ENVIRONMENTAL INVESTIGATION REPORT

Estelita's Library Beacon Hill Affordable Housing Development Project
2901 17th Avenue South
Seattle, Washington

Prepared for: Estelita's Library

Project No. 220264 • June 5, 2023 FINAL

Aspect CONSULTING

earth + water

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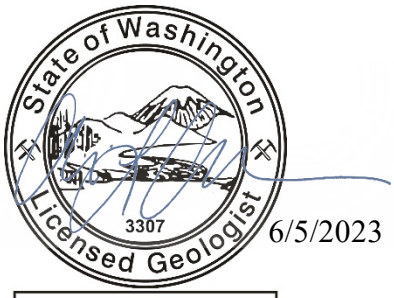

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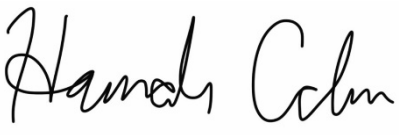

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Acronyms

Aspect	Aspect Consulting, LLC
BTEX	benzene, toluene, ethylbenzene, and xylenes
CAP	Cleanup Action Plan
DQR	Data Quality Review
Ecology	Washington Department of Ecology
EIWP	Environmental Investigation Work Plan
EPA	Environmental Protection Agency
LNAPL	light nonaqueous phase liquid
mg/kg	milligrams/kilograms
MTCA	Model Toxics Control Act
PID	photoionization detector
RIFS	Remedial Investigation/Feasibility Study
ROW	right-of-way
SDCI	Seattle Department of Construction & Inspection
UST	underground storage tank
VOC	volatile organic compound

Executive Summary

Aspect Consulting, LLC (Aspect) prepared this Environmental Investigation Report for the proposed Estelita's Library Beacon Hill Affordable Housing Development Project located at 2901 17th Avenue South in Seattle, Washington (Subject Property; Figure 1) (Facility Site ID No 74542995; Cleanup Site ID No. 10376). Estelita's Library is considering purchase and redevelopment of the Subject Property with a community center and affordable housing. The work described in this report was conducted using grant funding awarded by the Washington State Department of Ecology (Ecology), in accordance with Grant Agreement no. OTGP-2023-EstLib-00017.

The Subject Property (King County parcel no. 308600-3356) is located in Seattle's Beacon Hill neighborhood. Historically, the Subject Property was used as a Gilmore-branded gasoline service station from 1939 to 1956 and Mobil-branded station from 1956 to 1990. An auto body service and repair shop occupied the property from at least 1990 to 2022. Those businesses are now closed, and the property is vacant. The prior operations at the Subject Property have resulted in areas of petroleum contamination to soil and groundwater, which extend beyond the Subject Property boundaries to below Forest Street to the north, 17th Avenue South to the east, an adjoining residential property to the west, and likely beneath Beacon Avenue South to the northeast. Together these areas comprise the Site as generally defined by the Model Toxics Control Act (MTCA) as anywhere hazardous substances or contamination has come to be located. This report presents the results of investigation activities designed to address Site characterization data gaps outlined in the Environmental Investigation Work Plan (EIWP) prepared for the Site (Aspect, 2023).

The investigation consisted of drilling and soil sampling at eight on-property locations (AB-01 to AB-08; Figure 2) situated near the closed-in-place waste oil UST (Waste Oil UST Area) and in uninvestigated areas where auto repair operations occurred (Auto Repair Areas), which include auto repair bays and near in-ground hoists in the present building, and in the footprint of the former Gilmore-branded gasoline service station building. In off-property locations, the investigation consisted of installing three additional monitoring wells (AMW-04 to AMW-06; Figure 2), and soil and groundwater sampling, in City of Seattle (City)-owned (rights-of-way) ROWs to the north, west, and east of the former gasoline station USTs and pump islands (Refueling USTs Area).

The results of the investigation indicate the following:

- Release(s) at the ***Waste Oil UST Area*** have resulted in contaminated soil at the closed-in-place waste oil UST, whereby the releases migrated downward, spread laterally near the fill-till contact at 5 to 7.5 feet below ground surface (bgs) beneath the present building, and appear to have continued migrating deeper to an unknown depth. The on-property portion of the contaminated soil area is estimated to measure approximately 1,000 square feet in size centered on the location of the former waste oil UST. The vertical and northern (toward residential property)

extents of the contaminated soil could not be identified due to access limitations for drilling.

- In uninvestigated ***Auto Repair Areas*** of the Subject Property, specifically in auto repair bays of the present building, near in-ground hoists, and in the footprint of the former Gilmore service station, impacts were not identified and these operations do not appear to have resulted in significant impact to Subject Property soil or groundwater at these locations.
- The release(s) from the ***Refueling USTs Area*** have resulted in contaminated soil and groundwater extending off-property to the north, east, and west. Contaminated soil is bounded to the north by AMW-05 and to the west by AMW-04, and extends to the east beyond the location of AMW-06 (5 feet east of the property boundary). Contaminated groundwater is bounded to the west by AMW-04, and extends to the north and east beyond the locations of AMW-05 (20 feet north of the property boundary) and AMW-06 (5 feet east of the property boundary). Groundwater impacts include light nonaqueous phase liquid (LNAPL), with the greatest thickness observed at AMW-01 (over 5 feet thick[1]), reducing in thickness in the downgradient directions to 0.01 feet thick in AMW-05 and 0.77 feet thick in AMW-06.

It should be noted that because access to the west-adjoining residence was denied by the owner, the specific location of the contaminated soil and contaminated groundwater beneath the west-adjoining residential property is unknown, and the risk for petroleum vapor intrusion to the residence remains unevaluated.

Aspect recommends the following:

1. Supplemental investigation to characterize the Site in accordance with MTCA:
    - *Additional off-property groundwater monitoring wells in north to east directions*—Additional monitoring wells should be installed north of AMW-05, east of AMW-06, and to the northeast immediately downgradient of the source at the Refueling USTs Area. The purpose of soil and groundwater sampling at these well locations is to bound the contaminated soil and groundwater migrating off-property from the Refueling USTs Area.
    - *Additional on-property soil sampling below source area*s—Drilling and soil sampling below the Refueling USTs Area and the Waste Oil UST Area is needed to confirm the vertical extent of contaminated soil at each area. This work may require partial demolition of the present building to provide access for a drill rig that can drill into the dense till unit.
    - *Investigation at west-adjoining residential property*—Investigation at the west-adjoining residential property is needed to refine the western extent of soil and groundwater contamination from the Refueling USTs Area, to identify the northern-extent of contaminated soil from the Waste Oil UST Area, and to evaluate the risk for petroleum vapor intrusion at the residence.

[1] Note that because the well screen for AMW-01 is submerged, the measured thickness of LNAPL is likely biased high (Table 1).

This work would be dependent on the owner allowing access to their property.

2. Using data from this investigation, the supplemental data collected in the future, and past data from previous investigations, prepare a Remedial Investigation/Feasibility Study and Cleanup Action Plan (RIFS-CAP) to guide the cleanup and to be submitted as part of the cleanup documentation to Ecology.

This Executive Summary should only be used in the context of the full report.

1 Introduction

Aspect Consulting, LLC (Aspect) prepared this Environmental Investigation Report for the Estelita's Library Beacon Hill Affordable Housing Development Project located at 2901 17th Avenue South in Seattle, Washington (referred to herein as the Subject Property) (Facility Site ID No 74542995; Cleanup Site ID No. 10376). The Subject Property comprises a 0.19-acre parcel (King County parcel no. 308600-3356) located in Seattle's Beacon Hill neighborhood. Historically, the Subject Property was used as two generations of gasoline service stations between 1939 and 1990. An auto body service and repair shop occupied the property from at least 1990 to 2022. Those businesses are now closed, and the property is vacant. The Subject Property is shown relative to surrounding physical features on Figure 1.

The prior operations at the Subject Property have resulted in areas of petroleum contamination to soil and groundwater, which extend beyond the Subject Property boundaries to below Forest Street to the north, 17th Avenue South to the east, and an adjoining residential property to the west, and likely to below Beacon Avenue South to the northeast. These areas are the Site as generally defined by the Model Toxics Control Act (MTCA) as anywhere hazardous substance or contamination has come to be located. This report presents the results of investigation activities designed to address Site characterization data gaps outlined in the Environmental Investigation Work Plan (EIWP) prepared for the Site (Aspect, 2023).

This Environmental Data Gaps Investigation was conducted in accordance with Aspect's EIWP and to meet the requirements of the MTCA Regulation, Washington Administrative Code (WAC) Chapter 173-340, and Revised Code of Washington (RCW) 70.105D.010(1). The data and information presented in this report will be used to develop the Remedial Investigation report for the Site, to be prepared in the future under separate cover.

Estelita's Library is considering purchase and redevelopment of the Subject Property with a community center and affordable housing. The work described in this report was conducted using grant funding awarded by the Washington State Department of Ecology (Ecology), in accordance with Grant Agreement no. OTGP-2023-EstLib-00017.

2 Background

This section provides a summary of the historical uses and operations at the Subject Property, an overview of the results of prior investigations, and the Site characterization data gaps identified in the EIWP. Information in this section is summarized from research and review conducted during preparation of the EIWP; the EIWP and its cited reports should be reviewed for additional detail.

2.1 Historical Uses and Operations

The Subject Property was historically used as two generations of gasoline service stations from 1939 to 1990. An auto body service and repair shop occupied the property from at least 1990 to 2022 (Adapt, 2013). The prior businesses are now closed, and the Subject Property has been vacant since 2022.

The first identified development and use of the Subject Property is a Gilmore-branded gasoline service station (Gilmore service station) from 1939 to 1956. Few records have been located pertaining to details of the Gilmore service station and the locations, capacity, and contents of underground storage tanks (USTs), dispenser islands or conveyance lines, are unknown. Historical tax assessor records from 1940 and a Sanborn map dated 1950 show the footprint of the Gilmore service station building and attached canopy. The Sanborn map indicates that the southern portion of the building included an area used for auto service and repair. The attached canopy was likely situated above the dispenser island(s). The approximate location of these features is shown on Figure 2.

Seattle Department of Construction & Inspection (SDCI) permit records and tax assessor records indicate that the Gilmore service station was replaced by the Mobil-branded gasoline and service station in 1956 (Mobil service station). SDCI permit plans show construction of the central portion of the present building, three refueling USTs (two 6,000-gallon capacity and one 8,000-gallon capacity, one for leaded gasoline and two for unleaded gasoline), and a large canopy over two dispenser islands, occurring between 1956 and 1967. Aerial photographs show the canopy in place from the late 1960s through at least the 1980s. The canopy and pump islands appear removed by a 1998 aerial photograph, which is consistent with UST removal records that indicate the three refueling USTs were removed in August 1990. The approximate locations of historical infrastructure associated with the Mobil service station are shown on Figure 2.

SDCI permit records show that the western and eastern additions to the present building were added by 1975 and 1981, respectively, for the Chin Brothers Service business (auto body service and repair). The western addition included an additional auto repair bay and office and storage areas, and SDCI permit records indicate that a UST (285-gallon capacity for waste oil) was installed during this construction event in 1974, below the western addition floor. The eastern addition is a customer lobby with restroom. The waste oil UST was closed-in-place beneath the western portion of the existing building in 2001. The additions and the approximate location of the waste oil UST are shown on Figure 2.

The present building has appeared generally unchanged in aerial photographs dated from the 1980s to 2022, during which auto body service and repair businesses have occupied the present building. A Site visit conducted in 2013 noted that “the subject [property]

currently hosts AA Auto Body Repair. On-site activities include lubrication and repair work employing three single-pole hydraulic lifts, conducted in the service garage, and pain/body work, conducted in the western addition to the building. A tire sales rack resides on the western border of the northern section for the [Subject Property]. A relic 285-gallon waste oil UST reportedly resides under the concrete floor of the western addition" (Adapt, 2013). All operations ceased and the Subject Property was vacated in 2022.

2.2 Previous Investigations and Existing Data

Previous investigations included soil and groundwater sampling from seven soil borings and one hand auger boring in 2013 and 2020 by Adapt Consulting, and soil and groundwater sampling from three groundwater monitoring wells in 2022 by Aspect Consulting (data is included on Tables 1 through 3). The previous investigations focused on areas surrounding the former USTs, referred to as the Refueling USTs Area and the Waste Oil UST Area, as described in this section. The information presented below is summarized chronologically in the EIWP (Aspect, 2022):

Refueling USTs Area. Seven soil borings and two groundwater monitoring wells were completed to maximum depths ranging from 15 to 41.5 feet below ground surface (bgs) in the Refueling USTs Area (B-1 to B-7 and AMW-01 to AMW-02; Figure 2). At least one soil sample from each boring location showed gasoline-petroleum hydrocarbons and benzene, toluene, ethylbenzene, and xylenes (BTEX) at concentrations above the MTCA Method A cleanup levels for unrestricted use (referred to as contaminated soil). Generally, the contaminated soil at the Refueling USTs Area was identified between approximately 15 feet and 41.5 feet bgs. Five reconnaissance groundwater samples collected from borings showed gasoline-range petroleum hydrocarbons and BTEX at concentrations well above the MTCA Method A cleanup levels for groundwater; and subsequent groundwater samples collected from permanent groundwater monitoring wells showed gasoline- and diesel-range petroleum hydrocarbons, benzene, ethylbenzene, and naphthalene at concentrations above the MTCA Method A cleanup levels (referred to as contaminated groundwater). Collectively, data from previous investigations at the Refueling USTs Area indicated that contaminated soil and groundwater extended off of the Subject Property to the north, west, and east to an unknown distance.

Waste Oil UST Area. Previous investigations have been limited in the Waste Oil UST Area, consisting of only two soil samples: one grab soil sample collected during closure of the waste oil UST in 2001, and a hand auger soil sample collected from adjacent to the UST at 2 feet bgs (HA-1; Figure 2). Samples collected at the Waste Oil UST Area were analyzed for gasoline- , diesel- , and oil-range petroleum hydrocarbons, BTEX, and lead. Each of these contaminants were detected at concentrations above the MTCA Method A cleanup levels. In 2022, a groundwater monitoring well was installed southeast of the Waste Oil UST Area (AMW-03; Figure 2). Soil and groundwater samples collected at AMW-03 were analyzed for gasoline, diesel, and oil-range petroleum hydrocarbons and volatile organic compounds (VOCs); only a low concentration of diesel-range petroleum hydrocarbons was identified in groundwater, below the MTCA Method A cleanup level. These data from previous investigations at the Waste Oil UST Area indicated that a release from the waste oil UST occurred, extending to an unknown depth vertically, and

to an unknown distance to the north, east, south, and west (but not as far as AMW-03 to the southeast).

Auto Repair Areas. Other areas of the Subject Property were not investigated with soil and groundwater sampling during previous investigations, including the auto repair bays and in-ground hoist areas of the present building, and the footprint of the former Gilmore service station building/dispenser island area (Figure 2). In 2022, Aspect collected three subslab soil gas samples from beneath the present building, which identified total petroleum hydrocarbons, BTEX, Hexane,1,2-dichloroethane (EDC), and tetrachloroethene (PCE) in subslab soil gas at concentrations below the applicable screening levels for commercial use. These data indicated that there are likely localized soil impacts beneath the building that have not been characterized through soil sampling, likely related to the former auto repair uses (in-ground hoists, etc.).

2.2.1 Site Characterization Data Gaps

Based on Aspect's review of existing data for the Subject Property, three Site characterization data gaps were identified in the EIWP, as follows:

Data Gaps 1 and 2—Vertical and Horizontal Extent of Soil and Groundwater Contamination.

- ***Refueling USTs Area.*** The vertical extent of contaminated soil at the Refueling USTs Area extends to at least 40 feet bgs at the AMW-01 location and at least 41.5 feet at the AMW-02 location, where benzene concentrations exceeded the MTCA Method A cleanup level. Previous investigation data indicated that the horizontal extent of contaminated soil and contaminated groundwater extends off-property to the north, west, and east to an unknown distance.

  Drilling and soil and groundwater sampling in off-property locations to evaluate the horizontal extent of contaminated soil and groundwater was proposed by the EIWP and is discussed in Section 3.1.2 of this report.

- ***Waste Oil UST Area.*** Horizontal and vertical extent of contaminated soil at the Waste Oil UST Area identified at the HA-1 location, was not conducted in previous investigations.

  Drilling and soil sampling in locations inside and around the present building, as close to the Waste Oil USTs Area as possible, was proposed by the EIWP and is discussed in Section 3.1.1 of this report.

- ***Auto Repair Areas.*** Drilling and soil sampling in locations near in-ground hoists and auto repair bays in the present building, and in the footprint of the former Gilmore service station, was proposed by the EIWP and is discussed in Section 3.1.1 of this report.

Data Gap 3—Petroleum Vapor Intrusion Risk to West-Adjoining Residence. Vapor intrusion risk to the west-adjoining residence, based on the proximity of the petroleum contaminated soil and groundwater identified in AMW-01, was the third data gap identified by the EIWP. The EIWP proposed a vapor intrusion evaluation and soil gas and air sampling; however, access to the residential property was denied by the owner and this scope component could not be completed during this study.

3 Environmental Investigation

The following sections describe the investigation and sampling activities conducted to address the data gaps listed in Section 2.2.1, presents the results, and provides a discussion of the findings.

3.1 Investigation Scope and Methods

The scope of work for the field investigation consisted of drilling and soil sampling in on-property locations near the Waste Oil UST Area and in uninvestigated Auto Repair Areas; drilling, soil sampling, and monitoring well installation in the ROWs to the north, west, and east of the Refueling USTs Area; and groundwater monitoring at Site wells. The implemented scope is described in this section.

3.1.1 On-Property Drilling and Soil Sampling – Waste Oil UST Area and Auto Repair Areas

Eight soil borings were advanced on the property (AB-01 through AB-08; Figure 2) at the Waste Oil UST Area and the uninvestigated Auto Repair Areas. Specifically:

- AB-01, AB-02, and AB-03 were inside the present building. AB-01 and AB-02 were located as close to the waste oil UST as access allowed. All three interior borings were also situated in auto repair bays, and AB-02 and AB-03 were situated near in-ground hoists.
- AB-04 through AB-06 were situated just outside of the present building, to the east, southeast, south, and west, respectively, of the Waste Oil UST Area and the auto repair bays/hoists in the present building.
- AB-07 and AB-08 were situated in the footprint of the former Gilmore service station building. Boring AB-07 is also situated just outside of a storage shed where waste oil appears to have been stored by the most recent auto repair operation, and where staining was observed on pavement at ground surface just outside the shed.

The soil borings were drilled using direct push methods by Cascade Drilling, Inc. of Woodinville, Washington, between March 16 and March 17, 2023. Borings were advanced to refusal on dense glacial till, ranging in depth from 5 feet to 14 feet bgs. An Aspect field geologist performed field screening of soil cores using a photoionization detector (PID) to measure volatile organic vapors. Field screening of soil samples also included water sheen testing, and where visible staining or odors were observed, the observations were recorded. Geology observed was logged in general accordance with the ASTM International (ASTM) standard D2488 for visual classification of soils using the Unified Soil Classification System (USCS). Boring logs documenting the soil types, fill thicknesses, and results of the field screening are included in Appendix A.

A total of 18 soil samples (at least two per boring) were selected for chemical analysis based on field screening results, proximity to groundwater, and key lithologic changes. Samples were submitted to Friedman and Bruya, Inc. of Seattle, Washington, for the following contaminants of potential concern (COPCs) identified by the EIWP:

- Gasoline- , diesel- , and oil-range petroleum hydrocarbons using Northwest Methods NWTPH-Gx and NWTPH-Dx
- VOCs, including petroleum-associated VOCs and halogenated VOCs, using Environmental Protection Agency (EPA) Method 8260C
- Lead using EPA Method 6020B

Further, due to their close proximity to the Waste Oil USTs area and field screening evidence of heavy petroleum impacts, one soil sample from each of AB-01 and AB-02 were additionally submitted for analysis of:

- Polycyclic aromatic hydrocarbons (PAHs), including carcinogenic PAHs (cPAHs), using EPA Method 8270E
- Polychlorinated biphenyls (PCBs) using EPA Method 8082A

Soil analytical results are discussed in Section 3.2.2 and shown on Figure 3.

3.1.2 Off-Property Well Installation and Soil and Groundwater Sampling – North, West, and East of Refueling USTs Area

Three new groundwater monitoring wells were installed in off-property locations (in City-owned rights-of-way) to the north, east, and west of the Refueling USTs Area to identify the horizontal extent of contaminated soil and groundwater extending off-property, that had been identified during a prior phase of investigation in on-property wells AMW-01 through AMW-03 (Figure 2).

All three new wells (AMW-04, AMW-05, and AMW-06; Figure 2) were constructed in boreholes drilled using hollow-stem auger drilling methods by licensed driller, Cascade Drilling, Inc. of Woodinville, Washington, between March 13 through March 15, 2023. Boreholes were advanced to depths ranging from 40 feet to 55 feet bgs; final depth of each boring was determined based on achieving field screening results showing no petroleum impacts and/or to a depth at least 10 feet below first occurrence of groundwater, whichever was deeper. An Aspect field geologist performed field screening of soil samples collected using split-spoon samplers advanced at 2.5-foot to 5-foot intervals and logged geology using the same methods described in Section 3.1.1 for the on-property borings. A total of six soil samples (two from each well) were selected for chemical analysis, one from just above the first occurrence of groundwater and one from near the bottom of each well where field screening showed no evidence of petroleum impacts. Soil samples were submitted to the laboratory for analysis of the following COPCs:

- Gasoline- , diesel- , and oil-range petroleum hydrocarbons using Northwest Methods NWTPH-Gx and NWTPH-Dx
- VOCs using EPA Method 8260C

Soil analytical results are described in Section 3.2.2 and shown on Figure 3.

Wells were constructed in the borings with 2-inch-diameter Schedule 40 PVC casings and 0.010-inch (10-slot) screens set across the water table. Because previous investigations observed groundwater levels showing several feet of fluctuation between

the time of drilling and after well development, wells for this study were installed with 20 feet of screen to capture possible fluctuating groundwater levels. Following installation, wells were developed to improve hydraulic connectivity between the well and surrounding formation. Development consisted of surging and purging each well using a single- or double-stage pump with a flow controller until at least 10 casing volumes were removed and/or water was visibly clear. Boring and well construction logs documenting the soil types, fill thicknesses, results of field screening, and well construction details are included as Appendix A.

Groundwater levels were measured using an electronic water level indicator, decontaminated between wells, and an electronic interface probe was used to identify the presence, absence, and thickness of light nonaqueous phase liquid (LNAPL) on groundwater. Each water level measurement and LNAPL measurement was recorded to the nearest hundredth of a foot, relative to the top of the north side of the well casing. Surveyed top of well casing elevations in North American Vertical Datum (NAVD) 1988 were measured by an Aspect field geologist relative to pre-existing well AMW-01, and were used to determine groundwater elevations in each of the sampled wells. Water level measurements, LNAPL measurements, and well survey details are summarized in Table 1.

Groundwater samples were collected from those wells that did not have LNAPL present on groundwater (AMW-03 and AMW-04) on March 22, 2023, using low-flow sampling methodology (EPA, 1996) following stabilization of field parameters (temperature, specific conductivity, dissolved oxygen, pH, oxidation reduction potential, and turbidity). Sample intake tubing was placed at the midpoint of the submerged portion of each well screen. Groundwater samples were submitted to Friedman and Bruya, Inc. of Seattle, Washington, for the following COPCs:

- Gasoline- , diesel- , and oil-range petroleum hydrocarbons using Northwest Methods NWTPH-Gx and NWTPH-Dx
- VOCs using EPA Method 8260C

Groundwater analytical results are described in Section 3.2.3 and shown on Figure 4.

3.2 Results

This section summarizes the results of the investigation, including observed geologic and hydrogeologic conditions, and chemical analytical testing of soil and groundwater samples.

3.2.1 Geology and Hydrogeology

Soil encountered during drilling consisted of fill material present just below surface pavement to depths ranging from 1 to 11 feet bgs, overlying Vashon glacial till. The fill layer consists of brown to gray silty sand with occasional gravel. The underlying Vashon till consists of dense to very dense gray sandy silt to silty sand with varying amounts of gravel to between 30 and 35 feet bgs. In borings that were advanced to depths deeper than 30 feet bgs (including borings from previous investigations), a layer of very hard dark gray silt with low to medium plasticity and trace sand content was encountered at depths of 30 to 35 feet bgs, ranging in thickness from 7 to 10 feet. The only boring advanced to these depths that did not encounter the very hard silt layer is AMW-03 near

the southern boundary of the Subject Property. Generalized geologic units are shown on the cross sections included as Figures 5 and 6.

Groundwater was encountered during drilling in the three new monitoring well explorations during this investigation, AMW-04 to AMW-06. At the time of drilling, groundwater levels in the boreholes ranged from 23 feet to 33.5 feet bgs. After well installation and development, groundwater level rose in these wells and groundwater at the time of sampling ranged from 12.64 feet to 28.32 feet bgs, equivalent to elevations of 282.4 to 266.7 feet NAVD88 (Table 1).

On March 23, 2022 (date of groundwater sampling) and April 12, 2023, LNAPL was measured in two of the new groundwater monitoring wells ranging from 0.01 feet thick in AMW-05 to 0.42 feet thick in AMW-06, and was measured in two of the three pre-existing on-property wells ranging from 5.78 feet thick in AMW-01 and 0.04 feet thick in AMW-02. LNAPL was not present in wells AMW-03 or AMW-04 on either date. The thicknesses of LNAPL measurements are summarized on Table 1.

Following correction for the thickness of LNAPL[2] (if present), the groundwater potentiometric surface was calculated as ranging from 266.70 feet in AMW-06 to 282.23 feet in AMW-04 (Table 1), and indicates a flow direction at the time of sampling (March 22, 2023) as toward the northeast. This is consistent with the flow direction observed during the previous groundwater monitoring event (June 2022). Measured groundwater elevations, measured thickness of LNAPL, and groundwater elevation contours for the groundwater sampling date of March 22, 2023 are shown on Figure 7. Measurements were also collected for verification purposes during a site visit on April 12, 2023, and are included in Table 1.

3.2.2 Soil Analytical Data

The chemical analytical results for soil samples were evaluated against the MTCA Method A cleanup levels for Unrestricted Land Use. The analytical soil results for petroleum hydrocarbons, metals, and VOCs are summarized in Table 2a. The analytical results for PAHs and PCBs are summarized in Table 2b. Analytical soil results are shown graphically on Figure 3.

The following analytes were detected at concentrations above the MTCA cleanup levels:

On-Property Waste Oil UST Area and Auto Repair Areas. Of the borings advanced in these areas, only one sample from each of AB-01 and AB-02 showed COPCs at concentrations above the MTCA cleanup levels.

- Gasoline-range petroleum hydrocarbons were detected in the 5-foot sample of AB-01 at a concentration of 700 milligrams/kilograms (mg/kg), and in the 7.5-foot sample of AB-02 at a concentration of 120 mg/kg, which are above the MTCA Method A cleanup level of 100 mg/kg for samples without benzene and 30 mg/kg for samples that also contain benzene concentrations.
- Oil-range petroleum hydrocarbons were detected in the 7.5-foot sample of AB-02 at a concentration of 3,000 mg/kg, and the sum of diesel- and oil-range petroleum

[2] LNAPL correction was calculated using an assumed relative density of 0.76 g/cm^3

hydrocarbons was detected in the 5-footsample of AB-01 at a concentration of 2,080 mg/kg and in the 7.5-foot sample of AB-02 at a concentration of 3,350 mg/kg, which are above the MTCA Method A cleanup level of 2,000 mg/kg.

- Benzene was detected in the 7.5-foot sample of AB-02 at a concentration of 0.034 mg/kg, slightly above the MTCA Method A cleanup level of 0.03 mg/kg.

Remaining analytes were either not detected or were detected at concentrations below the MTCA cleanup levels (Tables 2a and 2b).

Off-Property Monitoring Wells to North, West, and East of Refueling USTs Area. Of the off-property wells, AMW-04 to AMW-06, one soil sample from AMW-06 showed COPCs above the MTCA cleanup levels.

- Gasoline-range petroleum hydrocarbons were detected in the 27.5-foot sample of AMW-06 at a concentration of 24,000 mg/kg, which is above the MTCA Method A cleanup level of 100 mg/kg.
- Diesel-range petroleum hydrocarbons were detected in the 27.5-foot sample of AMW-06 at a concentration of 3,400 mg/kg, which is above the MTCA Method A cleanup level of 2,000 mg/kg.
- Naphthalene was detected in the 27.5-foot sample of AMW-06 at a concentration of 110 mg/kg, above the MTCA Method A cleanup level of 5 mg/kg.

Note that field screening evidence of petroleum impacts to soil were observed at each of AMW-04 through AMW-06, as discussed in Section 3.3.3. Remaining analytes were either not detected or were detected at concentrations below the MTCA cleanup levels.

3.2.3 Groundwater Analytical Data

Groundwater samples were collected from the two wells that did not contain LNAPL at the time of the investigation, AMW-03 and AMW-04. The chemical analytical results for these groundwater samples were evaluated against the MTCA Method A cleanup levels for groundwater. COPCs were either not detected or were detected at concentrations below the MTCA cleanup levels in AMW-03 and AMW-04. Previous sampling events included wells AMW-01 through AMW-03; data from these wells are included in the discussion in Section 3.3. The analytical groundwater results for this investigation are summarized in Table 3. Analytical groundwater results are shown graphically on Figure 4.

3.2.4 Quality Assurance Quality Control

Aspect performed a Data Quality Review (DQR) of all analytical data for this study. Aspect's standard DQR was developed based on the United State Environmental Protection Agency (EPA) Stage 2A data validation, with minor modifications designed to meet Aspect's internal data quality and management program goals and the project objectives. Laboratory QA/QC sample results (including a combination of blanks, blank spike and spike duplicate, matrix spike and spike duplicate, surrogate, and lab duplicate recoveries), laboratory-applied flags, and laboratory-provided analysis comments are reviewed. Based on this review, qualifier flags are assigned to the data where appropriate, which indicate data usability for study goals and objectives. Data qualifiers assigned to results for this study include:

- Data assigned a J or UJ qualifier (estimated) may be used for site evaluation purposes but the reasons for qualification should be considered when interpreting sample concentrations.
  - J qualifiers indicate the result is estimated. This includes results reported as detections below the reporting limit.
  - UJ qualifiers indicate the result was not detected at or above detection limits and is estimated.
- Values without qualification meet all data measurement quality objectives and are suitable for use.

Based on review of the laboratory QA/QC results, the results of Aspect's DQR, and review of the data qualifiers, it is Aspect's opinion that the data for this study are of known quality and are acceptable for use for project goals and objectives as qualified.

3.3 Findings and Evaluation

This section presents a discussion of the results of the investigation, in the context of each of the data gap areas, and alongside pertinent data from previous investigations summarized in Section 2.2.

3.3.1 On-Property Waste Oil UST Area

The goal of the investigation pertaining to the Waste Oil UST Area was to evaluate the horizontal and vertical extent of contaminated soil identified in previous investigations in HA-1 at 2 feet bgs (Figure 3).

Borings AB-01 and AB-02 were advanced as close as accessible to the waste oil UST and HA-1, to depths of 5 to 7.5 feet bgs where they encountered refusal on dense till. Analytical data and field screening results show petroleum contamination in soil at both locations, situated near the fill-till contact (5 feet bgs in AB-01 and 7.5 feet in AB-02), but not at shallower depths. These data suggest that a release at the waste oil UST migrated downward through soil and has spread horizontally on the dense till. Because analytical data and field screening did not show petroleum impacts in borings farther to the east (AB-03), southeast (AB-04 and AMW-03), south (AB-05), and west (AB-06), the contaminated soil at the Waste Oil UST Area is bounded in these horizontal directions. This refines the on-property horizontal extents of the waste oil UST release to an area approximately 1,000 square feet centered on the location of the former waste oil UST and HA-1. The horizontal extent to the north is unknown, and may extend onto the north-adjoining property because the distance between the waste oil UST and the property boundary is estimated to be only 5 to 8 feet.

Soil borings in the Waste Oil UST Area encountered refusal at the fill-till contact between 5 and 7.5 feet bgs, and due to the low ceiling height, a larger drilling rig could not access the building interior to drill deeper using other drilling methods. The deepest samples in AB-01 and AB-02 contained petroleum contamination at concentrations above the MTCA Method A cleanup level, so the vertical extent of the waste oil UST release extends to at least 5 to 7.5 feet bgs, and the total depth is unknown.

3.3.2 On-Property Uninvestigated Auto Repair Areas

The goal of the investigation in Auto Repair Areas was to assess soil quality in uninvestigated areas of the Subject Property where auto repair operations occurred historically, specifically in areas around out-of-service underground hydraulic hoists inside the present building (formerly used by the Mobil service station and Chin Brothers auto body repair) and in the footprint of the former Gilmore service station (Figure 2).

Five borings were advanced either inside the building near auto repair bays and in-ground hoists (AB-01 through AB-03; Figure 2), or just outside of the building to the west, south, and southeast (AB-04 through AB-06; Figure 2). With the exception of AB-01 and AB-02, which showed petroleum contamination attributed to the waste oil UST release (see Section 3.3.1), analytical data and field screening did not show contaminated soil at these locations.

Two borings were advanced in the footprint of the former Gilmore service station building (AB-07 and AB-08; Figure 2). Analytical data and field screening results did not indicate contaminated soil at these locations to the explored depths of 10 to 11 feet bgs (Tables 2a and 2b).

3.3.3 Off-Property Impacts from Refueling USTs Area

The purpose of the investigation pertaining the Refueling USTs Area was to evaluate the horizontal extents of soil and groundwater contamination extending to off-property locations (in City-owned rights-of-way) to the north, east, and west of the Refueling USTs Area.

Well AMW-05 was installed in the north-adjoining Forest Street, approximately 20 feet north of the property line. Analytical soil data and field screening results indicate that soil at the AMW-05 location has low level petroleum impacts, situated at depths starting at 22 feet bgs and extending vertically to depths of 30 feet bgs, exhibited by PID readings exceeding 10 ppm within this depth interval and analytical soil results showing COPCs below cleanup levels at 22.5 feet bgs and 50 feet bgs. Because soil data showed COPCs at concentrations below the Method A cleanup levels at the depth of highest PID readings and at similar depths/elevations to on-property contaminated soil observed in AMW-02, AMW-05 bounds the contaminated soil horizontally to the north of the Refueling USTs Area. It should be noted that the sample collection interval during drilling of AMW-05 was 2.5 to 5feet, and there is potential for contaminated soil to be present between sampling intervals (suggested by the presence of LNAPL in well AMW-05).

Well AMW-06 was installed in the east-adjoining 17th Avenue South, approximately 5 feet east of the property line. Analytical soil data and field screening results indicate contaminated soil is present at depths starting at 25 feet bgs and extending vertically to depths of 38 feet bgs , exhibited by PID readings exceeding 100 ppm within this depth interval and analytical soil results showing COPCs above cleanup levels at 27.5 feet bgs. Contaminated soil at AMW-06 is bounded vertically by 55 feet bgs, where COPCs were detected below the Method A cleanup levels.

New wells AMW-05 and AMW-06 contain LNAPL confirming the petroleum groundwater plume extends off property into the ROW to the north and east at these locations, situated at elevation 268.32 feet and 266.80 feet, respectively. LNAPL was

also present in pre-existing on-property wells, AMW-01 and AMW-02, at elevation 275.29 feet and 267.38 feet, respectively. The thickness of LNAPL significantly reduces by over 5.5 feet between the well with the most LNAPL measured (AMW-01) and downgradient wells AMW-05 (45 feet northeast) and AMW-06 (57 feet east). The horizontal extent of contaminated groundwater to the north and east is unknown, and will require additional well installations in ROW areas farther north, northeast, and east.

Well AMW-04 was installed in the alley, west of the west-adjoining residence and contained no concentrations of COPCs above MTCA cleanup levels in soil, no measurable LNAPL, and no COPCs in groundwater. These data indicate that the western extent of soil and groundwater contamination is situated beneath the west-adjoining residential property. Because access to the west-adjoining residence was denied by the owner for this investigation, the specific location of the western extents is unknown, and the risk for petroleum vapor intrusion to the residence remains unevaluated. In pre-existing on-property well AMW-03, no concentrations of COPCs or measurable LNAPL were recorded, indicating that the southern horizontal extent of the contaminated soil and groundwater is situated on-property, north of AMW-03.

4 Conclusions and Recommendations

The results of the Environmental Investigation indicate the following:

- Release(s) at the ***Waste Oil UST Area*** have resulted in contaminated soil at the closed-in-place waste oil UST, whereby the releases migrated downward, spread laterally near the fill-till contact at 5 to 7.5 feet bgs beneath the present building, and appear to have continued migrating deeper to an unknown depth. Based on the soil analytical data, the on-property portion of the contaminated soil area is estimated to measure approximately 1,000 square feet in size centered on the location of the former waste oil UST. The vertical and northern (toward residential property) extents of the contaminated soil could not be identified due to access limitations for drilling.
- In uninvestigated ***Auto Repair Areas*** of the Subject Property, specifically in auto repair bays of the present building, near in-ground hoists, and in the footprint of the former Gilmore service station, COPCs were not identified and these operations do not appear to have resulted in significant impact to Subject Property soil or groundwater.
- The release(s) from the ***Refueling USTs Area*** have resulted in contaminated soil and groundwater extending off-property to the north, east, and west. Contaminated soil is bounded to the north by AMW-05 and to the west by AMW-04, and extends to the east beyond the location of AMW-06 (5 feet east of the property boundary). Contaminated groundwater is bounded to the west by AMW-04, and extends to the north and east beyond the locations of AMW-05 (20 feet north of the property boundary) and AMW-06 (5 feet east of the property boundary). Groundwater impacts include LNAPL, with the greatest thickness observed at AMW-01 (over 5 feet thick), reducing in thickness in the downgradient directions to 0.01 feet thick in AMW-05 and 0.77 feet thick in AMW-06.

It should be noted that because access to the west-adjoining residence was denied by the owner, the specific location of the contaminated soil and contaminated groundwater beneath the west-adjoining residential property is unknown, and the risk for petroleum vapor intrusion to the residence remains unevaluated.

Aspect recommends the following:

1. Supplemental investigation work to characterize the Site in accordance with MTCA:
    - *Additional off-property groundwater monitoring wells in north to east directions.* Additional drilling and monitoring well installation should occur north of AMW-05, east of AMW-06, and to the northeast immediately downgradient of the source at the Refueling USTs Area. The purpose of soil and groundwater sampling at these well locations is to bound the contaminated soil and groundwater migrating off-property from the Refueling USTs Area.

- *Additional on-property soil sampling below source areas.* Drilling and soil sampling below the Refueling USTs Area and the Waste Oil UST Area is needed to confirm the vertical extent of contaminated soil at each area. This work may require partial demolition of the present building to provide access for a drill rig that can drill into the dense till unit.

- *Investigation at west-adjoining residential property.* Investigation at the west-adjoining residential property is needed to refine the western extent of soil and groundwater contamination from the Refueling USTs Area, to identify the northern-extent of contaminated soil from the Waste Oil UST Area, and to evaluate the risk for petroleum vapor intrusion at the residence. This work would be dependent on the owner allowing access to their property.

2. Using data from this investigation, the supplemental data collected in the future, and past data from previous investigations, prepare a Remedial Investigation/Feasibility Study and Cleanup Action Plan (RIFS-CAP) to guide the cleanup and to be submitted as part of the cleanup documentation to Ecology.

5 Limitations

Work for this project was performed for the Estelita's Library (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.

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 C titled "Report Limitations and Guidelines for Use" for additional information governing the use of this report.

TABLES

Table 1. Groundwater Level and LNAPL Measurements

Project No. 220264-B, Estelita's Library, 2901 17th Avenue South, Seattle, Washington

Well ID	Latitude	Longitude	Total Depth (ft bgs)	Filter Pack Interval		Screen Interval		TOC Elevation (ft NAVD88)	Date	Time	Depth to Groundwater (ft bTOC)	LNAPL/Groundwater Interface Elevation (ft NAVD88)	LNAPL			Potentiometric Surface Elevation of Groundwater (ft NAVD88)
				Top (ft bgs)	Bottom (ft bgs)	Top (ft bgs)	Bottom (ft bgs)						Depth to LNAPL (ft bTOC)	Thickness (ft)	Elevation (ft NAVD88)	
AMW-01	47.57757	122.3111	43	26	43	28	43	294.767	3/22/2023	9:17	25.26	269.51	19.48	5.78	275.29	273.90
									4/12/2023	11:02	25.40	269.37	19.63	5.77	275.14	273.75
AMW-02	47.577614	122.31097	40	23	40	25	40	294.687	3/22/2023	9:12	27.34	267.35	27.31	0.03	267.38	267.37
									4/12/2023	10:56	27.40	267.29	27.36	0.04	267.33	267.32
AMW-03	47.57738	122.31112	30	18	30	20	30	295.358	3/22/2023	9:01	15.26	--	--	0.00	--	280.10
									4/12/2023	10:37	15.58	--	--	0.00	--	279.78
AMW-04	47.577571	122.31144	35	13	35	15	35	294.87	3/22/2023	8:58	12.64	--	--	0.00	--	282.23
									4/12/2023	10:30	12.45	--	--	0.00	--	282.42
AMW-05	47.577694	122.31101	40	18	40	20	40	294.01	3/22/2023	9:05	25.44	268.57	25.43	0.01	268.58	268.58
									4/12/2023	10:44	25.70	268.31	25.69	0.01	268.32	268.32
AMW-06	47.577552	122.31088	40	18	40	20	40	294.70	3/22/2023	9:09	28.32	266.38	27.90	0.42	266.80	266.70
									4/12/2023	10:48	28.59	266.11	27.87	0.72	266.83	266.66

Notes:

ft = feet

bgs = below ground surface

NAVD88 = North American Vertical Datum of 1988

bTOC = below top of casing, north side

LNAPL = light non-aqueous phase liquid

-- = not applicable

An assumed relative density of 0.76 g/cm^3 was used for LNAPL correction calculations.

Table 2a. Soil Analytical Data - TPH, Metals, and VOCs

Project No. 220264, Estelita's Library, 2901 17th Avenue South, Seattle, Washington

			Inside or Adjacent to Existing Building & Waste Oil UST Area													
Sample Location			**AB-1**	**AB-1**	**AB-2**	**AB-2**	**AB-3**	**AB-3**	**AB-4**	**AB-4**	**AB-5**	**AB-5**	**AB-6**	**AB-6**	**AB-6**	**HA- 1**
Sample Date		**MTCA**	**03/16/2023**	**03/16/2023**	**03/16/2023**	**03/16/2023**	**03/16/2023**	**03/16/2023**	**03/16/2023**	**03/16/2023**	**03/16/2023**	**03/16/2023**	**03/16/2023**	**03/16/2023**	**03/16/2023**	**3/27/2013**
Sample ID		**Method A**	**AB-01-1.0**	**AB-01-5.0**	**AB-02-0.5**	**AB-02-7.5**	**AB-03-0.5**	**AB-03-6.0**	**AB-04-5.0**	**AB-04-9.0**	**AB-05-5.0**	**AB-05-8.5**	**AB-06-1**	**AB-06-5**	**AB-06-12**	
Sample Depth		**Cleanup**	**1 ft**	**5 ft**	**0.5 ft**	**7.5 ft**	**0.5 ft**	**6 ft**	**5 ft**	**9 ft**	**5 ft**	**8.5 ft**	**1 ft**	**5 ft**	**12 ft**	**2 ft**
Headspace Volatiles (ppm)		**Level**	**42.9**	**116.8**	**0.7**	**111.8**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**388**
Total Petroleum Hydrocarbons (TPH)																
Gasoline Range Organics	mg/kg	30 | 100	< 5 U	**700**	< 5 U	**120 J**	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	**400**
Diesel Range Organics	mg/kg	2000	< 50 U	**380 X**	< 50 U	**350 X**	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	**3300**
Motor Oil Range Organics	mg/kg	2000	< 250 U	**1700**	< 250 U	**3000**	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	**15000**
Sum of Diesel and Oil Range Organics	mg/kg	2000	< 250 U	**2080 X**	< 250 U	**3350 X**	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	**18300**
BTEX																
Benzene	mg/kg	0.03	< 0.001 U	< 0.001 U	< 0.001 U	**0.034**	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	**0.35**
Toluene	mg/kg	7	< 0.001 U	**0.0011**	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	**4.9**
Ethylbenzene	mg/kg	6	< 0.001 U	**0.014**	< 0.001 U	**0.077**	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	**3.2**
Total Xylenes	mg/kg	9	< 0.002 U	**0.5049**	< 0.002 U	**0.05**	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	**23**
Metals																
Lead	mg/kg	250	**92.4 J**	**7.12**	**12.7**	**12**	**2.97**	**2.24**	**1.83**	**1.56**	**1.69**	**1.4**	**4.93**	**1.27**	< 1 U	**1020**
Detected Volatile Organic Compounds (VOCs)																
1,2,4-Trimethylbenzene	mg/kg		< 0.05 U	**5.2**	< 0.05 U	**1.3**	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	--
1,2-Dichlorobenzene	mg/kg		< 0.05 U	< 0.05 U	< 0.05 U	**0.063**	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	--
1,3,5-Trimethylbenzene	mg/kg		< 0.05 U	< 0.05 U	< 0.05 U	**1.3**	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	--
Chlorobenzene	mg/kg		< 0.05 U	**0.091**	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	--
Chloroethane	mg/kg		< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	--
Chloroform	mg/kg		< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	--
Isopropylbenzene	mg/kg		< 0.05 U	**0.12**	< 0.05 U	**0.22**	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	--
m,p-Xylenes	mg/kg		< 0.002 U	**0.50**	< 0.002 U	**0.024**	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	--
n-Hexane	mg/kg		< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	--
n-Propylbenzene	mg/kg		< 0.05 U	**0.58**	< 0.05 U	**0.71**	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	--
o-Xylene	mg/kg		< 0.001 U	**0.0049**	< 0.001 U	**0.026**	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	--
p-Isopropyltoluene	mg/kg		< 0.05 U	**0.34**	< 0.05 U	**0.12**	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	--
sec-Butylbenzene	mg/kg		< 0.05 U	**0.37**	< 0.05 U	**0.20**	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	--
Tetrachloroethene (PCE)	mg/kg	0.05	**0.012**	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	--

Notes:

Table includes historical data collected by Aspect in June 2022 and by others in August 2020. New data for this study are highlighted in light purple.

Bold - detected

Purple Shaded - Detected result exceeded the cleanup level

U - Analyte not detected at or above laboratory reporting limit shown

J - Result value estimated

X - Chromatographic pattern does not match fuel standard used for quantitation

ppm - parts per million

mg/kg - milligrams per kilogram

"--" - not tested

MTCA - Model Toxics Control Act

Table 2a. Soil Analytical Data - TPH, Metals, and VOCs

Project No. 220264, Estelita's Library, 2901 17th Avenue South, Seattle, Washington

Sample Location			Former Refueling USTs Area																
Sample Date		MTCA	AB-7	AB-7	AB-8	AB-8	AMW-01	AMW-01	AMW-01	AMW-01	AMW-02	AMW-02	B-1	B-2	B-3	B-4	B-4	B-4	B-5	B-5	B-5
Sample ID		Method A	03/16/2023	03/16/2023	03/16/2023	03/16/2023	06/06/2022	06/06/2022	06/06/2022	06/06/2022	06/07/2022	06/07/2022	3/27/2013	3/27/2013	3/27/2013	8/19/2020	8/19/2020	8/19/2020	8/19/2020	8/19/2020	8/19/2020
Sample Depth		Cleanup	AB-07-5.0	AB-07-9.5	AB-08-1.0	AB-08-10.5	AMW-01-10	AMW-01-20	AMW-01-40	AMW-02-21	AMW-02-41.5										
Headspace Volatiles (ppm)		Level	5 ft	9.5 ft	1 ft	10.5 ft	10 ft	20 ft	40 ft	21 ft	41.5 ft		10 ft	15 ft	15 ft	15 ft	25 ft	36 ft	15 ft	25 ft	35 ft
													1,644	179	1,512	1.1	1,281	31	362	1,308	170
Total Petroleum Hydrocarbons (TPH)																					
Gasoline Range Organics	mg/kg	30 | 100	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	**320**	< 5 U	**570**	**13**		**40**	**29**	**1,100**	< 5 U	**64**	**19**	**980**	**14**	< 5 U
Diesel Range Organics	mg/kg	2000	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	**160 X**	< 50 U	**69 X**	< 50 U		--	--	--	--	--	--	--	--	--
Motor Oil Range Organics	mg/kg	2000	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U		--	--	--	--	--	--	--	--	--
Sum of Diesel and Oil Range Organics	mg/kg	2000	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	**160 X**	< 250 U	**69 X**	< 250 U										
BTEX																					
Benzene	mg/kg	0.03	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.03 U	< 0.03 U	**0.066**	< 0.03 U	**1.2**		< 0.2 U	< 0.2 U	< 0.2 U	< 0.02 U	**0.04**	--	< 0.4 U	< 0.02 U	**0.062**
Toluene	mg/kg	7	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.05 U	**0.56**	< 0.05 U	**0.085**	**0.18**		**0.065**	**0.084**	**2.1**	< 0.02 U	**0.73**	**0.25**	**1.4**	**0.042**	< 0.02 U
Ethylbenzene	mg/kg	6	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.05 U	**0.65**	< 0.05 U	**8.9**	**0.36**		**0.41**	**0.41**	**14**	< 0.02 U	**0.88**	**0.58**	**20**	**0.057**	**0.093**
Total Xylenes	mg/kg	9	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.1 U	**4.9**	**0.37**	**7.23**	**1.16**		**0.18**	**1.2**	**65**	< 0.06 U	**5.1**	**3.1**	**71**	**0.15**	**0.34**
Metals																					
Lead	mg/kg	250	**2.1**	< 1 U	**5.51**	**1.08**							--	--	--	< 1 U	--	--	**1.17**	--	--
Detected Volatile Organic Compounds (VOCs)																					
1,2,4-Trimethylbenzene	mg/kg		< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	**17**	**0.27**	**11**	< 0.05 U		--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	mg/kg		< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U		--	--	--	--	--	--	--	--	--
1,3,5-Trimethylbenzene	mg/kg		< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	**4.8**	< 0.05 U	**1.4**	< 0.05 U		--	--	--	--	--	--	--	--	--
Chlorobenzene	mg/kg		< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U		--	--	--	--	--	--	--	--	--
Chloroethane	mg/kg		< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U		--	--	--	--	--	--	--	--	--
Chloroform	mg/kg		< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	**0.2**	< 0.05 U		--	--	--	--	--	--	--	--	--
Isopropylbenzene	mg/kg		< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	**0.26**	< 0.05 U	**1.6**	< 0.05 U		--	--	--	--	--	--	--	--	--
m,p-Xylenes	mg/kg		< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.1 U	**3.2**	**0.37**	**6.9**	**0.84**		--	--	--	--	--	--	--	--	--
n-Hexane	mg/kg		< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	**14 E**	< 0.25 U		--	--	--	--	--	--	--	--	--
n-Propylbenzene	mg/kg		< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	**1.6**	**0.094**	**4.9**	< 0.05 U		--	--	--	--	--	--	--	--	--
o-Xylene	mg/kg		< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.05 U	**1.7**	< 0.05 U	**0.33**	**0.32**		--	--	--	--	--	--	--	--	--
p-Isopropyltoluene	mg/kg		< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	**0.36**	< 0.05 U	**1.4**	< 0.05 U		--	--	--	--	--	--	--	--	--
sec-Butylbenzene	mg/kg		< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	**0.55**	< 0.05 U	**1.1**	< 0.05 U		--	--	--	--	--	--	--	--	--
Tetrachloroethene (PCE)	mg/kg	0.05	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.025 U	< 0.025 U	< 0.025 U	< 0.025 U	< 0.025 U		--	--	--	--	--	--	--	--	--

Notes:

Table includes historical data collected by Aspect in June 2022 and by others in August 2020. New data for this study are highlighted in light purple.

Bold - detected

Purple Shaded - Detected result exceeded the cleanup level

U - Analyte not detected at or above laboratory reporting limit shown

J - Result value estimated

X - Chromatographic pattern does not match fuel standard used for quantitation

ppm - parts per million

mg/kg - milligrams per kilogram

"--" - not tested

MTCA - Model Toxics Control Act

Table 2a. Soil Analytical Data - TPH, Metals, and VOCs

Project No. 220264, Estelita's Library, 2901 17th Avenue South, Seattle, Washington

									Adjacent to Building (South)			Alley ROW (West)		Forest St ROW (North)		17th Ave ROW (East)	
Sample Location			**B-6**	**B-6**	**B-6**	**B-7**	**B-7**	**B-7**	**AMW-03**	**AMW-03**	**AMW-03**	**AMW-4**	**AMW-4**	**AMW-5**	**AMW-5**	**AMW-6**	**AMW-6**
Sample Date		**MTCA**	**8/20/2020**	**8/20/2020**	**8/20/2020**	**8/20/2020**	**8/20/2020**	**8/20/2020**	**06/08/2022**	**06/08/2022**	**06/08/2022**	**03/15/2023**	**03/15/2023**	**03/13/2023**	**03/13/2023**	**03/14/2023**	**03/14/2023**
Sample ID		**Method A**							**AMW-03-05**	**AMW-03-20**	**AMW-03-35**	**AMW-04-22.5**	**AMW-04-40**	**AMW-05-22.5**	**AMW-05-50**	**AMW-06-27.5**	**AMW-06-55**
Sample Depth		**Cleanup**	**15 ft**	**20 ft**	**36 ft**	**5 ft**	**15 ft**	**30 ft**	**5 ft**	**20 ft**	**35 ft**	**22.5 ft**	**40 ft**	**22.5 ft**	**50 ft**	**27.5 ft**	**55 ft**
Headspace Volatiles (ppm)		**Level**	**0.9**	**1,451**	**7.4**	**112**	**1,283**	**75**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**210**	**2.1**	**385**	**0.8**
Total Petroleum Hydrocarbons (TPH)																	
Gasoline Range Organics	mg/kg	30 | 100	< 5 U	**15**	< 5 U	< 5 U	**1300**	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	< 5 U	**100**	**6.5**	**24000**	< 5 U
Diesel Range Organics	mg/kg	2000	--	--	--	--	--	--	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	**3400 X**	< 50 U
Motor Oil Range Organics	mg/kg	2000	--	--	--	--	--	--	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U
Sum of Diesel and Oil Range Organics	mg/kg	2000							< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	**3400 X**	< 250 U
BTEX																	
Benzene	mg/kg	0.03	< 0.02 U	**0.34**	< 0.02 U	< 0.02 U	< 0.4 U	< 0.02 U	< 0.03 U	< 0.03 U	< 0.03 U	< 0.001 U	< 0.001 U	< 0.001 U	**0.0049**	< 30 U	< 0.001 U
Toluene	mg/kg	7	< 0.02 U	**1.4**	**0.055**	**0.055**	**36**	**0.074**	< 0.05 U	< 0.05 U	< 0.05 U	< 0.001 U	**0.0014**	< 0.001 U	**0.0031**	**470**	< 0.001 U
Ethylbenzene	mg/kg	6	< 0.02 U	**0.22**	**0.039**	**0.039**	**20**	< 0.02 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.001 U	< 0.001 U	**0.0085**	**0.055**	**310**	< 0.001 U
Total Xylenes	mg/kg	9	< 0.06 U	**1.3**	**0.21**	**0.21**	**120**	**0.12**	< 0.1 U	< 0.1 U	< 0.1 U	< 0.002 U	< 0.002 U	**0.0072**	**0.257**	**1610**	< 0.002 U
Metals																	
Lead	mg/kg	250	< 1 U	--	--	**1.12**	--	--				**3.03**	**4.83**	**1.06**	**1.24**	**4.89**	**1.16**
Detected Volatile Organic Compounds (VOCs)																	
1,2,4-Trimethylbenzene	mg/kg		--	--	--	--	--	--	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	**2.4**	**0.21**	**430**	< 0.05 U
1,2-Dichlorobenzene	mg/kg		--	--	--	--	--	--	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 50 U	< 0.05 U
1,3,5-Trimethylbenzene	mg/kg		--	--	--	--	--	--	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	**1**	**0.066**	**130**	< 0.05 U
Chlorobenzene	mg/kg		--	--	--	--	--	--	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 50 U	< 0.05 U
Chloroethane	mg/kg		--	--	--	--	--	--	< 0.5 U	< 0.5 U	< 0.5 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 500 U	< 0.1 U
Chloroform	mg/kg		--	--	--	--	--	--	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 50 U	< 0.05 U
Isopropylbenzene	mg/kg		--	--	--	--	--	--	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	**0.12**	< 0.05 U	< 50 U	< 0.05 U
m,p-Xylenes	mg/kg		--	--	--	--	--	--	< 0.1 U	< 0.1 U	< 0.1 U	< 0.002 U	< 0.002 U	**0.0059**	**0.2**	**1200**	< 0.002 U
n-Hexane	mg/kg		--	--	--	--	--	--	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	< 0.25 U	**1.3**	< 0.25 U	< 250 U	< 0.25 U
n-Propylbenzene	mg/kg		--	--	--	--	--	--	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	**0.87**	< 0.05 U	**92**	< 0.05 U
o-Xylene	mg/kg		--	--	--	--	--	--	< 0.05 U	< 0.05 U	< 0.05 U	< 0.001 U	< 0.001 U	**0.0013**	**0.057**	**410**	< 0.001 U
p-Isopropyltoluene	mg/kg		--	--	--	--	--	--	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	**0.12**	< 0.05 U	< 50 U	< 0.05 U
sec-Butylbenzene	mg/kg		--	--	--	--	--	--	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	**0.23**	< 0.05 U	< 50 U	< 0.05 U
Tetrachloroethene (PCE)	mg/kg	0.05	--	--	--	--	--	--	< 0.025 U	< 0.025 U	< 0.025 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 25 U	< 0.001 U

Notes:

Table includes historical data collected by Aspect in June 2022 and by others in August 2020. New data for this study are highlighted in light purple.

Bold - detected

Purple Shaded - Detected result exceeded the cleanup level

U - Analyte not detected at or above laboratory reporting limit shown

J - Result value estimated

X - Chromatographic pattern does not match fuel standard used for quantitation

ppm - parts per million

mg/kg - milligrams per kilogram

"--" - not tested

MTCA - Model Toxics Control Act

Table 2b. Soil Analytical Data - PAHs and PCBs

Project No. 220264, Estelita's Library, 2901 17th Avenue South, Seattle, Washington

Sample Location			Inside or Adjacent to Existing Building & Waste Oil UST Area												
Sample Date		MTCA	AB-1 03/16/2023	AB-1 03/16/2023	AB-2 03/16/2023	AB-2 03/16/2023	AB-3 03/16/2023	AB-3 03/16/2023	AB-4 03/16/2023	AB-4 03/16/2023	AB-5 03/16/2023	AB-5 03/16/2023	AB-6 03/16/2023	AB-6 03/16/2023	AB-6 03/16/2023
Sample ID		Method A	AB-01-1.0	AB-01-5.0	AB-02-0.5	AB-02-7.5	AB-03-0.5	AB-03-6.0	AB-04-5.0	AB-04-9.0	AB-05-5.0	AB-05-8.5	AB-06-1	AB-06-5	AB-06-12
Sample Depth		Cleanup	1 ft	5 ft	0.5 ft	7.5 ft	0.5 ft	6 ft	5 ft	9 ft	5 ft	8.5 ft	1 ft	5 ft	12 ft
Headspace Volatiles (ppm)		Level	42.9	116.8	0.7	111.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Polycyclic Aromatic Hydrocarbons (PAHs)															
1-Methylnaphthalene	mg/kg		--	**0.81**	--	**1.9**	--	--	--	--	--	--	--	--	--
2-Methylnaphthalene	mg/kg		--	**1.4**	--	**3.3**	--	--	--	--	--	--	--	--	--
Acenaphthene	mg/kg		--	< 0.01 U	--	**0.023**	--	--	--	--	--	--	--	--	--
Acenaphthylene	mg/kg		--	**0.018**	--	**0.04**	--	--	--	--	--	--	--	--	--
Anthracene	mg/kg		--	**0.02**	--	**0.057**	--	--	--	--	--	--	--	--	--
Benzo(g,h,i)perylene	mg/kg		--	**0.011**	--	**0.036**	--	--	--	--	--	--	--	--	--
Fluoranthene	mg/kg		--	**0.048**	--	**0.16**	--	--	--	--	--	--	--	--	--
Fluorene	mg/kg		--	**0.041**	--	**0.14**	--	--	--	--	--	--	--	--	--
Naphthalene	mg/kg	5	< 0.005 U	**0.036**	< 0.005 U	**1.1**	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U
Phenanthrene	mg/kg		--	**0.14**	--	**0.48**	--	--	--	--	--	--	--	--	--
Pyrene	mg/kg		--	**0.11**	--	**0.42**	--	--	--	--	--	--	--	--	--
Carcinogenic PAHs (cPAHs)															
Benz(a)anthracene	mg/kg		--	**0.022**	--	**0.065**	--	--	--	--	--	--	--	--	--
Benzo(a)pyrene	mg/kg	0.1	--	< 0.01 U	--	**0.022**	--	--	--	--	--	--	--	--	--
Benzo(b)fluoranthene	mg/kg		--	< 0.01 U	--	**0.045**	--	--	--	--	--	--	--	--	--
Benzo(k)fluoranthene	mg/kg		--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--
Chrysene	mg/kg		--	**0.026**	--	**0.066**	--	--	--	--	--	--	--	--	--
Dibenzo(a,h)anthracene	mg/kg		--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	mg/kg		--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--
Total cPAHs TEQ	mg/kg	0.1	--	**0.0095**	--	**0.035**	--	--	--	--	--	--	--	--	--
Polychlorinated Biphenols (PCBs)															
Aroclor 1016	mg/kg		--	< 0.02 U	--	< 0.02 U	--	--	--	--	--	--	--	--	--
Aroclor 1221	mg/kg		--	< 0.02 U	--	< 0.02 U	--	--	--	--	--	--	--	--	--
Aroclor 1232	mg/kg		--	< 0.02 U	--	< 0.02 U	--	--	--	--	--	--	--	--	--
Aroclor 1242	mg/kg		--	< 0.02 U	--	< 0.02 U	--	--	--	--	--	--	--	--	--
Aroclor 1248	mg/kg		--	< 0.02 U	--	< 0.02 U	--	--	--	--	--	--	--	--	--
Aroclor 1254	mg/kg		--	< 0.02 U	--	< 0.02 U	--	--	--	--	--	--	--	--	--
Aroclor 1260	mg/kg		--	< 0.02 U	--	< 0.02 U	--	--	--	--	--	--	--	--	--
Aroclor 1262	mg/kg		--	< 0.02 U	--	< 0.02 U	--	--	--	--	--	--	--	--	--
Aroclor 1268	mg/kg		--	< 0.02 U	--	< 0.02 U	--	--	--	--	--	--	--	--	--
Total PCBs (Sum of Aroclors)	mg/kg	1	--	< 0.02 U	--	< 0.02 U	--	--	--	--	--	--	--	--	--

Notes:

Table includes historical data collected by Aspect in June 2022 and by others in August 2020. New data for this study are highlighted in light purple.

Bold - detected

Purple Shaded - Detected result exceeded cleanup levels

U - Analyte not detected at or above laboratory reporting limit shown

J - Result value estimated

ppm - parts per million

mg/kg - milligrams per kilogram

cPAHs - carcinogenic polycyclic aromatic hydrocarbons

TEQ - Toxic equivalent, calculated using 1/2 the reporting limit for non-detected components

"--" - not tested

MTCA - Model Toxics Control Act

Table 2b. Soil Analytical Data - PAHs and PCBs

Project No. 220264, Estelita's Library, 2901 17th Avenue South, Seattle, Washington

Sample Location			Former Refueling USTs Area									Adjacent to Building (South)			Alley ROW (West)		Forest St ROW (North)		17th Ave ROW (East)	
Sample Date		MTCA	AB-7	AB-7	AB-8	AB-8	AMW-01	AMW-01	AMW-01	AMW-02	AMW-02	AMW-03	AMW-03	AMW-03	AMW-4	AMW-4	AMW-5	AMW-5	AMW-6	AMW-6
			03/16/2023	03/16/2023	03/16/2023	03/16/2023	06/06/2022	06/06/2022	06/06/2022	06/07/2022	06/07/2022	06/08/2022	06/08/2022	06/08/2022	03/15/2023	03/15/2023	03/13/2023	03/13/2023	03/14/2023	03/14/2023
Sample ID			AB-07-5.0	AB-07-9.5	AB-08-1.0	AB-08-10.5	AMW-01-10	AMW-01-20	AMW-01-40	AMW-02-21	AMW-02-41.5	AMW-03-05	AMW-03-20	AMW-03-35	AMW-04-22.5	AMW-04-40	AMW-05-22.5	AMW-05-50	AMW-06-27.5	AMW-06-55
Sample Depth		Cleanup	5 ft	9.5 ft	1 ft	10.5 ft	10 ft	20 ft	40 ft	21 ft	41.5 ft	5 ft	20 ft	35 ft	22.5 ft	40 ft	22.5 ft	50 ft	27.5 ft	55 ft
Headspace Volatiles (ppm)		Level																		
Polycyclic Aromatic Hydrocarbons (PAHs)																				
1-Methylnaphthalene	mg/kg		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methylnaphthalene	mg/kg		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthene	mg/kg		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthylene	mg/kg		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Anthracene	mg/kg		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(g,h,i)perylene	mg/kg		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoranthene	mg/kg		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluorene	mg/kg		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	mg/kg	5	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.05 U	**13**	**0.15**	**3.6**	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.005 U	< 0.005 U	**0.037**	**0.047**	**110**	< 0.005 U
Phenanthrene	mg/kg		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pyrene	mg/kg		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carcinogenic PAHs (cPAHs)																				
Benz(a)anthracene	mg/kg		--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.01 U	< 0.01 U	--	--
Benzo(a)pyrene	mg/kg	0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.01 U	< 0.01 U	--	--
Benzo(b)fluoranthene	mg/kg		--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.01 U	< 0.01 U	--	--
Benzo(k)fluoranthene	mg/kg		--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.01 U	< 0.01 U	--	--
Chrysene	mg/kg		--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.01 U	< 0.01 U	--	--
Dibenzo(a,h)anthracene	mg/kg		--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.01 U	< 0.01 U	--	--
Indeno(1,2,3-cd)pyrene	mg/kg		--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.01 U	< 0.01 U	--	--
Total cPAHs TEQ	mg/kg	0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.00755 U	< 0.00755 U	--	--
Polychlorinated Biphenols (PCBs)																				
Aroclor 1016	mg/kg		--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.02 U	< 0.02 U	--	--
Aroclor 1221	mg/kg		--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.02 U	< 0.02 U	--	--
Aroclor 1232	mg/kg		--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.02 U	< 0.02 U	--	--
Aroclor 1242	mg/kg		--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.02 U	< 0.02 U	--	--
Aroclor 1248	mg/kg		--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.02 U	< 0.02 U	--	--
Aroclor 1254	mg/kg		--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.02 U	< 0.02 U	--	--
Aroclor 1260	mg/kg		--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.02 U	< 0.02 U	--	--
Aroclor 1262	mg/kg		--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.02 U	< 0.02 U	--	--
Aroclor 1268	mg/kg		--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.02 U	< 0.02 U	--	--
Total PCBs (Sum of Aroclors)	mg/kg	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.02 U	< 0.02 U	--	--

Notes:

Table includes historical data collected by Aspect in June 2022 and by others in August 2020. New data for this study are highlighted in light purple.

Bold - detected

Purple Shaded - Detected result exceeded cleanup levels

U - Analyte not detected at or above laboratory reporting limit shown

J - Result value estimated

ppm - parts per million

mg/kg - milligrams per kilogram

cPAHs - carcinogenic polycyclic aromatic hydrocarbons

TEQ - Toxic equivalent, calculated using 1/2 the reporting limit for non-detected components

"--" - not tested

MTCA - Model Toxics Control Act

Table 3. Groundwater Analytical Data

Project No. 220264, Estelita's Library, 2901 17th Avenue South, Seattle, Washington

Sample Location		MTCA Method A Cleanup Levels	Refueling USTs Area				Adjacent to Building (South)		Alley ROW (West)	Forest St ROW (North)	17th Ave ROW (East)
			AMW-01		AMW-02		AMW-03		AMW-04	AMW-05	AMW-06
Sample Date			06/13/2022	3/22/2023	06/13/2022	3/22/2023	06/13/2022	03/22/2023	03/22/2023	3/22/2023	3/22/2023
Sample ID			AMW-01-061322	--	AMW-02-061322	--	AMW-03-061322	AMW-03-032223	AMW-04-032223	--	--
LNAPL Thickness (feet)			NM	5.78	NM	0.03	NM	0.00	0.00	0.01	0.42
Depth to Water (feet bTOC)			20.28	25.26	25.77	27.34	14.62	15.26	12.64	25.44	27.90
Groundwater Elevation (feet NAVD88)			295	273.9	295	267.37	296	280.10	282.23	268.58	266.70
Field Parameters											
Temperature	deg C		14.6	--	16.9	--	13.5	13.23	13.17	--	--
Specific Conductance	uS/cm		285.4	--	386.4	--	237.9	240.72	216.56	--	--
Dissolved Oxygen	mg/L		0.98	--	0.68	--	0.39	0.74	1.98	--	--
pH			6.9	--	6.98	--	7.15	6.73	6.7	--	--
ORP	mV		64.6	--	43.2	--	59.6	135.1	124.5	--	--
Turbidity	NTU		15.6	--	16.6	--	5.44	2.68	1.67	--	--
Total Petroleum Hydrocarbons (TPH)											
Gasoline Range Organics	ug/L	1000	**27000**	--	**34000**	--	< 100 U	< 100 U	< 100 U	--	--
Diesel Range Organics	ug/L	500	**2200 X**	--	**2600 X**	--	**69 X**	**67 X**	< 50 U	--	--
Motor Oil Range Organics	ug/L	500	< 250 U	--	< 250 U	--	< 250 U	< 250 U	< 250 U	--	--
Sum of Diesel and Oil Range Organics	ug/L	500	**2200**	--	**2600**	--	**69 X**	**67 X**	< 250 U	--	--
BTEXN											
Benzene	ug/L	5	**2600**	--	**330**	--	< 0.35 U	< 0.35 U	< 0.35 U	--	--
Toluene	ug/L	1000	**960**	--	**970**	--	< 1 U	< 1 U	< 1 U	--	--
Ethylbenzene	ug/L	700	**520**	--	**2000**	--	< 1 U	< 1 U	< 1 U	--	--
Total Xylenes	ug/L	1000	**1960**	--	**5900**	--	< 2 U	< 2 U	< 2 U	--	--
Naphthalene	ug/L	160	**140**	--	**460**	--	< 1 U	< 1 U	< 1 U	--	--
Volatile Organic Compounds (VOCs)											
1,1,1,2-Tetrachloroethane	ug/L		< 100 U	--	< 100 U	--	< 1 U	< 1 U	< 1 U	--	--
1,1,1-Trichloroethane	ug/L	200	< 100 U	--	< 100 U	--	< 1 U	< 1 U	< 1 U	--	--
1,1,2,2-Tetrachloroethane	ug/L		< 20 U	--	< 20 U	--	< 0.2 U	< 0.2 U	< 0.2 U	--	--
1,1,2-Trichloroethane	ug/L		< 50 U	--	< 50 U	--	< 0.5 U	< 0.5 U	< 0.5 U	--	--
1,1-Dichloroethane	ug/L		< 100 U	--	< 100 U	--	< 1 U	< 1 U	< 1 U	--	--
1,1-Dichloroethene	ug/L		< 100 U	--	< 100 U	--	< 1 U	< 1 U	< 1 U	--	--
1,1-Dichloropropene	ug/L		< 100 U	--	< 100 U	--	< 1 U	< 1 U	< 1 U	--	--
1,2,3-Trichlorobenzene	ug/L		< 100 U	--	< 100 U	--	< 1 U	< 1 U	< 1 U	--	--
1,2,3-Trichloropropane	ug/L		< 100 U	--	< 100 U	--	< 1 U	< 1 U	< 1 U	--	--
1,2,4-Trichlorobenzene	ug/L		< 100 U	--	< 100 U	--	< 1 U	< 1 U	< 1 U	--	--
1,2,4-Trimethylbenzene	ug/L		**1100**	--	**1100**	--	< 1 U	< 1 U	< 1 U	--	--
1,2-Dibromo-3-chloropropane	ug/L		< 1000 U	--	< 1000 U	--	< 10 U	< 10 U	< 10 U	--	--
1,2-Dibromoethane (EDB)	ug/L	0.01	< 100 U	--	< 100 U	--	< 1 U	< 1 U	< 1 U	--	--
1,2-Dichlorobenzene	ug/L		< 100 U	--	< 100 U	--	< 1 U	< 1 U	< 1 U	--	--
1,2-Dichloroethane (EDC)	ug/L	5	< 20 U	--	< 20 U	--	< 0.2 U	< 0.2 U	< 0.2 U	--	--
1,2-Dichloropropane	ug/L		< 100 U	--	< 100 U	--	< 1 U	< 1 U	< 1 U	--	--
1,3,5-Trimethylbenzene	ug/L		**330**	--	**200**	--	< 1 U	< 1 U	< 1 U	--	--
1,3-Dichlorobenzene	ug/L		< 100 U	--	< 100 U	--	< 1 U	< 1 U	< 1 U	--	--
1,3-Dichloropropane	ug/L		< 100 U	--	< 100 U	--	< 1 U	< 1 U	< 1 U	--	--
1,4-Dichlorobenzene	ug/L		< 100 U	--	< 100 U	--	< 1 U	< 1 U	< 1 U	--	--
2,2-Dichloropropane	ug/L		< 100 U	--	< 100 U	--	< 1 U	< 1 U	< 1 U	--	--
2-Butanone	ug/L		< 2000 U	--	< 2000 U	--	< 20 U	< 20 U	< 20 U	--	--

Table 3. Groundwater Analytical Data

Project No. 220264, Estelita's Library, 2901 17th Avenue South, Seattle, Washington

Sample Location		MTCA Method A Cleanup Levels	Refueling USTs Area				Adjacent to Building (South)		Alley ROW (West)	Forest St ROW (North)	17th Ave ROW (East)
			AMW-01		AMW-02		AMW-03		AMW-04	AMW-05	AMW-06
Sample Date			06/13/2022	3/22/2023	06/13/2022	3/22/2023	06/13/2022	03/22/2023	03/22/2023	3/22/2023	3/22/2023
Sample ID			AMW-01-061322	--	AMW-02-061322	--	AMW-03-061322	AMW-03-032223	AMW-04-032223	--	--
LNAPL Thickness (feet)			NM	5.78	NM	0.03	NM	0.00	0.00	0.01	0.42
Depth to Water (feet bTOC)			20.28	25.26	25.77	27.34	14.62	15.26	12.64	25.44	27.90
Groundwater Elevation (feet NAVD88)			295	273.9	295	267.37	296	280.10	282.23	268.58	266.70
2-Chlorotoluene	ug/L		< 100 U	--	< 100 U	--	< 1 U	< 1 U	< 1 U	--	--
2-Hexanone	ug/L		< 1000 U	--	< 1000 U	--	< 10 U	< 10 U	< 10 U	--	--
4-Chlorotoluene	ug/L		< 100 U	--	< 100 U	--	< 1 U	< 1 U	< 1 U	--	--
4-Methyl-2-pentanone	ug/L		< 1000 U	--	< 1000 U	--	< 10 U	< 10 U	< 10 U	--	--
Acetone	ug/L		< 5000 U	--	< 5000 U	--	< 50 U	< 50 U	< 50 U	--	--
Bromobenzene	ug/L		< 100 U	--	< 100 U	--	< 1 U	< 1 U	< 1 U	--	--
Bromodichloromethane	ug/L		< 50 U	--	< 50 U	--	< 0.5 U	< 0.5 U	< 0.5 U	--	--
Bromoform	ug/L		< 500 U	--	< 500 U	--	< 5 U	< 5 U	< 5 U	--	--
Bromomethane	ug/L		< 500 U	--	< 500 U	--	< 5 U	< 5 U	< 5 U	--	--
Carbon Tetrachloride	ug/L		< 50 U	--	< 50 U	--	< 0.5 U	< 0.5 U	< 0.5 U	--	--
Chlorobenzene	ug/L		< 100 U	--	< 100 U	--	< 1 U	< 1 U	< 1 U	--	--
Chloroethane	ug/L		< 100 U	--	< 100 U	--	< 1 U	< 1 U	< 1 U	--	--
Chloroform	ug/L		< 100 U	--	< 100 U	--	< 1 U	< 1 U	< 1 U	--	--
Chloromethane	ug/L		< 1000 U	--	< 1000 U	--	< 10 U	< 10 U	< 10 U	--	--
cis-1,2-Dichloroethene (cDCE)	ug/L		< 100 U	--	< 100 U	--	< 1 U	< 1 U	< 1 U	--	--
cis-1,3-Dichloropropene	ug/L		< 40 U	--	< 40 U	--	< 0.4 U	< 0.4 U	< 0.4 U	--	--
Dibromochloromethane	ug/L		< 50 U	--	< 50 U	--	< 0.5 U	< 0.5 U	< 0.5 U	--	--
Dibromomethane	ug/L		< 100 U	--	< 100 U	--	< 1 U	< 1 U	< 1 U	--	--
Dichlorodifluoromethane	ug/L		< 100 U	--	< 100 U	--	< 1 U	< 1 U	< 1 U	--	--
Hexachlorobutadiene	ug/L		< 50 U	--	< 50 U	--	< 0.5 U	< 0.5 U	< 0.5 U	--	--
Isopropylbenzene	ug/L		< 100 U	--	< 100 U	--	< 1 U	< 1 U	< 1 U	--	--
m,p-Xylenes	ug/L		**1800**	--	**4800**	--	< 2 U	< 2 U	< 2 U	--	--
Methyl tert-butyl ether (MTBE)	ug/L	20	< 100 U	--	< 100 U	--	< 1 U	< 1 U	< 1 U	--	--
Methylene Chloride	ug/L	5	< 500 U	--	< 500 U	--	< 5 U	< 5 U	< 5 U	--	--
n-Hexane	ug/L		< 500 U	--	< 500 U	--	< 5 U	< 5 U	< 5 U	--	--
n-Propylbenzene	ug/L		**260**	--	**220**	--	< 1 U	< 1 U	< 1 U	--	--
o-Xylene	ug/L		**160**	--	**1100**	--	< 1 U	< 1 U	< 1 U	--	--
p-Isopropyltoluene	ug/L		< 100 U	--	< 100 U	--	< 1 U	< 1 U	< 1 U	--	--
sec-Butylbenzene	ug/L		< 100 U	--	< 100 U	--	< 1 U	< 1 U	< 1 U	--	--
Styrene	ug/L		< 100 U	--	< 100 U	--	< 1 U	< 1 U	< 1 U	--	--
tert-Butylbenzene	ug/L		< 100 U	--	< 100 U	--	< 1 U	< 1 U	< 1 U	--	--
Tetrachloroethene (PCE)	ug/L	5	< 100 U	--	< 100 U	--	< 1 U	< 1 U	< 1 U	--	--
trans-1,2-Dichloroethene	ug/L		< 100 U	--	< 100 U	--	< 1 U	< 1 U	< 1 U	--	--
trans-1,3-Dichloropropene	ug/L		< 40 U	--	< 40 U	--	< 0.4 U	< 0.4 U	< 0.4 U	--	--
Trichloroethene (TCE)	ug/L	5	< 50 U	--	< 50 U	--	< 0.5 U	< 0.5 U	< 0.5 U	--	--
Trichlorofluoromethane	ug/L		< 100 U	--	< 100 U	--	< 1 U	< 1 U	< 1 U	--	--
Vinyl Chloride	ug/L	0.2	< 2 U	--	< 2 U	--	< 0.02 U	< 0.02 U	< 0.02 U	--	--

Notes:

Table includes historical data collected by Aspect in June 2022. New data for this study are highlighted in light purple.

Bold - Analyte detected above the laboratory reporting limit

Purple Shaded - Detected concentration exceeds the cleanup level

U - Analyte not detected at or above laboratory reporting limit shown

X - Chromatographic pattern does not match fuel standard used for quantitation

-- - not sampled due to presence of LNAPL in well

NM - not measured

LNAPL - light non-aqueous phase liquid

µg/L - microgram per liter

MTCA - Model Toxics Control Act

bTOC - below top of casing

NAVD88 - North American Vertical Datum of 1988

deg C - degrees celcius

uS/cm - microSiemens per centimeter

NTU - Nephelometric Turbidity Units

mV - millivolts

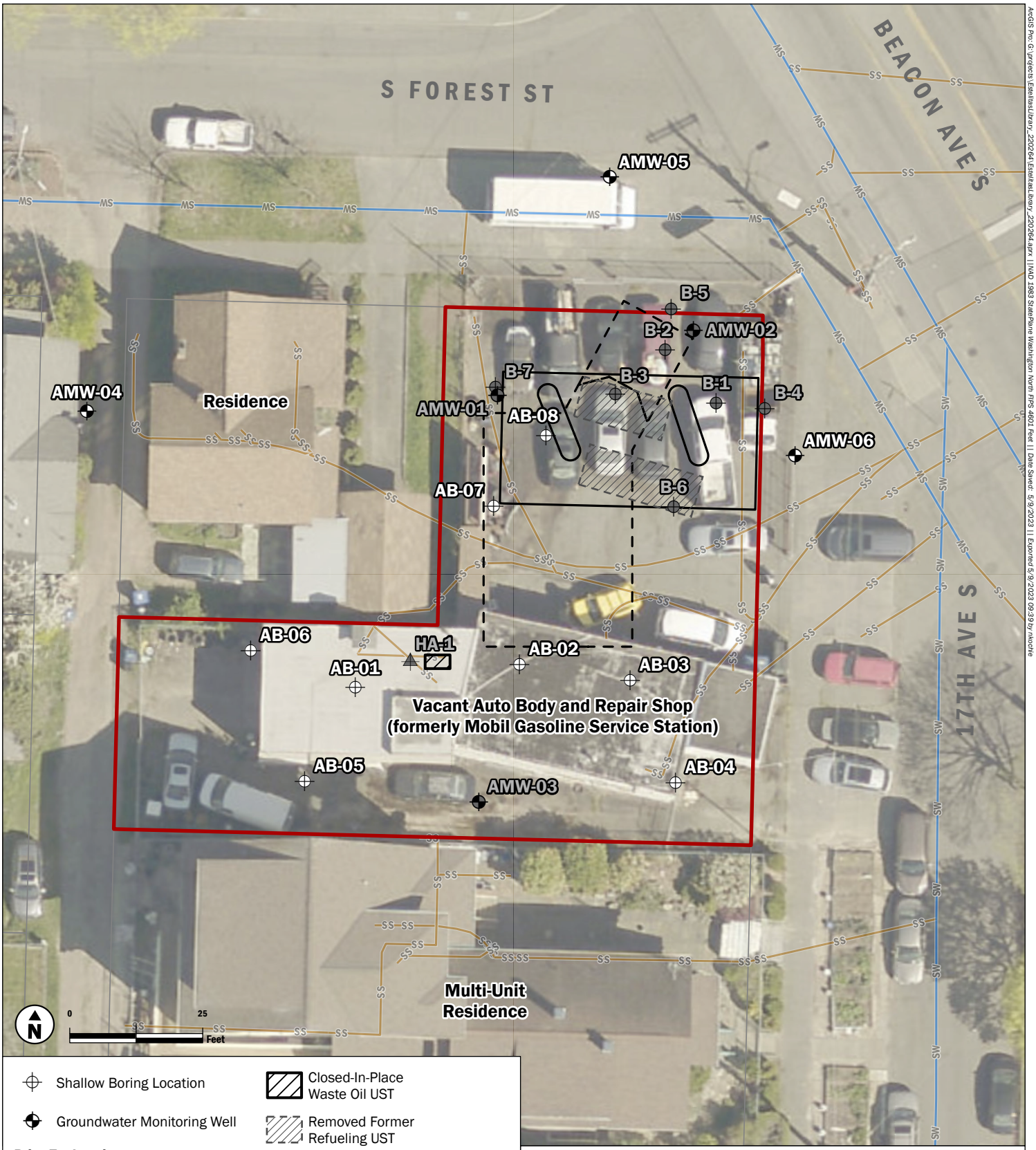
FIGURES

Site Vicinity Map

Environmental Investigation Report
Estelita's Library Proposed Redevelopment
2901 17th Avenue South
Seattle, Washington

Aspect Consulting	APR-2023	BY: ALC / NLK	FIGURE NO. 1
	PROJECT NO. 220264	REVISED BY: HRC	

Data source credits: None | | Basemap Service Layer Credits: City of Seattle, Bureau of Land Management, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, EPA, USDA, Esri, HERE, Garmin, USGS, EPA, NPS



- Shallow Boring Location
- Groundwater Monitoring Well

Prior Exploration

- Soil Boring
- Hand Auger
- Groundwater Monitoring Well
- Subject Property

- Closed-In-Place Waste Oil UST
- Removed Former Refueling UST
- Gilmore Gasoline Service Station Footprint (1939 to 1956)
- Mobil Gasoline Service Station Pump Islands (1956 to 1990)
- Stormwater
- Sanitary Sewer
- King County Tax Parcel

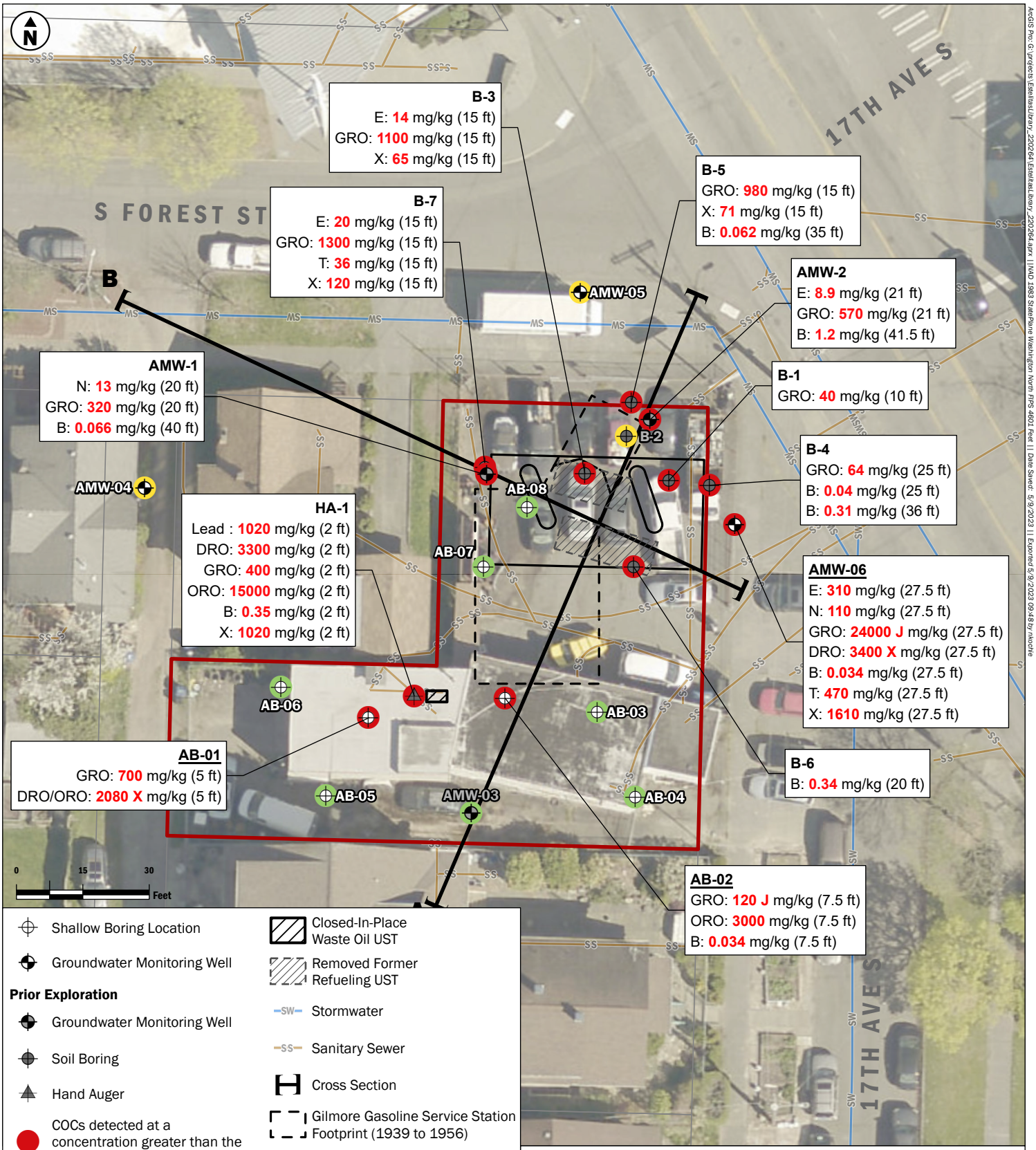
Note: UST = Underground Storage Tank

Site Plan

Environmental Investigation Report
Estelita's Library Proposed Redevelopment
2901 17th Avenue South
Seattle, Washington

Aspect Consulting	MAY-2023	BY: ALC / NLK	FIGURE NO. 2
	PROJECT NO. 220264	REVISED BY: HRC	

Data source credits: None | | Basemap Service Layer Credits: EagleView Technologies, Inc.



Shallow Boring Location

Groundwater Monitoring Well

Prior Exploration

Groundwater Monitoring Well

Soil Boring

Hand Auger

COCs detected at a concentration greater than the MTCA Method A cleanup level

COCs detected at a concentration less than the MTCA Method A cleanup level

COCs not detected

Closed-In-Place Waste Oil UST

Removed Former Refueling UST

Stormwater

Sanitary Sewer

Cross Section

Gilmore Gasoline Service Station Footprint (1939 to 1956)

Mobil Gasoline Service Station Pump Islands (1956 to 1990)

Subject Property

King County Tax Parcel

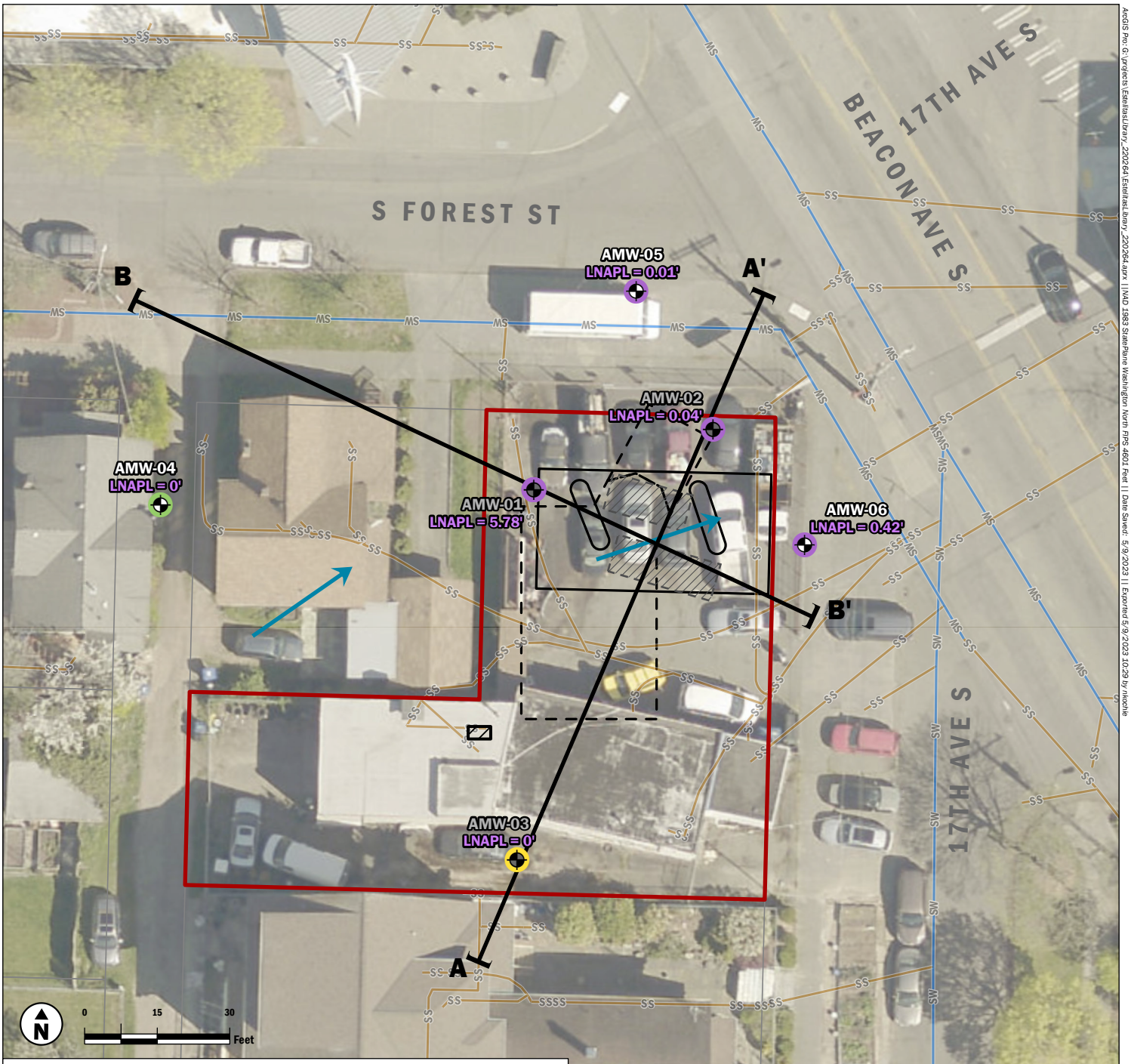
Notes:
COC = Chemical of Concern
B = Benzene
E = Ethylbenzene
N = Naphthalene
T = Toulene
X = Total Xylenes
DRO = Diesel Range Organics
GRO = Gasoline Range Organics
ORO = Motor Oil Range Organics
UST = Underground Storage Tank

Analytical Soil Data

Environmental Investigation Report
Estelita's Library Proposed Redevelopment
2901 17th Avenue South
Seattle, Washington

Aspect Consulting	MAY-2023	BY: ALC / NLK / WBL	FIGURE NO. 3
	PROJECT NO. 220264	REVISED BY: HRC	

Data source credits: None | | Basemap Service Layer Credits: EagleView Technologies, Inc.



Groundwater Monitoring Well

Prior Exploration

Groundwater Monitoring Well

COCs detected at a concentration greater than the MTCA Method A cleanup level

COCs detected at a concentration less than the MTCA Method A cleanup level

COCs not detected

Well not sampled due to presence of LNAPL

Subject Property

Closed-In-Place Waste Oil UST

Removed Former Refueling UST

Gilmore Gasoline Service Station Footprint (1939 to 1956)

Mobil Gasoline Service Station Pump Islands (1956 to 1990)

SW Stormwater

SS Sanitary Sewer

Groundwater Flow Direction

Cross Section

King County Tax Parcel

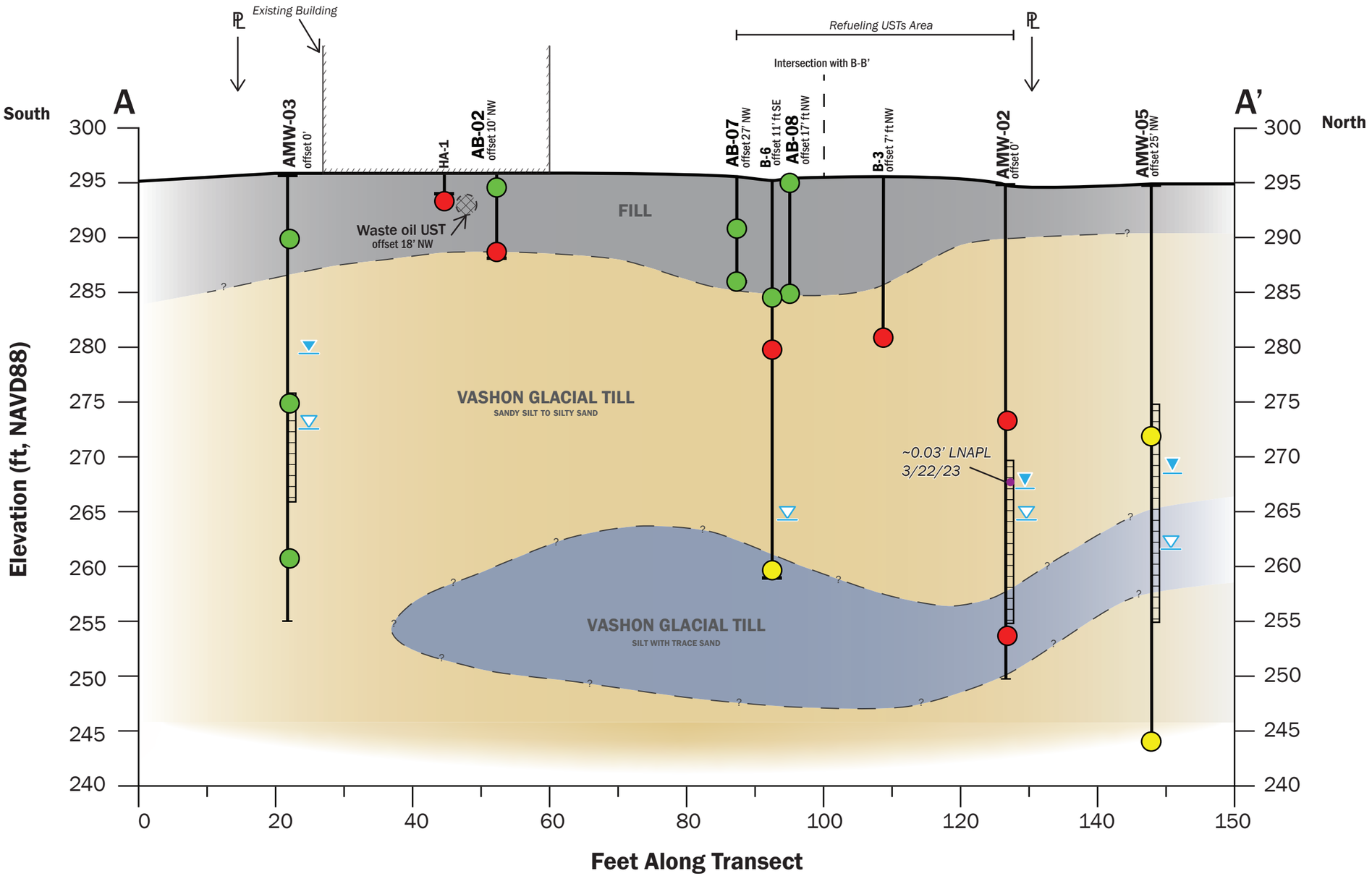
Notes:
COC = Chemical of Concern
LNAPL = light non-aqueous phase liquid
UST = Underground Storage Tank

Analytical Groundwater Data

Environmental Investigation Report
Estelita's Library Proposed Redevelopment
2901 17th Avenue South
Seattle, Washington

Aspect Consulting	MAY-2023	BY: ALC / NLK / WBL	FIGURE NO. 4
	PROJECT NO. 220264	REVISED BY: HRC	

Data source credits: None | | Basemap Service Layer Credits: EagleView Technologies, Inc.



Legend

- Fill
- Vashon Glacial Till (sandy silt to silty sand)
- Vashon Glacial Till (silt with trace sand)
- UST (closed in place, approximate)
- Petroleum hydrocarbons, BTEX, or naphthalene detected in soil samples at a concentration greater than MTCA Cleanup Level.
- Petroleum hydrocarbons, VOCs, or PAHs detected in soil samples at a concentration less than the MTCA Cleanup Level.
- Analytes not detected soil samples.

MW-3
- *Boring/Monitoring Well ID*
- *Well Screen*
- *Groundwater at Time of Drilling*
- *Measured Groundwater Elevation (3/22/2023)*
- *Boring Depth*

Notes:
- *LNAPL - light non-aqueous phase liquids*
- *NAVD88 - North American Vertical Datum of 1988*
- *UST - underground storage tank*
- *BTEX - Benzene, Toluene, Ethylbenzene, Xylene*
- *VOCs - volatile organic compounds*
- *PAHs - polycyclic aromatic hydrocarbons*

Scale

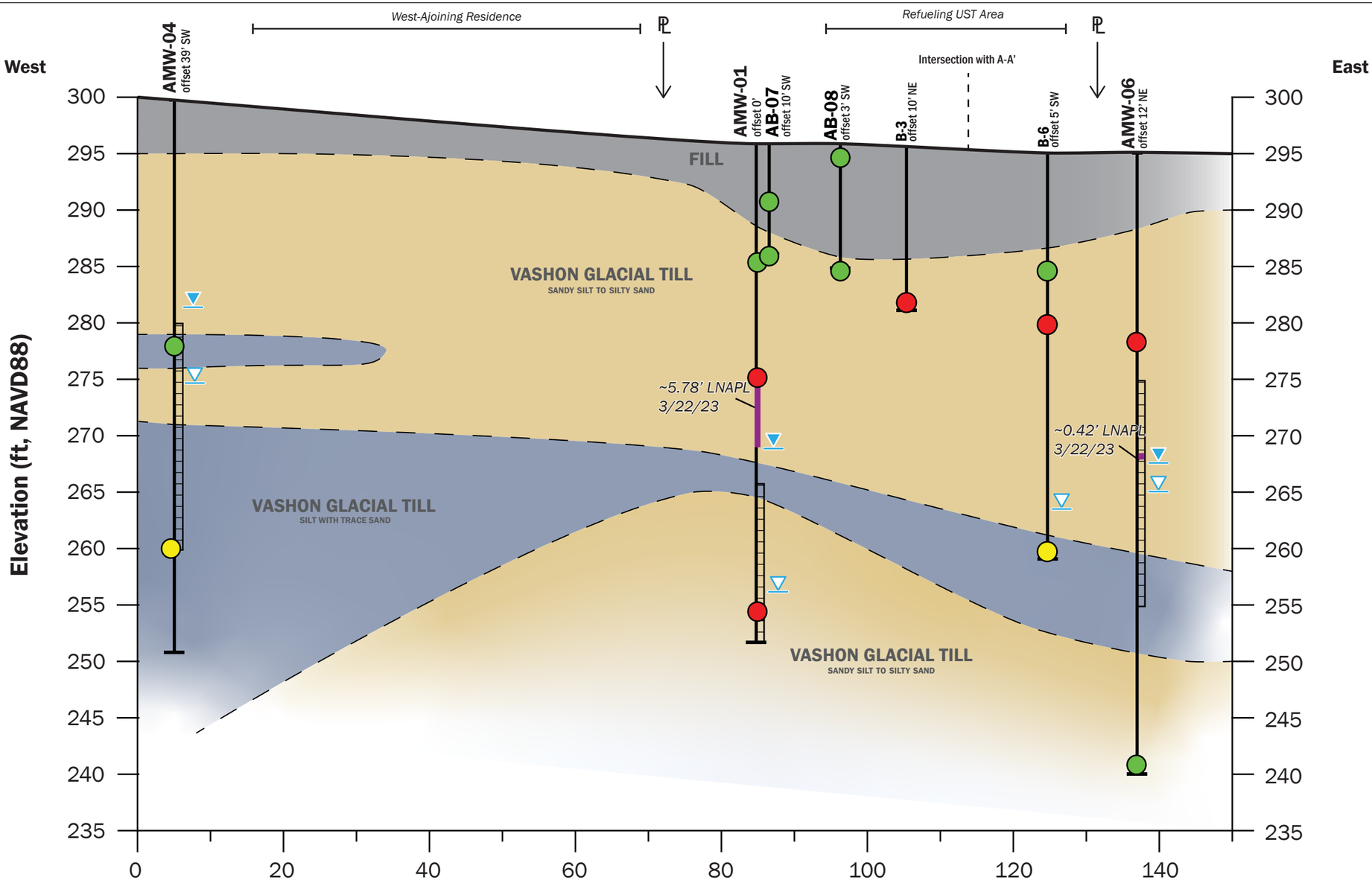
Horizontal: 1 in = 15 ft
Vertical: 1 in = 10 ft
1.5 x Vertical Exaggeration

0 15 30
Feet

Cross Section A-A'

Environmental Investigation report
Estelita's Library Proposed Redevelopment
2901 17th Avenue South
Seattle, Washington

Aspect Consulting	APR-2023	BY: AWP/AC	FIGURE NO. 5
	PROJECT NO. 220264	REV BY: --	



Legend

- Fill
- Vashon Glacial Till (sandy silt to silty sand)
- Vashon Glacial Till (silt with trace sand)

- Petroleum hydrocarbons, BTEX, or naphthalene detected in soil samples at a concentration greater than MTCA Cleanup Level.
- Petroleum hydrocarbons, VOCs, PAHs, or lead detected in soil samples at a concentration less than the MTCA Cleanup Level.
- Analytes not detected soil samples.

MW-3 — *Boring/Monitoring Well ID*

Well Screen

Groundwater at Time of Drilling

Measured Groundwater Elevations (3/22/2023)

Boring Depth

Notes:

- *LNAPL - light non-aqueous phase liquids*
- *NAVD88 - North American Vertical Datum of 1988*
- *BTEX - Benzene, Toluene, Ethylbenzene, Xylene*
- *PAHs - polycyclic aromatic hydrocarbons*
- *VOCs - volatile organic compounds*

Scale

Horizontal: 1 in = 15 ft
Vertical: 1 in = 10 ft
1.5 x Vertical Exaggeration

0 15 30
Feet

Cross Section B-B'

Environmental Investigation Report
Estelita's Library Proposed Redevelopment
2901 17th Avenue South
Seattle, Washington

Aspect Consulting	APR-2023	BY: AWP/AC	FIGURE NO. 6
	PROJECT NO. 220264	REV BY: ---	

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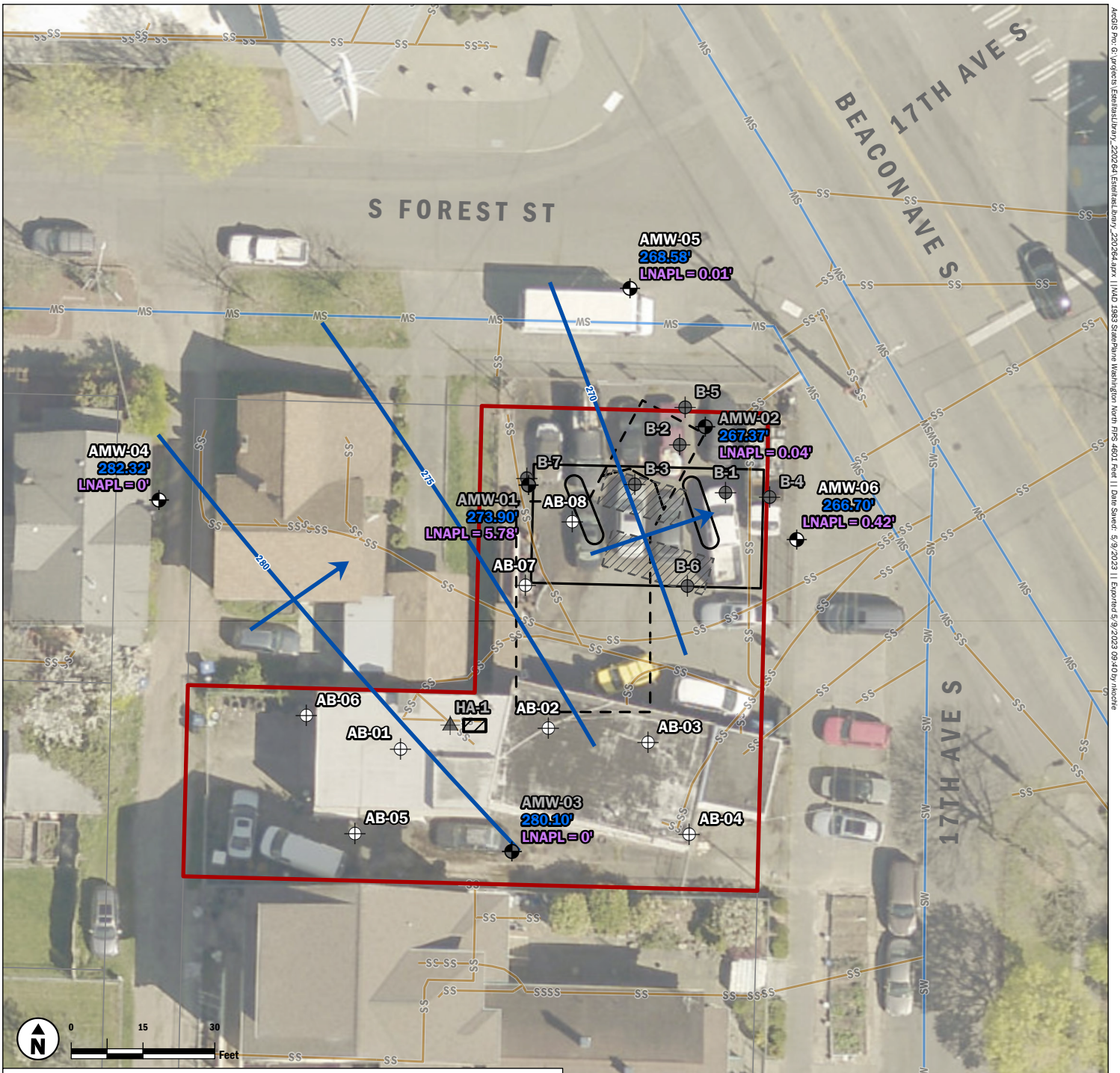

Groundwater Monitoring Well

Shallow Boring Location

Prior Exploration

Soil Boring

Hand Auger

Groundwater Monitoring Well

Groundwater Contour

Groundwater Flow Direction

Closed-In-Place Waste Oil UST

Removed Former Refueling UST

Gilmore Gasoline Service Station Footprint (1939 to 1956)

Mobil Gasoline Service Station Pump Islands (1956 to 1990)

Subject Property

Stormwater

Sanitary Sewer

King County Tax Parcel

Notes:
UST = Underground Storage Tank
Water level measurements in blue from 3/22/23,
LNAPL = light non-aqueous phase liquid

Groundwater Elevation Map
March 22, 2023

Environmental Investigation Report
Estelita's Library Proposed Redevelopment
2901 17th Avenue South
Seattle, Washington

Aspect Consulting	MAY-2023	BY: ALC / NLK / WBL	FIGURE NO. 7
	PROJECT NO. 220264	REVISED BY: HRC	

Data source credits: None | | Basemap Service Layer Credits: EagleView Technologies, Inc.

APPENDIX A

Boring and Well Construction Logs

Coarse-Grained Soils - More than 50%[1] Retained on No. 200 Sieve	Gravels - More than 50%[1] of Coarse Fraction Retained on No. 4 Sieve	≤5% Fines	GW	Well-graded GRAVEL Well-graded GRAVEL WITH SAND
			GP	Poorly-graded GRAVEL Poorly-graded GRAVEL WITH SAND
		≥15% Fines	GM	SILTY GRAVEL SILTY GRAVEL WITH SAND
			GC	CLAYEY GRAVEL CLAYEY GRAVEL WITH SAND
	Sands - 50%[1] or More of Coarse Fraction Passes No. 4 Sieve	≤5% Fines	SW	Well-graded SAND Well-graded SAND WITH GRAVEL
			SP	Poorly-graded SAND Poorly-graded SAND WITH GRAVEL
		≥15% Fines	SM	SILTY SAND SILTY SAND WITH GRAVEL
			SC	CLAYEY SAND CLAYEY SAND WITH GRAVEL
Fine-Grained Soils - 50%[1] or More Passes No. 200 Sieve	Silts and Clays Liquid Limit Less than 50%		ML	SILT SANDY or GRAVELLY SILT SILT WITH SAND SILT WITH GRAVEL
			CL	LEAN CLAY SANDY or GRAVELLY LEAN CLAY LEAN CLAY WITH SAND LEAN CLAY WITH GRAVEL
			OL	ORGANIC SILT SANDY or GRAVELLY ORGANIC SILT ORGANIC SILT WITH SAND ORGANIC SILT WITH GRAVEL
	Silts and Clays Liquid Limit 50% or More		MH	ELASTIC SILT SANDY or GRAVELLY ELASTIC SILT ELASTIC SILT WITH SAND ELASTIC SILT WITH GRAVEL
			CH	FAT CLAY SANDY or GRAVELLY FAT CLAY FAT CLAY WITH SAND FAT CLAY WITH GRAVEL
			OH	ORGANIC CLAY SANDY or GRAVELLY ORGANIC CLAY ORGANIC CLAY WITH SAND ORGANIC CLAY WITH GRAVEL
Highly Organic Soils			PT	PEAT and other mostly organic soils

"WITH SILT" or "WITH CLAY" means 5 to 15% silt and clay, denoted by a "-" in the group name; e.g., SP-SM • "SILTY" or "CLAYEY" means >15% silt and clay • "WITH SAND" or "WITH GRAVEL" means 15 to 30% sand and gravel. • "SANDY" or "GRAVELLY" means >30% sand and gravel. • "Well-graded" means approximately equal amounts of fine to coarse grain sizes • "Poorly graded" means unequal amounts of grain sizes • Group names separated by "/" means soil contains layers of the two soil types; e.g., SM/ML.

Soils were described and identified in the field in general accordance with the methods described in ASTM D2488. Where indicated in the log, soils were classified using ASTM D2487 or other laboratory tests as appropriate. Refer to the report accompanying these exploration logs for details.

1. Estimated or measured percentage by dry weight
2. (SPT) Standard Penetration Test (ASTM D1586)
3. Determined by SPT, DCPT (ASTM STP399) or other field methods. See report text for details.

GEOTECHNICAL LAB TESTS

MC	=	Natural Moisture Content
PS	=	Particle Size Distribution
FC	=	Fines Content (% < 0.075 mm)
GH	=	Hydrometer Test
AL	=	Atterberg Limits
C	=	Consolidation Test
Str	=	Strength Test
OC	=	Organic Content (% Loss by Ignition)
Comp	=	Proctor Test
K	=	Hydraulic Conductivity Test
SG	=	Specific Gravity Test

CHEMICAL LAB TESTS

Organic Chemicals

BTEX	=	Benzene, Toluene, Ethylbenzene, Xylenes
TPH-Dx	=	Diesel and Oil-Range Petroleum Hydrocarbons
TPH-G	=	Gasoline-Range Petroleum Hydrocarbons
VOCs	=	Volatile Organic Compounds
SVOCs	=	Semi-Volatile Organic Compounds
PAHs	=	Polycyclic Aromatic Hydrocarbon Compounds
PCBs	=	Polychlorinated Biphenyls

Metals

RCRA8	=	As, Ba, Cd, Cr, Pb, Hg, Se, Ag, (d = dissolved, t = total)
MTCA5	=	As, Cd, Cr, Hg, Pb (d = dissolved, t = total)
PP-13	=	Ag, As, Be, Cd, Cr, Cu, Hg, Ni, Pb, Sb, Se, Tl, Zn (d=dissolved, t=total)

FIELD TESTS

PID	=	Photoionization Detector
Sheen	=	Oil Sheen Test
SPT[2]	=	Standard Penetration Test
NSPT	=	Non-Standard Penetration Test
DCPT	=	Dynamic Cone Penetration Test

COMPONENT DEFINITIONS

Descriptive Term		*Size Range and Sieve Number*
Boulders	=	Larger than 12 inches
Cobbles	=	3 inches to 12 inches
Coarse Gravel	=	3 inches to 3/4 inches
Fine Gravel	=	3/4 inches to No. 4 (4.75 mm)
Coarse Sand	=	No. 4 (4.75 mm) to No. 10 (2.00 mm)
Medium Sand	=	No. 10 (2.00 mm) to No. 40 (0.425 mm)
Fine Sand	=	No. 40 (0.425 mm) to No. 200 (0.075 mm)
Silt and Clay	=	Smaller than No. 200 (0.075 mm)

ESTIMATED[1] PERCENTAGE

% by Weight		*Modifier*	*% by Weight*		*Modifier*
<1	=	Subtrace	15 to 25	=	Little
1 to <5	=	Trace	30 to 45	=	Some
5 to 10	=	Few	>50	=	Mostly

MOISTURE CONTENT

Dry	=	Absence of moisture, dusty, dry to the touch
Slightly Moist	=	Perceptible moisture
Moist	=	Damp but no visible water
Very Moist	=	Water visible but not free draining
Wet	=	Visible free water, usually from below water table

RELATIVE DENSITY

Non-Cohesive or Coarse-Grained Soils

Density[3]		*SPT*[2] *Blows/Foot*	*Penetration with 1/2" Diameter Rod*
Very Loose	=	0 to 4	≥ 2'
Loose	=	5 to 10	1' to 2'
Medium Dense	=	11 to 30	3" to 1'
Dense	=	31 to 50	1" to 3"
Very Dense	=	> 50	< 1"

CONSISTENCY

Cohesive or Fine-Grained Soils

Consistency[3]		*SPT*[2] *Blows/Foot*	*Manual Test*
Very Soft	=	0 to 1	Penetrated >1" easily by thumb. Extrudes between thumb & fingers.
Soft	=	2 to 4	Penetrated 1/4" to 1" easily by thumb. Easily molded.
Medium Stiff	=	5 to 8	Penetrated >1/4" with effort by thumb. Molded with strong pressure.
Stiff	=	9 to 15	Indented ~1/4" with effort by thumb.
Very Stiff	=	16 to 30	Indented easily by thumbnail.
Hard	=	> 30	Indented with difficulty by thumbnail.

GEOLOGIC CONTACTS

Observed and Distinct — Observed and Gradual — Inferred

Aspect CONSULTING

Exploration Log Key

Estelita's Library - 220264

Environmental Exploration Log

Project Address & Site Specific Location	Coordinates (Lat,Lon WGS84)	Exploration Number
2901 17th Ave S, Seattle, inside shop building, west side	47.5774, 122.3113 (est)	**AB-01**

Contractor	Equipment	Sampling Method	Ground Surface Elev. (NAVD88)	
Cascade Drilling	Geoprobe 54LT	Percussion hammer	301' (est)	
Operator	**Exploration Method(s)**	**Work Start/Completion Dates**	**Top of Casing Elev. (NAVD88)**	**Depth to Water (Below GS)**
Scott Busby	Direct push	3/16/2023	NA	No Water Encountered

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
0	300	Concrete patch					CONCRETE; with base course.	0
			AB-01-1.0	NWTPH-Dx, NWTPH-Gx, VOCs by 8260, Lead	Sheen=Medium PID=42.9		**FILL** SILTY SAND WITH GRAVEL (SM); appears loose to medium dense, moist, brown-red; fine to coarse sand; fine to coarse subrounded to subangular gravel; no hydrocarbon-like odor.	
							Becomes gray; becomes with hydrocarbon-like odor.	
		Boring backfilled with 3/8" hydrated bentonite chips.			Sheen=Heavy PID=305.0			
5	295		AB-01-5.0	NWTPH-Dx, NWTPH-Gx, VOCs by 8260, PAHs by 8270, PCBs by 8082, Lead	Sheen=Heavy PID=116.8		**VASHON TILL** SANDY SILT (ML); appears medium dense, moist, gray; fine sand; strong hydrocarbon-like odor.	5
							Bottom of exploration at 5 ft. bgs.	
							Note: Refusal on dense material at 5' bgs.	
10	290							10
15	285							15
20	280							20

Legend

Sample Type
- No Soil Sample Recovery
- Continuous core 1.85" ID
- Grab sample

Water Level
- No Water Encountered

See Exploration Log Key for explanation of symbols

Logged by: Carmen Tappero
Approved by: MvA 05/07/2023

Exploration Log AB-01

Sheet 1 of 1

NEW STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\ESTELITA'S LIBRARY - 220264.GPJ May 8, 2023

Aspect CONSULTING	Estelita's Library - 220264		Environmental Exploration Log	
	Project Address & Site Specific Location 2901 17th Ave S, Seattle, inside shop building, center		*Coordinates (Lat,Lon WGS84)* 47.5775, 122.3111 (est)	*Exploration Number* **AB-02**
Contractor Cascade Drilling	*Equipment* Geoprobe 54LT	*Sampling Method* Percussion hammer	*Ground Surface Elev. (NAVD88)* 301' (est)	
Operator Scott Busby	*Exploration Method(s)* Direct push	*Work Start/Completion Dates* 3/16/2023	*Top of Casing Elev. (NAVD88)* NA	*Depth to Water (Below GS)* No Water Encountered

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
		Concrete patch.					CONCRETE; with base course.	
	300			AB-02-0.5 NWTPH-Dx, NWTPH-GX, VOCs by 8260, Lead	Sheen=Slight PID=0.7 Sheen=Medium PID=8.1		**FILL** SILTY SAND WITH GRAVEL (SM); appears loose to medium dense, slightly moist, brown; fine to coarse sand; fine to coarse subangular to subrounded gravel.	
		Boring backfilled with 3/8" hydrated bentonite chips.						
5					Sheen=Medium PID=7.7		**VASHON GLACIAL TILL** SILTY SAND WITH GRAVEL (SM); appears medium dense to dense, moist, gray; fine to coarse sand; fine to coarse subangular to subrounded gravel; strong hydrocarbon-like odor.	5
	295				Sheen=Medium PID=20.1			
				AB-02-7.5 NWTPH-Dx, NWTPH-GX, VOCs by 8260, PAHs by 8270, PCBs by 8082, Lead	Sheen=Medium PID=111.8		Bottom of exploration at 7.5 ft. bgs. Note: Refusal on dense material at 7.5' bgs.	
10	290							10
15	285							15
20	280							20

Legend

Sample Type
- No Soil Sample Recovery
- Continuous core 1.85" ID
- Grab sample

Water Level
- No Water Encountered

See Exploration Log Key for explanation of symbols

Logged by: Carmen Tappero
Approved by: MvA 05/07/2023

Exploration Log AB-02
Sheet 1 of 1

NEW STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\ESTELITA'S LIBRARY - 220264.GPJ May 8, 2023

Aspect CONSULTING	Estelita's Library - 220264		Environmental Exploration Log	
	Project Address & Site Specific Location 2901 17th Ave S, Seattle, inside shop building, east side		*Coordinates (Lat,Lon WGS84)* 47.5774, 122.3110 (est)	*Exploration Number* **AB-03**
Contractor Cascade Drilling	*Equipment* Geoprobe 54LT	*Sampling Method* Percussion hammer	*Ground Surface Elev. (NAVD88)* 301' (est)	
Operator Scott Busby	*Exploration Method(s)* Direct push	*Work Start/Completion Dates* 3/16/2023	*Top of Casing Elev. (NAVD88)* NA	*Depth to Water (Below GS)* No Water Encountered

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
0	300	Concrete patch.		AB-03-0.5 NWTPH-Dx, NWTPH-Gx, VOCs by 8260, Lead	Sheen=None PID=0.0		CONCRETE; with base course.	0
							FILL SILTY SAND WITH GRAVEL (SM); appears loose to medium dense, slightly moist, brown; fine to coarse sand; fine to coarse subangular to subrounded gravel; no hydrocarbon-like odor.	
					Sheen=None PID=0.0		**VASHON GLACIAL TILL** SILTY SAND WITH GRAVEL (SM); appears medium dense to dense, slightly moist, gray; fine to coarse sand; fine to coarse subangular to subrounded gravel; no hydrocarbon-like odor.	
		Boring backfilled with 3/8" hydrated bentonite chips.			Sheen=None PID=0.0		Becomes very moist.	
5	295			AB-03-6.0 NWTPH-Dx, NWTPH-Gx, VOCs by 8260, Lead	Sheen=None PID=0.0		Becomes slightly moist. Bottom of exploration at 6 ft. bgs. Note: Refusal on dense material at 6' bgs.	5
10	290							10
15	285							15
20	280							20

Legend

Sample Type
- No Soil Sample Recovery
- Continuous core 1.85" ID
- Grab sample

Water Level
- No Water Encountered

See Exploration Log Key for explanation of symbols

Logged by: Carmen Tappero
Approved by: MvA 05/07/2023

Exploration Log AB-03
Sheet 1 of 1

NEW STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\ESTELITA'S LIBRARY - 220264.GPJ May 8, 2023

Estelita's Library - 220264

Environmental Exploration Log

Project Address & Site Specific Location	Coordinates (Lat,Lon WGS84)	Exploration Number
2901 17th Ave S, Seattle, SE corner of site along 17th Ave	47.5774, 122.3109 (est)	**AB-04**

Contractor	Equipment	Sampling Method	Ground Surface Elev. (NAVD88)	
Cascade Drilling	Geoprobe 7822DT	Percussion hammer	301' (est)	
Operator	**Exploration Method(s)**	**Work Start/Completion Dates**	**Top of Casing Elev. (NAVD88)**	**Depth to Water (Below GS)**
Scott Busby	Direct push	3/16/2023	NA	No Water Encountered

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
0	300				Sheen=None PID=0.0		ASPHALT; with base course.	0
							SANDY SILT (ML); moist, gray-brown; low plasticity; fine sand; trace fine gravel; iron oxide staining; no hydrocarbon-like odor.	
							ASPHALT; with base course.	
					Sheen=None PID=0.0		**FILL** SANDY SILT WITH GRAVEL (ML); moist, gray-brown; low plasticity; fine to coarse sand; fine to coarse subangular to subrounded gravel; iron oxide staining; no hydrocarbon-like odor.	
		Boring backfilled with 3/8" hydrated bentonite chips.			Sheen=None PID=0.0			
					Sheen=None PID=0.0		**VASHON GLACIAL TILL** SILTY SAND WITH GRAVEL (SM); moist, gray-brown; fine to coarse sand; fine subangular to subrounded gravel; no hydrocarbon-like odor.	
5	295			AB-04-5.0 NWTPH-Dx, NWTPH-Gx, VOCs by 8260, Lead	Sheen=None PID=0.0		Gravel content increases with depth.	5
				AB-04-9.0 NWTPH-Dx, NWTPH-Gx, VOCs by 8260, Lead	Sheen=None PID=Sheen		Bottom of exploration at 9 ft. bgs. Note: Refusal on dense material at 9' bgs.	
10	290							10
15	285							15
20	280							20

Legend

Sample Type
- Continuous core 1.85" ID
- Grab sample

Water Level
- No Water Encountered

See Exploration Log Key for explanation of symbols

Logged by: Nikolai Carroll
Approved by: MvA 05/07/2023

Exploration Log AB-04
Sheet 1 of 1

NEW STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\ESTELITA'S LIBRARY - 220264.GPJ May 8, 2023

Aspect CONSULTING	Estelita's Library - 220264		Environmental Exploration Log	
	Project Address & Site Specific Location 2901 17th Ave S, Seattle, W of AMW-03 in back parking lot		*Coordinates (Lat,Lon WGS84)* 47.5774, 122.3112 (est)	*Exploration Number* **AB-05**
Contractor Cascade Drilling	*Equipment* Geoprobe 7822DT	*Sampling Method* Percussion hammer	*Ground Surface Elev. (NAVD88)* 301' (est)	
Operator Scott Busby	*Exploration Method(s)* Direct push	*Work Start/Completion Dates* 3/16/2023	*Top of Casing Elev. (NAVD88)* NA	*Depth to Water (Below GS)* No Water Encountered

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
		Asphalt patch.					ASPHALT; with base course.	
	300				Sheen=None PID=0.0		**FILL** SANDY SILT (ML); moist, red-brown; low plasticity; fine to coarse sand; trace fine gravel; iron oxide staining; no hydrocarbon-like odor.	
					Sheen=None PID=0.0		Becomes gray	
					Sheen=None PID=0.0		**VASHON GLACIAL TILL** SILTY SAND WITH GRAVEL (SM); moist, gray; fine to coarse sand; fine subangular to subrounded gravel; no hydrocarbon-like odor.	
		Boring backfilled with 3/8" hydrated bentonite chips.						
5				AB-05-5.0 NWTPH-Dx, NWTPH-Gx, VOCs by 8260, Lead	Sheen=None PID=0.0		Becomes with iron oxide staining.	5
	295				Sheen=None PID=0.0		Become very dense.	
				AB-05-8.5 NWTPH-Dx, NWTPH-Gx, VOCs by 8260, Lead	Sheen=None PID=0.0			
10							Bottom of exploration at 9.75 ft. bgs.	10
	290						Note: Refusal on dense material at 9.75' bgs.	
15	285							15
20	280							20

Legend

Sample Type
- ◯ No Soil Sample Recovery
- ◧ Continuous core 1.85" ID
- ☑ Grab sample

Water Level
- No Water Encountered

See Exploration Log Key for explanation of symbols

Logged by: Nikolai Carroll
Approved by: MvA 05/07/2023

Exploration Log AB-05
Sheet 1 of 1

NEW STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\ESTELITA'S LIBRARY - 220264.GPJ May 8, 2023

Estelita's Library - 220264

Environmental Exploration Log

Aspect CONSULTING

Project Address & Site Specific Location	Coordinates (Lat,Lon WGS84)	Exploration Number
2901 17th Ave S, Seattle, Western most boring in back parking lot	47.5775, 122.3113 (est)	**AB-06**

Contractor	Equipment	Sampling Method	Ground Surface Elev. (NAVD88)	
Cascade Drilling	Geoprobe 7822DT	Percussion hammer	301' (est)	
Operator	**Exploration Method(s)**	**Work Start/Completion Dates**	**Top of Casing Elev. (NAVD88)**	**Depth to Water (Below GS)**
Scott Busby	Direct push	3/16/2023	NA	No Water Encountered

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
0	300	Asphalt cap.		AB-06-1.0 NWTPH-Dx, NWTPH-Gx, VOCs by 8260, Lead	Sheen=None PID=0.0		ASPHALT; with base course.	0
							FILL SANDY SILT (ML); moist, red-brown; non-plastic; fine to coarse sand; fine subangular to subrounded gravel; no hydrocarbon-like odor. Becomes very moist and brown	
					Sheen=None PID=0.0		**VASHON GLACIAL TILL** SILT WITH SAND (ML); moist, gray; low plasticity; fine to coarse sand; iron oxide staining; no hydrocarbon-like odor.	
5	295	Boring backfilled with 3/8" hydrated bentonite chips.		AB-06-5.0 NWTPH-Dx, NWTPH-Gx, VOCs by 8260, Lead	Sheen=None PID=0.0			5
					Sheen=None PID=0.0		SILTY SAND WITH GRAVEL (SM); moist, gray-brown; fine to coarse sand; fine subangular to subrounded gravel; silt content decreases with depth; iron oxide staining; no hydrocarbon-like odor.	
					Sheen=None PID=0.0			
10	290			AB-06-12 NWTPH-Dx, NWTPH-Gx, VOCs by 8260, Lead	Sheen=None PID=0.0		Becomes with fine to coarse subangular to subrounded gravel.	10
							Becomes very dense.	
14	287						Bottom of exploration at 14 ft. bgs. Note: Refusal on dense material at 14' bgs.	14
15	285							15
20	280							20

Legend

Sample Type
- ◯ No Soil Sample Recovery
- ◧ Continuous core 1.85" ID
- ☑ Grab sample

Water Level
- No Water Encountered

See Exploration Log Key for explanation of symbols

Logged by: Nikolai Carroll
Approved by: MvA 05/07/2023

Exploration Log AB-06

Sheet 1 of 1

NEW STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\ESTELITA'S LIBRARY - 220264.GPJ May 8, 2023

Aspect CONSULTING	Estelita's Library - 220264		Environmental Exploration Log	
	Project Address & Site Specific Location 2901 17th Ave S, Seattle, S of AMW-1 in front parking lot		*Coordinates (Lat,Lon WGS84)* 47.5776, 122.3111 (est)	*Exploration Number* **AB-07**
Contractor Cascade Drilling	*Equipment* Geoprobe 7822DT	*Sampling Method* Percussion hammer	*Ground Surface Elev. (NAVD88)* 301' (est)	
Operator Scott Busby	*Exploration Method(s)* Direct push	*Work Start/Completion Dates* 3/16/2023	*Top of Casing Elev. (NAVD88)* NA	*Depth to Water (Below GS)* No Water Encountered

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
0	300	Asphalt cap.			Sheen=None PID=0.0		ASPHALT; with base course. **FILL** SANDY SILT WITH GRAVEL (ML); moist, gray and brown; low plasticity; fine to coarse sand; fine to coarse subangular to subrounded gravel; iron oxide staining; no hydrocarbon-like odor.	0
					Sheen=None PID=0.0			
					Sheen=None PID=0.0		SILT (ML); moist, gray; non-plastic; iron oxide staining; no hydrocarbon-like odor. **VASHON GLACIAL TILL** SILTY SAND (SM); moist; light brown; fine to coarse sand; trace fine subangular to subrounded gravel; silt content decreases with depth; no hydrocarbon-like odor.	
5	295	Boring backfilled with 3/8" hydrated bentonite chips.		AB-07-5.0 NWTPH-Dx, NWTPH-Gx, VOCs by 8260, Lead	Sheen=None PID=0.0			5
					Sheen=None PID=0.1		Becomes light gray; increase gravel content; no hydrocarbon-like odor.	
					Sheen=None PID=0.1			
				AB-07-9.5 NWTPH-Dx, NWTPH-Gx, VOCs by 8260, Lead	Sheen=None PID=0.0			
10	290						Bottom of exploration at 9.5 ft. bgs. Note: Refusal on dense material at 9.5' bgs.	10
15	285							15
20	280							20

Legend

Sample Type
- No Soil Sample Recovery
- Continuous core 1.85" ID
- Grab sample

Water Level
- No Water Encountered

See Exploration Log Key for explanation of symbols

Logged by: Nikolai Carroll
Approved by: MvA 05/07/2023

Exploration Log AB-07
Sheet 1 of 1

NEW STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\ESTELITA'S LIBRARY - 220264.GPJ May 8, 2023

Aspect CONSULTING	Estelita's Library - 220264		Environmental Exploration Log	
	Project Address & Site Specific Location 2901 17th Ave S, Seattle, E of AMW-1 in front parking lot		*Coordinates (Lat,Lon WGS84)* 47.5776, 122.3111 (est)	*Exploration Number* **AB-08**
Contractor Cascade Drilling	*Equipment* Geoprobe 7822DT	*Sampling Method* Percussion hammer	*Ground Surface Elev. (NAVD88)* 301' (est)	
Operator Scott Busby	*Exploration Method(s)* Direct push	*Work Start/Completion Dates* 3/16/2023	*Top of Casing Elev. (NAVD88)* NA	*Depth to Water (Below GS)* No Water Encountered

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
0	300	Asphalt Cap		AB-08-1.0 NWTPH-Dx, NWTPH-Gx, VOCs by 8260, Lead	Sheen=None PID=0.1		ASPHALT; with base course.	0
							FILL SILTY SAND WITH GRAVEL (SM); appears medium dense, moist, gray to gray-brown; fine to medium sand; fine to coarse subrounded to subangular gravel; no hydrocarbon-like odor.	
							SAND WITH SILT (SP-SM); appears loose, moist, brown-gray; coarse sand; no hydrocarbon-like odor.	
		Boring backfilled with 3/8" hydrated bentonite chips.						
5	295				Sheen=None PID=0.1		SILTY SAND WITH GRAVEL (SM); appears medium dense, moist, gray to gray-brown; fine to coarse sand; fine to coarse subangular to subrounded gravel; no hydrocarbon-like odor.	5
					Sheen=None PID=0.0		SAND WITH SILT (SP-SM); appears loose, very moist, brown-gray; coarse sand; no hydrocarbon-like odor.	
							SILTY SAND WITH GRAVEL (SM); appears medium dense, slightly moist, gray-brown; fine to coarse sand; fine to coarse subangular to subrounded gravel; no hydrocarbon-like odor.	
10	290			AB-08-10.5 NWTPH-Dx, NWTPH-Gx, VOCs by 8260, Lead	Sheen=None PID=0.0		Bottom of exploration at 11 ft. bgs. Note: Refusal on dense material at 11' bgs.	10
15	285							15
20	280							20

Legend

Sample Type
- ◯ No Soil Sample Recovery
- ◧ Continuous core 1.85" ID
- ☑ Grab sample

Water Level
- No Water Encountered

See Exploration Log Key for explanation of symbols

Logged by: Carmen Tappero
Approved by: MvA 05/07/2023

Exploration Log AB-08
Sheet 1 of 1

NEW STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\ESTELITA'S LIBRARY - 220264.GPJ May 8, 2023

Aspect CONSULTING	Estelita's Library - 220264		Monitoring Well Log	
	Project Address & Site Specific Location 2901 17th Ave S, Seattle, Gravel alley behind private residence		*Coordinates (Lat,Lon WGS84)* 47.5776, -122.3114 (est)	*Exploration Number* **AMW-04**
Contractor Cascade Drilling	*Equipment* CME 55	*Sampling Method* Manually operated 300 # hammer	*Ground Surface Elev. (NAVD88)* 295' (est)	Ecology Well Tag No. BPR-127
Operator Curtis Askew	*Exploration Method(s)* 8.5" OD X 4.25" ID Hollow-Stem Auger	*Work Start/Completion Dates* 3/15/2023	*Top of Casing Elev. (NAVD88)* 294.87' (est)	*Depth to Water (Below GS)* 12.43' (Static)

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
		8" flush monument in concrete					**TOP SOIL** SILTY GRAVEL (GM); moist, brown, fine gravel.	
							FILL SILTY SAND WITH GRAVEL (SM); moist, gray-brown; fine to coarse sand; fine rounded to subrounded gravel; trace silt.	
		2" diameter Sch 40 PVC casing					Excavated with air knife and vacuum to 5 ft bgs.	
5	290							5
		Sealed with bentonite chips NSF/ANSI 60					**VASHON GLACIAL TILL** SANDY SILT WITH GRAVEL (ML); hard, slightly moist, light brown; non-plastic; fine to coarse sand; fine to coarse, subrounded to subangular gravel; red to brown mottling.	
					Blows (non-SPT)=20, 50/6" Sheen=None PID=0.0			
10	285				Blows (non-SPT)=50/5" Sheen=None PID=0.0			10
		▼ 4/12/2023			Blows (non-SPT)=50/4" Sheen=None PID=0.0		Becomes moist.	
		12/20 silica sand filter pack						
15	280				Blows (non-SPT)=50/4" Sheen=None PID=0.0		Becomes with coarse light-colored sand and increased fine sand.	15
					Blows (non-SPT)=50/4" Sheen=0.0 PID=0.0			
		2" diameter 0.010" slot Schedule 40 PVC screen						
20	275				Blows (non-SPT)=50/4" Sheen=None PID=0.0		Becomes gray with increased gravel content.	20
		▽ 3/15/2023		AMW-04-22.5 NWTPH-Dx, NWTPH-Gx, VOCs by 8260, Pb	Blows (non-SPT)=50/6" Sheen=Slight Sheen PID=0.0		SAND WITH SILT (SP-SM); dense, wet, gray; fine to coarse sand.	
25	270				Blows (non-SPT)=50/6" Sheen=Slight Sheen PID=0.0		SILT WITH SAND (ML); hard, moist, gray; non-plastic; fine to coarse sand; fine to coarse, subrounded to rounded gravel.	25
					Blows (non-SPT)=25, 50/5" Sheen=Slight Sheen PID=0.0			

Legend

Sample Type: ▮ Split Barrel 3" X 2.375"

Water Level: ▼ Static Water Level; ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: Carmen Tappero and Nikolai Carroll
Approved by: MvA 05/09/2023

Exploration Log AMW-04

NEW STANDARD EXPLORATION LOG TEMPLATE P:\GINT\PROJECTS\ESTELITA'S LIBRARY - 220264.GPJ May 9, 2023

Aspect CONSULTING	Estelita's Library - 220264		Monitoring Well Log	
	Project Address & Site Specific Location 2901 17th Ave S, Seattle, Gravel alley behind private residence		*Coordinates (Lat,Lon WGS84)* 47.5776, -122.3114 (est)	*Exploration Number* **AMW-04**
Contractor Cascade Drilling	*Equipment* CME 55	*Sampling Method* Manually operated 300 # hammer	*Ground Surface Elev. (NAVD88)* 295' (est)	Ecology Well Tag No. BPR-127
Operator Curtis Askew	*Exploration Method(s)* 8.5" OD X 4.25" ID Hollow-Stem Auger	*Work Start/Completion Dates* 3/15/2023	*Top of Casing Elev. (NAVD88)* 294.87' (est)	*Depth to Water (Below GS)* 12.43' (Static)

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
					Blows (non-SPT)=15, 18, 20 Sheen=None PID=0.0		SILT (ML); hard, moist, gray; low plasticity.	
					Blows (non-SPT)=15, 19, 20 Sheen=None PID=0.0			
35	260	End cap			Blows (non-SPT)=17, 18, 19 Sheen=None PID=0.0		Becomes with medium plasticity.	35
		Backfilled with slough			Blows (non-SPT)=50/6" Sheen=None PID=0.0		Becomes with trace fine subrounded to subangular gravel.	
40	255			AMW-04-40 NWTPH-Dx, NWTPH-Gx, VOCs by 8260, Pb	Blows (non-SPT)=50/6" Sheen=None PID=0.0		Bottom of exploration at 40.5 ft. bgs. Note: No hydrocarbon-like odor throughout boring.	40
45	250							45
50	245							50
55	240							55

Legend

Sample Type: Split Barrel 3" X 2.375"

Water Level: Static Water Level; Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: Carmen Tappero and Nikolai Carroll
Approved by: MvA 05/09/2023

Exploration Log AMW-04
Sheet 2 of 2

NEW STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\ESTELITA'S LIBRARY - 220264.GPJ May 9, 2023

Aspect CONSULTING	Estelita's Library - 220264		Monitoring Well Log	
	Project Address & Site Specific Location 2901 17th Ave S, Seattle, N side of site in the sidewalk		*Coordinates (Lat,Lon WGS84)* 47.5777, -122.3110 (est)	*Exploration Number* **AMW-05**
Contractor Cascade Drilling	*Equipment* CME 55	*Sampling Method* Manually operated 300 # hammer	*Ground Surface Elev. (NAVD88)* 294' (est)	Ecology Well Tag No. BPR-155
Operator Curtis Askew	*Exploration Method(s)* 8.5" OD X 4.25" ID Hollow-Stem Auger	*Work Start/Completion Dates* 3/13/2023	*Top of Casing Elev. (NAVD88)* 294.01' (est)	*Depth to Water (Below GS)* 25.7' (Static)

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
		8" flush monument in concrete					**CONCRETE** CONCRETE; with base course	
							FILL SILTY SAND WITH GRAVEL (SM); Wet, gray-brown; fine to course sand; fine rounded to subrounded gravel.	
		2" diameter Sch 40 PVC casing					Excavated with air knife and vacuum to 5 ft bgs.	
	290							
5		Sealed with bentonite chips NSF/ANSI 60					**VASHON GLACIAL TILL** SANDY SILT WITH GRAVEL (ML); hard, moist, gray; non-plastic; fine to coarse sand; fine to coarse rounded to subrounded gravel; no hydrocarbon-like odor.	5
					Blows (non-SPT)=50/5" Sheen=None PID=0.0			
	285						SAND WITH SILT AND GRAVEL (SP-SM); very dense, moist, gray; fine to coarse sand; fine to coarse rounded to subrounded gravel; no hydrocarbon-like odor.	
10					Blows (non-SPT)=50/4" Sheen=None PID=0.4			10
					Blows (non-SPT)=50/2" Sheen=None PID=0.0			
	280							
15					Blows (non-SPT)=50/4" Sheen=None PID=0.0		Becomes slightly moist and subangular to subrounded gravel.	15
					Blows (non-SPT)=50/4" Sheen=None PID=0.0			
	275	12/20 silica sand filter pack						
20					Blows (non-SPT)=50/4" Sheen=Slight Sheen PID=None		Becomes moist and gray-brown; medium to coarse sand; fine to coarse subrounded to subangular gravel.	20
		2" diameter 0.010" slot Schedule 40 PVC screen		AMW-05-22.5 NWTPH-Dx, NWTPH-Gx, VOCs by 8260, PAHs by 8270, PCBs by 8082, Pb	Blows (non-SPT)=50/4" Sheen=Medium Sheen PID=209.9		Becomes with slight hydrocarbon-like odor.	
	270							
25		▼ 4/12/2023			Blows (non-SPT)=50/2" Sheen=Slight Sheen PID=15.1		Becomes slightly moist, brown-yellow, no hydrocarbon-like odor.	25
							SANDY SILT WITH GRAVEL (ML); very dense, moist, brown; non-plastic; fine to coarse sand; fine rounded to subrounded gravel; no hydrocarbon-like odor.	
					Blows (non-SPT)=50/5" Sheen=Slight Sheen PID=43.3			
	265							

Legend

Sample Type: ▮ Split Barrel 3" X 2.375"

Water Level: ▼ Static Water Level; ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: Nikolai Carroll
Approved by: MvA 05/09/2023

Exploration Log AMW-05
Sheet 1 of 2

NEW STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\ESTELITA'S LIBRARY - 220264.GPJ May 9, 2023

Estelita's Library - 220264

Monitoring Well Log

Aspect CONSULTING

Project Address & Site Specific Location	Coordinates (Lat,Lon WGS84)	Exploration Number
2901 17th Ave S, Seattle, N side of site in the sidewalk	47.5777, -122.3110 (est)	**AMW-05**

Contractor	Equipment	Sampling Method	Ground Surface Elev. (NAVD88)	Ecology Well Tag No.
Cascade Drilling	CME 55	Manually operated 300 # hammer	294' (est)	BPR-155

Operator	Exploration Method(s)	Work Start/Completion Dates	Top of Casing Elev. (NAVD88)	Depth to Water (Below GS)
Curtis Askew	8.5" OD X 4.25" ID Hollow-Stem Auger	3/13/2023	294.01' (est)	25.7' (Static)

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
					Blows (non-SPT)=50/6" Sheen=None PID=10.6		SILT WITH SAND (ML); very dense, slightly moist, brown; non-plastic; fine to coarse sand; no hydrocarbon-like odor. (continued)	
					Blows (non-SPT)=50/6" Sheen=None PID=3.1		SILT (ML); hard, slightly moist, gray; non-plastic; subtrace of fine to coarse sand; brown mottling; no hydrocarbon-like odor.	
35	260				Blows (non-SPT)=50/4" Sheen=None PID=3.9		Becomes moist and gray; trace fine sand; subtrace fine rounded to subrounded gravel; white mottling.	35
					Blows (non-SPT)=50/6" Sheen=None PID=10.1		Becomes with trace fine to coarse sand.	
40	255	End cap			Blows (non-SPT)=50/6" Sheen=None PID=1.9		SANDY SILT WITH GRAVEL (ML); very dense, very moist, gray; non-plastic; fine to coarse sand; fine subrounded to rounded gravel.	40
					Blows (non-SPT)=50/2" Sheen=Slight Sheen PID=2.0			
45	250	▽ 3/13/2023			Blows (non-SPT)=50/6" Sheen=None PID=1.2		Becomes wet with coarser sand and cobbles.	45
		Backfilled with slough			Blows (non-SPT)=50/6" Sheen=None PID=0.8			
50	245			AMW-05-50 NWTPH-Dx, NWTPH-Gx, VOCs by 8260, PAHs by 8270, PCBs by 8082, Pb	Blows (non-SPT)=50/5" Sheen=None PID=2.1		SAND WITH SILT (SP-SM); very dense, moist, gray; fine to coarse sand; trace fine rounded to subrounded gravel; no hydrocarbon-like odor.	50
							Bottom of exploration at 50.4 ft. bgs.	
55	240							55
	235							

Legend

Sample Type: ▮ Split Barrel 3" X 2.375"

Water Level: ▼ Static Water Level; ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: Nikolai Carroll
Approved by: MvA 05/09/2023

Exploration Log AMW-05
Sheet 2 of 2

NEW STANDARD EXPLORATION LOG TEMPLATE P:\GINT\PROJECTS\ESTELITA'S LIBRARY - 220264.GPJ May 9, 2023

Aspect CONSULTING	Estelita's Library - 220264		Monitoring Well Log	
	Project Address & Site Specific Location 2901 17th Ave S, Seattle, NE side of site in the sidewalk		*Coordinates (Lat,Lon WGS84)* 47.5776, -122.3109 (est)	*Exploration Number* **AMW-06**
Contractor Cascade Drilling	*Equipment* CME 55	*Sampling Method* Manually operated 300 # hammer	*Ground Surface Elev. (NAVD88)* 295' (est)	Ecology Well Tag No. BPR-126
Operator Curtis Askew	*Exploration Method(s)* 8.5" OD X 4.25" ID Hollow-Stem Auger	*Work Start/Completion Dates* 3/14/2023	*Top of Casing Elev. (NAVD88)* 294.7' (est)	*Depth to Water (Below GS)* 28.59' (Static)

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
		8" Monument lid in concrete					**Concrete** CONCRETE; with base course	
							FILL SILTY SAND WITH GRAVEL (SM); slightly moist, gray-brown; fine to coarse sand; fine subrounded gravel; no hydrocarbon-like odor. Excavated with air knife and vacuum to 5 ft bgs.	
		2" diameter Sch 40 PVC casing						
5	290							5
		Sealed with bentonite chips NSF/ANSI 60					**VASHON GLACIAL TILL** SILT WITH SAND (ML); hard, slightly moist, gray; non-plastic; fine to coarse sand; trace fine to coarse subrounded gravel; no hydrocarbon-like odor.	
					Blows (non-SPT)=50/4" Sheen=None PID=0.1			
10	285				Blows (non-SPT)=50/4" Sheen=None PID=0.1			10
					Blows (non-SPT)=50/4" Sheen=None PID=0.1			
15	280				Blows (non-SPT)=50/4" Sheen=None PID=0.2			15
					Blows (non-SPT)=50/4" Sheen=None PID=0.2		Becomes moist.	
		12/20 Silica sand filter pack						
20	275				Blows (non-SPT)=50/4" Sheen=None PID=0.0		Becomes slightly moist.	20
					Blows (non-SPT)=50/6" Sheen=None PID=0.0		Becomes very moist; 1-inch layer of fine to coarse sand.	
25	270	0.010" Schedule 40 PVC slotted screen			Blows (non-SPT)=50/4" Sheen=Slight PID=28.2		SAND WITH SILT (SP-SM); very dense, very moist, gray; fine to coarse sand; trace fine to coarse subrounded gravel; slight hydrocarbon-like odor.	25
				AMW-06-27.5 NWTPH-Dx, NWTPH-Gx, VOCs by 8260, Pb	Blows (non-SPT)=50/6" Sheen=Moderate PID=385		SILT WITH SAND (ML); hard, moist, gray; non-plastic; fine to coarse sand; fine to coarse subrounded gravel; no hydrocarbon like odor.	
		▼ 4/12/2023						

Legend

Sample Type: ▮▮ Split Barrel 3" X 2.375"

Water Level: ▼ Static Water Level; ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: Carmen Tappero
Approved by: MvA 05/09/2023

Exploration Log AMW-06

NEW STANDARD EXPLORATION LOG TEMPLATE P:\GINTW\PROJECTS\ESTELITA'S LIBRARY - 220264.GPJ May 9, 2023

Aspect CONSULTING	Estelita's Library - 220264		Monitoring Well Log	
	Project Address & Site Specific Location 2901 17th Ave S, Seattle, NE side of site in the sidewalk		*Coordinates (Lat,Lon WGS84)* 47.5776, -122.3109 (est)	*Exploration Number* **AMW-06**
Contractor Cascade Drilling	*Equipment* CME 55	*Sampling Method* Manually operated 300 # hammer	*Ground Surface Elev. (NAVD88)* 295' (est)	Ecology Well Tag No. BPR-126
Operator Curtis Askew	*Exploration Method(s)* 8.5" OD X 4.25" ID Hollow-Stem Auger	*Work Start/Completion Dates* 3/14/2023	*Top of Casing Elev. (NAVD88)* 294.7' (est)	*Depth to Water (Below GS)* 28.59' (Static)

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Analytical Sample Number & Lab Test(s)	Field Tests	Material Type	Description	Depth (ft)
					Blows (non-SPT)=50/4" Sheen=None PID=2.0		SILT WITH SAND (ML); hard, moist, gray; non-plastic; fine to coarse sand; fine to coarse subrounded gravel; no hydrocarbon like odor. (continued)	
		▽ 3/14/2023			Blows (non-SPT)=50/6" Sheen=Slight PID=94.9		SAND WITH SILT (SP-SM); very dense, wet, gray; fine to coarse sand; trace fine to coarse subrounded gravel; slight hydrocarbon-like odor.	
35	260				Blows (non-SPT)=15/20/30 Sheen=Slight PID=260.1		SILT WITH SAND (ML); hard, wet, gray; non-plastic; hydrocarbon-like odor.	35
							SAND WITH SILT (SP-SM); very dense, wet, gray; fine to coarse sand; trace fine to coarse subrounded gravel.	
					Blows (non-SPT)=20, 50/6" Sheen=Slight PID=179.3		SILT (ML); hard, moist, gray; non-plastic; hydrocarbon-like odor.	
40	255	End cap						40
					Blows (non-SPT)=50/5" Sheen=None PID=11.6		Becomes with trace fine to coarse gravel.	
		Backfilled with slough			Blows (non-SPT)=50/5" Sheen=Slight PID=22.5		Becomes wet; increase fine to coarse sand content; slight hydrocarbon-like odor.	
45	250				Blows (non-SPT)=50/6" Sheen=Slight PID=14.4		SILTY SAND (SM); very dense, wet, gray; fine to coarse sand; trace fine to coarse subrounded gravel.	45
					Blows (non-SPT)=50/6" Sheen=Slight PID=7.1		SAND WITH SILT (SP-SM); very dense, wet, gray; fine to coarse sand; trace fine to coarse subrounded gravel; slight hydrocarbon-like odor.	
50	245				Blows (non-SPT)=50/6" Sheen=Slight PID=4.3			50
					Blows (non-SPT)=50/6" Sheen=Slight PID=17.5			
55	240			AMW-06-55 NWTPH-Dx, NWTPH-Gx, VOCs by 8260, Pb	Blows (non-SPT)=50/6" Sheen=Slight PID=0.8		Bottom of exploration at 55.5 ft. bgs.	55

Legend

Sample Type: ▮▮ Split Barrel 3" X 2.375"

Water Level: ▼ Static Water Level; ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: Carmen Tappero
Approved by: MvA 05/09/2023

Exploration Log AMW-06
Sheet 2 of 2

NEW STANDARD EXPLORATION LOG TEMPLATE P:\GINT\PROJECTS\ESTELITA'S LIBRARY - 220264.GPJ May 9, 2023

APPENDIX B

Laboratory Reports

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Vineta Mills, M.S.
Eric Young, B.S.

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www.friedmanandbruya.com

March 20, 2023

Ali Cochrane, Project Manager
Aspect Consulting, LLC
710 2nd Ave S, Suite 550
Seattle, WA 98104

Dear Ms Cochrane:

Included are the results from the testing of material submitted on March 13, 2023 from the Estelita's Library 220264, F&BI 303198 project. There are 23 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Aspect Data, Hannah Cohen
ASP0320R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on March 13, 2023 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Estelita's Library 220264, F&BI 303198 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Aspect Consulting, LLC
303198 -01	AMW-05-10
303198 -02	AMW-05-15
303198 -03	AMW-05-20
303198 -04	AMW-05-22.5
303198 -05	AMW-05-27.5
303198 -06	AMW-05-32.5
303198 -07	AMW-05-37.5
303198 -08	AMW-05-45
303198 -09	AMW-05-50

All quality control requirements were acceptable.

Date of Report: 03/20/23
Date Received: 03/13/23
Project: Estelita's Library 220264, F&BI 303198
Date Extracted: 03/14/23
Date Analyzed: 03/15/23

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE USING METHOD NWTPH-Gx

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Gasoline Range	Surrogate (% Recovery) (Limit 58-139)
AMW-05-22.5 303198-04 1/5	100	103
AMW-05-50 303198-09	6.5	94
Method Blank 03-574 MB	<5	113

Date of Report: 03/20/23
Date Received: 03/13/23
Project: Estelita's Library 220264, F&BI 303198
Date Extracted: 03/14/23
Date Analyzed: 03/14/23

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 50-150)
AMW-05-22.5 303198-04	<50	<250	82
AMW-05-50 303198-09	<50	<250	83
Method Blank 03-598 MB2	<50	<250	84

Analysis For Total Metals By EPA Method 6020B

Client ID:	AMW-05-22.5	Client:	Aspect Consulting, LLC
Date Received:	03/13/23	Project:	Estelita's Library 220264
Date Extracted:	03/14/23	Lab ID:	303198-04
Date Analyzed:	03/14/23	Data File:	303198-04.113
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Lead	1.06

Analysis For Total Metals By EPA Method 6020B

Client ID:	AMW-05-50	Client:	Aspect Consulting, LLC
Date Received:	03/13/23	Project:	Estelita's Library 220264
Date Extracted:	03/14/23	Lab ID:	303198-09
Date Analyzed:	03/14/23	Data File:	303198-09.114
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Lead	1.24

Analysis For Total Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	NA	Project:	Estelita's Library 220264
Date Extracted:	03/14/23	Lab ID:	I3-191 mb2
Date Analyzed:	03/14/23	Data File:	I3-191 mb2.104
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Lead	<1

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID:	AMW-05-22.5	Client:	Aspect Consulting, LLC
Date Received:	03/13/23	Project:	Estelita's Library 220264
Date Extracted:	03/15/23	Lab ID:	303198-04 1/0.25
Date Analyzed:	03/15/23	Data File:	031516.D
Matrix:	Soil	Instrument:	GCMS13
Units:	mg/kg (ppm) Dry Weight	Operator:	lm

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	110	84	120
Toluene-d8	112	73	128
4-Bromofluorobenzene	107	57	146

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.001
Vinyl chloride	<0.001	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.005
Chloroethane	<0.1	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	0.0085
Acetone	<5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.001	m,p-Xylene	0.0059
Hexane	1.3	o-Xylene	0.0013
Methylene chloride	<0.2	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.001	Isopropylbenzene	0.12
trans-1,2-Dichloroethene	<0.002	Bromoform	<0.05
1,1-Dichloroethane	<0.002	n-Propylbenzene	0.87
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.001	1,3,5-Trimethylbenzene	1.0
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<1	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.002	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.002	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	2.4
Benzene	<0.001	sec-Butylbenzene	0.23
Trichloroethene	<0.001	p-Isopropyltoluene	0.12
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<1	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.001	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	0.037
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<0.5		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID:	AMW-05-50	Client:	Aspect Consulting, LLC
Date Received:	03/13/23	Project:	Estelita's Library 220264
Date Extracted:	03/15/23	Lab ID:	303198-09 1/0.25
Date Analyzed:	03/15/23	Data File:	031517.D
Matrix:	Soil	Instrument:	GCMS13
Units:	mg/kg (ppm) Dry Weight	Operator:	lm

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	94	84	120
Toluene-d8	93	73	128
4-Bromofluorobenzene	98	57	146

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.001
Vinyl chloride	<0.001	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.005
Chloroethane	<0.1	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	0.055
Acetone	<5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.001	m,p-Xylene	0.20
Hexane	<0.25	o-Xylene	0.057
Methylene chloride	<0.2	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.001	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.002	Bromoform	<0.05
1,1-Dichloroethane	<0.002	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.001	1,3,5-Trimethylbenzene	0.066
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<1	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.002	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.002	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	0.21
Benzene	0.0049	sec-Butylbenzene	<0.05
Trichloroethene	<0.001	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<1	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	0.0031	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	0.047
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<0.5		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Estelita's Library 220264
Date Extracted:	03/15/23	Lab ID:	03-0552 mb 1/0.25
Date Analyzed:	03/15/23	Data File:	031508.D
Matrix:	Soil	Instrument:	GCMS13
Units:	mg/kg (ppm) Dry Weight	Operator:	lm

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	84	120
Toluene-d8	100	73	128
4-Bromofluorobenzene	97	57	146

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.001
Vinyl chloride	<0.001	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.005
Chloroethane	<0.1	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.001
Acetone	<5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.001	m,p-Xylene	<0.002
Hexane	<0.25	o-Xylene	<0.001
Methylene chloride	<0.2	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.001	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.002	Bromoform	<0.05
1,1-Dichloroethane	<0.002	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.001	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<1	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.002	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.002	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.001	sec-Butylbenzene	<0.05
Trichloroethene	<0.001	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<1	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.001	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.005
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<0.5		

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	AMW-05-22.5	Client:	Aspect Consulting, LLC
Date Received:	03/13/23	Project:	Estelita's Library 220264
Date Extracted:	03/14/23	Lab ID:	303198-04 1/5
Date Analyzed:	03/14/23	Data File:	031414.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Terphenyl-d14	88	31	167

Compounds:	mg/kg (ppm)
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	AMW-05-50	Client:	Aspect Consulting, LLC
Date Received:	03/13/23	Project:	Estelita's Library 220264
Date Extracted:	03/14/23	Lab ID:	303198-09 1/5
Date Analyzed:	03/14/23	Data File:	031415.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Terphenyl-d14	84	31	167

Compounds:	mg/kg (ppm)
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Estelita's Library 220264
Date Extracted:	03/14/23	Lab ID:	03-602 mb 1/5
Date Analyzed:	03/14/23	Data File:	031407.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Terphenyl-d14	99	31	167

Compounds:	mg/kg (ppm)
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	AMW-05-22.5	Client:	Aspect Consulting, LLC
Date Received:	03/13/23	Project:	Estelita's Library 220264
Date Extracted:	03/14/23	Lab ID:	303198-04 1/30
Date Analyzed:	03/15/23	Data File:	031508.D
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	MG

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Tetrachlorometaxylene	58	11	162
Decachlorobiphenyl	86	11	152

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	<0.02
Aroclor 1262	<0.02
Aroclor 1268	<0.02

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	AMW-05-50	Client:	Aspect Consulting, LLC
Date Received:	03/13/23	Project:	Estelita's Library 220264
Date Extracted:	03/14/23	Lab ID:	303198-09 1/30
Date Analyzed:	03/15/23	Data File:	031509.D
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	MG

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Tetrachlorometaxylene	54	11	162
Decachlorobiphenyl	85	11	152

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	<0.02
Aroclor 1262	<0.02
Aroclor 1268	<0.02

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Estelita's Library 220264
Date Extracted:	03/14/23	Lab ID:	03-597 mb2 1/30
Date Analyzed:	03/15/23	Data File:	031504.D
Matrix:	Soil	Instrument:	GC7
Units:	mg/kg (ppm) Dry Weight	Operator:	MG

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Tetrachlorometaxylene	62	11	162
Decachlorobiphenyl	90	11	152

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	<0.02
Aroclor 1262	<0.02
Aroclor 1268	<0.02

Date of Report: 03/20/23
Date Received: 03/13/23
Project: Estelita's Library 220264, F&BI 303198

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TPH AS GASOLINE USING METHOD NWTPH-Gx

Laboratory Code: 303175-01 (Duplicate)

Analyte	Reporting Units	Sample Result (Wet Wt)	Duplicate Result (Wet Wt)	RPD (Limit 20)
Gasoline	mg/kg (ppm)	<5	<5	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Gasoline	mg/kg (ppm)	20	90	61-153

Date of Report: 03/20/23
Date Received: 03/13/23
Project: Estelita's Library 220264, F&BI 303198

QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: 303188-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	(Wet wt) Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	<50	92	90	70-130	2

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	94	70-130

Date of Report: 03/20/23
Date Received: 03/13/23
Project: Estelita's Library 220264, F&BI 303198

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TOTAL METALS USING EPA METHOD 6020B

Laboratory Code: 303183-05 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Lead	mg/kg (ppm)	50	7.40	87	79	75-125	10

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Lead	mg/kg (ppm)	50	101	80-120

Date of Report: 03/20/23
Date Received: 03/13/23
Project: Estelita's Library 220264, F&BI 303198

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260D

Laboratory Code: 303217-03 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Dichlorodifluoromethane	mg/kg (ppm)	2	<0.5	14	14	10-142	0
Chloromethane	mg/kg (ppm)	2	<0.5	46	47	10-126	2
Vinyl chloride	mg/kg (ppm)	2	<0.05	44	45	10-138	2
Bromomethane	mg/kg (ppm)	2	<0.5	60	62	10-163	3
Chloroethane	mg/kg (ppm)	2	<0.5	60	60	10-176	0
Trichlorofluoromethane	mg/kg (ppm)	2	<0.5	48	48	10-176	0
Acetone	mg/kg (ppm)	10	<5	80	77	10-163	4
1,1-Dichloroethene	mg/kg (ppm)	2	<0.05	61	62	10-160	2
Hexane	mg/kg (ppm)	2	<0.25	39	39	10-137	0
Methylene chloride	mg/kg (ppm)	2	<0.5	76	79	10-156	4
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2	<0.05	85	87	21-145	2
trans-1,2-Dichloroethene	mg/kg (ppm)	2	<0.05	74	74	14-137	0
1,1-Dichloroethane	mg/kg (ppm)	2	<0.05	78	80	19-140	3
2,2-Dichloropropane	mg/kg (ppm)	2	<0.05	83	83	10-158	0
cis-1,2-Dichloroethene	mg/kg (ppm)	2	<0.05	80	81	25-135	1
Chloroform	mg/kg (ppm)	2	<0.05	80	80	21-145	0
2-Butanone (MEK)	mg/kg (ppm)	10	<1	84	88	19-147	5
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2	<0.05	83	84	12-160	1
1,1,1-Trichloroethane	mg/kg (ppm)	2	<0.05	79	80	10-156	1
1,1-Dichloropropene	mg/kg (ppm)	2	<0.05	77	78	17-140	1
Carbon tetrachloride	mg/kg (ppm)	2	<0.05	77	78	9-164	1
Benzene	mg/kg (ppm)	2	<0.03	80	82	29-129	2
Trichloroethene	mg/kg (ppm)	2	<0.02	79	81	21-139	2
1,2-Dichloropropane	mg/kg (ppm)	2	<0.05	84	85	30-135	1
Bromodichloromethane	mg/kg (ppm)	2	<0.05	86	89	23-155	3
Dibromomethane	mg/kg (ppm)	2	<0.05	86	88	23-145	2
4-Methyl-2-pentanone	mg/kg (ppm)	10	<1	90	93	24-155	3
cis-1,3-Dichloropropene	mg/kg (ppm)	2	<0.05	86	89	28-144	3
Toluene	mg/kg (ppm)	2	<0.05	82	82	35-130	0
trans-1,3-Dichloropropene	mg/kg (ppm)	2	<0.05	86	87	26-149	1
1,1,2-Trichloroethane	mg/kg (ppm)	2	<0.05	87	90	10-205	3
2-Hexanone	mg/kg (ppm)	10	<0.5	87	87	15-166	0
1,3-Dichloropropane	mg/kg (ppm)	2	<0.05	86	86	31-137	0
Tetrachloroethene	mg/kg (ppm)	2	<0.025	82	82	20-133	0
Dibromochloromethane	mg/kg (ppm)	2	<0.05	88	89	28-150	1
1,2-Dibromoethane (EDB)	mg/kg (ppm)	2	<0.05	87	86	28-142	1
Chlorobenzene	mg/kg (ppm)	2	<0.05	86	86	32-129	0
Ethylbenzene	mg/kg (ppm)	2	<0.05	87	86	32-137	1
1,1,1,2-Tetrachloroethane	mg/kg (ppm)	2	<0.05	87	88	31-143	1
m,p-Xylene	mg/kg (ppm)	4	<0.1	86	87	34-136	1
o-Xylene	mg/kg (ppm)	2	<0.05	89	89	33-134	0
Styrene	mg/kg (ppm)	2	<0.05	89	89	35-137	0
Isopropylbenzene	mg/kg (ppm)	2	<0.05	89	88	31-142	1
Bromoform	mg/kg (ppm)	2	<0.05	90	90	21-156	0
n-Propylbenzene	mg/kg (ppm)	2	<0.05	88	89	23-146	1
Bromobenzene	mg/kg (ppm)	2	<0.05	87	91	34-130	4
1,3,5-Trimethylbenzene	mg/kg (ppm)	2	<0.05	90	91	18-149	1
1,1,2,2-Tetrachloroethane	mg/kg (ppm)	2	<0.05	90	92	28-140	2
1,2,3-Trichloropropane	mg/kg (ppm)	2	<0.05	86	88	25-144	2
2-Chlorotoluene	mg/kg (ppm)	2	<0.05	87	89	31-134	2
4-Chlorotoluene	mg/kg (ppm)	2	<0.05	86	88	31-136	2
tert-Butylbenzene	mg/kg (ppm)	2	<0.05	90	91	30-137	1
1,2,4-Trimethylbenzene	mg/kg (ppm)	2	<0.05	89	90	10-182	1
sec-Butylbenzene	mg/kg (ppm)	2	<0.05	89	91	23-145	2
p-Isopropyltoluene	mg/kg (ppm)	2	<0.05	90	92	21-149	2
1,3-Dichlorobenzene	mg/kg (ppm)	2	<0.05	87	88	30-131	1
1,4-Dichlorobenzene	mg/kg (ppm)	2	<0.05	87	88	29-129	1
1,2-Dichlorobenzene	mg/kg (ppm)	2	<0.05	88	89	31-132	1
1,2-Dibromo-3-chloropropane	mg/kg (ppm)	2	<0.5	84	83	11-161	1
1,2,4-Trichlorobenzene	mg/kg (ppm)	2	<0.25	82	83	22-142	1
Hexachlorobutadiene	mg/kg (ppm)	2	<0.25	83	82	10-142	1
Naphthalene	mg/kg (ppm)	2	<0.05	83	84	14-157	1
1,2,3-Trichlorobenzene	mg/kg (ppm)	2	<0.25	81	81	20-144	0

Date of Report: 03/20/23
Date Received: 03/13/23
Project: Estelita's Library 220264, F&BI 303198

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260D

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Dichlorodifluoromethane	mg/kg (ppm)	2	49	10-146
Chloromethane	mg/kg (ppm)	2	72	27-133
Vinyl chloride	mg/kg (ppm)	2	80	22-139
Bromomethane	mg/kg (ppm)	2	85	38-114
Chloroethane	mg/kg (ppm)	2	87	9-163
Trichlorofluoromethane	mg/kg (ppm)	2	85	10-196
Acetone	mg/kg (ppm)	10	85	52-141
1,1-Dichloroethene	mg/kg (ppm)	2	88	47-128
Hexane	mg/kg (ppm)	2	83	43-142
Methylene chloride	mg/kg (ppm)	2	92	10-184
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2	93	60-123
trans-1,2-Dichloroethene	mg/kg (ppm)	2	91	67-129
1,1-Dichloroethane	mg/kg (ppm)	2	93	68-115
2,2-Dichloropropane	mg/kg (ppm)	2	96	52-170
cis-1,2-Dichloroethene	mg/kg (ppm)	2	93	72-127
Chloroform	mg/kg (ppm)	2	91	66-120
2-Butanone (MEK)	mg/kg (ppm)	10	96	30-197
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2	93	56-135
1,1,1-Trichloroethane	mg/kg (ppm)	2	95	62-131
1,1-Dichloropropene	mg/kg (ppm)	2	91	69-128
Carbon tetrachloride	mg/kg (ppm)	2	95	60-139
Benzene	mg/kg (ppm)	2	93	71-118
Trichloroethene	mg/kg (ppm)	2	93	63-121
1,2-Dichloropropane	mg/kg (ppm)	2	95	72-127
Bromodichloromethane	mg/kg (ppm)	2	98	57-126
Dibromomethane	mg/kg (ppm)	2	97	62-123
4-Methyl-2-pentanone	mg/kg (ppm)	10	98	45-145
cis-1,3-Dichloropropene	mg/kg (ppm)	2	97	67-122
Toluene	mg/kg (ppm)	2	89	66-126
trans-1,3-Dichloropropene	mg/kg (ppm)	2	93	72-132
1,1,2-Trichloroethane	mg/kg (ppm)	2	93	64-115
2-Hexanone	mg/kg (ppm)	10	93	33-152
1,3-Dichloropropane	mg/kg (ppm)	2	93	72-130
Tetrachloroethene	mg/kg (ppm)	2	90	72-114
Dibromochloromethane	mg/kg (ppm)	2	94	55-121
1,2-Dibromoethane (EDB)	mg/kg (ppm)	2	93	74-132
Chlorobenzene	mg/kg (ppm)	2	91	76-111
Ethylbenzene	mg/kg (ppm)	2	92	64-123
1,1,1,2-Tetrachloroethane	mg/kg (ppm)	2	94	64-121
m,p-Xylene	mg/kg (ppm)	4	92	78-122
o-Xylene	mg/kg (ppm)	2	94	77-124
Styrene	mg/kg (ppm)	2	95	74-126
Isopropylbenzene	mg/kg (ppm)	2	95	76-127
Bromoform	mg/kg (ppm)	2	97	56-132
n-Propylbenzene	mg/kg (ppm)	2	94	74-124
Bromobenzene	mg/kg (ppm)	2	94	72-122
1,3,5-Trimethylbenzene	mg/kg (ppm)	2	97	76-126
1,1,2,2-Tetrachloroethane	mg/kg (ppm)	2	95	56-143
1,2,3-Trichloropropane	mg/kg (ppm)	2	93	61-137
2-Chlorotoluene	mg/kg (ppm)	2	95	74-121
4-Chlorotoluene	mg/kg (ppm)	2	94	75-122
tert-Butylbenzene	mg/kg (ppm)	2	96	73-130
1,2,4-Trimethylbenzene	mg/kg (ppm)	2	95	76-125
sec-Butylbenzene	mg/kg (ppm)	2	95	71-130
p-Isopropyltoluene	mg/kg (ppm)	2	97	70-132
1,3-Dichlorobenzene	mg/kg (ppm)	2	94	75-121
1,4-Dichlorobenzene	mg/kg (ppm)	2	94	74-117
1,2-Dichlorobenzene	mg/kg (ppm)	2	96	76-121
1,2-Dibromo-3-chloropropane	mg/kg (ppm)	2	92	58-138
1,2,4-Trichlorobenzene	mg/kg (ppm)	2	90	64-135
Hexachlorobutadiene	mg/kg (ppm)	2	87	50-153
Naphthalene	mg/kg (ppm)	2	92	63-140
1,2,3-Trichlorobenzene	mg/kg (ppm)	2	88	63-138

Date of Report: 03/20/23
Date Received: 03/13/23
Project: Estelita's Library 220264, F&BI 303198

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR SEMIVOLATILES BY EPA METHOD 8270E

Laboratory Code: 303191-03 1/5 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Benz(a)anthracene	mg/kg (ppm)	0.83	<0.01	97	95	37-146	2
Chrysene	mg/kg (ppm)	0.83	<0.01	97	95	36-144	2
Benzo(a)pyrene	mg/kg (ppm)	0.83	<0.01	95	92	40-150	3
Benzo(b)fluoranthene	mg/kg (ppm)	0.83	<0.01	95	92	45-157	3
Benzo(k)fluoranthene	mg/kg (ppm)	0.83	<0.01	92	89	50-150	3
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.83	<0.01	95	91	24-145	4
Dibenz(a,h)anthracene	mg/kg (ppm)	0.83	<0.01	98	95	31-137	3

Laboratory Code: Laboratory Control Sample 1/5

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benz(a)anthracene	mg/kg (ppm)	0.83	102	70-130
Chrysene	mg/kg (ppm)	0.83	103	70-130
Benzo(a)pyrene	mg/kg (ppm)	0.83	98	68-120
Benzo(b)fluoranthene	mg/kg (ppm)	0.83	97	69-125
Benzo(k)fluoranthene	mg/kg (ppm)	0.83	94	70-130
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.83	105	67-129
Dibenz(a,h)anthracene	mg/kg (ppm)	0.83	109	67-128

Date of Report: 03/20/23
Date Received: 03/13/23
Project: Estelita's Library 220264, F&BI 303198

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR POLYCHLORINATED BIPHENYLS AS AROCLOR 1016/1260 BY EPA METHOD 8082A

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Aroclor 1016	mg/kg (ppm)	0.25	88	88	55-137	0
Aroclor 1260	mg/kg (ppm)	0.25	87	94	51-150	8

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria, biased high; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the standard reporting limit. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

k – The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

303198

SAMPLE CHAIN OF CUSTODY 03/13/23 VS-03/M2

Page # 1 of 1

Report To Ali Cochrane; Hannah Coren

Company Aspect Consulting

Address

City, State, ZIP

Phone Email

SAMPLERS (*signature*)

PROJECT NAME: Eglitis Library

PO #: 220264

REMARKS

Project specific RLs? Yes / No

INVOICE TO: AP

TURNAROUND TIME
- ☒ Standard turnaround
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Archive samples
- ☐ Other
- Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED: NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	HVOCs	Lead		HOLD	Notes
AMW-05-10	01 A-E	3/13/23	1130	S	5											X	
AMW-05-15	02	"	1145													X	
AMW-05-20	03		1200													X	
AMW-05-22.5	04		1210			X	X			X	X	X	X	X			
AMW-05-27.5	05		1220													X	
AMW-05-32.5	06		1240													X	
AMW-05-37.5	07		1300													X	
AMW-05-45	08		1330													X	
AMW-05-50	09		1400			X	X			X	X	X	X	X			

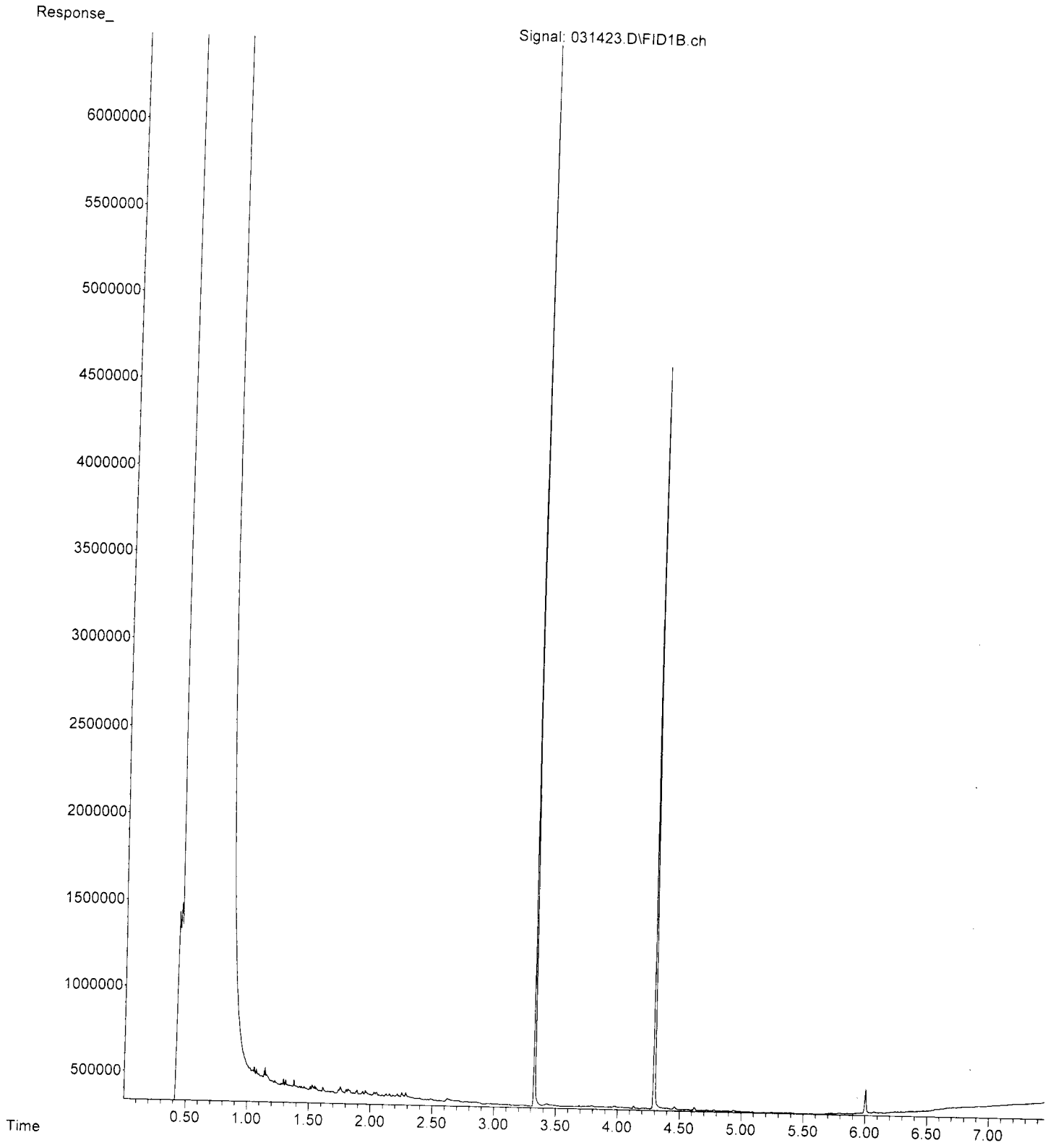
Samples received at 3 °C

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	N. Kolin Corran	Aspect	03/13/23	1525
Received by:	ANH PHAN	F&B	03/13/23	15:25
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
Ph. (206) 285-8282

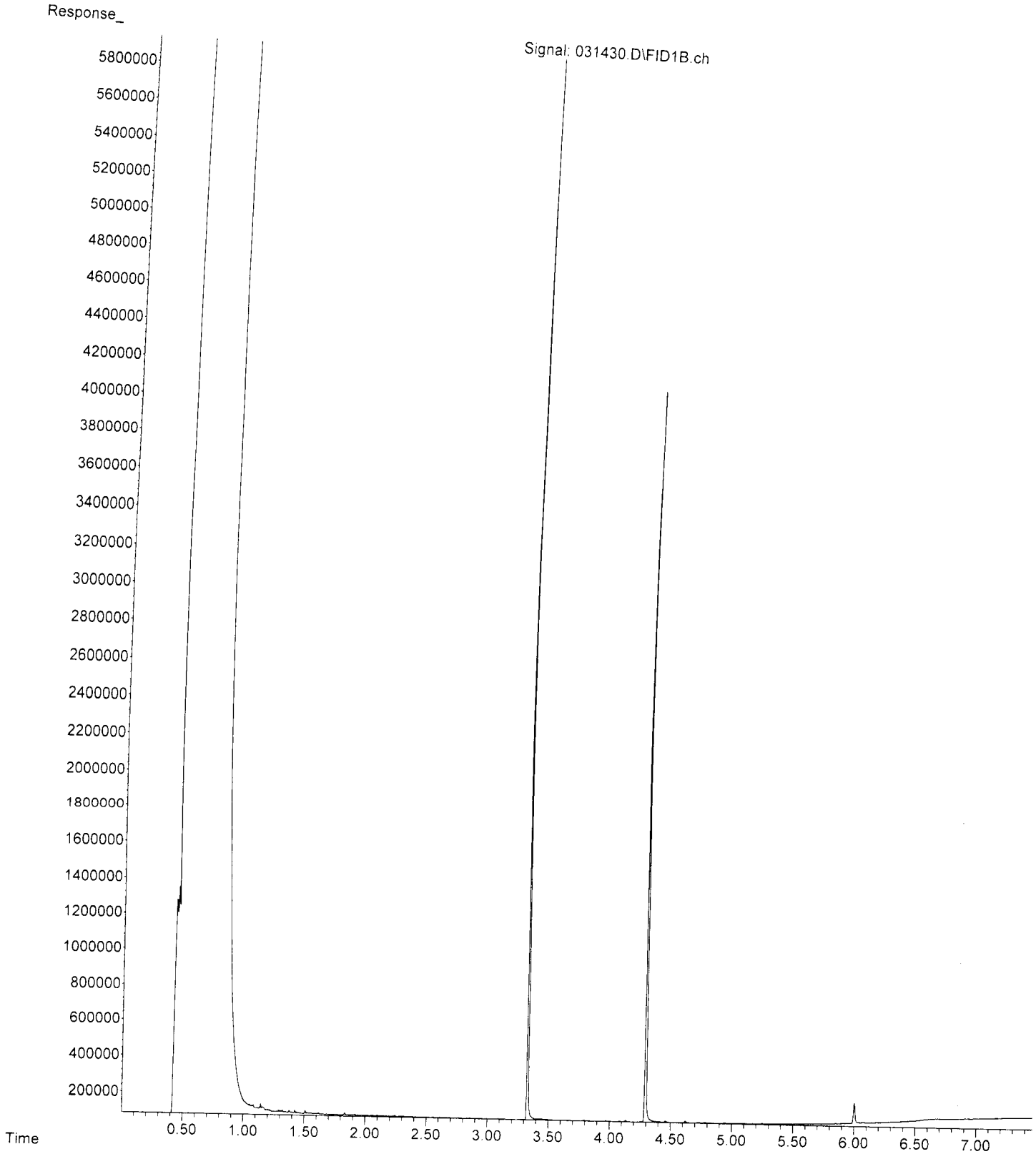
File :D:\GC13\GC13_Data\03-14-23\031423.D
Operator : TL
Acquired : 14 Mar 2023 12:39 pm using AcqMethod Dx.M
Instrument : GC13
Sample Name: 303198-04
Misc Info :
Vial Number: 17

ERR



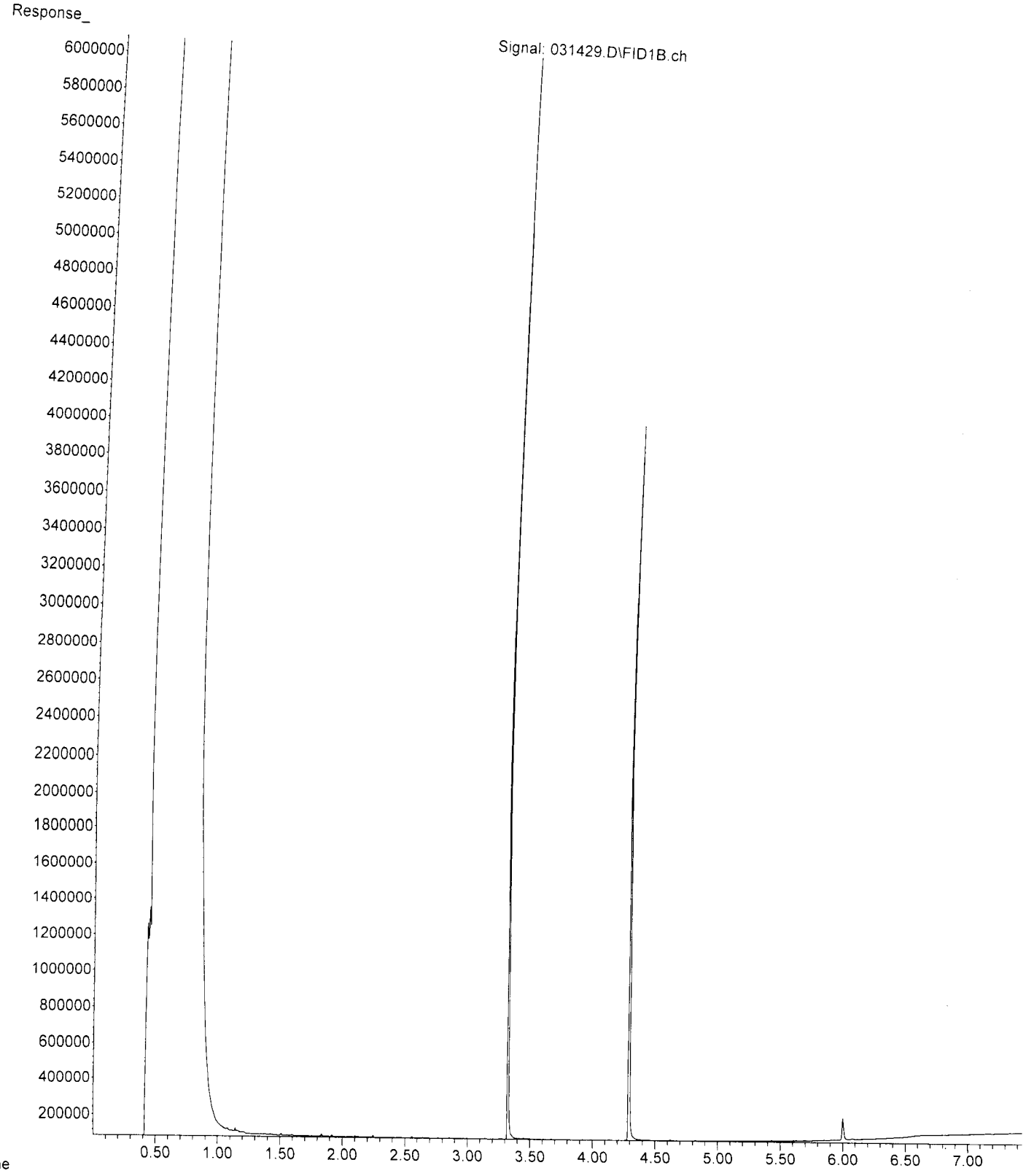
File :D:\GC13\GC13_Data\03-14-23\031430.D
Operator : TL
Acquired : 14 Mar 2023 02:26 pm using AcqMethod Dx.M
Instrument : GC13
Sample Name: 303198-09
Misc Info :
Vial Number: 18

ERR



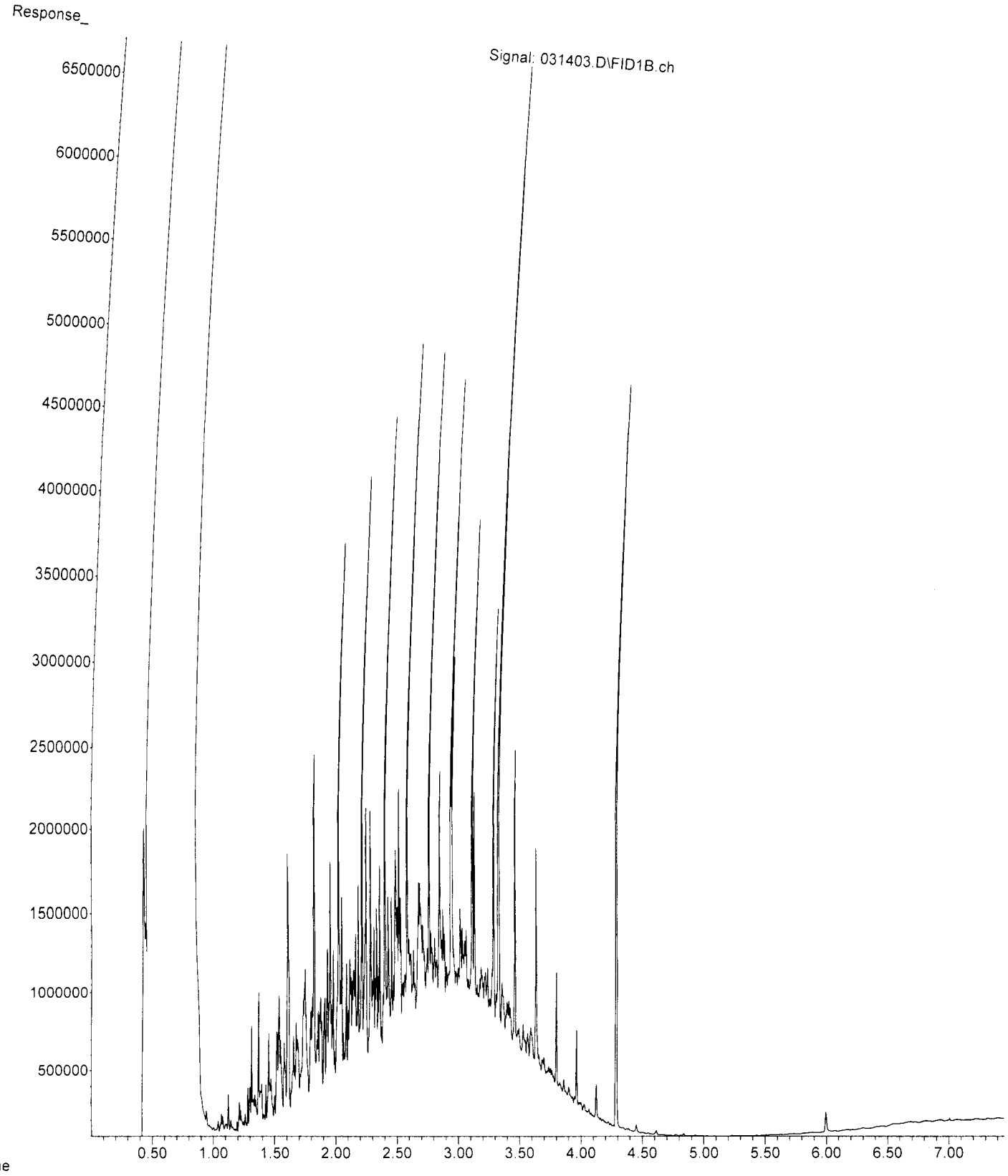
File :D:\GC13\GC13_Data\03-14-23\031429.D
Operator : TL
Acquired : 14 Mar 2023 02:15 pm using AcqMethod Dx.M
Instrument : GC13
Sample Name: 03-598 mb2
Misc Info :
Vial Number: 16

ERR



File :D:\GC13\GC13_Data\03-14-23\031403.D
Operator : TL
Acquired : 14 Mar 2023 08:28 am using AcqMethod Dx.M
Instrument : GC13
Sample Name: 500 Dx 68-66C
Misc Info :
Vial Number: 3

ERR



FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Vineta Mills, M.S.
Eric Young, B.S.

5500 4th Avenue South
Seattle, WA 98108
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

March 21, 2023

Ali Cochrane, Project Manager
Aspect Consulting, LLC
710 2nd Ave S, Suite 550
Seattle, WA 98104

Dear Ms Cochrane:

Included are the results from the testing of material submitted on March 14, 2023 from the Estelita's Library 220264, F&BI 303219 project. There are 15 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Aspect Data, Hannah Cohen
ASP0321R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on March 14, 2023 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Estelita's Library 220264, F&BI 303219 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Aspect Consulting, LLC
303219 -01	AMW-06-7.5
303219 -02	AMW-06-12.5
303219 -03	AMW-06-17.5
303219 -04	AMW-06-22.5
303219 -05	AMW-06-27.5
303219 -06	AMW-06-35
303219 -07	AMW-06-40
303219 -08	AMW-06-45
303219 -09	AMW-06-50
303219 -10	AMW-06-55

The 8260D matrix spike and matrix spike duplicate failed the relative percent difference for acetone. The analyte was not detected therefore the data were acceptable.

All other quality control requirements were acceptable.

Date of Report: 03/21/23
Date Received: 03/14/23
Project: Estelita's Library 220264, F&BI 303219
Date Extracted: 03/14/23
Date Analyzed: 03/15/23

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE USING METHOD NWTPH-Gx

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Gasoline Range	Surrogate (% Recovery) (Limit 58-139)
AMW-06-27.5 303219-05 1/100	24,000	111
AMW-06-55 303219-10	<5	84
Method Blank 03-574 MB	<5	113

Date of Report: 03/21/23
Date Received: 03/14/23
Project: Estelita's Library 220264, F&BI 303219
Date Extracted: 03/15/23
Date Analyzed: 03/15/23

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 50-150)
AMW-06-27.5 303219-05	3,400 x	<250	102
AMW-06-55 303219-10	<50	<250	95
Method Blank 03-608 MB	<50	<250	95

Analysis For Total Metals By EPA Method 6020B

Client ID:	AMW-06-27.5	Client:	Aspect Consulting, LLC
Date Received:	03/14/23	Project:	Estelita's Library 220264
Date Extracted:	03/15/23	Lab ID:	303219-05
Date Analyzed:	03/15/23	Data File:	303219-05.098
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Lead	4.89

Analysis For Total Metals By EPA Method 6020B

Client ID:	AMW-06-55	Client:	Aspect Consulting, LLC
Date Received:	03/14/23	Project:	Estelita's Library 220264
Date Extracted:	03/15/23	Lab ID:	303219-10
Date Analyzed:	03/15/23	Data File:	303219-10.099
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Lead	1.16

Analysis For Total Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	NA	Project:	Estelita's Library 220264
Date Extracted:	03/15/23	Lab ID:	I3-195 mb2
Date Analyzed:	03/15/23	Data File:	I3-195 mb2.042
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Lead	<1

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	AMW-06-27.5	Client:	Aspect Consulting, LLC
Date Received:	03/14/23	Project:	Estelita's Library 220264
Date Extracted:	03/16/23	Lab ID:	303219-05 1/1000
Date Analyzed:	03/16/23	Data File:	031628.D
Matrix:	Soil	Instrument:	GCMS13
Units:	mg/kg (ppm) Dry Weight	Operator:	lm

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	90	84	120
Toluene-d8	93	73	128
4-Bromofluorobenzene	96	57	146

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<500	1,3-Dichloropropane	<50
Chloromethane	<500	Tetrachloroethene	<25
Vinyl chloride	<50	Dibromochloromethane	<50
Bromomethane	<500	1,2-Dibromoethane (EDB)	<50
Chloroethane	<500	Chlorobenzene	<50
Trichlorofluoromethane	<500	Ethylbenzene	310
Acetone	<5,000	1,1,1,2-Tetrachloroethane	<50
1,1-Dichloroethene	<50	m,p-Xylene	1,200
Hexane	<250	o-Xylene	410
Methylene chloride	<500	Styrene	<50
Methyl t-butyl ether (MTBE)	<50	Isopropylbenzene	<50
trans-1,2-Dichloroethene	<50	Bromoform	<50
1,1-Dichloroethane	<50	n-Propylbenzene	92
2,2-Dichloropropane	<50	Bromobenzene	<50
cis-1,2-Dichloroethene	<50	1,3,5-Trimethylbenzene	130
Chloroform	<50	1,1,2,2-Tetrachloroethane	<50
2-Butanone (MEK)	<1,000	1,2,3-Trichloropropane	<50
1,2-Dichloroethane (EDC)	<50	2-Chlorotoluene	<50
1,1,1-Trichloroethane	<50	4-Chlorotoluene	<50
1,1-Dichloropropene	<50	tert-Butylbenzene	<50
Carbon tetrachloride	<50	1,2,4-Trimethylbenzene	430
Benzene	<30	sec-Butylbenzene	<50
Trichloroethene	<20	p-Isopropyltoluene	<50
1,2-Dichloropropane	<50	1,3-Dichlorobenzene	<50
Bromodichloromethane	<50	1,4-Dichlorobenzene	<50
Dibromomethane	<50	1,2-Dichlorobenzene	<50
4-Methyl-2-pentanone	<1,000	1,2-Dibromo-3-chloropropane	<500
cis-1,3-Dichloropropene	<50	1,2,4-Trichlorobenzene	<250
Toluene	470	Hexachlorobutadiene	<250
trans-1,3-Dichloropropene	<50	Naphthalene	110
1,1,2-Trichloroethane	<50	1,2,3-Trichlorobenzene	<250
2-Hexanone	<500		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID:	AMW-06-55	Client:	Aspect Consulting, LLC
Date Received:	03/14/23	Project:	Estelita's Library 220264
Date Extracted:	03/16/23	Lab ID:	303219-10 1/0.25
Date Analyzed:	03/16/23	Data File:	031621.D
Matrix:	Soil	Instrument:	GCMS13
Units:	mg/kg (ppm) Dry Weight	Operator:	lm

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	95	84	120
Toluene-d8	102	73	128
4-Bromofluorobenzene	98	57	146

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.001
Vinyl chloride	<0.001	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.005
Chloroethane	<0.1	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.001
Acetone	<5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.001	m,p-Xylene	<0.002
Hexane	<0.25	o-Xylene	<0.001
Methylene chloride	<0.2	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.001	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.002	Bromoform	<0.05
1,1-Dichloroethane	<0.002	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.001	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<1	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.002	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.002	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.001	sec-Butylbenzene	<0.05
Trichloroethene	<0.001	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<1	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.001	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.005
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<0.5		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Estelita's Library 220264
Date Extracted:	03/16/23	Lab ID:	03-0555 mb 1/0.25
Date Analyzed:	03/16/23	Data File:	031608.D
Matrix:	Soil	Instrument:	GCMS13
Units:	mg/kg (ppm) Dry Weight	Operator:	lm

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	88	84	120
Toluene-d8	93	73	128
4-Bromofluorobenzene	100	57	146

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.001
Vinyl chloride	<0.001	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.005
Chloroethane	<0.1	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.001
Acetone	<5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.001	m,p-Xylene	<0.002
Hexane	<0.25	o-Xylene	<0.001
Methylene chloride	<0.2	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.001	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.002	Bromoform	<0.05
1,1-Dichloroethane	<0.002	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.001	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<1	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.002	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.002	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.001	sec-Butylbenzene	<0.05
Trichloroethene	<0.001	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<1	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.001	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.005
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<0.5		

Date of Report: 03/21/23
Date Received: 03/14/23
Project: Estelita's Library 220264, F&BI 303219

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TPH AS GASOLINE USING METHOD NWTPH-Gx

Laboratory Code: 303175-01 (Duplicate)

Analyte	Reporting Units	Sample Result (Wet Wt)	Duplicate Result (Wet Wt)	RPD (Limit 20)
Gasoline	mg/kg (ppm)	<5	<5	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Gasoline	mg/kg (ppm)	20	90	61-153

Date of Report: 03/21/23
Date Received: 03/14/23
Project: Estelita's Library 220264, F&BI 303219

QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: 303219-10 (Matrix Spike)

Analyte	Reporting Units	Spike Level	(Wet wt) Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	<50	90	90	70-130	0

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	86	70-130

Date of Report: 03/21/23
Date Received: 03/14/23
Project: Estelita's Library 220264, F&BI 303219

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TOTAL METALS USING EPA METHOD 6020B

Laboratory Code: 303093-04 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Lead	mg/kg (ppm)	50	9.46	94	82	75-125	14

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Lead	mg/kg (ppm)	50	97	80-120

Date of Report: 03/21/23
Date Received: 03/14/23
Project: Estelita's Library 220264, F&BI 303219

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260D

Laboratory Code: 303254-08 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Dichlorodifluoromethane	mg/kg (ppm)	2	<0.5	10	10	10-142	0
Chloromethane	mg/kg (ppm)	2	<0.5	33	35	10-126	6
Vinyl chloride	mg/kg (ppm)	2	<0.05	31	34	10-138	9
Bromomethane	mg/kg (ppm)	2	<0.5	41	46	10-163	11
Chloroethane	mg/kg (ppm)	2	<0.5	42	45	10-176	7
Trichlorofluoromethane	mg/kg (ppm)	2	<0.5	34	37	10-176	8
Acetone	mg/kg (ppm)	10	<5	52	68	10-163	27 vo
1,1-Dichloroethene	mg/kg (ppm)	2	<0.05	45	49	10-160	9
Hexane	mg/kg (ppm)	2	<0.25	26	28	10-137	7
Methylene chloride	mg/kg (ppm)	2	<0.5	56	59	10-156	5
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2	<0.05	61	66	21-145	8
trans-1,2-Dichloroethene	mg/kg (ppm)	2	<0.05	55	58	14-137	5
1,1-Dichloroethane	mg/kg (ppm)	2	<0.05	58	62	19-140	7
2,2-Dichloropropane	mg/kg (ppm)	2	<0.05	57	62	10-158	8
cis-1,2-Dichloroethene	mg/kg (ppm)	2	<0.05	60	63	25-135	5
Chloroform	mg/kg (ppm)	2	<0.05	59	63	21-145	7
2-Butanone (MEK)	mg/kg (ppm)	10	<1	62	71	19-147	14
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2	<0.05	62	66	12-160	6
1,1,1-Trichloroethane	mg/kg (ppm)	2	<0.05	58	62	10-156	7
1,1-Dichloropropene	mg/kg (ppm)	2	<0.05	56	60	17-140	7
Carbon tetrachloride	mg/kg (ppm)	2	<0.05	56	59	9-164	5
Benzene	mg/kg (ppm)	2	<0.03	60	64	29-129	6
Trichloroethene	mg/kg (ppm)	2	<0.02	60	64	21-139	6
1,2-Dichloropropane	mg/kg (ppm)	2	<0.05	63	67	30-135	6
Bromodichloromethane	mg/kg (ppm)	2	<0.05	65	69	23-155	6
Dibromomethane	mg/kg (ppm)	2	<0.05	65	69	23-145	6
4-Methyl-2-pentanone	mg/kg (ppm)	10	<1	70	75	24-155	7
cis-1,3-Dichloropropene	mg/kg (ppm)	2	<0.05	64	68	28-144	6
Toluene	mg/kg (ppm)	2	<0.05	61	65	35-130	6
trans-1,3-Dichloropropene	mg/kg (ppm)	2	<0.05	63	67	26-149	6
1,1,2-Trichloroethane	mg/kg (ppm)	2	<0.05	66	70	10-205	6
2-Hexanone	mg/kg (ppm)	10	<0.5	69	74	15-166	7
1,3-Dichloropropane	mg/kg (ppm)	2	<0.05	65	69	31-137	6
Tetrachloroethene	mg/kg (ppm)	2	<0.025	61	65	20-133	6
Dibromochloromethane	mg/kg (ppm)	2	<0.05	65	69	28-150	6
1,2-Dibromoethane (EDB)	mg/kg (ppm)	2	<0.05	64	68	28-142	6
Chlorobenzene	mg/kg (ppm)	2	<0.05	65	69	32-129	6
Ethylbenzene	mg/kg (ppm)	2	<0.05	65	69	32-137	6
1,1,1,2-Tetrachloroethane	mg/kg (ppm)	2	<0.05	66	69	31-143	4
m,p-Xylene	mg/kg (ppm)	4	<0.1	65	69	34-136	6
o-Xylene	mg/kg (ppm)	2	<0.05	66	70	33-134	6
Styrene	mg/kg (ppm)	2	<0.05	68	71	35-137	4
Isopropylbenzene	mg/kg (ppm)	2	<0.05	67	71	31-142	6
Bromoform	mg/kg (ppm)	2	<0.05	64	68	21-156	6
n-Propylbenzene	mg/kg (ppm)	2	<0.05	65	68	23-146	5
Bromobenzene	mg/kg (ppm)	2	<0.05	67	69	34-130	3
1,3,5-Trimethylbenzene	mg/kg (ppm)	2	<0.05	68	70	18-149	3
1,1,2,2-Tetrachloroethane	mg/kg (ppm)	2	<0.05	67	69	28-140	3
1,2,3-Trichloropropane	mg/kg (ppm)	2	<0.05	65	68	25-144	5
2-Chlorotoluene	mg/kg (ppm)	2	<0.05	66	69	31-134	4
4-Chlorotoluene	mg/kg (ppm)	2	<0.05	66	67	31-136	2
tert-Butylbenzene	mg/kg (ppm)	2	<0.05	68	71	30-137	4
1,2,4-Trimethylbenzene	mg/kg (ppm)	2	<0.05	67	69	10-182	3
sec-Butylbenzene	mg/kg (ppm)	2	<0.05	67	69	23-145	3
p-Isopropyltoluene	mg/kg (ppm)	2	<0.05	68	70	21-149	3
1,3-Dichlorobenzene	mg/kg (ppm)	2	<0.05	65	67	30-131	3
1,4-Dichlorobenzene	mg/kg (ppm)	2	<0.05	67	68	29-129	1
1,2-Dichlorobenzene	mg/kg (ppm)	2	<0.05	68	70	31-132	3
1,2-Dibromo-3-chloropropane	mg/kg (ppm)	2	<0.5	62	63	11-161	2
1,2,4-Trichlorobenzene	mg/kg (ppm)	2	<0.25	65	64	22-142	2
Hexachlorobutadiene	mg/kg (ppm)	2	<0.25	63	64	10-142	2
Naphthalene	mg/kg (ppm)	2	<0.05	64	65	14-157	2
1,2,3-Trichlorobenzene	mg/kg (ppm)	2	<0.25	64	62	20-144	3

Date of Report: 03/21/23
Date Received: 03/14/23
Project: Estelita's Library 220264, F&BI 303219

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260D

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Dichlorodifluoromethane	mg/kg (ppm)	2	54	10-146
Chloromethane	mg/kg (ppm)	2	77	27-133
Vinyl chloride	mg/kg (ppm)	2	82	22-139
Bromomethane	mg/kg (ppm)	2	91	38-114
Chloroethane	mg/kg (ppm)	2	89	9-163
Trichlorofluoromethane	mg/kg (ppm)	2	90	10-196
Acetone	mg/kg (ppm)	10	85	52-141
1,1-Dichloroethene	mg/kg (ppm)	2	95	47-128
Hexane	mg/kg (ppm)	2	92	43-142
Methylene chloride	mg/kg (ppm)	2	96	10-184
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2	101	60-123
trans-1,2-Dichloroethene	mg/kg (ppm)	2	99	67-129
1,1-Dichloroethane	mg/kg (ppm)	2	101	68-115
2,2-Dichloropropane	mg/kg (ppm)	2	101	52-170
cis-1,2-Dichloroethene	mg/kg (ppm)	2	100	72-127
Chloroform	mg/kg (ppm)	2	97	66-120
2-Butanone (MEK)	mg/kg (ppm)	10	99	30-197
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2	101	56-135
1,1,1-Trichloroethane	mg/kg (ppm)	2	100	62-131
1,1-Dichloropropene	mg/kg (ppm)	2	100	69-128
Carbon tetrachloride	mg/kg (ppm)	2	101	60-139
Benzene	mg/kg (ppm)	2	100	71-118
Trichloroethene	mg/kg (ppm)	2	100	63-121
1,2-Dichloropropane	mg/kg (ppm)	2	103	72-127
Bromodichloromethane	mg/kg (ppm)	2	105	57-126
Dibromomethane	mg/kg (ppm)	2	103	62-123
4-Methyl-2-pentanone	mg/kg (ppm)	10	108	45-145
cis-1,3-Dichloropropene	mg/kg (ppm)	2	105	67-122
Toluene	mg/kg (ppm)	2	99	66-126
trans-1,3-Dichloropropene	mg/kg (ppm)	2	102	72-132
1,1,2-Trichloroethane	mg/kg (ppm)	2	103	64-115
2-Hexanone	mg/kg (ppm)	10	104	33-152
1,3-Dichloropropane	mg/kg (ppm)	2	102	72-130
Tetrachloroethene	mg/kg (ppm)	2	99	72-114
Dibromochloromethane	mg/kg (ppm)	2	102	55-121
1,2-Dibromoethane (EDB)	mg/kg (ppm)	2	103	74-132
Chlorobenzene	mg/kg (ppm)	2	101	76-111
Ethylbenzene	mg/kg (ppm)	2	102	64-123
1,1,1,2-Tetrachloroethane	mg/kg (ppm)	2	103	64-121
m,p-Xylene	mg/kg (ppm)	4	101	78-122
o-Xylene	mg/kg (ppm)	2	104	77-124
Styrene	mg/kg (ppm)	2	105	74-126
Isopropylbenzene	mg/kg (ppm)	2	103	76-127
Bromoform	mg/kg (ppm)	2	105	56-132
n-Propylbenzene	mg/kg (ppm)	2	102	74-124
Bromobenzene	mg/kg (ppm)	2	105	72-122
1,3,5-Trimethylbenzene	mg/kg (ppm)	2	105	76-126
1,1,2,2-Tetrachloroethane	mg/kg (ppm)	2	103	56-143
1,2,3-Trichloropropane	mg/kg (ppm)	2	102	61-137
2-Chlorotoluene	mg/kg (ppm)	2	103	74-121
4-Chlorotoluene	mg/kg (ppm)	2	102	75-122
tert-Butylbenzene	mg/kg (ppm)	2	105	73-130
1,2,4-Trimethylbenzene	mg/kg (ppm)	2	104	76-125
sec-Butylbenzene	mg/kg (ppm)	2	103	71-130
p-Isopropyltoluene	mg/kg (ppm)	2	105	70-132
1,3-Dichlorobenzene	mg/kg (ppm)	2	102	75-121
1,4-Dichlorobenzene	mg/kg (ppm)	2	102	74-117
1,2-Dichlorobenzene	mg/kg (ppm)	2	104	76-121
1,2-Dibromo-3-chloropropane	mg/kg (ppm)	2	100	58-138
1,2,4-Trichlorobenzene	mg/kg (ppm)	2	98	64-135
Hexachlorobutadiene	mg/kg (ppm)	2	94	50-153
Naphthalene	mg/kg (ppm)	2	100	63-140
1,2,3-Trichlorobenzene	mg/kg (ppm)	2	96	63-138

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria, biased high; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the standard reporting limit. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

k – The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

303219

SAMPLE CHAIN OF CUSTODY

03/14/23

G5/VS-C3

Page # 1 of 1

Report To McCochrane, Hannah Cohen

Company Aspect Consulting

Address

City, State, ZIP

Phone Email

SAMPLERS (*signature*)

PROJECT NAME	PO #
Esteitas Library	220204
REMARKS	INVOICE TO
Project specific RLs? - Yes / No	

TURNAROUND TIME
- ☒ Standard turnaround
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Archive samples
- ☐ Other
- Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	cVOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	HVOCs	Lead		Hold	Notes
AMW-06-7.5	01A-E	3/14/23	10.45	S	5											X	* hold DAH
AMW-06-12.5	02		1055													X	+PCBs per AC
AMW-06-17.5	03		1105													X	3/20/23 ME
AMW-06-22.5	04		1120			X										X	
AMW-06-27.5	05		1130			X	X			X	X	X	X	X			
AMW-06-35	06		1145													X	
AMW-06-40	07		1220													X	
AMW-06-45	08		1250													X	
AMW-06-50	09		1300													X	
AMW-06-55	10		1320			X	X			X	X	X	X	X			

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Nikolai Carroll	Aspect	03/14/23	1415
Received by:	ANHPHAN	FSA	03/14/23	14:15
Relinquished by:		Samples received at 2 °C		
Received by:				

DW

Friedman & Bruya, Inc.
Ph. (206) 285-8282

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
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Vineta Mills, M.S.
Eric Young, B.S.

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(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

March 21, 2023

Ali Cochrane, Project Manager
Aspect Consulting, LLC
710 2nd Ave S, Suite 550
Seattle, WA 98104

Dear Ms Cochrane:

Included are the results from the testing of material submitted on March 15, 2023 from the Estelita's Library 220264, F&BI 303252 project. There are 15 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Aspect Data, Hannah Cohen
ASP0321R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on March 15, 2023 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Estelita's Library 220264, F&BI 303252 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Aspect Consulting, LLC
303252 -01	AMW-04-7.5
303252 -02	AMW-04-12.5
303252 -03	AMW-04-17.5
303252 -04	AMW-04-22.5
303252 -05	AMW-04-25
303252 -06	AMW-04-30
303252 -07	AMW-04-35
303252 -08	AMW-04-40

The 8260D calibration standard failed the acceptance criteria for several analytes. The data were flagged accordingly.

All other quality control requirements were acceptable.

Date of Report: 03/21/23
Date Received: 03/15/23
Project: Estelita's Library 220264, F&BI 303252
Date Extracted: 03/15/23
Date Analyzed: 03/16/23

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE USING METHOD NWTPH-Gx

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Gasoline Range	Surrogate (% Recovery) (Limit 58-139)
AMW-04-22.5 303252-04	<5	83
AMW-04-40 303252-08	<5	85
Method Blank 03-576 MB	<5	125

Date of Report: 03/21/23
Date Received: 03/15/23
Project: Estelita's Library 220264, F&BI 303252
Date Extracted: 03/16/23
Date Analyzed: 03/16/23

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 50-150)
AMW-04-22.5 303252-04	<50	<250	99
AMW-04-40 303252-08	<50	<250	100
Method Blank 03-614 MB	<50	<250	118

Analysis For Total Metals By EPA Method 6020B

Client ID:	AMW-04-22.5	Client:	Aspect Consulting, LLC
Date Received:	03/15/23	Project:	Estelita's Library 220264
Date Extracted:	03/15/23	Lab ID:	303252-04
Date Analyzed:	03/15/23	Data File:	303252-04.104
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Lead	3.03

Analysis For Total Metals By EPA Method 6020B

Client ID:	AMW-04-40	Client:	Aspect Consulting, LLC
Date Received:	03/15/23	Project:	Estelita's Library 220264
Date Extracted:	03/15/23	Lab ID:	303252-08
Date Analyzed:	03/15/23	Data File:	303252-08.110
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Lead	4.83

Analysis For Total Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	NA	Project:	Estelita's Library 220264
Date Extracted:	03/15/23	Lab ID:	I3-201 mb
Date Analyzed:	03/15/23	Data File:	I3-201 mb.102
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Lead	<1

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID:	AMW-04-22.5	Client:	Aspect Consulting, LLC
Date Received:	03/15/23	Project:	Estelita's Library 220264
Date Extracted:	03/17/23	Lab ID:	303252-04 1/0.25
Date Analyzed:	03/17/23	Data File:	031714.D
Matrix:	Soil	Instrument:	GCMS11
Units:	mg/kg (ppm) Dry Weight	Operator:	LM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	79	128
Toluene-d8	101	84	121
4-Bromofluorobenzene	111	84	116

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.001
Vinyl chloride	<0.001	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.005
Chloroethane	<0.1	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5 ca	Ethylbenzene	<0.001
Acetone	<5 ca	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.001 ca	m,p-Xylene	<0.002
Hexane	<0.25	o-Xylene	<0.001
Methylene chloride	<0.2	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.001	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.002	Bromoform	<0.05
1,1-Dichloroethane	<0.002	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.001	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<1	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.002	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.002	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.001	sec-Butylbenzene	<0.05
Trichloroethene	<0.001	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<1	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.001	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.005
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<0.5		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID:	AMW-04-40	Client:	Aspect Consulting, LLC
Date Received:	03/15/23	Project:	Estelita's Library 220264
Date Extracted:	03/17/23	Lab ID:	303252-08 1/0.25
Date Analyzed:	03/17/23	Data File:	031715.D
Matrix:	Soil	Instrument:	GCMS11
Units:	mg/kg (ppm) Dry Weight	Operator:	LM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	91	79	128
Toluene-d8	103	84	121
4-Bromofluorobenzene	116	84	116

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.001
Vinyl chloride	<0.001	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.005
Chloroethane	<0.1	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5 ca	Ethylbenzene	<0.001
Acetone	<5 ca	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.001 ca	m,p-Xylene	<0.002
Hexane	<0.25	o-Xylene	<0.001
Methylene chloride	<0.2	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.001	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.002	Bromoform	<0.05
1,1-Dichloroethane	<0.002	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.001	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<1	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.002	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.002	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.001	sec-Butylbenzene	<0.05
Trichloroethene	<0.001	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<1	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	0.0014	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.005
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<0.5		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Estelita's Library 220264
Date Extracted:	03/17/23	Lab ID:	03-0617 mb 1/0.25
Date Analyzed:	03/17/23	Data File:	031708.D
Matrix:	Soil	Instrument:	GCMS13
Units:	mg/kg (ppm) Dry Weight	Operator:	lm

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	107	84	120
Toluene-d8	105	73	128
4-Bromofluorobenzene	100	57	146

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.001
Vinyl chloride	<0.001	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.005
Chloroethane	<0.1	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.001
Acetone	<5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.001	m,p-Xylene	<0.002
Hexane	<0.25	o-Xylene	<0.001
Methylene chloride	<0.2	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.001	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.002	Bromoform	<0.05
1,1-Dichloroethane	<0.002	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.001	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<1	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.002	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.002	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.001	sec-Butylbenzene	<0.05
Trichloroethene	<0.001	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<1	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.001	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.005
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<0.5		

Date of Report: 03/21/23
Date Received: 03/15/23
Project: Estelita's Library 220264, F&BI 303252

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TPH AS GASOLINE USING METHOD NWTPH-Gx

Laboratory Code: 303217-01 (Duplicate)

Analyte	Reporting Units	Sample Result (Wet Wt)	Duplicate Result (Wet Wt)	RPD (Limit 20)
Gasoline	mg/kg (ppm)	<5	<5	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Gasoline	mg/kg (ppm)	20	90	61-153

Date of Report: 03/21/23
Date Received: 03/15/23
Project: Estelita's Library 220264, F&BI 303252

QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: 303257-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	(Wet wt) Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	2200	80	88	70-130	10

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	108	70-130

Date of Report: 03/21/23
Date Received: 03/15/23
Project: Estelita's Library 220264, F&BI 303252

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TOTAL METALS USING EPA METHOD 6020B

Laboratory Code: 303252-04 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Lead	mg/kg (ppm)	50	2.55	90	84	75-125	7

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Lead	mg/kg (ppm)	50	101	80-120

Date of Report: 03/21/23
Date Received: 03/15/23
Project: Estelita's Library 220264, F&BI 303252

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260D

Laboratory Code: 303264-02 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Dichlorodifluoromethane	mg/kg (ppm)	2	<0.5	21	17	10-142	21 vo
Chloromethane	mg/kg (ppm)	2	<0.5	57	52	10-126	9
Vinyl chloride	mg/kg (ppm)	2	<0.05	60	52	10-138	14
Bromomethane	mg/kg (ppm)	2	<0.5	65	61	10-163	6
Chloroethane	mg/kg (ppm)	2	<0.5	68	65	10-176	5
Trichlorofluoromethane	mg/kg (ppm)	2	<0.5	55	49	10-176	12
Acetone	mg/kg (ppm)	10	<5	82	91	10-163	10
1,1-Dichloroethene	mg/kg (ppm)	2	<0.05	72	66	10-160	9
Hexane	mg/kg (ppm)	2	<0.25	49	44	10-137	11
Methylene chloride	mg/kg (ppm)	2	<0.5	86	79	10-156	8
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2	<0.05	88	83	21-145	6
trans-1,2-Dichloroethene	mg/kg (ppm)	2	<0.05	82	74	14-137	10
1,1-Dichloroethane	mg/kg (ppm)	2	<0.05	86	80	19-140	7
2,2-Dichloropropane	mg/kg (ppm)	2	<0.05	81	72	10-158	12
cis-1,2-Dichloroethene	mg/kg (ppm)	2	<0.05	84	79	25-135	6
Chloroform	mg/kg (ppm)	2	<0.05	83	77	21-145	7
2-Butanone (MEK)	mg/kg (ppm)	10	<1	92	89	19-147	3
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2	<0.05	83	78	12-160	6
1,1,1-Trichloroethane	mg/kg (ppm)	2	<0.05	78	72	10-156	8
1,1-Dichloropropene	mg/kg (ppm)	2	<0.05	78	72	17-140	8
Carbon tetrachloride	mg/kg (ppm)	2	<0.05	73	68	9-164	7
Benzene	mg/kg (ppm)	2	0.11	82	77	29-129	6
Trichloroethene	mg/kg (ppm)	2	<0.02	81	76	21-139	6
1,2-Dichloropropane	mg/kg (ppm)	2	<0.05	90	85	30-135	6
Bromodichloromethane	mg/kg (ppm)	2	<0.05	90	85	23-155	6
Dibromomethane	mg/kg (ppm)	2	<0.05	88	84	23-145	5
4-Methyl-2-pentanone	mg/kg (ppm)	10	<1	102	96	24-155	6
cis-1,3-Dichloropropene	mg/kg (ppm)	2	<0.05	92	86	28-144	7
Toluene	mg/kg (ppm)	2	2.1	58 b	49 b	35-130	17 b
trans-1,3-Dichloropropene	mg/kg (ppm)	2	<0.05	92	86	26-149	7
1,1,2-Trichloroethane	mg/kg (ppm)	2	<0.05	116	110	10-205	5
2-Hexanone	mg/kg (ppm)	10	<0.5	96	93	15-166	3
1,3-Dichloropropane	mg/kg (ppm)	2	<0.05	91	87	31-137	4
Tetrachloroethene	mg/kg (ppm)	2	<0.025	69	63	20-133	9
Dibromochloromethane	mg/kg (ppm)	2	<0.05	90	84	28-150	7
1,2-Dibromoethane (EDB)	mg/kg (ppm)	2	<0.05	88	83	28-142	6
Chlorobenzene	mg/kg (ppm)	2	<0.05	84	78	32-129	7
Ethylbenzene	mg/kg (ppm)	2	2.6	65 b	59 b	32-137	10 b
1,1,1,2-Tetrachloroethane	mg/kg (ppm)	2	<0.05	85	79	31-143	7
m,p-Xylene	mg/kg (ppm)	4	12	30 b	24 b	34-136	22 b
o-Xylene	mg/kg (ppm)	2	7.2	29 b	20 b	33-134	37 b
Styrene	mg/kg (ppm)	2	0.20	86	81	35-137	6
Isopropylbenzene	mg/kg (ppm)	2	1.2	74 b	69 b	31-142	7 b
Bromoform	mg/kg (ppm)	2	<0.05	92	85	21-156	8
n-Propylbenzene	mg/kg (ppm)	2	4.1	71 b	69 b	23-146	3 b
Bromobenzene	mg/kg (ppm)	2	<0.05	82	79	34-130	4
1,3,5-Trimethylbenzene	mg/kg (ppm)	2	7.2	49 b	47 b	18-149	4 b
1,1,2,2-Tetrachloroethane	mg/kg (ppm)	2	<0.05	135	126	28-140	7
1,2,3-Trichloropropane	mg/kg (ppm)	2	<0.05	90	85	25-144	6
2-Chlorotoluene	mg/kg (ppm)	2	<0.05	177 vo	170 vo	31-134	4
4-Chlorotoluene	mg/kg (ppm)	2	<0.05	99	94	31-136	5
tert-Butylbenzene	mg/kg (ppm)	2	<0.05	74	68	30-137	8
1,2,4-Trimethylbenzene	mg/kg (ppm)	2	24	2 b	5 b	10-182	86 b
sec-Butylbenzene	mg/kg (ppm)	2	1.5	77 b	70 b	23-145	10 b
p-Isopropyltoluene	mg/kg (ppm)	2	1.9	73 b	66 b	21-149	10 b
1,3-Dichlorobenzene	mg/kg (ppm)	2	<0.05	78	72	30-131	8
1,4-Dichlorobenzene	mg/kg (ppm)	2	<0.05	79	74	29-129	7
1,2-Dichlorobenzene	mg/kg (ppm)	2	<0.05	85	78	31-132	9
1,2-Dibromo-3-chloropropane	mg/kg (ppm)	2	<0.5	113	95	11-161	17
1,2,4-Trichlorobenzene	mg/kg (ppm)	2	<0.25	93	80	22-142	15
Hexachlorobutadiene	mg/kg (ppm)	2	<0.25	94	78	10-142	19
Naphthalene	mg/kg (ppm)	2	1.9	97 b	80 b	14-157	19 b
1,2,3-Trichlorobenzene	mg/kg (ppm)	2	<0.25	96	83	20-144	15

Date of Report: 03/21/23
Date Received: 03/15/23
Project: Estelita's Library 220264, F&BI 303252

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260D

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Dichlorodifluoromethane	mg/kg (ppm)	2	52	10-146
Chloromethane	mg/kg (ppm)	2	78	27-133
Vinyl chloride	mg/kg (ppm)	2	85	22-139
Bromomethane	mg/kg (ppm)	2	86	38-114
Chloroethane	mg/kg (ppm)	2	89	9-163
Trichlorofluoromethane	mg/kg (ppm)	2	85	10-196
Acetone	mg/kg (ppm)	10	97	52-141
1,1-Dichloroethene	mg/kg (ppm)	2	94	47-128
Hexane	mg/kg (ppm)	2	96	43-142
Methylene chloride	mg/kg (ppm)	2	97	10-184
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2	98	60-123
trans-1,2-Dichloroethene	mg/kg (ppm)	2	100	67-129
1,1-Dichloroethane	mg/kg (ppm)	2	101	68-115
2,2-Dichloropropane	mg/kg (ppm)	2	98	52-170
cis-1,2-Dichloroethene	mg/kg (ppm)	2	98	72-127
Chloroform	mg/kg (ppm)	2	95	66-120
2-Butanone (MEK)	mg/kg (ppm)	10	100	30-197
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2	97	56-135
1,1,1-Trichloroethane	mg/kg (ppm)	2	97	62-131
1,1-Dichloropropene	mg/kg (ppm)	2	99	69-128
Carbon tetrachloride	mg/kg (ppm)	2	96	60-139
Benzene	mg/kg (ppm)	2	101	71-118
Trichloroethene	mg/kg (ppm)	2	98	63-121
1,2-Dichloropropane	mg/kg (ppm)	2	104	72-127
Bromodichloromethane	mg/kg (ppm)	2	105	57-126
Dibromomethane	mg/kg (ppm)	2	102	62-123
4-Methyl-2-pentanone	mg/kg (ppm)	10	109	45-145
cis-1,3-Dichloropropene	mg/kg (ppm)	2	107	67-122
Toluene	mg/kg (ppm)	2	98	66-126
trans-1,3-Dichloropropene	mg/kg (ppm)	2	103	72-132
1,1,2-Trichloroethane	mg/kg (ppm)	2	102	64-115
2-Hexanone	mg/kg (ppm)	10	105	33-152
1,3-Dichloropropane	mg/kg (ppm)	2	103	72-130
Tetrachloroethene	mg/kg (ppm)	2	96	72-114
Dibromochloromethane	mg/kg (ppm)	2	105	55-121
1,2-Dibromoethane (EDB)	mg/kg (ppm)	2	102	74-132
Chlorobenzene	mg/kg (ppm)	2	99	76-111
Ethylbenzene	mg/kg (ppm)	2	101	64-123
1,1,1,2-Tetrachloroethane	mg/kg (ppm)	2	101	64-121
m,p-Xylene	mg/kg (ppm)	4	100	78-122
o-Xylene	mg/kg (ppm)	2	103	77-124
Styrene	mg/kg (ppm)	2	104	74-126
Isopropylbenzene	mg/kg (ppm)	2	102	76-127
Bromoform	mg/kg (ppm)	2	109	56-132
n-Propylbenzene	mg/kg (ppm)	2	102	74-124
Bromobenzene	mg/kg (ppm)	2	101	72-122
1,3,5-Trimethylbenzene	mg/kg (ppm)	2	104	76-126
1,1,2,2-Tetrachloroethane	mg/kg (ppm)	2	106	56-143
1,2,3-Trichloropropane	mg/kg (ppm)	2	101	61-137
2-Chlorotoluene	mg/kg (ppm)	2	102	74-121
4-Chlorotoluene	mg/kg (ppm)	2	101	75-122
tert-Butylbenzene	mg/kg (ppm)	2	103	73-130
1,2,4-Trimethylbenzene	mg/kg (ppm)	2	103	76-125
sec-Butylbenzene	mg/kg (ppm)	2	103	71-130
p-Isopropyltoluene	mg/kg (ppm)	2	104	70-132
1,3-Dichlorobenzene	mg/kg (ppm)	2	99	75-121
1,4-Dichlorobenzene	mg/kg (ppm)	2	99	74-117
1,2-Dichlorobenzene	mg/kg (ppm)	2	101	76-121
1,2-Dibromo-3-chloropropane	mg/kg (ppm)	2	98	58-138
1,2,4-Trichlorobenzene	mg/kg (ppm)	2	95	64-135
Hexachlorobutadiene	mg/kg (ppm)	2	92	50-153
Naphthalene	mg/kg (ppm)	2	97	63-140
1,2,3-Trichlorobenzene	mg/kg (ppm)	2	91	63-138

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria, biased high; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the standard reporting limit. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

k – The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

303252

SAMPLE CHAIN OF CUSTODY 03/15/23

M2/VS-C3

Page # 1 of 1

Report To: Ali Cochrane, Hannah Cohen
Company: Aspect Consulting
Address
City, State, ZIP
Phone Email

SAMPLERS (signature): [signature]
PROJECT NAME: Estelita's Library
PO #: 220264
REMARKS
Project specific RLs? - Yes / No
INVOICE TO: AP

TURNAROUND TIME
☒ Standard turnaround
☐ RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
☐ Archive samples
☐ Other
Default: Dispose after 30 days

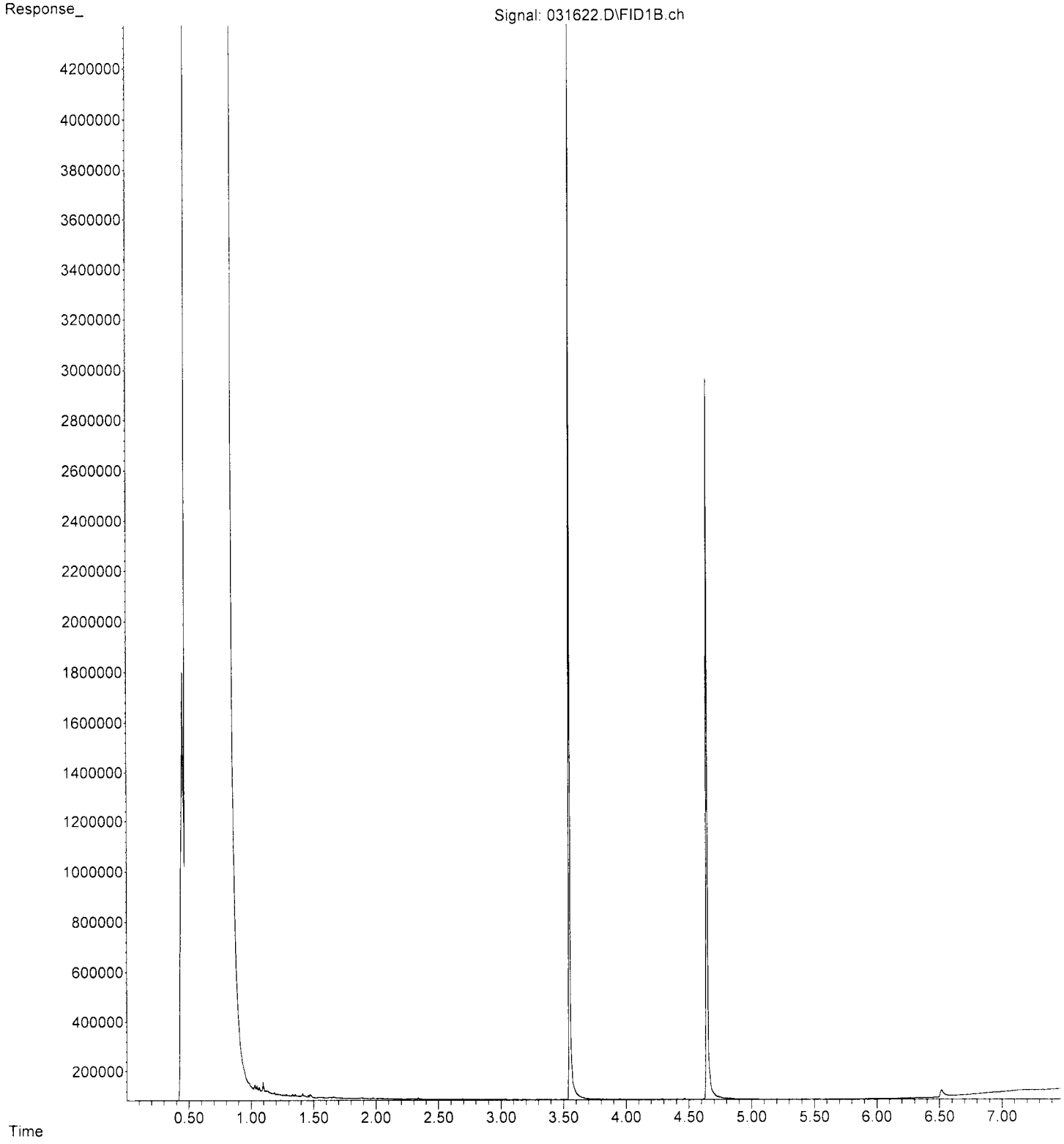
Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	HVOC's	Lead		Hold	Notes
AMW-04-7.5	01 A-E	03/15/23	1000	Soil	5											X	
AMW-04-12.5	02	↓	1010	↓	↓											X	
AMW-04-17.5	03		1030													X	
AMW-04-22.5	04		1045			X	X			X	X	X	X	X			
AMW-04-25	05		1050													X	
AMW-04-30	06		1110													X	
AMW-04-35	07		1130													X	
AMW-04-40	08		1200			X	X			X	X	X	X	X			

Samples received at 1 °C

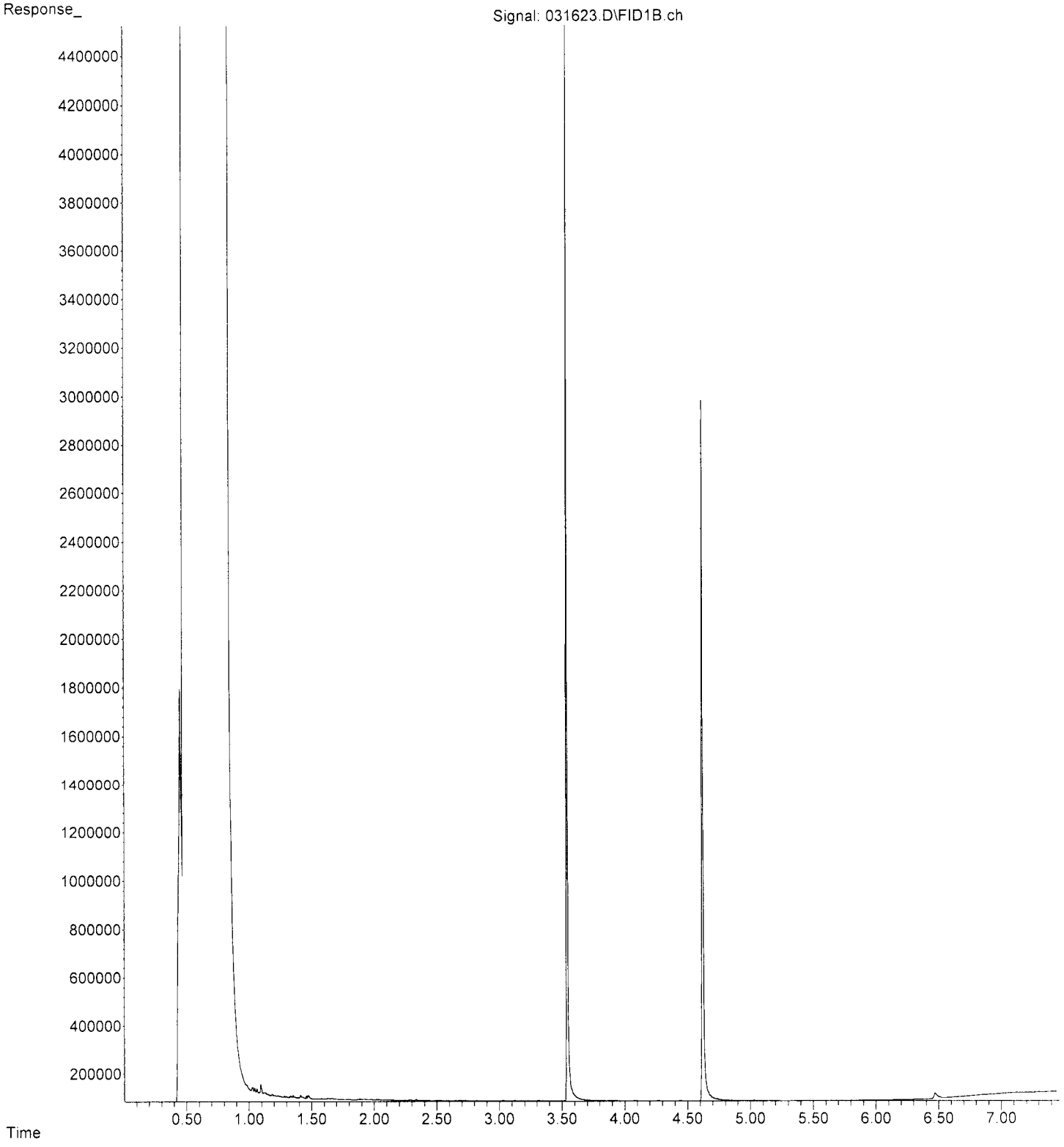
Friedman & Bruya, Inc.
Ph. (206) 285-8282

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: [signature]	Carmen Tappero	Aspect Consulting	3/15/23	1418
Received by: [signature]	Eric Young	F&B	3/15/23	1418
Relinquished by:				
Received by:				

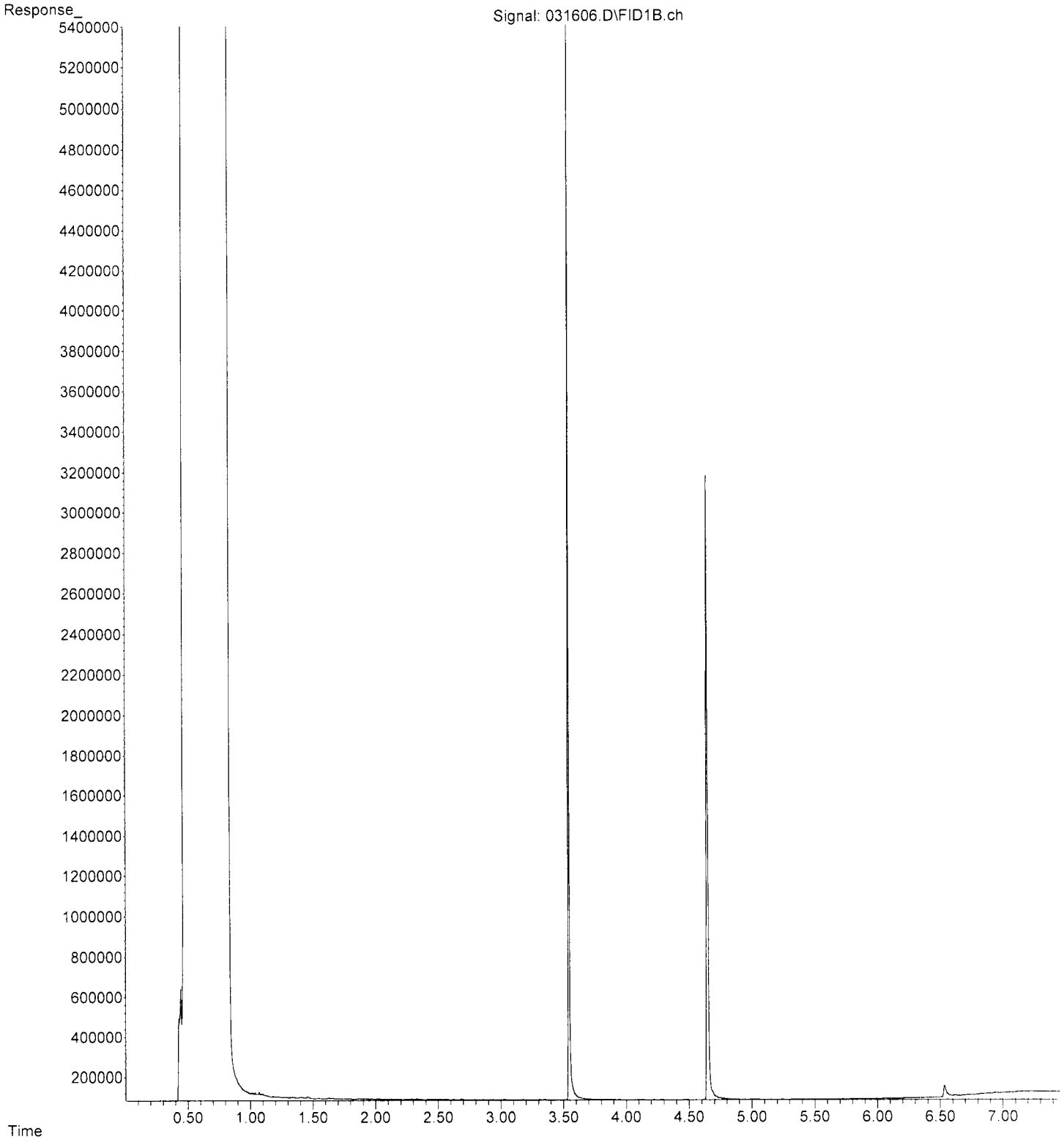
File :P:\Proc_GC10\03-16-23\031622.D
Operator : TL
Acquired : 16 Mar 2023 01:13 pm using AcqMethod DX.M
Instrument : GC10
Sample Name: 303252-04
Misc Info :
Vial Number: 17



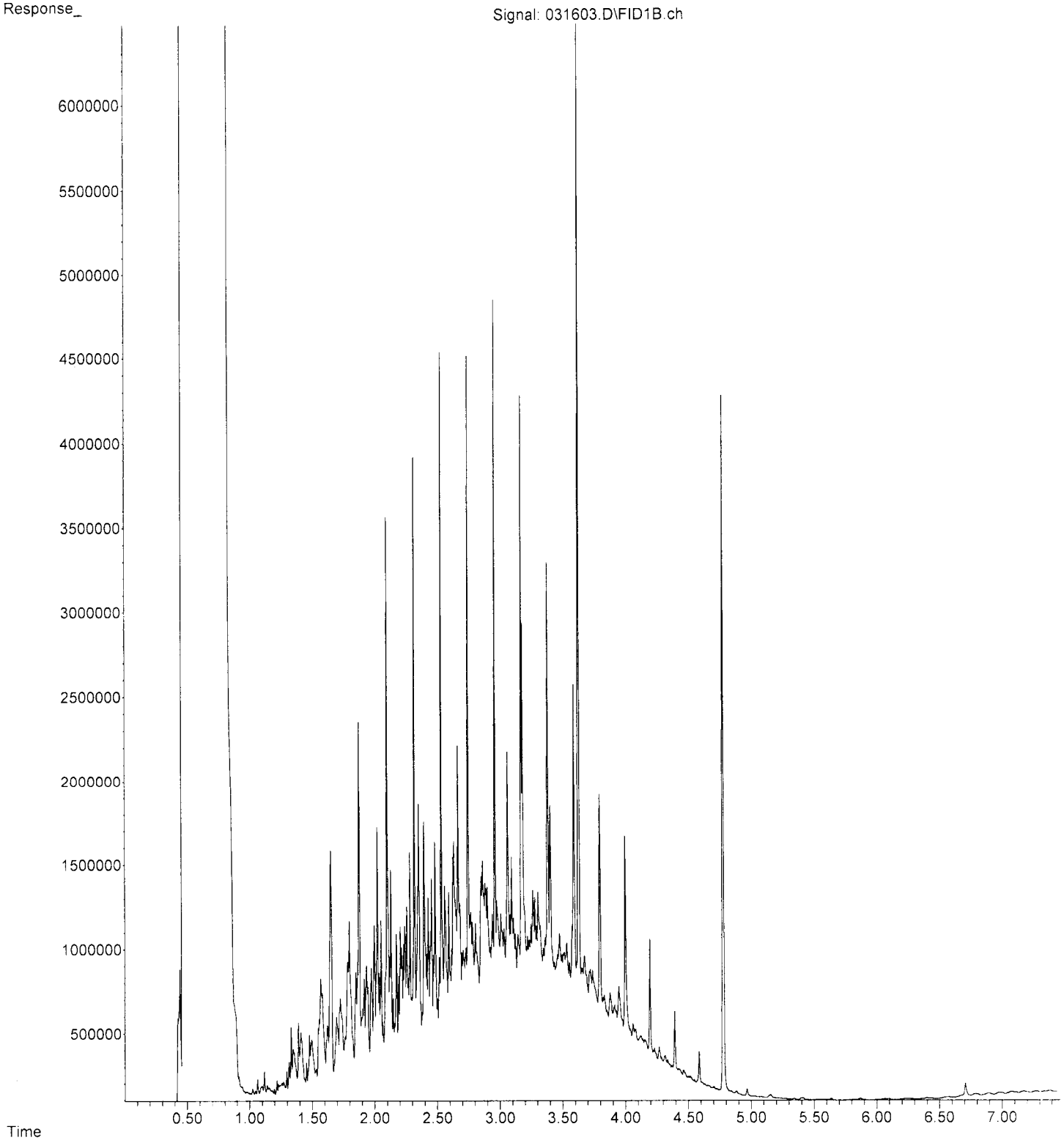
File :P:\Proc_GC10\03-16-23\031623.D
Operator : TL
Acquired : 16 Mar 2023 01:24 pm using AcqMethod DX.M
Instrument : GC10
Sample Name: 303252-08
Misc Info :
Vial Number: 18



File :P:\Proc_GC10\03-16-23\031606.D
Operator : TL
Acquired : 16 Mar 2023 09:59 am using AcqMethod DX.M
Instrument : GC10
Sample Name: 03-614 mb
Misc Info :
Vial Number: 7



File :P:\Proc_GC10\03-16-23\031603.D
Operator : TL
Acquired : 16 Mar 2023 08:31 am using AcqMethod DX.M
Instrument : GC10
Sample Name: 500 DX 67-143B
Misc Info :
Vial Number: 3



FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
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March 24, 2023

Hannah Cohen, Project Manager
Aspect Consulting, LLC
710 2nd Ave S, Suite 550
Seattle, WA 98104

Dear Ms Cohen:

Included are the results from the testing of material submitted on March 16, 2023 from the Estelita's Library 220264, F&BI 303281 project. There are 57 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Aspect Data
ASP0324R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on March 16, 2023 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Estelita's Library 220264, F&BI 303281 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Aspect Consulting, LLC
303281 -01	AB-01-1.0
303281 -02	AB-01-4.0
303281 -03	AB-01-5.0
303281 -04	AB-02-0.5
303281 -05	AB-02-4.0
303281 -06	AB-02-7.5
303281 -07	AB-03-0.5
303281 -08	AB-03-3.0
303281 -09	AB-03-6.0
303281 -10	AB-08-1.0
303281 -11	AB-08-5.0
303281 -12	AB-08-10.5
303281 -13	AB-07-1.0
303281 -14	AB-07-5.0
303281 -15	AB-07-9.5
303281 -16	AB-04-1.5
303281 -17	AB-04-5.0
303281 -18	AB-04-9.0
303281 -19	AB-05-1.0
303281 -20	AB-05-5.0
303281 -21	AB-05-8.5
303281 -22	AB-06-1
303281 -23	AB-06-5
303281 -24	AB-06-12
303281 -25	AB-100-10

Bromomethane exceeded the acceptance criteria in the matrix spike sample and the associated relative percent difference. The laboratory control sample met the acceptance criteria, therefore the data were likely due to sample matrix effect.

All other quality control requirements were acceptable.

Date of Report: 03/24/23
Date Received: 03/16/23
Project: Estelita's Library 220264, F&BI 303281
Date Extracted: 03/21/23
Date Analyzed: 03/21/23

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE USING METHOD NWTPH-Gx

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Gasoline Range	Surrogate (% Recovery) (Limit 58-139)
AB-01-1.0 303281-01	<5	85
AB-01-5.0 303281-03 1/20	700	98
AB-02-0.5 303281-04	<5	90
AB-02-7.5 303281-06	120	ip
AB-03-0.5 303281-07	<5	83
AB-03-6.0 303281-09	<5	89
AB-08-1.0 303281-10	<5	88
AB-08-10.5 303281-12	<5	88
AB-07-5.0 303281-14	<5	84
AB-07-9.5 303281-15	<5	84
AB-04-5.0 303281-17	<5	89

Date of Report: 03/24/23
Date Received: 03/16/23
Project: Estelita's Library 220264, F&BI 303281
Date Extracted: 03/21/23
Date Analyzed: 03/21/23

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE USING METHOD NWTPH-Gx

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Gasoline Range	Surrogate (% Recovery) (Limit 58-139)
AB-04-9.0 303281-18	<5	86
AB-05-5.0 303281-20	<5	88
AB-05-8.5 303281-21	<5	83
AB-06-1 303281-22	<5	78
AB-06-5 303281-23	<5	82
AB-06-12 303281-24	<5	88
AB-100-10 303281-25	<5	83
Method Blank 03-584 MB	<5	77

Date of Report: 03/24/23
Date Received: 03/16/23
Project: Estelita's Library 220264, F&BI 303281
Date Extracted: 03/17/23
Date Analyzed: 03/17/23

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 50-150)
AB-01-1.0 303281-01	<50	<250	112
AB-01-5.0 303281-03	380 x	1,700	101
AB-02-0.5 303281-04	<50	<250	107
AB-02-7.5 303281-06	350 x	3,000	102
AB-03-0.5 303281-07	<50	<250	103
AB-03-6.0 303281-09	<50	<250	98
AB-08-1.0 303281-10	<50	<250	92
AB-08-10.5 303281-12	<50	<250	97
AB-07-5.0 303281-14	<50	<250	100
AB-07-9.5 303281-15	<50	<250	97
AB-04-5.0 303281-17	<50	<250	100
AB-04-9.0 303281-18	<50	<250	98

Date of Report: 03/24/23
Date Received: 03/16/23
Project: Estelita's Library 220264, F&BI 303281
Date Extracted: 03/17/23
Date Analyzed: 03/17/23

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 50-150)
AB-05-5.0 303281-20	<50	<250	100
AB-05-8.5 303281-21	<50	<250	98
AB-06-1 303281-22	<50	<250	96
AB-06-5 303281-23	<50	<250	95
AB-06-12 303281-24	<50	<250	97
AB-100-10 303281-25	<50	<250	96
Method Blank 03-634 MB	<50	<250	108

Analysis For Total Metals By EPA Method 6020B

Client ID:	AB-01-1.0	Client:	Aspect Consulting, LLC
Date Received:	03/16/23	Project:	Estelita's Library 220264
Date Extracted:	03/17/23	Lab ID:	303281-01 x5
Date Analyzed:	03/17/23	Data File:	303281-01 x5.089
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Lead	92.4

Analysis For Total Metals By EPA Method 6020B

Client ID:	AB-01-5.0	Client:	Aspect Consulting, LLC
Date Received:	03/16/23	Project:	Estelita's Library 220264
Date Extracted:	03/17/23	Lab ID:	303281-03
Date Analyzed:	03/17/23	Data File:	303281-03.095
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Lead	7.12

Analysis For Total Metals By EPA Method 6020B

Client ID:	AB-02-0.5	Client:	Aspect Consulting, LLC
Date Received:	03/16/23	Project:	Estelita's Library 220264
Date Extracted:	03/17/23	Lab ID:	303281-04
Date Analyzed:	03/17/23	Data File:	303281-04.128
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Lead	12.7

Analysis For Total Metals By EPA Method 6020B

Client ID:	AB-02-7.5	Client:	Aspect Consulting, LLC
Date Received:	03/16/23	Project:	Estelita's Library 220264
Date Extracted:	03/17/23	Lab ID:	303281-06
Date Analyzed:	03/17/23	Data File:	303281-06.129
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Lead	12.0

Analysis For Total Metals By EPA Method 6020B

Client ID:	AB-03-0.5	Client:	Aspect Consulting, LLC
Date Received:	03/16/23	Project:	Estelita's Library 220264
Date Extracted:	03/17/23	Lab ID:	303281-07
Date Analyzed:	03/17/23	Data File:	303281-07.130
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Lead	2.97

Analysis For Total Metals By EPA Method 6020B

Client ID:	AB-03-6.0	Client:	Aspect Consulting, LLC
Date Received:	03/16/23	Project:	Estelita's Library 220264
Date Extracted:	03/17/23	Lab ID:	303281-09
Date Analyzed:	03/17/23	Data File:	303281-09.131
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Lead	2.24

Analysis For Total Metals By EPA Method 6020B

Client ID:	AB-08-1.0	Client:	Aspect Consulting, LLC
Date Received:	03/16/23	Project:	Estelita's Library 220264
Date Extracted:	03/17/23	Lab ID:	303281-10
Date Analyzed:	03/17/23	Data File:	303281-10.132
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Lead	5.51

Analysis For Total Metals By EPA Method 6020B

Client ID:	AB-08-10.5	Client:	Aspect Consulting, LLC
Date Received:	03/16/23	Project:	Estelita's Library 220264
Date Extracted:	03/17/23	Lab ID:	303281-12
Date Analyzed:	03/17/23	Data File:	303281-12.133
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Lead	1.08

Analysis For Total Metals By EPA Method 6020B

Client ID:	AB-07-5.0	Client:	Aspect Consulting, LLC
Date Received:	03/16/23	Project:	Estelita's Library 220264
Date Extracted:	03/17/23	Lab ID:	303281-14
Date Analyzed:	03/17/23	Data File:	303281-14.140
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Lead	2.10

Analysis For Total Metals By EPA Method 6020B

Client ID:	AB-07-9.5	Client:	Aspect Consulting, LLC
Date Received:	03/16/23	Project:	Estelita's Library 220264
Date Extracted:	03/17/23	Lab ID:	303281-15
Date Analyzed:	03/17/23	Data File:	303281-15.141
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Lead	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	AB-04-5.0	Client:	Aspect Consulting, LLC
Date Received:	03/16/23	Project:	Estelita's Library 220264
Date Extracted:	03/17/23	Lab ID:	303281-17
Date Analyzed:	03/17/23	Data File:	303281-17.142
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Lead	1.83

Analysis For Total Metals By EPA Method 6020B

Client ID:	AB-04-9.0	Client:	Aspect Consulting, LLC
Date Received:	03/16/23	Project:	Estelita's Library 220264
Date Extracted:	03/17/23	Lab ID:	303281-18
Date Analyzed:	03/17/23	Data File:	303281-18.143
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Lead	1.56

Analysis For Total Metals By EPA Method 6020B

Client ID:	AB-05-5.0	Client:	Aspect Consulting, LLC
Date Received:	03/16/23	Project:	Estelita's Library 220264
Date Extracted:	03/17/23	Lab ID:	303281-20
Date Analyzed:	03/17/23	Data File:	303281-20.144
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Lead	1.69

Analysis For Total Metals By EPA Method 6020B

Client ID:	AB-05-8.5	Client:	Aspect Consulting, LLC
Date Received:	03/16/23	Project:	Estelita's Library 220264
Date Extracted:	03/17/23	Lab ID:	303281-21
Date Analyzed:	03/17/23	Data File:	303281-21.154
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Lead	1.40

Analysis For Total Metals By EPA Method 6020B

Client ID:	AB-06-1	Client:	Aspect Consulting, LLC
Date Received:	03/16/23	Project:	Estelita's Library 220264
Date Extracted:	03/17/23	Lab ID:	303281-22
Date Analyzed:	03/17/23	Data File:	303281-22.155
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Lead	4.93

Analysis For Total Metals By EPA Method 6020B

Client ID:	AB-06-5	Client:	Aspect Consulting, LLC
Date Received:	03/16/23	Project:	Estelita's Library 220264
Date Extracted:	03/17/23	Lab ID:	303281-23
Date Analyzed:	03/17/23	Data File:	303281-23.156
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Lead	1.27

Analysis For Total Metals By EPA Method 6020B

Client ID:	AB-06-12	Client:	Aspect Consulting, LLC
Date Received:	03/16/23	Project:	Estelita's Library 220264
Date Extracted:	03/17/23	Lab ID:	303281-24
Date Analyzed:	03/17/23	Data File:	303281-24.157
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Lead	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	AB-100-10	Client:	Aspect Consulting, LLC
Date Received:	03/16/23	Project:	Estelita's Library 220264
Date Extracted:	03/17/23	Lab ID:	303281-25
Date Analyzed:	03/17/23	Data File:	303281-25.158
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Lead	6.90

Analysis For Total Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	NA	Project:	Estelita's Library 220264
Date Extracted:	03/17/23	Lab ID:	I3-205 mb
Date Analyzed:	03/17/23	Data File:	I3-205 mb.040
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Lead	<1

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID:	AB-01-1.0	Client:	Aspect Consulting, LLC
Date Received:	03/16/23	Project:	Estelita's Library 220264
Date Extracted:	03/21/13	Lab ID:	303281-01 1/0.25
Date Analyzed:	03/21/23	Data File:	032122.D
Matrix:	Soil	Instrument:	GCMS13
Units:	mg/kg (ppm) Dry Weight	Operator:	lm

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	84	120
Toluene-d8	103	73	128
4-Bromofluorobenzene	99	57	146

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	0.012
Vinyl chloride	<0.001	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.005
Chloroethane	<0.1	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.001
Acetone	<5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.001	m,p-Xylene	<0.002
Hexane	<0.25	o-Xylene	<0.001
Methylene chloride	<0.2	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.001	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.002	Bromoform	<0.05
1,1-Dichloroethane	<0.002	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.001	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<1	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.002	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.002	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.001	sec-Butylbenzene	<0.05
Trichloroethene	<0.001	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<1	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.001	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.005
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<0.5		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID:	AB-01-5.0	Client:	Aspect Consulting, LLC
Date Received:	03/16/23	Project:	Estelita's Library 220264
Date Extracted:	03/21/13	Lab ID:	303281-03 1/0.25
Date Analyzed:	03/21/23	Data File:	032138.D
Matrix:	Soil	Instrument:	GCMS13
Units:	mg/kg (ppm) Dry Weight	Operator:	lm

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	84	120
Toluene-d8	103	73	128
4-Bromofluorobenzene	94	57	146

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.001
Vinyl chloride	<0.001	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.005
Chloroethane	<0.1	Chlorobenzene	0.091
Trichlorofluoromethane	<0.5	Ethylbenzene	0.014
Acetone	<5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.001	m,p-Xylene	0.50
Hexane	<0.25	o-Xylene	0.0049
Methylene chloride	<0.2	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.001	Isopropylbenzene	0.12
trans-1,2-Dichloroethene	<0.002	Bromoform	<0.05
1,1-Dichloroethane	<0.002	n-Propylbenzene	0.58
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.001	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<1	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.002	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.002	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	5.2
Benzene	<0.001	sec-Butylbenzene	0.37
Trichloroethene	<0.001	p-Isopropyltoluene	0.34
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<1	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	0.0011	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	0.036
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<0.5		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID:	AB-02-0.5	Client:	Aspect Consulting, LLC
Date Received:	03/16/23	Project:	Estelita's Library 220264
Date Extracted:	03/21/13	Lab ID:	303281-04 1/0.25
Date Analyzed:	03/21/23	Data File:	032123.D
Matrix:	Soil	Instrument:	GCMS13
Units:	mg/kg (ppm) Dry Weight	Operator:	lm

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	84	120
Toluene-d8	101	73	128
4-Bromofluorobenzene	100	57	146

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.001
Vinyl chloride	<0.001	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.005
Chloroethane	<0.1	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.001
Acetone	<5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.001	m,p-Xylene	<0.002
Hexane	<0.25	o-Xylene	<0.001
Methylene chloride	<0.2	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.001	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.002	Bromoform	<0.05
1,1-Dichloroethane	<0.002	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.001	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<1	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.002	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.002	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.001	sec-Butylbenzene	<0.05
Trichloroethene	<0.001	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<1	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.001	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.005
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<0.5		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID:	AB-02-7.5	Client:	Aspect Consulting, LLC
Date Received:	03/16/23	Project:	Estelita's Library 220264
Date Extracted:	03/21/13	Lab ID:	303281-06 1/0.25
Date Analyzed:	03/21/23	Data File:	032139.D
Matrix:	Soil	Instrument:	GCMS13
Units:	mg/kg (ppm) Dry Weight	Operator:	lm

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	84	120
Toluene-d8	106	73	128
4-Bromofluorobenzene	100	57	146

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.001
Vinyl chloride	<0.001	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.005
Chloroethane	<0.1	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	0.077
Acetone	<5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.001	m,p-Xylene	0.024
Hexane	<0.25	o-Xylene	0.026
Methylene chloride	<0.2	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.001	Isopropylbenzene	0.22
trans-1,2-Dichloroethene	<0.002	Bromoform	<0.05
1,1-Dichloroethane	<0.002	n-Propylbenzene	0.71
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.001	1,3,5-Trimethylbenzene	1.3
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<1	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.002	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.002	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	1.3
Benzene	0.034	sec-Butylbenzene	0.20
Trichloroethene	<0.001	p-Isopropyltoluene	0.12
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	0.063
4-Methyl-2-pentanone	<1	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.001	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	1.1
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<0.5		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID:	AB-03-0.5	Client:	Aspect Consulting, LLC
Date Received:	03/16/23	Project:	Estelita's Library 220264
Date Extracted:	03/21/13	Lab ID:	303281-07 1/0.25
Date Analyzed:	03/21/23	Data File:	032124.D
Matrix:	Soil	Instrument:	GCMS13
Units:	mg/kg (ppm) Dry Weight	Operator:	lm

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	96	84	120
Toluene-d8	104	73	128
4-Bromofluorobenzene	101	57	146

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.001
Vinyl chloride	<0.001	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.005
Chloroethane	<0.1	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.001
Acetone	<5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.001	m,p-Xylene	<0.002
Hexane	<0.25	o-Xylene	<0.001
Methylene chloride	<0.2	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.001	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.002	Bromoform	<0.05
1,1-Dichloroethane	<0.002	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.001	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<1	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.002	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.002	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.001	sec-Butylbenzene	<0.05
Trichloroethene	<0.001	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<1	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.001	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.005
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<0.5		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID:	AB-03-6.0	Client:	Aspect Consulting, LLC
Date Received:	03/16/23	Project:	Estelita's Library 220264
Date Extracted:	03/21/13	Lab ID:	303281-09 1/0.25
Date Analyzed:	03/21/23	Data File:	032125.D
Matrix:	Soil	Instrument:	GCMS13
Units:	mg/kg (ppm) Dry Weight	Operator:	lm

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	90	84	120
Toluene-d8	94	73	128
4-Bromofluorobenzene	103	57	146

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.001
Vinyl chloride	<0.001	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.005
Chloroethane	<0.1	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.001
Acetone	<5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.001	m,p-Xylene	<0.002
Hexane	<0.25	o-Xylene	<0.001
Methylene chloride	<0.2	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.001	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.002	Bromoform	<0.05
1,1-Dichloroethane	<0.002	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.001	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<1	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.002	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.002	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.001	sec-Butylbenzene	<0.05
Trichloroethene	<0.001	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<1	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.001	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.005
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<0.5		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID:	AB-08-1.0	Client:	Aspect Consulting, LLC
Date Received:	03/16/23	Project:	Estelita's Library 220264
Date Extracted:	03/21/13	Lab ID:	303281-10 1/0.25
Date Analyzed:	03/21/23	Data File:	032126.D
Matrix:	Soil	Instrument:	GCMS13
Units:	mg/kg (ppm) Dry Weight	Operator:	lm

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	95	84	120
Toluene-d8	93	73	128
4-Bromofluorobenzene	101	57	146

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.001
Vinyl chloride	<0.001	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.005
Chloroethane	<0.1	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.001
Acetone	<5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.001	m,p-Xylene	<0.002
Hexane	<0.25	o-Xylene	<0.001
Methylene chloride	<0.2	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.001	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.002	Bromoform	<0.05
1,1-Dichloroethane	<0.002	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.001	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<1	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.002	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.002	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.001	sec-Butylbenzene	<0.05
Trichloroethene	<0.001	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<1	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.001	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.005
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<0.5		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID:	AB-08-10.5	Client:	Aspect Consulting, LLC
Date Received:	03/16/23	Project:	Estelita's Library 220264
Date Extracted:	03/21/13	Lab ID:	303281-12 1/0.25
Date Analyzed:	03/21/23	Data File:	032127.D
Matrix:	Soil	Instrument:	GCMS13
Units:	mg/kg (ppm) Dry Weight	Operator:	lm

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	84	120
Toluene-d8	101	73	128
4-Bromofluorobenzene	100	57	146

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.001
Vinyl chloride	<0.001	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.005
Chloroethane	<0.1	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.001
Acetone	<5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.001	m,p-Xylene	<0.002
Hexane	<0.25	o-Xylene	<0.001
Methylene chloride	<0.2	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.001	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.002	Bromoform	<0.05
1,1-Dichloroethane	<0.002	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.001	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<1	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.002	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.002	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.001	sec-Butylbenzene	<0.05
Trichloroethene	<0.001	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<1	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.001	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.005
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<0.5		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID:	AB-07-5.0	Client:	Aspect Consulting, LLC
Date Received:	03/16/23	Project:	Estelita's Library 220264
Date Extracted:	03/21/13	Lab ID:	303281-14 1/0.25
Date Analyzed:	03/21/23	Data File:	032128.D
Matrix:	Soil	Instrument:	GCMS13
Units:	mg/kg (ppm) Dry Weight	Operator:	lm

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	84	120
Toluene-d8	102	73	128
4-Bromofluorobenzene	97	57	146

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.001
Vinyl chloride	<0.001	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.005
Chloroethane	<0.1	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.001
Acetone	<5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.001	m,p-Xylene	<0.002
Hexane	<0.25	o-Xylene	<0.001
Methylene chloride	<0.2	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.001	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.002	Bromoform	<0.05
1,1-Dichloroethane	<0.002	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.001	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<1	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.002	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.002	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.001	sec-Butylbenzene	<0.05
Trichloroethene	<0.001	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<1	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.001	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.005
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<0.5		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID:	AB-07-9.5	Client:	Aspect Consulting, LLC
Date Received:	03/16/23	Project:	Estelita's Library 220264
Date Extracted:	03/21/13	Lab ID:	303281-15 1/0.25
Date Analyzed:	03/21/23	Data File:	032129.D
Matrix:	Soil	Instrument:	GCMS13
Units:	mg/kg (ppm) Dry Weight	Operator:	lm

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	84	120
Toluene-d8	104	73	128
4-Bromofluorobenzene	103	57	146

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.001
Vinyl chloride	<0.001	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.005
Chloroethane	<0.1	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.001
Acetone	<5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.001	m,p-Xylene	<0.002
Hexane	<0.25	o-Xylene	<0.001
Methylene chloride	<0.2	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.001	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.002	Bromoform	<0.05
1,1-Dichloroethane	<0.002	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.001	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<1	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.002	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.002	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.001	sec-Butylbenzene	<0.05
Trichloroethene	<0.001	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<1	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.001	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.005
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<0.5		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID:	AB-04-5.0	Client:	Aspect Consulting, LLC
Date Received:	03/16/23	Project:	Estelita's Library 220264
Date Extracted:	03/21/13	Lab ID:	303281-17 1/0.25
Date Analyzed:	03/21/23	Data File:	032130.D
Matrix:	Soil	Instrument:	GCMS13
Units:	mg/kg (ppm) Dry Weight	Operator:	lm

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	104	84	120
Toluene-d8	104	73	128
4-Bromofluorobenzene	100	57	146

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.001
Vinyl chloride	<0.001	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.005
Chloroethane	<0.1	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.001
Acetone	<5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.001	m,p-Xylene	<0.002
Hexane	<0.25	o-Xylene	<0.001
Methylene chloride	<0.2	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.001	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.002	Bromoform	<0.05
1,1-Dichloroethane	<0.002	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.001	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<1	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.002	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.002	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.001	sec-Butylbenzene	<0.05
Trichloroethene	<0.001	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<1	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.001	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.005
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<0.5		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID:	AB-04-9.0	Client:	Aspect Consulting, LLC
Date Received:	03/16/23	Project:	Estelita's Library 220264
Date Extracted:	03/21/13	Lab ID:	303281-18 1/0.25
Date Analyzed:	03/21/23	Data File:	032131.D
Matrix:	Soil	Instrument:	GCMS13
Units:	mg/kg (ppm) Dry Weight	Operator:	lm

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	96	84	120
Toluene-d8	95	73	128
4-Bromofluorobenzene	98	57	146

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.001
Vinyl chloride	<0.001	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.005
Chloroethane	<0.1	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.001
Acetone	<5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.001	m,p-Xylene	<0.002
Hexane	<0.25	o-Xylene	<0.001
Methylene chloride	<0.2	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.001	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.002	Bromoform	<0.05
1,1-Dichloroethane	<0.002	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.001	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<1	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.002	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.002	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.001	sec-Butylbenzene	<0.05
Trichloroethene	<0.001	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<1	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.001	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.005
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<0.5		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID:	AB-05-5.0	Client:	Aspect Consulting, LLC
Date Received:	03/16/23	Project:	Estelita's Library 220264
Date Extracted:	03/21/13	Lab ID:	303281-20 1/0.25
Date Analyzed:	03/21/23	Data File:	032132.D
Matrix:	Soil	Instrument:	GCMS13
Units:	mg/kg (ppm) Dry Weight	Operator:	lm

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	95	84	120
Toluene-d8	90	73	128
4-Bromofluorobenzene	100	57	146

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.001
Vinyl chloride	<0.001	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.005
Chloroethane	<0.1	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.001
Acetone	<5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.001	m,p-Xylene	<0.002
Hexane	<0.25	o-Xylene	<0.001
Methylene chloride	<0.2	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.001	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.002	Bromoform	<0.05
1,1-Dichloroethane	<0.002	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.001	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<1	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.002	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.002	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.001	sec-Butylbenzene	<0.05
Trichloroethene	<0.001	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<1	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.001	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.005
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<0.5		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID:	AB-05-8.5	Client:	Aspect Consulting, LLC
Date Received:	03/16/23	Project:	Estelita's Library 220264
Date Extracted:	03/21/13	Lab ID:	303281-21 1/0.25
Date Analyzed:	03/21/23	Data File:	032133.D
Matrix:	Soil	Instrument:	GCMS13
Units:	mg/kg (ppm) Dry Weight	Operator:	lm

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	84	120
Toluene-d8	101	73	128
4-Bromofluorobenzene	97	57	146

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.001
Vinyl chloride	<0.001	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.005
Chloroethane	<0.1	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.001
Acetone	<5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.001	m,p-Xylene	<0.002
Hexane	<0.25	o-Xylene	<0.001
Methylene chloride	<0.2	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.001	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.002	Bromoform	<0.05
1,1-Dichloroethane	<0.002	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.001	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<1	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.002	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.002	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.001	sec-Butylbenzene	<0.05
Trichloroethene	<0.001	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<1	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.001	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.005
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<0.5		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID:	AB-06-1	Client:	Aspect Consulting, LLC
Date Received:	03/16/23	Project:	Estelita's Library 220264
Date Extracted:	03/21/13	Lab ID:	303281-22 1/0.25
Date Analyzed:	03/21/23	Data File:	032134.D
Matrix:	Soil	Instrument:	GCMS13
Units:	mg/kg (ppm) Dry Weight	Operator:	lm

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	84	120
Toluene-d8	102	73	128
4-Bromofluorobenzene	104	57	146

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.001
Vinyl chloride	<0.001	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.005
Chloroethane	<0.1	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.001
Acetone	<5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.001	m,p-Xylene	<0.002
Hexane	<0.25	o-Xylene	<0.001
Methylene chloride	<0.2	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.001	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.002	Bromoform	<0.05
1,1-Dichloroethane	<0.002	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.001	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<1	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.002	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.002	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.001	sec-Butylbenzene	<0.05
Trichloroethene	<0.001	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<1	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.001	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.005
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<0.5		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID:	AB-06-5	Client:	Aspect Consulting, LLC
Date Received:	03/16/23	Project:	Estelita's Library 220264
Date Extracted:	03/21/13	Lab ID:	303281-23 1/0.25
Date Analyzed:	03/21/23	Data File:	032135.D
Matrix:	Soil	Instrument:	GCMS13
Units:	mg/kg (ppm) Dry Weight	Operator:	lm

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	92	84	120
Toluene-d8	94	73	128
4-Bromofluorobenzene	103	57	146

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.001
Vinyl chloride	<0.001	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.005
Chloroethane	<0.1	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.001
Acetone	<5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.001	m,p-Xylene	<0.002
Hexane	<0.25	o-Xylene	<0.001
Methylene chloride	<0.2	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.001	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.002	Bromoform	<0.05
1,1-Dichloroethane	<0.002	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.001	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<1	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.002	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.002	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.001	sec-Butylbenzene	<0.05
Trichloroethene	<0.001	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<1	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.001	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.005
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<0.5		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID:	AB-06-12	Client:	Aspect Consulting, LLC
Date Received:	03/16/23	Project:	Estelita's Library 220264
Date Extracted:	03/21/13	Lab ID:	303281-24 1/0.25
Date Analyzed:	03/21/23	Data File:	032136.D
Matrix:	Soil	Instrument:	GCMS13
Units:	mg/kg (ppm) Dry Weight	Operator:	lm

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	84	120
Toluene-d8	102	73	128
4-Bromofluorobenzene	100	57	146

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.001
Vinyl chloride	<0.001	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.005
Chloroethane	<0.1	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.001
Acetone	<5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.001	m,p-Xylene	<0.002
Hexane	<0.25	o-Xylene	<0.001
Methylene chloride	<0.2	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.001	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.002	Bromoform	<0.05
1,1-Dichloroethane	<0.002	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.001	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<1	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.002	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.002	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.001	sec-Butylbenzene	<0.05
Trichloroethene	<0.001	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<1	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.001	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.005
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<0.5		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID:	AB-100-10	Client:	Aspect Consulting, LLC
Date Received:	03/16/23	Project:	Estelita's Library 220264
Date Extracted:	03/21/13	Lab ID:	303281-25 1/0.25
Date Analyzed:	03/21/23	Data File:	032137.D
Matrix:	Soil	Instrument:	GCMS13
Units:	mg/kg (ppm) Dry Weight	Operator:	lm

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	84	120
Toluene-d8	101	73	128
4-Bromofluorobenzene	98	57	146

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.001
Vinyl chloride	<0.001	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.005
Chloroethane	<0.1	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.001
Acetone	<5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.001	m,p-Xylene	<0.002
Hexane	<0.25	o-Xylene	<0.001
Methylene chloride	<0.2	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.001	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.002	Bromoform	<0.05
1,1-Dichloroethane	<0.002	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.001	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<1	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.002	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.002	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.001	sec-Butylbenzene	<0.05
Trichloroethene	<0.001	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<1	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.001	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.005
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<0.5		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Estelita's Library 220264
Date Extracted:	03/21/23	Lab ID:	03-0629 mb 1/0.25
Date Analyzed:	03/21/23	Data File:	032112.D
Matrix:	Soil	Instrument:	GCMS13
Units:	mg/kg (ppm) Dry Weight	Operator:	lm

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	84	120
Toluene-d8	104	73	128
4-Bromofluorobenzene	100	57	146

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5	Tetrachloroethene	<0.001
Vinyl chloride	<0.001	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.005
Chloroethane	<0.1	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.001
Acetone	<5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.001	m,p-Xylene	<0.002
Hexane	<0.25	o-Xylene	<0.001
Methylene chloride	<0.2	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.001	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.002	Bromoform	<0.05
1,1-Dichloroethane	<0.002	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.001	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<1	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.002	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.002	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.001	sec-Butylbenzene	<0.05
Trichloroethene	<0.001	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<1	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.001	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.005
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<0.5		

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	AB-01-5.0	Client:	Aspect Consulting, LLC
Date Received:	03/16/23	Project:	Estelita's Library 220264
Date Extracted:	03/17/23	Lab ID:	303281-03 1/5
Date Analyzed:	03/17/23	Data File:	031712.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Nitrobenzene-d5	129	10	198
2-Fluorobiphenyl	100	45	117
2,4,6-Tribromophenol	89	11	158
Terphenyl-d14	109	50	124

Compounds:	Concentration mg/kg (ppm)
Naphthalene	0.018
2-Methylnaphthalene	1.4
1-Methylnaphthalene	0.81
Acenaphthylene	0.018
Acenaphthene	<0.01
Fluorene	0.041
Phenanthrene	0.14
Anthracene	0.020
Fluoranthene	0.048
Pyrene	0.11
Benz(a)anthracene	0.022
Chrysene	0.026
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01
Benzo(g,h,i)perylene	0.011

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	AB-02-7.5	Client:	Aspect Consulting, LLC
Date Received:	03/16/23	Project:	Estelita's Library 220264
Date Extracted:	03/17/23	Lab ID:	303281-06 1/5
Date Analyzed:	03/17/23	Data File:	031713.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Nitrobenzene-d5	108 ca	10	198
2-Fluorobiphenyl	102	45	117
2,4,6-Tribromophenol	94	11	158
Terphenyl-d14	123	50	124

Compounds:	Concentration mg/kg (ppm)
Naphthalene	0.61
2-Methylnaphthalene	3.3
1-Methylnaphthalene	1.9
Acenaphthylene	0.040
Acenaphthene	0.023
Fluorene	0.14
Phenanthrene	0.48
Anthracene	0.057
Fluoranthene	0.16
Pyrene	0.42
Benz(a)anthracene	0.065
Chrysene	0.066
Benzo(a)pyrene	0.022
Benzo(b)fluoranthene	0.045
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01
Benzo(g,h,i)perylene	0.036

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Estelita's Library 220264
Date Extracted:	03/17/23	Lab ID:	03-632 mb 1/5
Date Analyzed:	03/17/23	Data File:	031709.D
Matrix:	Soil	Instrument:	GCMS12
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Nitrobenzene-d5	106	16	137
2-Fluorobiphenyl	101	46	122
2,4,6-Tribromophenol	97	17	154
Terphenyl-d14	105	31	167

Compounds:	Concentration mg/kg (ppm)
Naphthalene	<0.01
2-Methylnaphthalene	<0.01
1-Methylnaphthalene	<0.01
Acenaphthylene	<0.01
Acenaphthene	<0.01
Fluorene	<0.01
Phenanthrene	<0.01
Anthracene	<0.01
Fluoranthene	<0.01
Pyrene	<0.01
Benz(a)anthracene	<0.01
Chrysene	<0.01
Benzo(a)pyrene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Indeno(1,2,3-cd)pyrene	<0.01
Dibenz(a,h)anthracene	<0.01
Benzo(g,h,i)perylene	<0.01

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	AB-01-5.0	Client:	Aspect Consulting, LLC
Date Received:	03/16/23	Project:	Estelita's Library 220264
Date Extracted:	03/17/23	Lab ID:	303281-03 1/30
Date Analyzed:	01/04/80	Data File:	031720.D
Matrix:	Soil	Instrument:	GC9
Units:	mg/kg (ppm) Dry Weight	Operator:	MG

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Tetrachlorometaxylene	77	11	184
Decachlorobiphenyl	62	25	127

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	<0.02
Aroclor 1262	<0.02
Aroclor 1268	<0.02

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	AB-02-7.5	Client:	Aspect Consulting, LLC
Date Received:	03/16/23	Project:	Estelita's Library 220264
Date Extracted:	03/17/23	Lab ID:	303281-06 1/30
Date Analyzed:	01/04/80	Data File:	031721.D
Matrix:	Soil	Instrument:	GC9
Units:	mg/kg (ppm) Dry Weight	Operator:	MG

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Tetrachlorometaxylene	77	11	184
Decachlorobiphenyl	62	25	127

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	<0.02
Aroclor 1262	<0.02
Aroclor 1268	<0.02

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Estelita's Library 220264
Date Extracted:	03/17/23	Lab ID:	03-0612 mb2 1/30
Date Analyzed:	01/04/80	Data File:	031712.D
Matrix:	Soil	Instrument:	GC9
Units:	mg/kg (ppm) Dry Weight	Operator:	MG

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Tetrachlorometaxylene	85	11	184
Decachlorobiphenyl	91	25	127

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	<0.02
Aroclor 1262	<0.02
Aroclor 1268	<0.02

Date of Report: 03/24/23
Date Received: 03/16/23
Project: Estelita's Library 220264, F&BI 303281

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TPH AS GASOLINE USING METHOD NWTPH-Gx

Laboratory Code: 303281-01 (Duplicate)

Analyte	Reporting Units	Sample Result (Wet Wt)	Duplicate Result (Wet Wt)	RPD (Limit 20)
Gasoline	mg/kg (ppm)	<5	<5	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Gasoline	mg/kg (ppm)	40	77	61-153

Date of Report: 03/24/23
Date Received: 03/16/23
Project: Estelita's Library 220264, F&BI 303281

QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: 303281-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	(Wet wt) Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	63	97	99	70-130	2

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	98	70-130

Date of Report: 03/24/23
Date Received: 03/16/23
Project: Estelita's Library 220264, F&BI 303281

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TOTAL METALS USING EPA METHOD 6020B

Laboratory Code: 303281-01 x5 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Lead	mg/kg (ppm)	50	77.7	77	50 b	75-125	43 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Lead	mg/kg (ppm)	50	98	80-120

Date of Report: 03/24/23
Date Received: 03/16/23
Project: Estelita's Library 220264, F&BI 303281

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260D

Laboratory Code: 303281-14 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Dichlorodifluoromethane	mg/kg (ppm)	2	<0.5	27	23	10-47	16
Chloromethane	mg/kg (ppm)	2	<0.5	55	47	10-88	16
Vinyl chloride	mg/kg (ppm)	2	<0.05	65	58	10-79	11
Bromomethane	mg/kg (ppm)	2	<0.5	88 vo	65	10-85	30 vo
Chloroethane	mg/kg (ppm)	2	<0.5	80	69	11-106	15
Trichlorofluoromethane	mg/kg (ppm)	2	<0.5	70	62	10-85	12
Acetone	mg/kg (ppm)	10	<5	93	84	10-224	10
1,1-Dichloroethene	mg/kg (ppm)	2	<0.05	81	71	11-105	13
Hexane	mg/kg (ppm)	2	<0.25	70	64	10-106	9
Methylene chloride	mg/kg (ppm)	2	<0.5	93	79	10-139	16
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2	<0.05	96	85	18-131	12
trans-1,2-Dichloroethene	mg/kg (ppm)	2	<0.05	88	76	16-122	15
1,1-Dichloroethane	mg/kg (ppm)	2	<0.05	91	79	19-125	14
2,2-Dichloropropane	mg/kg (ppm)	2	<0.05	94	91	10-184	3
cis-1,2-Dichloroethene	mg/kg (ppm)	2	<0.05	93	80	18-129	15
Chloroform	mg/kg (ppm)	2	<0.05	93	81	18-126	14
2-Butanone (MEK)	mg/kg (ppm)	10	<1	97	91	10-190	6
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2	<0.05	93	83	19-138	11
1,1,1-Trichloroethane	mg/kg (ppm)	2	<0.05	92	81	16-126	13
1,1-Dichloropropene	mg/kg (ppm)	2	<0.05	88	76	19-129	15
Carbon tetrachloride	mg/kg (ppm)	2	<0.05	91	82	13-125	10
Benzene	mg/kg (ppm)	2	<0.03	89	78	15-129	13
Trichloroethene	mg/kg (ppm)	2	<0.02	92	82	14-127	11
1,2-Dichloropropane	mg/kg (ppm)	2	<0.05	93	84	17-137	10
Bromodichloromethane	mg/kg (ppm)	2	<0.05	94	82	24-130	14
Dibromomethane	mg/kg (ppm)	2	<0.05	94	83	20-138	12
4-Methyl-2-pentanone	mg/kg (ppm)	10	<1	101	94	21-139	7
cis-1,3-Dichloropropene	mg/kg (ppm)	2	<0.05	92	84	17-135	9
Toluene	mg/kg (ppm)	2	<0.05	93	90	15-129	3
trans-1,3-Dichloropropene	mg/kg (ppm)	2	<0.05	92	88	18-130	4
1,1,2-Trichloroethane	mg/kg (ppm)	2	<0.05	91	88	29-128	3
2-Hexanone	mg/kg (ppm)	10	<0.5	101	99	28-142	2
1,3-Dichloropropane	mg/kg (ppm)	2	<0.05	90	89	20-135	1
Tetrachloroethene	mg/kg (ppm)	2	<0.025	95	91	20-121	4
Dibromochloromethane	mg/kg (ppm)	2	<0.05	90	89	11-138	1
1,2-Dibromoethane (EDB)	mg/kg (ppm)	2	<0.05	91	88	21-130	3
Chlorobenzene	mg/kg (ppm)	2	<0.05	93	89	19-129	4
Ethylbenzene	mg/kg (ppm)	2	<0.05	96	93	23-133	3
1,1,1,2-Tetrachloroethane	mg/kg (ppm)	2	<0.05	94	87	16-127	8
m,p-Xylene	mg/kg (ppm)	4	<0.1	95	92	19-134	3
o-Xylene	mg/kg (ppm)	2	<0.05	89	85	20-132	5
Styrene	mg/kg (ppm)	2	<0.05	92	90	23-127	2
Isopropylbenzene	mg/kg (ppm)	2	<0.05	94	91	21-134	3
Bromoform	mg/kg (ppm)	2	<0.05	88	86	10-142	2
n-Propylbenzene	mg/kg (ppm)	2	<0.05	94	91	10-141	3
Bromobenzene	mg/kg (ppm)	2	<0.05	92	90	10-135	2
1,3,5-Trimethylbenzene	mg/kg (ppm)	2	<0.05	94	91	20-136	3
1,1,2,2-Tetrachloroethane	mg/kg (ppm)	2	<0.05	92	91	10-234	1
1,2,3-Trichloropropane	mg/kg (ppm)	2	<0.05	87	85	10-144	2
2-Chlorotoluene	mg/kg (ppm)	2	<0.05	92	89	10-139	3
4-Chlorotoluene	mg/kg (ppm)	2	<0.05	92	88	10-139	4
tert-Butylbenzene	mg/kg (ppm)	2	<0.05	95	91	10-144	4
1,2,4-Trimethylbenzene	mg/kg (ppm)	2	<0.05	95	91	24-133	4
sec-Butylbenzene	mg/kg (ppm)	2	<0.05	96	92	23-134	4
p-Isopropyltoluene	mg/kg (ppm)	2	<0.05	95	93	25-131	2
1,3-Dichlorobenzene	mg/kg (ppm)	2	<0.05	93	90	10-143	3
1,4-Dichlorobenzene	mg/kg (ppm)	2	<0.05	94	90	10-146	4
1,2-Dichlorobenzene	mg/kg (ppm)	2	<0.05	93	88	10-144	6
1,2-Dibromo-3-chloropropane	mg/kg (ppm)	2	<0.5	87	81	10-163	7
1,2,4-Trichlorobenzene	mg/kg (ppm)	2	<0.25	93	91	10-147	2
Hexachlorobutadiene	mg/kg (ppm)	2	<0.25	94	87	10-162	8
Naphthalene	mg/kg (ppm)	2	<0.05	93	89	30-138	4
1,2,3-Trichlorobenzene	mg/kg (ppm)	2	<0.25	92	87	10-173	6

Date of Report: 03/24/23
Date Received: 03/16/23
Project: Estelita's Library 220264, F&BI 303281

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260D

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Dichlorodifluoromethane	mg/kg (ppm)	2	57	10-93
Chloromethane	mg/kg (ppm)	2	74	34-101
Vinyl chloride	mg/kg (ppm)	2	85	47-106
Bromomethane	mg/kg (ppm)	2	96	38-123
Chloroethane	mg/kg (ppm)	2	95	44-123
Trichlorofluoromethane	mg/kg (ppm)	2	94	56-108
Acetone	mg/kg (ppm)	10	85	24-185
1,1-Dichloroethene	mg/kg (ppm)	2	99	61-118
Hexane	mg/kg (ppm)	2	102	54-142
Methylene chloride	mg/kg (ppm)	2	99	10-213
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2	102	70-130
trans-1,2-Dichloroethene	mg/kg (ppm)	2	99	70-130
1,1-Dichloroethane	mg/kg (ppm)	2	100	70-130
2,2-Dichloropropane	mg/kg (ppm)	2	104	45-172
cis-1,2-Dichloroethene	mg/kg (ppm)	2	101	70-130
Chloroform	mg/kg (ppm)	2	101	70-130
2-Butanone (MEK)	mg/kg (ppm)	10	100	36-182
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2	101	66-140
1,1,1-Trichloroethane	mg/kg (ppm)	2	100	70-130
1,1-Dichloropropene	mg/kg (ppm)	2	96	70-130
Carbon tetrachloride	mg/kg (ppm)	2	101	68-146
Benzene	mg/kg (ppm)	2	95	70-130
Trichloroethene	mg/kg (ppm)	2	95	53-133
1,2-Dichloropropane	mg/kg (ppm)	2	95	67-137
Bromodichloromethane	mg/kg (ppm)	2	99	70-130
Dibromomethane	mg/kg (ppm)	2	99	70-130
4-Methyl-2-pentanone	mg/kg (ppm)	10	105	70-130
cis-1,3-Dichloropropene	mg/kg (ppm)	2	99	70-130
Toluene	mg/kg (ppm)	2	100	63-127
trans-1,3-Dichloropropene	mg/kg (ppm)	2	99	70-130
1,1,2-Trichloroethane	mg/kg (ppm)	2	97	70-130
2-Hexanone	mg/kg (ppm)	10	104	65-148
1,3-Dichloropropane	mg/kg (ppm)	2	98	67-135
Tetrachloroethene	mg/kg (ppm)	2	102	59-138
Dibromochloromethane	mg/kg (ppm)	2	97	61-154
1,2-Dibromoethane (EDB)	mg/kg (ppm)	2	96	70-130
Chlorobenzene	mg/kg (ppm)	2	99	65-133
Ethylbenzene	mg/kg (ppm)	2	102	60-140
1,1,1,2-Tetrachloroethane	mg/kg (ppm)	2	102	68-129
m,p-Xylene	mg/kg (ppm)	4	101	56-145
o-Xylene	mg/kg (ppm)	2	94	61-137
Styrene	mg/kg (ppm)	2	97	61-138
Isopropylbenzene	mg/kg (ppm)	2	100	52-148
Bromoform	mg/kg (ppm)	2	95	57-166
n-Propylbenzene	mg/kg (ppm)	2	103	36-162
Bromobenzene	mg/kg (ppm)	2	101	63-127
1,3,5-Trimethylbenzene	mg/kg (ppm)	2	103	43-156
1,1,2,2-Tetrachloroethane	mg/kg (ppm)	2	108	35-184
1,2,3-Trichloropropane	mg/kg (ppm)	2	97	70-130
2-Chlorotoluene	mg/kg (ppm)	2	102	50-146
4-Chlorotoluene	mg/kg (ppm)	2	101	47-150
tert-Butylbenzene	mg/kg (ppm)	2	102	41-154
1,2,4-Trimethylbenzene	mg/kg (ppm)	2	104	42-159
sec-Butylbenzene	mg/kg (ppm)	2	106	25-175
p-Isopropyltoluene	mg/kg (ppm)	2	106	18-186
1,3-Dichlorobenzene	mg/kg (ppm)	2	103	49-149
1,4-Dichlorobenzene	mg/kg (ppm)	2	103	48-149
1,2-Dichlorobenzene	mg/kg (ppm)	2	100	58-139
1,2-Dibromo-3-chloropropane	mg/kg (ppm)	2	100	70-130
1,2,4-Trichlorobenzene	mg/kg (ppm)	2	100	39-166
Hexachlorobutadiene	mg/kg (ppm)	2	100	41-186
Naphthalene	mg/kg (ppm)	2	97	67-143
1,2,3-Trichlorobenzene	mg/kg (ppm)	2	96	49-165

Date of Report: 03/24/23
Date Received: 03/16/23
Project: Estelita's Library 220264, F&BI 303281

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR SEMIVOLATILES BY EPA METHOD 8270E

Laboratory Code: 303227-03 1/5 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Naphthalene	mg/kg (ppm)	0.83	<0.01	86	84	50-150	2
2-Methylnaphthalene	mg/kg (ppm)	0.83	<0.01	91	86	50-150	6
1-Methylnaphthalene	mg/kg (ppm)	0.83	<0.01	91	86	50-150	6
Acenaphthylene	mg/kg (ppm)	0.83	<0.01	96	93	50-150	3
Acenaphthene	mg/kg (ppm)	0.83	<0.01	89	86	50-150	3
Fluorene	mg/kg (ppm)	0.83	<0.01	96	92	50-150	4
Phenanthrene	mg/kg (ppm)	0.83	<0.01	92	91	10-170	1
Anthracene	mg/kg (ppm)	0.83	<0.01	95	92	50-150	3
Fluoranthene	mg/kg (ppm)	0.83	<0.01	95	95	10-203	0
Pyrene	mg/kg (ppm)	0.83	<0.01	95	89	10-208	7
Benz(a)anthracene	mg/kg (ppm)	0.83	<0.01	97	94	37-146	3
Chrysene	mg/kg (ppm)	0.83	<0.01	97	94	36-144	3
Benzo(a)pyrene	mg/kg (ppm)	0.83	<0.01	93	88	40-150	6
Benzo(b)fluoranthene	mg/kg (ppm)	0.83	<0.01	89	87	45-157	2
Benzo(k)fluoranthene	mg/kg (ppm)	0.83	<0.01	89	85	50-150	5
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.83	<0.01	98	95	24-145	3
Dibenz(a,h)anthracene	mg/kg (ppm)	0.83	<0.01	97	98	31-137	1
Benzo(g,h,i)perylene	mg/kg (ppm)	0.83	<0.01	94	98	14-141	4

Laboratory Code: Laboratory Control Sample 1/5

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Naphthalene	mg/kg (ppm)	0.83	88	58-108
2-Methylnaphthalene	mg/kg (ppm)	0.83	92	67-109
1-Methylnaphthalene	mg/kg (ppm)	0.83	93	66-107
Acenaphthylene	mg/kg (ppm)	0.83	100	70-130
Acenaphthene	mg/kg (ppm)	0.83	93	66-112
Fluorene	mg/kg (ppm)	0.83	101	67-117
Phenanthrene	mg/kg (ppm)	0.83	97	70-130
Anthracene	mg/kg (ppm)	0.83	100	70-130
Fluoranthene	mg/kg (ppm)	0.83	100	70-130
Pyrene	mg/kg (ppm)	0.83	98	70-130
Benz(a)anthracene	mg/kg (ppm)	0.83	101	70-130
Chrysene	mg/kg (ppm)	0.83	101	70-130
Benzo(a)pyrene	mg/kg (ppm)	0.83	96	68-120
Benzo(b)fluoranthene	mg/kg (ppm)	0.83	94	69-125
Benzo(k)fluoranthene	mg/kg (ppm)	0.83	95	70-130
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.83	102	67-129
Dibenz(a,h)anthracene	mg/kg (ppm)	0.83	104	67-128
Benzo(g,h,i)perylene	mg/kg (ppm)	0.83	102	67-127

Date of Report: 03/24/23
Date Received: 03/16/23
Project: Estelita's Library 220264, F&BI 303281

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR POLYCHLORINATED BIPHENYLS AS AROCLOR 1016/1260 BY EPA METHOD 8082A

Laboratory Code: 303252-04 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Control Limits	RPD (Limit 20)
Aroclor 1016	mg/kg (ppm)	0.25	<0.02	94	93	44-107	1
Aroclor 1260	mg/kg (ppm)	0.25	<0.02	103	102	38-124	1

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Aroclor 1016	mg/kg (ppm)	0.25	100	55-137
Aroclor 1260	mg/kg (ppm)	0.25	114	51-150

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria, biased high; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the standard reporting limit. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

k – The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

303281

SAMPLE CHAIN OF CUSTODY

03/16/23

VS-C4 / G5

Page # 1 of 3

Report To Hannah Cohen

Company Aspect Consulting

Address 710 2nd Ave #550

City, State, ZIP Seattle, WA, 98104

Phone _____ Email hcohen@aspectconsulting.com

SAMPLERS (signature)

PROJECT NAME: Estelita's Library

PO #: 220264

REMARKS: Project specific RLs? - Yes / No

INVOICE TO: AP

TURNAROUND TIME
- ☒ Standard turnaround
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Archive samples
- ☐ Other
- Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Hydrides	Lead		Hold	Notes
AB-01-1.0	01 A-E	3/16/23	1125	S	5	X	X			X			X	X			
AB-01-4.0	02		1130													X	
AB-01-5.0	03		1135			X	X			X	X	X	X	X			
AB-02-0.5	04		0940			X	X			X			X	X			
AB-02-4.0	05		0950													X	
AB-02-7.5	06		0955			X	X			X	X	X	X	X			
AB-03-0.5	07		0830			X	X			X			X	X			
AB-03-3.0	08		0835													X	
AB-03-6.0	09		0840			X	X			X			X	X			
AB-08-1.0	10		1050			X	X			X			X	X			

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Nikoki Carroll	Aspect	03/16/23	1655
Received by:	Liz Webber-Bruya	F:B	03/16/23	1655
Relinquished by:				
Received by:		Samples received at 4 °C		

Friedman & Bruya, Inc.
Ph. (206) 285-8282

303281

SAMPLE CHAIN OF CUSTODY 03/16/23

VS-CH / GS

Page # 2 of 3

[redacted] Report To Hannah Cohen

Company Aspect Consulting

Address 710 2nd Ave #550

City, State, ZIP Seattle, WA, 98104

Phone _____ Email hCohen@aspectconsulting.com

SAMPLERS (signature) [redacted]

PROJECT NAME: Estelita's Library

PO #: 220264

REMARKS: Project specific RLs? - Yes / No

INVOICE TO: AP

TURNAROUND TIME
- ☒ Standard turnaround
- ☐ RUSH _____
- Rush charges authorized by: _____

SAMPLE DISPOSAL
- ☐ Archive samples
- ☐ Other _____
- Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	HVOCs	Lead		Hold	Notes
AB-08-5.0	11 A-E	3/16/23	1055	S	5											X	
AB-08-10.5	12		1100			X	X			X			Cary	X			
AB-07-1.0	13		1230													X	
AB-07-5.0	14		1235			X	X			X				X			
AB-07-9.5	15		1240			X	X			X				X			
AB-04-1.5	16		1400													X	
AB-04-5.0	17		1405			X	X			X				X			
AB-04-9.0	18		1410			X	X			X				X			
AB-05-1.0	19		1450													X	
AB-05-5.0	20		1455			X	X			X				X			

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Nikolai Carroll	Aspect	03/16/23	1655
Received by:	Liz Webber-Bruya	F:B	3/16/23	1655
Relinquished by:				
Received by:		Samples received at 4 °C		

Friedman & Bruya, Inc.
Ph. (206) 285-8282

303281

SAMPLE CHAIN OF CUSTODY

03/16/23 VS C4/G5

Page # 3 of 3

[redacted] To Hannah Cohen

Company Aspect Consulting

Address

City, State, ZIP

Phone Email hcohen@aspectconsulting.com

SAMPLERS (*signature*)

PROJECT NAME: Estelita's Library

PO #: 220264

REMARKS: Project specific RLs? - Yes / No

INVOICE TO: AP

TURNAROUND TIME
- ☒ Standard turnaround
- ☐ RUSH
- Rush charges authorized by:

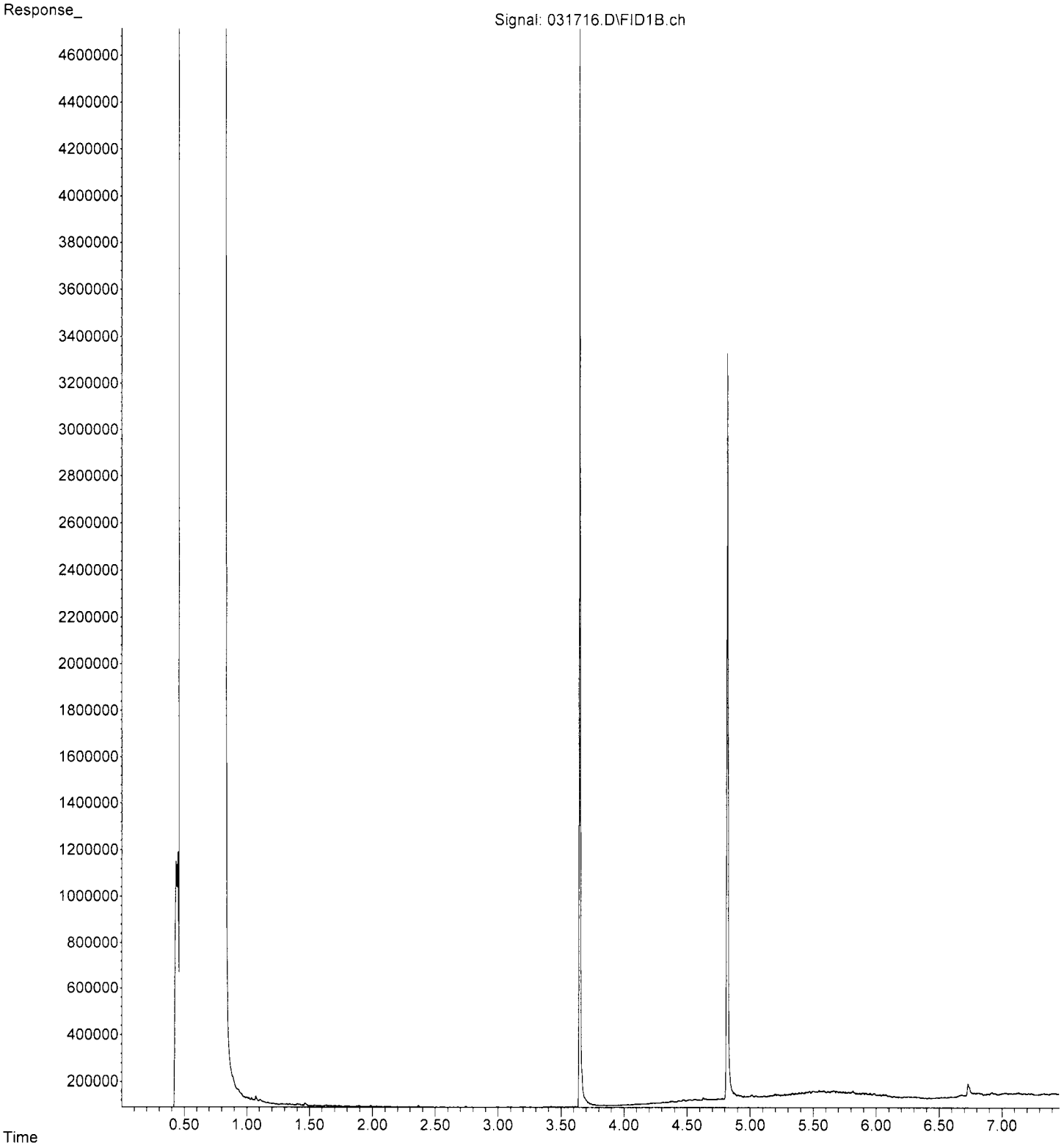
SAMPLE DISPOSAL
- ☐ Archive samples
- ☐ Other
- Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Lead			HoldNR	Notes
AB-05-8.5	21 A-E	03/16/23	1500	Soil	5	X	X			X			X				
AB-06-1	22		1530			X	X			X			X			X	NTE
AB-06-5	23		1535			X	X			X			X				
AB-06-12	24		1540			X	X			X			X			X	NTE
AB-100-10	25		1200			X	X			X			X				
													Samples received at		°C		

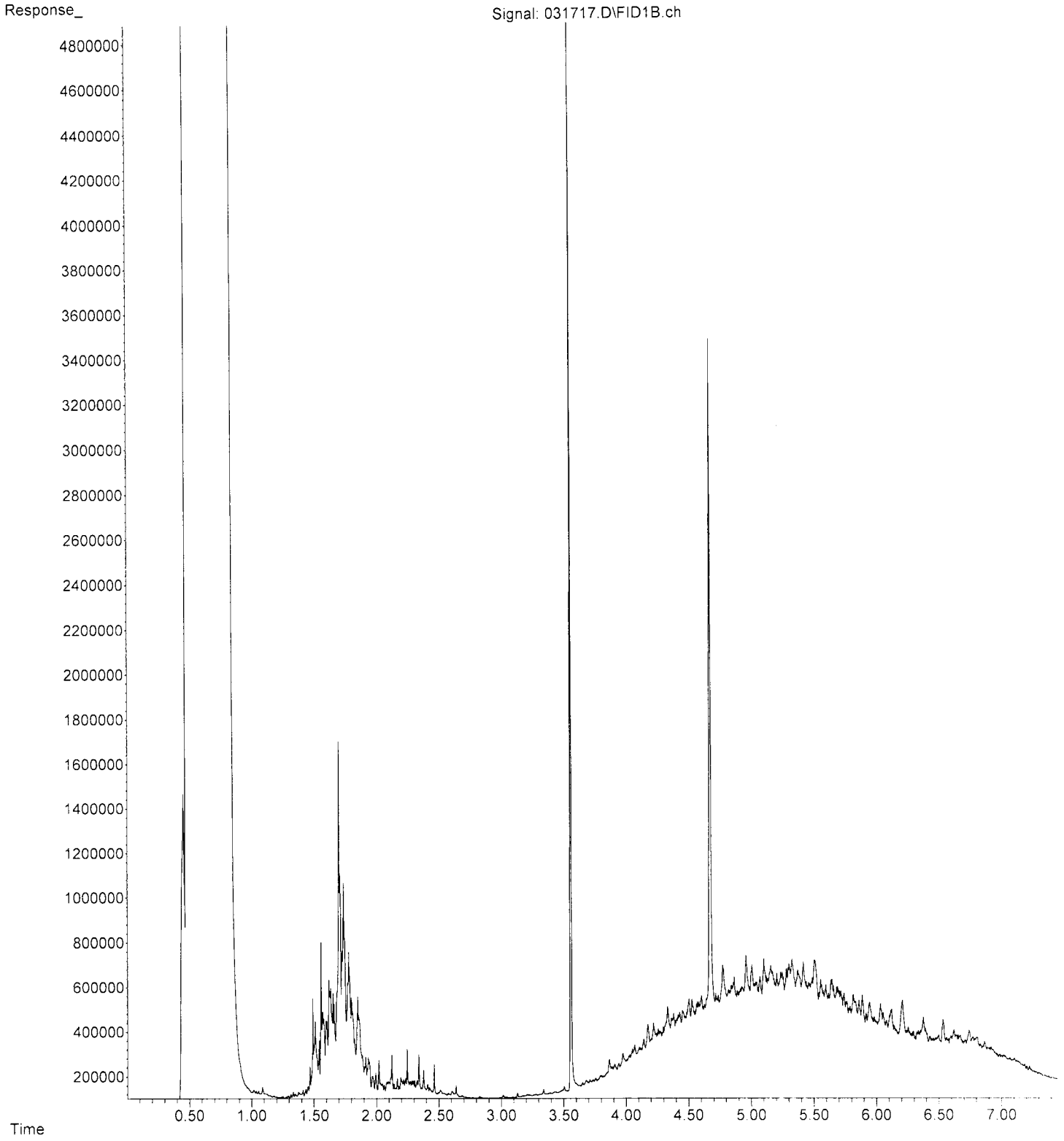
SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Nikolai Carron	Aspect	03/16/23	1655
Received by:	Liz Webber-Bruya	F:B	3/16/23	1655
Relinquished by:				
Received by:		Samples received at	4 °C	

Friedman & Bruya, Inc.
Ph. (206) 285-8282

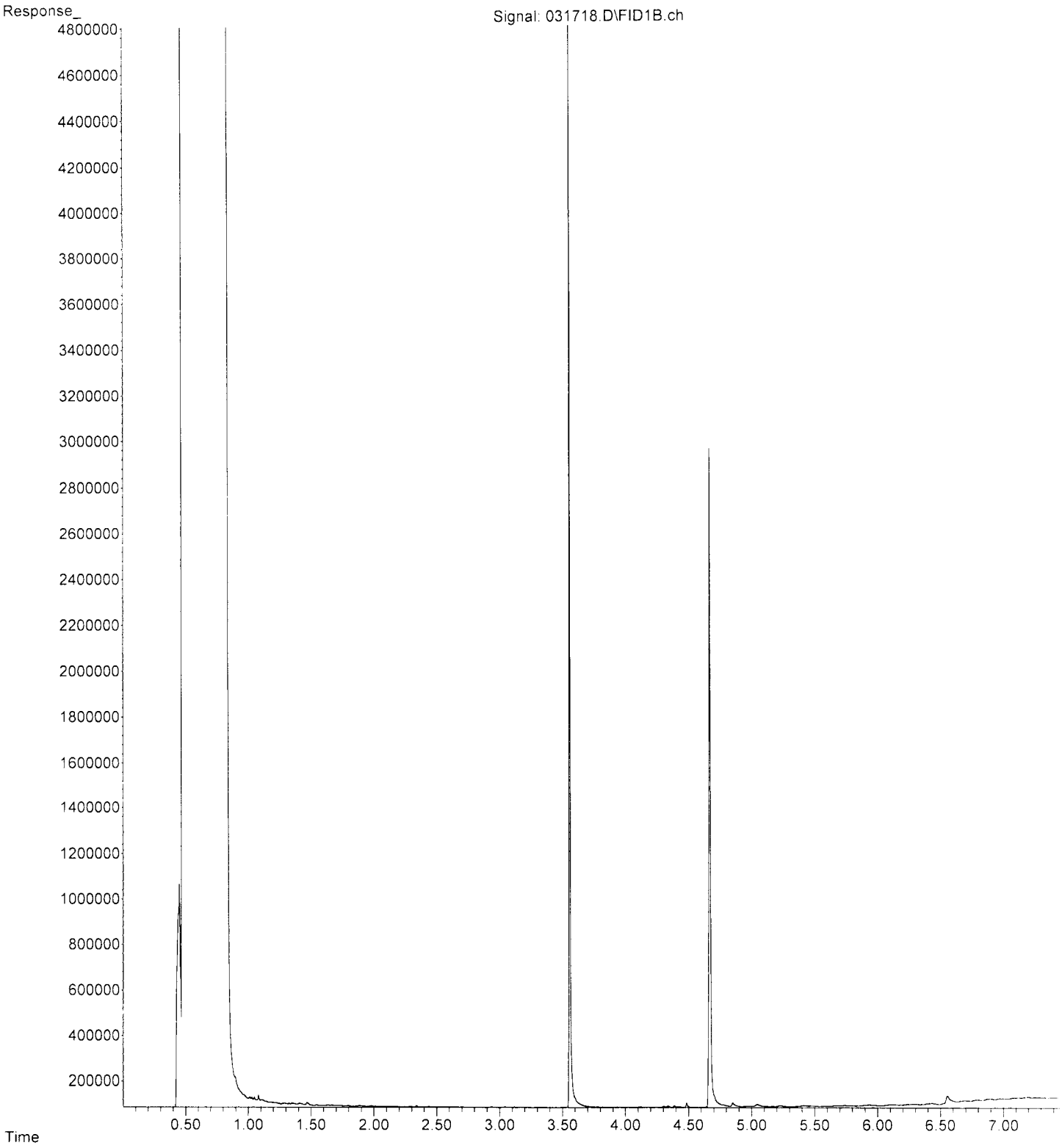
File :D:\GC10\GC10_Data\03-17-23\031716.D
Operator : TL
Acquired : 17 Mar 2023 01:58 pm using AcqMethod DX.M
Instrument : GC10
Sample Name: 303281-01
Misc Info :
Vial Number: 15



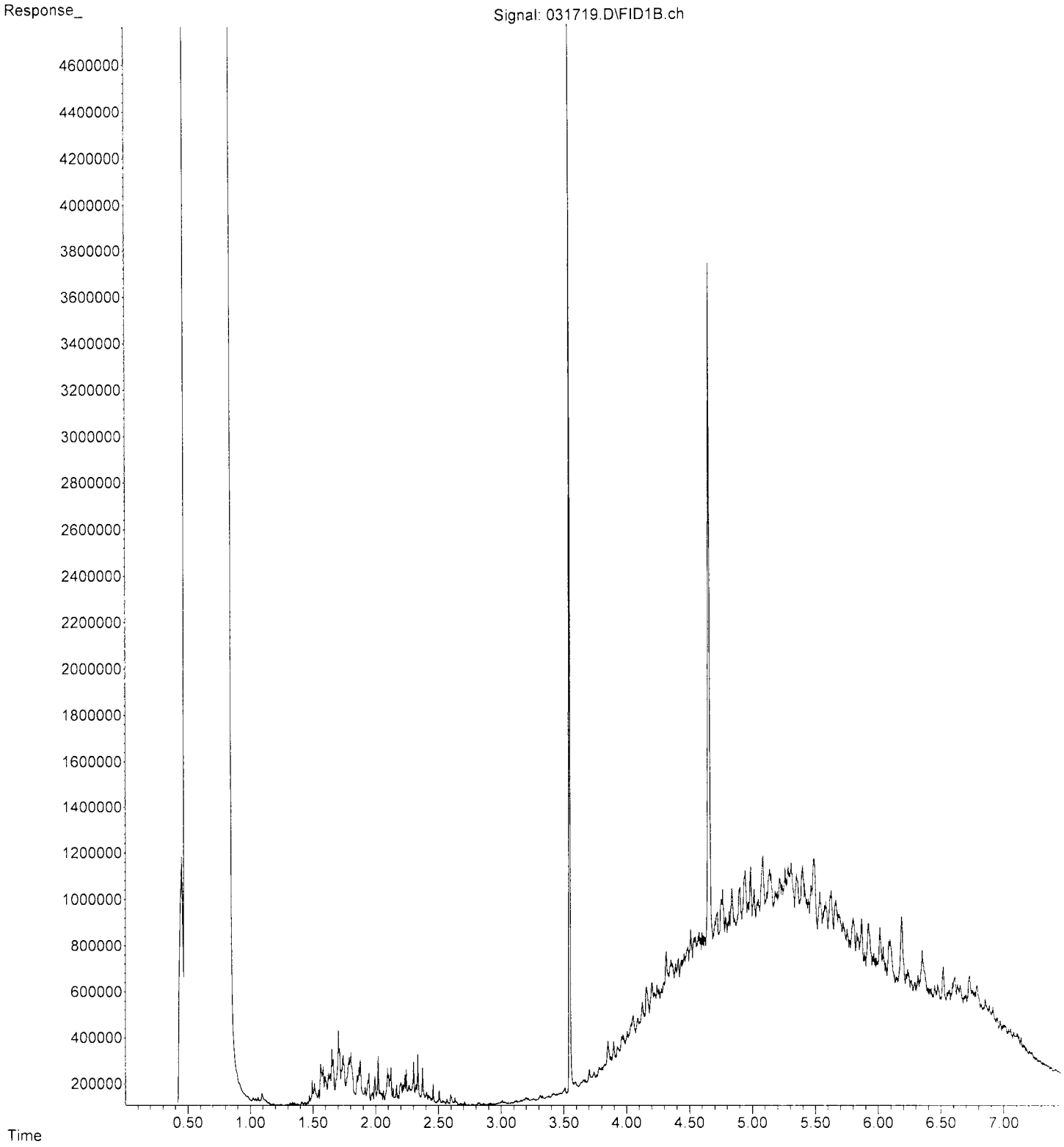
File :P:\Proc_GC10\03-17-23\031717.D
Operator : TL
Acquired : 17 Mar 2023 02:10 pm using AcqMethod DX.M
Instrument : GC10
Sample Name: 303281-03
Misc Info :
Vial Number: 16



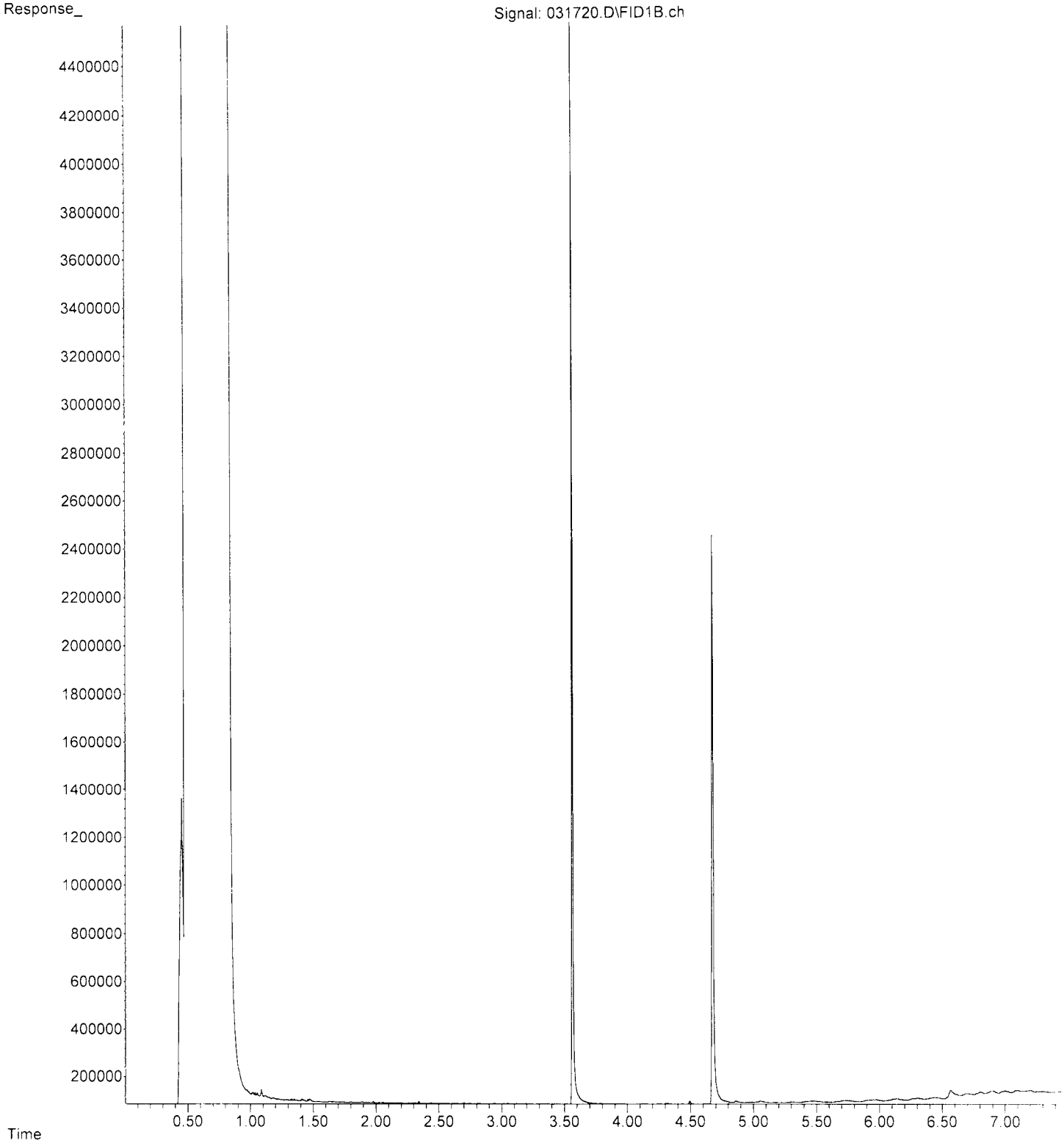
File :P:\Proc_GC10\03-17-23\031718.D
Operator : TL
Acquired : 17 Mar 2023 02:21 pm using AcqMethod DX.M
Instrument : GC10
Sample Name: 303281-04
Misc Info :
Vial Number: 17



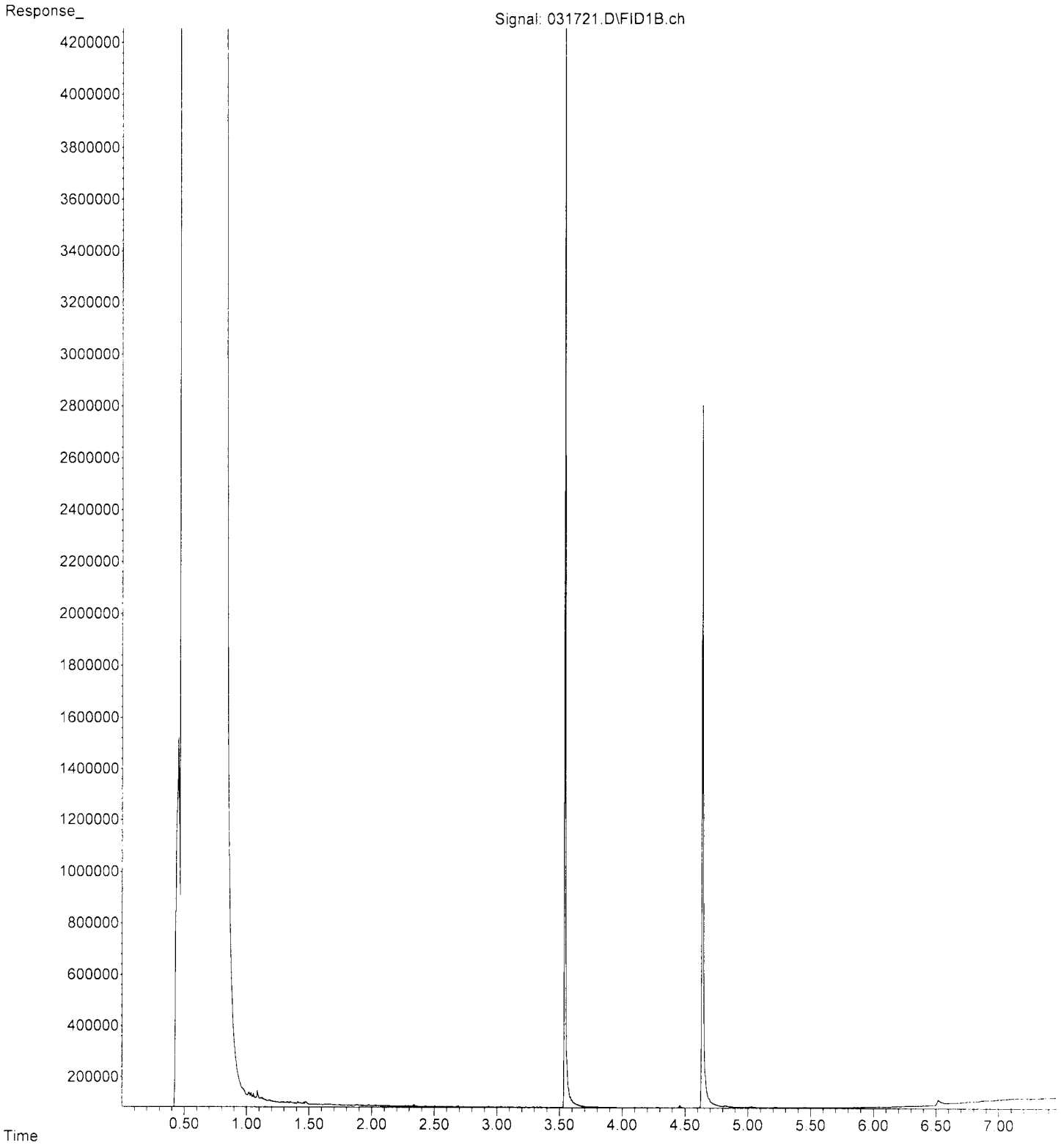
File :P:\Proc_GC10\03-17-23\031719.D
Operator : TL
Acquired : 17 Mar 2023 02:33 pm using AcqMethod DX.M
Instrument : GC10
Sample Name: 303281-06
Misc Info :
Vial Number: 18



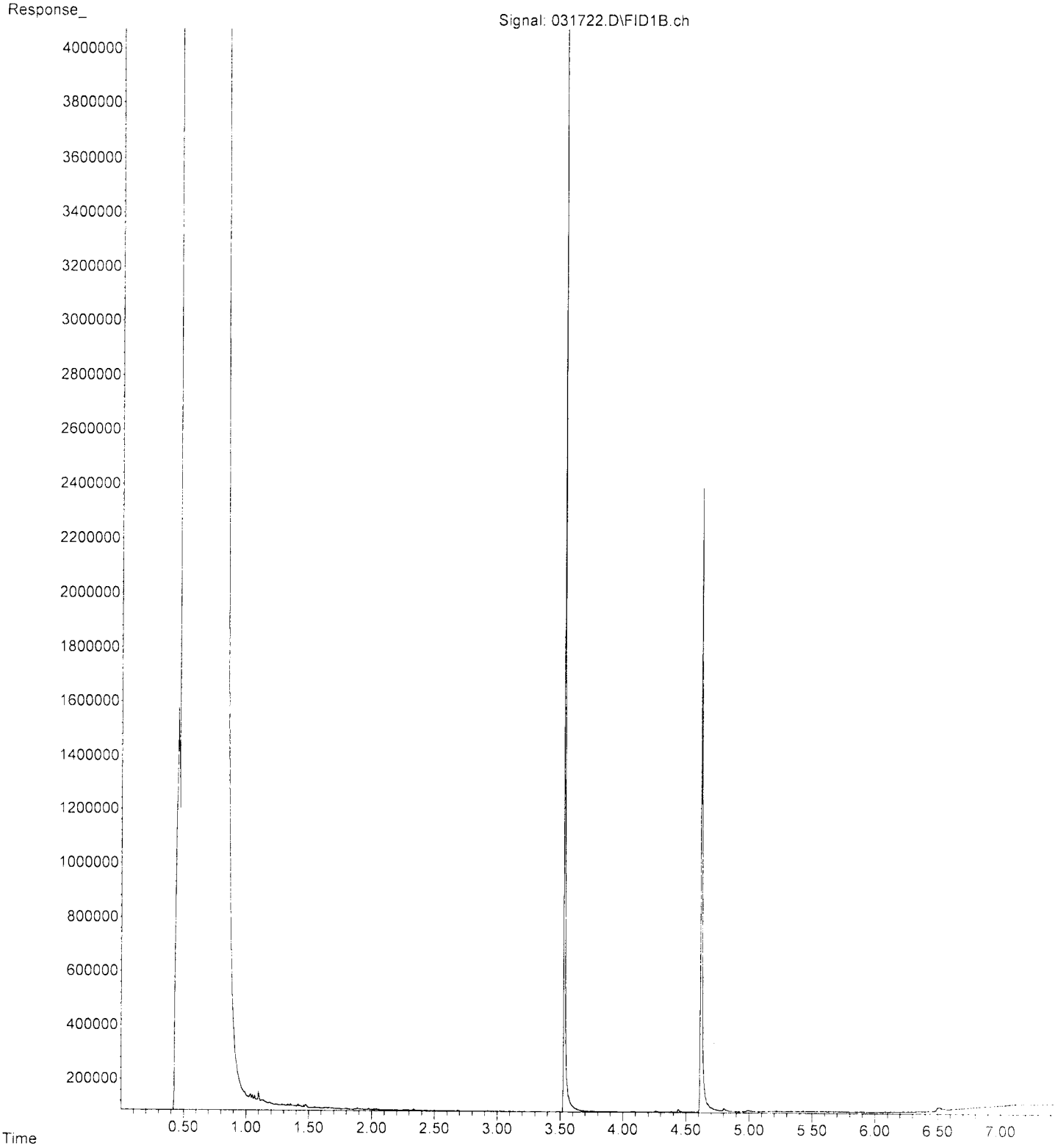
File :P:\Proc_GC10\03-17-23\031720.D
Operator : TL
Acquired : 17 Mar 2023 02:44 pm using AcqMethod DX.M
Instrument : GC10
Sample Name: 303281-07
Misc Info :
Vial Number: 19



File :P:\Proc_GC10\03-17-23\031721.D
Operator : TL
Acquired : 17 Mar 2023 02:56 pm using AcqMethod DX.M
Instrument : GC10
Sample Name: 303281-09
Misc Info :
Vial Number: 20



File :P:\Proc_GC10\03-17-23\031722.D
Operator : TL
Acquired : 17 Mar 2023 03:08 pm using AcqMethod DX.M
Instrument : GC10
Sample Name: 303281-10
Misc Info :
Vial Number: 21



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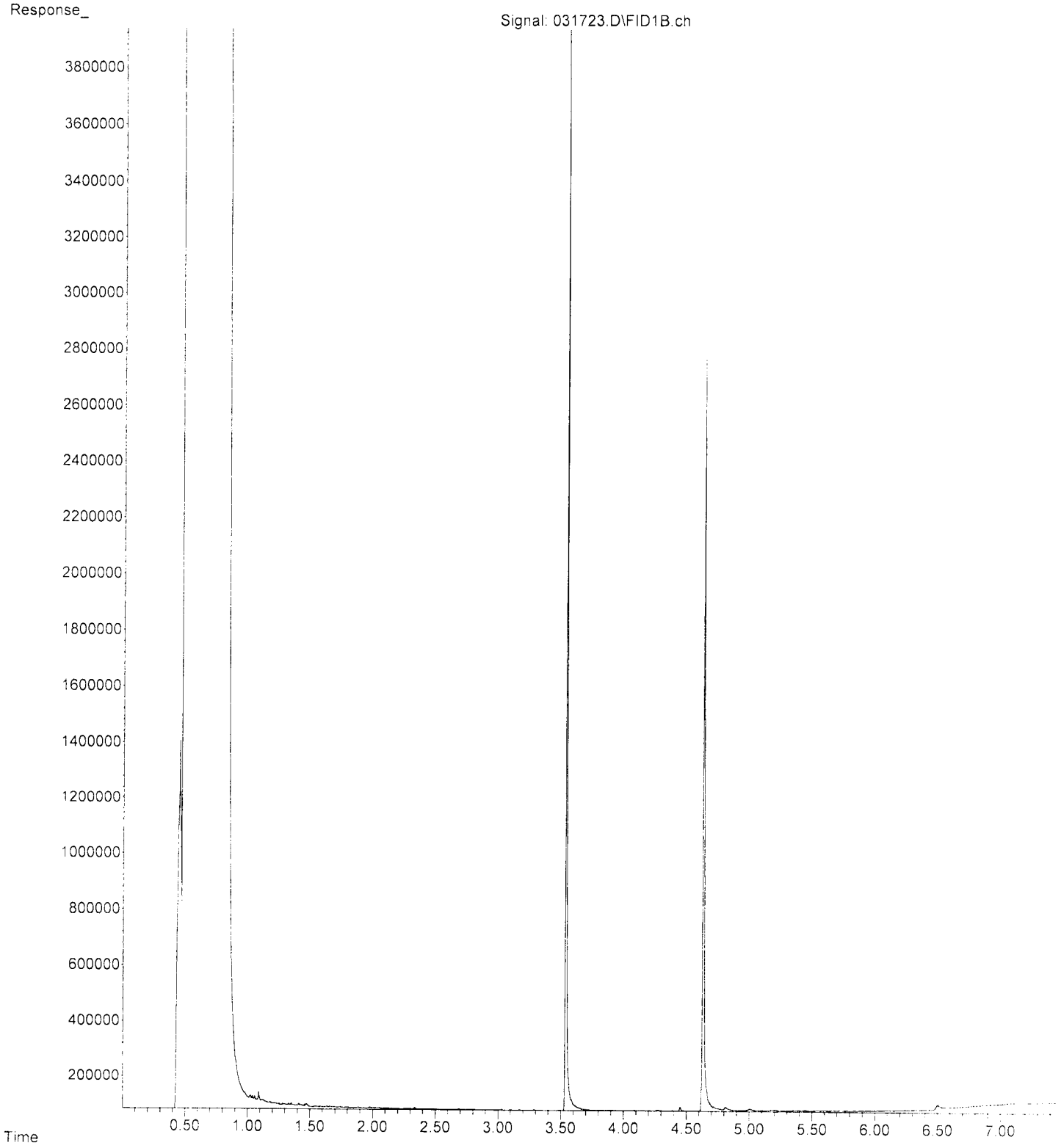
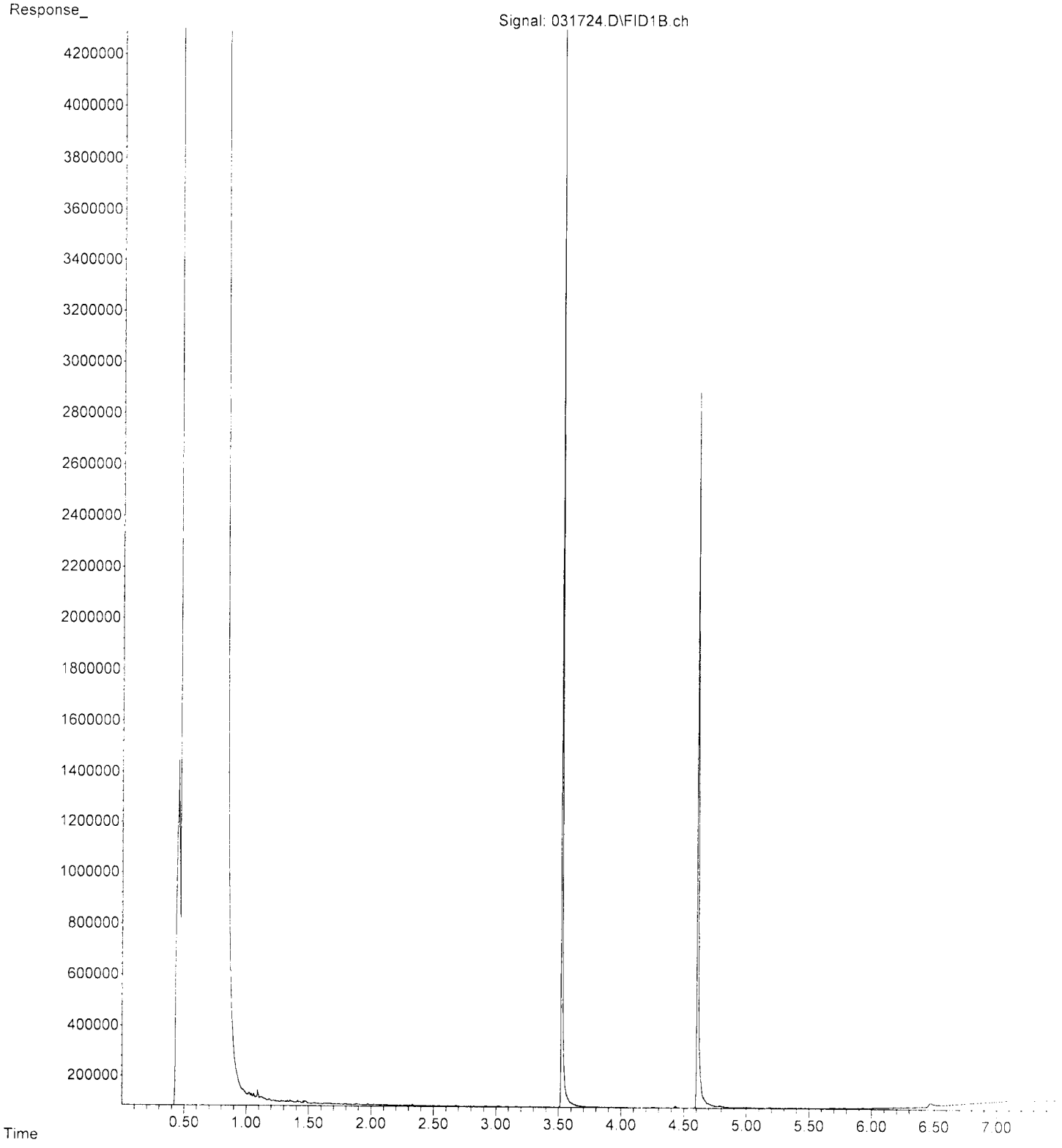
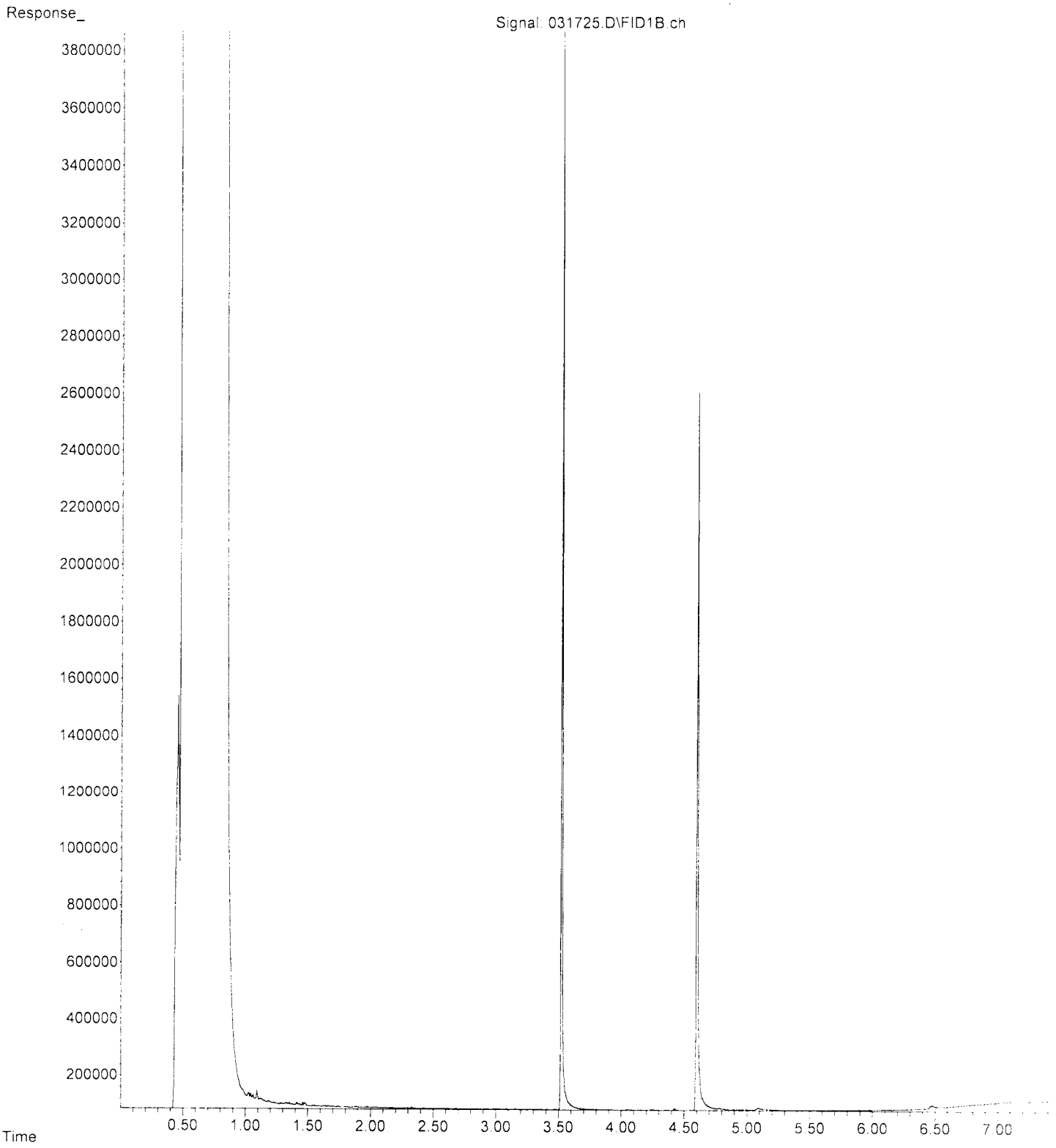
Operator : TL
Acquired : 17 Mar 2023 03:19 pm using AcqMethod DX.M
Instrument : GC10
Sample Name: 303281-12
Misc Info :
Vial Number: 22



File :P:\Proc_GC10\03-17-23\031724.D
Operator : TL
Acquired : 17 Mar 2023 03:31 pm using AcqMethod DX.M
Instrument : GC10
Sample Name: 303281-14
Misc Info :
Vial Number: 23



File :P:\Proc_GC10\03-17-23\031725.D
Operator : TL
Acquired : 17 Mar 2023 03:42 pm using AcqMethod DX.M
Instrument : GC10
Sample Name: 303281-15
Misc Info :
Vial Number: 24



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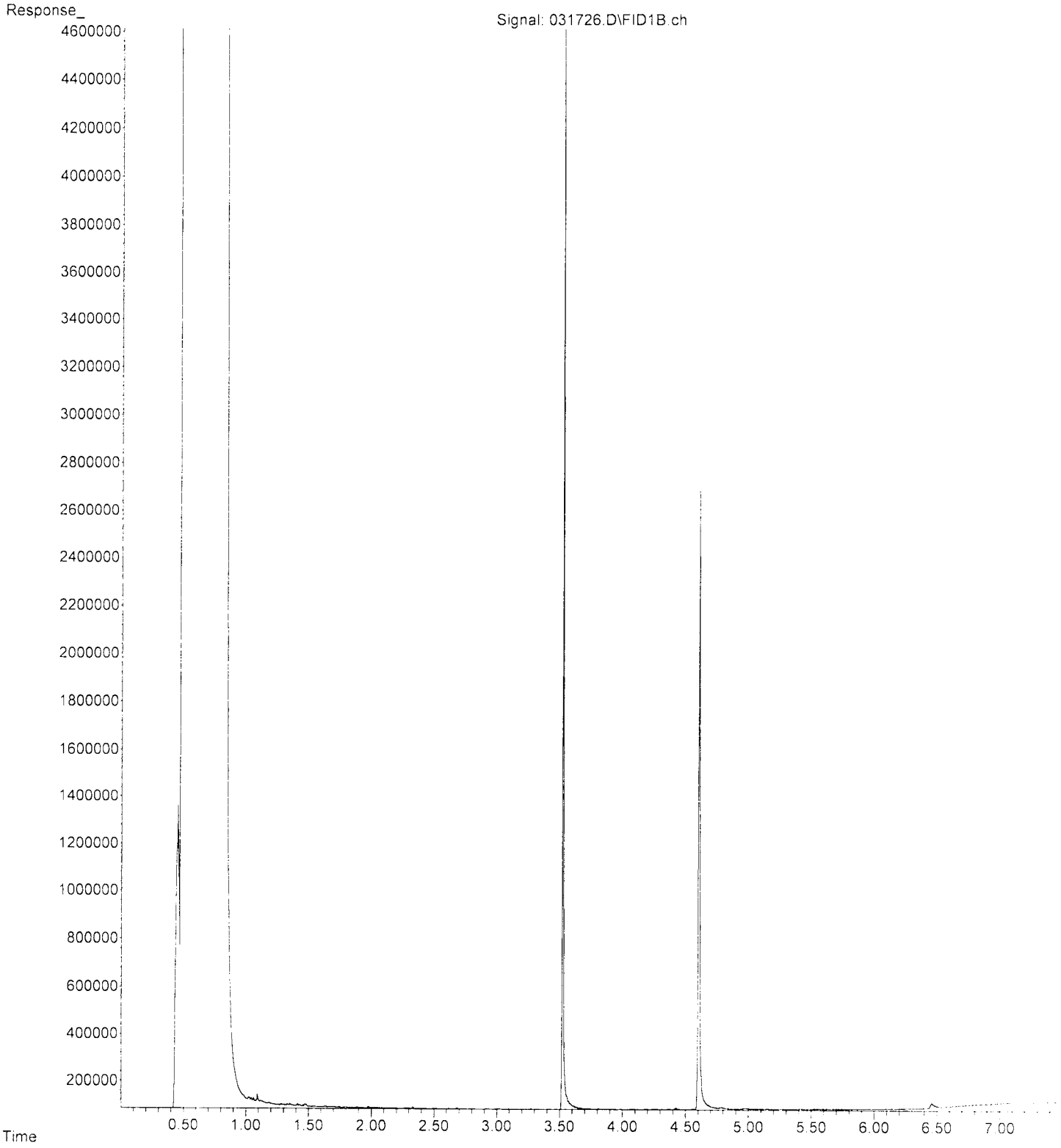
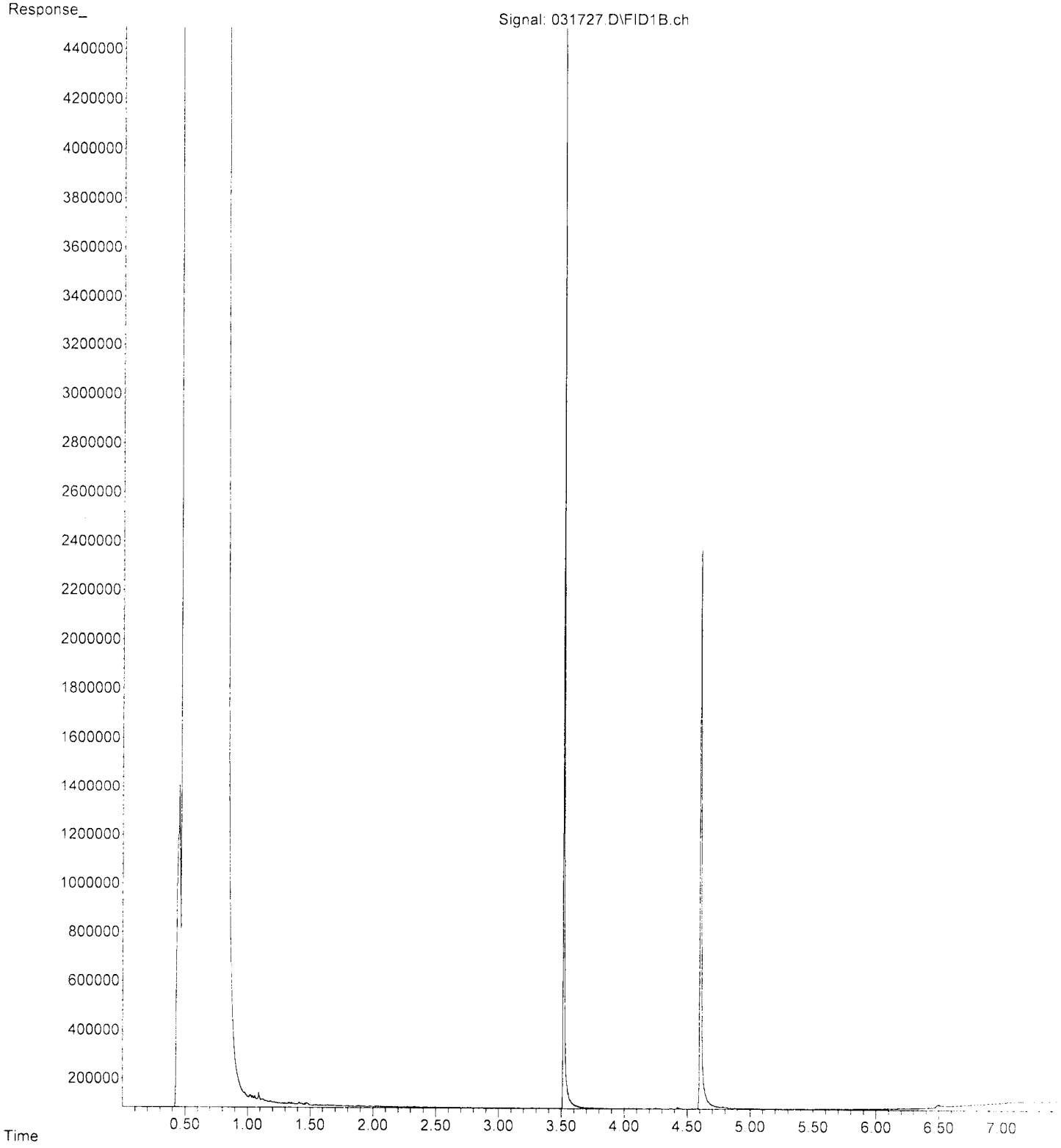
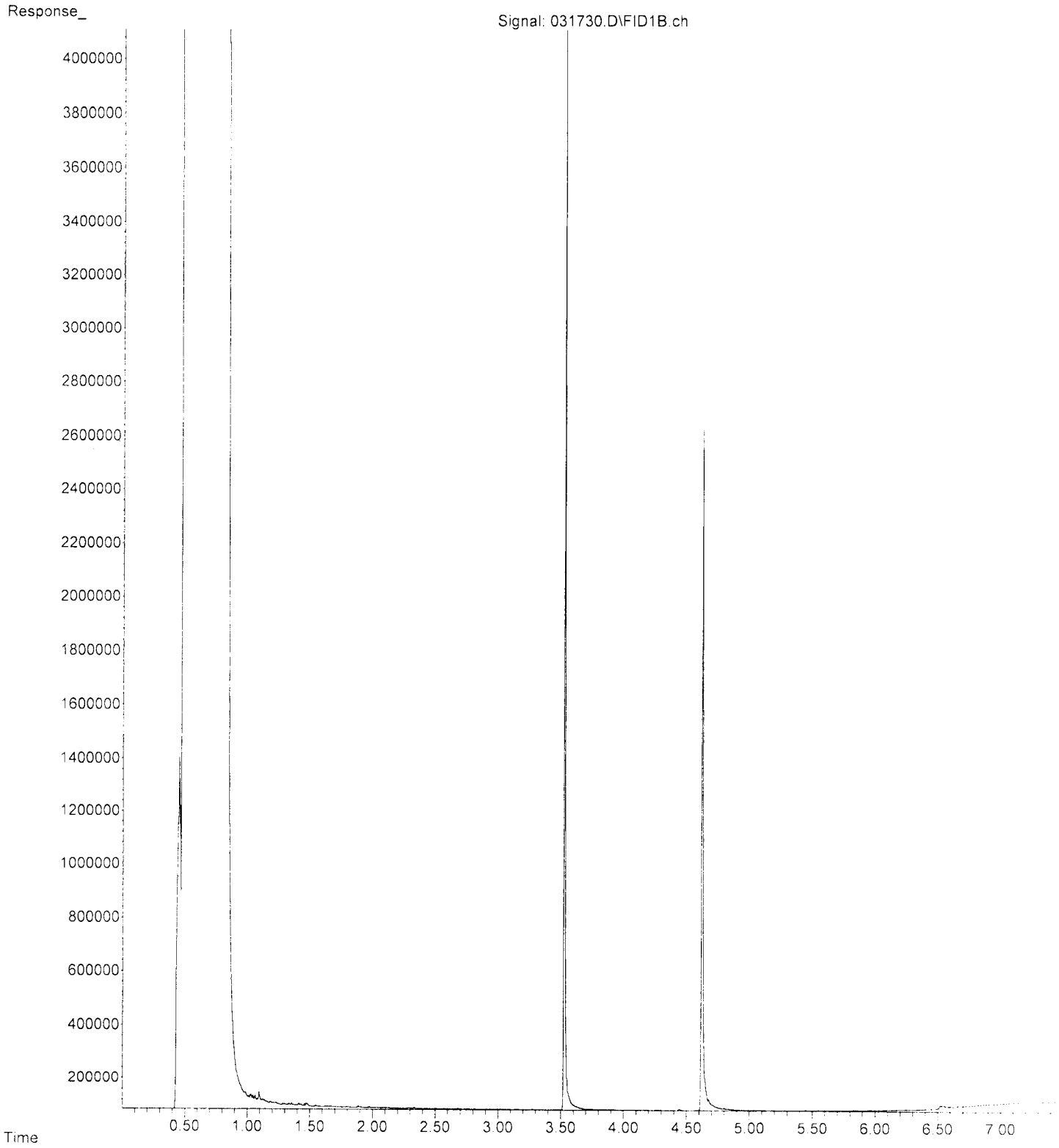
Operator : TL
Acquired : 17 Mar 2023 03:54 pm using AcqMethod DX.M
Instrument : GC10
Sample Name: 303281-17
Misc Info :
Vial Number: 25



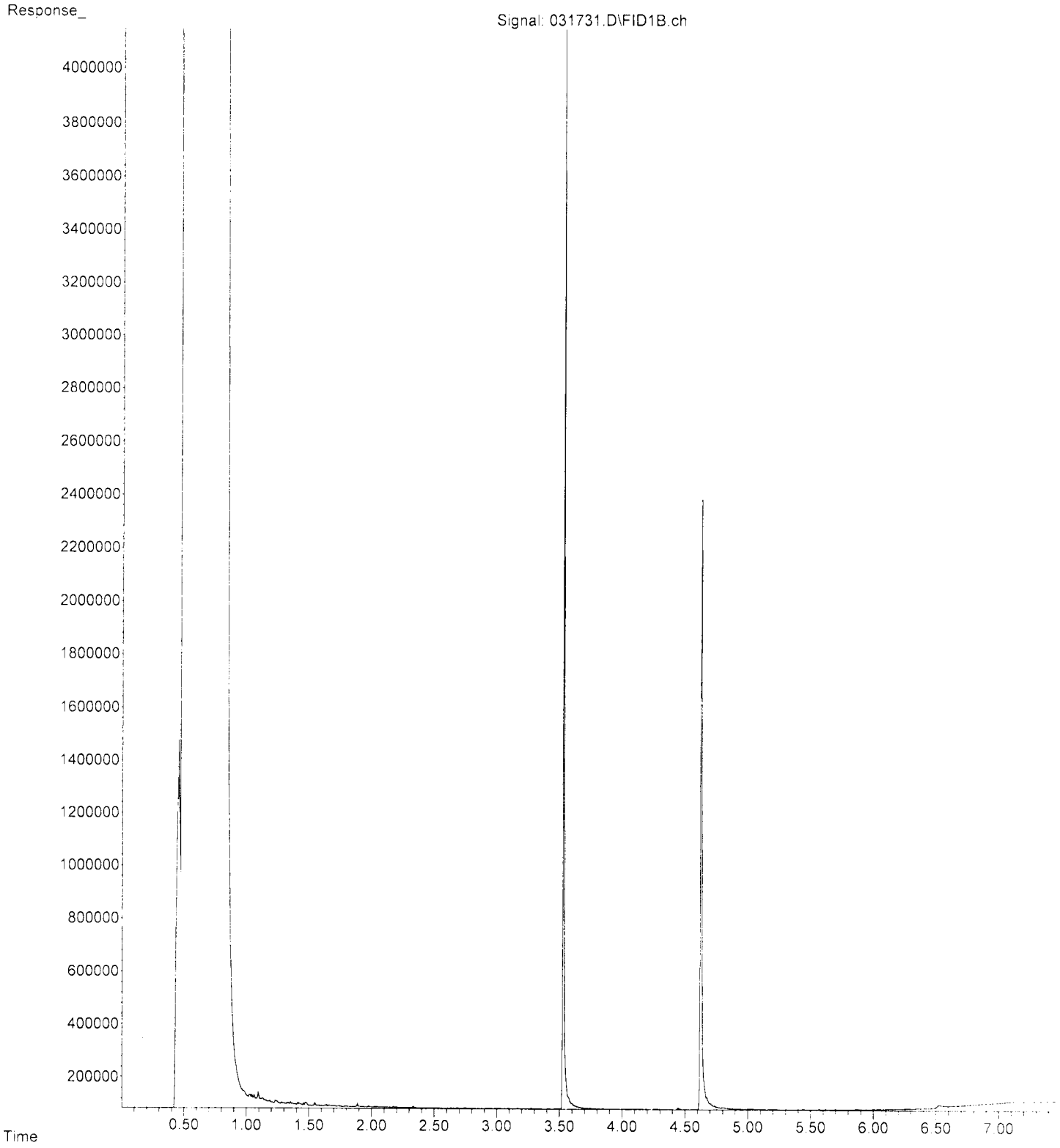
File :P:\Proc_GC10\03-17-23\031727.D
Operator : TL
Acquired : 17 Mar 2023 04:06 pm using AcqMethod DX.M
Instrument : GC10
Sample Name: 303281-18
Misc Info :
Vial Number: 26



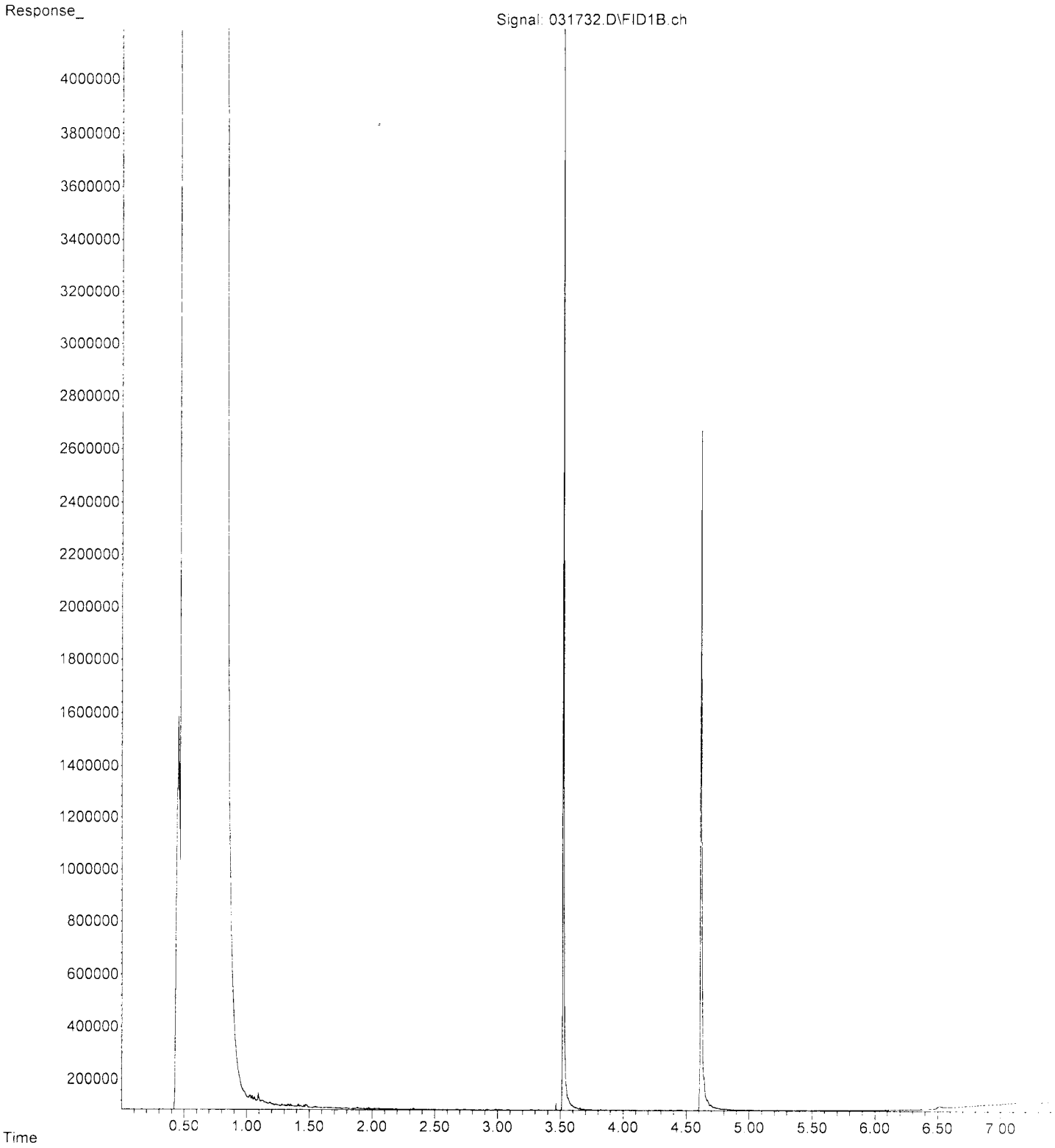
File :P:\Proc_GC10\03-17-23\031730.D
Operator : TL
Acquired : 17 Mar 2023 04:40 pm using AcqMethod DX.M
Instrument : GC10
Sample Name: 303281-20
Misc Info :
Vial Number: 27



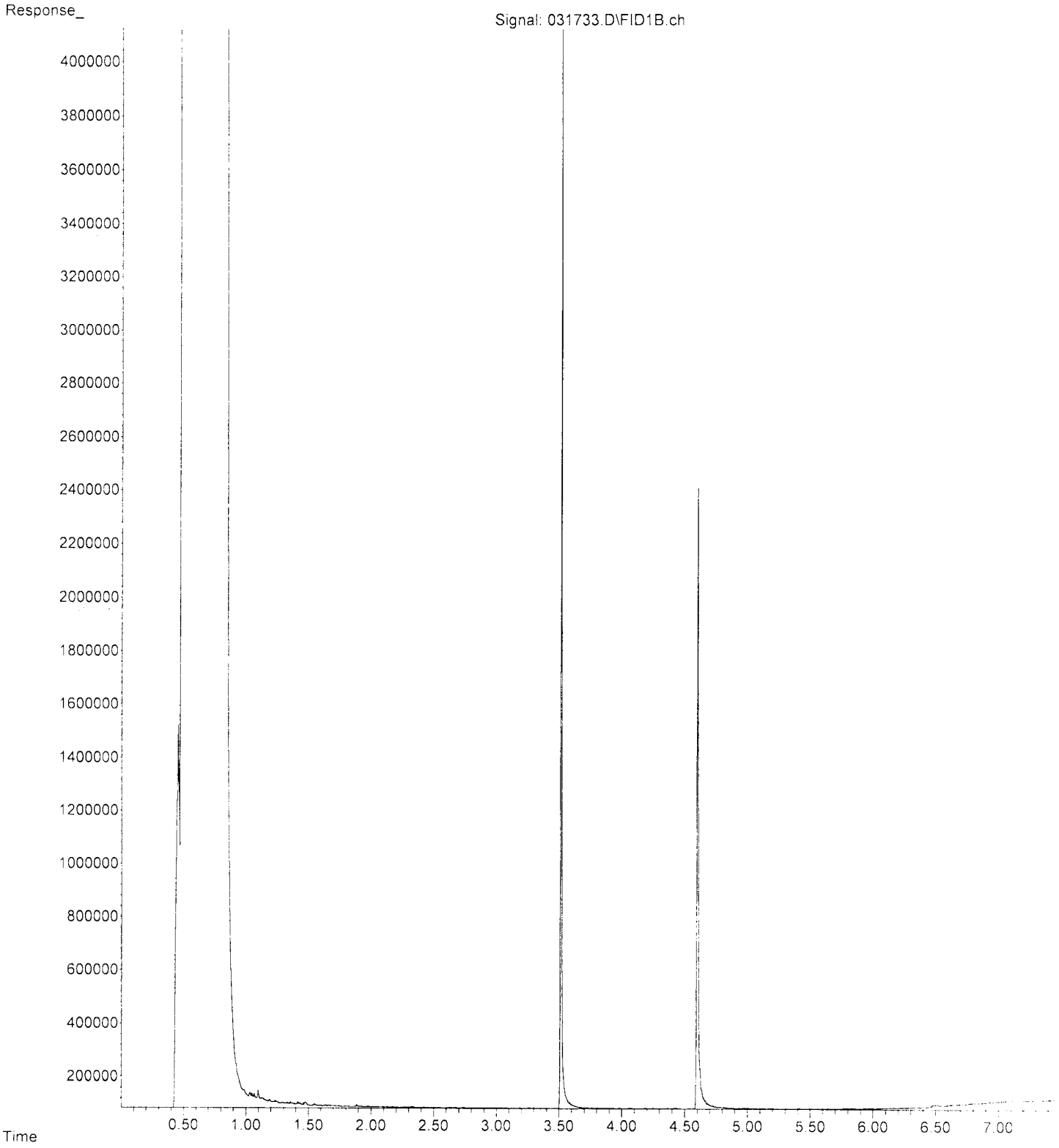
File :P:\Proc_GC10\03-17-23\031731.D
Operator : TL
Acquired : 17 Mar 2023 04:52 pm using AcqMethod DX.M
Instrument : GC10
Sample Name: 303281-21
Misc Info :
Vial Number: 28



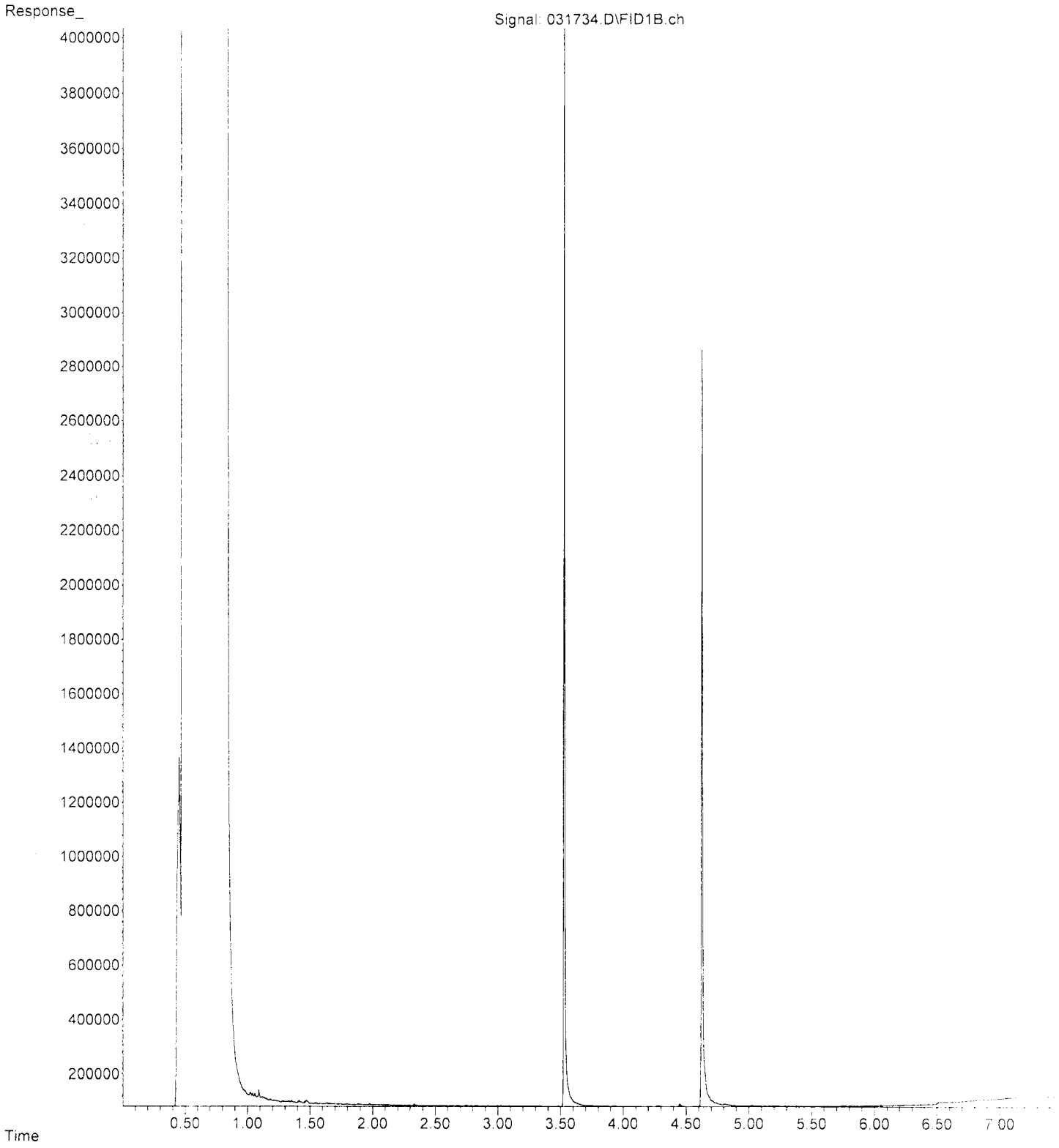
File :P:\Proc_GC10\03-17-23\031732.D
Operator : TL
Acquired : 17 Mar 2023 05:04 pm using AcqMethod DX.M
Instrument : GC10
Sample Name: 303281-22
Misc Info :
Vial Number: 29



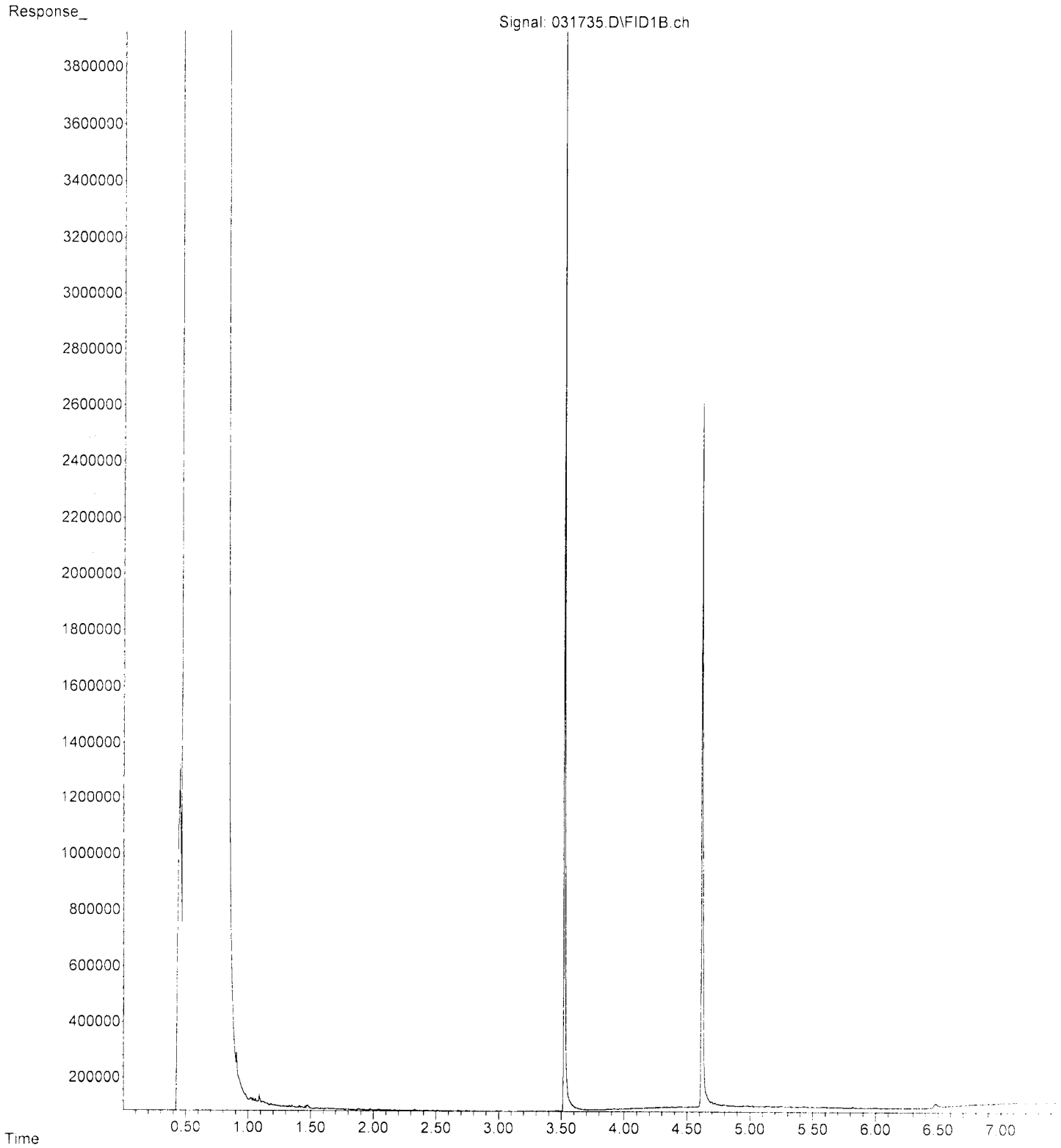
File :P:\Proc_GC10\03-17-23\031733.D
Operator : TL
Acquired : 17 Mar 2023 05:15 pm using AcqMethod DX.M
Instrument : GC10
Sample Name: 303281-23
Misc Info :
Vial Number: 30



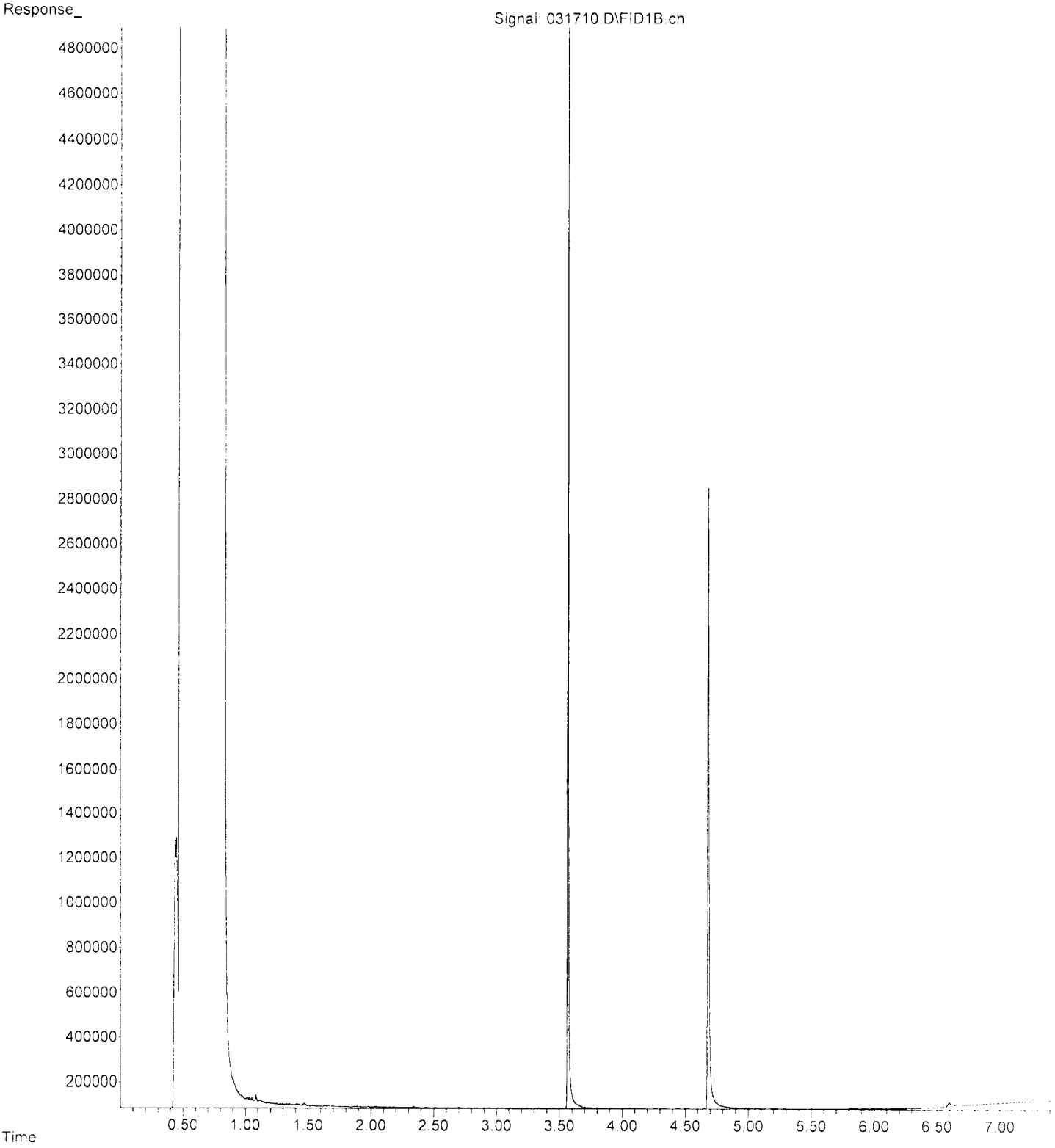
File :P:\Proc_GC10\03-17-23\031734.D
Operator : TL
Acquired : 17 Mar 2023 05:27 pm using AcqMethod DX.M
Instrument : GC10
Sample Name: 303281-24
Misc Info :
Vial Number: 31



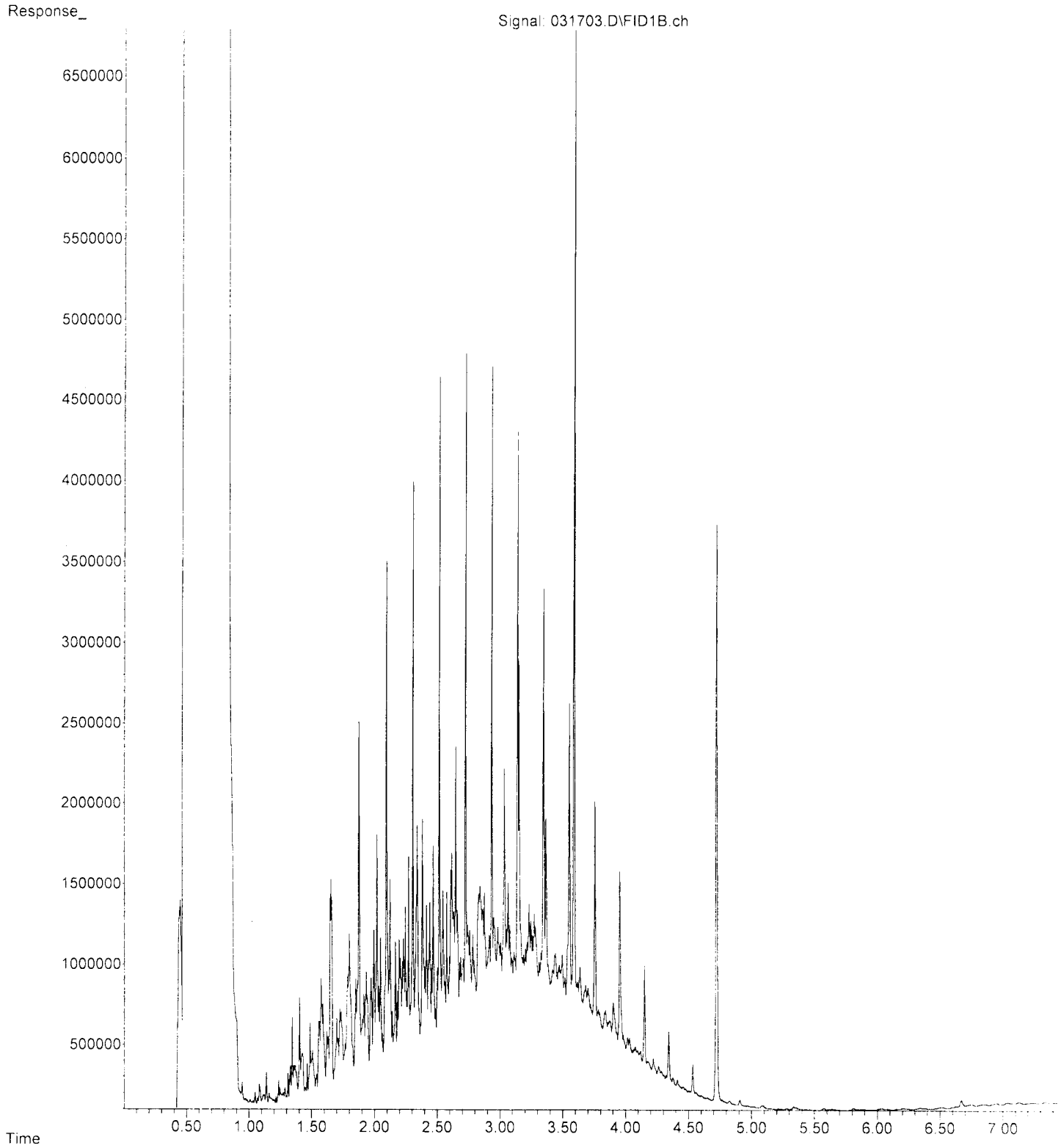
File :P:\Proc_GC10\03-17-23\031735.D
Operator : TL
Acquired : 17 Mar 2023 05:39 pm using AcqMethod DX.M
Instrument : GC10
Sample Name: 303281-25
Misc Info :
Vial Number: 32



File :P:\Proc_GC10\03-17-23\031710.D
Operator : TL
Acquired : 17 Mar 2023 12:18 pm using AcqMethod DX.M
Instrument : GC10
Sample Name: 03-634 mb
Misc Info :
Vial Number: 11



File :P:\Proc_GC10\03-17-23\031703.D
Operator : TL
Acquired : 17 Mar 2023 10:50 am using AcqMethod DX.M
Instrument : GC10
Sample Name: 500 DX 67-143B
Misc Info :
Vial Number: 3



FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Vineta Mills, M.S.
Eric Young, B.S.

5500 4th Avenue South
Seattle, WA 98108
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

March 28, 2023

Ali Cochrane, Project Manager
Aspect Consulting, LLC
710 2nd Ave S, Suite 550
Seattle, WA 98104

Dear Ms Cochrane:

Included are the results from the testing of material submitted on March 22, 2023 from the Estelita's Library 220264, F&BI 303357 project. There are 10 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Aspect Data, Hannah Cohen
ASP0328R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on March 22, 2023 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Estelita's Library 220264, F&BI 303357 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Aspect Consulting, LLC
303357 -01	AMW-04-032223
303357 -02	AMW-03-032223
303357 -03	TB-032223

All quality control requirements were acceptable.

Date of Report: 03/28/23
Date Received: 03/22/23
Project: Estelita's Library 220264, F&BI 303357
Date Extracted: 03/22/23
Date Analyzed: 03/23/23

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE USING METHOD NWTPH-Gx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Gasoline Range	Surrogate (% Recovery) (Limit 50-150)
AMW-04-032223 303357-01	<100	103
AMW-03-032223 303357-02	<100	105
Method Blank 03-651 MB	<100	103

Date of Report: 03/28/23
Date Received: 03/22/23
Project: Estelita's Library 220264, F&BI 303357
Date Extracted: 03/23/23
Date Analyzed: 03/23/23

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 41-152)
AMW-04-032223 303357-01	<50	<250	106
AMW-03-032223 303357-02	67 x	<250	125
Method Blank 03-788 MB2	<50	<250	120

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	AMW-04-032223	Client:	Aspect Consulting, LLC
Date Received:	03/22/23	Project:	Estelita's Library 220264
Date Extracted:	03/23/23	Lab ID:	303357-01
Date Analyzed:	03/23/23	Data File:	032310.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	md

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	95	71	132
Toluene-d8	93	68	139
4-Bromofluorobenzene	104	62	136

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	AMW-03-032223	Client:	Aspect Consulting, LLC
Date Received:	03/22/23	Project:	Estelita's Library 220264
Date Extracted:	03/23/23	Lab ID:	303357-02
Date Analyzed:	03/23/23	Data File:	032311.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	md

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	92	71	132
Toluene-d8	91	68	139
4-Bromofluorobenzene	100	62	136

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Estelita's Library 220264
Date Extracted:	03/23/23	Lab ID:	03-0671 mb
Date Analyzed:	03/23/23	Data File:	032307.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	lm

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	71	132
Toluene-d8	99	68	139
4-Bromofluorobenzene	103	62	136

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Date of Report: 03/28/23
Date Received: 03/22/23
Project: Estelita's Library 220264, F&BI 303357

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TPH AS GASOLINE USING METHOD NWTPH-Gx

Laboratory Code: 303319-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 20)
Gasoline	ug/L (ppb)	<100	<100	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Gasoline	ug/L (ppb)	1,000	100	70-130

Date of Report: 03/28/23
Date Received: 03/22/23
Project: Estelita's Library 220264, F&BI 303357

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	120	120	70-130	0

Date of Report: 03/28/23
Date Received: 03/22/23
Project: Estelita's Library 220264, F&BI 303357

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260D

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Dichlorodifluoromethane	ug/L (ppb)	10	98	108	70-130	10
Chloromethane	ug/L (ppb)	10	80	90	70-130	12
Vinyl chloride	ug/L (ppb)	10	94	107	70-130	13
Bromomethane	ug/L (ppb)	10	113	123	28-182	8
Chloroethane	ug/L (ppb)	10	102	118	70-130	15
Trichlorofluoromethane	ug/L (ppb)	10	100	109	70-130	9
Acetone	ug/L (ppb)	50	71	75	42-155	5
1,1-Dichloroethene	ug/L (ppb)	10	95	104	70-130	9
Hexane	ug/L (ppb)	10	97	110	50-161	13
Methylene chloride	ug/L (ppb)	10	90	103	29-192	13
Methyl t-butyl ether (MTBE)	ug/L (ppb)	10	93	104	70-130	11
trans-1,2-Dichloroethene	ug/L (ppb)	10	91	102	70-130	11
1,1-Dichloroethane	ug/L (ppb)	10	92	102	70-130	10
2,2-Dichloropropane	ug/L (ppb)	10	89	102	70-130	14
cis-1,2-Dichloroethene	ug/L (ppb)	10	93	104	70-130	11
Chloroform	ug/L (ppb)	10	92	99	70-130	7
2-Butanone (MEK)	ug/L (ppb)	50	89	102	50-157	14
1,2-Dichloroethane (EDC)	ug/L (ppb)	10	91	104	70-130	13
1,1,1-Trichloroethane	ug/L (ppb)	10	93	103	70-130	10
1,1-Dichloropropene	ug/L (ppb)	10	88	95	70-130	8
Carbon tetrachloride	ug/L (ppb)	10	95	106	70-130	11
Benzene	ug/L (ppb)	10	88	98	70-130	11
Trichloroethene	ug/L (ppb)	10	88	99	70-130	12
1,2-Dichloropropane	ug/L (ppb)	10	88	104	70-130	17
Bromodichloromethane	ug/L (ppb)	10	92	104	70-130	12
Dibromomethane	ug/L (ppb)	10	89	103	70-130	15
4-Methyl-2-pentanone	ug/L (ppb)	50	96	105	70-130	9
cis-1,3-Dichloropropene	ug/L (ppb)	10	87	100	70-130	14
Toluene	ug/L (ppb)	10	104	102	70-130	2
trans-1,3-Dichloropropene	ug/L (ppb)	10	98	98	70-130	0
1,1,2-Trichloroethane	ug/L (ppb)	10	102	101	70-130	1
2-Hexanone	ug/L (ppb)	50	107	109	69-130	2
1,3-Dichloropropane	ug/L (ppb)	10	101	101	70-130	0
Tetrachloroethene	ug/L (ppb)	10	107	104	70-130	3
Dibromochloromethane	ug/L (ppb)	10	102	100	63-142	2
1,2-Dibromoethane (EDB)	ug/L (ppb)	10	100	100	70-130	0
Chlorobenzene	ug/L (ppb)	10	101	101	70-130	0
Ethylbenzene	ug/L (ppb)	10	106	105	70-130	1
1,1,1,2-Tetrachloroethane	ug/L (ppb)	10	102	101	70-130	1
m,p-Xylene	ug/L (ppb)	20	106	106	70-130	0
o-Xylene	ug/L (ppb)	10	98	97	70-130	1
Styrene	ug/L (ppb)	10	100	98	70-130	2
Isopropylbenzene	ug/L (ppb)	10	104	102	70-130	2
Bromoform	ug/L (ppb)	10	97	98	50-157	1
n-Propylbenzene	ug/L (ppb)	10	106	103	70-130	3
Bromobenzene	ug/L (ppb)	10	104	101	70-130	3
1,3,5-Trimethylbenzene	ug/L (ppb)	10	105	101	52-150	4
1,1,2,2-Tetrachloroethane	ug/L (ppb)	10	110	105	70-130	5
1,2,3-Trichloropropane	ug/L (ppb)	10	101	98	70-130	3
2-Chlorotoluene	ug/L (ppb)	10	106	101	70-130	5
4-Chlorotoluene	ug/L (ppb)	10	102	100	70-130	2
tert-Butylbenzene	ug/L (ppb)	10	103	101	70-130	2
1,2,4-Trimethylbenzene	ug/L (ppb)	10	105	103	70-130	2
sec-Butylbenzene	ug/L (ppb)	10	106	101	70-130	5
p-Isopropyltoluene	ug/L (ppb)	10	105	102	70-130	3
1,3-Dichlorobenzene	ug/L (ppb)	10	104	98	70-130	6
1,4-Dichlorobenzene	ug/L (ppb)	10	102	100	70-130	2
1,2-Dichlorobenzene	ug/L (ppb)	10	103	97	70-130	6
1,2-Dibromo-3-chloropropane	ug/L (ppb)	10	102	92	70-130	10
1,2,4-Trichlorobenzene	ug/L (ppb)	10	96	93	70-130	3
Hexachlorobutadiene	ug/L (ppb)	10	100	96	70-130	4
Naphthalene	ug/L (ppb)	10	94	93	70-130	1
1,2,3-Trichlorobenzene	ug/L (ppb)	10	94	91	69-143	3

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria, biased high; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the standard reporting limit. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

k – The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

303357

SAMPLE CHAIN OF CUSTODY

03/22/23

I4/L3/VW-4

Page # 1 of 1

Report To Ali Cochrane, Hannah Cohen

Company Aspect Consulting

Address 710 2nd Ave #550

City, State, ZIP Seattle, WA 98104

Phone _____ Email acochrane@aspectconsulting.com hcohen@aspectconsulting.com

SAMPLERS (*signature*)

PROJECT NAME: Estelita's Library

PO #: 220264

REMARKS: Project specific RLs? - Yes / No

INVOICE TO: AP

TURNAROUND TIME
- [x] Standard turnaround
- [ ] RUSH _____
- Rush charges authorized by: _____

SAMPLE DISPOSAL
- [ ] Archive samples
- [ ] Other _____
- Default: Dispose after 30 days

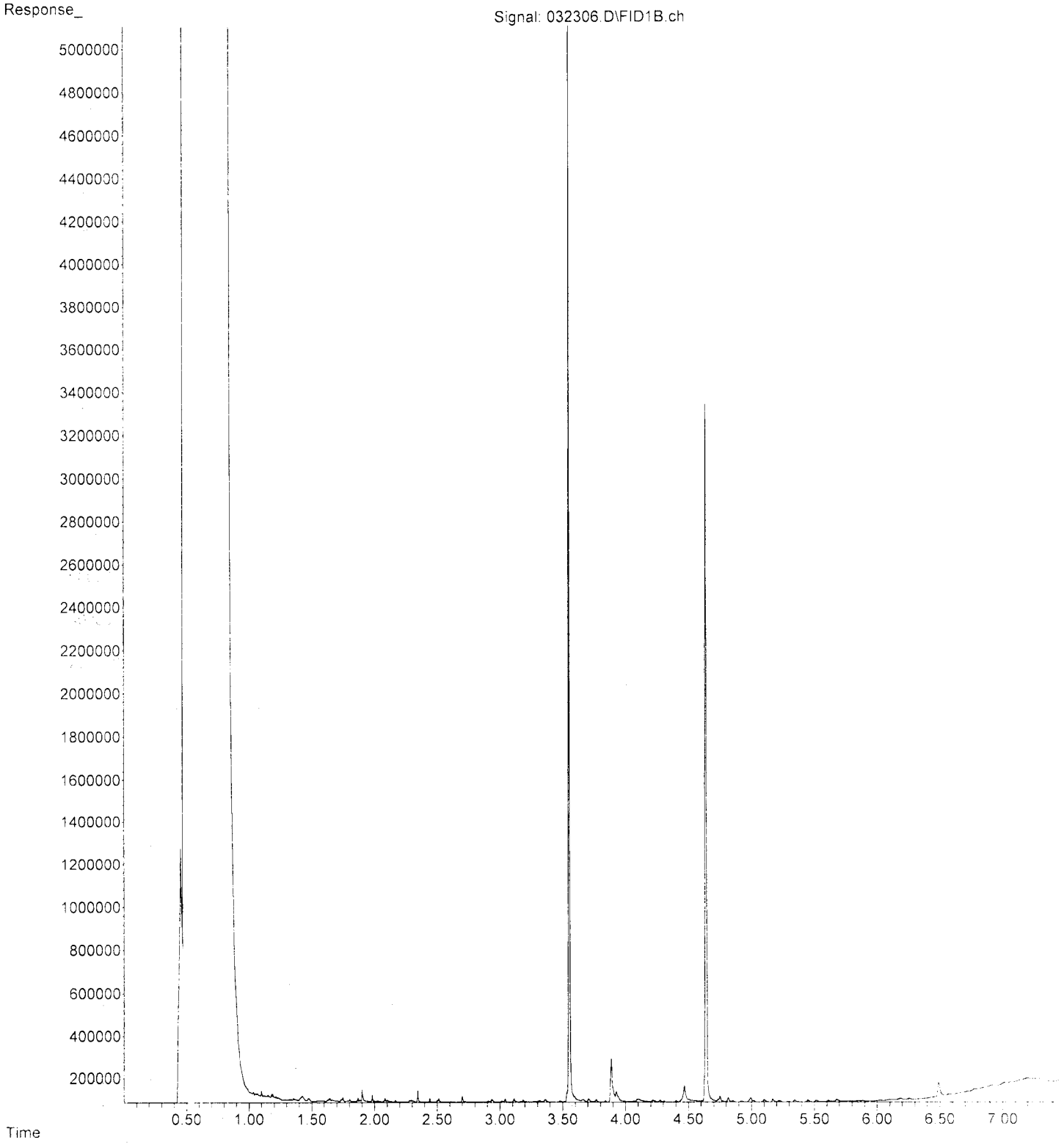
Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED: NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	cHAHs	Total Lead	Dissolved Lead	Notes
AMW-04-032223	01A-K	03/22/23	1040	W	11	X	X			X		X	X	X	X	Sample for Dissolved lead field filtered into 250mL PSH w/ HNO_3
AMW-03-032223	02 1	03/22/23	1225	W	11	X	X			X		X	X	X	X	
TB-032223	03A-D			W	4											

Samples received at 2 °C

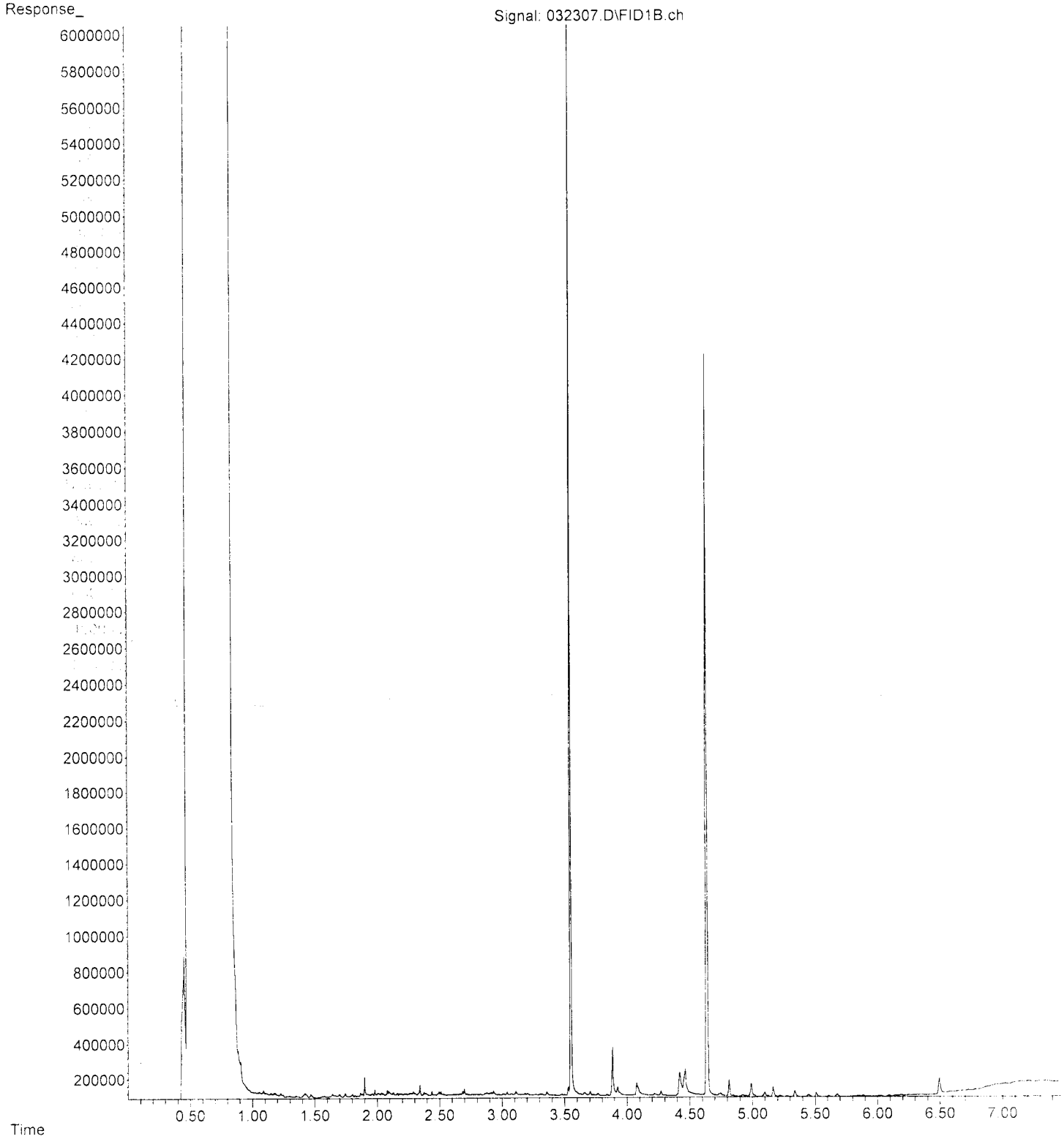
SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Nikolai Carroll	Aspect	03/22/23	1351
Received by:	ANH PHAN	FSB	03/22/23	13:51
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
Ph. (206) 285-8282

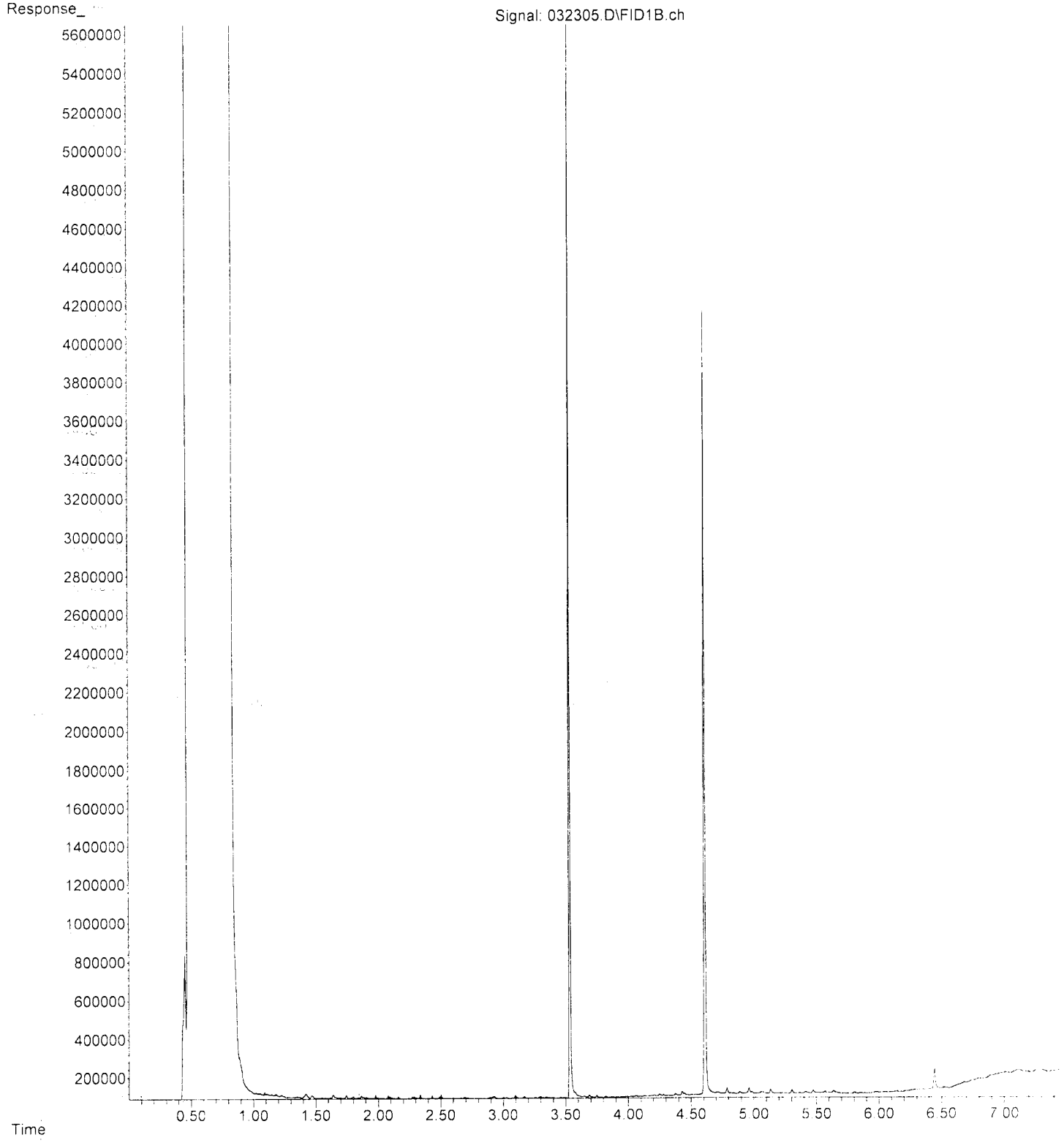
File :P:\Proc_GC10\03-23-23\032306.D
Operator : TL
Acquired : 23 Mar 2023 08:35 am using AcqMethod DX.M
Instrument : GC10
Sample Name: 303357-01
Misc Info :
Vial Number: 8



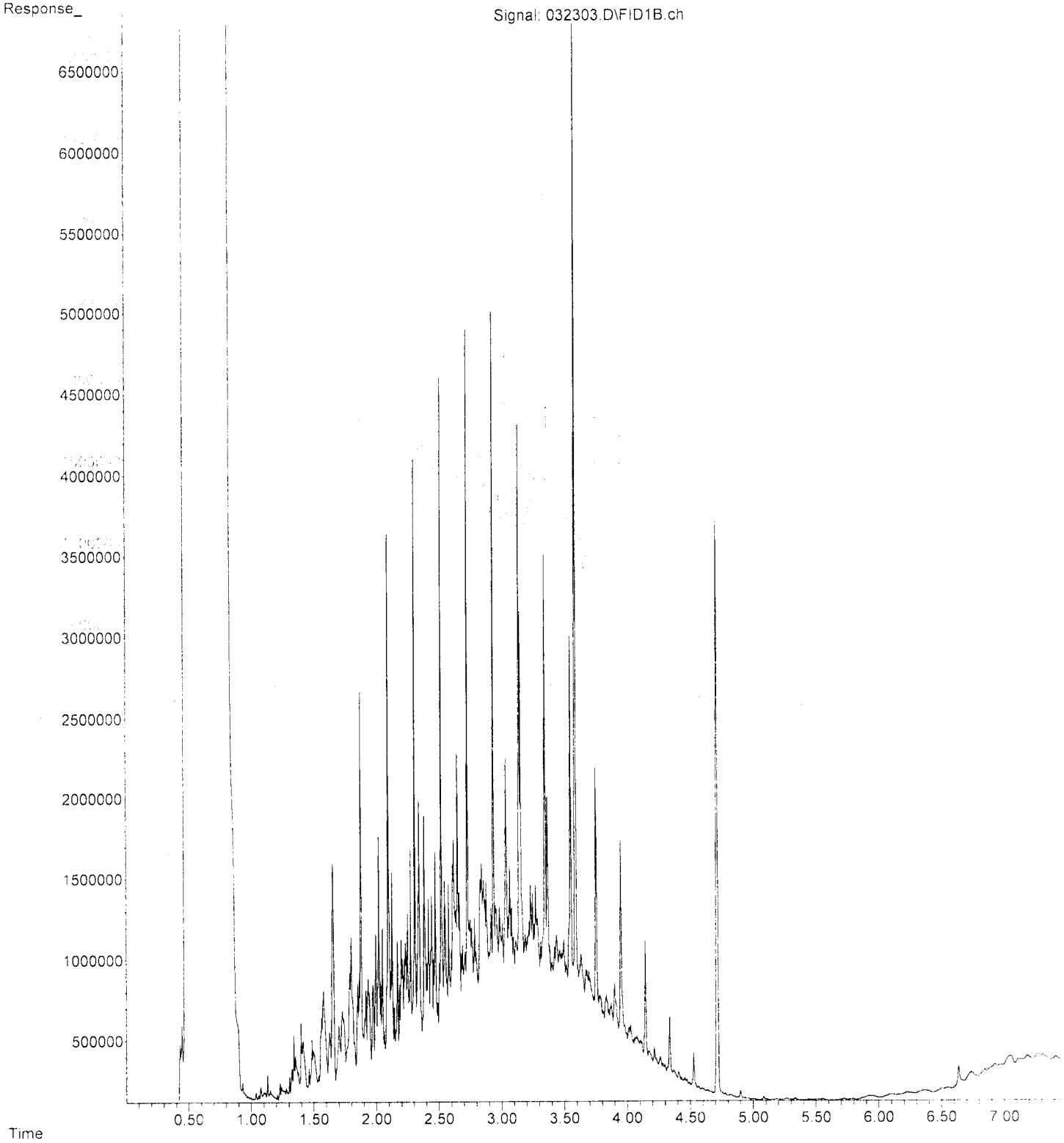
File :P:\Proc_GC10\03-23-23\032307.D
Operator : TL
Acquired : 23 Mar 2023 08:47 am using AcqMethod DX.M
Instrument : GC10
Sample Name: 303357-02
Misc Info :
Vial Number: 9



File :P:\Proc_GC10\03-23-23\032305.D
Operator : TL
Acquired : 23 Mar 2023 08:24 am using AcqMethod DX.M
Instrument : GC10
Sample Name: 03-788 mb2
Misc Info :
Vial Number: 7



File :P:\Proc_GC10\03-23-23\032303.D
Operator : TL
Acquired : 23 Mar 2023 08:02 am using AcqMethod DX.M
Instrument : GC10
Sample Name: 500 DX 67-143B
Misc Info :
Vial Number: 3



APPENDIX C

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.