report: August 31, 2015
Samples Submitted: August 19, 2015
Laboratory Reference: 1508-201
Project: 21138-001-03

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0820S1					
Diesel Range Organics	**ND**	25	NWTPH-Dx	8-20-15	8-3-15	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	8-20-15	8-3-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*111*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	08-203-04										
	ORIG	DUP									
Diesel Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Lube Oil	**71.9**	**65.6**	NA	NA		NA		NA	9	NA	
Surrogate:											
o-Terphenyl						*101*	*95*	*50-150*			

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Date of Report: August 31, 2015
Samples Submitted: August 19, 2015
Laboratory Reference: 1508-201
Project: 21138-001-03

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0826S1					
Diesel Range Organics	**ND**	25	NWTPH-Dx	8-26-15	8-26-15	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	8-26-15	8-26-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*92*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE										
Laboratory ID:	08-201-04									
	ORIG	DUP								
Diesel Range	**ND**	**ND**	NA	NA		NA	NA	NA	NA	
Lube Oil	**52.0**	**ND**	NA	NA		NA	NA	NA	NA	
Surrogate:										
o-Terphenyl						*85* *93*	*50-150*			

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Date of Report: August 31, 2015
Samples Submitted: August 19, 2015
Laboratory Reference: 1508-201
Project: 21138-001-03

cPAHs EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0820S2					
Benzo[a]anthracene	**ND**	0.0067	EPA 8270D/SIM	8-20-15	8-20-15	
Chrysene	**ND**	0.0067	EPA 8270D/SIM	8-20-15	8-20-15	
Benzo[b]fluoranthene	**ND**	0.0067	EPA 8270D/SIM	8-20-15	8-20-15	
Benzo(j,k)fluoranthene	**ND**	0.0067	EPA 8270D/SIM	8-20-15	8-20-15	
Benzo[a]pyrene	**ND**	0.0067	EPA 8270D/SIM	8-20-15	8-20-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0067	EPA 8270D/SIM	8-20-15	8-20-15	
Dibenz[a,h]anthracene	**ND**	0.0067	EPA 8270D/SIM	8-20-15	8-20-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*91*	*32 - 114*				
Pyrene-d10	*93*	*33 - 121*				
Terphenyl-d14	*104*	*31 - 116*				

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Date of Report: August 31, 2015
Samples Submitted: August 19, 2015
Laboratory Reference: 1508-201
Project: 21138-001-03

cPAHs EPA 8270D/SIM
MS/MSD QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	08-201-01										
	MS	MSD	MS	MSD		MS	MSD				
Naphthalene	**0.0602**	**0.0620**	0.0833	0.0833	ND	72	74	44 - 107	3	29	
Acenaphthylene	**0.0598**	**0.0615**	0.0833	0.0833	ND	72	74	44 - 121	3	27	
Acenaphthene	**0.0607**	**0.0621**	0.0833	0.0833	ND	73	75	47 - 109	2	26	
Fluorene	**0.0620**	**0.0629**	0.0833	0.0833	ND	74	76	49 - 115	1	28	
Phenanthrene	**0.0597**	**0.0590**	0.0833	0.0833	ND	72	71	45 - 114	1	26	
Anthracene	**0.0912**	**0.0900**	0.0833	0.0833	ND	109	108	43 - 140	1	27	
Fluoranthene	**0.0557**	**0.0549**	0.0833	0.0833	ND	67	66	44 - 126	1	27	
Pyrene	**0.0612**	**0.0606**	0.0833	0.0833	ND	73	73	43 - 125	1	27	
Benzo[a]anthracene	**0.0694**	**0.0687**	0.0833	0.0833	ND	83	82	42 - 134	1	27	
Chrysene	**0.0569**	**0.0564**	0.0833	0.0833	ND	68	68	45 - 114	1	27	
Benzo[b]fluoranthene	**0.0571**	**0.0575**	0.0833	0.0833	ND	69	69	38 - 131	1	33	
Benzo(j,k)fluoranthene	**0.0604**	**0.0596**	0.0833	0.0833	ND	73	72	44 - 114	1	34	
Benzo[a]pyrene	**0.0609**	**0.0608**	0.0833	0.0833	ND	73	73	40 - 136	0	29	
Indeno(1,2,3-c,d)pyrene	**0.0586**	**0.0586**	0.0833	0.0833	ND	70	70	45 - 126	0	30	
Dibenz[a,h]anthracene	**0.0556**	**0.0558**	0.0833	0.0833	ND	67	67	46 - 121	0	28	
Benzo[g,h,i]perylene	**0.0589**	**0.0594**	0.0833	0.0833	ND	71	71	43 - 120	1	31	
Surrogate:											
2-Fluorobiphenyl						*82*	*85*	*32 - 114*			
Pyrene-d10						*70*	*70*	*33 - 121*			
Terphenyl-d14						*87*	*88*	*31 - 116*			

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Date of Report: August 31, 2015
Samples Submitted: August 19, 2015
Laboratory Reference: 1508-201
Project: 21138-001-03

cPAHs EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0824S1					
Benzo[a]anthracene	**ND**	0.0067	EPA 8270D/SIM	8-24-15	8-25-15	
Chrysene	**ND**	0.0067	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[b]fluoranthene	**ND**	0.0067	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo(j,k)fluoranthene	**ND**	0.0067	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[a]pyrene	**ND**	0.0067	EPA 8270D/SIM	8-24-15	8-25-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0067	EPA 8270D/SIM	8-24-15	8-25-15	
Dibenz[a,h]anthracene	**ND**	0.0067	EPA 8270D/SIM	8-24-15	8-25-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*80*	*32 - 114*				
Pyrene-d10	*86*	*33 - 121*				
Terphenyl-d14	*94*	*31 - 116*				

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Date of Report: August 31, 2015
Samples Submitted: August 19, 2015
Laboratory Reference: 1508-201
Project: 21138-001-03

cPAHs EPA 8270D/SIM
MS/MSD QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	08-201-02										
	MS	MSD	MS	MSD		MS	MSD				
Naphthalene	**0.0625**	**0.0608**	0.0833	0.0833	ND	75	73	44 - 107	3	29	
Acenaphthylene	**0.0667**	**0.0662**	0.0833	0.0833	ND	80	79	44 - 121	1	27	
Acenaphthene	**0.0666**	**0.0659**	0.0833	0.0833	ND	80	79	47 - 109	1	26	
Fluorene	**0.0710**	**0.0686**	0.0833	0.0833	ND	85	82	49 - 115	3	28	
Phenanthrene	**0.0645**	**0.0630**	0.0833	0.0833	ND	77	76	45 - 114	2	26	
Anthracene	**0.104**	**0.102**	0.0833	0.0833	ND	125	122	43 - 140	2	27	
Fluoranthene	**0.0642**	**0.0627**	0.0833	0.0833	ND	77	75	44 - 126	2	27	
Pyrene	**0.0684**	**0.0663**	0.0833	0.0833	ND	82	80	43 - 125	3	27	
Benzo[a]anthracene	**0.0810**	**0.0787**	0.0833	0.0833	ND	97	94	42 - 134	3	27	
Chrysene	**0.0609**	**0.0596**	0.0833	0.0833	ND	73	72	45 - 114	2	27	
Benzo[b]fluoranthene	**0.0721**	**0.0694**	0.0833	0.0833	ND	87	83	38 - 131	4	33	
Benzo(j,k)fluoranthene	**0.0647**	**0.0636**	0.0833	0.0833	ND	78	76	44 - 114	2	34	
Benzo[a]pyrene	**0.0735**	**0.0721**	0.0833	0.0833	ND	88	87	40 - 136	2	29	
Indeno(1,2,3-c,d)pyrene	**0.0708**	**0.0709**	0.0833	0.0833	ND	85	85	45 - 126	0	30	
Dibenz[a,h]anthracene	**0.0667**	**0.0651**	0.0833	0.0833	ND	80	78	46 - 121	2	28	
Benzo[g,h,i]perylene	**0.0680**	**0.0664**	0.0833	0.0833	ND	82	80	43 - 120	2	31	
Surrogate:											
2-Fluorobiphenyl						*75*	*75*	*32 - 114*			
Pyrene-d10						*76*	*74*	*33 - 121*			
Terphenyl-d14						*87*	*85*	*31 - 116*			

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Date of Report: August 31, 2015
Samples Submitted: August 19, 2015
Laboratory Reference: 1508-201
Project: 21138-001-03

% MOISTURE

Date Analyzed: 8-20&24-15

Client ID	Lab ID	% Moisture
MASSEX-1-10.0	08-201-01	15
MASSEX-2-10.0	08-201-02	15
MASSEX-3-7.0	08-201-03	17
MASSEX-4-7.0	08-201-04	14
MASSEX-5-7.0	08-201-05	18
MASSEX-6-7.0	08-201-06	15
MASSEX-7-7.0	08-201-07	20
MASSEX-8-7.0	08-201-08	18
MASSEX-9-8.0	08-201-09	16
MASSEX-10-8.0	08-201-10	16

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OnSite Environmental Inc.

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-napthalene) 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

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: GEOENGINEERS
Project Number: 21138-001-03
Project Name: 9th & LENORA PROJECT
Project Manager: FASIH KHAN
Sampled by: FASIH KHAN

Turnaround Request (in working days)

(Check One)

- [X] Same Day (NO)
- [ ] 1 Day (YES)
- [ ] 2 Days
- [ ] 3 Days
- [ ] Standard (7 Days) (TPH analysis 5 Days)
- [ ] _____ (other)

Laboratory Number: 08-201

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	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	cPAHs		HOLD			% Moisture
1	MASSEX-1-10.0	8/14/15	1400	S	1				X													X					X
2	MASSEX-2-10.0	8/14/15	1420						O													O		X			O
3	MASSEX-3-7.0	8/15/15	1210						O													O		X			O
4	MASSEX-4-7.0	8/15/15	1220						O													O		X			O
5	MASSEX-5-7.0	8/17/15	1310						O													O		X			O
6	MASSEX-6-7.0	8/17/15	1335						O													O		X			O
7	MASSEX-7-7.0	8/18/15	1030						O													O		X			O
8	MASSEX-8-7.0	8/18/15	1045						O													O		X			O
9	MASSEX-9-8.0	8/19/15	1130						O													O		X			O
10	MASSEX-10-8.0	8/19/15	1150	↓	↓				O													O		X			O

	Signature	Company	Date	Time
Relinquished		GEI	8/19/15	1640
Received		COSC	8/19/15	1640
Relinquished				
Received				
Relinquished				
Received				

Comments/Special Instructions

O Added 8/21/15. (STA)

Reviewed/Date

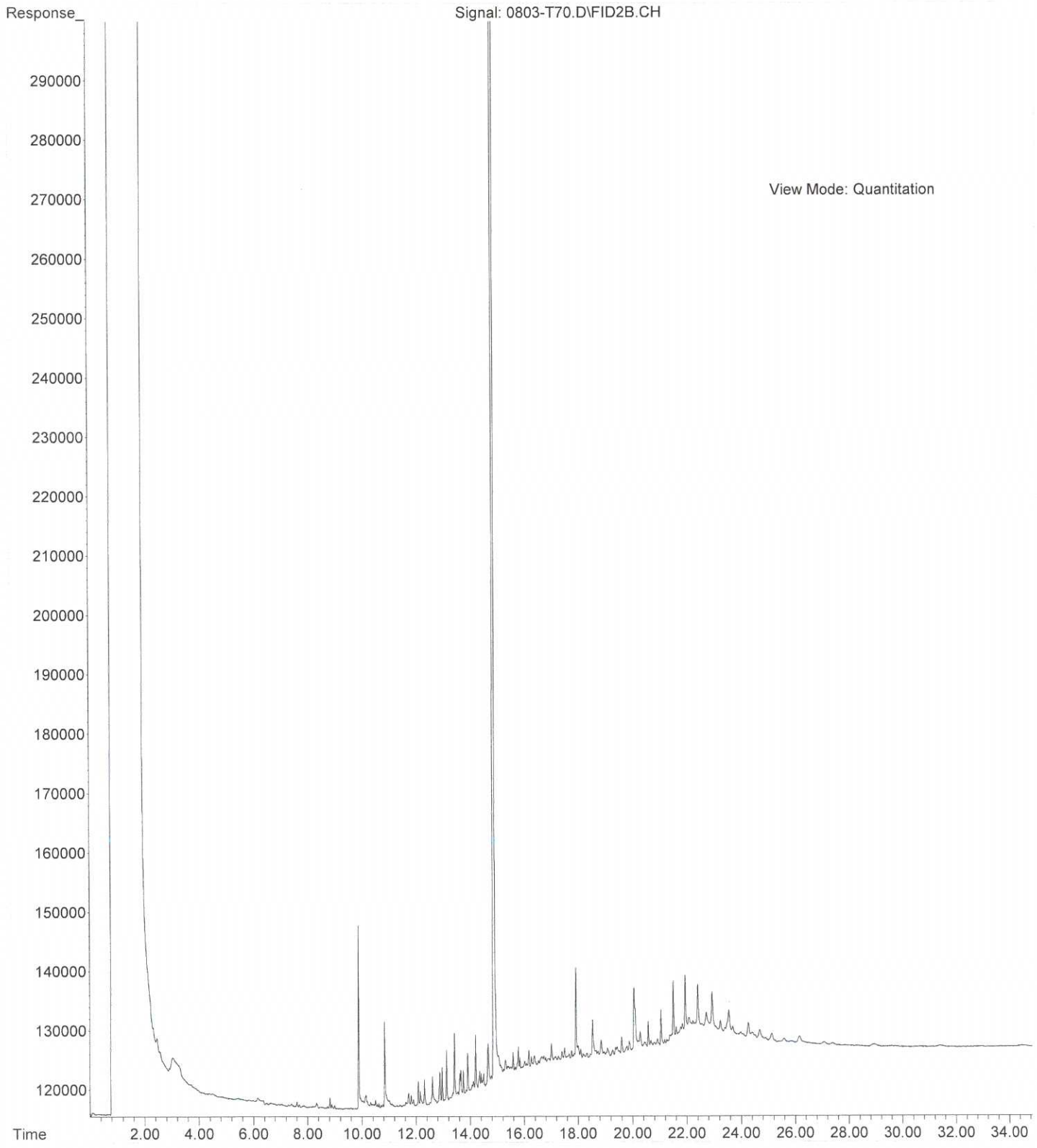
Reviewed/Date

Chromatograms with final report ☐

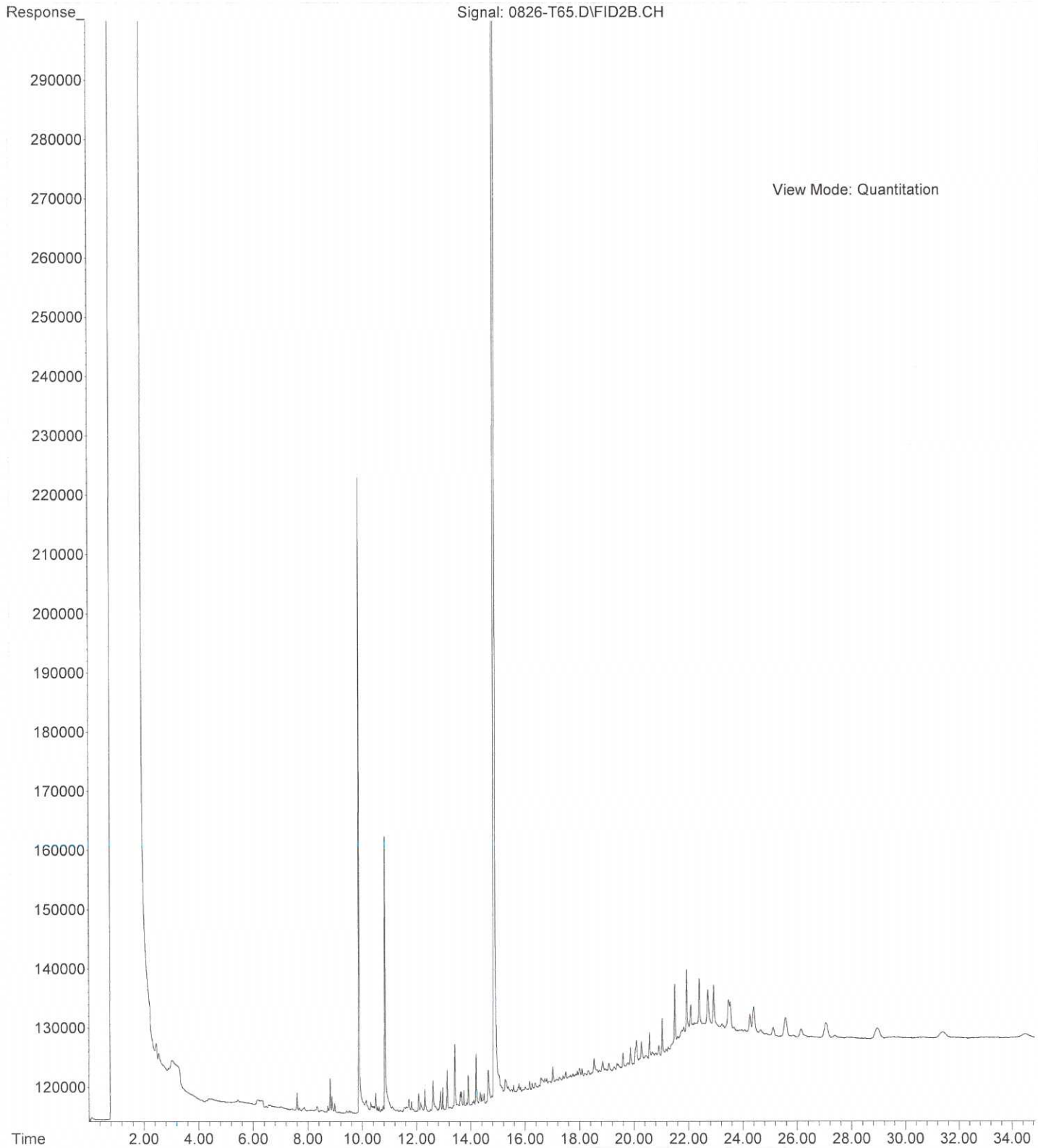
Data Package: Standard ☐ Level III ☐ Level IV ☐

Electronic Data Deliverables (EDDs) ☐ _____

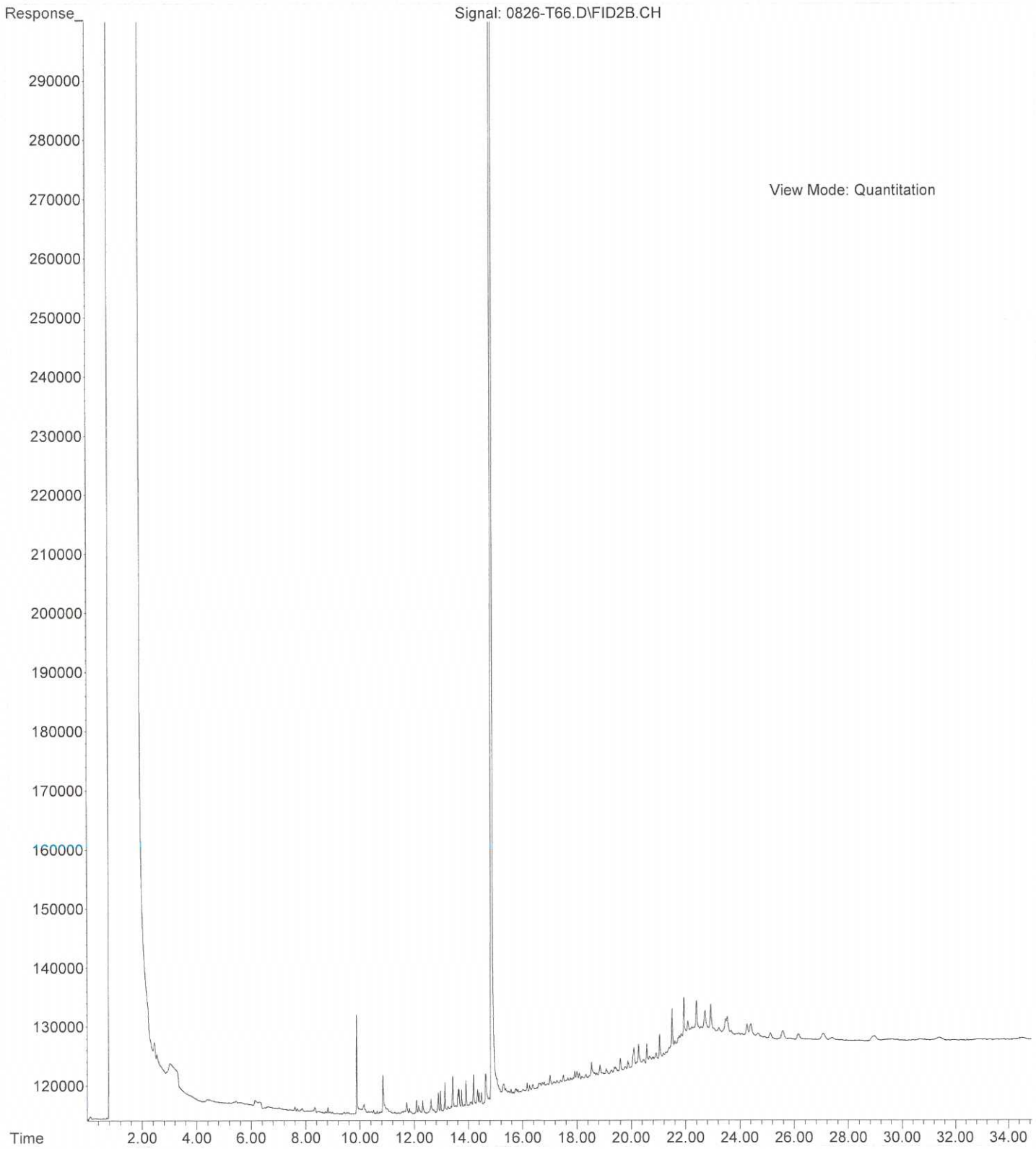
File :X:\DIESELS\TERI\DATA\T150820.SEC\0803-T70.D
Operator : ZT
Acquired : 21 Aug 2015 5:06 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 08-201-01
Misc Info :
Vial Number: 70



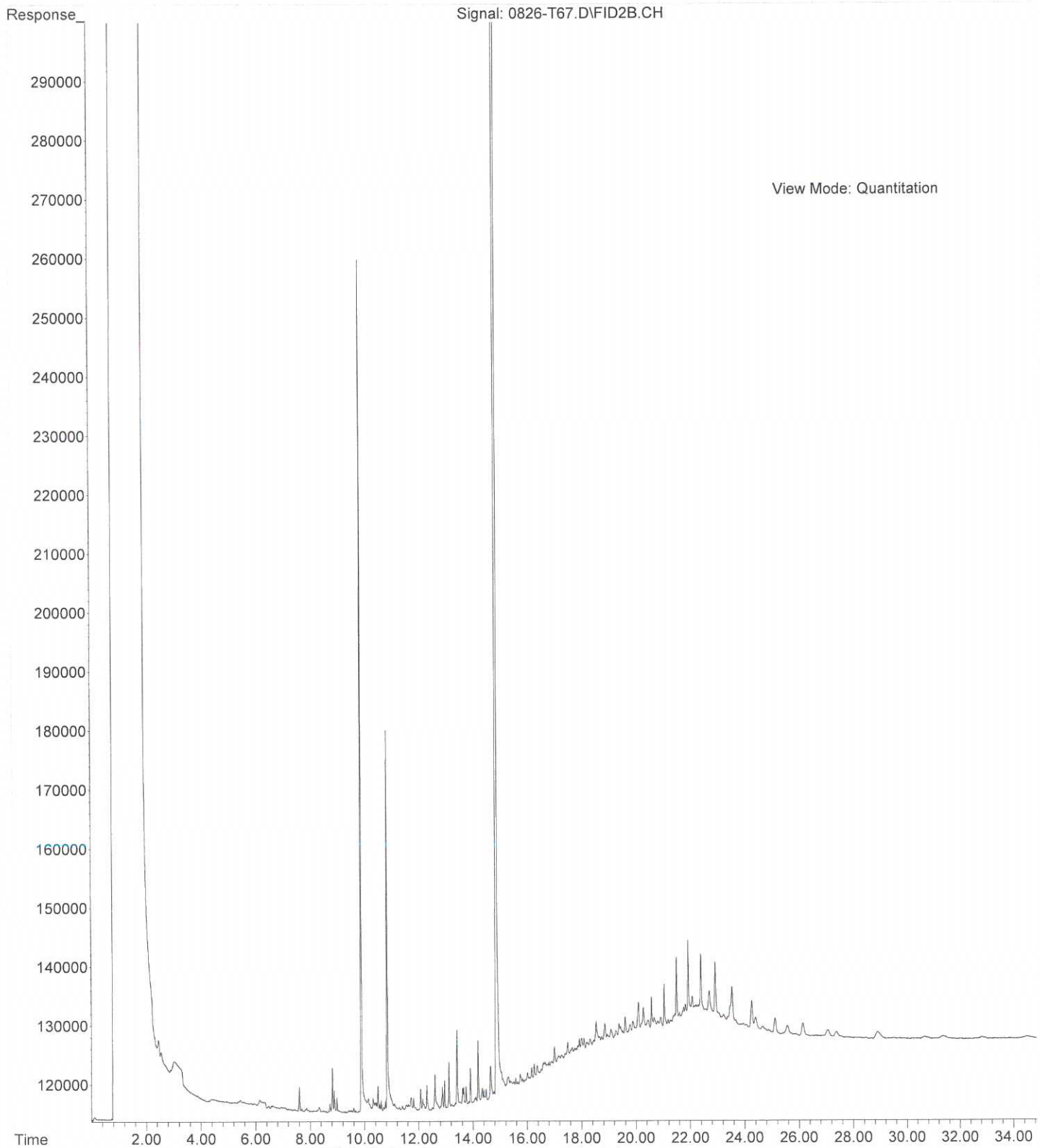
File :X:\DIESELS\TERI\DATA\T150826.SEC\0826-T65.D
Operator : ZT
Acquired : 26 Aug 2015 21:47 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 08-201-02
Misc Info :
Vial Number: 65



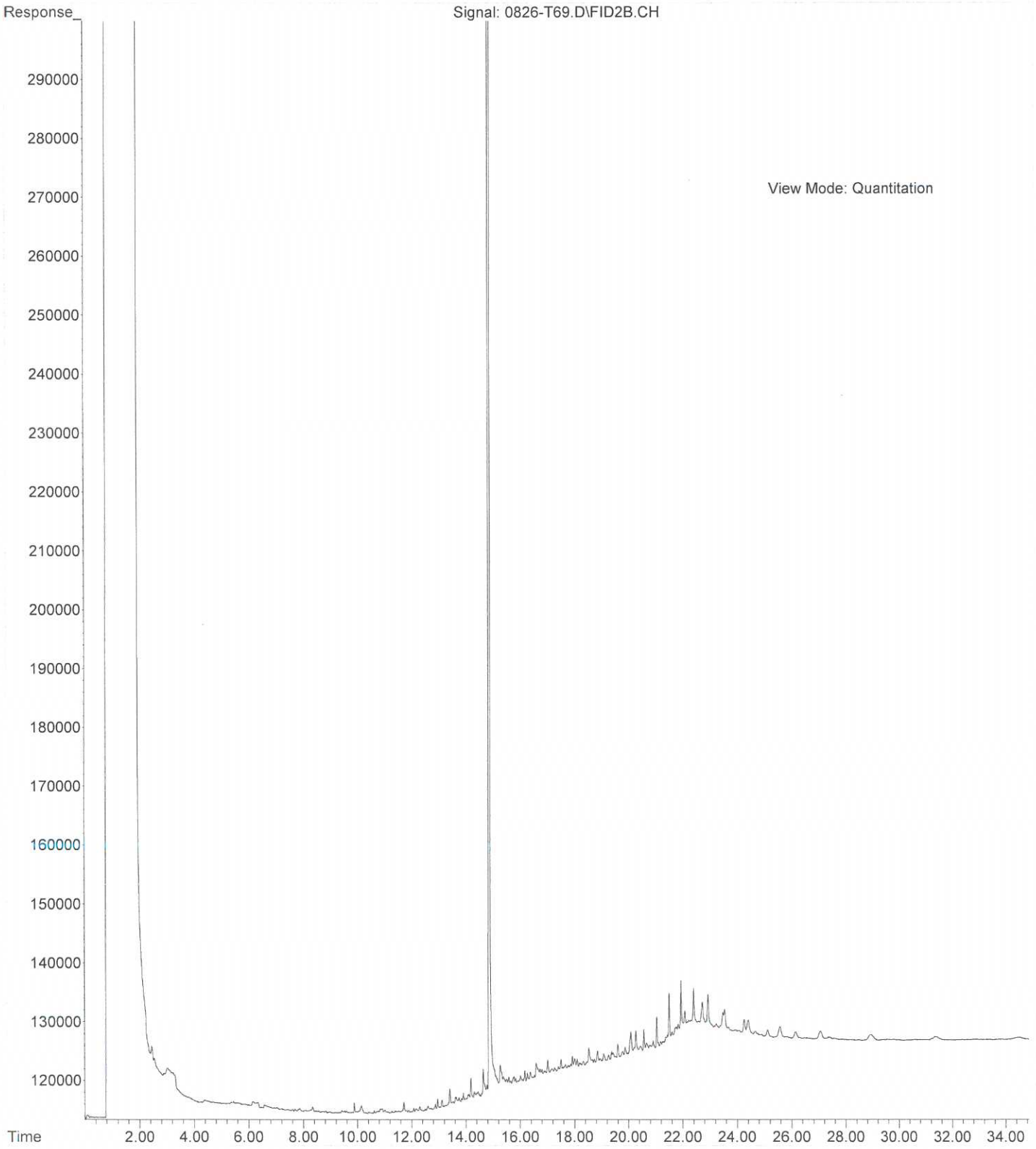
File :X:\DIESELS\TERI\DATA\T150826.SEC\0826-T66.D
Operator : ZT
Acquired : 26 Aug 2015 22:30 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 08-201-03
Misc Info :
Vial Number: 66



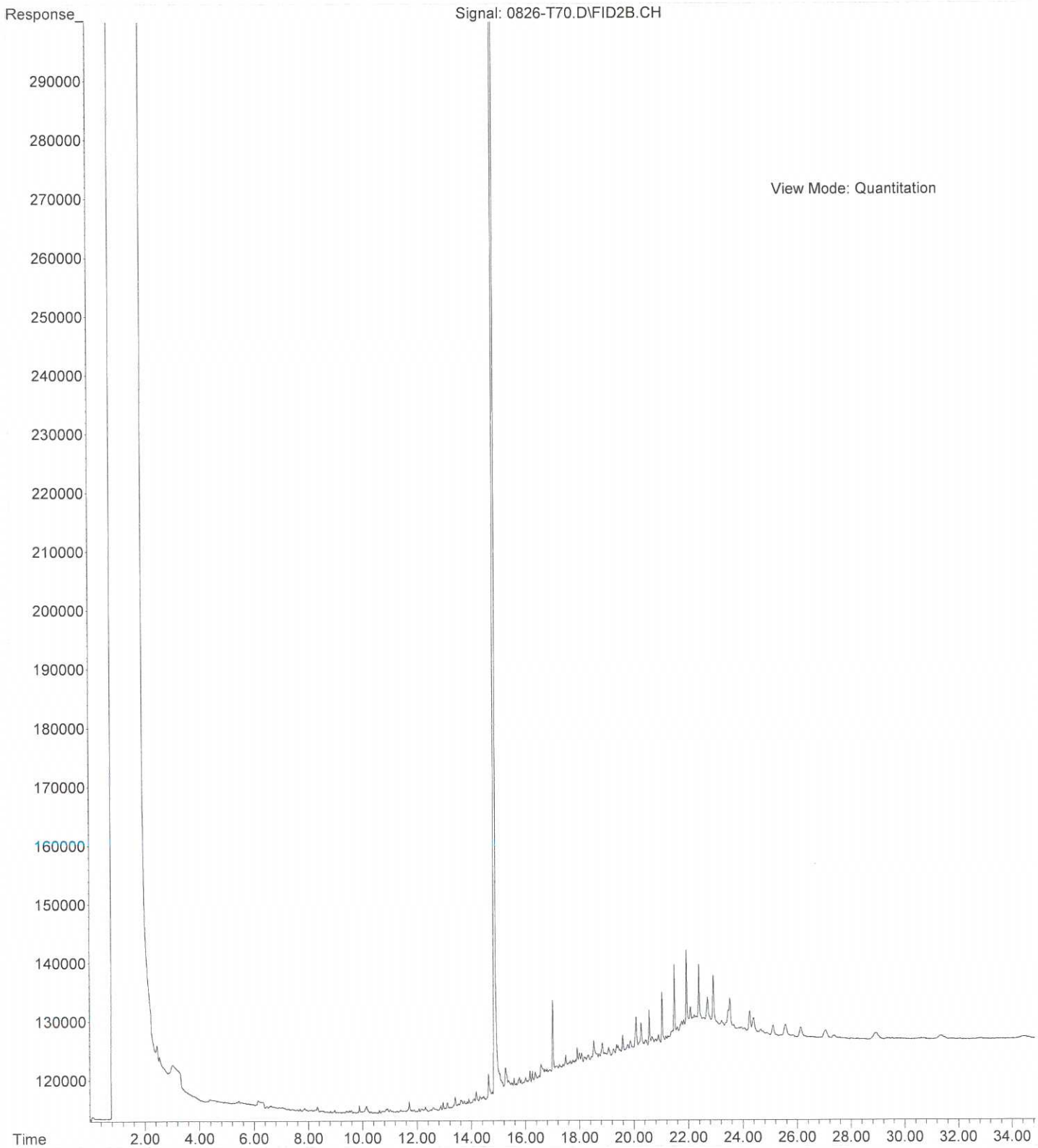
File : X:\DIESELS\TERI\DATA\T150826.SEC\0826-T67.D
Operator : ZT
Acquired : 26 Aug 2015 23:14 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 08-201-04
Misc Info :
Vial Number: 67



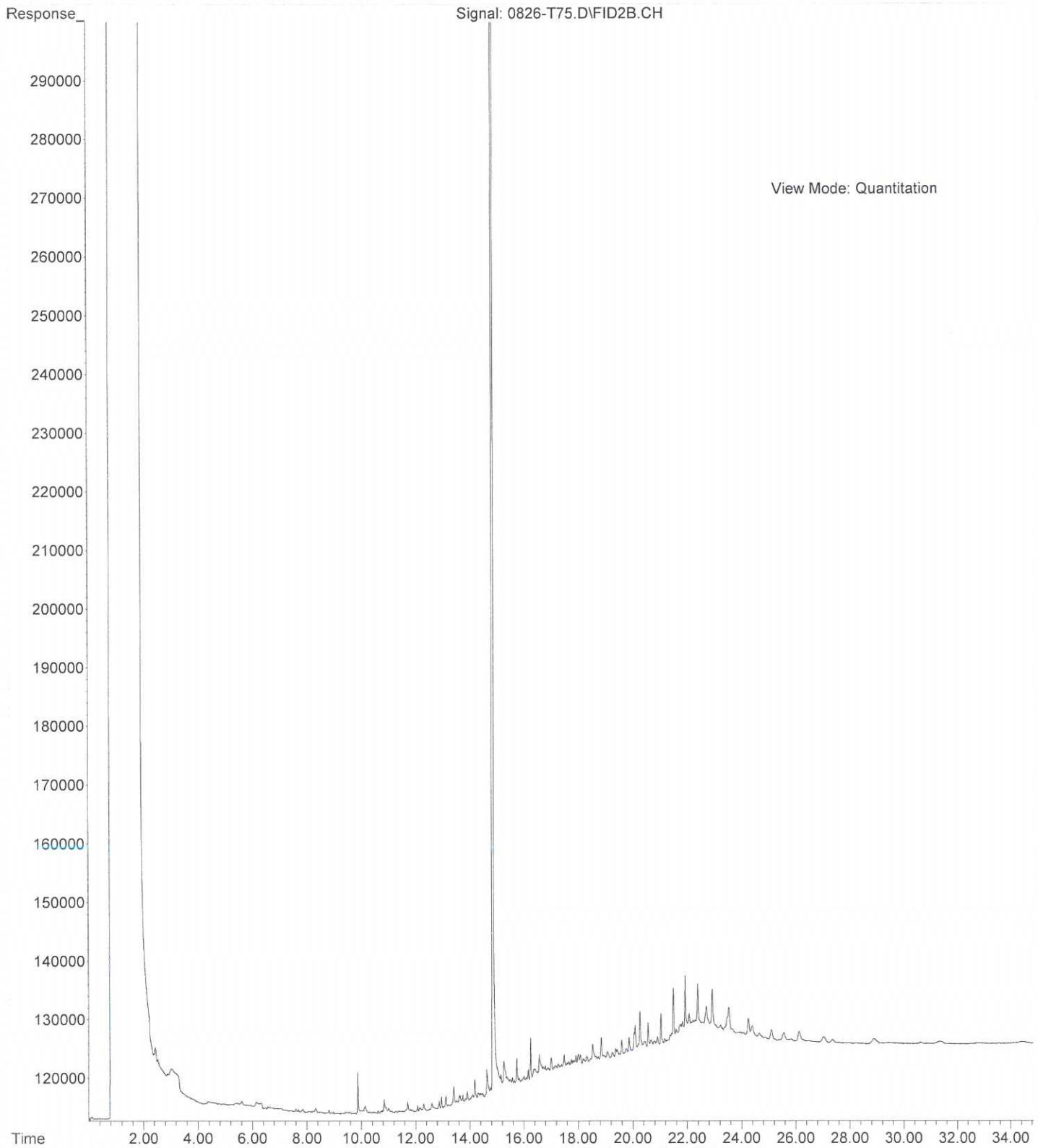
File :X:\DIESELS\TERI\DATA\T150826.SEC\0826-T69.D
Operator : ZT
Acquired : 27 Aug 2015 0:40 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 08-201-05
Misc Info :
Vial Number: 69



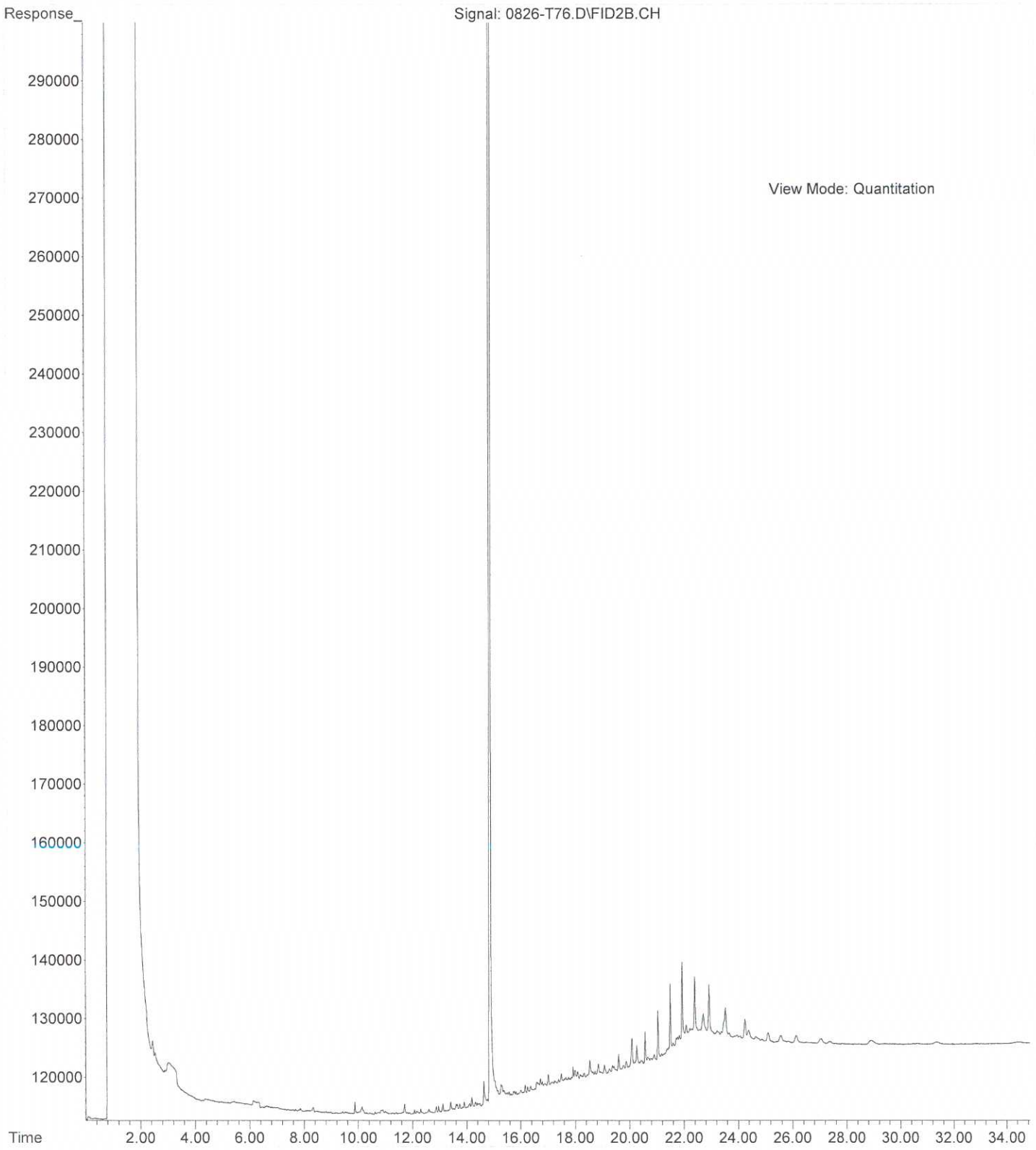
File :X:\DIESELS\TERI\DATA\T150826.SEC\0826-T70.D
Operator : ZT
Acquired : 27 Aug 2015 1:24 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 08-201-06
Misc Info :
Vial Number: 70



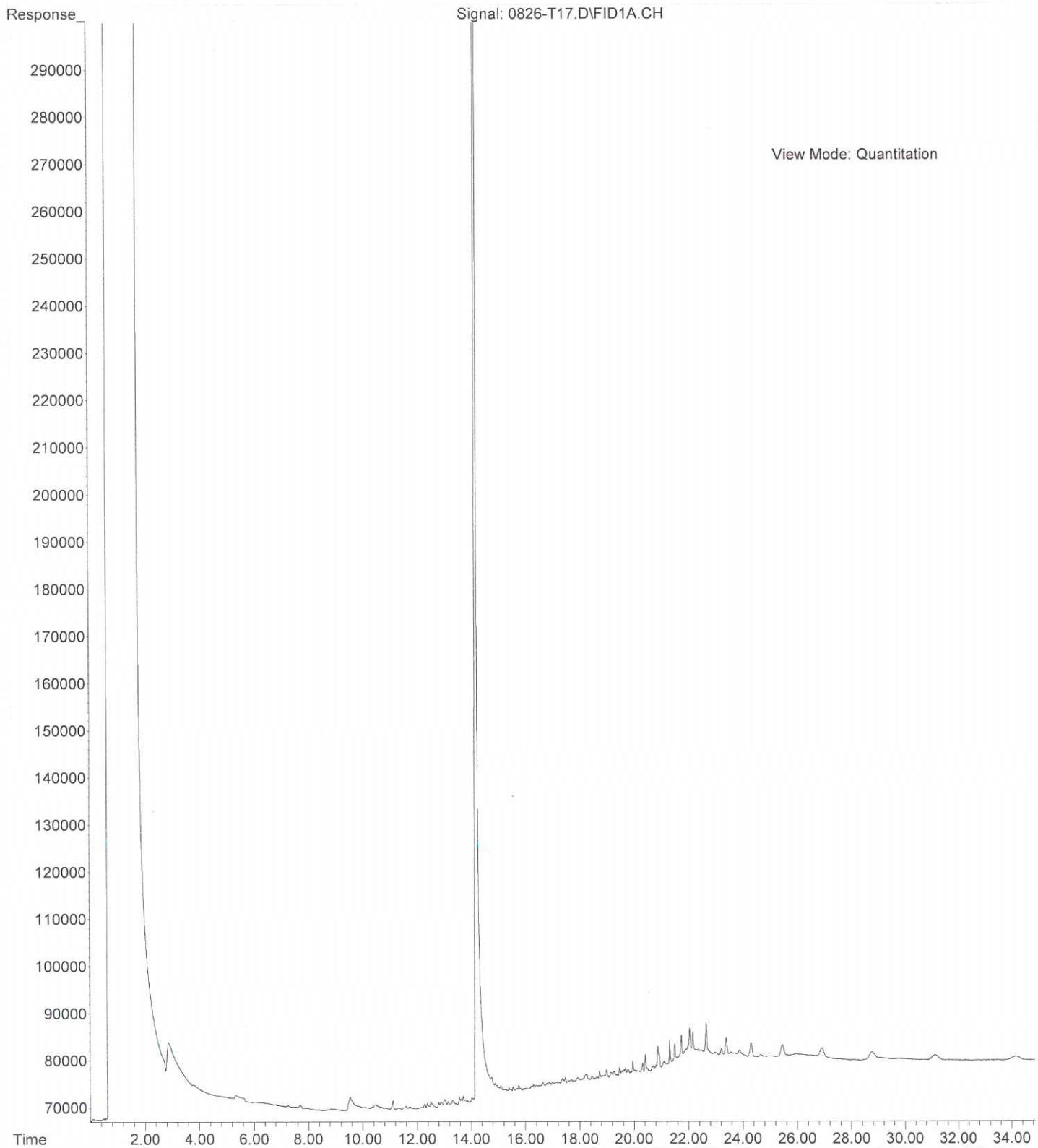
File :X:\DIESELS\TERI\DATA\T150826.SEC\0826-T75.D
Operator : ZT
Acquired : 27 Aug 2015 4:59 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 08-201-07
Misc Info :
Vial Number: 75



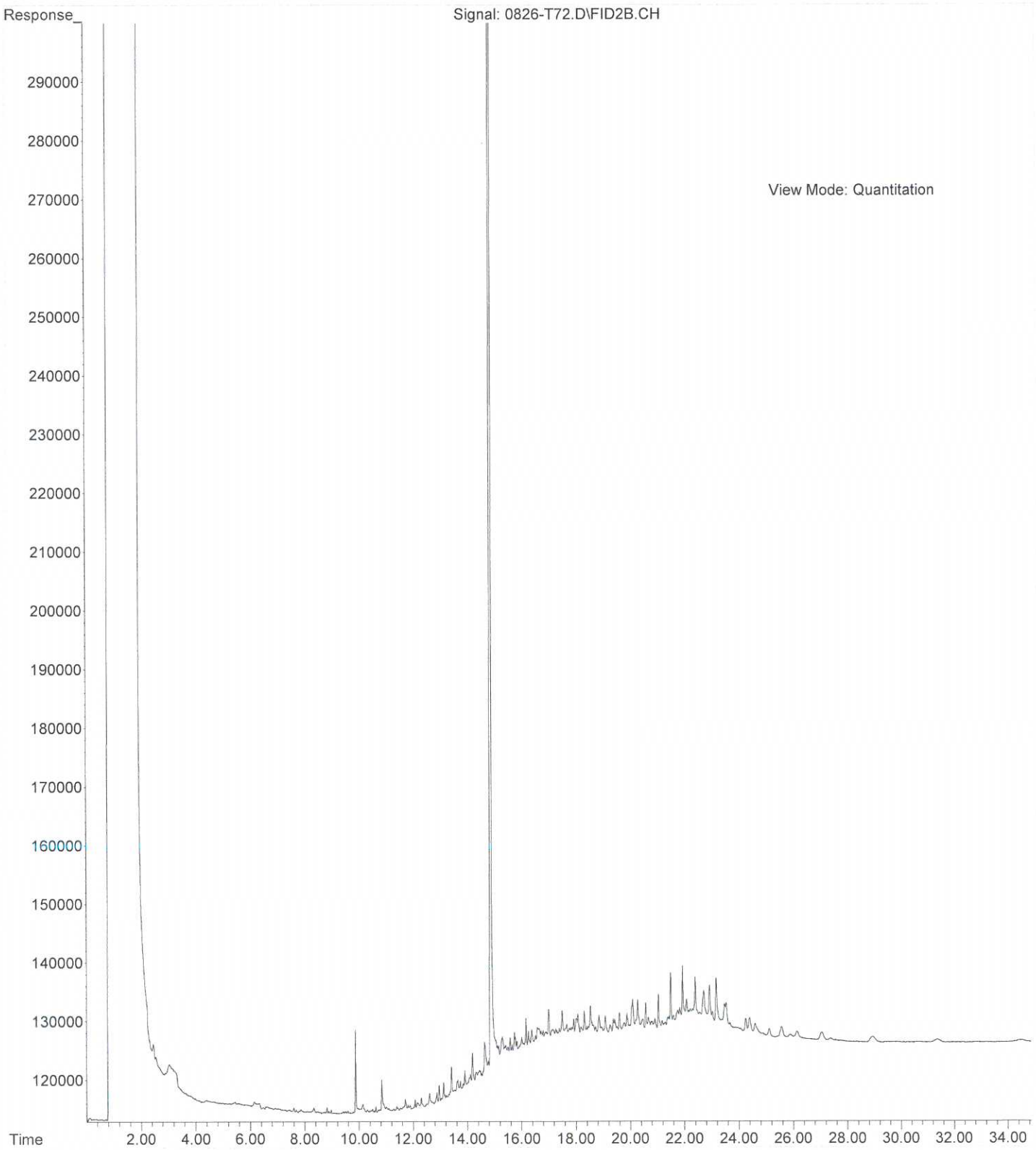
File :X:\DIESELS\TERI\DATA\T150826.SEC\0826-T76.D
Operator : ZT
Acquired : 27 Aug 2015 5:42 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 08-201-08
Misc Info :
Vial Number: 76



File :X:\DIESELS\TERI\DATA\T150826\0826-T17.D
Operator : ZT
Acquired : 26 Aug 2015 23:14 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 08-201-09
Misc Info :
Vial Number: 17



File :X:\DIESELS\TERI\DATA\T150826.SEC\0826-T72.D
Operator : ZT
Acquired : 27 Aug 2015 2:50 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 08-201-10
Misc Info :
Vial Number: 72



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

August 27, 2015

Fasih Khan
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03
Laboratory Reference No. 1508-217

Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on August 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,

David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 27, 2015
Samples Submitted: August 21, 2015
Laboratory Reference: 1508-217
Project: 21138-001-03

Case Narrative

Samples were collected on August 20, 2015 and received by the laboratory on August 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.

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 27, 2015
Samples Submitted: August 21, 2015
Laboratory Reference: 1508-217
Project: 21138-001-03

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
MASSEX-11-15.0	08-217-01	Soil	8-20-15	8-21-15	

This report pertains to the samples analyzed in accordance with the chain of custody,
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Date of Report: August 27, 2015
Samples Submitted: August 21, 2015
Laboratory Reference: 1508-217
Project: 21138-001-03

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MASSEX-11-15.0**					
Laboratory ID:	08-217-01					
Diesel Range Organics	**ND**	29	NWTPH-Dx	8-25-15	8-25-15	
Lube Oil Range Organics	**ND**	57	NWTPH-Dx	8-25-15	8-25-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*100*	*50-150*				

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Date of Report: August 27, 2015
Samples Submitted: August 21, 2015
Laboratory Reference: 1508-217
Project: 21138-001-03

cPAHs EPA 8270D/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MASSEX-11-15.0**					
Laboratory ID:	08-217-01					
Benzo[a]anthracene	**ND**	0.0076	EPA 8270D/SIM	8-24-15	8-25-15	
Chrysene	**ND**	0.0076	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[b]fluoranthene	**ND**	0.0076	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo(j,k)fluoranthene	**ND**	0.0076	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[a]pyrene	**ND**	0.0076	EPA 8270D/SIM	8-24-15	8-25-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0076	EPA 8270D/SIM	8-24-15	8-25-15	
Dibenz[a,h]anthracene	**ND**	0.0076	EPA 8270D/SIM	8-24-15	8-25-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*64*	*32 - 114*				
Pyrene-d10	*66*	*33 - 121*				
Terphenyl-d14	*74*	*31 - 116*				

This report pertains to the samples analyzed in accordance with the chain of custody,
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Date of Report: August 27, 2015
Samples Submitted: August 21, 2015
Laboratory Reference: 1508-217
Project: 21138-001-03

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0825S1					
Diesel Range Organics	**ND**	25	NWTPH-Dx	8-25-15	8-25-15	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	8-25-15	8-25-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*116*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	08-230-01										
	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						*88*	*94*	*50-150*			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 27, 2015
Samples Submitted: August 21, 2015
Laboratory Reference: 1508-217
Project: 21138-001-03

cPAHs EPA 8270D/SIM
METHOD BLANK QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0824S1					
Benzo[a]anthracene	**ND**	0.0067	EPA 8270D/SIM	8-24-15	8-25-15	
Chrysene	**ND**	0.0067	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[b]fluoranthene	**ND**	0.0067	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo(j,k)fluoranthene	**ND**	0.0067	EPA 8270D/SIM	8-24-15	8-25-15	
Benzo[a]pyrene	**ND**	0.0067	EPA 8270D/SIM	8-24-15	8-25-15	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0067	EPA 8270D/SIM	8-24-15	8-25-15	
Dibenz[a,h]anthracene	**ND**	0.0067	EPA 8270D/SIM	8-24-15	8-25-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*80*	*32 - 114*				
Pyrene-d10	*86*	*33 - 121*				
Terphenyl-d14	*94*	*31 - 116*				

This report pertains to the samples analyzed in accordance with the chain of custody,
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Date of Report: August 27, 2015
Samples Submitted: August 21, 2015
Laboratory Reference: 1508-217
Project: 21138-001-03

cPAHs EPA 8270D/SIM
MS/MSD QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	08-201-02										
	MS	MSD	MS	MSD		MS	MSD				
Naphthalene	**0.0625**	**0.0608**	0.0833	0.0833	ND	75	73	44 - 107	3	29	
Acenaphthylene	**0.0667**	**0.0662**	0.0833	0.0833	ND	80	79	44 - 121	1	27	
Acenaphthene	**0.0666**	**0.0659**	0.0833	0.0833	ND	80	79	47 - 109	1	26	
Fluorene	**0.0710**	**0.0686**	0.0833	0.0833	ND	85	82	49 - 115	3	28	
Phenanthrene	**0.0645**	**0.0630**	0.0833	0.0833	ND	77	76	45 - 114	2	26	
Anthracene	**0.104**	**0.102**	0.0833	0.0833	ND	125	122	43 - 140	2	27	
Fluoranthene	**0.0642**	**0.0627**	0.0833	0.0833	ND	77	75	44 - 126	2	27	
Pyrene	**0.0684**	**0.0663**	0.0833	0.0833	ND	82	80	43 - 125	3	27	
Benzo[a]anthracene	**0.0810**	**0.0787**	0.0833	0.0833	ND	97	94	42 - 134	3	27	
Chrysene	**0.0609**	**0.0596**	0.0833	0.0833	ND	73	72	45 - 114	2	27	
Benzo[b]fluoranthene	**0.0721**	**0.0694**	0.0833	0.0833	ND	87	83	38 - 131	4	33	
Benzo(j,k)fluoranthene	**0.0647**	**0.0636**	0.0833	0.0833	ND	78	76	44 - 114	2	34	
Benzo[a]pyrene	**0.0735**	**0.0721**	0.0833	0.0833	ND	88	87	40 - 136	2	29	
Indeno(1,2,3-c,d)pyrene	**0.0708**	**0.0709**	0.0833	0.0833	ND	85	85	45 - 126	0	30	
Dibenz[a,h]anthracene	**0.0667**	**0.0651**	0.0833	0.0833	ND	80	78	46 - 121	2	28	
Benzo[g,h,i]perylene	**0.0680**	**0.0664**	0.0833	0.0833	ND	82	80	43 - 120	2	31	
Surrogate:											
2-Fluorobiphenyl						*75*	*75*	*32 - 114*			
Pyrene-d10						*76*	*74*	*33 - 121*			
Terphenyl-d14						*87*	*85*	*31 - 116*			

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Date of Report: August 27, 2015
Samples Submitted: August 21, 2015
Laboratory Reference: 1508-217
Project: 21138-001-03

% MOISTURE

Date Analyzed: 8-24-15

Client ID	Lab ID	% Moisture
MASSEX-11-15.0	08-217-01	12

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and is intended only for the use of the individual or company to whom it is addressed.

OnSite Environmental Inc.

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-napthalene) 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

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Chain of Custody

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Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: GEOENGINEERS
Project Number: 21138-001-03
Project Name: 9th & LENORA PROJECT
Project Manager: FASIH KHAN
Sampled by: FASIH KHAN

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☒ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Laboratory Number: 08-217

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	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	cPAH only					% Moisture
1	MASSEX-11-15.0	8/20/15	1420	S	1				X													X					X

	Signature	Company	Date	Time
Relinquished		GEI	8/21/15	0840
Received		OSE	8/21/15	0840
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

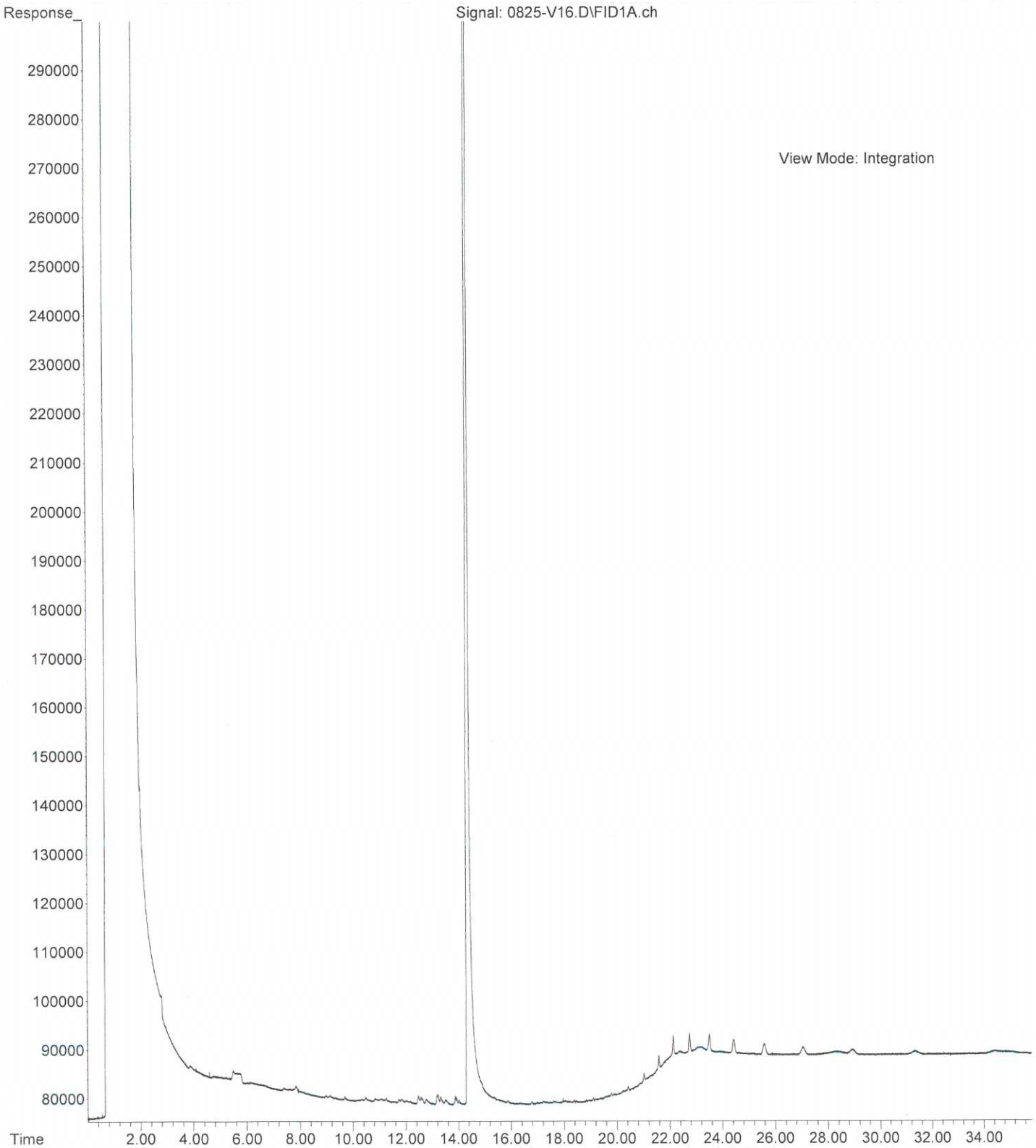
Comments/Special Instructions

Chromatograms with final report ☐

Data Package: Standard ☐ Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ _____

20 °C

File :X:\DIESELS\VIGO\DATA\V150825\0825-V16.D
Operator :
Acquired : 25 Aug 2015 21:33 using AcqMethod V150507F.M
Instrument : Vigo
Sample Name: 08-217-01
Misc Info :
Vial Number: 16



OnSite Environmental Inc.

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

June 17, 2015

Fasih Khan
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-0
Laboratory Reference No. 1506-134

Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on June 12, 2015.

Please note that this is a *revised* report, and replaces the original due to revisions of the sample identifications.

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,

David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 17, 2015
Samples Submitted: June 12, 2015
Laboratory Reference: 1506-134
Project: 21138-001-0

Case Narrative

Samples were collected on June 11, 2015 and received by the laboratory on June 12, 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.

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 17, 2015
Samples Submitted: June 12, 2015
Laboratory Reference: 1506-134
Project: 21138-001-0

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
UST3-N-3.0	06-134-01	Soil	6-11-15	6-12-15	
UST3-S-3.0	06-134-02	Soil	6-11-15	6-12-15	
UST3-B-7.0	06-134-03	Soil	6-11-15	6-12-15	
UST3-FL-2.0	06-134-04	Soil	6-11-15	6-12-15	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 17, 2015
Samples Submitted: June 12, 2015
Laboratory Reference: 1506-134
Project: 21138-001-0

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST3-B-7.0**					
Laboratory ID:	06-134-03					
Diesel Fuel #2	**2300**	29	NWTPH-Dx	6-12-15	6-12-15	
Lube Oil	**1400**	58	NWTPH-Dx	6-12-15	6-12-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*96*	*50-150*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 17, 2015
Samples Submitted: June 12, 2015
Laboratory Reference: 1506-134
Project: 21138-001-0

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST3-N-3.0**					
Laboratory ID:	06-134-01					
Diesel Range Organics	**ND**	28	NWTPH-Dx	6-12-15	6-12-15	
Lube Oil Range Organics	**ND**	56	NWTPH-Dx	6-12-15	6-12-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*89*	*50-150*				
Client ID:	**UST3-S-3.0**					
Laboratory ID:	06-134-02					
Diesel Range Organics	**ND**	28	NWTPH-Dx	6-12-15	6-12-15	
Lube Oil Range Organics	**ND**	57	NWTPH-Dx	6-12-15	6-12-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*90*	*50-150*				
Client ID:	**UST3-FL-2.0**					
Laboratory ID:	06-134-04					
Diesel Range Organics	**ND**	28	NWTPH-Dx	6-12-15	6-12-15	
Lube Oil Range Organics	**ND**	56	NWTPH-Dx	6-12-15	6-12-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*87*	*50-150*				

This report pertains to the samples analyzed in accordance with the chain of custody,
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Date of Report: June 17, 2015
Samples Submitted: June 12, 2015
Laboratory Reference: 1506-134
Project: 21138-001-0

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0612S2					
Diesel Range Organics	**ND**	25	NWTPH-Dx	6-12-15	6-12-15	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	6-12-15	6-12-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*101*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	06-130-26										
	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*	*74*	*50-150*			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 17, 2015
Samples Submitted: June 12, 2015
Laboratory Reference: 1506-134
Project: 21138-001-0

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0612S3					
Diesel Range Organics	**ND**	25	NWTPH-Dx	6-12-15	6-12-15	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	6-12-15	6-12-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*92*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	06-124-01										
	ORIG	DUP									
Diesel Fuel #2	**5600**	**5390**	NA	NA		NA		NA	4	NA	
Lube Oil	**1520**	**1490**	NA	NA		NA		NA	2	NA	
Surrogate:											
o-Terphenyl						*92*	*90*	*50-150*			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: June 17, 2015
Samples Submitted: June 12, 2015
Laboratory Reference: 1506-134
Project: 21138-001-0

% MOISTURE

Date Analyzed: 6-12&16-15

Client ID	Lab ID	% Moisture
UST3-N-3.0	06-134-01	11
UST3-S-3.0	06-134-02	12
UST3-B-7.0	06-134-03	14
UST3-FL-2.0	06-134-04	10

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

OnSite Environmental Inc.

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-napthalene) 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

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Laboratory Number: 06-134

Company: GeoEngineers
Project Number: 21138-001-0
Project Name: 9th and Lenora Project
Project Manager: Fasih Khan
Sampled by: Fasih Khan

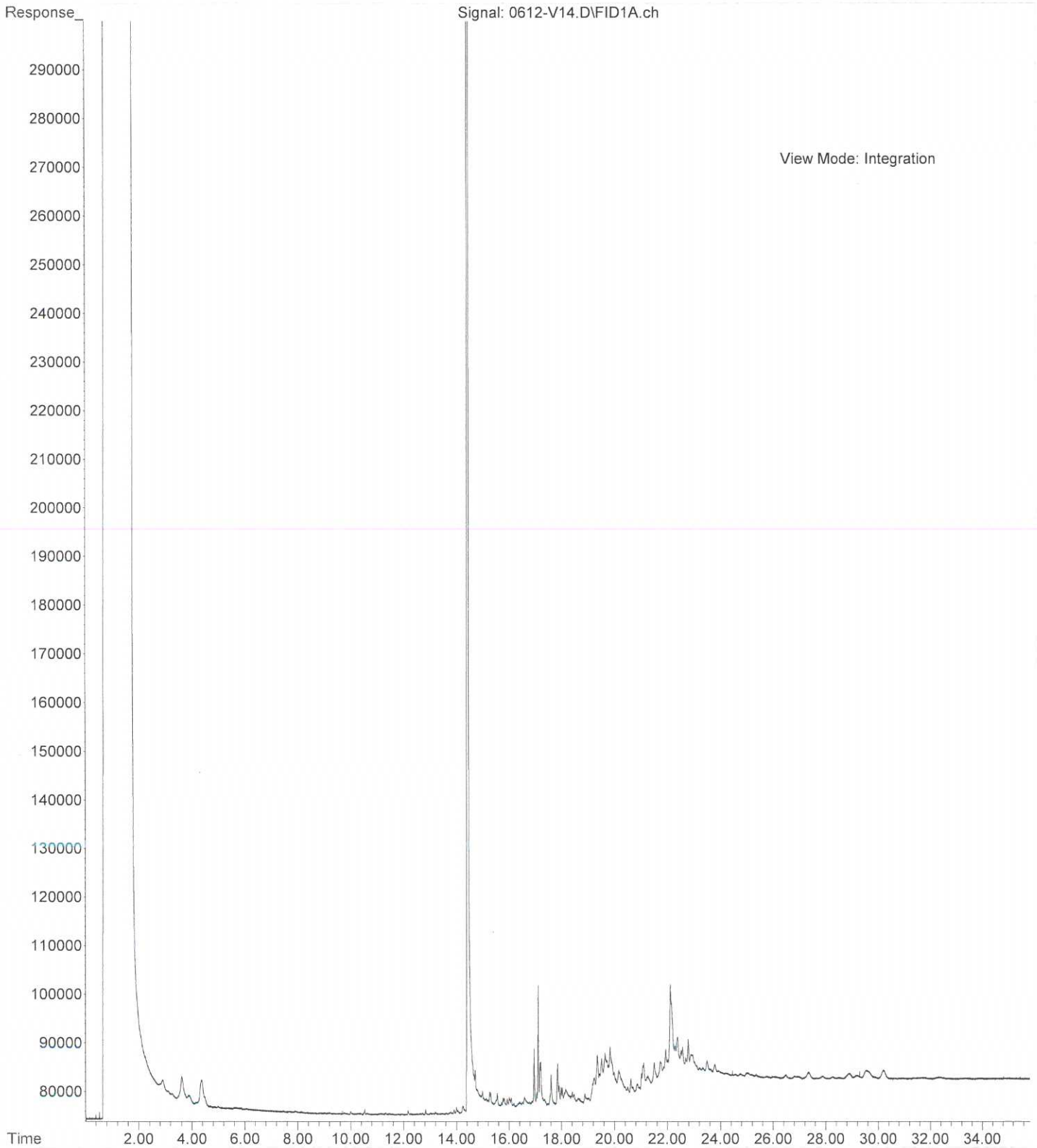
Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☐ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	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		EDD	5 DAY TAT	SAME DAY		% Moisture
1	UST3-N-3.0	6/11/15	1400	S	2				X														X	X			X
2	UST3-S-3.0		1420						X														X	X			
3	UST3-B-7.0		1430						X																X		
4	UST3-FL-2.0		1500						X															X			

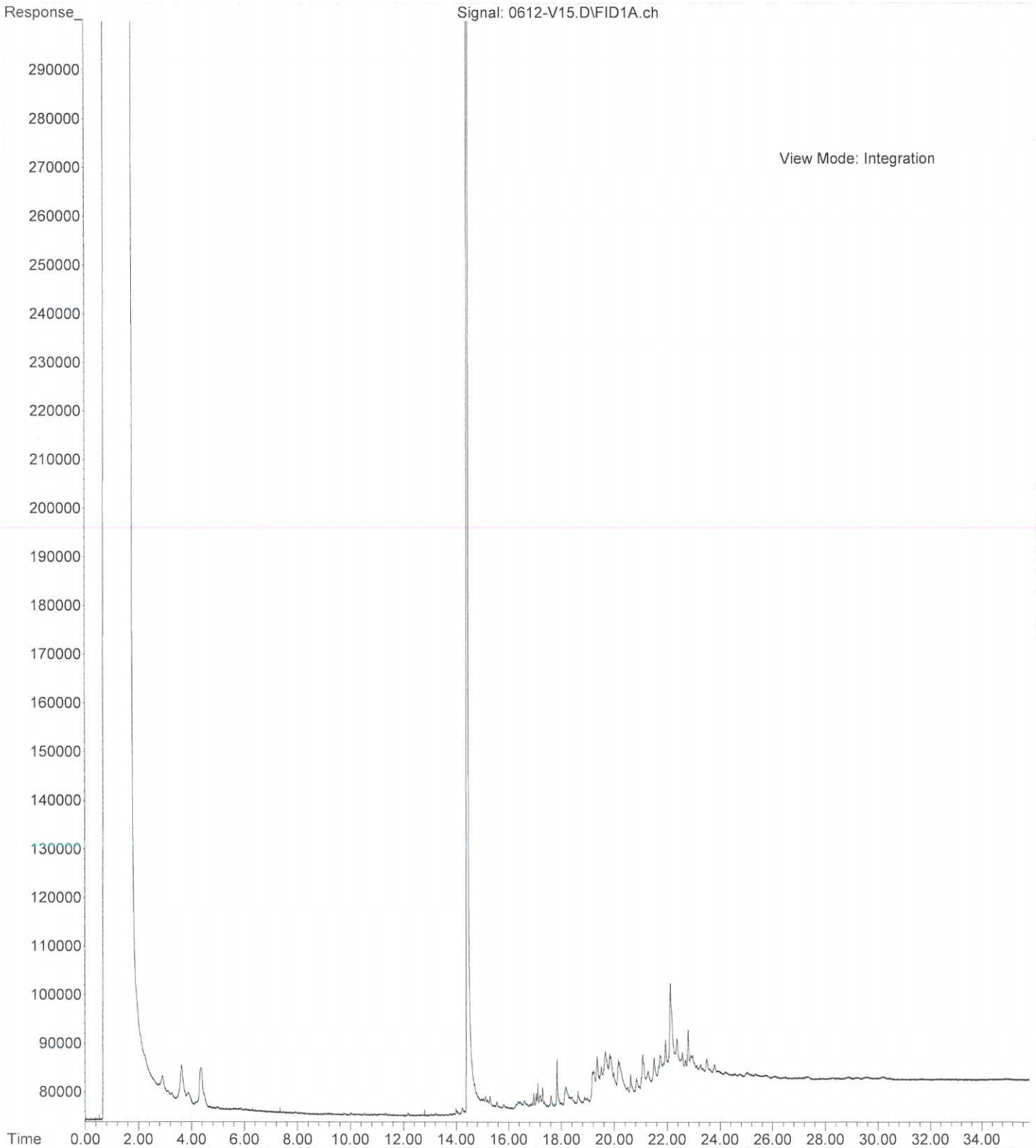
	Signature	Company	Date	Time	Comments/Special Instructions
Relinquished		GE	6/12/15	1050	Same Day for UST2-B-7.0 Sample
Received		GE	6/12/15	1050	AL Changed UST2 to UST3 6/18/15
Relinquished					
Received					
Relinquished					
Received					
Reviewed/Date		Reviewed/Date			Chromatograms with final report ☐

Data Package: Standard ☐ Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ _____

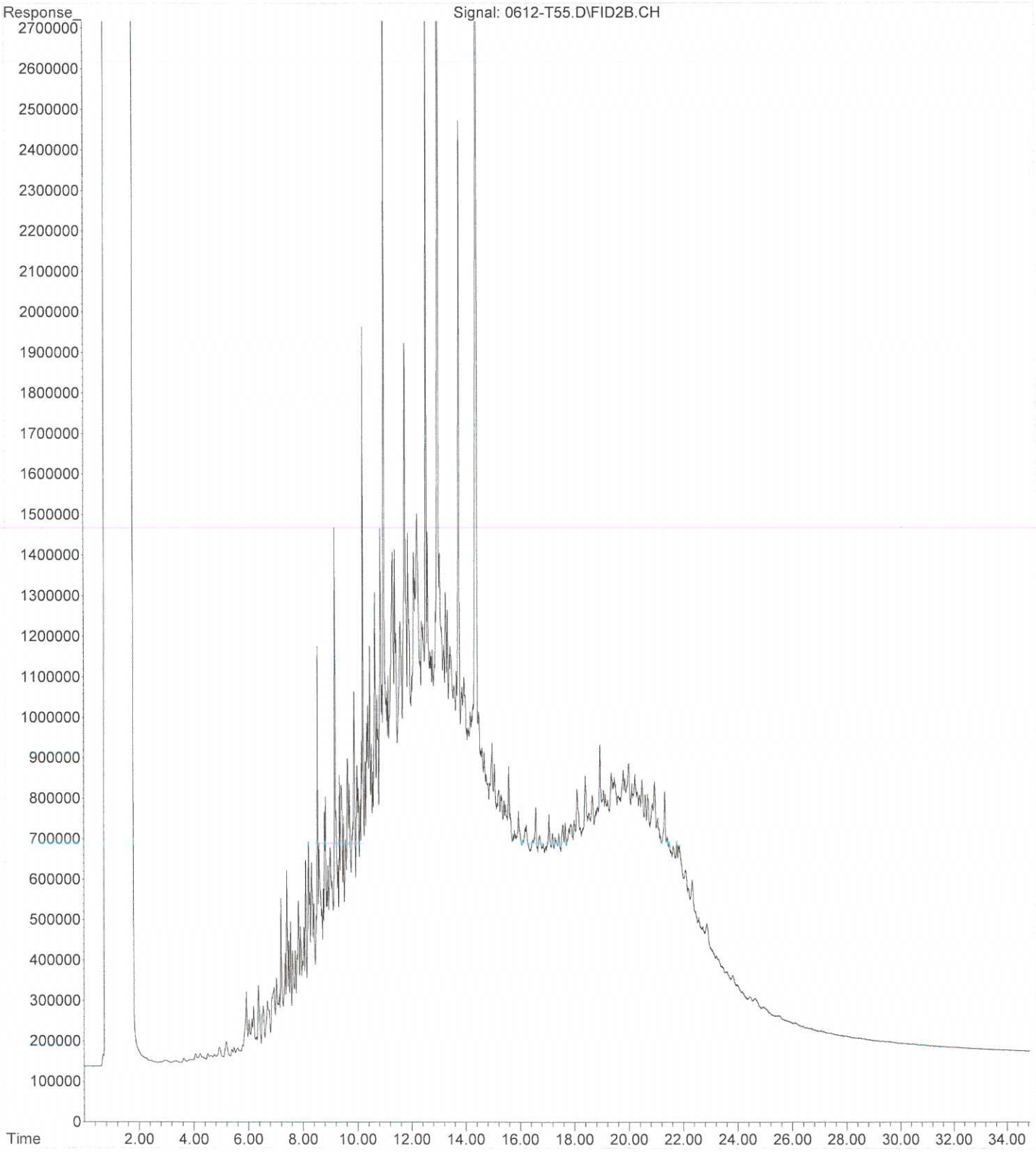
File :X:\DIESELS\VIGO\DATA\V150612\0612-V14.D
Operator :
Acquired : 12 Jun 2015 19:05 using AcqMethod V150209F.M
Instrument : Vigo
Sample Name: 06-134-01
Misc Info :
Vial Number: 14



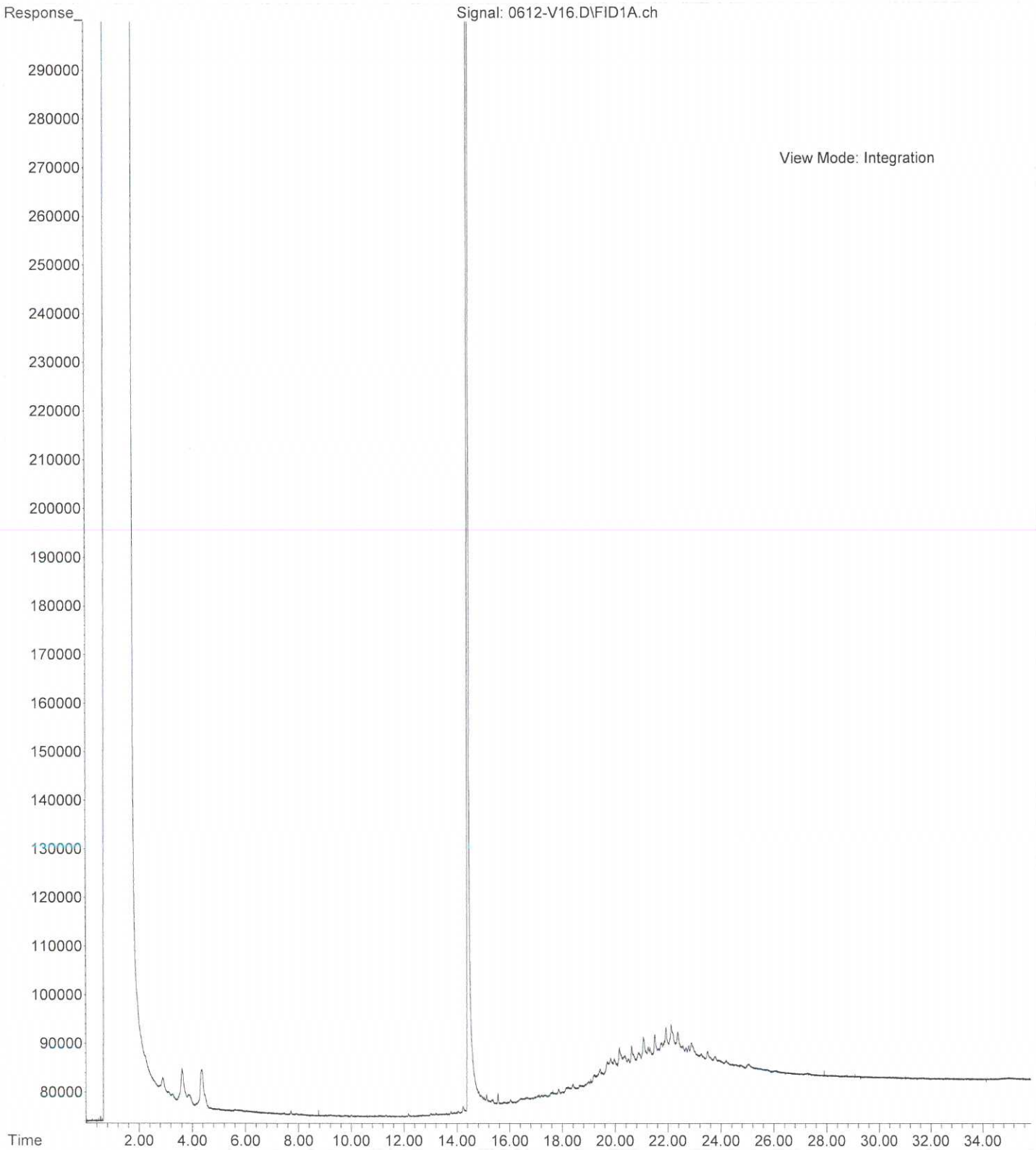
File :X:\DIESELS\VIGO\DATA\V150612\0612-V15.D
Operator :
Acquired : 12 Jun 2015 19:47 using AcqMethod V150209F.M
Instrument : Vigo
Sample Name: 06-134-02
Misc Info :
Vial Number: 15



File :C:\msdchem\1\DATA\T150612.SEC\0612-T55.D
Operator : ZT
Acquired : 12 Jun 2015 12:57 using AcqMethod T150310F.M
Instrument : Teri
Sample Name: 06-134-03
Misc Info :
Vial Number: 55



File :X:\DIESELS\VIGO\DATA\V150612\0612-V16.D
Operator :
Acquired : 12 Jun 2015 20:28 using AcqMethod V150209F.M
Instrument : Vigo
Sample Name: 06-134-04
Misc Info :
Vial Number: 16



OnSite Environmental Inc.

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

August 24, 2015

Fasih Khan
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03
Laboratory Reference No. 1508-198

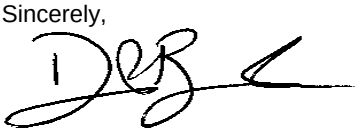
Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on August 19, 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,



David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 24, 2015
Samples Submitted: August 19, 2015
Laboratory Reference: 1508-198
Project: 21138-001-03

Case Narrative

Samples were collected on August 3, 2015 and received by the laboratory on August 3, 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.

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 24, 2015
Samples Submitted: August 19, 2015
Laboratory Reference: 1508-198
Project: 21138-001-03

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
UST3EX-N-10.0	08-198-01	Soil	8-17-15	8-19-15	
UST3EX-S-10.0	08-198-02	Soil	8-17-15	8-19-15	
UST3EX-E-10.0	08-198-03	Soil	8-17-15	8-19-15	
UST3EX-W-10.0	08-198-04	Soil	8-17-15	8-19-15	
UST3EX-B-15.0	08-198-05	Soil	8-17-15	8-19-15	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 24, 2015
Samples Submitted: August 19, 2015
Laboratory Reference: 1508-198
Project: 21138-001-03

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**UST3EX-N-10.0**					
Laboratory ID:	08-198-01					
Diesel Range Organics	**ND**	31	NWTPH-Dx	8-20-15	8-20-15	
Lube Oil Range Organics	**ND**	62	NWTPH-Dx	8-20-15	8-20-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*84*	*50-150*				
Client ID:	**UST3EX-S-10.0**					
Laboratory ID:	08-198-02					
Diesel Range Organics	**ND**	31	NWTPH-Dx	8-20-15	8-20-15	
Lube Oil Range Organics	**ND**	61	NWTPH-Dx	8-20-15	8-20-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*77*	*50-150*				
Client ID:	**UST3EX-E-10.0**					
Laboratory ID:	08-198-03					
Diesel Range Organics	**ND**	33	NWTPH-Dx	8-20-15	8-20-15	
Lube Oil Range Organics	**ND**	67	NWTPH-Dx	8-20-15	8-20-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*73*	*50-150*				
Client ID:	**UST3EX-W-10.0**					
Laboratory ID:	08-198-04					
Diesel Range Organics	**ND**	32	NWTPH-Dx	8-20-15	8-20-15	
Lube Oil Range Organics	**ND**	63	NWTPH-Dx	8-20-15	8-20-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*88*	*50-150*				
Client ID:	**UST3EX-B-15.0**					
Laboratory ID:	08-198-05					
Diesel Range Organics	**ND**	31	NWTPH-Dx	8-20-15	8-20-15	
Lube Oil Range Organics	**ND**	63	NWTPH-Dx	8-20-15	8-20-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*78*	*50-150*				

This report pertains to the samples analyzed in accordance with the chain of custody,
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Date of Report: August 24, 2015
Samples Submitted: August 19, 2015
Laboratory Reference: 1508-198
Project: 21138-001-03

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0820S1					
Diesel Range Organics	**ND**	25	NWTPH-Dx	8-20-15	8-20-15	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	8-20-15	8-20-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*111*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	08-203-04										
	ORIG	DUP									
Diesel Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Lube Oil	**71.9**	**65.6**	NA	NA		NA		NA	9	NA	
Surrogate:											
o-Terphenyl						*101*	*95*	*50-150*			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 24, 2015
Samples Submitted: August 19, 2015
Laboratory Reference: 1508-198
Project: 21138-001-03

% MOISTURE

Date Analyzed: 8-20-15

Client ID	Lab ID	% Moisture
UST3EX-N-10.0	08-198-01	19
UST3EX-S-10.0	08-198-02	19
UST3EX-E-10.0	08-198-03	25
UST3EX-W-10.0	08-198-04	21
UST3EX-B-15.0	08-198-05	20

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

OnSite Environmental Inc.

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-napthalene) 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

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: GEOENGINEERS
Project Number: 21138-001-03
Project Name: 9th & LENORA PROJECT
Project Manager: FASIH KHAN
Sampled by: FASIH KHAN

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☒ 2 Days ☐ 3 Days
☐ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Laboratory Number: 08-198

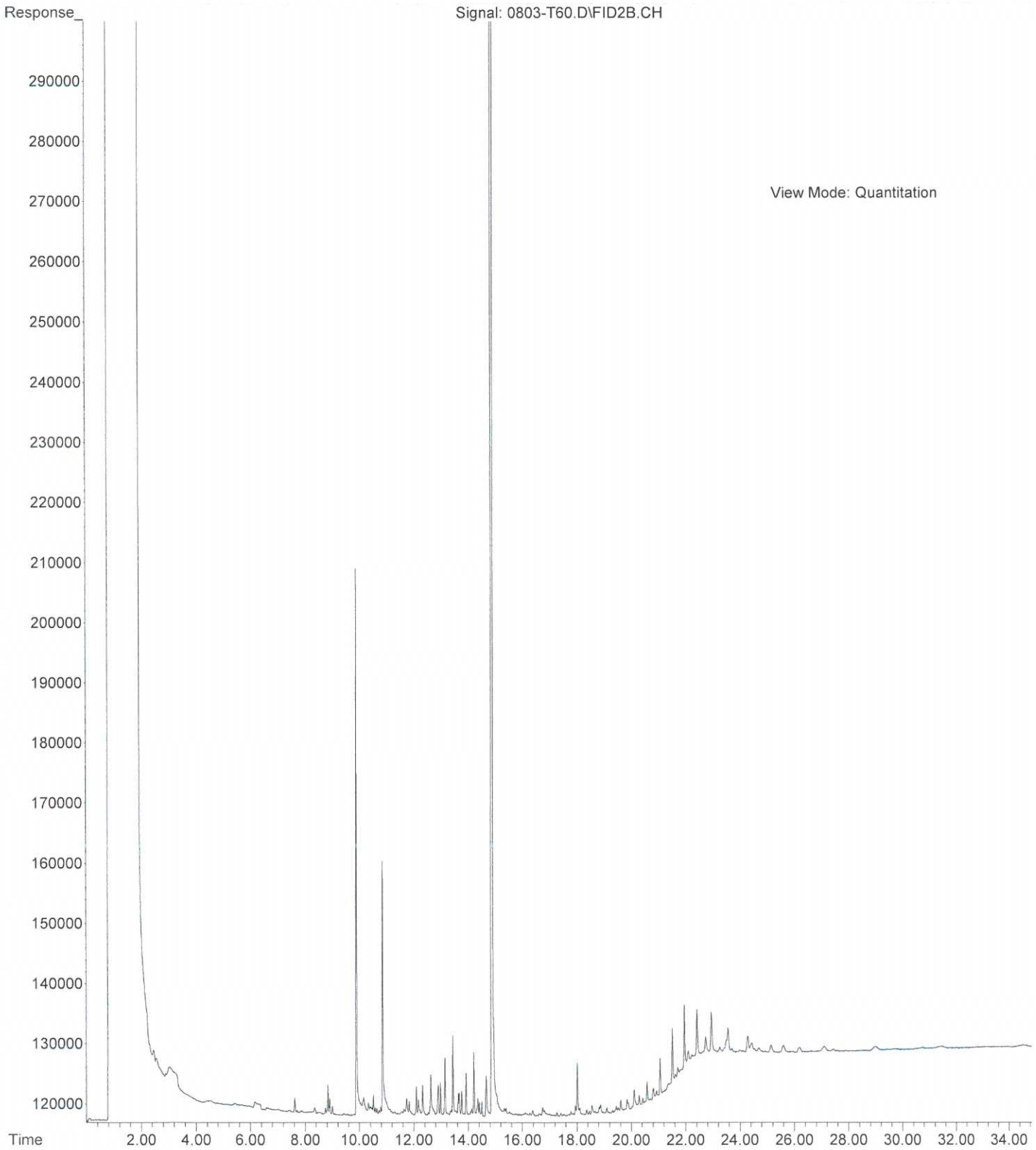
Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A						% Moisture
1	UST3EX-N-X-10.0-D3	8/17/15	0930	S	1				X																		K
2	UST3EX-S-Z-10.0-D3		0950						X																		K
3	UST3EX-E-B-10.0-D3		1130						X																		K
4	UST3EX-W-A-10.0-D3		1245						X																		K
5	UST3EX-B-B-15.0-D1	↓	1350	↓	↓				X																		K

	Signature	Company	Date	Time	Comments/Special Instructions
Relinquished		GED	8/18/15	1605	
Received		CORE	8/18/15	1605	
Relinquished					
Received					
Relinquished					
Received					

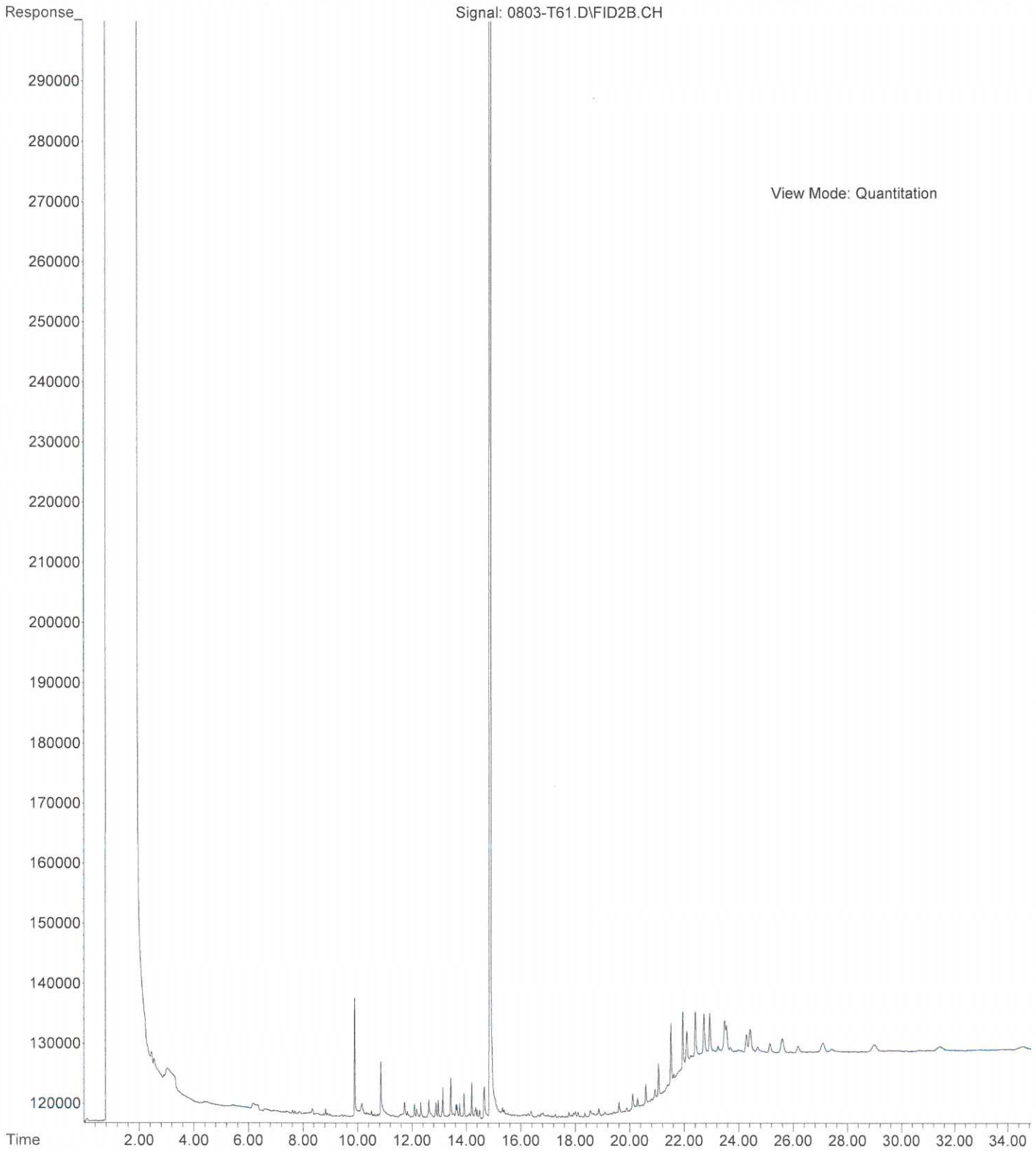
Reviewed/Date | Reviewed/Date | Chromatograms with final report ☐

Data Package: Standard ☐ Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ _____

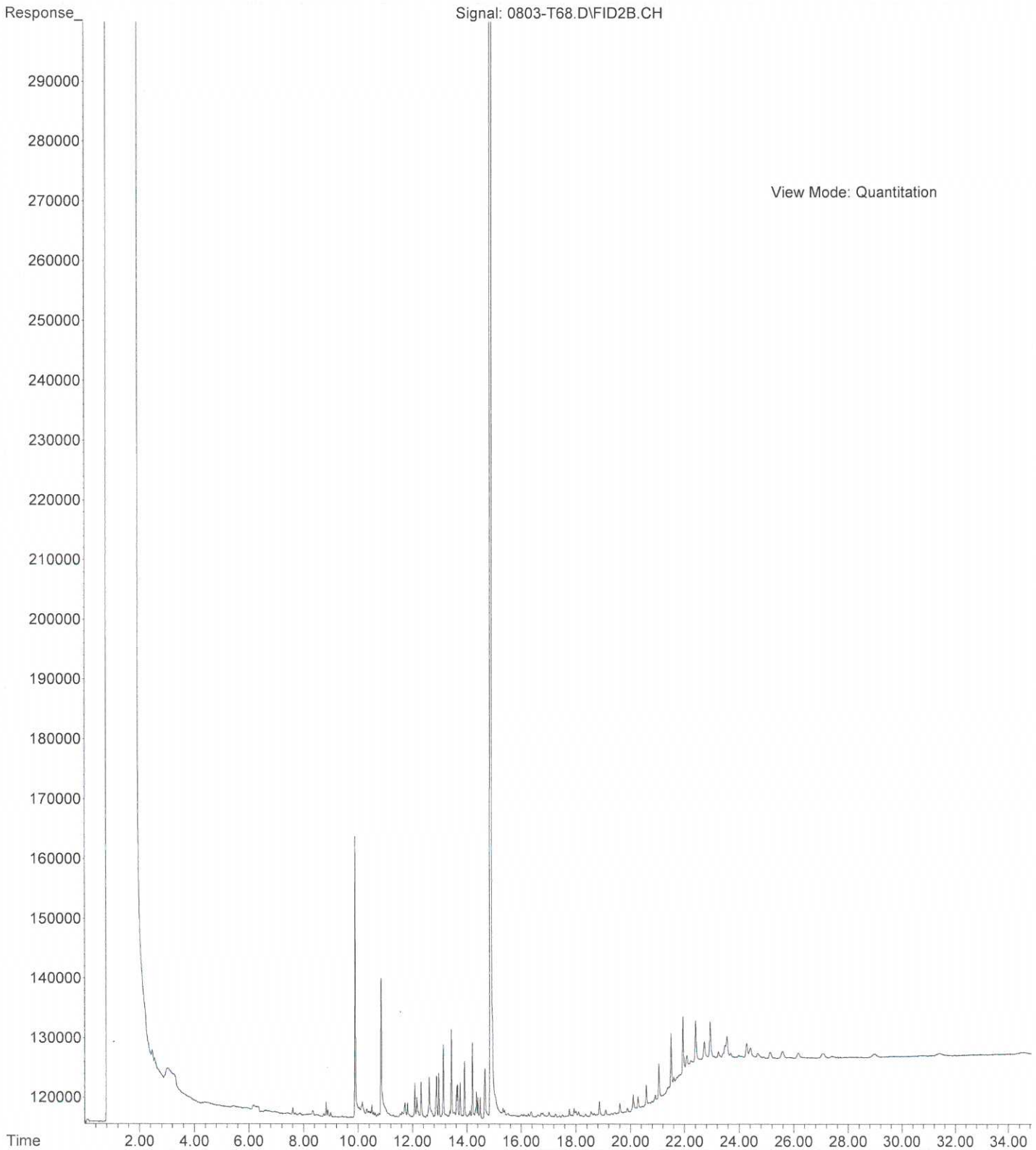
File :X:\DIESELS\TERI\DATA\T150820.SEC\0803-T60.D
Operator : ZT
Acquired : 20 Aug 2015 21:54 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 08-198-01
Misc Info :
Vial Number: 60



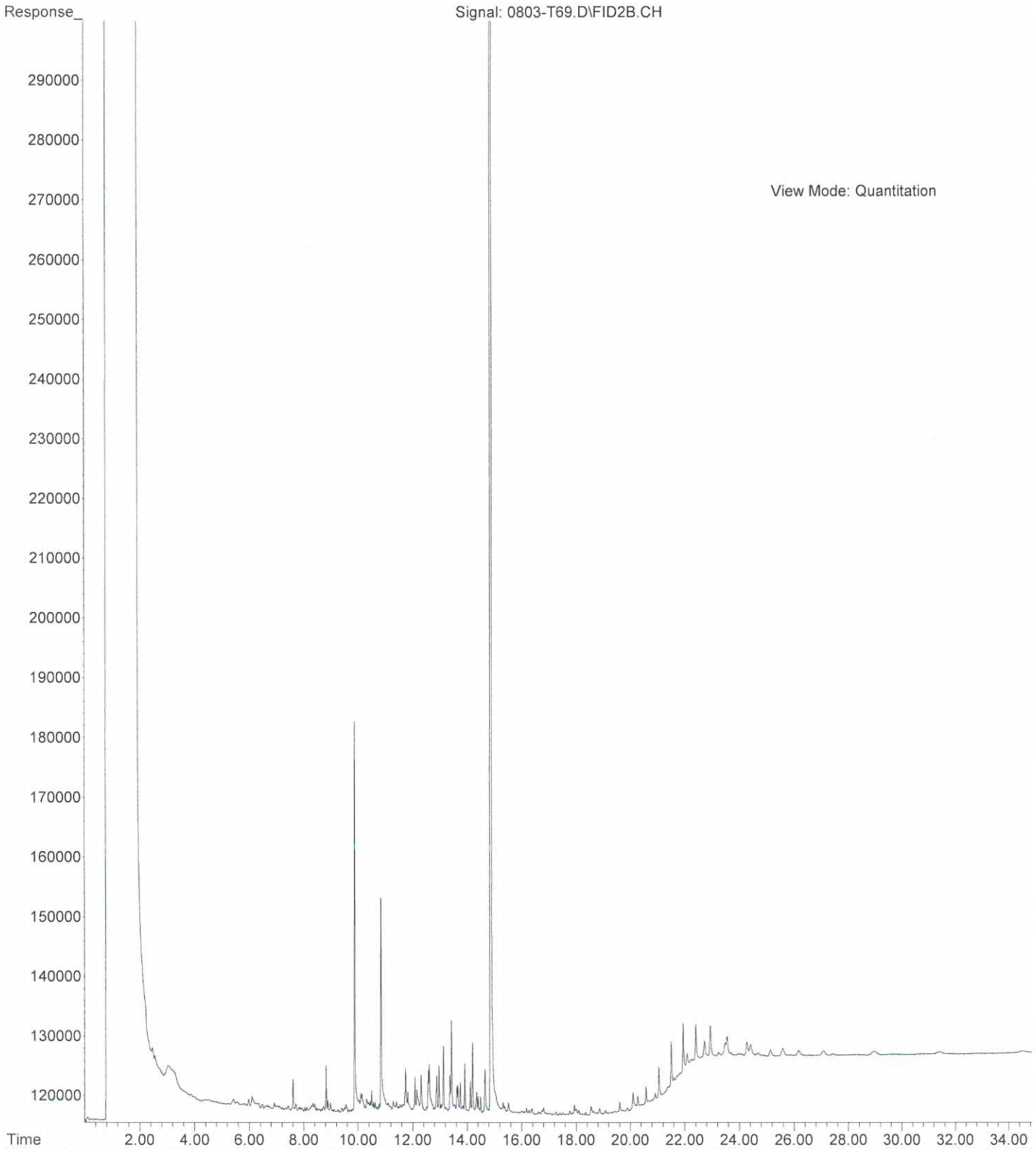
File :X:\DIESELS\TERI\DATA\T150820.SEC\0803-T61.D
Operator : ZT
Acquired : 20 Aug 2015 22:37 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 08-198-02
Misc Info :
Vial Number: 61



File :X:\DIESELS\TERI\DATA\T150820.SEC\0803-T68.D
Operator : ZT
Acquired : 21 Aug 2015 3:40 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 08-198-04
Misc Info :
Vial Number: 68



File :X:\DIESELS\TERI\DATA\T150820.SEC\0803-T69.D
Operator : ZT
Acquired : 21 Aug 2015 4:23 using AcqMethod T150713F.M
Instrument : Teri
Sample Name: 08-198-05
Misc Info :
Vial Number: 69



OnSite Environmental Inc.

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

July 13, 2015

Fasih Khan
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03
Laboratory Reference No. 1507-037

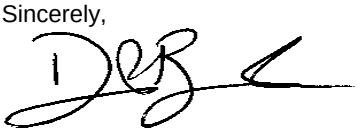
Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on July 7, 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,



David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 13, 2015
Samples Submitted: July 7, 2015
Laboratory Reference: 1507-037
Project: 21138-001-03

Case Narrative

Samples were collected on July 6, 2015 and received by the laboratory on July 7, 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.

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Date of Report: July 13, 2015
Samples Submitted: July 7, 2015
Laboratory Reference: 1507-037
Project: 21138-001-03

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
DUCT-1-8.0	07-037-01	Soil	7-6-15	7-7-15	
DUCT-2-15.0	07-037-02	Soil	7-6-15	7-7-15	
DUCT-3-20.0	07-037-03	Soil	7-6-15	7-7-15	
EX-1-6.0	07-037-04	Soil	7-6-15	7-7-15	

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Date of Report: July 13, 2015
Samples Submitted: July 7, 2015
Laboratory Reference: 1507-037
Project: 21138-001-03

NWTPH-Gx/BTEX

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**DUCT-1-8.0**					
Laboratory ID:	07-037-01					
Benzene	**ND**	0.020	EPA 8021B	7-9-15	7-9-15	
Toluene	**ND**	0.053	EPA 8021B	7-9-15	7-9-15	
Ethyl Benzene	**ND**	0.053	EPA 8021B	7-9-15	7-9-15	
m,p-Xylene	**ND**	0.053	EPA 8021B	7-9-15	7-9-15	
o-Xylene	**ND**	0.053	EPA 8021B	7-9-15	7-9-15	
Gasoline	**ND**	5.3	NWTPH-Gx	7-9-15	7-9-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*98*	*68-123*				
Client ID:	**DUCT-2-15.0**					
Laboratory ID:	07-037-02					
Benzene	**ND**	0.020	EPA 8021B	7-9-15	7-9-15	
Toluene	**ND**	0.063	EPA 8021B	7-9-15	7-9-15	
Ethyl Benzene	**ND**	0.063	EPA 8021B	7-9-15	7-9-15	
m,p-Xylene	**ND**	0.063	EPA 8021B	7-9-15	7-9-15	
o-Xylene	**ND**	0.063	EPA 8021B	7-9-15	7-9-15	
Gasoline	**ND**	6.3	NWTPH-Gx	7-9-15	7-9-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*96*	*68-123*				
Client ID:	**DUCT-3-20.0**					
Laboratory ID:	07-037-03					
Benzene	**ND**	0.020	EPA 8021B	7-9-15	7-9-15	
Toluene	**ND**	0.065	EPA 8021B	7-9-15	7-9-15	
Ethyl Benzene	**ND**	0.065	EPA 8021B	7-9-15	7-9-15	
m,p-Xylene	**ND**	0.065	EPA 8021B	7-9-15	7-9-15	
o-Xylene	**ND**	0.065	EPA 8021B	7-9-15	7-9-15	
Gasoline	**ND**	6.5	NWTPH-Gx	7-9-15	7-9-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*97*	*68-123*				

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Date of Report: July 13, 2015
Samples Submitted: July 7, 2015
Laboratory Reference: 1507-037
Project: 21138-001-03

NWTPH-Gx/BTEX

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**EX-1-6.0**					
Laboratory ID:	07-037-04					
Benzene	**ND**	0.020	EPA 8021B	7-9-15	7-9-15	
Toluene	**ND**	0.051	EPA 8021B	7-9-15	7-9-15	
Ethyl Benzene	**ND**	0.051	EPA 8021B	7-9-15	7-9-15	
m,p-Xylene	**ND**	0.051	EPA 8021B	7-9-15	7-9-15	
o-Xylene	**ND**	0.051	EPA 8021B	7-9-15	7-9-15	
Gasoline	**ND**	5.1	NWTPH-Gx	7-9-15	7-9-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*97*	*68-123*				

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Date of Report: July 13, 2015
Samples Submitted: July 7, 2015
Laboratory Reference: 1507-037
Project: 21138-001-03

NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**DUCT-1-8.0**					
Laboratory ID:	07-037-01					
Diesel Range Organics	**ND**	27	NWTPH-Dx	7-9-15	7-9-15	
Lube Oil Range Organics	**ND**	54	NWTPH-Dx	7-9-15	7-9-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*80*	*50-150*				
Client ID:	**DUCT-2-15.0**					
Laboratory ID:	07-037-02					
Diesel Range Organics	**ND**	28	NWTPH-Dx	7-9-15	7-9-15	
Lube Oil Range Organics	**ND**	56	NWTPH-Dx	7-9-15	7-9-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*91*	*50-150*				
Client ID:	**DUCT-3-20.0**					
Laboratory ID:	07-037-03					
Diesel Range Organics	**ND**	27	NWTPH-Dx	7-9-15	7-9-15	
Lube Oil Range Organics	**ND**	53	NWTPH-Dx	7-9-15	7-9-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*84*	*50-150*				

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Date of Report: July 13, 2015
Samples Submitted: July 7, 2015
Laboratory Reference: 1507-037
Project: 21138-001-03

NWTPH-Gx/BTEX
QUALITY CONTROL

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0709S2					
Benzene	**ND**	0.020	EPA 8021B	7-9-15	7-9-15	
Toluene	**ND**	0.050	EPA 8021B	7-9-15	7-9-15	
Ethyl Benzene	**ND**	0.050	EPA 8021B	7-9-15	7-9-15	
m,p-Xylene	**ND**	0.050	EPA 8021B	7-9-15	7-9-15	
o-Xylene	**ND**	0.050	EPA 8021B	7-9-15	7-9-15	
Gasoline	**ND**	5.0	NWTPH-Gx	7-9-15	7-9-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*95*	*68-123*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	07-037-01										
	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						*98*	*93*	*68-123*			
SPIKE BLANKS											
Laboratory ID:	SB0709S1										
	SB	SBD	SB	SBD		SB	SBD				
Benzene	**0.983**	**1.02**	1.00	1.00		**98**	**102**	75-117	4	13	
Toluene	**0.945**	**0.993**	1.00	1.00		**95**	**99**	78-118	5	12	
Ethyl Benzene	**0.946**	**0.978**	1.00	1.00		**95**	**98**	78-118	3	12	
m,p-Xylene	**0.945**	**0.985**	1.00	1.00		**95**	**99**	78-121	4	13	
o-Xylene	**0.945**	**0.974**	1.00	1.00		**95**	**97**	77-119	3	13	
Surrogate:											
Fluorobenzene						*90*	*94*	*68-123*			

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Date of Report: July 13, 2015
Samples Submitted: July 7, 2015
Laboratory Reference: 1507-037
Project: 21138-001-03

NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0709S1					
Diesel Range Organics	**ND**	25	NWTPH-Dx	7-9-15	7-10-15	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	7-9-15	7-10-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*83*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE										
Laboratory ID:	07-037-01									
	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						*80* *90*	*50-150*			

This report pertains to the samples analyzed in accordance with the chain of custody,
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Date of Report: July 13, 2015
Samples Submitted: July 7, 2015
Laboratory Reference: 1507-037
Project: 21138-001-03

% MOISTURE

Date Analyzed: 7-9-15

Client ID	Lab ID	% Moisture
DUCT-1-8.0	07-037-01	7
DUCT-2-15.0	07-037-02	10
DUCT-3-20.0	07-037-03	6
EX-1-6.0	07-037-04	4

This report pertains to the samples analyzed in accordance with the chain of custody,
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OnSite Environmental Inc.

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-napthalene) 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

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Laboratory Number: 07-037

Company: GEOENGINEERS
Project Number: 21138-001-03
Project Name: 9th AND LENORA PROJECT
Project Manager: FASIH KHAN
Sampled by: FASIH KHAN

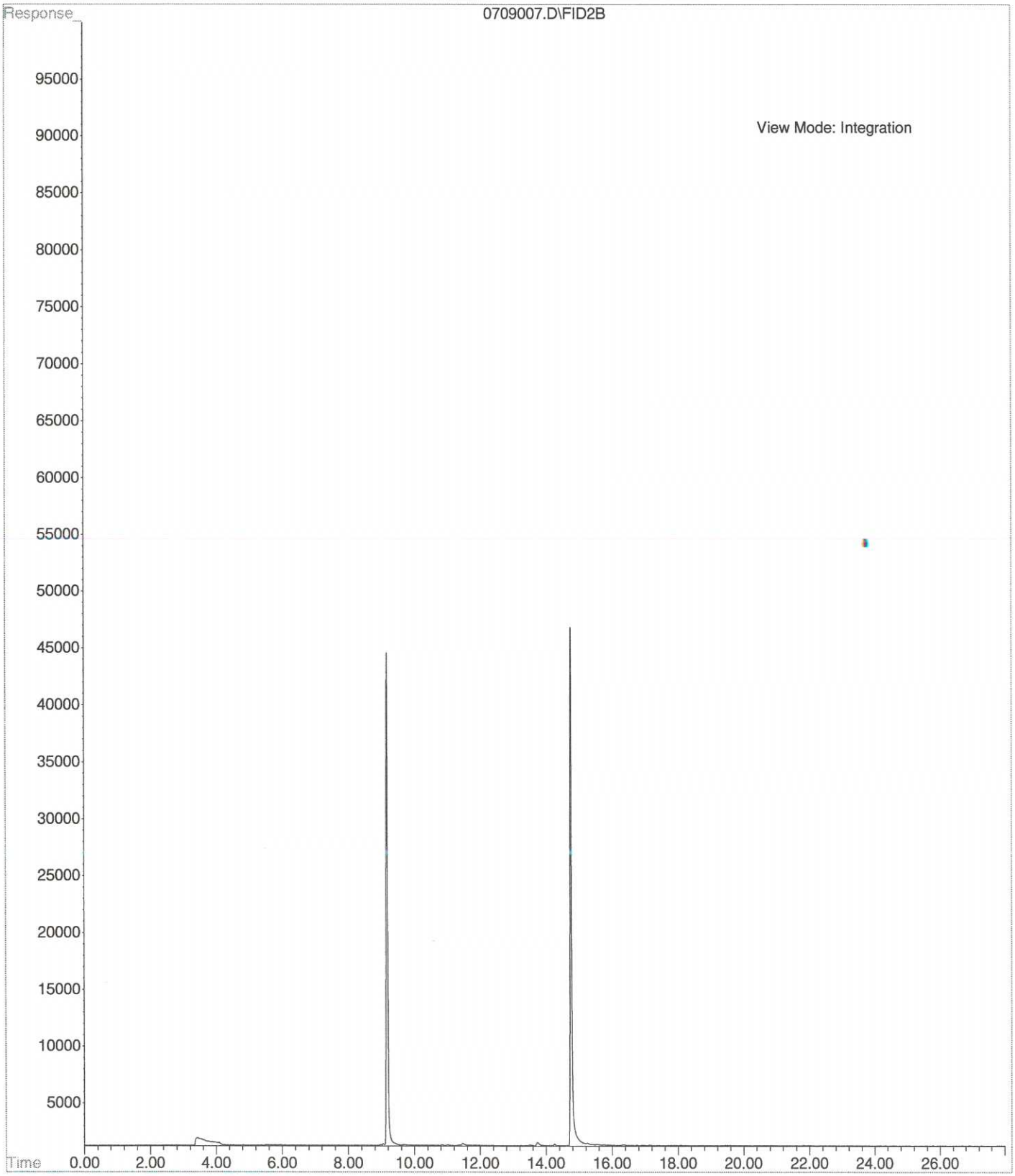
Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☒ 3 Days
☒ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	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
1	DUCT-1-8.0	7/6/15	0830	S	2		X		X													X
2	DUCT-2-15.0		0900				X		X													
3	DUCT-3-20.0		1130				X		X													
4	EX-1-6.0		1135				X															

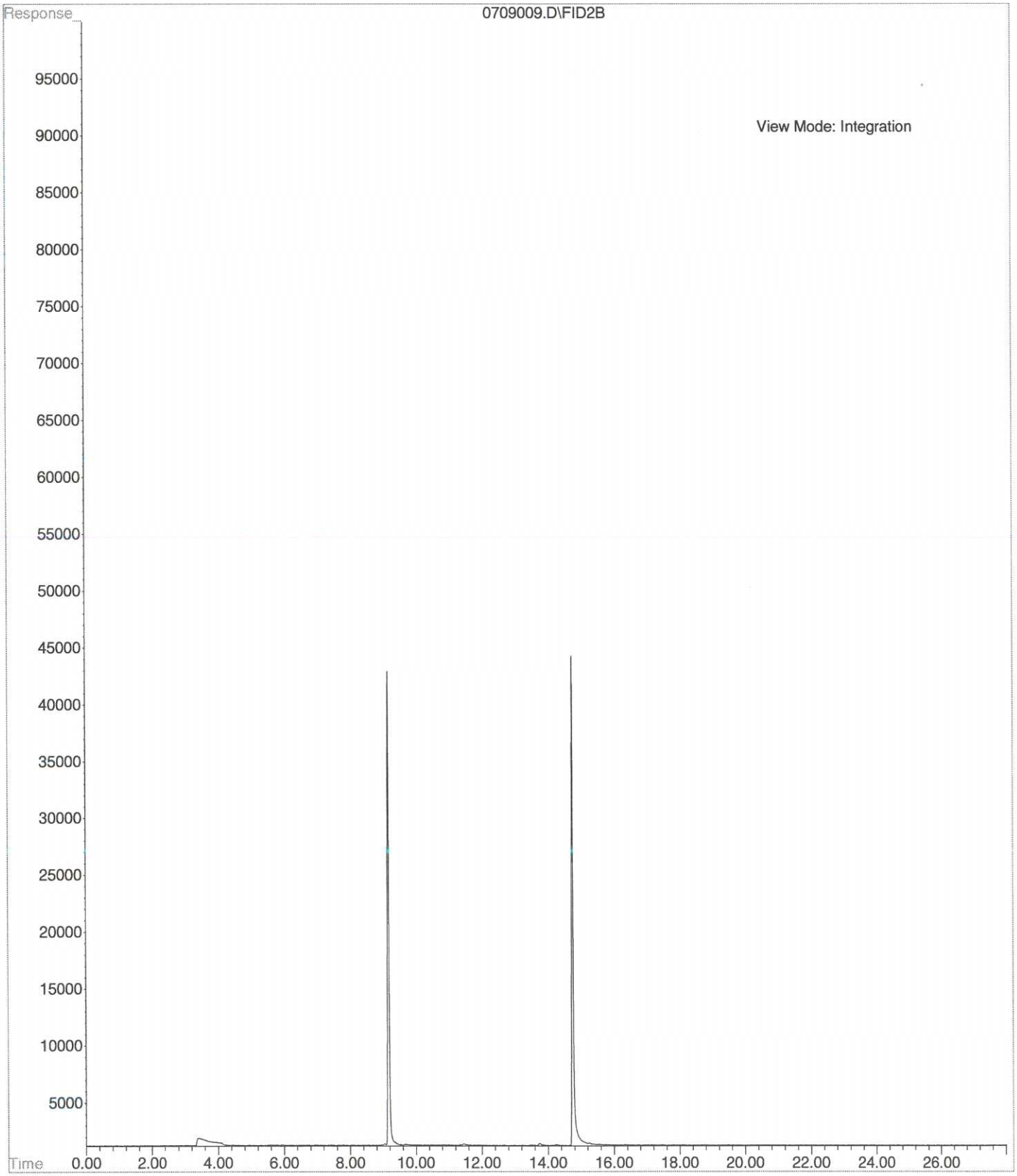
	Signature	Company	Date	Time	Comments/Special Instructions
Relinquished		GEI	7/7/15	0830	
Received			7/7/15	0830	
Relinquished					
Received					
Relinquished					
Received					
Reviewed/Date		Reviewed/Date			Chromatograms with final report ☐

Data Package: Standard ☐ Level III ☐ Level IV ☐ Electronic Data Deliverables (EDDs) ☐ _____

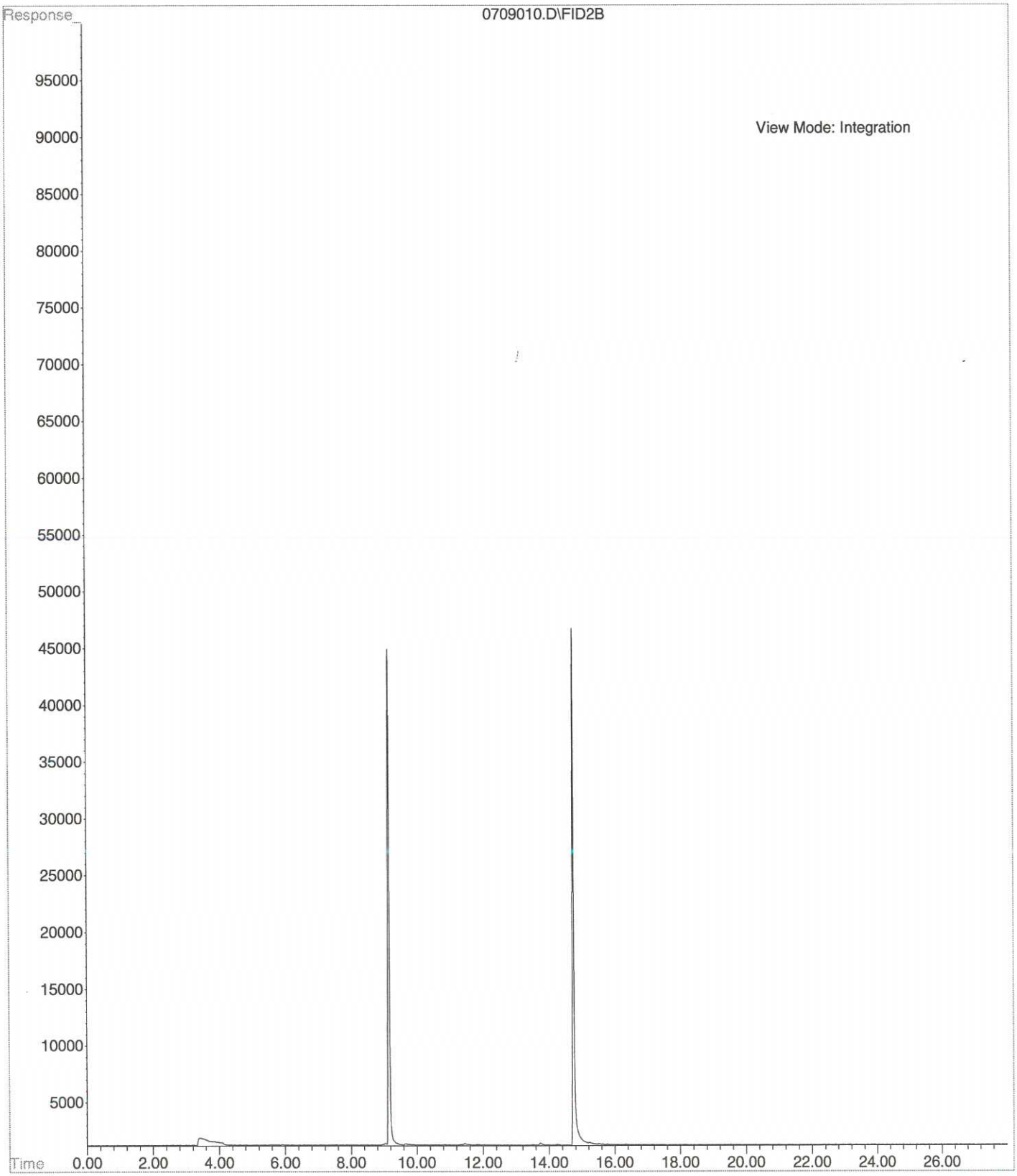
File : X:\BTEX\HOPE\DATA\H150709\0709007.D
Operator :
Acquired : 9 Jul 2015 20:15 using AcqMethod 150701B.M
Instrument : Hope
Sample Name: 07-037-01s
Misc Info : V2-37-21
Vial Number: 7



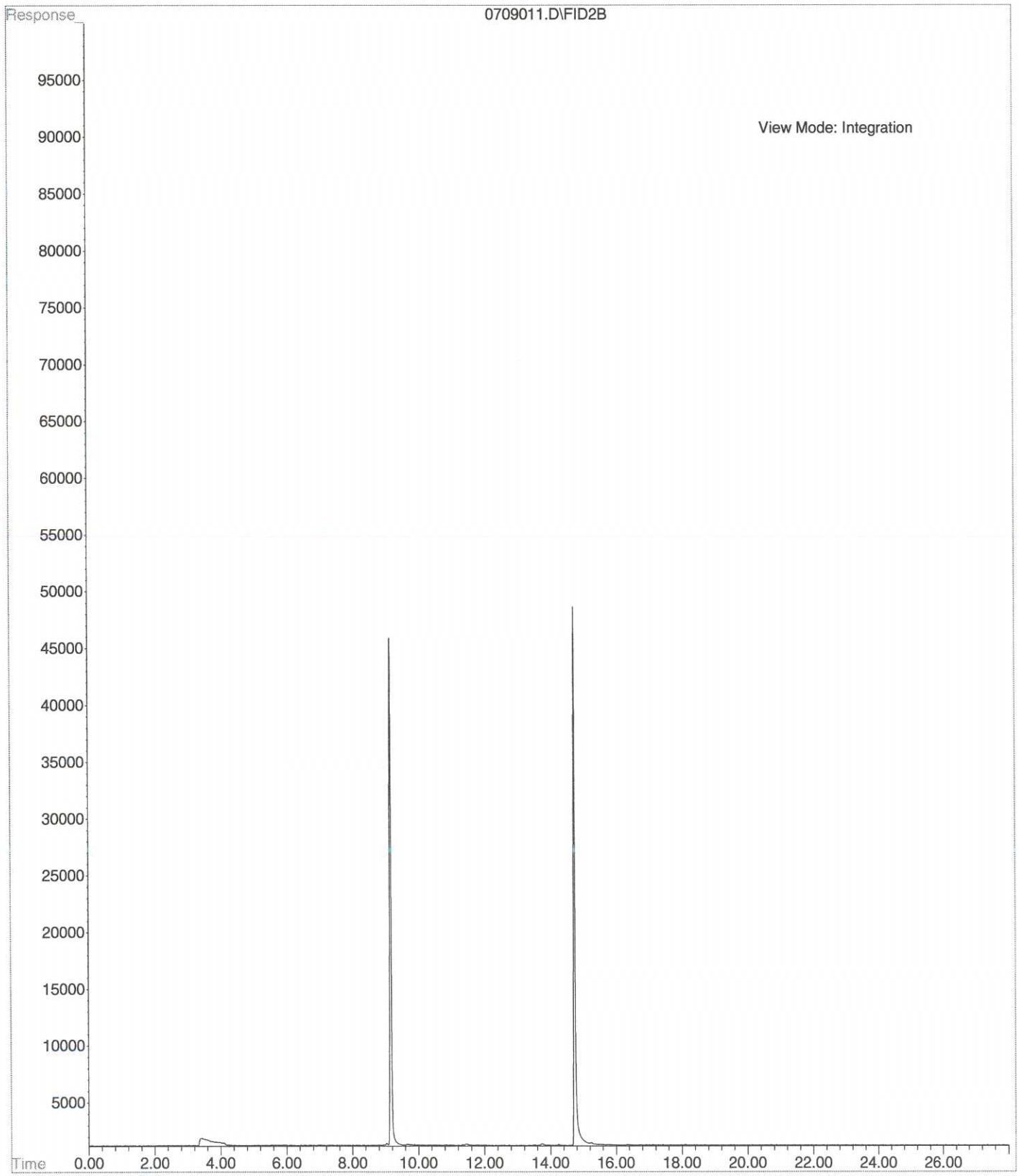
File : X:\BTEX\HOPE\DATA\H150709\0709009.D
Operator :
Acquired : 9 Jul 2015 21:25 using AcqMethod 150701B.M
Instrument : Hope
Sample Name: 07-037-02s
Misc Info : V2-37-21
Vial Number: 9



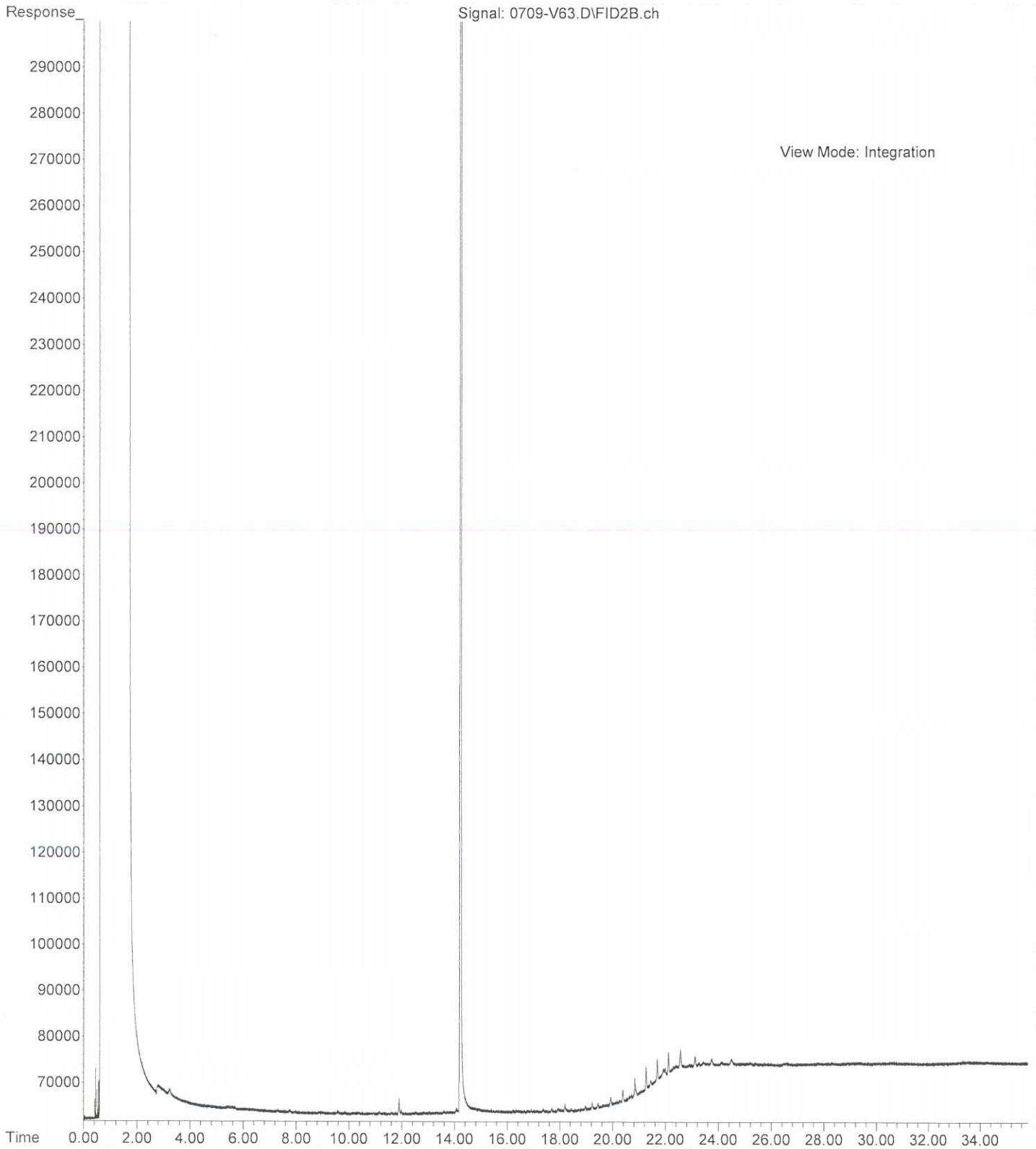
File : X:\BTEX\HOPE\DATA\H150709\0709010.D
Operator :
Acquired : 9 Jul 2015 21:59 using AcqMethod 150701B.M
Instrument : Hope
Sample Name: 07-037-03s
Misc Info : V2-37-21
Vial Number: 10



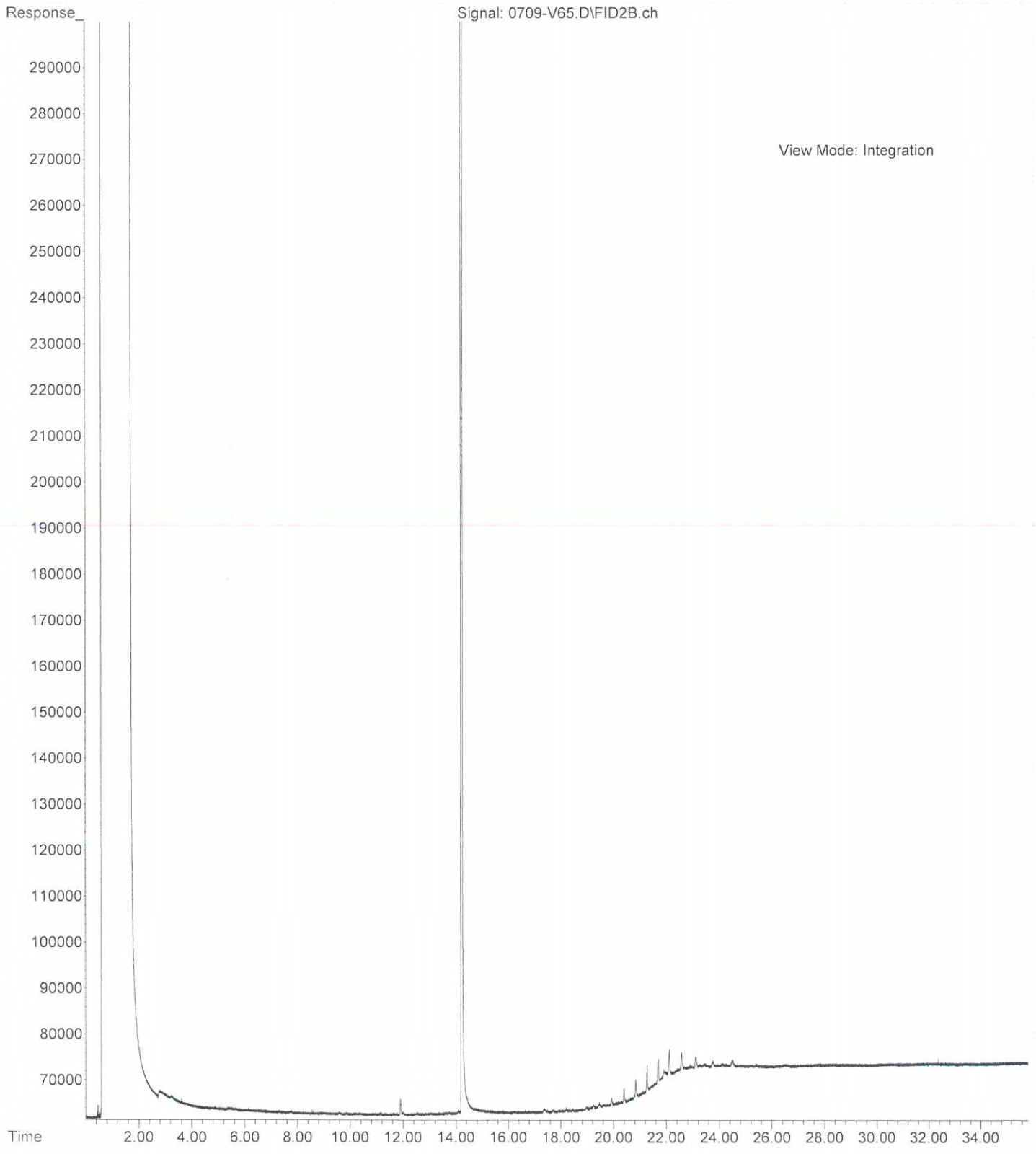
File : X:\BTEX\HOPE\DATA\H150709\0709011.D
Operator :
Acquired : 9 Jul 2015 22:34 using AcqMethod 150701B.M
Instrument : Hope
Sample Name: 07-037-04s
Misc Info : V2-37-21
Vial Number: 11



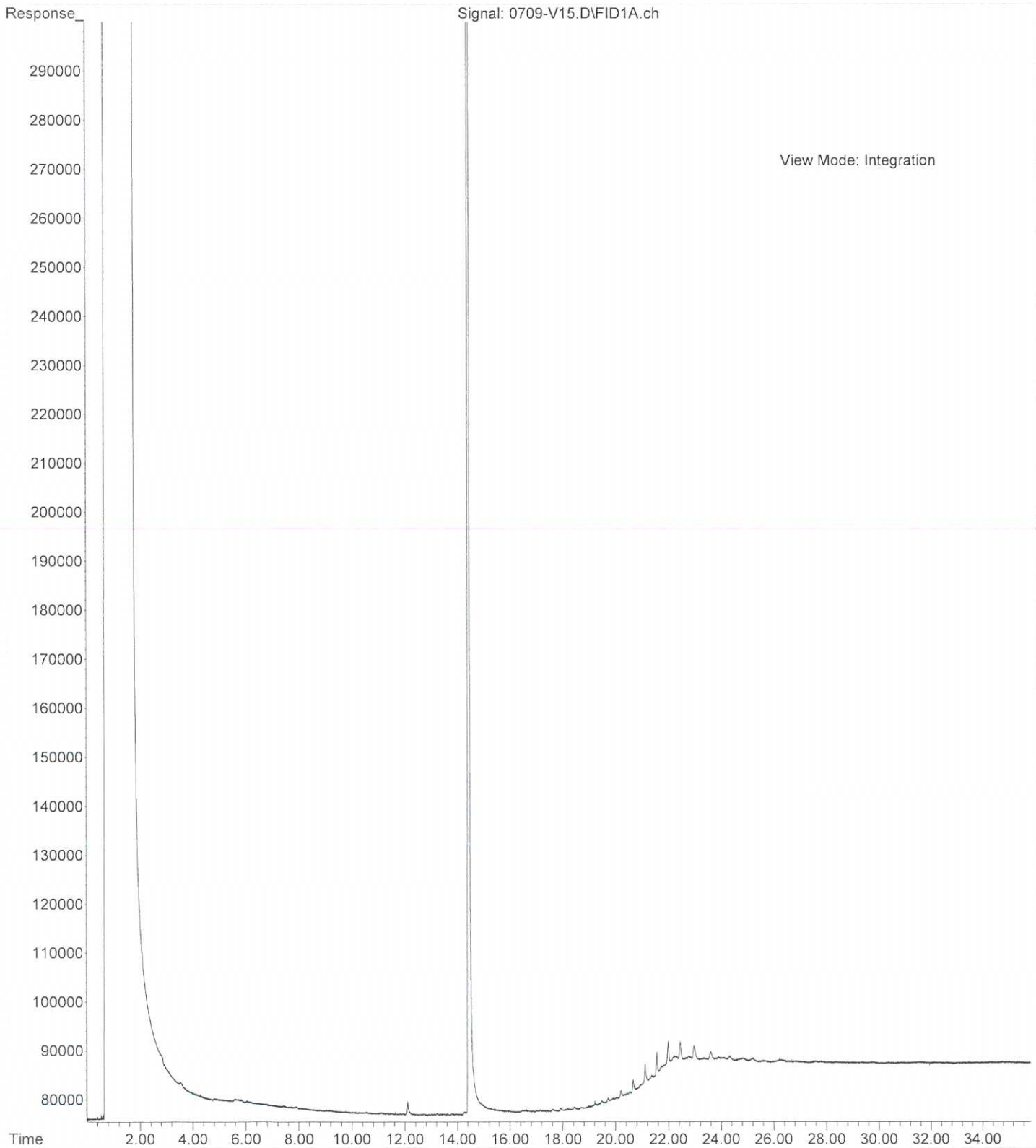
File :X:\DIESELS\VIGO\DATA\V150709.SEC\0709-V63.D
Operator :
Acquired : 9 Jul 2015 19:05 using AcqMethod V150209F.M
Instrument : Vigo
Sample Name: 07-037-01
Misc Info :
Vial Number: 63



File :X:\DIESELS\VIGO\DATA\V150709.SEC\0709-V65.D
Operator :
Acquired : 9 Jul 2015 20:28 using AcqMethod V150209F.M
Instrument : Vigo
Sample Name: 07-037-02
Misc Info :
Vial Number: 65



File :X:\DIESELS\VIGO\DATA\V150709\0709-V15.D
Operator :
Acquired : 9 Jul 2015 20:28 using AcqMethod V150209F.M
Instrument : Vigo
Sample Name: 07-037-03
Misc Info :
Vial Number: 15



OnSite Environmental Inc.

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

July 24, 2015

Fasih Khan
GeoEngineers, Inc.
600 Stewart, Suite 1700
Seattle, WA 98101-1233

Re: Analytical Data for Project 21138-001-03
Laboratory Reference No. 1507-147

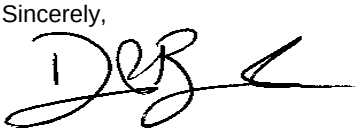
Dear Fasih:

Enclosed are the analytical results and associated quality control data for samples submitted on July 17, 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,



David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 24, 2015
Samples Submitted: July 17, 2015
Laboratory Reference: 1507-147
Project: 21138-001-03

Case Narrative

Samples were collected on July 17, 2015 and received by the laboratory on July 17, 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.

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 24, 2015
Samples Submitted: July 17, 2015
Laboratory Reference: 1507-147
Project: 21138-001-03

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
G-1-W-071715	07-147-01	Water	7-17-15	7-17-15	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 24, 2015
Samples Submitted: July 17, 2015
Laboratory Reference: 1507-147
Project: 21138-001-03

NWTPH-Gx/BTEX

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**G-1-W-071715**					
Laboratory ID:	07-147-01					
Benzene	**ND**	1.0	EPA 8021B	7-20-15	7-20-15	
Toluene	**ND**	1.0	EPA 8021B	7-20-15	7-20-15	
Ethyl Benzene	**ND**	1.0	EPA 8021B	7-20-15	7-20-15	
m,p-Xylene	**ND**	1.0	EPA 8021B	7-20-15	7-20-15	
o-Xylene	**ND**	1.0	EPA 8021B	7-20-15	7-20-15	
Gasoline	**ND**	100	NWTPH-Gx	7-20-15	7-20-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*95*	*71-113*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 24, 2015
Samples Submitted: July 17, 2015
Laboratory Reference: 1507-147
Project: 21138-001-03

NWTPH-Dx

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**G-1-W-071715**					
Laboratory ID:	07-147-01					
Diesel Range Organics	**ND**	0.26	NWTPH-Dx	7-22-15	7-22-15	
Lube Oil Range Organics	**ND**	0.41	NWTPH-Dx	7-22-15	7-22-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*85*	*50-150*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 24, 2015
Samples Submitted: July 17, 2015
Laboratory Reference: 1507-147
Project: 21138-001-03

NWTPH-Gx/BTEX
QUALITY CONTROL

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0720W1					
Benzene	**ND**	1.0	EPA 8021B	7-20-15	7-20-15	
Toluene	**ND**	1.0	EPA 8021B	7-20-15	7-20-15	
Ethyl Benzene	**ND**	1.0	EPA 8021B	7-20-15	7-20-15	
m,p-Xylene	**ND**	1.0	EPA 8021B	7-20-15	7-20-15	
o-Xylene	**ND**	1.0	EPA 8021B	7-20-15	7-20-15	
Gasoline	**ND**	100	NWTPH-Gx	7-20-15	7-20-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*100*	*71-113*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	07-147-01										
	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						*95*	*89*	*71-113*			
MATRIX SPIKES											
Laboratory ID:	07-147-01										
	MS	MSD	MS	MSD		MS	MSD				
Benzene	**55.5**	**55.8**	50.0	50.0	ND	**111**	**112**	82-120	1	14	
Toluene	**53.9**	**54.2**	50.0	50.0	ND	**108**	**108**	83-120	1	14	
Ethyl Benzene	**53.9**	**54.0**	50.0	50.0	ND	**108**	**108**	83-120	0	15	
m,p-Xylene	**53.5**	**54.1**	50.0	50.0	ND	**107**	**108**	81-123	1	15	
o-Xylene	**53.1**	**53.3**	50.0	50.0	ND	**106**	**107**	80-120	0	16	
Surrogate:											
Fluorobenzene						*97*	*96*	*71-113*			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 24, 2015
Samples Submitted: July 17, 2015
Laboratory Reference: 1507-147
Project: 21138-001-03

NWTPH-Dx
QUALITY CONTROL

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0722W1					
Diesel Range Organics	**ND**	0.25	NWTPH-Dx	7-22-15	7-22-15	
Lube Oil Range Organics	**ND**	0.40	NWTPH-Dx	7-22-15	7-22-15	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*86*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	07-141-02										
	ORIG	DUP									
Diesel Range Organics	**1.55**	**1.34**	NA	NA		NA		NA	15	NA	M
Lube Oil Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Surrogate:											
o-Terphenyl						*87*	*82*	*50-150*			

This report pertains to the samples analyzed in accordance with the chain of custody,
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OnSite Environmental Inc.

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-napthalene) 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

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Chain of Custody

Page 1 of 1

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Laboratory Number: 07-147

Company: GEOENGINEERS
Project Number: 21138-001-03
Project Name: 9th & LENORA
Project Manager: FASIH KHAN
Sampled by: FASIH KHAN

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☒ Standard (7 Days) (TPH analysis 5 Days)
☐ _____ (other)

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	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
1	~~GE1~~ D3 G-1 - W - 071715	7/17/15	1510	W	5		X		X																		

	Signature	Company	Date	Time
Relinquished		GET	7/17/15	1605
Received		OnSite Env	7/17/15	1605
Relinquished				
Received				
Relinquished				
Received				

Comments/Special Instructions

Reviewed/Date

Reviewed/Date

Chromatograms with final report ☐

Data Package: Standard ☐ Level III ☐ Level IV ☐

Electronic Data Deliverables (EDDs) ☐ _____

APPENDIX D

Remedial Alternative Scenarios – Cost Estimates, dated December 16, 2015

Table D-1

Cost Estimate - Remedial Alternative 1

Feasibility Study

Ninth Avenue and Lenora Street

Seattle, Washington

ITEM NO.	DESCRIPTION	PLAN QUANTITY	UNIT	UNIT PRICE[1]	COST	NOTE
Design, Permitting, and Administrative Costs						
1	Design and Permitting	1	LS	$0.00	$0	None for Capping
2	Institutional/Engineering Controls	1	LS	$60,000.00	$60,000	Alternative designed to require institutional controls.
				Subtotal	**$60,000**	
Pre-construction Total						
	Total Design, Permitting, and Administrative Costs				$60,000	
	Contingency (Concept design level)	10.0%	%		$6,000	
				Total	**$66,000**	
Construction Total						
	Contractor Overhead (Based on total of construction tasks)	10.00%	%		$0	
	Sales Tax (applied to sum of construction items and construction overhead)	9.8%	%		$0	
	Total Purchase and Installation Subtotal				$0	
	Construction Management and Field Monitoring	10.0%	%		$0	
	Contingency (Concept design level)	20.0%	%		$0	
				Total	**$0**	
Overall Project Total Costs					**$70,000**	

Notes:

[1] Cost Estimates based on 2015 unit prices.

Table D-2

Cost Estimate - Remedial Alternative 2

Feasibility Study

Ninth Avenue and Lenora Street

Seattle, Washington

ITEM NO.	DESCRIPTION	PLAN QUANTITY	UNIT	UNIT PRICE[1]	COST	NOTE
Design, Permitting, and Administrative Costs						
1	Design and Permitting	1	LS	$150,000.00	$150,000	Prepare design, contracting documents, permit applications. Includes contracting and design services to relocated and replace utilities that may be relocated during excavation. Permit reviews with city permit agencies for utility work, shoring and grading. Does not include design or permitting of demolition and reconstruction of structure requiring removal to access contaminated soil.
				Subtotal	**$150,000**	
Mobilization and Site Preparation						
1	Mobilization/Site Controls/Demobilization	1	LS	$50,000.00	$10,000	
2	Erosion control	1	LS	$15,000.00	$5,000	
				Subtotal	**$15,000**	
Soil Removal, Disposal, and Backfill						
3	Characterization of lateral and vertical extents of petroelum plume	1	LS	$200,000.00	$200,000	Hollow Stem Auger drilling to characterize lateral and vertical extents of gasoline-contaminated soil. May take multiple days of drilling due to traffic and work-hour restrictions.
4	Temporary shoring wall to support remedial excavation	6,000	Ft^2	$100.00	$600,000	Temporary vertical shoring wall around remedial excavation area, includes one row of tiebacks. Assumes piles and wall are 200 linear feet and up to 30 feet deep
5	Temporary utility reroute	1	LS	$200,000.00	$200,000	Reroute or support/protect likely utilities (fiberoptic, water, telephone, sewer, steam and gas) during remedial excavation.
6	Excavate MTCA exceeding petroleum contaminated soil under Lenora Street sidewalk and public Alley	600	CY	$40.00	$24,000	Total of all soil excavated. Assume 20% expansion above in-place volume.
7	Gasoline Contaminated Soil (non-haz) Transport and Disposal at approved off-site facility	1,080	TON	$70.00	$75,600	All contaminated soil transport and disposal. Assume 1.8 ton/CY. Cost includes loading and hauling to a non-haz landfill.
8	Purchase, Place and Compact General Backfill Material	2,500	TON	$50.00	$125,000	Assume 1.8 ton/CY. Assume tonnage equal to that of off-site disposal.
				Subtotal	**$1,224,600**	
Pre-construction Total						
	Total Design, Permitting, and Administrative Costs				$150,000	
	Contingency (Concept design level)	20.0%	%		$30,000	
				Total	**$180,000**	
Construction Total						
	Contractor Overhead (Based on total of construction tasks)	10.00%	%		$123,960	
	Sales Tax (applied to sum of construction items and construction over	9.8%	%		$133,629	
	Total Purchase and Installation Subtotal				$1,497,189	
	Construction Management and Field Monitoring	10.0%	%		$149,719	
	Contingency (Concept design level)	25.0%	%		$411,727	
				Total	**$2,058,635**	
Overall Project Total Costs					**$2,240,000**	

Notes:

[1] Cost Estimates based on 2015 unit prices.

Table D-3

Cost Estimate - Remedial Alternative 3

Feasibility Study

Ninth Avenue and Lenora Street

Seattle, Washington

ITEM NO.	DESCRIPTION	PLAN QUANTITY	UNIT	UNIT PRICE[1]	COST	NOTE
Design, Permitting, and Administrative Costs						
1	Design and Permitting	1	LS	$100,000.00	$100,000	Prepare design, contracting documents, permit applications. Includes contracting and design services to relocated and replace utilities that may be exposed and either moved or protected during in-situ remediation methods. Permit reviews with city permit agencies for street use, injections and environmental covenant. Does not include design or permitting of demolition and reconstruction of structure requiring removal to access contaminated soil.
				Subtotal	**$100,000**	
Chemical oxidation in-situ remediation						
2	Performance and Confirmation Drilling Program	5	Ea	$50,000.00	$250,000	Performance samples to analyze the effectiveness of the chem-ox injections and confirmation sampling of soil below MTCA Method A Cleanup Levels. Assumes one phase of site characterization, three rounds of performance characterization and one round of confirmation sampling. Due to access restrictions, drilling may need to occurr over multiple days/nights due to the restrictions of Lenora Street.
3	Protection of in-place utilities from future chem-ox injection chemicals	1	Ea	$150,000.00	$150,000	Evaluate potential chemical oxidation products and their suitability to treat the gasoline plume and not contribute to excessive degradation and decomposition of the utility structures.
4	Chemical oxidation in-situ remediation (injection)	20	Ea	$20,000.00	$400,000	Design, engineer, and complete injection of chemical oxidation (chem-ox) slurry to treat gasoline contamination. Effectiveness of chem-ox injections may be variable because soil is not saturated in water and migration of chem-ox may not be wide-spread to treat large area. Due to access restrictions, drilling/injections may need to occurr over multiple days/nights due to the restrictions of Lenora Street.
				Subtotal	**$800,000**	
Regulatory Closure						
5	Progress reports to document the remedial actions	4	Ea	$25,000.00	$100,000	
6	VCP enrollment, Cleanup Action Report to site closure	1	Ea	$75,000.00	$75,000	
				Subtotal	**$175,000**	
Pre-construction Total						
	Total Design, Permitting, and Administrative Costs				$100,000	
	Contingency (Concept design level)	20.0%	%		$20,000	
				Total	**$120,000**	
Construction Total						
	Contractor Overhead (Based on total of construction tasks)	10.00%	%		$97,500	
	Sales Tax (applied to sum of construction items and construction overhead)	9.8%	%		$105,105	
	Total Purchase and Installation Subtotal				$1,177,605	
	Construction Management and Field Monitoring	10.0%	%		$117,761	
	Contingency (Concept design level)	25.0%	%		$323,841	
				Total	**$1,619,207**	
Overall Project Total Costs					**$1,740,000**	

Notes:

[1] Cost Estimates based on 2015 unit prices.

APPENDIX E
Report Limitations and Guidelines for Use

APPENDIX E
REPORT LIMITATIONS AND GUIDELINES FOR USE[1]

This Appendix provides information to help you manage your risks with respect to the use of this report.

Read These Provisions Closely

Some clients, design professionals and contractors may not recognize that the geoscience practices (geotechnical engineering, geology and environmental science) are far less exact than other engineering and natural science disciplines. This lack of understanding can create unrealistic expectations that could lead to disappointments, claims and disputes. GeoEngineers includes these explanatory "limitations" provisions in our reports to help reduce such risks. Please confer with GeoEngineers if you are unclear how these "Report Limitations and Guidelines for Use" apply to your project or site.

Environmental Services Are Performed for Specific Purposes, Persons and Projects

This report has been prepared for the exclusive use of Ninth and Lenora LLC. This report may be provided to regulatory agencies for review. This report is not intended for use by others, and the information contained herein is not applicable to other sites.

GeoEngineers structures our services to meet the specific needs of our clients. For example, an environmental site assessment study conducted for a property owner may not fulfill the needs of a prospective purchaser of the same property. Because each environmental study is unique, each environmental report is unique, prepared solely for the specific client and project site. No one except Ninth and Lenora LLC should rely on this environmental report without first conferring with GeoEngineers. This report should not be applied for any purpose or project except the one originally contemplated.

This Environmental Report Is Based on a Unique Set of Project-Specific Factors

This report has been prepared for excavation activities at the Ninth and Lenora development project located at 2101 9th Avenue in Seattle, Washington. GeoEngineers considered a number of unique, project-specific factors when establishing the scope of services for this project and report. Unless GeoEngineers specifically indicates otherwise, do not rely on this report if it was:

- not prepared for you,
- not prepared for your project,
- not prepared for the specific site explored, or
- completed before important project changes were made.

If important changes are made after the date of this report, GeoEngineers should be given the opportunity to review our interpretations and recommendations and provide written modifications or confirmation, as appropriate.

[1] Developed based on material provided by ASFE, Professional Firms Practicing in the Geosciences; www.asfe.org.

Reliance Conditions for Third Parties

Our report was prepared for the exclusive use of Ninth and Lenora LLC. No other party may rely on the product of our services unless we agree in advance to such reliance in writing. This is to provide our firm with reasonable protection against open-ended liability claims by third parties with whom there would otherwise be no contractual limits to their actions. Within the limitations of scope, schedule and budget, our services have been executed in accordance with our Agreement with Ninth and Lenora LLC and generally accepted environmental practices in this area at the time this report was prepared.

Environmental Regulations Are Always Evolving

Some substances may be present in the site vicinity in quantities or under conditions that may have led, or may lead, to contamination of the subject site, but are not included in current local, state or federal regulatory definitions of hazardous substances or do not otherwise present current potential liability. GeoEngineers cannot be responsible if the standards for appropriate inquiry, or regulatory definitions of hazardous substance, change or if more stringent environmental standards are developed in the future.

Uncertainty May Remain after Completion of Remedial Activities

Remediation activity completed in a portion of a site cannot wholly eliminate uncertainty regarding the potential for contamination in connection with a property. Our interpretation of subsurface conditions in this study is based on field observations and chemical analytical data from widely-spaced sampling locations. It is always possible that contamination exists in areas that were not explored, sampled or analyzed.

Subsurface Conditions Can Change

This environmental report is based on conditions that existed at the time the study was performed. The findings and conclusions of this report may be affected by the passage of time, by manmade events such as construction on or adjacent to the site, by new releases of hazardous substances, or by natural events such as floods, earthquakes, slope instability or groundwater fluctuations. Always contact GeoEngineers before applying this report to determine if it is still applicable.

Soil and Groundwater End Use

The cleanup levels referenced in this report are site- and situation-specific. The cleanup levels may not be applicable for other sites or for other on-site uses of the affected media (soil and/or groundwater). Note that hazardous substances may be present in some of the site soil and/or groundwater at detectable concentrations that are less than the referenced cleanup levels. GeoEngineers should be contacted prior to the export of soil or groundwater from the subject site or reuse of the affected media on site to evaluate the potential for associated environmental liabilities. We cannot be responsible for potential environmental liability arising out of the transfer of soil and/or groundwater from the subject site to another location or its reuse on site in instances that we were not aware of or could not control.

Most Environmental Findings Are Professional Opinions

Our interpretations of subsurface conditions are based on field observations and chemical analytical data from widely spaced sampling locations at the site. Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. GeoEngineers reviewed field and laboratory data and then applied our professional judgment to render an opinion about subsurface

conditions throughout the site. Actual subsurface conditions may differ—sometimes significantly—from those indicated in this report. Our report, conclusions and interpretations should not be construed as a warranty of the subsurface conditions.

Geotechnical, Geologic and Geoenvironmental Reports Should Not Be Interchanged

The equipment, techniques and personnel used to perform an environmental study differ significantly from those used to perform a geotechnical or geologic study and vice versa. For that reason, a geotechnical engineering or geologic report does not usually relate any environmental findings, conclusions or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. Similarly, environmental reports are not used to address geotechnical or geologic concerns regarding a specific project.

Biological Pollutants

GeoEngineers' Scope of Work specifically excludes the investigation, detection, prevention or assessment of the presence of Biological Pollutants. Accordingly, this report does not include any interpretations, recommendations, findings, or conclusions regarding the detecting, assessing, preventing or abating of Biological Pollutants and no conclusions or inferences should be drawn regarding Biological Pollutants, as they may relate to this project. The term "Biological Pollutants" includes, but is not limited to, molds, fungi, spores, bacteria, and viruses, and/or any of their byproducts.

If client desires these specialized services, they should be obtained from a consultant who offers services in this specialized field.

Have we delivered World Class Client Service?

Please let us know by visiting **www.geoengineers.com/feedback**.

GeoEngineers

APPENDIX E

Report Limitations and Guidelines for Use

REPORT LIMITATIONS AND USE GUIDELINES

Reliance Conditions for Third Parties

This report was prepared for the exclusive use of the Client. No other party may rely on this report or the product of our services without the express written consent of Aspect Consulting, LLC (Aspect). This limitation is to provide our firm with reasonable protection against liability claims by third parties with whom there would otherwise be no contractual conditions or limitations and guidelines governing their use of the report. Within the limitations of scope, schedule and budget, our services have been executed in accordance with our Agreement with the Client and recognized standards of professionals in the same locality and involving similar conditions.

Services for Specific Purposes, Persons and Projects

Aspect has performed the services in general accordance with the scope and limitations of our Agreement. This report has been prepared for the exclusive use of the Client and their authorized third parties, approved in writing by Aspect. This report is not intended for use by others, and the information contained herein is not applicable to other properties.

This report is not, and should not, be construed as a warranty or guarantee regarding the presence or absence of hazardous substances or petroleum products that may affect the subject property. The report is not intended to make any representation concerning title or ownership to the subject property. If real property records were reviewed, they were reviewed for the sole purpose of determining the subject property's historical uses. All findings, conclusions, and recommendations stated in this report are based on the data and information provided to Aspect, current use of the subject property, and observations and conditions that existed on the date and time of the report.

Aspect structures its services to meet the specific needs of our clients. Because each environmental study is unique, each environmental report is unique, prepared solely for the specific client and subject property. This report should not be applied for any purpose or project except the purpose described in the Agreement.

This Report Is Project-Specific

Aspect considered a number of unique, project-specific factors when establishing the Scope of Work for this project and report. You should not rely on this report if it was:

- Not prepared for you
- Not prepared for the specific purpose identified in the Agreement
- Not prepared for the specific real property assessed
- Completed before important changes occurred concerning the subject property, project or governmental regulatory actions

If changes are made to the project or subject property after the date of this report, Aspect should be retained to assess the impact of the changes with respect to the conclusions contained in the report.

Geoscience Interpretations

The geoscience practices (geotechnical engineering, geology, and environmental science) require interpretation of spatial information that can make them less exact than other engineering and natural science disciplines. It is important to recognize this limitation in evaluating the content of the report. If you are unclear how these "Report Limitations and Use Guidelines" apply to your project or site, you should contact Aspect.

Discipline-Specific Reports Are Not Interchangeable

The equipment, techniques and personnel used to perform an environmental study differ significantly from those used to perform a geotechnical or geologic study and vice versa. For that reason, a geotechnical engineering or geologic report does not usually address any environmental findings, conclusions or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. Similarly, environmental reports are not used to address geotechnical or geologic concerns regarding the subject property.

Environmental Regulations Are Not Static

Some hazardous substances or petroleum products may be present near the subject property in quantities or under conditions that may have led, or may lead, to contamination of the subject property, but are not included in current local, state or federal regulatory definitions of hazardous substances or petroleum products or do not otherwise present potential liability. Changes may occur in the standards for appropriate inquiry or regulatory definitions of hazardous substance and petroleum products; therefore, this report has a limited useful life.

Property Conditions Change Over Time

This report is based on conditions that existed at the time the study was performed. The findings and conclusions of this report may be affected by the passage of time (for example, Phase I ESA reports are applicable for 180 days), by events such as a change in property use or occupancy, or by natural events, such as floods, earthquakes, slope failure or groundwater fluctuations. If more than six months have passed since issuance of our report, or if any of the described events may have occurred following the issuance of the report, you should contact Aspect so that we may evaluate whether changed conditions affect the continued reliability or applicability of our conclusions and recommendations.

Phase I ESAs – Uncertainty Remains After Completion

Aspect has performed the services in general accordance with the scope and limitations of our Agreement and the current version of the “Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process”, ASTM E1527, and U.S. Environmental Protection Agency (EPA)'s Federal Standard 40 CFR Part 312 "Innocent Landowners, Standards for Conducting All Appropriate Inquiries".

No ESA can wholly eliminate uncertainty regarding the potential for recognized environmental conditions in connection with subject property. Performance of an ESA study is intended to reduce, but not eliminate, uncertainty regarding the potential for environmental conditions affecting the subject property. There is always a potential that areas with contamination that were not identified during this ESA exist at the subject property or in the study area. Further evaluation of such potential would require additional research, subsurface exploration, sampling and/or testing.

Historical Information Provided by Others

Aspect has relied upon information provided by others in our description of historical conditions and in our review of regulatory databases and files. The available data does not provide definitive information with regard to all past uses, operations or incidents affecting the subject property or adjacent properties. Aspect makes no warranties or guarantees regarding the accuracy or completeness of information provided or compiled by others.

Exclusion of Mold, Fungus, Radon, Lead, and HBM

Aspect’s services do not include the investigation, detection, prevention or assessment of the presence of molds, fungi, spores, bacteria, and viruses, and/or any of their byproducts. Accordingly, this report does not include any interpretations, recommendations, findings, or conclusions regarding the detection, assessment, prevention or abatement of molds, fungi, spores, bacteria, and viruses, and/or any of their byproducts. Aspect’s services also do not include the investigation or assessment of hazardous building materials (HBM) such as asbestos, polychlorinated biphenyls (PCBs) in light ballasts, lead based paint, asbestos-containing building materials, urea-formaldehyde insulation in on-site structures or debris or any other HBMs. Aspect’s services do not include an evaluation of radon or lead in drinking water, unless specifically requested.