

FEASIBILITY STUDY

Texaco Strickland Site

Prepared for: Strickland Real Estate Holdings, LLC and
Chevron Environmental Management Company

Project No. 180357 • August 1, 2025 PUBLIC REVIEW DRAFT



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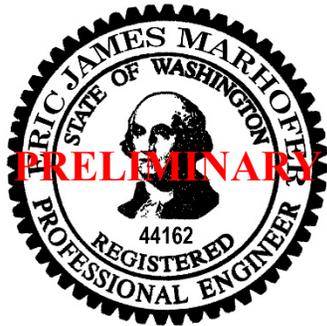
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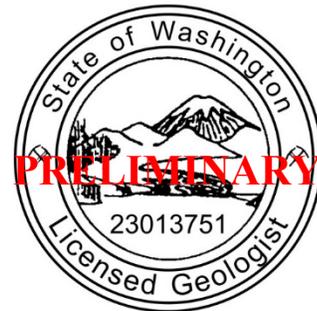
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Contents

Acronyms	iiiv
Executive Summary	ES-1
1 Introduction	1
1.1 Purpose and Objective	1
2 Background	2
2.1 Property History and Description	2
2.2 Adjacent Property Description	3
2.2.1 North – Upgradient 68 th Center Property	3
2.2.2 East – Edmonds Community College Property	3
2.2.3 West – Strip Mall	3
2.2.4 South – Chri-Mar Apartments	3
2.3 Geologic and Hydrogeologic Setting	3
2.4 Climate	4
2.4.1 Current Climate	4
2.4.2 Climate Change	4
2.5 Environmental Justice Screening	5
2.5.1 Environmental Health Disparities Index Results	6
2.5.2 Overall Screening Results	6
3 Summary of Remedial Investigation and Interim Action	7
3.1 Remedial Investigation	7
3.2 Interim Action	7
3.2.1 Jiffy Lube Site Cleanup	7
3.2.2 Confirmation Groundwater Monitoring	8
4 Chri-Mar Building Ventilation System	9
4.1 Ventilation System Construction and Operational Monitoring	9
4.2 Performance Monitoring	9
4.3 Confirmation Monitoring	10
4.4 Post-Interim Action Petroleum Vapor Intrusion Assessment	11
5 Updated Conceptual Site Model	12
5.1 Contaminants of Concern and Affected Media	12
5.2 Nature and Extent of Contamination	12
5.2.1 Soil Impacts	12
5.2.2 Groundwater Impacts	13
5.2.3 Vapor Impacts	13
5.3 Contaminant Fate and Transport	13

- 5.4 Exposure Pathway Assessment 14
 - 5.4.1 Soil Exposure Pathways 14
 - 5.4.2 Groundwater Exposure Pathways 14
 - 5.4.3 Vapor Exposure Pathway 15
- 5.5 Terrestrial Ecological Evaluation 15
- 6 Cleanup Requirements.....16**
 - 6.1 Applicable or Relevant and Appropriate Requirements..... 16
 - 6.2 Cleanup Standards 17
 - 6.2.1 Cleanup Levels 17
 - 6.2.2 Points of Compliance 17
 - 6.3 Areas Requiring Remediation..... 17
- 7 Detailed Evaluation and Selection of Remedial Alternatives.....19**
 - 7.1 Remedial Action Objectives..... 19
 - 7.2 Identification and Evaluation of Remedial Technologies 19
 - 7.3 Development of Remedial Alternatives..... 20
 - 7.3.1 Alternative 1 – Excavation and Off-Site Disposal 20
 - 7.3.2 Alternative 2 – Capping with Environmental Covenant..... 21
 - 7.4 Evaluation of Remedial Alternatives 21
 - 7.4.1 General Cleanup Requirements 21
 - 7.4.2 Disproportionate Cost Analysis..... 22
 - 7.5 Recommended Remedial Alternative 23
- 8 Conclusion24**
- 9 References25**
- 10 Limitations.....27**

List of Tables

- 1 Confirmation Groundwater Monitoring Results
- 2 Confirmation Ventilation Sampling Results (Passive Condition)
- 3 Remedial Technology Screening
- 4 Disproportionate Cost Analysis

List of Figures

- 1 Site Location Map
- 2 Extent of Post-Interim Action Soil Impacts
- 3 Confirmation Groundwater Monitoring Locations and Flow Direction
- 4 Alternative 1 – Conceptual Excavation Extents
- 5 Disproportionate Cost Analysis Summary

List of Appendices

- A Boring Logs and Well Completion Diagrams
- B Laboratory Analytical Reports – Groundwater
- C Laboratory Analytical Reports – Vapor
- D Remedial Alternative Cost Estimates
- E Data Validation Reports

Acronyms

AO	Agreed Order
ARAR	Applicable or relevant and appropriate requirement
Aspect	Aspect Consulting
BETX	benzene, ethylbenzene, toluene and xylenes
Bgs	Below ground surface
CEMC	Chevron Environmental Management Company
CFR	Code of Federal Regulations
CMS	Conceptual site model
COC	Contaminants of concern
cPAHs	Carcinogenic polycyclic aromatic hydrocarbons
CRA	Conestoga-Rovers & Associates
CUL	Cleanup level
DCA	Disproportionate cost analysis
DOH	Washington State Department of Health
EA	Environmental Associates, Inc.
Ecology	Washington Department of Ecology
EDB	1,2-dibromoethane
EDC	1,2-dichloroethane
EHD	Environmental Health Disparities
EPA	U.S. Environmental Protection Agency
FS	Feasibility Study
HEAL	Healthy Environmental Act for All
ISB	In Situ Bioremediation
ISCO	In Situ Chemical Oxidation
LNAPL	Light non-aqueous phase liquid
$\mu\text{g}/\text{m}^3$	micrograms per cubic meter
MNA	Monitored Natural Attenuation
MTBE	Methyl tert-butyl ether

MTCA	Model Toxics Control Act
NFA	No Further Action
NPV	Net present value
PCBs	polychlorinated biphenyls
PLIA	Washington State Pollution Liability Insurance Agency
PLPs	Potentially liable parties
PVI	Petroleum vapor intrusion
RAO	Remedial action objectives
RCW	Revised Code of Washington
RI/FS	Remedial Investigation/Feasibility Study
SREH	Strickland Real Estate Holdings, LLC
SVE	soil vapor extraction
TAP	Technical Assistance Program
TEE	Terrestrial Ecological Evaluation
TPH	Total petroleum hydrocarbons
TPHd	Diesel total petroleum hydrocarbons
TPHg	Gasoline total petroleum hydrocarbons
TPHo	Oil-range total petroleum hydrocarbons
UGS	US Geological Survey
UIC	Underground Injection Control
U.S.C.	United States Code
UST	Underground storage tank
VOC	volatile organic compound
WAC	Washington Administrative Code

Executive Summary

Aspect Consulting, a Geosyntec company (Aspect), has prepared this Feasibility Study (FS) for the Texaco Strickland Site (the Site), located at 6808 196th Street SW in Lynnwood, Washington (the Property).

Two potentially liable parties (PLPs), Strickland Real Estate Holdings, LLC (SREH) and Chevron Environmental Management Company (CEMC), entered into Agreed Order No. 14315 (the AO) with the Washington State Department of Ecology (Ecology) on August 28, 2018. On December 14, 2020, Ecology named Jiffy Lube International, Inc. (Jiffy Lube) as a third PLP for the Site. Jiffy Lube has not participated in any of the work discussed in this report.

In 2022, an interim cleanup action was performed at the Site resulting in the excavation and off-site disposal of soil contamination exceeding unrestricted cleanup levels (CULs) within the Property boundary to the extent practicable. A limited amount of soil contamination exceeding unrestricted CULs was left in place in the public right-of-way along the northern Property boundary and at depth (greater than 15 feet deep) along the western Property boundary. However, these residual soil impacts do not pose a risk to groundwater or air quality based on subsequent compliance monitoring results and current Property use. Soil contamination associated with the Jiffy Lube Site was fully removed during the Interim Action excavation (see Section 3.2.1).

This report documents the subsequent groundwater and vapor assessment activities performed since the Interim Action, presents an updated conceptual site model for the Site post-Interim Action, and evaluates a limited set of remedial alternatives to complete the cleanup action for the Site and achieve a no further action (NFA) opinion from Ecology.

Based on the results of the Interim Action and the nature and extent of residual soil impacts, active cleanup is considered complete to the extent practicable at this Site. Further excavation does not provide any appreciable benefits to human health or the environment over engineering and institutional controls to ensure ongoing protection of human health and the environment. Therefore, capping with an environmental covenant is recommended as the final remedy for the Site and is expected to satisfy the requirements of the AO and Washington Administrative Code (WAC) 173-340-360. A Cleanup Action Plan will be prepared under separate cover detailing the final remedy for the Site.

1 Introduction

Aspect Consulting, a Geosyntec company (Aspect), has prepared this Feasibility Study (FS) for the Texaco Strickland Site (the Site) located at 6808 196th Street SW in Lynnwood, Washington (the Property). The Site location is shown on Figure 1.

Under the Washington State Model Toxics Control Act (MTCA), a Site is defined as any area where a hazardous substance has been deposited, stored, disposed of, placed, or otherwise come to be located as the result of a release (Washington Administrative Code [WAC] 173-340-200). This Site was previously defined by the extent of petroleum hydrocarbons and related volatile organic chemicals (VOCs) in soil, groundwater, and vapor as described in the Remedial Investigation (RI) Report for the Site (Aspect, 2023a).

This Site is identified in Ecology's cleanup site database as the Texaco Strickland Site, Cleanup Site ID 12541, Facility ID 27496218, and underground storage tank (UST) site ID 6802. Contamination associated with the Site was previously considered to be commingled with contamination associated with another site located on the Property known as the Jiffy Lube Store 2068 (the Jiffy Lube Site; Cleanup Site ID 5805).

Two potentially liable parties (PLPs), Strickland Real Estate Holdings, LLC (SREH) and Chevron Environmental Management Company (CEMC), entered into Agreed Order No. 14315 (the AO) with the Washington State Department of Ecology (Ecology) on August 28, 2018. On December 14, 2020, Ecology named Jiffy Lube International, Inc. (Jiffy Lube) as a third PLP for the Site. Jiffy Lube has not participated in any of the work discussed in this report.

In 2022, an interim cleanup action was performed at the Site resulting in the excavation and off-site disposal of soil contamination exceeding MTCA Method A CULs to the extent practicable (Interim Action; Aspect, 2023b). A limited amount of soil contamination exceeding Method A CULs was left in place in the public right-of-way along the northern Property boundary and at depth (greater than 15 feet deep) along the western Property boundary. However, these residual soil impacts do not pose a risk to groundwater or air based on subsequent compliance monitoring results and current Property use.

1.1 Purpose and Objective

This FS documents the subsequent groundwater and vapor assessment activities performed since the Interim Action, presents an updated conceptual site model (CSM) for the Site post-Interim Action, and evaluates a limited set of remedial alternatives to complete the cleanup action for the Site and achieve a no further action (NFA) opinion from the Washington State Department of Ecology (Ecology).

2 Background

The following section includes general information, history and use of the Property, and a description of the current geologic setting following the Interim Action. A discussion of climate and environmental justice factors are also included for consideration in the FS.

2.1 Property History and Description

The Property is zoned as commercial and identified by Snohomish County Parcel Number 27042000200600. Based on the construction date of the service station building, the Property was first developed in approximately 1959. A review of historical documents has established the following operational history for the Site (Conestoga-Rovers & Associates [CRA], 2011; Aspect, 2019; Aspect, 2020):

- **1959 to 1977 – Texaco-branded Service Station:** The Property was initially developed with a Texaco-branded service station in 1959. Based on construction drawings, the service station consisted of two 4,000-gallon leaded gasoline USTs; one 6,000-gallon leaded gasoline UST; a single pump island with three pumps; associated product conveyance piping; an in-ground vehicle hoist; a 550-gallon used oil UST; and a 1,000-gallon heating oil UST.

The three gasoline USTs were decommissioned and removed when the Property was converted to a Jiffy Lube/Equilon Lube oil facility in 1977 (Aspect, 2020). The 550-gallon waste oil and 1,000-gallon heating oil USTs remained in place until the 2022 Interim Action excavation when all remaining USTs on the Property were removed (Aspect, 2023b).

- **1977 to 2006 – Jiffy Lube/Equilon Lube Facilities:** In 1977, the Property was converted to an oil change and lube facility, which operated continuously until approximately 2006. During this time, two additional USTs were installed on the Property. According to Ecology’s UST database, a 500-gallon used oil UST and a 3,000-gallon motor oil UST were installed in June of 1982. In 1995, these two USTs were decommissioned: the 500-gallon used oil UST was closed in place, and the 3,000-gallon motor oil UST was removed. All remaining USTs and soil contamination associated with the Jiffy Lube/Equilon Lube facilities were removed during the Interim Action excavation (Aspect, 2023c).
- **2006 to 2018 – Aloha Café:** In 2006, the building on the Property was renovated into a restaurant, Aloha Café, which operated until 2018.
- **2018 to Present** – The Property was vacated in 2018 to facilitate RI and cleanup activities. In September 2022, the building on the Property was demolished ahead of the Interim Action. Following the Interim Action excavation, the Property was backfilled with clean fill material. The Property is currently a vacant gravel lot.

2.2 Adjacent Property Description

A brief description of relevant historical and current uses of the surrounding properties is included below.

2.2.1 North – Upgradient 68th Center Property

A commercial strip mall is located to the north of the Property across 196th Street SW. This property (tax parcel 27041700307000) was historically occupied by a Shell-branded service station with confirmed releases of petroleum and impacts to soil and groundwater. Shell is pursuing an opinion through the Washington State Pollution Liability Insurance Agency’s (PLIA’s) Technical Assistance Program (TAP).

2.2.2 East – Edmonds Community College Property

The parcel to the east of the Property (tax parcel 27042000103100), across 68th Avenue West, is currently used as parking for Edmonds Community College. This parcel was previously occupied by an Exxon-branded service station, which had confirmed releases of petroleum hydrocarbons to soil and groundwater. A remedial excavation was conducted on the Property in 2005, and a NFA determination was issued by Ecology in 2007.

2.2.3 West – Strip Mall

The parcel to the west of the Property (tax parcel 27042000200800) is commercially occupied by a strip mall, where a dry cleaner (Slater’s One Hour Cleaners) historically operated. According to city directory records, Slater’s One Hour Cleaners operated from at least 1971 through at least 2013.

2.2.4 South – Chri-Mar Apartments

The parcels to the south of the Property (tax parcels 27042000201000 and 27042000200900) are occupied by a multi-family residential apartment building and operated as Chri-Mar Apartments. Chlorinated solvents in soil, groundwater, and soil gas were documented on this property as part of the environmental characterization work performed by Environmental Associates, Inc. (EA) on behalf of that property owner (EA, 2016a, 2016b, and 2018). Petroleum hydrocarbons were not detected in soil or groundwater at this property during the EA work in 2016 and 2018; however, benzene was detected in soil gas, indoor air, and outdoor air as part of the work performed by EA (EA, 2016a and 2018). In January 2023, a crawlspace ventilation system was installed at the Chri-Mar Apartment building to mitigate potential risks to indoor air quality during completion of the Interim Action and selection of a final remedy for the Site (see Section 4).

2.3 Geologic and Hydrogeologic Setting

Prior to the Interim Action, Site geology generally consisted of imported fill to depths up to 10 feet below ground surface (bgs) and Vashon till extending to the maximum depth explored at the Site of 40.5 feet bgs. The imported fill extended to depths of approximately 4 to 10 feet bgs and was encountered in all soil borings at the Site during investigation activities (Aspect, 2023a). Following the Interim Action excavation, imported fill on the Property now extends to depths of up to 28 feet bgs.

Beneath the fill, Vashon till was encountered in all soil borings at the Site during RI activities, which is consistent with the US Geological Survey (USGS) mapped geologic unit of the area (USGS, 1983). The till encountered during subsurface explorations had a variable composition and included silt (MH); sandy silt with gravel (ML); silty sand and silty sand with gravel (SM); sand with silt and sand with silt and gravel (SW/SP-SM); and sand with gravel (SP). The density of the till was consistent across the Site, ranging from medium dense at the fill-till interface and increasing in density to very dense within a few feet below the interface. The top few feet of till appears to have been weathered in place prior to being buried under fill material during redevelopment of the area in the early 20th century (Aspect, 2023a).

The majority of the subsurface explorations conducted during RI activities were completed using a hollow-stem auger drilling rig, and geotechnical information was collected for nearly all borings. Based on the observed blow counts, the weathered, medium dense top of till varied in thickness between 2.5 and 15 feet. The underlying unweathered till is differentiated based on the blow counts and inferred density during drilling. Boring logs from RI activities were provided in the RI Report (Aspect, 2023a).

Following the Interim Action excavation, groundwater is present at the Site in a surficial, unconfined, and potentially perched aquifer. Groundwater is encountered at depths ranging from 4 to 15 feet bgs. Consistent with the RI Report (Aspect, 2023a), groundwater flow at the Site is generally to the southwest, with minor seasonal variation.

2.4 Climate

This section presents a discussion of current and future climate considerations for the final remedy at the Site.

2.4.1 Current Climate

The Site's climate is characterized by mild temperatures and a rainy season, with considerable cloudiness during the winter. Average winter daytime temperatures are in the 40s (degrees Fahrenheit) and nighttime temperatures in the 30s or below. During the summer, daytime temperatures are in the 80s, with nighttime temperatures in the 50s. April to September is generally the dry season, with July being the driest month of the year. October to March is generally the rainy season, with more than 75 percent of the average annual precipitation falling during that time (NOAA, 2025).

2.4.2 Climate Change

Ecology has identified that preparing and adapting to climate change impacts, including rising sea levels, extreme precipitation events, severe drought, increased wildfire risk, and marine water acidification, is a critical challenge for the state. Assessing the vulnerability of a site remedy involves assessing the remedy's exposure to climate or weather hazards of concern and the remedy's sensitivity to those hazards. Ecology has identified environmental trends in the Pacific Northwest to assist in the evaluation of climate change projections relevant to the vulnerabilities of remedy selection and implementation (Ecology, 2023).

Based on the Site location and topography, climate change is not expected to result in increased landslide risk or adverse effects from sea level rise for this Site. Potential

effects of climate change at the Site include changes in weather, such as seasonal rainfall patterns and the magnitude and frequency of extreme storm events, which could increase flooding risk in some areas.

2.5 Environmental Justice Screening

This section presents a discussion of environmental justice considerations for the final remedy at the Site. Washington State is committed to reducing environmental and health disparities in the state and improving the health of all its residents. State and national studies have found that people of color and low-income people continue to be disproportionately exposed to environmental harms in the places they live. As a result, there is a higher risk of adverse health outcomes for those communities. This risk is amplified when overlaid on communities with preexisting social and economic barriers and environmental risks, creating cumulative environmental health impacts.

To address and prevent such environmental health disparities, Ecology requires RIs to include a determination of whether the population threatened by a contaminated site includes a likely vulnerable population or overburdened community (WAC 173- 340-350(6)(h)(iii)).

- Vulnerable populations are groups that are more likely to be at higher risk for poor health outcomes in response to environmental harms, due to: (i) adverse socioeconomic factors, such as unemployment, high housing and transportation costs relative to income, limited access to nutritious food and adequate health care, linguistic isolation, and other factors that negatively affect health outcomes and increase vulnerability to the effects of environmental harms; and (ii) sensitivity factors, such as low birth weight and higher rates of hospitalization. Vulnerable populations include, but are not limited to, racial or ethnic minorities, low-income populations, populations disproportionately impacted by environmental harms, and populations of workers experiencing environmental harms.
- An overburdened community is defined as a geographic area where vulnerable populations face multiple, combined environmental harms and health impacts and includes, but is not limited to, highly impacted communities. Highly impacted communities are communities designated by the Washington State Department of Health DOH based on cumulative impact analyses or a community located in census tracts that are fully or partially on "Indian country" as defined in 18 United States Code (U.S.C.) Sec. 1151.

In accordance with the legislation, this RI includes an environmental justice screening to determine whether the potentially exposed population includes a likely vulnerable population or overburdened community. This screening is conducted in accordance with the Healthy Environmental Act for All (HEAL) Act, Chapter 70A.02 RCW, WAC 173-340-200. Tools identified in "Implementation Memorandum No. 25: Identifying Likely Vulnerable Populations and Overburdened Communities under the Cleanup Regulations" (Ecology, 2024) were used to complete the environmental justice screening, including the Environmental Health Disparities (EHD) Index from the EHD Map maintained by the DOH (DOH, 2025a).

2.5.1 Environmental Health Disparities Index Results

The EHD Map is divided into communities based on census tracts, which vary in size from 2,000 to 8,000 people. Communities are assigned an environmental health disparity index using a 1 to 10 ranking scale, with 1 being low risk and 10 being high risk for environmental health disparities. The Site is in a single census tract 53061051500.

The Site had an overall EHD ranking of 6. This ranking is calculated based on environmental exposures, environmental effects, socioeconomic factors, and sensitive populations, as described below:

- Environmental exposures had a medium (7) ranking for the Site.
- Environmental effects had a medium (6) ranking due to lead risk from housing and proximity to wastewater discharge.
- Socioeconomic factors were ranked medium (7) due to a high percentage of the population living in poverty, transportation expense, unaffordable housing, and unemployment.
- Sensitive populations had a low (2) ranking due to high death rates from cardiovascular disease and high percentages of low birth weight.

2.5.2 Overall Screening Results

Ecology considers the potentially exposed population to include a likely vulnerable population or overburdened community if the population has a ranking of 9 or 10 on the EHD Index from DOH's EHD Map (Ecology, 2024). The results of the EHD ranking evaluation did not indicate any rankings higher than 7. Therefore, the potentially exposed population for this Site does not appear to include a likely vulnerable population or overburdened community.

3 Summary of Remedial Investigation and Interim Action

Prior to the Interim Action, an RI was completed for the Site in accordance with MTCA and the AO. The RI and Interim Action are briefly summarized in the following sections.

3.1 Remedial Investigation

Based on evaluation of prior environmental investigations and the RI investigation, the contaminated media at the Site included soil, groundwater, and soil gas. Contaminants of concern (COCs) were also detected in indoor air at the Chri-Mar Apartments at that time but considered to be present because of background sources. Site COCs and media of concern were defined in the RI Report as follows:

- Gasoline-, diesel-, and oil-range total petroleum hydrocarbons (TPHg, TPHd, and TPHo, respectively); benzene, toluene, ethylbenzene, and xylenes (BTEX); and naphthalene in soil and groundwater.
- Total petroleum hydrocarbons (TPH), benzene, and naphthalene in soil gas and potentially indoor air.

The nature and extent of contamination at the Site prior to the Interim Action is detailed in the RI Report (Aspect, 2023a). The Site was considered fully characterized with respect to the nature and extent of contamination at the conclusion of the RI, therefore an independent Interim Action was undertaken to remove the source of contamination.

3.2 Interim Action

Between August 2022 and January 2023, a remedial excavation was conducted as part of an independent Interim Action to remove contamination on the Property exceeding applicable CULs to the extent practicable. The results of the Interim Action are documented in the Interim Action Report (Aspect 2023b).

A total of 14,437 tons of petroleum-contaminated soil was permanently removed from the Site and trucked to Cadman's Everett facility as Class III petroleum-contaminated soil for permitted treatment and disposal. The soil removal action was performed to a maximum depth of 28 feet (minimum Elevation 423 feet) and extended to the northern and western Property lines. The previously defined extent of light non-aqueous phase liquid (LNAPL, or free product) was completely removed from the Site. The extent of residual TPH-related impacts in soil exceeding MTCA Method A CULs is shown on Figure 2.

3.2.1 Jiffy Lube Site Cleanup

This section summarizes the characterization and cleanup of the Jiffy Lube Store 2068 Site (Jiffy Lube Site; Cleanup Site ID #5805, Facility ID #27496218), formerly located on the Property. The nature and extent of soil and groundwater contamination associated with the Jiffy Lube Site was characterized during the Texaco Strickland Site RI (Aspect, 2023a). Soil contamination associated with the Jiffy Lube Site was fully removed during

the Interim Action excavation in 2022. Soil quality at the final extents of the Interim Action excavation were below MTCA Method A CULs for TPHo, as verified by the 115 confirmation soil samples collected at the final Interim Action excavation limits (Aspect, 2023b). As a result, an NFA was requested from Ecology for the Jiffy Lube Site in 2023 (Aspect, 2023c) pending confirmation groundwater monitoring results which confirmed compliance with cleanup levels as described in section 3.2.2.

3.2.2 Confirmation Groundwater Monitoring

Following the Interim Action excavation, confirmation groundwater monitoring was conducted at the Site to evaluate protectiveness of residual soil impacts with respect to groundwater. Six new monitoring wells (MW-18R, MW-25R, and MW-29 through MW-32) were installed in July 2023 to establish a post-Interim Action monitoring well network with a total of 11 monitoring wells (Aspect 2023d). Monitoring well locations are shown on Figure 3. Boring logs and well completion diagrams for new monitoring wells are included in Appendix A.

Quarterly confirmation groundwater monitoring was conducted from August 2023 through May 2024 at the Site. Groundwater monitoring results were below MTCA Method A CULs for four consecutive quarters as shown in Table 1. Laboratory analytical reports for confirmation sampling results are included in Appendix B for reference. Data validation reports are included as Appendix E.

Groundwater direction at the Site is predominantly to the southwest as illustrated on Figure 3. Depth to water at the Site ranged from approximately 6 to 14 feet bgs (or 433.19 feet to 445.15 feet above sea level) over the most recent of the four quarters of monitoring. Calculated groundwater elevations are summarized in Table 1.

4 Chri-Mar Building Ventilation System

Concurrently with the Interim Action, and out of an abundance of caution for public health concerns, a ventilation system was installed at the Chri-Mar apartment building to mitigate potential risks for indoor air quality. This section describes the construction of the ventilation system and subsequent compliance monitoring results.

4.1 Ventilation System Construction and Operational Monitoring

The ventilation system was installed in accordance with the Ventilation Work Plan (Aspect, 2023e) and included the following:

- Installing perforated piping on top of the bare soil in the crawl space.
- Installing a physical vapor barrier membrane (6-mil low density polyethylene [LDPE]) over top of the perforated piping and sealing the membrane to the building foundation walls.
- Installing a ventilation fan and riser piping from the perforated piping to the roofline on the building's north facing exterior wall.
- Supplying power to the ventilation fan.
- Installing a vacuum gauge and sample port in the riser piping, upstream of the fan inlet, to monitor performance.

Monthly operational monitoring was conducted between February 2023 and April 2024 to confirm the system was maintaining a vacuum below the vapor barrier membrane.

4.2 Performance Monitoring

Performance monitoring of the ventilation system was conducted in September and December 2023 in accordance with the Ventilation Work Plan. The results of indoor, crawlspace, and ambient air sampling were documented in the 4th Quarter 2023 and 1st Quarter 2024 Progress Reports for the Site (Aspect, 2024a and 2024b). The performance monitoring results were consistent with the conclusions in the Ecology-approved RI Report that indoor air exceedances 1) do not correlate with crawlspace exceedances, and 2) are not a result of vapor intrusion from the Site (Aspect, 2023a).

As a result of these performance monitoring results, the ventilation system was shut down in April 2024 to assess air quality under passive conditions post-Interim Action. In accordance with the Ventilation Work Plan, post-shutdown performance monitoring was conducted in June 2024, approximately 6 weeks after turning off the ventilation system.

The results of post-shutdown indoor, crawlspace, and ambient air sampling were documented in the 2nd Quarter 2024 Progress Report for the Site (Aspect, 2024c). The net concentration for TPH in crawlspace air samples exceeded the generic MTCA Method B cleanup level for unrestricted use; therefore, in accordance with Ecology

guidance for vapor assessments (Ecology, 2022), the sample with the highest TPH concentration was used to calculate a site-specific Method B air cleanup level for unrestricted use. The resulting site-specific TPH cleanup level was 636 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$). Following correction for background air quality, the net concentrations of BTEX, naphthalene, and TPH in all crawlspace samples were below their respective Method B CULs and the site-specific TPH cleanup level for unrestricted use under passive venting conditions. Indoor air exceedances were limited to benzene and naphthalene and continued to be attributed to background sources within the building as described in the RI Report, not a result of vapor intrusion from the Site.

4.3 Confirmation Monitoring

Based on the results of post-shutdown sampling, there were no impacts to crawlspace or indoor air because of vapor intrusion from the Site. Therefore, the ventilation system remained off. Passive vent confirmation sampling was conducted in September and December of 2024 in accordance with the Ventilation Work Plan to confirm soil gas concentrations within the vent system were below applicable CULs for unrestricted use.

The results of passive vent confirmation sampling are summarized in Table 2, and further interpreted as follows:

- TPH was not detected above the site-specific unrestricted indoor air cleanup level, the vent sample, nor the ambient outdoor background air samples.
- BTEX and naphthalene were not detected above their respective unrestricted indoor air CULs in the vent sample.
- Benzene and naphthalene were detected ambient outdoor background air samples, which is consistent with historical results and previous assertions that benzene and naphthalene detections in indoor air samples are attributable to background sources.
- There were no detections of any contaminants above their respective unrestricted soil gas screening levels.

Laboratory analytical reports from confirmation vapor sampling are provided in Appendix C for reference. Data validation reports are included as Appendix E. As a reminder, summary tables and analytical reports from earlier performance monitoring events can be found in the previously referenced quarterly progress reports and RI Report.

4.4 Post-Interim Action Petroleum Vapor Intrusion Assessment

In addition to the confirmation monitoring results described in the previous section, a post-Interim Action petroleum vapor intrusion (PVI) assessment provides an additional line of evidence that there is no longer a risk of PVI for the Chri-Mar apartment building. The building is located outside the prescribed 30-foot lateral inclusion zone from documented residual soil contamination exceeding unrestricted MTCA Method A CULs following the Interim Action excavation (Aspect, 2023b). There are also no longer any groundwater impacts exceeding Method A CULs at the Site. Therefore, there is no longer a risk of PVI for the Chri-Mar apartment building based on Ecology's PVI screening guidance (Ecology, 2022).

5 Updated Conceptual Site Model

This section presents the updated CSM following the Interim Action cleanup activities, including the remaining COCs, nature and extent of residual contamination, and exposure pathway assessment for human health and ecological risks.

5.1 Contaminants of Concern and Affected Media

The remaining COCs retained for the Site are based on the occurrence of chemicals positively identified above MTCA Method A CULs following the Interim Action cleanup and monitoring activities summarized in Sections 3 and 4. The current confirmed COCs for this Site based on this criterion are:

- TPHg, BTEX, and naphthalene in soil.

Groundwater is no longer retained as an affected media based on the results of confirmation groundwater monitoring documented in Section 3.2.2.

Soil gas is retained as a potentially affected media due to residual soil contamination exceeding unrestricted cleanup levels at the Site. However, air (including indoor air) is not retained based on the results of confirmation ventilation system monitoring documented in Section 4.3.

For reference, TPHd and TPHo have not been detected at the Site above cleanup levels following the Interim Action cleanup activities (Aspect 2023b). Additionally, lead, 1,2-dibromoethane (EDB), 1,2-dichloroethane (EDC), methyl tert-butyl ether (MTBE), polychlorinated biphenyls (PCBs), and carcinogenic polycyclic aromatic hydrocarbons (cPAHs) were previously eliminated as potential COCs during the RI (Aspect, 2023a).

5.2 Nature and Extent of Contamination

This section describes the updated nature and extent of contamination at the Site based on the confirmation soil, groundwater, and vapor data collected since the Interim Action cleanup activities were completed.

5.2.1 Soil Impacts

As described in Section 3.2, residual soil impacts exceeding unrestricted Method A CULs following Interim Action cleanup activities are present in two areas of the Site:

1. TPHg, BTEX, and naphthalene remains in-place within the public right-of-way to the north of the Property boundary at a depth of approximately 4 to 9 feet bgs.
2. Low concentrations of benzene only remain in-place along the western Property boundary at a depth of approximately 16 to 25 feet bgs (below the seasonal low water table).

The extent of soil impacts is shown on Figure 2. Detailed analytical results were provided in the Interim Action Report (Aspect 2023b).

5.2.2 Groundwater Impacts

Based on the results of confirmation monitoring conducted at the Site following completion of the Interim Action, there are no impacts to groundwater exceeding MTCA Method A CULs. Therefore, groundwater is no longer considered an affected media at the Site.

5.2.3 Vapor Impacts

Based on the results of confirmation monitoring conducted for the Chri-Mar apartment building following completion on the Interim Action, there are no impacts to soil gas or indoor air exceeding applicable Method B CULs for unrestricted use.

Based on the lateral distribution of residual soil impacts exceeding Method A CULs at the Site, there is one other commercial building to the west of the Property located within the prescribed 30-foot lateral inclusion zone for consideration of PVI. However, given the depth of the soil impacts along the western Property boundary (over 15 feet bgs and below the water table) the building screens out for further PVI assessment based on vertical separation distance and a lack of soil impacts in the vadose zone (Ecology, 2022).

There currently aren't any further concerns for vapor impacts to air at the Site based on the current Property condition and use. The Property is a vacant gravel parking lot. The potential for vapor impacts will need to be considered if the Property is redeveloped.

5.3 Contaminant Fate and Transport

This section describes the contaminant fate and transport of COCs at the Site following the Interim Action excavation. Transport mechanisms for petroleum impacts include adsorption and advection through groundwater movement. Petroleum impacts from source areas were initially absorbed into the soil matrix around and below the historical USTs, pump islands, and product piping. The vertical distribution of the release above the water table was driven by gravity and facilitated by capillary forces. The horizontal distribution of the release was facilitated by water table fluctuations and groundwater flow to the southwest. However, the lateral migration of contamination was limited by the dense native till at the Site.

The LNAPL (free product) source and associated soil contamination within the Property boundary was removed during the Interim Action excavation. Residual soil impacts remain within the public right-of-way to the north and along the western Property boundary below the water table (Section 5.2.1).

Transport mechanisms for the residual COC impacts in soil at the Site include leaching to groundwater and diffusion to the vapor phase. Leaching to groundwater does not appear to be occurring based on confirmation groundwater monitoring results. Additionally, the potential for diffusion to the vapor phase does not pose a risk to air quality as discussed in Section 4.

5.4 Exposure Pathway Assessment

The two primary exposures associated with the presence of the COCs at the Site are human health and terrestrial ecological risk. The nature and extent of COCs in the affected media at a Site determines the potential exposure scenarios for both.

The potential exposure pathways that may affect human health are through contact with soil, groundwater, and vapor. The following sections provide a description of the potential exposure pathways considered in this assessment.

5.4.1 Soil Exposure Pathways

The two potential exposure pathways for soil are direct contact and leaching to groundwater as follows:

- **Direct-contact exposure pathway:** The direct-contact exposure pathway considers both dermal contact and ingestion of soil at the Site, to a maximum depth of 15 feet bgs. Residual soil impacts exist above unrestricted CULs at a depth of 4 to 9 feet within the public right-of-way to the north of the Property. However, the right-of-way remains capped with pavement for the sidewalk and roadway. While there is no risk of direct contact with residual soil impacts for the general public, there is a low risk of exposure for construction workers that may perform utility work in the right-of-way.
- **Soil leaching-to-groundwater transport pathway:** The soil leaching-to-groundwater transport pathway requires consideration of the highest beneficial use of groundwater at the Site in accordance with WAC 173-340-357(3)(d). The highest potential beneficial use of groundwater at the Site is drinking water. The highest potential use of groundwater at this Site is drinking water. Confirmation groundwater monitoring results following the Interim Action cleanup activities provide an empirical demonstration that the soil leaching-to-groundwater transport pathway is incomplete. Additionally, shallow residual soil impacts above the water table in the public right-of-way are capped with an impervious surface, which prevents soil leaching. Therefore, the risk of transport via the soil leaching-to-groundwater pathway is considered low and this transport pathway is considered incomplete.

5.4.2 Groundwater Exposure Pathways

The two potential exposure pathways for groundwater are groundwater-ingestion and groundwater-to-surface water as follows:

- **Groundwater-ingestion exposure pathway:** This groundwater exposure pathway considers ingestion of groundwater at the Site. The groundwater ingestion exposure pathway is considered incomplete and there is no risk of exposure for the following reasons:
 - There are no groundwater impacts exceeding Method A cleanup levels for unrestricted use based on confirmation groundwater monitoring results following Interim Action cleanup activities.

- Potable water for the Property and surrounding properties is served by a municipal water supply.
- DOH maintains a database of public drinking water wells/systems. DOH records list no such drinking water wells within a mile radius of the Property (DOH, 2025b).
- **Groundwater-to-surface water transport pathway:** Surface water not present on or in the vicinity of the Site. Additionally, there are no groundwater impacts exceeding Method A cleanup levels for unrestricted use based on confirmation groundwater monitoring results following Interim Action cleanup activities. Therefore, there is no risk of transport via the groundwater-to-surface water pathway and the pathway is considered incomplete.

5.4.3 Vapor Exposure Pathway

The vapor exposure pathway considers exposures to volatilized soil gas from chemicals dissolved in groundwater, sorbed to soil particles, or separate LNAPL (free product) in the subsurface. Residual soil impacts at the Site remain above unrestricted CULs at a depth of 4 to 9 feet within the public right-of-way to the north of the Property and at a depth of 16 to 25 feet along the western Property boundary. However, there are no buildings located within prescribed lateral and/or vertical screening distances for PVI (see Sections 4.4 and 5.2.3). Therefore, the vapor exposure pathway is considered incomplete and there is no risk of exposure based on current Property conditions. The potential for vapor exposure will need to be reevaluated if the Property is redeveloped with structures that encroach on areas of residual soil impacts exceeding unrestricted CULs.

5.5 Terrestrial Ecological Evaluation

The purpose of the Terrestrial Ecological Evaluation (TEE) is to assess the potential risk to terrestrial plants and/or animals that live entirely or primarily on affected land. This Site qualifies for a TEE exclusion under WAC 173-340-7491 (1)(c); "...there is less than 1.5 acres of contiguous undeveloped land on or within 500 feet of any area of the Site." A copy of the TEE form documenting this exclusion was previously provided in the Ecology-approved RI Report for the Site (Aspect, 2023a).

6 Cleanup Requirements

This section presents the proposed cleanup standards by which evaluation of remedial action(s) will be measured. The areas to be addressed by remedial action(s) are also recapped below.

6.1 Applicable or Relevant and Appropriate Requirements

The most applicable or relevant and appropriate requirement (ARAR) for the Site is Ecology's MTCA CULs and regulations that address the implementation of a cleanup under MTCA (Chapter 173.105D Revised Code of Washington [RCW]; Chapter 173-340 WAC). Other potential ARARs include:

- Federal Clean Water Act (33 U.S. Code [U.S.C.] 1251)
- Federal Water Quality Standards (40 CFR Part 131)
- Occupational Safety and Health Act (29 Code of Federal Regulations [CFR] Subpart 1910.120)
- Water Pollution Control (Chapter 90.48 RCW)
- Water Resources Act of 1971 (Chapter 90.54 RCW)
- Water Quality Standards for Surface Waters of the State of Washington (Chapter 178-201A WAC)
- Hazardous Waste Management (Chapter 70.105 RCW)
- Dangerous Waste Regulations (Chapter 173-303 WAC)
- Solid Waste Management Reduction and Recycling (Chapter 70.95 RCW)
- Washington Industrial Safety and Health Act (Chapter 49.17 RCW)
- Archaeological Sites and Resources (Chapter 27.53 RCW)
- Washington Clean Air Act (Chapter 70.94 RCW)
- State Environmental Policy Act (Chapter 43.21C RCW, Chapter 173-802 WAC, and Chapter 197-11 WAC)
- Minimum Standards for Construction and Maintenance of Wells (Chapter 173-160 WAC)
- Underground Injection Control (UIC) Program (Chapter 173-218 WAC)
- Puget Sound Clean Air Agency Regulations (<http://www.pscleanair.org>)
- Permits from local municipalities, as required, for activities at the Site; examples include City of Lynnwood demolition, tree clearing, grading, and street use or right-of-way permits.

6.2 Cleanup Standards

Cleanup actions conducted in accordance with MTCA must comply with cleanup standards for the identified COCs and affected media as well as ARARs based on federal and state laws (WAC 173-340-710). Cleanup standards for the Site include establishing CULs and the points of compliance at which those CULs will be attained in soil, groundwater, and air. The following presents a discussion of recommended cleanup levels and points of compliance for the Site based on the nature and extent of contamination and exposure risks following the Interim Action cleanup activities.

6.2.1 Cleanup Levels

Recommended CULs for affected media at the Site are:

- **Soil.** MTCA Method A CULs for unrestricted use, except where empirical demonstration is used to demonstrate protection of groundwater.
- **Groundwater.** MTCA Method A CULs for protection of drinking water as a beneficial use.
- **Air.** MTCA Method B CULs for unrestricted use, including the site-specific cleanup level for TPH (636 µg/m³; see Section 4.2). Cleanup levels may be adjusted for a commercial scenario in accordance with WAC 173-340-750, if appropriate.

6.2.2 Points of Compliance

The standard points of compliance have been selected for the Site as:

- **Soil for protection from direct contact.** Ground surface to a depth of 15 feet bgs.
- **Soil for protection of groundwater.** Throughout the Site.
- **Groundwater for protection of drinking water.** Extending vertically from the upper-most depth of the saturated zone to the lowest depth potentially affected.
- **Air for protection from inhalation.** Ambient and indoor air throughout the Site.

When it is not practicable to achieve CULs in soil at the standard points of compliance, the cleanup action may involve containment of hazardous substances. In accordance with WAC 173-340-740(6)(f), remedies involving containment may still be determined to comply with cleanup standards, provided:

1. The selected remedy is permanent to the maximum extent practicable.
2. The cleanup action is protective of human health and the environment.
3. Appropriate institutional controls, including compliance monitoring and periodic reviews, are implemented.

6.3 Areas Requiring Remediation

Following Interim Action cleanup activities, the only area of the Site not currently in compliance with these cleanup standards is the residual soil impacts in the public right-of-way to the north of the Property at a depth of approximately 4 to 9 feet bgs (Figure 2). Soil impacts remaining in the vadose zone (above the water table) in this area exceed

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unrestricted Method A CULs and pose a potential PVI risk for future redevelopment of the Property. Additionally, if the existing pavement cap is removed in the right-of-way, the residual impacts could pose a risk to construction workers through direct contact.

7 Detailed Evaluation and Selection of Remedial Alternatives

The FS considers the requirements under 173-340-350 WAC, Site-specific conditions, and the criteria defined in 173-340-360 WAC for screening and evaluation of potentially feasible remedial alternatives for the Site.

7.1 Remedial Action Objectives

Remedial action objectives (RAOs) for the Site are intended to comply with ARARs and protect human health and the environment. Based on the potential exposure pathways and areas requiring remediation at the Site, the following RAOs have been established for the remedial alternatives being considered for Site

- Protection from soil impacts in the vadose zone leaching to groundwater;
- Protection from direct contact with soil impacts; and
- Protection from inhalation of vapors from soil impacts in the vadose zone.

7.2 Identification and Evaluation of Remedial Technologies

This section identifies and screens applicable remedial technologies that may be effective cleanup action components for the Site based on the RAOs. The technologies that are retained through this screening process are used to develop the remedial alternatives in the following sections. Applicable remediation technologies for addressing the areas requiring further remediation at the Site include:

- **Institutional Controls.** Measures to limit or prohibit activities that may interfere with the integrity of a cleanup action or result in exposure to hazardous substances (e.g., limitations on the use of the Property or resources, such as an environmental covenant or maintenance requirements for engineering controls).
- **Engineering Controls.** Containment and/or mitigation systems designed to prevent or limit the movement of, or the exposure to, hazardous substances (e.g., paving/capping, vapor barriers).
- **Monitored Natural Attenuation (MNA).** Monitoring the reduction of contaminants through natural processes over time (e.g., biodegradation).
- **Soil Vapor Extraction (SVE).** Extracting contaminants in the form of soil vapor and introducing oxygen into the unsaturated zone to enhance microbial activity.
- **In Situ Chemical Oxidation (ISCO).** Injecting or mixing an oxidant, such as potassium permanganate or sodium persulfate, into the subsurface to react with and destroy contaminants.
- **In Situ Bioremediation (ISB).** Introducing oxygen (aerobic) or other electron acceptors (anaerobic) into the subsurface to stimulate microbial biodegradation of contaminants (e.g., injecting a soil amendment or bioventing).

- **Soil Excavation and Off-Site Disposal.** Removal of impacted soil, followed by off-site disposal.

These technologies are summarized and screened based on their potential effectiveness, implementability, and relative cost in Table 3. Technologies with low effectiveness or implementability were not retained for development of remedial alternatives. The technologies retained for further development as remedial alternatives are:

- Institutional Controls
- Engineering Controls
- Soil Excavation and Off-Site Disposal

7.3 Development of Remedial Alternatives

Two remedial alternatives were developed for comparison with MTCA criteria for cleanup actions using the technology retained in the initial screening:

1. Capping (engineering control) with an Environmental Covenant (institutional control)
2. Excavation and Off-Site Disposal of Soil Impacts in the right-of-way

Remedial alternatives are described in the following sections. Feasibility-level costs estimates were developed for each alternative in accordance with U.S. Environmental Protection Agency (EPA) cost estimating guidance (EPA, 2000) and professional experience with similar projects. Feasibility-level cost estimates have an inherent accuracy of +50/-30 percent by definition and should be reviewed with that in mind. Long term costs have been adjusted for net present value (NPV) using an assumed discount rate of 2 percent. Cost estimate details and assumptions are provided in Appendix D for each alternative and do not include costs already incurred for previous interim or remedial actions.

7.3.1 Alternative 1 – Excavation and Off-Site Disposal

This alternative builds on the protectiveness of Alternative 1 through the removal of soil impacts in the public right-of-way exceeding cleanup standards. Excavation and off-site disposal of soil impacts includes the following elements:

- Traffic controls for right-of-way and road closures during construction activities.
- Removal of the asphalt road and concrete sidewalk in the right-of-way to facilitate excavation activities.
- Temporary removal and replacement of public utilities in the right-of-way to facilitate shoring installation and excavations.
- Installation of shoring around the planned excavation area shown on Figure 4 to facilitate excavation activities.
- Excavation and off-site disposal of approximately 360 cubic yards (600 tons) of petroleum-contaminated soil from the area shown on Figure 4.
- Confirmation soil sampling during the excavation.

- Restoration of the roadway and sidewalk following the cleanup.
- Extensive permitting and coordination with the City of Lynnwood and utility companies is anticipated.

For cost estimating purposes, the duration of this alternative is estimated to be approximately 4 weeks of construction activities. Design and permitting are anticipated to take up to a year. The estimated cost for implementation of this alternative is \$860,000 (Table D.1; Appendix D).

7.3.2 Alternative 2 – Capping with Environmental Covenant

This alternative achieves RAOs for the Site through engineering and institutional controls and includes the following elements:

- Maintaining the existing impervious surfaces over the public right-of-way as an engineering control to effectively cap shallow soil impacts and prevent direct contact and/or leaching to groundwater.
- Placing an environmental covenant on the public right-of-way and the Property to control activities that could result in risk of exposures related to soil impacts leaching to groundwater, direct contact, or vapor intrusion (e.g., permanent removal of the impervious cap or redevelopment including structures within 30 feet of residual soil impacts).
- Periodic protectiveness monitoring to inspect the impervious surfaces acting as the cap and confirm the effectiveness of the remedy.

For cost estimating purposes, the duration of this alternative is estimated to be 30 years. The estimated cost of this alternative over this time period is \$160,000 (Table D.2; Appendix D).

7.4 Evaluation of Remedial Alternatives

This section considers the general requirements for cleanup actions under MTCA and provides a disproportionate cost analysis (DCA) to determine whether the remedial alternatives use permanent solutions to the maximum extent practicable.

7.4.1 General Cleanup Requirements

Cleanup actions selected under MTCA must meet the following 10 requirements identified in WAC 173-340-360(3)(a):

- Protect human health and the environment, including likely vulnerable populations and overburdened communities
- Comply with cleanup standards
- Comply with applicable state and federal laws
- Prevent or minimize present and future releases and migration of hazardous substances in the environment

- Provide resilience to climate change impacts that have a high likelihood of occurring and severely compromising its long-term effectiveness
- Provide for compliance monitoring
- Not relying primarily on institutional controls and monitoring at a site, or a portion thereof, if it is technically possible to implement a more permanent action
- Not relying primarily on dilution and dispersion unless the incremental costs of any active remedial measures over the costs of dilution and dispersion grossly exceed the incremental degree of benefits of active remedial measures over the benefits of dilution and dispersion
- Provide for a reasonable time frame
- Use permanent solutions to the maximum extent practicable

A summary of alternatives compared to these general cleanup requirements is provided in Table 4. Both remedial alternatives meet these requirements, pending evaluation of the DCA below.

7.4.2 Disproportionate Cost Analysis

In addition to meeting the general requirements for a cleanup action, MTCA also allows for consideration of cost in selecting a final remedy. A DCA is conducted to determine whether a cleanup action uses permanent solutions to the maximum extent practicable by comparing the relative benefits and costs of cleanup alternatives. Six criteria are considered in the evaluation, as specified in WAC 173-340-360(5)(d):

- **Protectiveness:** Overall protectiveness of human health and the environment, including the degree to which existing Site risks are reduced, time required to reduce the risks and attain cleanup standards, on-Site and off-Site risks during implementation, and improvement in overall environmental quality.
- **Permanence:** Degree to which the alternative reduces the toxicity, mobility, or volume of hazardous substances, including the adequacy of destroying hazardous substances, the reduction or elimination of hazardous substance releases and sources of releases, the degree of irreversibility of treatment, and the characteristics and quantity of the treatment residuals.
- **Long-term effectiveness:** Degree of certainty that the alternative will successfully and reliably address contamination that exceeds applicable CULs until CULs are attained, the resilience of the alternative to climate change impacts, the magnitude of the residual risk with the alternative in place, and the effectiveness of controls to manage treatment residue and remaining wastes.
- **Management of Implementation Risks:** The risks to human health and the environment during construction and implementation of the alternative, and the effectiveness of measures that will be taken to manage such risks.
- **Implementability:** The technical difficulty of designing and constructing the remedy; the availability of necessary off-Site facilities, services, and materials; administrative and regulatory requirements; scheduling, size, and complexity of the alternative; monitoring requirements; access for construction, operations, and

monitoring; and integration with existing facility operations and other current or potential remedial actions.

- **Cost:** Remedy design, construction, and long-term operation and maintenance costs to implement the alternative.

The DCA is based on a comparative evaluation of an alternative's cost against the environmental benefits represented by the other five criteria. As per WAC 173-340-360(5)(c)(iv), cost is disproportionate to benefits if the incremental cost of an alternative over that of a lower-cost alternative exceeds the incremental degree of benefits achieved by the alternative over that of the lower-cost alternative.

The DCA is summarized in Table 4 and illustrated on Figure 5. The environmental benefit is quantified by first rating the alternatives with respect to five of the six criteria discussed above (cost is not included when quantifying environmental benefit). Rating values are assigned on a scale of 1 to 10, where 1 indicates the criterion is satisfied to a very low degree, and 10 indicates the criterion is satisfied to a very high degree. Each criterion is assigned an equal "weighting factor" of 20 percent (Ecology, 2025).

- Overall protectiveness
- Permanence
- Long-term effectiveness
- Management of Implementation Risks
- Implementability

A MTCA benefits ranking is then obtained for each alternative by multiplying the five rating values by their corresponding weighting factors and summing the weighted values. Finally, the benefits ranking of each alternative is divided by the alternative's estimated cost to obtain a benefit/cost ratio, which is a relative measure of the cost-effectiveness of the alternative.

7.5 Recommended Remedial Alternative

Both remedial alternatives evaluated in this FS meet the general MTCA requirements. The results of the DCA are summarized in Table 4 and illustrated on Figure 5. Alternative 2, Capping with an Environmental Covenant, has a much higher benefit-to-cost ratio than Alternative 1, Excavation with Off-Site Disposal. The overall benefits of both alternatives are comparable, while the cost of excavation of the public right-of-way is exponentially higher. Therefore, the DCA process selected Alternative 2 (Capping with an Environmental Covenant) as the apparent permanent to the maximum extent practicable (PMEP) alternative.

8 Conclusion

Based on the results of the Interim Action and the nature and extent of residual soil impacts, active cleanup is considered complete to the extent practicable at this Site. Further excavation does not provide any appreciable benefits to human health or the environment over engineering and institutional controls to ensure ongoing protection of human health and the environment. Therefore, Alternative 2 (Capping with an Environmental Covenant) is recommended as the final remedy for the Site and is expected to satisfy the requirements of the AO and WAC 173-340-360. A Cleanup Action Plan will be prepared under separate cover detailing the final remedy for the Site.

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10 Limitations

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

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TABLES

Table 1. Confirmation Groundwater Monitoring Results

Project No. 180357, Texaco Strickland, Lynnwood, Washington

Location			MW-16				MW-17 ³				MW-18R			
			08/31/2023	11/30/2023	02/29/2024	05/30/2024	11/02/2023	11/30/2023	02/29/2024	05/30/2024	08/30/2023	11/28/2023	02/28/2024	05/29/2024
Date														
Groundwater Elevation			441.91	441.94	445.15	443.49	--	440.83	444.33	442.78	438.91	439.94	442.7	441.58
Analyte	Unit	MTCA Method A Cleanup Level ¹												
Total Petroleum Hydrocarbons														
Gasoline Range Organics	ug/L	800 1000 ²	380	490	380	320	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U
Diesel Range Organics	ug/L	500	100 X	220 X	250 X	160 X	98 X	< 50 U	64 X	53 X	< 50 U	< 50 U	< 50 U	< 50 U
Motor Oil Range Organics	ug/L	500	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U				
Diesel and Oil Extended Range Organics	ug/L	500	100 X	220 X	250 X	160 X	98 X	< 250 U	64 X	53 X	< 250 U	< 250 U	< 250 U	< 250 U
Benzene, Toluene, Ethylbenzene, and Xylenes														
Benzene	ug/L	5	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U				
Toluene	ug/L	1000	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Ethylbenzene	ug/L	700	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Total Xylenes	ug/L	1000	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U
Polycyclic Aromatic Hydrocarbons														
Naphthalene	ug/L	160	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U

Notes:

Results in **bold** indicate the analyte was detected above the laboratory reporting limit

U = Analyte not detected at or above Reporting Limit (RL) shown

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

ug/L = microgram per liter

T - Total Fraction (unfiltered) sample result

¹Model Toxics Control Act (MTCA) cleanup regulation Method A Cleanup Levels for Groundwater.

²Gasoline Range Hydrocarbons are screened against a tighter value when benzene is present in the sample.

³Monitoring well MW-17 was not sampled in August 2023 because the monument was obstructed, the well was redeveloped and sampled twice in November 2023.

⁴Monitoring well MW-27 was not sampled in August 2023 because the well was dry.

Table 1. Confirmation Groundwater Monitoring Results

Project No. 180357, Texaco Strickland, Lynnwood, Washington

Location Date			MW-19				MW-25R				MW-26			
			08/30/2023	11/28/2023	02/28/2024	05/29/2024	08/30/2023	11/28/2023	02/28/2024	05/29/2024	08/30/2023	11/28/2023	02/28/2024	05/29/2024
Groundwater Elevation			435.58	438.18	441.66	439.42	439.34	439.69	443.74	441.95	433.76	434.61	438.7	437.02
Analyte	Unit	MTCA Method A												
		Cleanup Level ¹												
Total Petroleum Hydrocarbons														
Gasoline Range Organics	ug/L	800 1000 ²	< 100 U											
Diesel Range Organics	ug/L	500	< 50 U											
Motor Oil Range Organics	ug/L	500	< 250 U											
Diesel and Oil Extended Range Organics	ug/L	500	< 250 U											
Benzene, Toluene, Ethylbenzene, and Xylenes														
Benzene	ug/L	5	< 0.35 U											
Toluene	ug/L	1000	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Ethylbenzene	ug/L	700	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Total Xylenes	ug/L	1000	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U
Polycyclic Aromatic Hydrocarbons														
Naphthalene	ug/L	160	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U

Notes:

Results in **bold** indicate the analyte was detected above the laboratory reporting limit

U = Analyte not detected at or above Reporting Limit (RL) shown

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

ug/L = microgram per liter

T - Total Fraction (unfiltered) sample result

¹Model Toxics Control Act (MTCA) cleanup regulation Method A Cleanup Levels for Groundwater.

²Gasoline Range Hydrocarbons are screened against a tighter value when benzene is present in the sample.

³Monitoring well MW-17 was not sampled in August 2023 because the monument was obstructed, the well was rede

⁴Monitoring well MW-27 was not sampled in August 2023 because the well was dry.

Table 1. Confirmation Groundwater Monitoring Results

Project No. 180357, Texaco Strickland, Lynnwood, Washington

Location			MW-27 ⁴			MW-29				MW-30			
Date			11/28/2023	02/28/2024	05/30/2024	08/30/2023	11/30/2023	02/28/2024	05/29/2024	08/30/2023	11/28/2023	02/28/2024	05/29/2024
Groundwater Elevation			433.19	437.44	433.58	440.29	441.08	443.93	442.16	439.96	440.84	443.73	441.96
Analyte	Unit	MTCA Method A Cleanup Level ¹											
Total Petroleum Hydrocarbons													
Gasoline Range Organics	ug/L	800 1000 ²	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U
Diesel Range Organics	ug/L	500	< 50 U	< 50 U	< 50 U	77 X	110 X	160 X	140 X	83 X	69 X	190 X	78 X
Motor Oil Range Organics	ug/L	500	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U
Diesel and Oil Extended Range Organics	ug/L	500	< 250 U	< 250 U	< 250 U	77 X	110 X	160 X	140 X	83 X	69 X	190 X	78 X
Benzene, Toluene, Ethylbenzene, and Xylenes													
Benzene	ug/L	5	< 0.35 U	< 0.35 U	< 0.35 U	0.52	< 0.35 U	< 0.35 U	1.6	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U
Toluene	ug/L	1000	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Ethylbenzene	ug/L	700	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Total Xylenes	ug/L	1000	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U
Polycyclic Aromatic Hydrocarbons													
Naphthalene	ug/L	160	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U

Notes:

Results in **bold** indicate the analyte was detected above the laboratory reporting limit

U = Analyte not detected at or above Reporting Limit (RL) shown

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

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²Gasoline Range Hydrocarbons are screened against a tighter value when benzene is present in the sample.

³Monitoring well MW-17 was not sampled in August 2023 because the monument was obstructed, the well was rede

⁴Monitoring well MW-27 was not sampled in August 2023 because the well was dry.

Table 1. Confirmation Groundwater Monitoring Results

Project No. 180357, Texaco Strickland, Lynnwood, Washington

Location			MW-31				MW-32			
			Date	08/30/2023	11/28/2023	02/28/2024	05/29/2024	08/31/2023	11/28/2023	02/28/2024
Groundwater Elevation			439.33	440.55	443.62	441.72	439.17	440.3	442.87	441.99
Analyte	Unit	MTCA Method A Cleanup Level ¹								
Total Petroleum Hydrocarbons										
Gasoline Range Organics	ug/L	800 1000 ²	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U
Diesel Range Organics	ug/L	500	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	83 X	< 50 U
Motor Oil Range Organics	ug/L	500	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U
Diesel and Oil Extended Range Organics	ug/L	500	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	83 X	< 250 U
Benzene, Toluene, Ethylbenzene, and Xylenes										
Benzene	ug/L	5	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U	< 0.35 U
Toluene	ug/L	1000	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Ethylbenzene	ug/L	700	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Total Xylenes	ug/L	1000	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U
Polycyclic Aromatic Hydrocarbons										
Naphthalene	ug/L	160	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U

Notes:

Results in **bold** indicate the analyte was detected above the laboratory reporting limit

U = Analyte not detected at or above Reporting Limit (RL) shown

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

ug/L = microgram per liter

T - Total Fraction (unfiltered) sample result

¹Model Toxics Control Act (MTCA) cleanup regulation Method A Cleanup Levels for Groundwater.

²Gasoline Range Hydrocarbons are screened against a tighter value when benzene is present in the sample.

³Monitoring well MW-17 was not sampled in August 2023 because the monument was obstructed, the well was rede

⁴Monitoring well MW-27 was not sampled in August 2023 because the well was dry.

Table 2. Confirmation Ventilation Sampling Results (Passive Condition)

Project No. 180357, Texaco Strickland Site, Lynnwood, Washington

				09/26/2024			12/31/2024		
Date				AMB-1	AMB-2	VS-EFF	AMB-1	AMB-2	VS-EFF
Sample Name				Outdoor Background Air	Outdoor Background Air	Passive Vent	Outdoor Background Air	Outdoor Background Air	Passive Vent
Location									
Analyte	Unit	MTCA Method B Cleanup Level for Air ⁽¹⁾	MTCA Method B Screening Level for Soil Gas ⁽³⁾						
Air-Phase Petroleum Hydrocarbons (APHs)									
C5 - C8 Aliphatic Hydrocarbons	ug/m3	--	--	100	< 100 U	200	81	86	< 75 U
C9 - C12 Aliphatic Hydrocarbons	ug/m3	--	--	43	< 25 U	67	< 25 U	34	31
C9 - C10 Aromatic Hydrocarbons	ug/m3	--	--	< 25 U	< 25 U	< 50 U	< 25 U	< 25 U	< 25 U
Petroleum-Related Volatile Organic Compounds (VOCs)									
Benzene	ug/m3	0.32	11	0.38	< 0.32 U	< 0.32 J	0.42	0.60	< 0.32 J
Toluene	ug/m3	2300	76000	< 7.5 U	< 7.5 U	< 15 U	< 7.5 U	< 7.5 U	< 15 U
Ethylbenzene	ug/m3	460	15000	< 0.43 U	< 0.43 U	< 0.87 U	< 0.43 U	< 0.43 U	< 0.87 U
Total Xylenes	ug/m3	46	1500	< 0.87 U	< 0.87 U	4.59	< 0.87 U	< 0.87 U	< 0.43 U
Naphthalene	ug/m3	0.074	2.5	0.15	0.084 J	< 0.15 J	0.073 J	0.11	< 0.15 J
Total Petroleum Hydrocarbons (TPH) ⁽⁴⁾									
Total Petroleum Hydrocarbons	ug/m3	636 ⁽²⁾	1500	160	80	305	111	94	89

Definitions:

Bold results indicate analyte was detected above laboratory reporting limit

Blue shaded results indicate the detected result exceeded the MTCA Method B Indoor Air Cleanup Level for Unrestricted Land Use

U - Analyte not detected at or above laboratory reporting limit

J - Result reported by the laboratory is an estimate

ug/m3 - micrograms per cubic meter

Notes:

(1) Model Toxics Control Act (MTCA) Method B Indoor Air Cleanup Level for Unrestricted Land Use

(2) Site-Specific TPH cleanup level calculated per Ecology Guidance for Evaluating Vapor Intrusion in Washington State (Ecology, 2022), as previously proposed and documented in Progress Report No. 23 (Aspect, 2024)

(3) MTCA Method B Soil Gas Screening Level for Unrestricted Land Use

(4) Total Petroleum Hydrocarbon results calculated as the sum total of APHs and VOCs, one-half of the laboratory reporting limit was used for non-detects

Table 3. Remedial Technology Screening

Project No. 180357, Texaco Strickland, Lynnwood, Washington

Remedial Technologies	Preliminary Technology Screening				
	Description	Effectiveness	Implementability	Relative Cost	Screening Result
Institutional Controls (ICs)	Measures undertaken to limit or prohibit activities that may interfere with the integrity of the cleanup action or that may result in exposure to hazardous substances at a site. Most commonly, ICs are recorded as Environmental Covenants with the property deed.	High Effective at preventing unacceptable exposures to contamination, does not reduce contaminant mass.	High Readily implementable.	Low	Retained
Engineering Controls (ECs)	Containment and/or mitigation systems designed to prevent or limit the movement of, or the exposure to, hazardous substances (e.g., paving/capping, vapor barriers).	High Capping would be effective at preventing unacceptable exposures to contamination, does not reduce contaminant mass.	High Readily implementable. The public right-of-way is already capped with an impervious surface (road and sidewalk).	Low	Retained
Monitored Natural Attenuation (MNA)	Monitoring the reduction of contaminants through natural processes over time (e.g., biodegradation, dispersion, and dilution).	Low Extended restoration time frame, more effective for groundwater impacts than vadose zone soil.	Moderate Would require periodic drilling in the public right-of-way and around subsurface utilities to monitor soil quality over time	Moderate	Not Retained
Soil Vapor Extraction (SVE)	Extracting contaminants in the form of soil vapor and introducing oxygen into the unsaturated zone to enhance microbial activity. Extracted vapors are typically treated using activated carbon via adsorption or destruction via thermal oxidation.	Moderate Provides treatment of vadose zone soil impacts. Full treatment limited by heterogeneous soils and preferential pathways or short-circuiting of air flow through fill materials and gravel surface on Property.	Low Not considered realistic to install permanent SVE wells and piping within public right-of-way. Requires an above ground equipment footprint.	Moderate to High	Not Retained
In Situ Chemical Oxidation (ISCO)	Injecting or mixing an oxidant, such as potassium permanganate or sodium persulfate, into the subsurface to react with and destroy contaminants.	Low to Moderate Provides treatment of soil impacts, distribution of amendments typically more effective below the water table. Full treatment would be limited by preferential pathways or short-circuiting of injected amendments through fill material and utility corridors.	Low Shallow treatment area would be prone to short-circuiting and surfacing of injected amendments. Dense native soil outside of fill materials on the Property are not suitable for injections and soil mixing is not feasible around utilities. Oxidants may not be compatible with utilities present in public right-of-way.	Moderate to High	Not Retained
In Situ Bioremediation (ISB)	Introducing oxygen (aerobic) or other electron acceptors (anaerobic) into the subsurface to stimulate microbial biodegradation of contaminants (e.g., injecting a soil amendment or bioventing).	Low to Moderate Same effectiveness limitations as SVE and ISCO	Low Same implementability concerns as SVE and ISCO	Moderate to High	Not Retained
Soil Excavation and Off-Site Disposal	Impacted soil is excavated and transported off-site for disposal.	High Provides fastest and most reliable treatment through removal of impacted soils from the Property.	Moderate Implementability challenges include subsurface utilities, adjacent road, and right-of-way access. Highly invasive technique would create significant disturbance of the affected area below road.	High	Retained

Notes:

Green shading - technology retained for further consideration

Red shading - technology not retained for further consideration

Table 4. Disproportionate Cost Analysis
 Project No. AS180357, Texaco Strickland, Lynnwood, Washington

Remedial Alternatives		Alternative 1 - Soil Excavation and Off-Site Disposal	Alternative 2 - Engineering and Institutional Controls
Description of Alternatives			
Common Elements		Completed Remedial Actions: Excavation of 14,437 tons of contaminated soil and disposal off-site during interim action.	
Additional Remedial Actions	Excavation of petroleum-contaminated soil to 12 feet below ground surface in the area proximal to the 196th St SW right-of-way.	Installation of engineering and institutional controls including environmental covenant and a permanent soil cap, assumed to be placed during planned property redevelopment.	
Contingency Actions	Implementation of engineering and institutional controls including environmental covenant and a permanent soil cap, assumed to be placed during planned property redevelopment.	No planned contingency actions.	
Evaluation of Alternatives			
General Criteria	Protection of Human Health and the Environment	Yes – Alternative will protect human health and the environment, including protection of vulnerable populations and overburdened communities.	Yes – Alternative will protect human health and the environment, including protection of vulnerable populations and overburdened communities.
	Compliance with Cleanup Standards	Yes – Cleanup standards will be achieved for all alternatives.	Yes – Cleanup standards will be achieved for all alternatives.
	Compliance with Applicable State and Federal Laws	Yes – Compliance with applicable laws will be ensured through obtaining required permits and meeting the substantive requirements of exempt Federal, State, and local permits	Yes – Compliance with applicable laws will be ensured through obtaining required permits and meeting the substantive requirements of exempt Federal, State, and local permits
	Prevent or Minimize Present and Future Releases and Migration of Hazardous Substances in the Environment	Yes - contaminant migration controlled by prior and proposed remedial actions.	Yes - contaminant migration controlled by prior remedial actions.
	Provide Resilience to Climate Change	Yes - climate change is not anticipated to impact performance of this alternative.	Yes - Climate change is not anticipated to impact performance of this alternative.
	Provision for Compliance Monitoring	Yes – Alternative includes provisions for compliance groundwater monitoring.	Yes - Alternative includes provisions for compliance monitoring through period inspections of the soil cap.
	Not Rely Primarily on Institutional Controls and Monitoring	Yes - Alternative includes significant prior active remediation and additional planned treatment to achieve objectives.	Yes - Alternative includes significant prior active remediation to the practicable limits as a result of the interim action.
	Not Rely Primarily on Dilution or Dispersion	Yes - Alternative does not rely on dilution or dispersion.	Yes - Alternative does not rely on dilution or dispersion.
Criteria to Evaluate Use of Permanent Solutions to the Maximum Extent Practicable	Protectiveness (20% weighting factor)	Similar to Alternative 1, exposure pathways can be reliably controlled during the restoration timeframe. This alternative will provide additional protectiveness in the short-term through removal of shallow contaminated soil. 9	This alternative includes an environmental covenant which will impose restrictions on the property to manage environmental risks. The environmental covenant will serve as an institutional control to protect human health and the environmental in the event of future construction or redevelopment on the Site. 7
	Permanence (20% weighting factor)	This alternative permanently removes soil contamination exceeding cleanup standards from the Site through excavation and disposal to a landfill. 9	This alternative includes significant prior active remediation to the extent practicable as part of the interim action. The existing impervious cap will serve as a permanent engineering control prevent soil impacts leaching to groundwater. 7
	Long-Term Effectiveness (20% weighting factor)	Shallow excavation will increase long-term effectiveness at achieving cleanup standards; however, landfill disposal is considered less effective than destruction/treatment. 9	The addition of a cap will serve as a long-term engineering control to protect human health and the environment. The environmental covenant will serve as a long-term protective administrative measure to establish clear rules for any future transfer of ownership or redevelopment. 7
	Management of Implementation Risks (20% weighting factor)	There is a moderate short-term health and safety risk associated with excavations deeper than 4 feet and working in the right-of-way. The implementation of shoring will be required in order to be protective of worker's safety due to the depth contaminated soil. Traffic controls and closure of portions of the road and sidewalk will also be required for protection of the public and workers. 7	There is no short-term risk to human health or the environment due to significant prior active remediation as part of the interim action. 10
	Implementability (20% weighting factor)	Implementability challenges include subsurface utilities, adjacent road, and right-of-way access. Highly invasive technique would create significant disturbance of the affected area below road. 7	Highly implementable 10
MTCA Benefits Ranking⁽²⁾		8.2	8.2
Estimated Cost⁽³⁾		\$860,000	\$160,000
Benefit/Cost Ratio⁽⁴⁾		0.95	5.13

Notes:

MTCA = Model Toxics Control Act

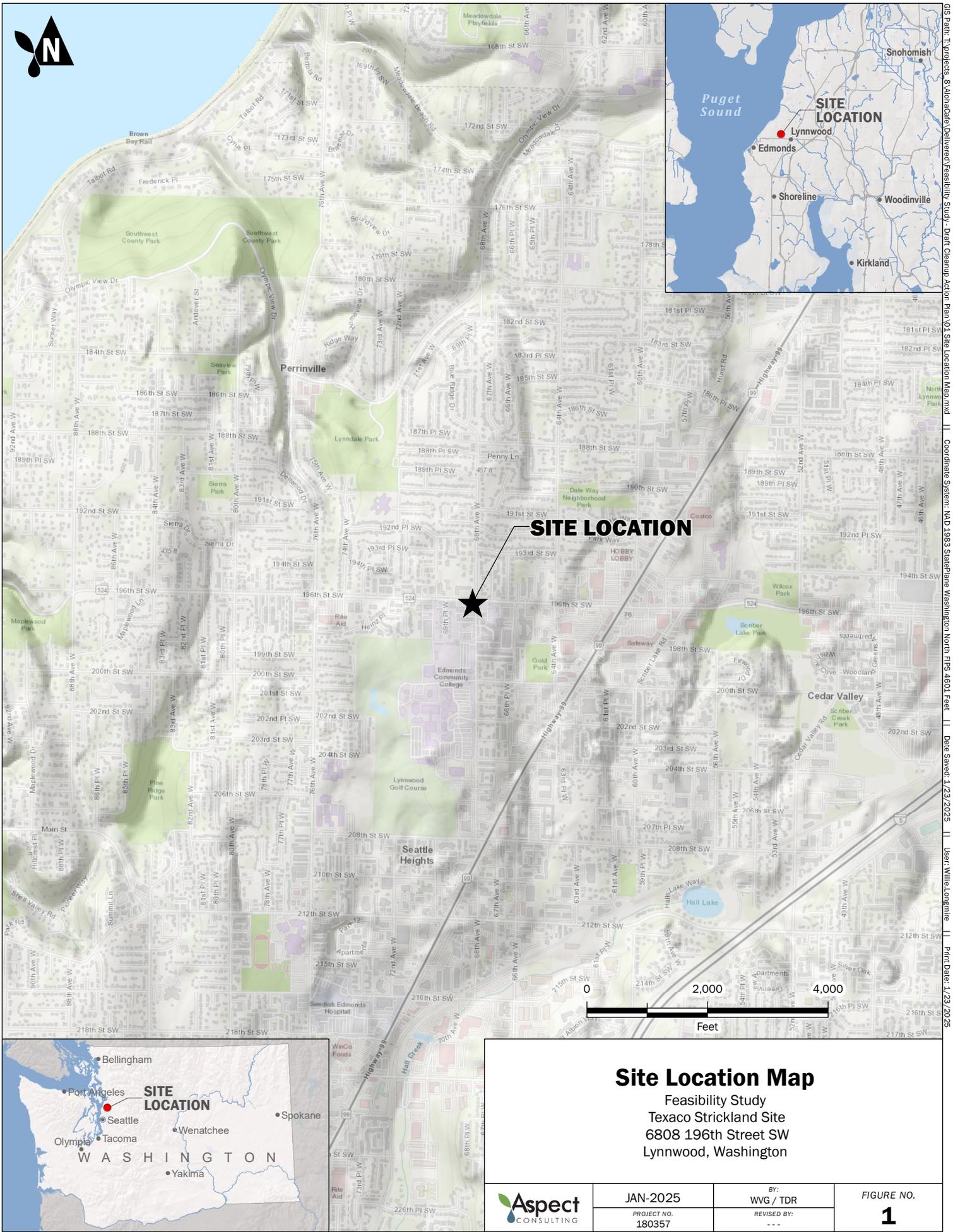
1) A numeric scale of 1 to 10 is used to rate the alternatives with respect to the criteria to evaluate use of permanent solutions to the maximum extent practicable, where 1 is low and 10 is high.

2) The MTCA benefits ranking is obtained by multiplying the rating for each criterion by its weighting factor, and summing the results for the six criteria.

3) Costs are Net Present Value in 2025 dollars based on a 2% discount rate. The costs shown are rounded to three significant figures.

4) The benefit/cost ratio is obtained by dividing the alternative's MTCA benefits ranking by its estimated cost (in \$NPV million).

FIGURES



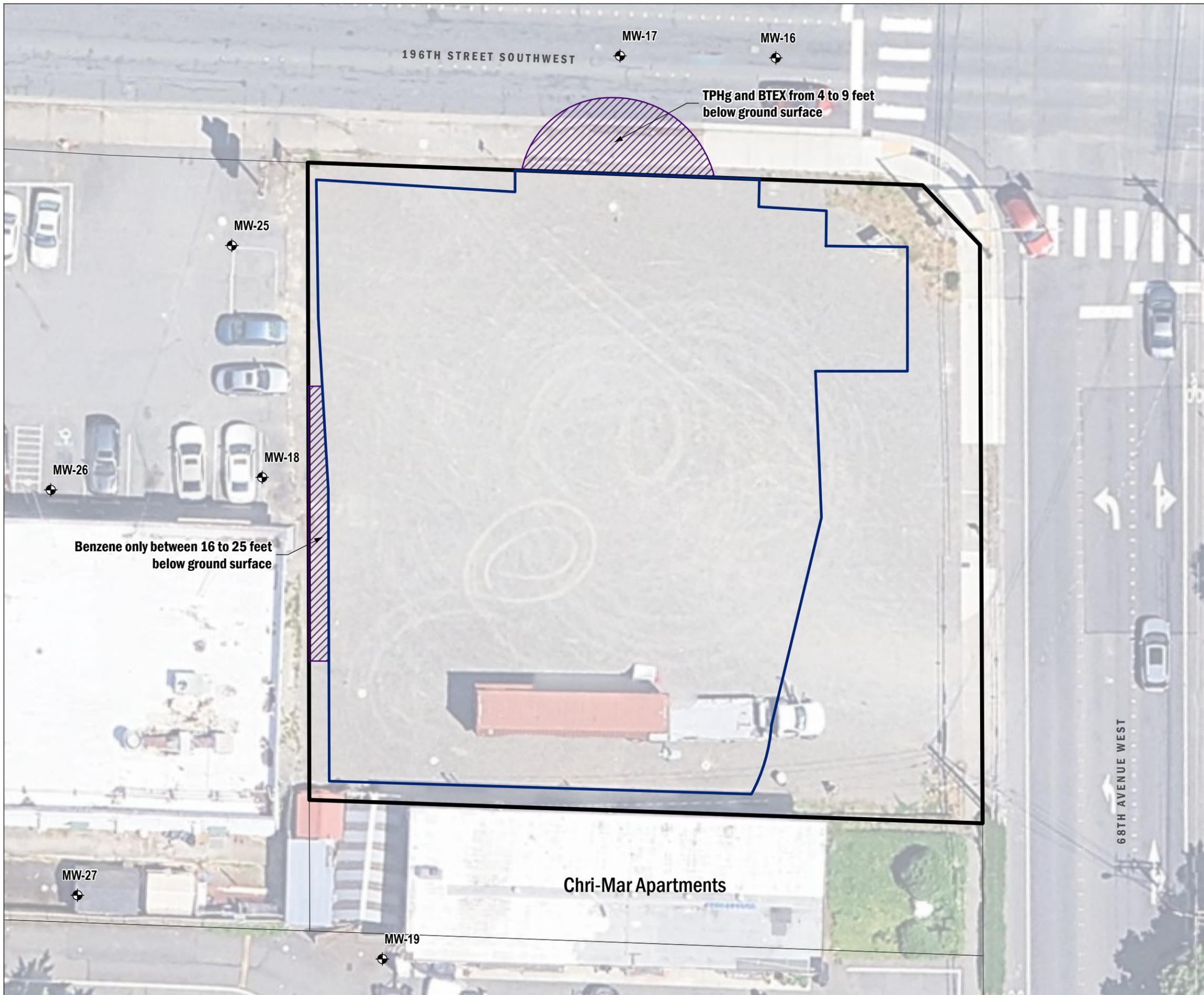
Site Location Map

Feasibility Study
 Texaco Strickland Site
 6808 196th Street SW
 Lynnwood, Washington

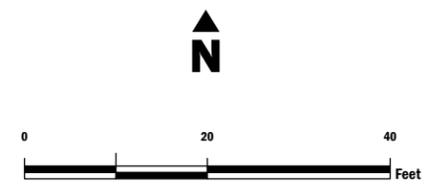
	JAN-2025	BY: WVG / TDR	FIGURE NO. 1
	PROJECT NO. 180357	REVISED BY: ---	

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

GIS Path: I:\Projects - Silvachache (Deliverables\Facilities_Study - Draft Cleanup Action Plan\03_Site Location Map.mxd | Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet | Date Saved: 1/23/2025 | User: Willie Longmire | Print Date: 1/23/2025



-  Existing Monitoring Well
-  Extents of Soil Exceeding Cleanup Levels
-  Previous Interim Action Excavation Area
-  Property Boundary
-  Snohomish County Tax Parcel



**Extent of Post-Interim Action
Soil Impacts**

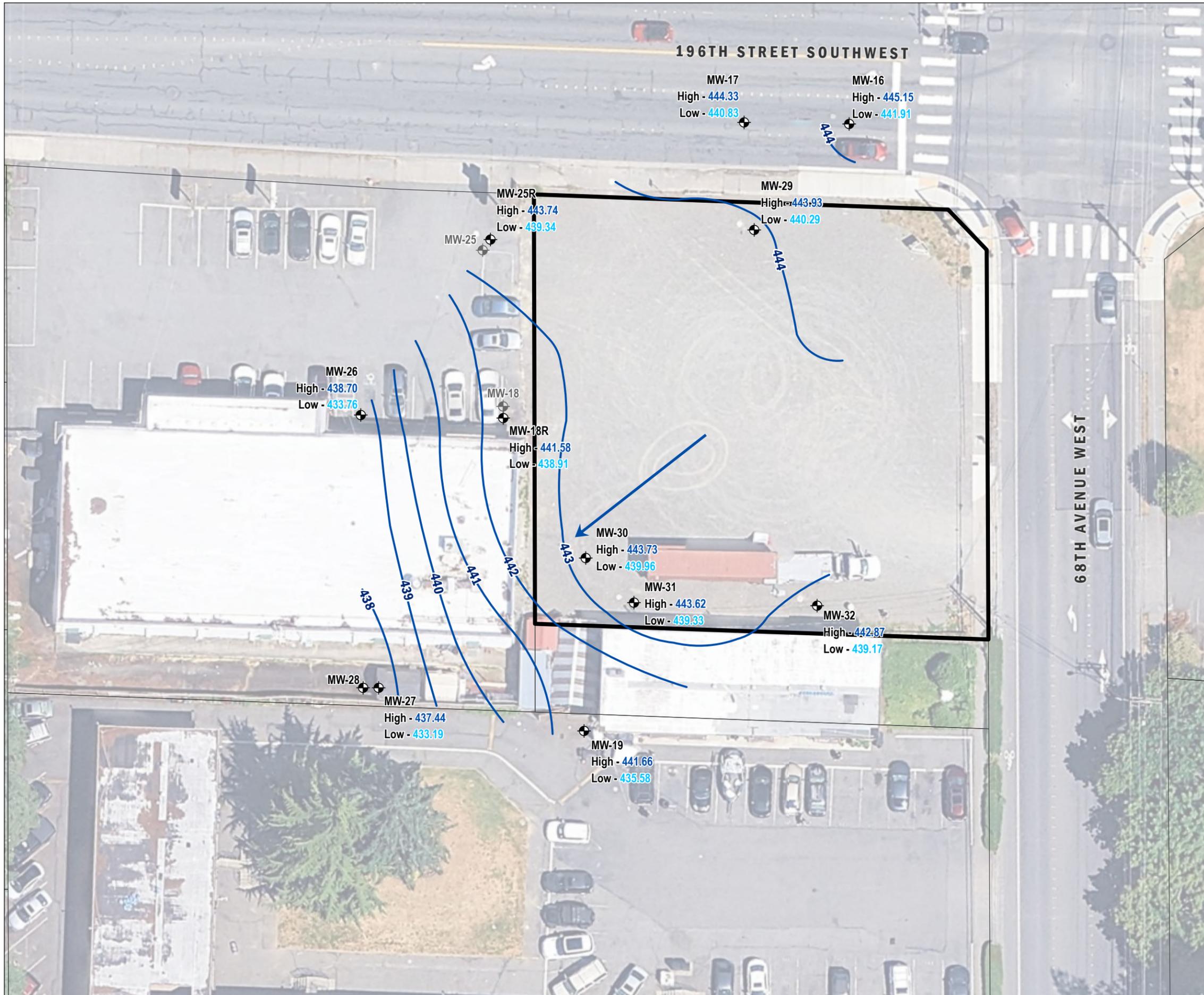
Feasibility Study
 Texaco Strickland Site
 6808 196th Street SW
 Lynnwood, Washington



APR-2025
 PROJECT NO.
 180357

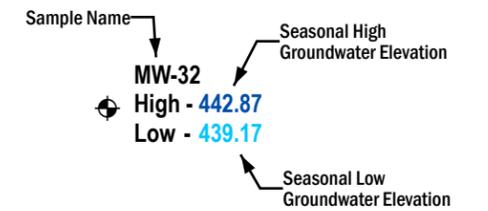
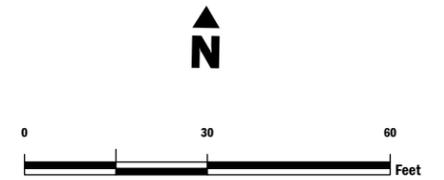
BY:
 DRB / HMD
 REVISED BY:
 --- / ---

FIGURE NO.
2



- Monitoring Well (Existing)
- Monitoring Well (Decommissioned)
- Groundwater Contour
- Flow Direction
- Subject Property
- Snohomish County Tax Parcel

Note:
- Groundwater contours based on February 2024 monitoring event



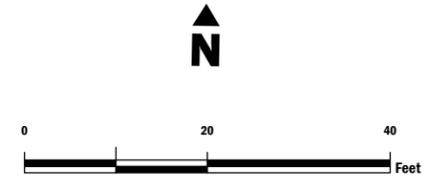
Confirmation Groundwater Monitoring Locations and Flow Direction

Feasibility Study
Texaco Strickland Site
6808 196th Street SW
Lynnwood, Washington

	APR-2025	BY: DRB / NLK	FIGURE NO. 3
	PROJECT NO. AS180357A	REVISED BY: HMD	



-  Existing Monitoring Well
-  Proposed Excavation Area
Area - 800 sq. ft. to 12 ft bgs
-  Previous Interim Action Excavation Area
-  Property Boundary



Alternative 1 Conceptual Excavation Extents

Feasibility Study
Texaco Strickland Site
6808 196th Street SW
Lynnwood, Washington

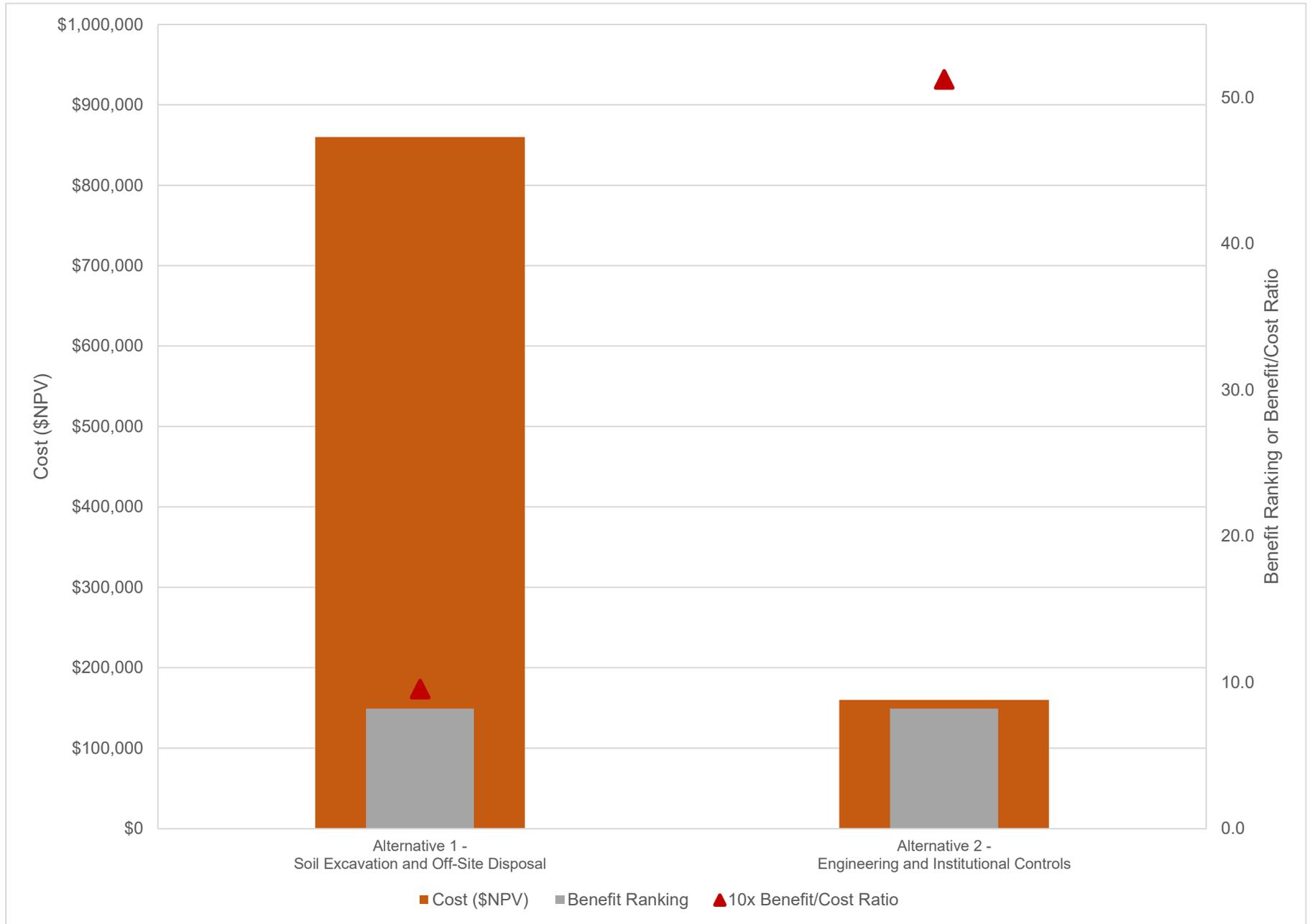


Figure 5. Disproportionate Cost Analysis Summary

APPENDIX A

Boring Logs and Well Completion Diagrams

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

MC	=	Natural Moisture Content	GEOTECHNICAL LAB TESTS
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	

Organic Chemicals			CHEMICAL LAB TESTS
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)	

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

Descriptive Term	Size Range and Sieve Number	COMPONENT DEFINITIONS
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)	

% by Weight	Modifier	% by Weight	Modifier	ESTIMATED¹ PERCENTAGE
<1	=	Subtrace	15 to 25 = Little	
1 to <5	=	Trace	30 to 45 = Some	
5 to 10	=	Few	>50 = Mostly	

Dry	=	Absence of moisture, dusty, dry to the touch	MOISTURE CONTENT
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	

Non-Cohesive or Coarse-Grained Soils			RELATIVE DENSITY
Density³	SPT² 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"	

Cohesive or Fine-Grained Soils			CONSISTENCY
Consistency³	SPT² 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

	Exploration Log Key
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AI Path: C:\ACAD Standards\FIELD REFERENCE\MASTERS\Exploration Log Key-2018.a1 // user: jinman // last saved: 12/31/2018



Aloha Cafe - 180357

Monitoring Well Log

Project Address & Site Specific Location
6808 196th Street Southwest, Lynwood, Washington, 98036, SE corner of 6820 parking lot

Coordinates (SPN NAD83 ft)
E: 1273797.02 N: 303043.18

Exploration Number

MW-18R
Ecology Well Tag No. BNL 888

Contractor
Holt Services

Equipment
Mobile B57

Sampling Method
Autohammer; 140 lb hammer; 30" drop

Ground Surface Elev. (NAVD88)
449.51'

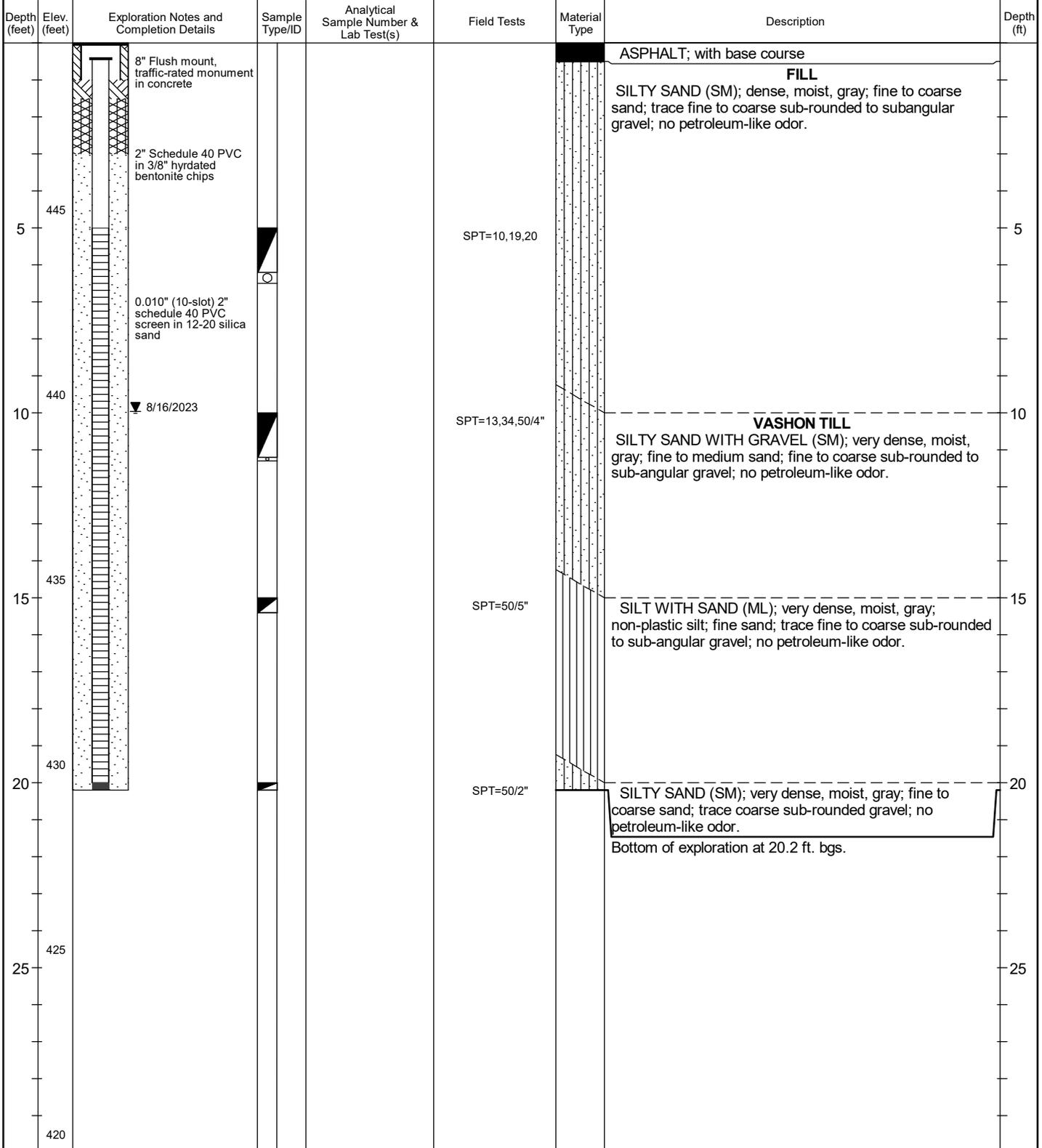
Operator
Abe Causland

Exploration Method(s)
8.5" OD X 4.25" ID Hollow-Stem Auger

Work Start/Completion Dates
8/15/2023

Top of Casing Elev. (NAVD88)
449.26'

Depth to Water (Below GS)
9.96' (Static)



NEW STANDARD EXPLORATION LOG TEMPLATE P:\GINT\PROJECTS\180357 ALOHA CAFE1.GPJ April 11, 2025

Legend

- ☐ No Soil Sample Recovery
- ▣ Split Barrel 2" X 1.375" (SPT)

Water Level
▼ Static Water Level

See Exploration Log Key for explanation of symbols

Logged by: CMT
Approved by: DRB

Exploration Log MW-18R



Aloha Cafe - 180357

Monitoring Well Log

Project Address & Site Specific Location
6808 196th Street Southwest, Lynwood, Washington, 98036, NE corner of 6820 parking lot

Coordinates (SPN NAD83 ft)
E: 1273793.08 N: 303098.26

Exploration Number

MW-25R
Ecology Well Tag No. BNL 883

Contractor
Holt Services

Equipment
Mobile B57

Sampling Method
Autohammer; 140 lb hammer; 30" drop

Ground Surface Elev. (NAVD88)
450.52'

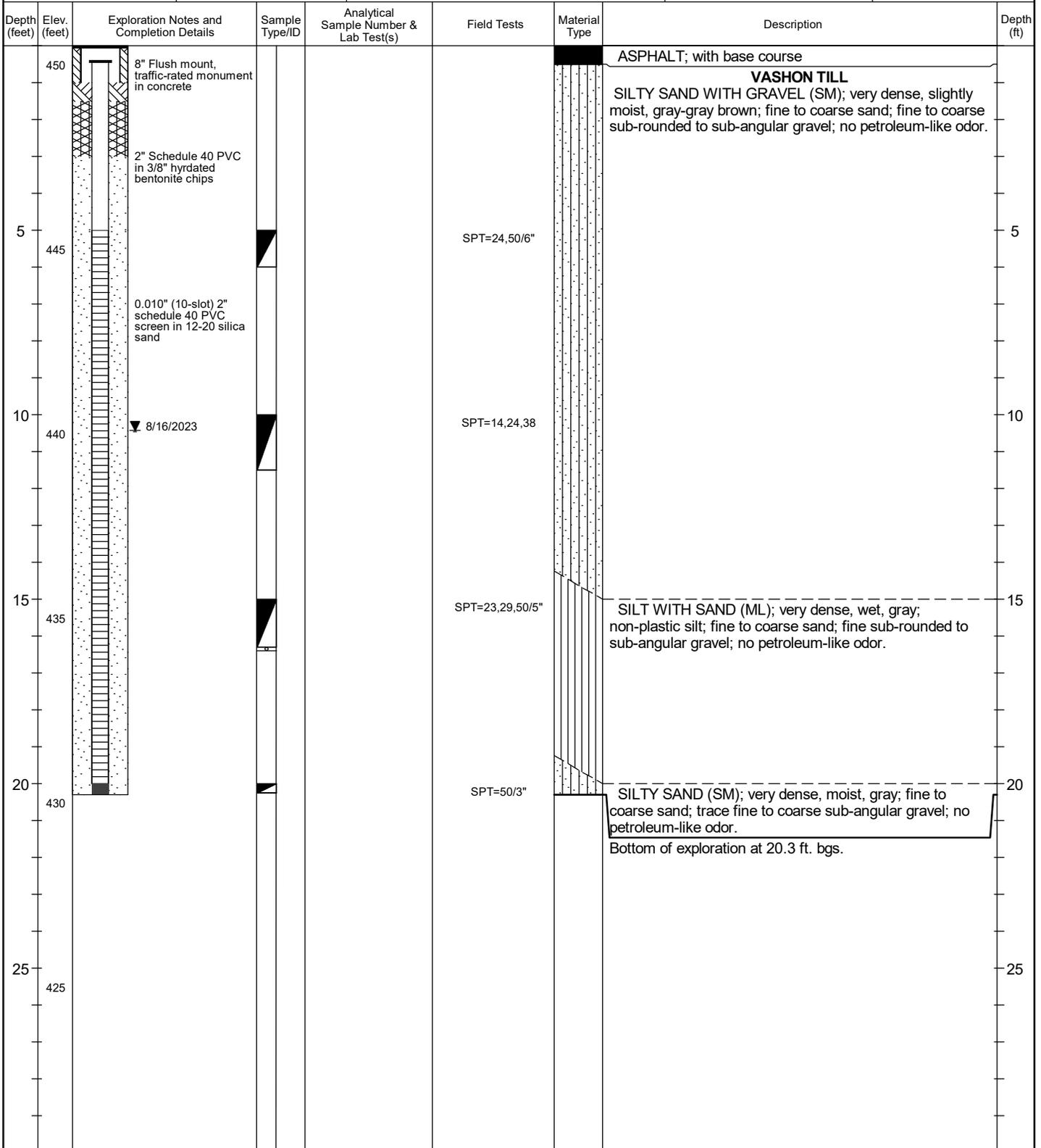
Operator
Abe Causland

Exploration Method(s)
8.5" OD X 4.25" ID Hollow-Stem Auger

Work Start/Completion Dates
8/15/2023

Top of Casing Elev. (NAVD88)
450.19'

Depth to Water (Below GS)
10.42' (Static)



Legend

- ☐ No Soil Sample Recovery
- ▣ Split Barrel 2" X 1.375" (SPT)

▼ Static Water Level

Water Level

See Exploration Log Key for explanation of symbols

Logged by: CMT
Approved by: DRB

Exploration Log
MW-25R

Sheet 1 of 1

NEW STANDARD EXPLORATION LOG TEMPLATE P:\GINT\PROJECTS\180357 ALOHA CAFE1.GPJ April 11, 2025



Aloha Cafe - 180357

Monitoring Well Log

Project Address & Site Specific Location
6808 196th Street Southwest, Lynwood, Washington, 98036, North side of
6808 excavated area, along 196th St

Coordinates (SPN NAD83 ft)

Exploration Number

E:1273874.53 N:303101.17

MW-29

Contractor

Equipment

Sampling Method

Ground Surface Elev. (NAVD88)

Holt Services

Mobile B57

Autohammer; 140 lb hammer; 30" drop

450.57'

Ecology Well Tag No.
BNL 884

Operator

Exploration Method(s)
8.5" OD X 4.25" ID
Hollow-Stem Auger

Work Start/Completion Dates

Top of Casing Elev. (NAVD88)

Depth to Water (Below GS)
9.42' (ATD)
9.48' (Static)

Abe Causland

8/14/2023

450.24'

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)
450		8" Flush mount, traffic-rated monument in concrete					FILL GRAVEL WITH SILT AND SAND (GP-GM); medium dense, very moist, gray; fine sand; fine to coarse sub-rounded gravel; no petroleum-like odor.	
5		2" Schedule 40 PVC in 3/8" hydrated bentonite chips			SPT=15,32,32			5
445		0.010" (10-slot) 2" schedule 40 PVC screen in 12-20 silica sand						
10		8/14/2023 8/15/2023			SPT=8,10,12			10
15					SPT=8,13,14		GRAVEL WITH SAND (GP); medium dense, wet, gray; fine to medium sand; fine to coarse gravel; no petroleum-like odor. GRAVEL WITH SILT AND SAND (GP-GM); medium dense, wet, gray; fine to coarse sub-rounded gravel; no petroleum-like odor.	15
20					SPT=1,2,3		GRAVEL WITH SILT (GP-GM); very loose, wet, gray; fine to coarse sub-rounded gravel; no petroleum-like odor.	20
25					SPT=50/2"		VASHON TILL GRAVEL WITH SILT (GP-GM); very dense, very moist, gray; fine sub-rounded gravel; no petroleum-like odor. Bottom of exploration at 20.5 ft. bgs.	25

Legend

- ☐ No Soil Sample Recovery
- ▣ Split Barrel 2" X 1.375" (SPT)

Water Level

- ▼ Static Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: CMT
Approved by: DRB

**Exploration Log
MW-29**



Aloha Cafe - 180357

Monitoring Well Log

Project Address & Site Specific Location
 6808 196th Street Southwest, Lynwood, Washington, 98036, SW corner of
 6808 excavated area next to China Cafe

Coordinates (SPN NAD83 ft)
 E: 1273822.52 N: 303000.15

Exploration Number

MW-30

Contractor

Holt Services

Equipment

Mobile B57

Sampling Method

Autohammer; 140 lb hammer; 30" drop

Ground Surface Elev. (NAVD88)

449.4'

Operator

Abe Causland

Exploration Method(s)

8.5" OD X 4.25" ID
 Hollow-Stem Auger

Work Start/Completion Dates

8/15/2023

Top of Casing Elev. (NAVD88)

449.02'

Depth to Water (Below GS)

8.65' (Static)
 12.1' (ATD)

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 mount, traffic-rated monument in concrete					FILL SILTY SAND WITH GRAVEL (SM); dense, moist, gray brown; fine to coarse sand; fine to coarse sub-rounded to sub-angular gravel; no petroleum-like odor.	
5	445	2" Schedule 40 PVC in 3/8" hydrated bentonite chips			SPT=8,20,22			5
10	440	0.010" (10-slot) 2" schedule 40 PVC screen in 12-20 silica sand ▼ 8/15/2023			SPT=6,11,10			10
15	435	▽ 8/15/2023			SPT=14,18,21		SAND WITH SILT AND GRAVEL (SP-SM); dense, very moist, gray; fine to coarse sand; fine to coarse sub-rounded to sub-angular gravel; no petroleum-like odor.	15
20	430				SPT=50/5"		VASHON TILL SILT WITH SAND (ML); very dense, very moist, gray; fine sand; trace sub-rounded gravel; no petroleum-like odor. Bottom of exploration at 20.5 ft. bgs.	20
25	425							25
420								

Legend

- ☐ No Soil Sample Recovery
- ▣ Split Barrel 2" X 1.375" (SPT)

Water Level

- ▼ Static Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: CMT
 Approved by: DRB

Exploration Log
MW-30



Aloha Cafe - 180357

Monitoring Well Log

Project Address & Site Specific Location
6808 196th Street Southwest, Lynwood, Washington, 98036, SW corner of 6808 excavated area north of apartment complex

Coordinates (SPN NAD83 ft)
E: 1273837.40 N: 302986.36
Ground Surface Elev. (NAVD88)
448.77'

Exploration Number
MW-31
Ecology Well Tag No.
BNL 886
Depth to Water (Below GS)
8.57' (Static)
19.51' (ATD)

Contractor: Holt Services
Equipment: Mobile B57
Sampling Method: Autohammer; 140 lb hammer; 30" drop

Operator: Abe Causland
Exploration Method(s): 8.5" OD X 4.25" ID Hollow-Stem Auger
Work Start/Completion Dates: 8/14/2023
Top of Casing Elev. (NAVD88): 448.36'

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 mount, traffic-rated monument in concrete					FILL SILTY SAND WITH GRAVEL (SM); medium dense, slightly moist, gray; fine to coarse sand; fine to coarse sub-rounded gravel; no petroleum-like odor.	
5	445	2" Schedule 40 PVC in 3/8" hydrated bentonite chips			SPT=7,7,19			5
10	440	0.010" (10-slot) 2" schedule 40 PVC screen in 12-20 silica sand ▼ 8/15/2023			SPT=5,9,22		SILTY SAND (SM); dense, moist, gray; fine to coarse sand; trace fine to coarse sub-rounded gravel; no petroleum-like odor.	10
15	435				SPT=25, 50/6"		VASHON TILL SILTY SAND (SM); very dense, moist, gray; fine to coarse sand; trace fine to coarse sub-rounded gravel; no petroleum-like odor.	15
20	430	▼ 8/14/2023			SPT=50/5"		Bottom of exploration at 20.5 ft. bgs.	20
25	425							25
	420							

Legend

- ☐ No Soil Sample Recovery
- ▣ Split Barrel 2" X 1.375" (SPT)

Water Level

- ▼ Static Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: CMT
Approved by: DRB

Exploration Log MW-31

NEW STANDARD EXPLORATION LOG TEMPLATE P:\GINT\PROJECTS\180357 ALOHA CAFE1.GPJ April 11, 2025



Aloha Cafe - 180357

Monitoring Well Log

Project Address & Site Specific Location
 6808 196th Street Southwest, Lynwood, Washington, 98036, SE corner of
 6808 excavated area north of apartment complex

Coordinates (SPN NAD83 ft)

Exploration Number

E: 1273893.93 N: 302985.42

MW-32

Contractor

Equipment

Sampling Method

Ground Surface Elev. (NAVD88)

Holt Services

Mobile B57

Autohammer; 140 lb hammer; 30" drop

448.16'

Ecology Well Tag No.
BNL 885

Operator

Exploration Method(s)
8.5" OD X 4.25" ID
Hollow-Stem Auger

Work Start/Completion Dates

Top of Casing Elev. (NAVD88)

Depth to Water (Below GS)
8.3' (Static)
8.43' (Static)

8/14/2023

447.88'

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 mount, traffic-rated monument in concrete					FILL SILTY SAND (SM); loose, moist, dark gray to gray; fine sand; trace fine to coarse sub-rounded gravel; no petroleum-like odor.	
5	445	2" Schedule 40 PVC in 3/8" hydrated bentonite chips			SPT=3,1,5			5
10	440	0.010" (10-slot) 2" schedule 40 PVC screen in 12-20 silica sand 8/15/2023 8/14/2023			SPT=13,18,22		SILTY SAND (SM); dense, moist, gray; fine sand; trace fine to coarse sub-rounded gravel; no petroleum-like odor.	10
15	435				SPT=50/4"		VASHON TILL SILTY SAND (SM); very dense, wet, gray; fine to medium sand; trace fine-coarse sub-rounded gravel; no petroleum-like odor.	15
20	430				SPT=50/3"		Bottom of exploration at 20.5 ft. bgs.	20
25	425							25
	420							

Legend

- ☐ No Soil Sample Recovery
- ▣ Split Barrel 2" X 1.375" (SPT)

Water Level

▼ Static Water Level

See Exploration Log Key for explanation of symbols

Logged by: CMT
Approved by: DRB

Exploration Log MW-32

Sheet 1 of 1

NEW STANDARD EXPLORATION LOG TEMPLATE P:\GINT\PROJECTS\180357 ALOHA CAFE\1.GPJ April 11, 2025

APPENDIX B

Laboratory Analytical Reports - Groundwater

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

September 11, 2023

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

Dear Mr Babcock:

Included are the results from the testing of material submitted on August 31, 2023 from the Texaco-Strickland 180357, F&BI 308491 project. There are 17 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
ASP0911R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on August 31, 2023 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Texaco-Strickland 180357, F&BI 308491 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Aspect Consulting, LLC</u>
308491 -01	MW-18R-083023
308491 -02	MW-25R-083023
308491 -03	MW-26-083023
308491 -04	MW-29-083023
308491 -05	MW-19-083023
308491 -06	MW-30-083023
308491 -07	MW-31-083023
308491 -08	MW-16-083023
308491 -09	MW-32-083023
308491 -10	Trip Blank

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 09/09/23

Date Received: 08/31/23

Project: Texaco-Strickland 180357, F&BI 308491

Date Extracted: 09/05/23

Date Analyzed: 09/05/23

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES
FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
USING METHOD NWTPH-G_x**
Results Reported as ug/L (ppb)

<u>Sample ID</u> Laboratory ID	<u>Gasoline Range</u>	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 50-150)
MW-18R-083023 308491-01	<100	97
MW-25R-083023 308491-02	<100	95
MW-26-083023 308491-03	<100	99
MW-29-083023 308491-04	<100	101
MW-19-083023 308491-05	<100	100
MW-30-083023 308491-06	<100	102
MW-31-083023 308491-07	<100	98
MW-16-083023 308491-08	380	103
MW-32-083023 308491-09	<100	100
Method Blank 03-2071 MB	<100	100

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 09/09/23
 Date Received: 08/31/23
 Project: Texaco-Strickland 180357, F&BI 308491
 Date Extracted: 09/01/23
 Date Analyzed: 09/01/23

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES
 FOR TOTAL PETROLEUM HYDROCARBONS AS
 DIESEL AND MOTOR OIL
 USING METHOD NWTPH-D_x**
 Results Reported as ug/L (ppb)

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C ₁₀ -C ₂₅)	<u>Motor Oil Range</u> (C ₂₅ -C ₃₆)	<u>Surrogate</u> (% Recovery) (Limit 50-150)
MW-18R-083023 308491-01	<50	<250	90
MW-25R-083023 308491-02	<50	<250	90
MW-26-083023 308491-03	<50	<250	87
MW-29-083023 308491-04	77 x	<250	91
MW-19-083023 308491-05	<50	<250	82
MW-30-083023 308491-06	83 x	<250	90
MW-31-083023 308491-07	<50	<250	103
MW-16-083023 308491-08	100 x	<250	91
MW-32-083023 308491-09	<50	<250	87
Method Blank 03-2065 mb2	<50	<250	90

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-18R-083023	Client:	Aspect Consulting, LLC
Date Received:	08/31/23	Project:	Texaco-Strickland 180357
Date Extracted:	09/06/23	Lab ID:	308491-01
Date Analyzed:	09/06/23	Data File:	090634.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	LM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	78	126
Toluene-d8	98	84	115
4-Bromofluorobenzene	102	72	130

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-25R-083023	Client:	Aspect Consulting, LLC
Date Received:	08/31/23	Project:	Texaco-Strickland 180357
Date Extracted:	09/06/23	Lab ID:	308491-02
Date Analyzed:	09/06/23	Data File:	090635.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	LM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	78	126
Toluene-d8	99	84	115
4-Bromofluorobenzene	101	72	130

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-26-083023	Client:	Aspect Consulting, LLC
Date Received:	08/31/23	Project:	Texaco-Strickland 180357
Date Extracted:	09/06/23	Lab ID:	308491-03
Date Analyzed:	09/06/23	Data File:	090636.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	LM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	78	126
Toluene-d8	98	84	115
4-Bromofluorobenzene	100	72	130

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-29-083023	Client:	Aspect Consulting, LLC
Date Received:	08/31/23	Project:	Texaco-Strickland 180357
Date Extracted:	09/06/23	Lab ID:	308491-04
Date Analyzed:	09/06/23	Data File:	090637.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	LM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	96	78	126
Toluene-d8	101	84	115
4-Bromofluorobenzene	102	72	130

Compounds:	Concentration ug/L (ppb)
Benzene	0.52
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-19-083023	Client:	Aspect Consulting, LLC
Date Received:	08/31/23	Project:	Texaco-Strickland 180357
Date Extracted:	09/06/23	Lab ID:	308491-05
Date Analyzed:	09/06/23	Data File:	090638.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	LM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	96	78	126
Toluene-d8	96	84	115
4-Bromofluorobenzene	99	72	130

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-30-083023	Client:	Aspect Consulting, LLC
Date Received:	08/31/23	Project:	Texaco-Strickland 180357
Date Extracted:	09/06/23	Lab ID:	308491-06
Date Analyzed:	09/06/23	Data File:	090639.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	LM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	78	126
Toluene-d8	99	84	115
4-Bromofluorobenzene	101	72	130

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-31-083023	Client:	Aspect Consulting, LLC
Date Received:	08/31/23	Project:	Texaco-Strickland 180357
Date Extracted:	09/06/23	Lab ID:	308491-07
Date Analyzed:	09/06/23	Data File:	090640.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	LM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	78	126
Toluene-d8	95	84	115
4-Bromofluorobenzene	101	72	130

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-16-083023	Client:	Aspect Consulting, LLC
Date Received:	08/31/23	Project:	Texaco-Strickland 180357
Date Extracted:	09/06/23	Lab ID:	308491-08
Date Analyzed:	09/06/23	Data File:	090641.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	LM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	78	126
Toluene-d8	101	84	115
4-Bromofluorobenzene	103	72	130

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-32-083023	Client:	Aspect Consulting, LLC
Date Received:	08/31/23	Project:	Texaco-Strickland 180357
Date Extracted:	09/06/23	Lab ID:	308491-09
Date Analyzed:	09/06/23	Data File:	090642.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	LM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	78	126
Toluene-d8	101	84	115
4-Bromofluorobenzene	102	72	130

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Texaco-Strickland 180357
Date Extracted:	09/06/23	Lab ID:	03-1982 mb
Date Analyzed:	09/06/23	Data File:	090607.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	LM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	78	126
Toluene-d8	98	84	115
4-Bromofluorobenzene	100	72	130

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 09/09/23

Date Received: 08/31/23

Project: Texaco-Strickland 180357, F&BI 308491

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

Laboratory Code: 308491-01 (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

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 09/09/23

Date Received: 08/31/23

Project: Texaco-Strickland 180357, F&BI 308491

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

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	84	95	65-151	12

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 09/09/23

Date Received: 08/31/23

Project: Texaco-Strickland 180357, F&BI 308491

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

Laboratory Code: 308491-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent	
				Recovery MS	Acceptance Criteria
Benzene	ug/L (ppb)	10	<0.35	108	50-150
Toluene	ug/L (ppb)	10	<1	105	50-150
Ethylbenzene	ug/L (ppb)	10	<1	107	50-150
m,p-Xylene	ug/L (ppb)	20	<2	104	50-150
o-Xylene	ug/L (ppb)	10	<1	103	50-150
Naphthalene	ug/L (ppb)	10	<1	94	50-150

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent		Acceptance Criteria	RPD (Limit 20)
			Recovery LCS	Recovery LCSD		
Benzene	ug/L (ppb)	10	105	106	70-130	1
Toluene	ug/L (ppb)	10	106	105	70-130	1
Ethylbenzene	ug/L (ppb)	10	108	107	70-130	1
m,p-Xylene	ug/L (ppb)	20	105	105	70-130	0
o-Xylene	ug/L (ppb)	10	104	104	70-130	0
Naphthalene	ug/L (ppb)	10	95	94	70-130	1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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 low; 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.

308491

SAMPLE CHAIN OF CUSTODY

08/31/23

VWS/F3

Report To Daniel Babcock

Company Aspect Consulting

Address 710 2nd Ave #550

City, State, ZIP Seattle, WA, 98104

Phone 206-414-37 Email dbabcock@aspectconsulting.com

SAMPLERS (signature) [Signature]

PROJECT NAME Terraco - Strickland

REMARKS

PO # 180357

INVOICE TO

Project specific RIs? - Yes / No

Page # 1 of 1

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										Notes		
						NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	BTEX + Naphthalene by EPA 8260					
MW-18R-083023	01 A-G	8/30/23	0935	W	7	X	X	X										
MW-25R-083023	02		1040															
MW-26-083023	03		1150															
MW-29-083023	04		1425															
MW-19-083023	05		1320															
MW-30-083023	06		1545															
MW-31-083023	07		1650															
MW-16-083123	08	8/31/23	0955															
MW-32-083123	09																	
Trip Blank	10 A-B			water	2													Added at lab <u>(A)</u>

SIGNATURE

PRINT NAME

COMPANY

DATE

TIME

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

Relinquished by: [Signature]

Received by: [Signature]

Relinquished by: ANHPHAN

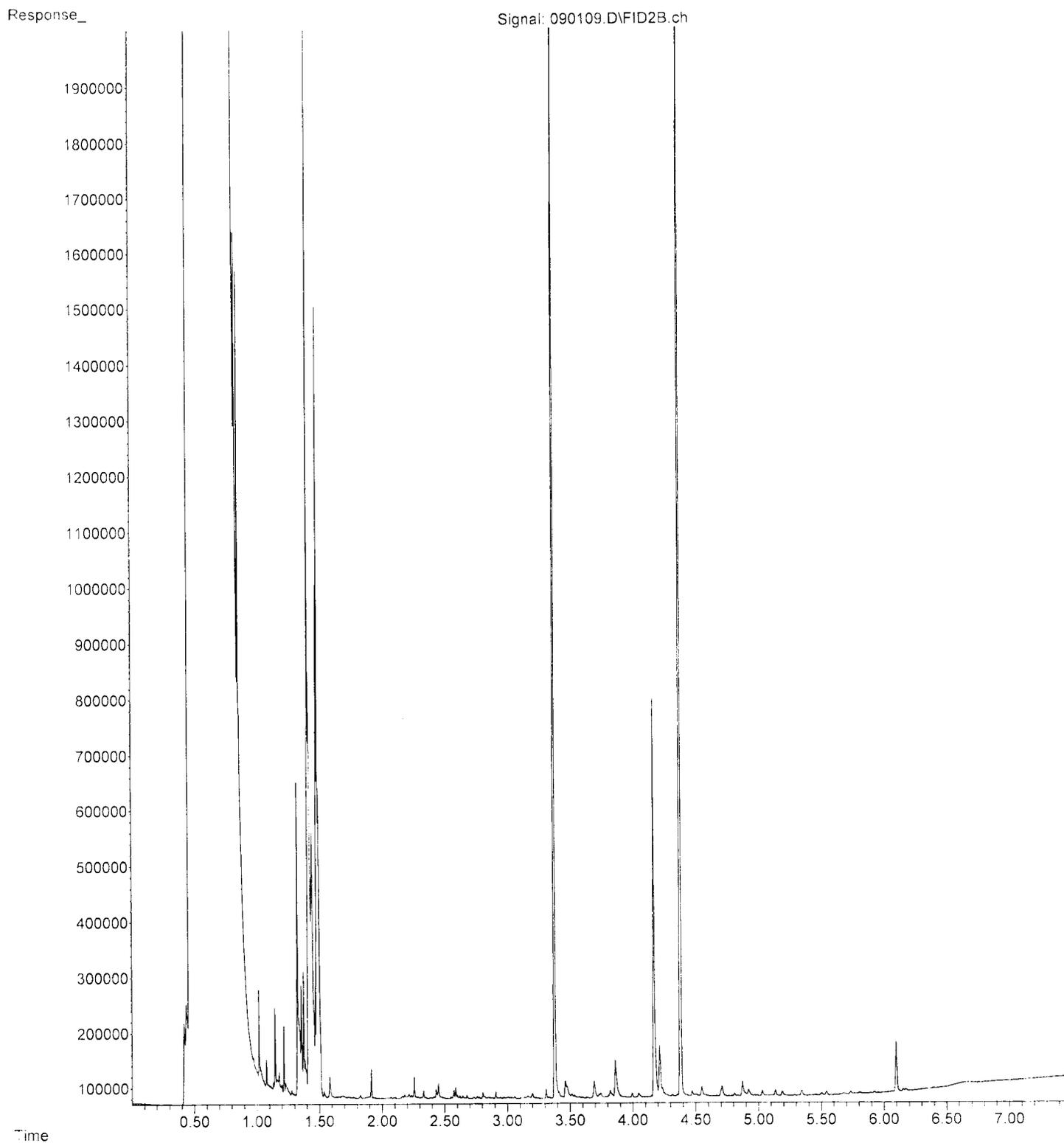
Received by: ASB

DATE: 08/31/23

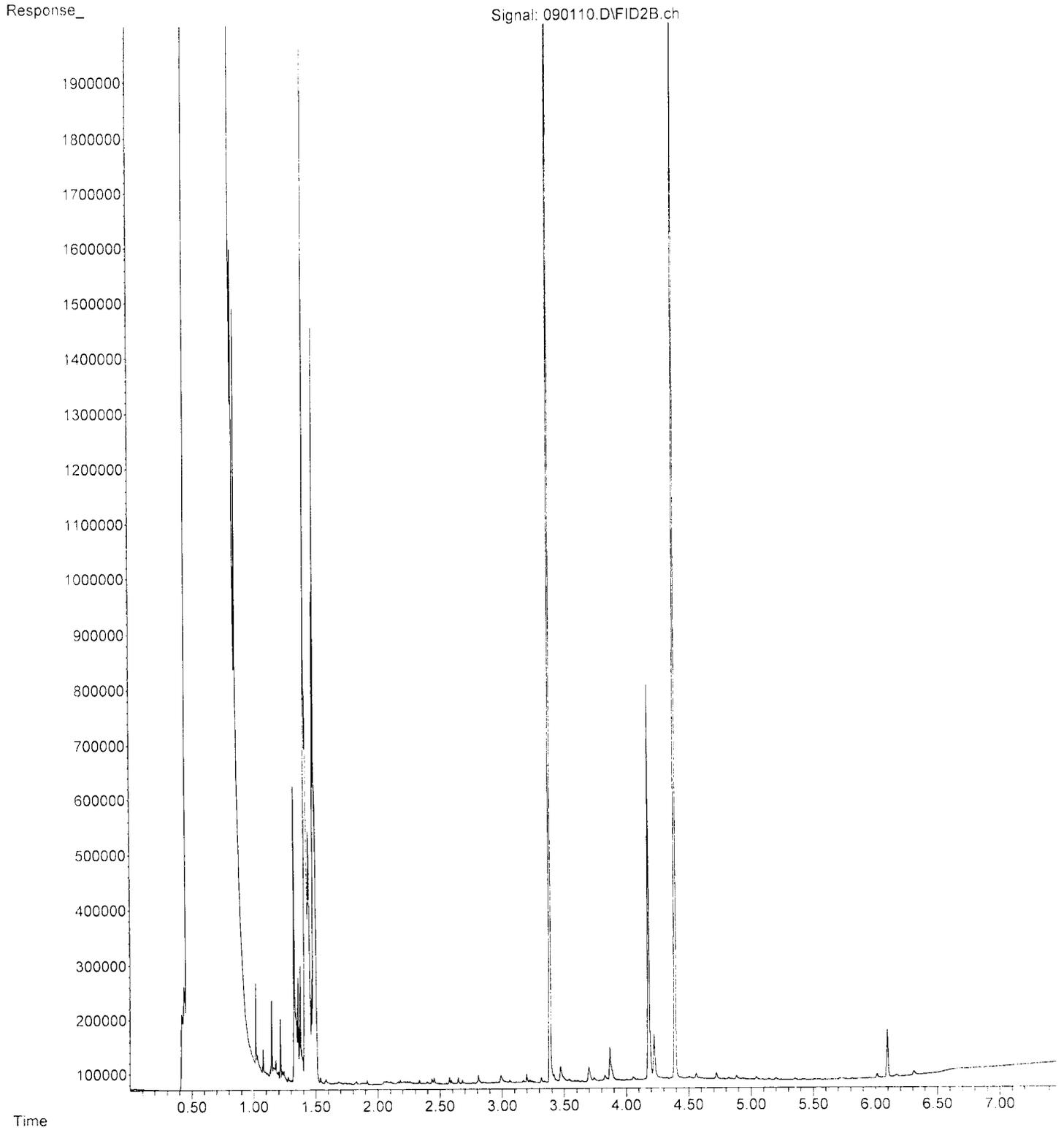
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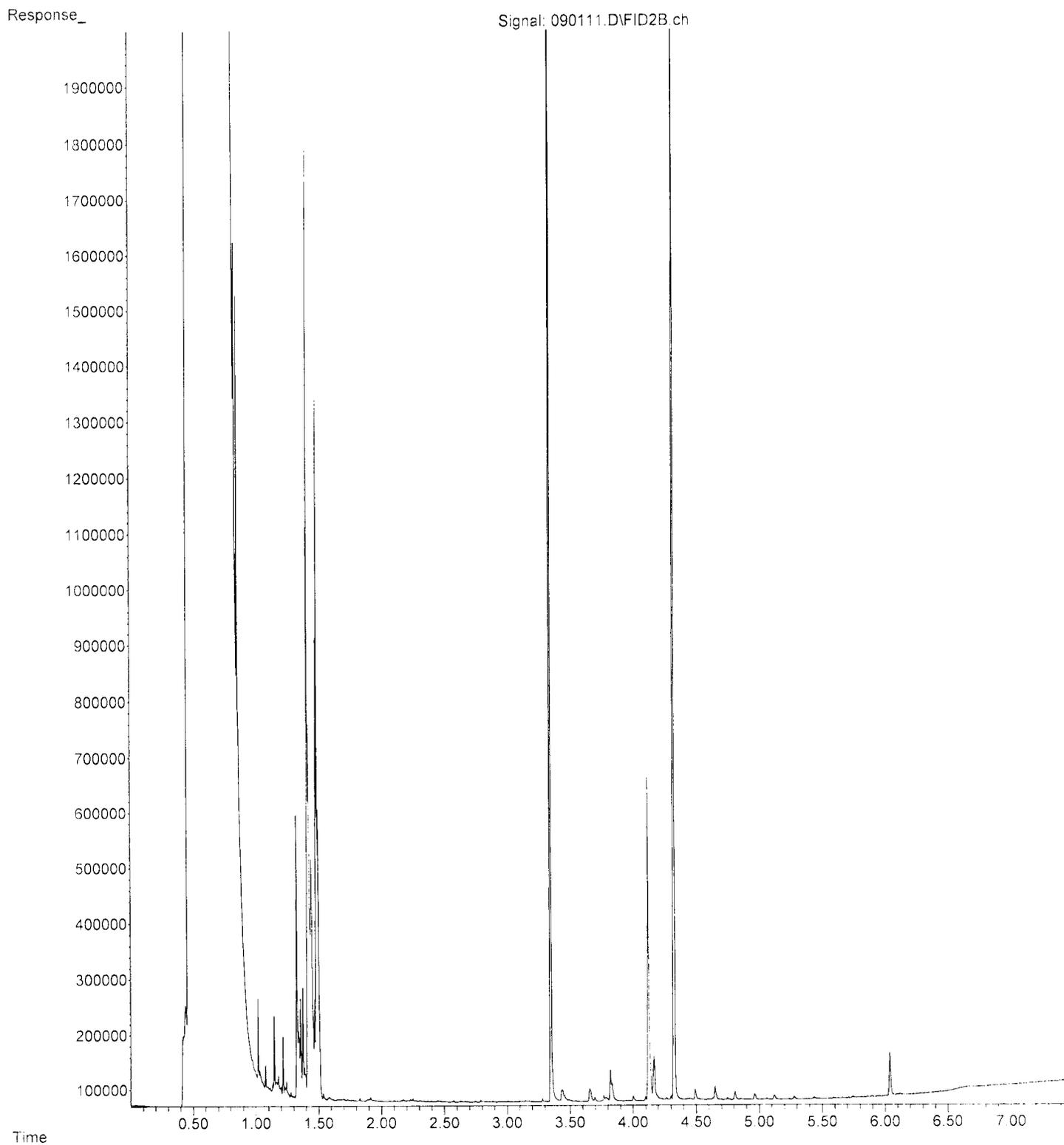
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Instrument : GC10
Sample Name: 308491-01
Misc Info :
Vial Number: 11



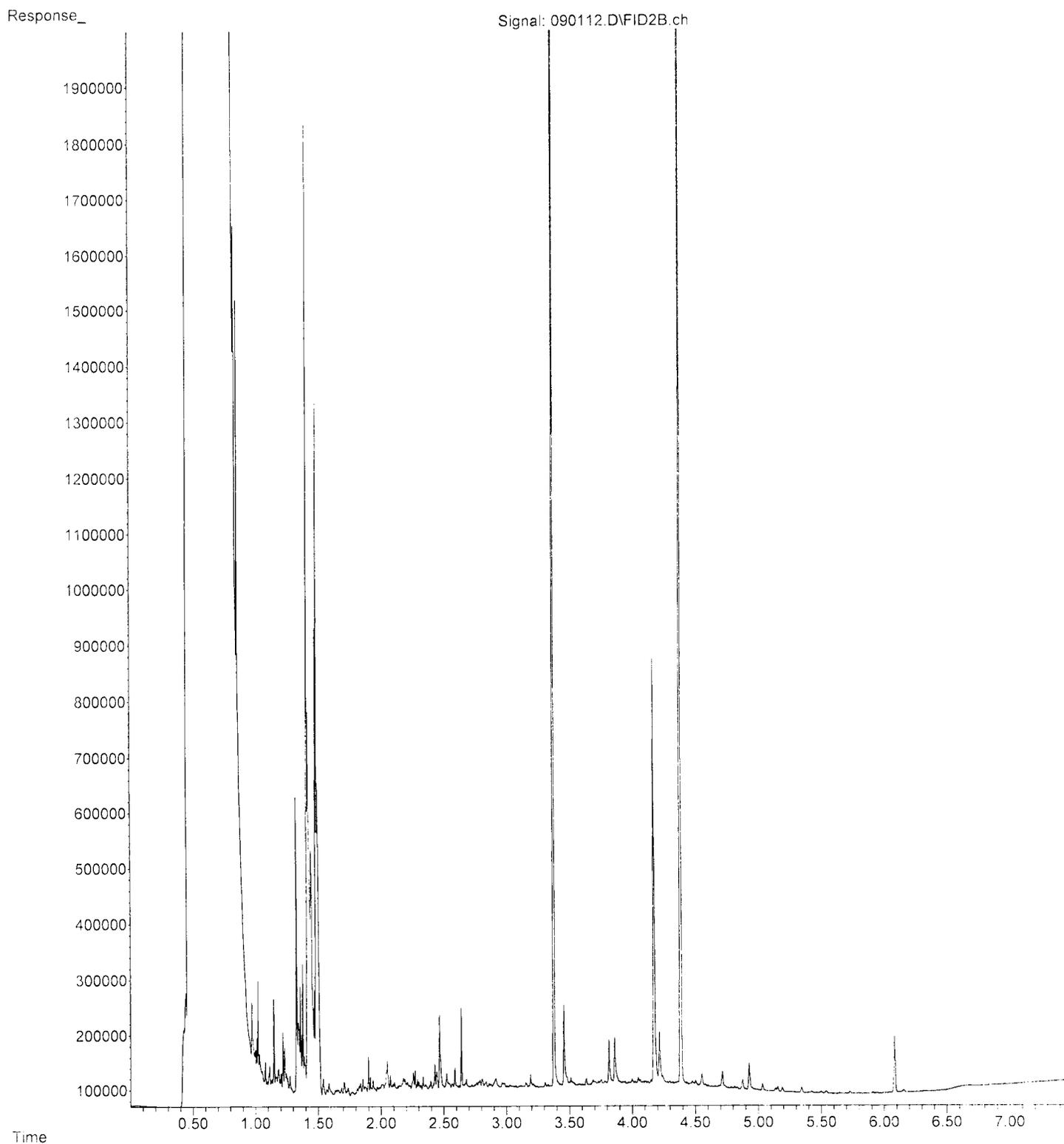
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Instrument : GC10
Sample Name: 308491-02
Misc Info :
Vial Number: 12



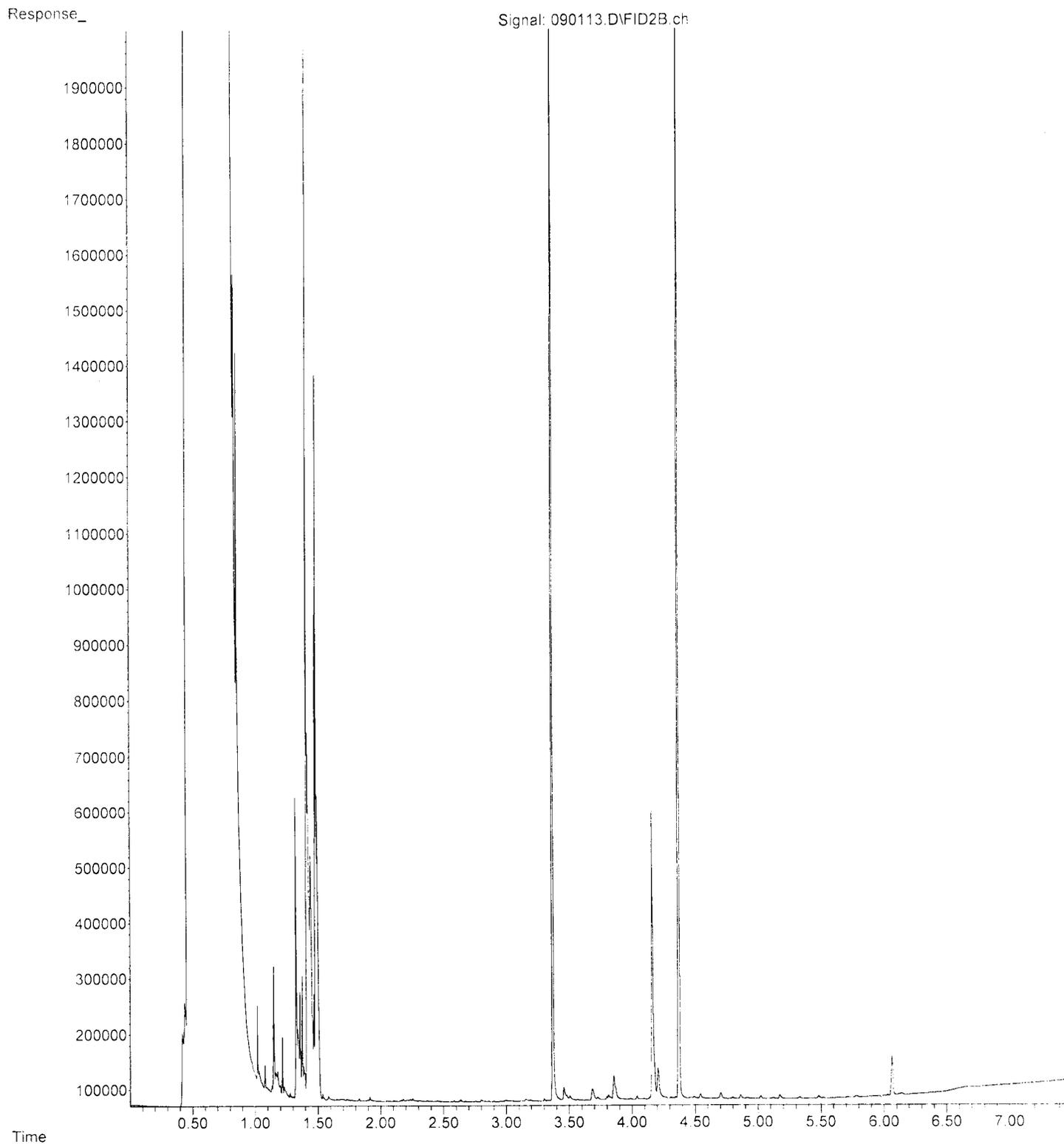
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Operator : TL
Acquired : 01 Sep 2023 09:59 am using AcqMethod DX.M
Instrument : GC10
Sample Name: 308491-03
Misc Info :
Vial Number: 13



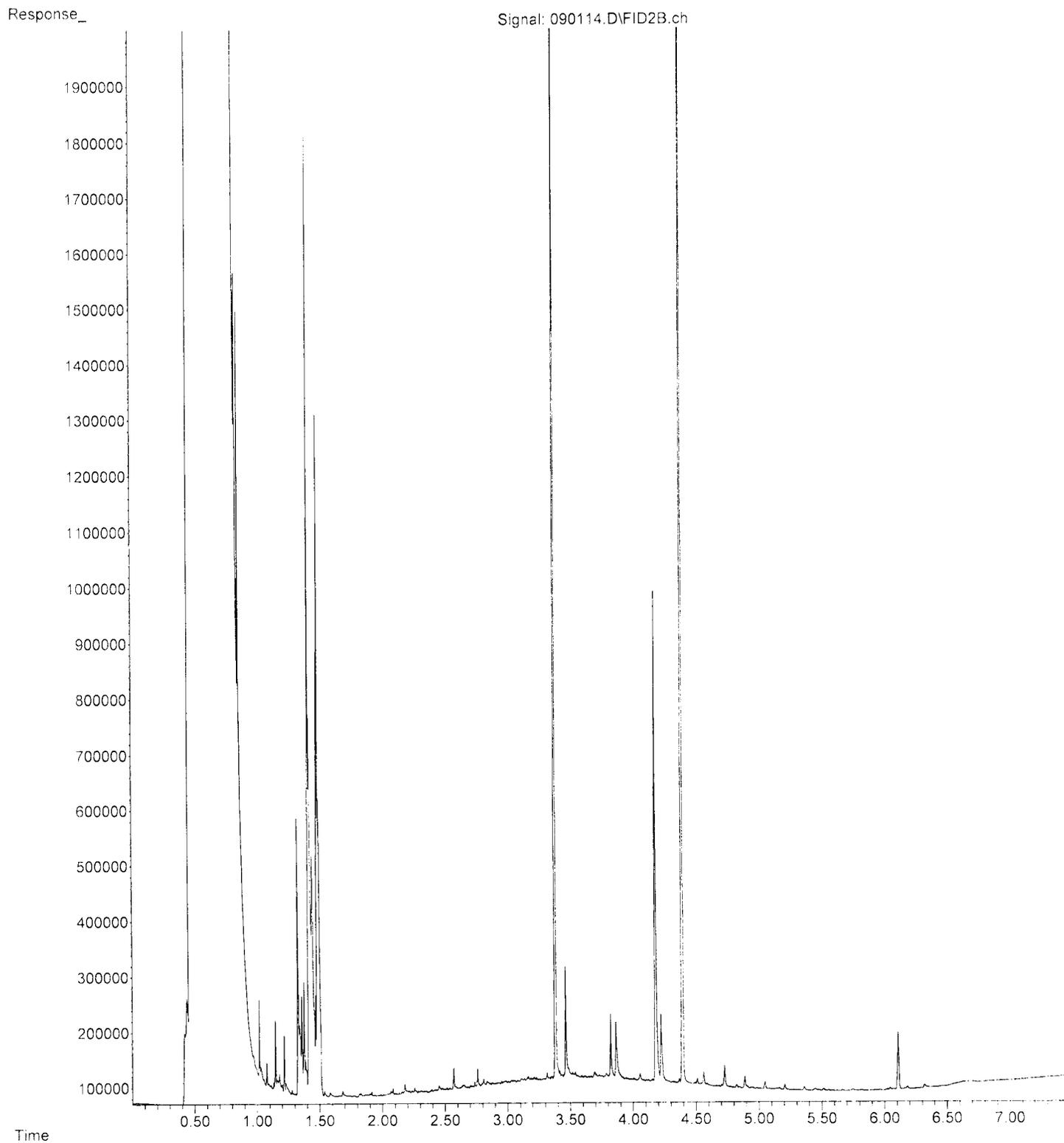
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Operator : TL
Acquired : 01 Sep 2023 10:11 am using AcqMethod DX.M
Instrument : GC10
Sample Name: 308491-04
Misc Info :
Vial Number: 14



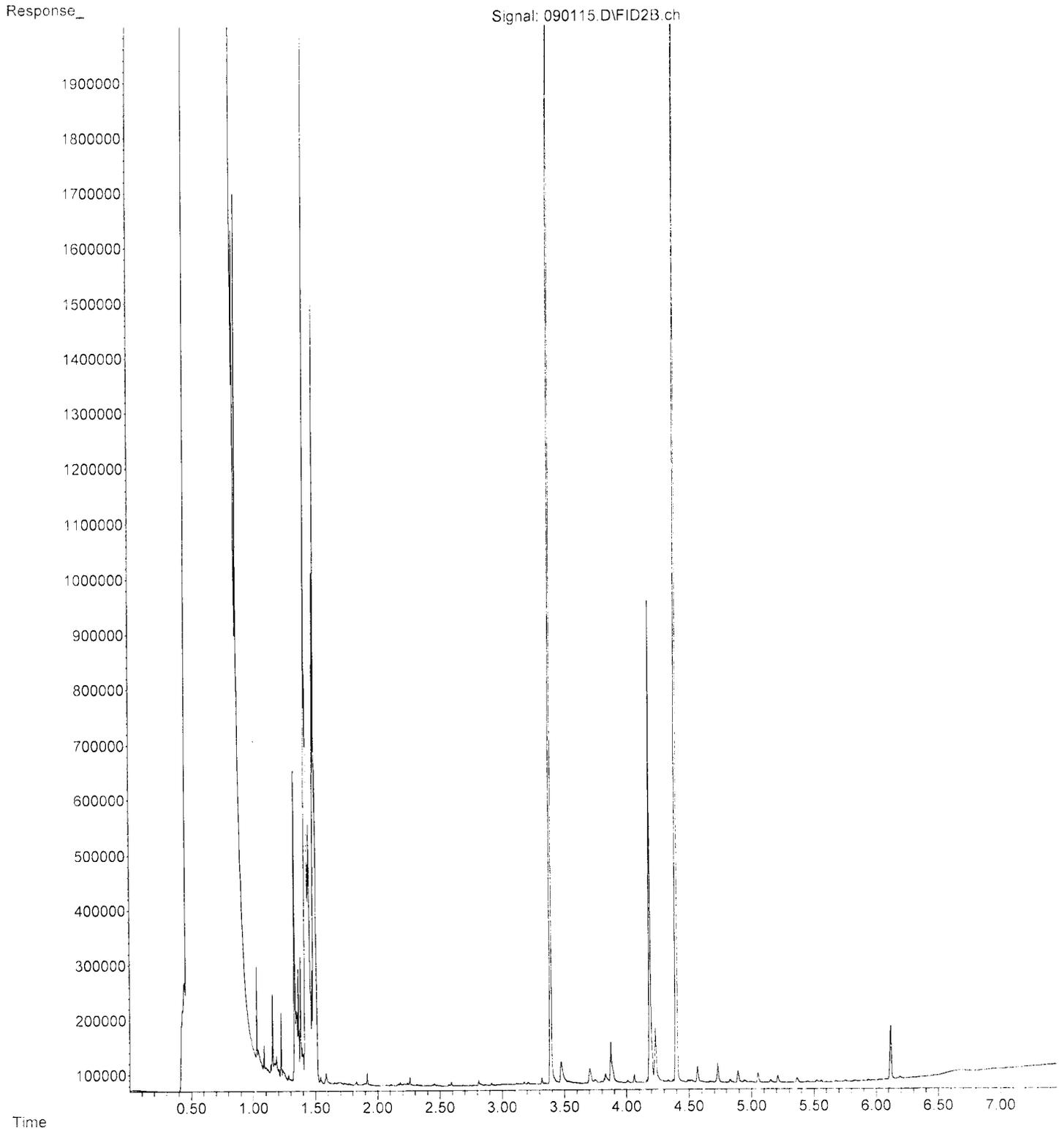
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Operator : TL
Acquired : 01 Sep 2023 10:23 am using AcqMethod DX.M
Instrument : GC10
Sample Name: 308491-05
Misc Info :
Vial Number: 15



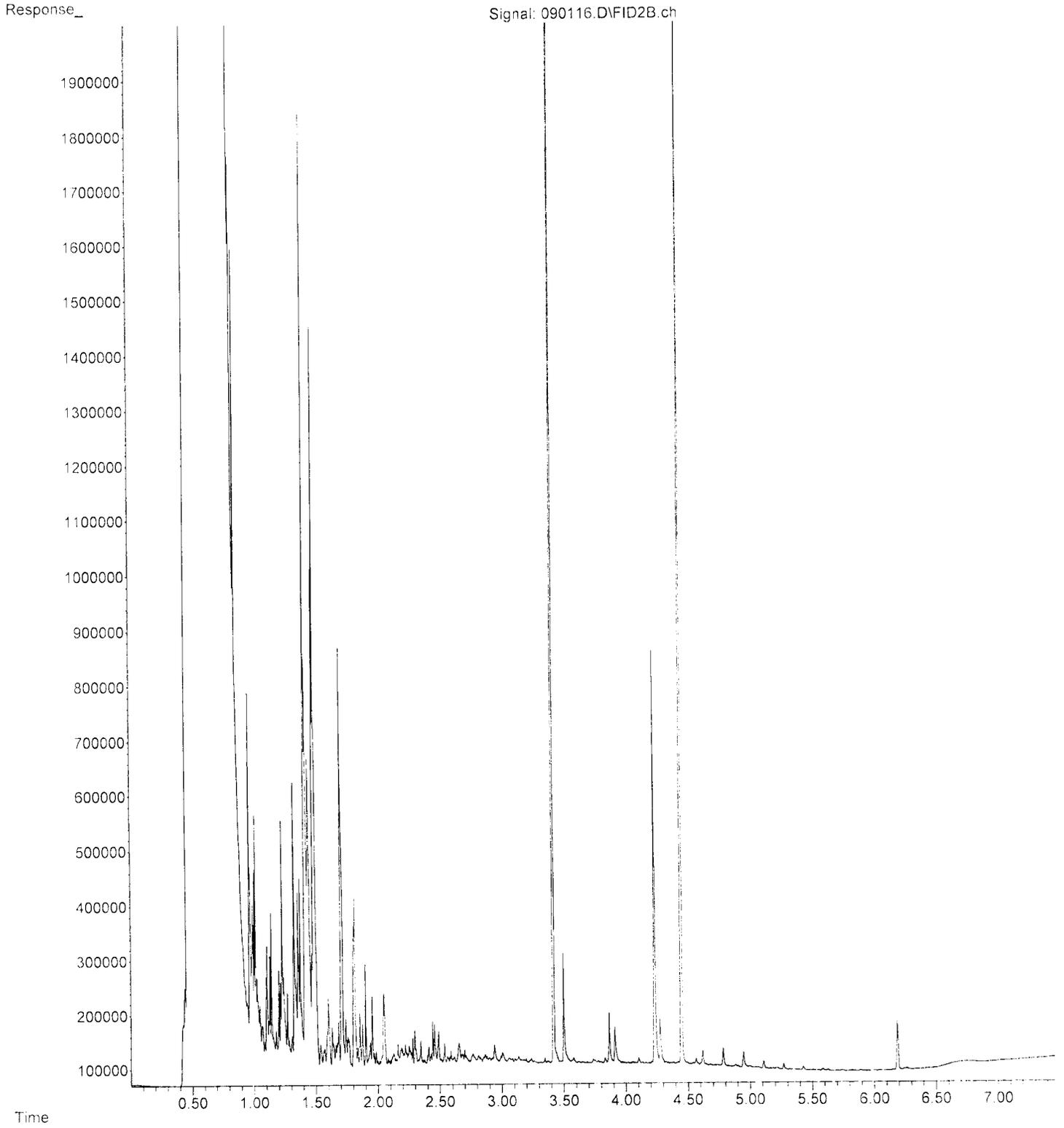
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Instrument : GC10
Sample Name: 308491-06
Misc Info :
Vial Number: 16



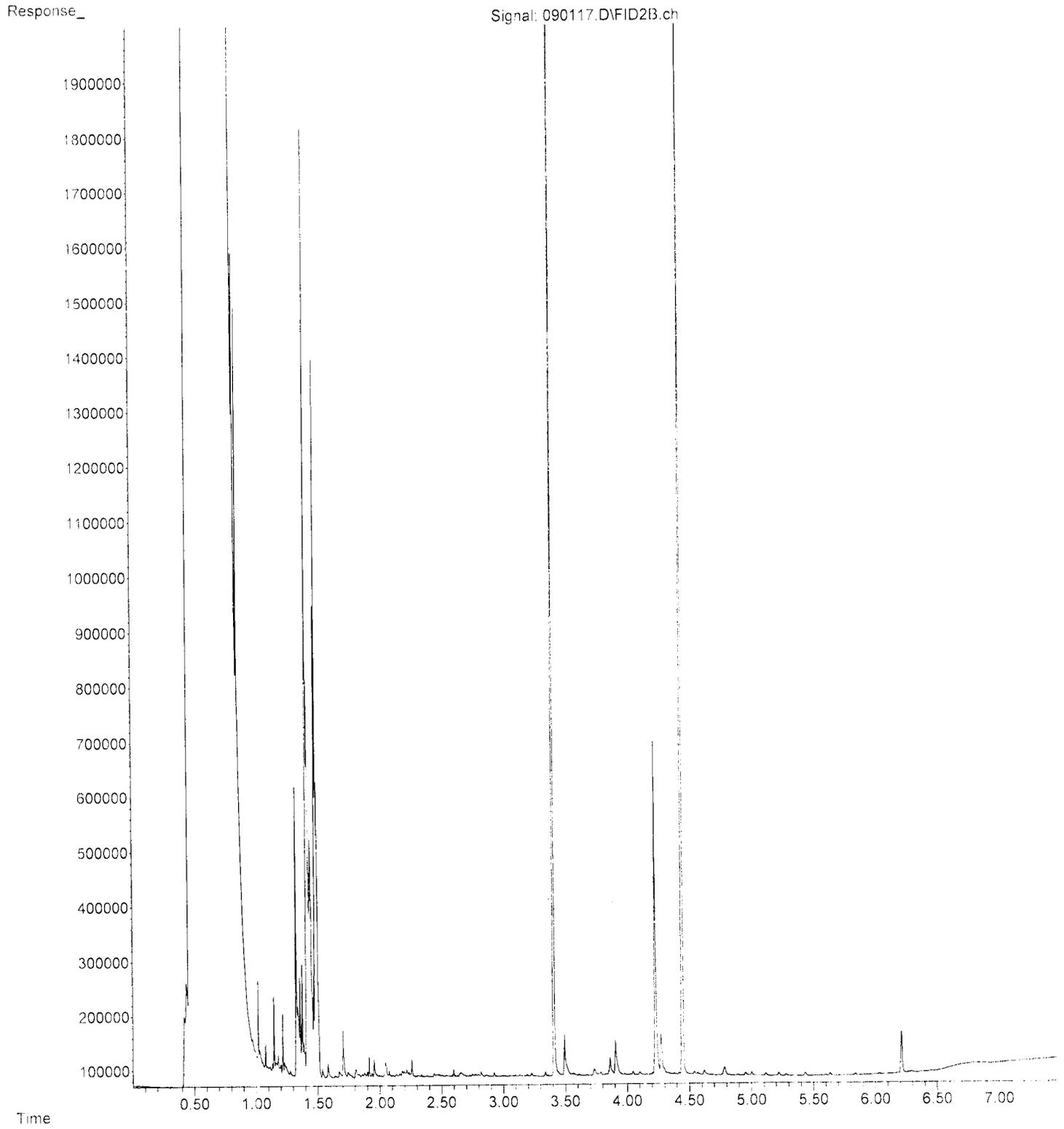
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Instrument : GC10
Sample Name: 308491-07
Misc Info :
Vial Number: 17



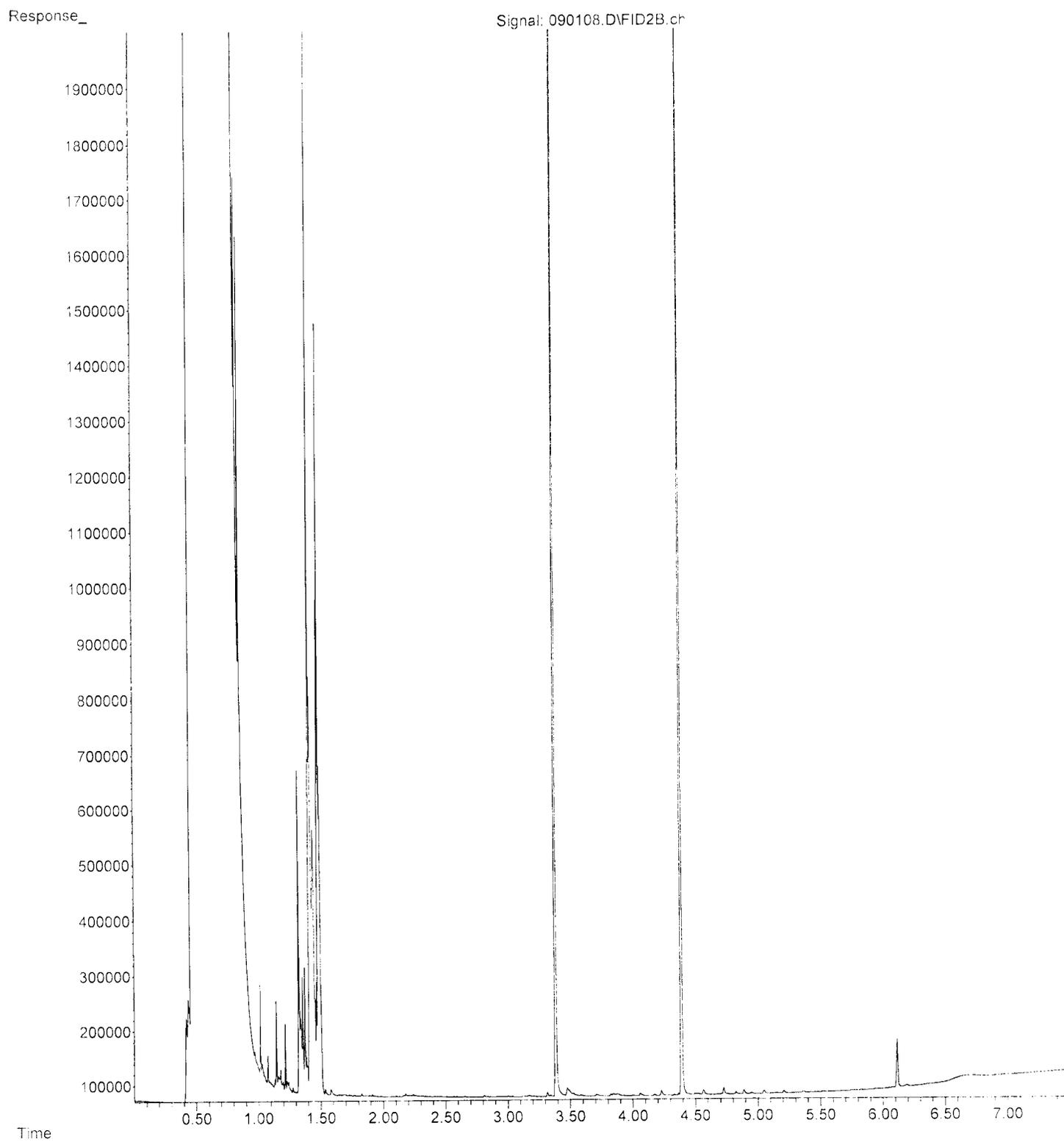
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Operator : TL
Acquired : 01 Sep 2023 10:59 am using AcqMethod DX.M
Instrument : GC10
Sample Name: 308491-08
Misc Info :
Vial Number: 18



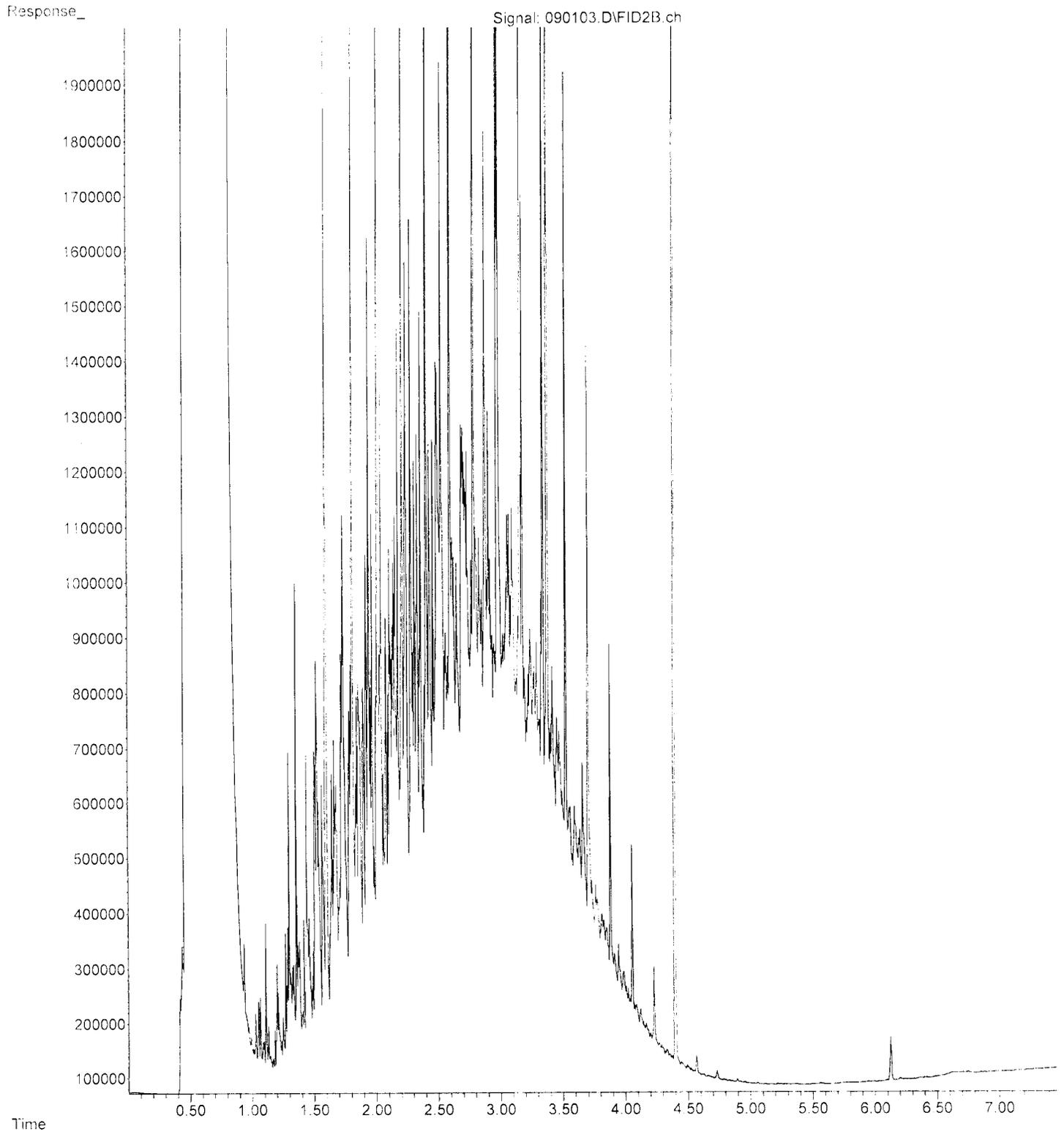
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Operator : TL
Acquired : 01 Sep 2023 11:11 am using AcqMethod DX.M
Instrument : GC10
Sample Name: 308491-09
Misc Info :
Vial Number: 19



File :P:\Proc_GC10\09-01-23\090108.D
Operator : TL
Acquired : 01 Sep 2023 09:24 am using AcqMethod DX.M
Instrument : GC10
Sample Name: 03-2065 mb2
Misc Info :
Vial Number: 10



File :P:\Proc_GC10\09-01-23\090103.D
Operator : TL
Acquired : 01 Sep 2023 07:37 am using AcqMethod DX.M
Instrument : GC10
Sample Name: 500 DX 69-104B
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

November 9, 2023

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

Dear Mr Babcock:

Included are the results from the testing of material submitted on November 2, 2023 from the Aloha-Strickland 180357, F&BI 311054 project. There are 9 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
ASP1109R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on November 2, 2023 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Aloha-Strickland 180357, F&BI 311054 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Aspect Consulting, LLC</u>
311054 -01	MW-17-110223

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/09/23
Date Received: 11/02/23
Project: Aloha-Strickland 180357, F&BI 311054
Date Extracted: 11/02/23
Date Analyzed: 11/03/23

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES
FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
USING METHOD NWTPH-G_x**
Results Reported as ug/L (ppb)

<u>Sample ID</u> Laboratory ID	<u>Gasoline Range</u>	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 50-150)
MW-17-110223 311054-01	<100	96
Method Blank 03-2489 MB	<100	106

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/09/23
Date Received: 11/02/23
Project: Aloha-Strickland 180357, F&BI 311054
Date Extracted: 11/03/23
Date Analyzed: 11/03/23

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES
FOR TOTAL PETROLEUM HYDROCARBONS AS
DIESEL AND MOTOR OIL
USING METHOD NWTPH-D_x**
Results Reported as ug/L (ppb)

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C ₁₀ -C ₂₅)	<u>Motor Oil Range</u> (C ₂₅ -C ₃₆)	<u>Surrogate</u> (% Recovery) (Limit 50-150)
MW-17-110223 311054-01	98 x	<250	131
Method Blank 03-2610 MB2	<50	<250	129

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-17-110223	Client:	Aspect Consulting, LLC
Date Received:	11/02/23	Project:	Aloha-Strickland 180357
Date Extracted:	11/07/23	Lab ID:	311054-01
Date Analyzed:	11/07/23	Data File:	110713.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	104	71	132
Toluene-d8	98	68	139
4-Bromofluorobenzene	104	62	136

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Aloha-Strickland 180357
Date Extracted:	11/07/23	Lab ID:	03-2623 mb
Date Analyzed:	11/07/23	Data File:	110707.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	71	132
Toluene-d8	100	68	139
4-Bromofluorobenzene	99	62	136

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/09/23

Date Received: 11/02/23

Project: Aloha-Strickland 180357, F&BI 311054

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

Laboratory Code: 310561-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 20)
Gasoline	ug/L (ppb)	91,000	89,000	2

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Gasoline	ug/L (ppb)	1,000	110	69-134

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/09/23

Date Received: 11/02/23

Project: Aloha-Strickland 180357, F&BI 311054

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

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	96	100	72-139	4

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/09/23

Date Received: 11/02/23

Project: Aloha-Strickland 180357, F&BI 311054

**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)
Benzene	ug/L (ppb)	10	108	109	70-130	1
Toluene	ug/L (ppb)	10	105	108	70-130	3
Ethylbenzene	ug/L (ppb)	10	108	110	70-130	2
m,p-Xylene	ug/L (ppb)	20	109	111	70-130	2
o-Xylene	ug/L (ppb)	10	107	109	70-130	2
Naphthalene	ug/L (ppb)	10	101	101	61-133	0

FRIEDMAN & BRUYA, INC.

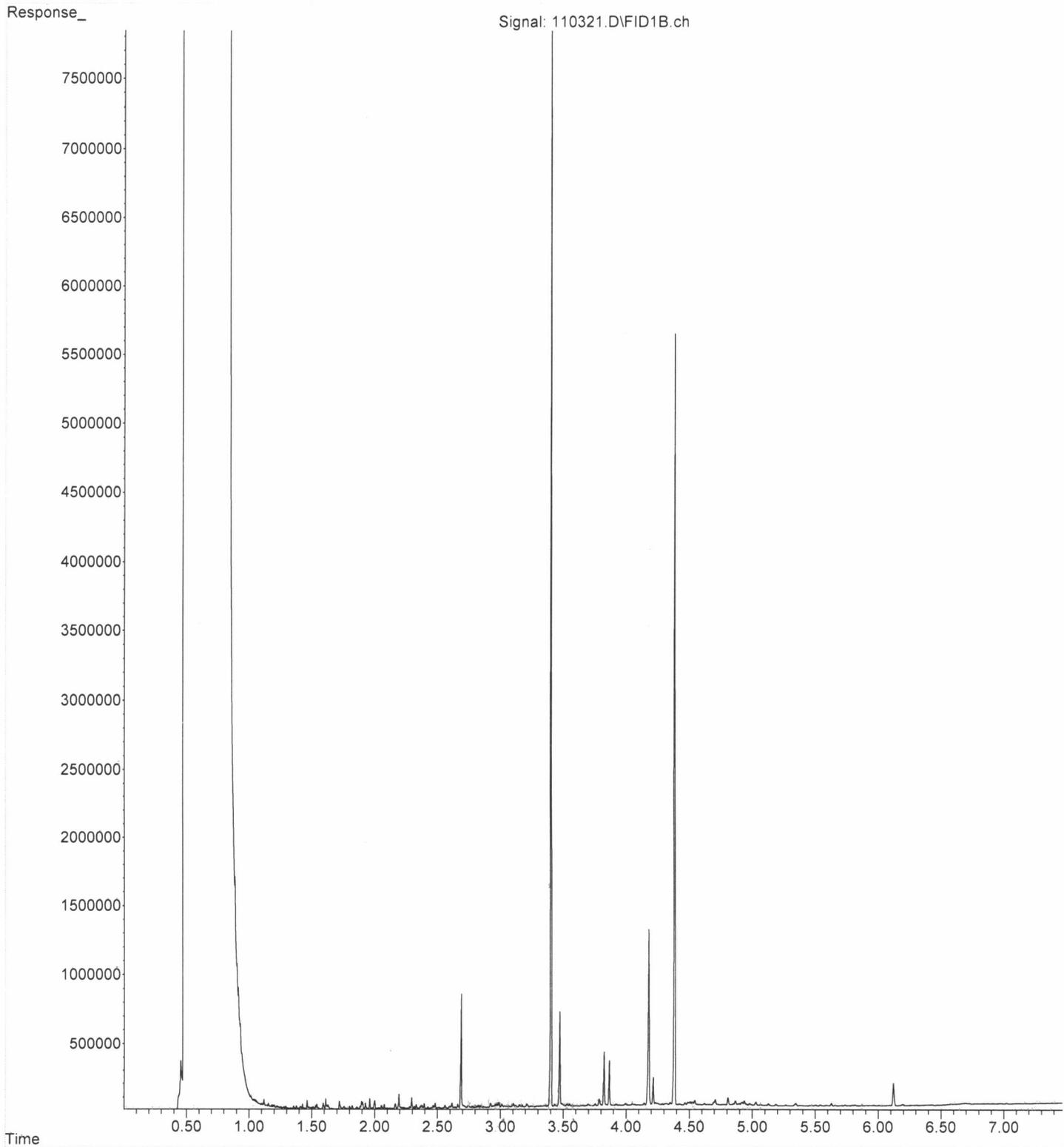
ENVIRONMENTAL CHEMISTS

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 low; 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.

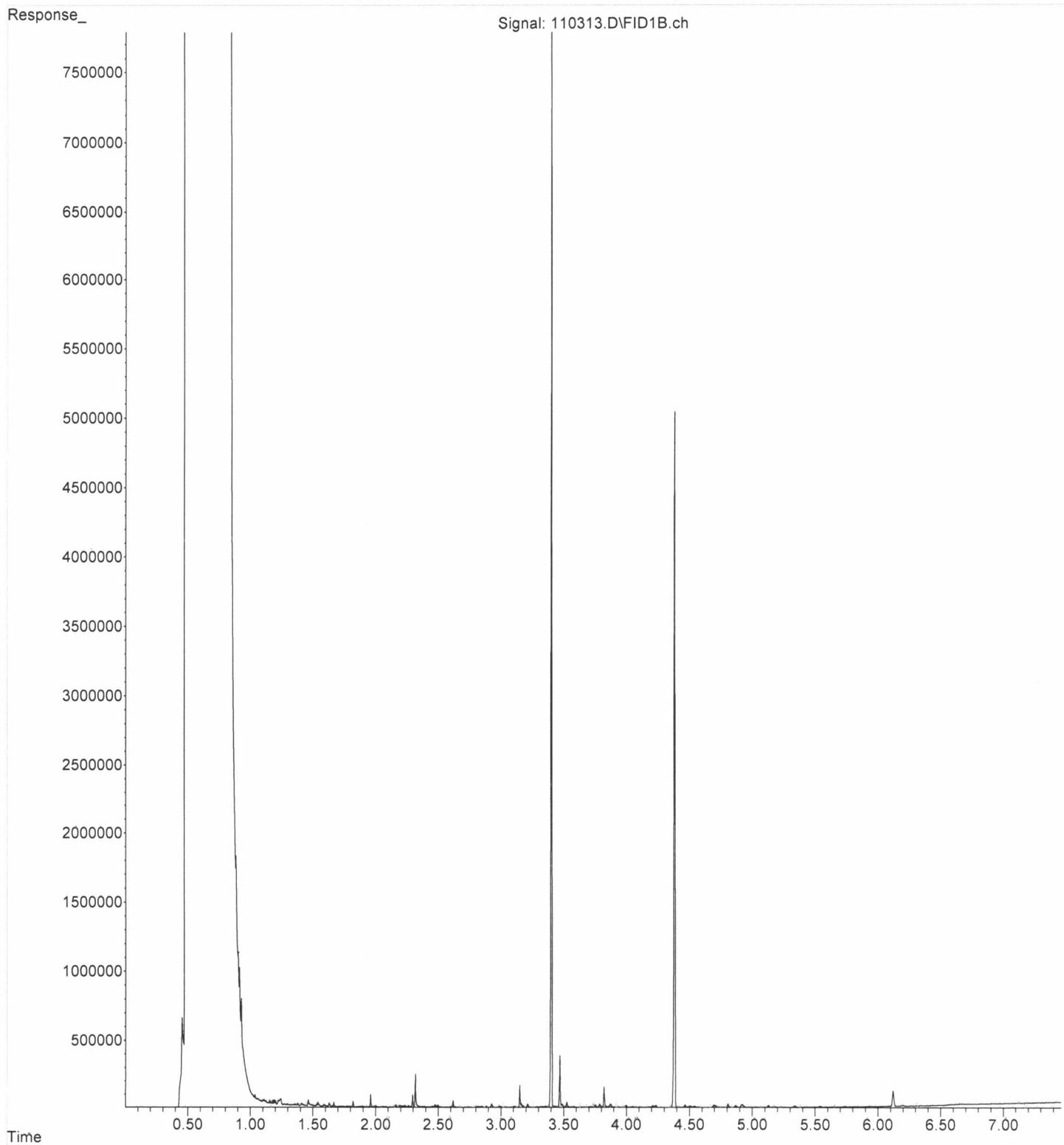
File :P:\Proc_GC14\11-03-23\110321.D
Operator : TL
Acquired : 03 Nov 2023 02:40 pm using AcqMethod DX.M
Instrument : GC14
Sample Name: 311054-01
Misc Info :
Vial Number: 20

ERR



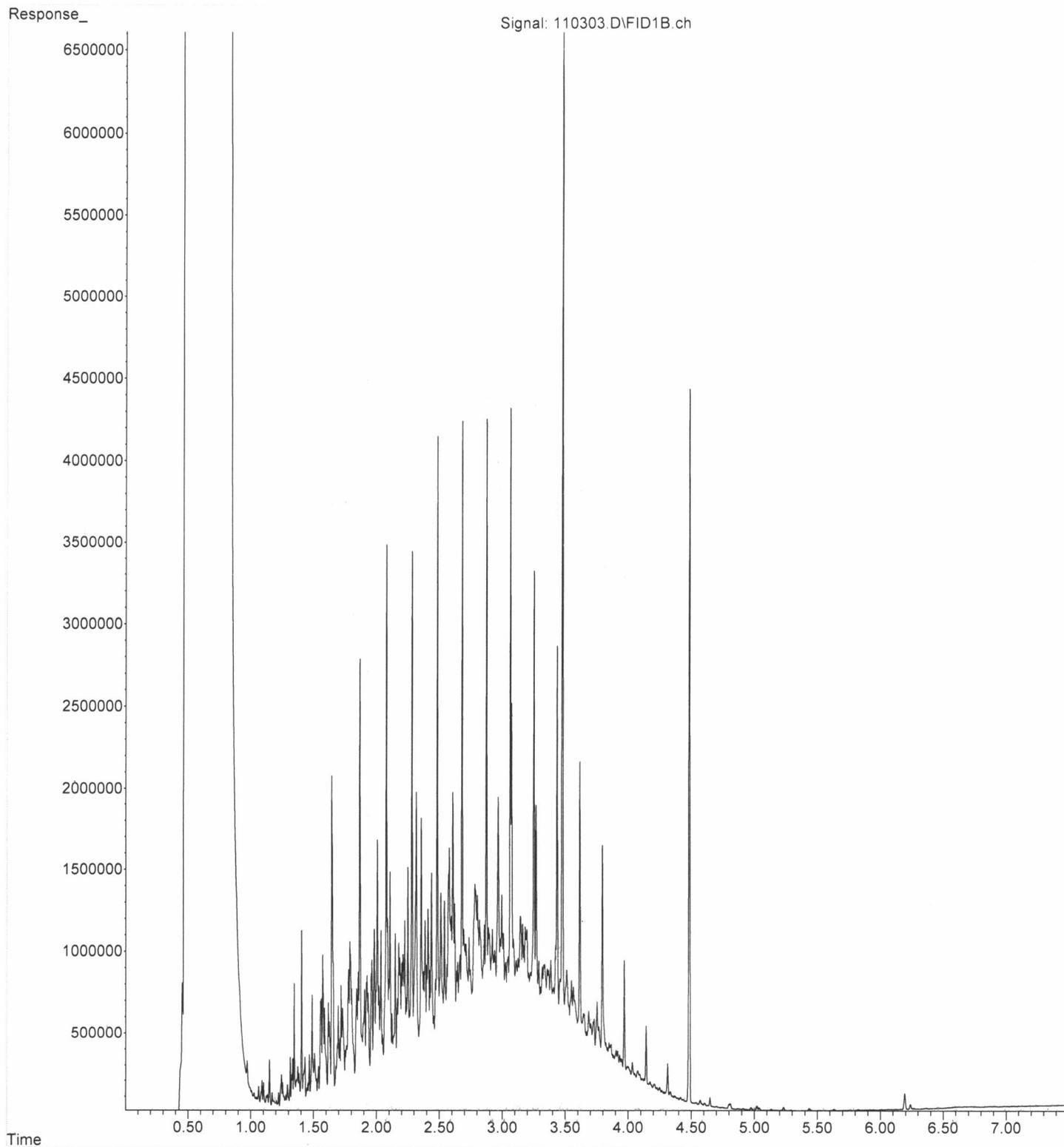
File :P:\Proc_GC14\11-03-23\110313.D
Operator : TL
Acquired : 03 Nov 2023 01:05 pm using AcqMethod DX.M
Instrument : GC14
Sample Name: 03-2610 mb2
Misc Info :
Vial Number: 14

ERR



File :P:\Proc_GC14\11-03-23\110303.D
Operator : TL
Acquired : 03 Nov 2023 09:09 am using AcqMethod DX.M
Instrument : GC14
Sample Name: 500 Dx 69-104J
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

December 7, 2023

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

Dear Ms Greer:

Included are the results from the testing of material submitted on November 30, 2023 from the Texaco Strickland 180357, F&BI 311408 project. There are 20 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
ASP1207R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on November 30, 2023 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Texaco Strickland 180357 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Aspect Consulting, LLC</u>
311408 -01	MW-16-113023
311408 -02	MW-17-113023
311408 -03	MW-29-113023
311408 -04	MW-18R-112823
311408 -05	MW-25R-112823
311408 -06	MW-27-112823
311408 -07	MW-19-112823
311408 -08	MW-30-112823
311408 -09	MW-31-112823
311408 -10	MW-32-112823
311408 -11	MW-26-112823
311408 -12	Trip Blank

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/07/23
Date Received: 11/30/23
Project: Texaco Strickland 180357, F&BI 311408
Date Extracted: 12/04/23
Date Analyzed: 12/04/23

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES
FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
USING METHOD NWTPH-G_x**
Results Reported as ug/L (ppb)

<u>Sample ID</u> Laboratory ID	<u>Gasoline Range</u>	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 50-150)
MW-16-113023 311408-01	490	113
MW-17-113023 311408-02	<100	107
MW-29-113023 311408-03	<100	119
MW-18R-112823 311408-04	<100	108
MW-25R-112823 311408-05	<100	107
MW-27-112823 311408-06	<100	102
MW-19-112823 311408-07	<100	102
MW-30-112823 311408-08	<100	101
MW-31-112823 311408-09	<100	103
MW-32-112823 311408-10	<100	97

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/07/23
Date Received: 11/30/23
Project: Texaco Strickland 180357, F&BI 311408
Date Extracted: 12/04/23
Date Analyzed: 12/04/23

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES
FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
USING METHOD NWTPH-G_x**
Results Reported as ug/L (ppb)

<u>Sample ID</u> Laboratory ID	<u>Gasoline Range</u>	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 50-150)
MW-26-112823 311408-11	<100	96
Method Blank 03-2522 MB	<100	106

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/07/23
 Date Received: 11/30/23
 Project: Texaco Strickland 180357, F&BI 311408
 Date Extracted: 12/04/23
 Date Analyzed: 12/05/23

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES
 FOR TOTAL PETROLEUM HYDROCARBONS AS
 DIESEL AND MOTOR OIL
 USING METHOD NWTPH-D_x**
 Results Reported as ug/L (ppb)

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C ₁₀ -C ₂₅)	<u>Motor Oil Range</u> (C ₂₅ -C ₃₆)	<u>Surrogate</u> (% Recovery) (Limit 50-150)
MW-16-113023 311408-01	220 x	<250	103
MW-17-113023 311408-02	<50	<250	98
MW-29-113023 311408-03	110 x	<250	96
MW-18R-112823 311408-04	<50	<250	98
MW-25R-112823 311408-05	<50	<250	97
MW-27-112823 311408-06	<50	<250	104
MW-19-112823 311408-07	<50	<250	97
MW-30-112823 311408-08	69 x	<250	84
MW-31-112823 311408-09	<50	<250	90
MW-32-112823 311408-10	<50	<250	98
MW-26-112823 311408-11	<50	<250	88
Method Blank 03-2776 MB	<50	<250	85

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-16-113023	Client:	Aspect Consulting, LLC
Date Received:	11/30/23	Project:	Texaco Strickland 180357
Date Extracted:	12/01/23	Lab ID:	311408-01
Date Analyzed:	12/01/23	Data File:	120110.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	109	71	132
Toluene-d8	104	68	139
4-Bromofluorobenzene	99	62	136

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-17-113023	Client:	Aspect Consulting, LLC
Date Received:	11/30/23	Project:	Texaco Strickland 180357
Date Extracted:	12/01/23	Lab ID:	311408-02
Date Analyzed:	12/01/23	Data File:	120109.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	78	126
Toluene-d8	102	84	115
4-Bromofluorobenzene	103	72	130

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-29-113023	Client:	Aspect Consulting, LLC
Date Received:	11/30/23	Project:	Texaco Strickland 180357
Date Extracted:	12/01/23	Lab ID:	311408-03
Date Analyzed:	12/01/23	Data File:	120111.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	105	71	132
Toluene-d8	103	68	139
4-Bromofluorobenzene	96	62	136

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-18R-112823	Client:	Aspect Consulting, LLC
Date Received:	11/30/23	Project:	Texaco Strickland 180357
Date Extracted:	12/01/23	Lab ID:	311408-04
Date Analyzed:	12/01/23	Data File:	120112.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	107	71	132
Toluene-d8	99	68	139
4-Bromofluorobenzene	94	62	136

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-25R-112823	Client:	Aspect Consulting, LLC
Date Received:	11/30/23	Project:	Texaco Strickland 180357
Date Extracted:	12/01/23	Lab ID:	311408-05
Date Analyzed:	12/01/23	Data File:	120113.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	71	132
Toluene-d8	97	68	139
4-Bromofluorobenzene	95	62	136

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-27-112823	Client:	Aspect Consulting, LLC
Date Received:	11/30/23	Project:	Texaco Strickland 180357
Date Extracted:	12/01/23	Lab ID:	311408-06
Date Analyzed:	12/01/23	Data File:	120114.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	90	68	139
4-Bromofluorobenzene	94	62	136

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-19-112823	Client:	Aspect Consulting, LLC
Date Received:	11/30/23	Project:	Texaco Strickland 180357
Date Extracted:	12/01/23	Lab ID:	311408-07
Date Analyzed:	12/01/23	Data File:	120115.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	71	132
Toluene-d8	98	68	139
4-Bromofluorobenzene	96	62	136

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-30-112823	Client:	Aspect Consulting, LLC
Date Received:	11/30/23	Project:	Texaco Strickland 180357
Date Extracted:	12/01/23	Lab ID:	311408-08
Date Analyzed:	12/01/23	Data File:	120116.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	71	132
Toluene-d8	101	68	139
4-Bromofluorobenzene	93	62	136

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-31-112823	Client:	Aspect Consulting, LLC
Date Received:	11/30/23	Project:	Texaco Strickland 180357
Date Extracted:	12/01/23	Lab ID:	311408-09
Date Analyzed:	12/01/23	Data File:	120117.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	71	132
Toluene-d8	99	68	139
4-Bromofluorobenzene	95	62	136

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-32-112823	Client:	Aspect Consulting, LLC
Date Received:	11/30/23	Project:	Texaco Strickland 180357
Date Extracted:	12/01/23	Lab ID:	311408-10
Date Analyzed:	12/01/23	Data File:	120118.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	106	71	132
Toluene-d8	101	68	139
4-Bromofluorobenzene	97	62	136

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-26-112823	Client:	Aspect Consulting, LLC
Date Received:	11/30/23	Project:	Texaco Strickland 180357
Date Extracted:	12/01/23	Lab ID:	311408-11
Date Analyzed:	12/01/23	Data File:	120119.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	106	71	132
Toluene-d8	100	68	139
4-Bromofluorobenzene	99	62	136

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Texaco Strickland 180357
Date Extracted:	12/01/23	Lab ID:	03-2753 mb
Date Analyzed:	12/01/23	Data File:	120108.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	105	78	126
Toluene-d8	102	84	115
4-Bromofluorobenzene	100	72	130

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/07/23

Date Received: 11/30/23

Project: Texaco Strickland 180357, F&BI 311408

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

Laboratory Code: 312021-01 (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	89	70-130

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/07/23

Date Received: 11/30/23

Project: Texaco Strickland 180357, F&BI 311408

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

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	112	100	72-139	11

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/07/23

Date Received: 11/30/23

Project: Texaco Strickland 180357, F&BI 311408

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

Laboratory Code: 311408-02 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent	
				Recovery MS	Acceptance Criteria
Benzene	ug/L (ppb)	10	<0.35	105	50-150
Toluene	ug/L (ppb)	10	<1	99	50-150
Ethylbenzene	ug/L (ppb)	10	<1	102	50-150
m,p-Xylene	ug/L (ppb)	20	<2	102	50-150
o-Xylene	ug/L (ppb)	10	<1	103	50-150
Naphthalene	ug/L (ppb)	10	<1	105	50-150

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent		Acceptance Criteria	RPD (Limit 20)
			Recovery LCS	Recovery LCSD		
Benzene	ug/L (ppb)	10	97	103	70-130	6
Toluene	ug/L (ppb)	10	95	98	70-130	3
Ethylbenzene	ug/L (ppb)	10	94	99	70-130	5
m,p-Xylene	ug/L (ppb)	20	94	100	70-130	6
o-Xylene	ug/L (ppb)	10	93	101	70-130	8
Naphthalene	ug/L (ppb)	10	96	105	70-130	9

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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 low; 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.

311408

SAMPLE CHAIN OF CUSTODY

11/30/23

VW/4/F4

Page # 1 of 2

Report To Breestn Greer

Company Aspect Consulting

Address 710 2nd Ave

City, State, ZIP Seattle WA 98104

Phone 206-210-6437 Email Breestn.Greer@aspectconsulting.com

SAMPLERS (signature) [Signature]

PROJECT NAME Texaco Studebaker

PO # 180357

REMARKS INVOICE TO

Project specific RIs? - Yes / No

ANALYSES REQUESTED

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	BTEX + Naphthalene by EPA 8260	Notes
MW-16-113023	01A-G	11/30/23	1140	W	7	X	X						X	
MW-17-113023	02		1050		7									
MW-29-113023	03	11/28/23	0950	W	7									
MW-18R-112823	04		0815		7									
MW-25R-112823	05		0935											
MW-27-112823	06		1040											
MW-19-112823	07		1245											
MW-30-112823	08		1525											
MW-31-112823	09		1450											Samples received at 4°C
MW-32-112823	10		1350											

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

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
<u>[Signature]</u>	<u>Carmen Tappero</u>	<u>Aspect Consulting</u>	<u>11/30/23</u>	<u>13:07</u>
<u>[Signature]</u>	<u>Eric Jovars</u>	<u>F-B</u>	<u>11/30/23</u>	<u>13:07</u>
Received by:				
Relinquished by:				

TURNAROUND TIME

Standard turnaround

RUSH

Rush charges authorized by: _____

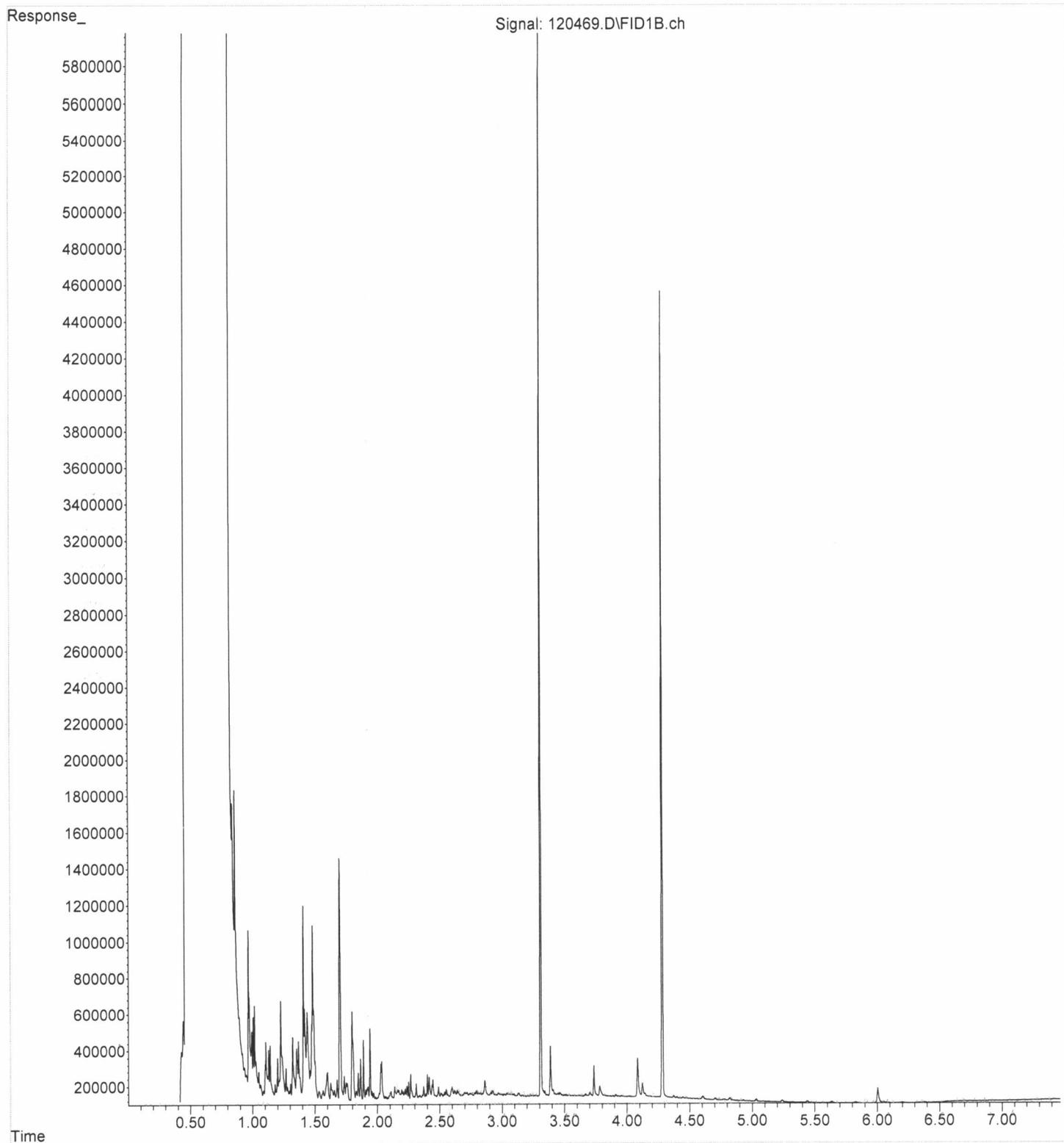
SAMPLE DISPOSAL

Archive samples

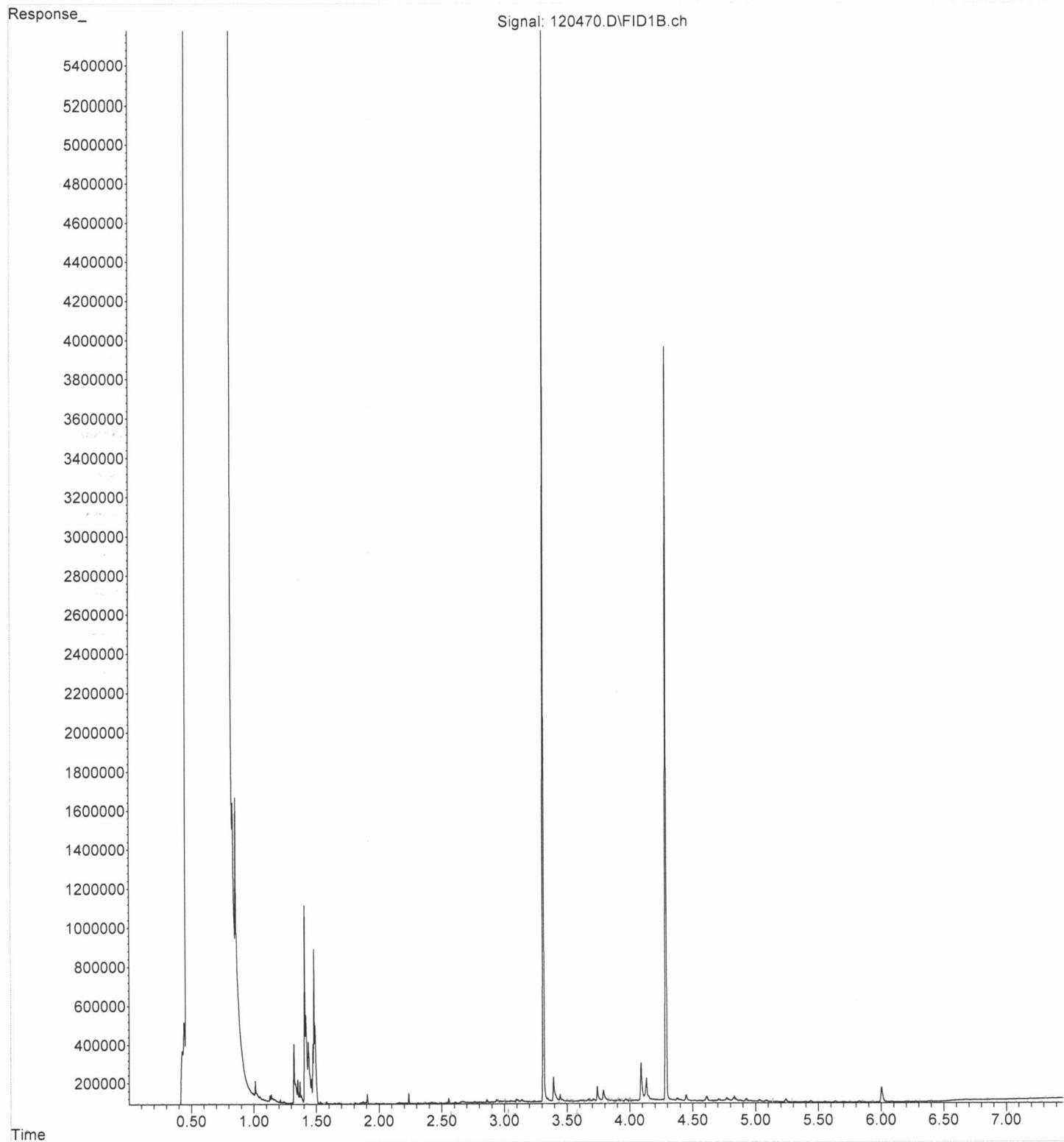
Other _____

Default: Dispose after 30 days

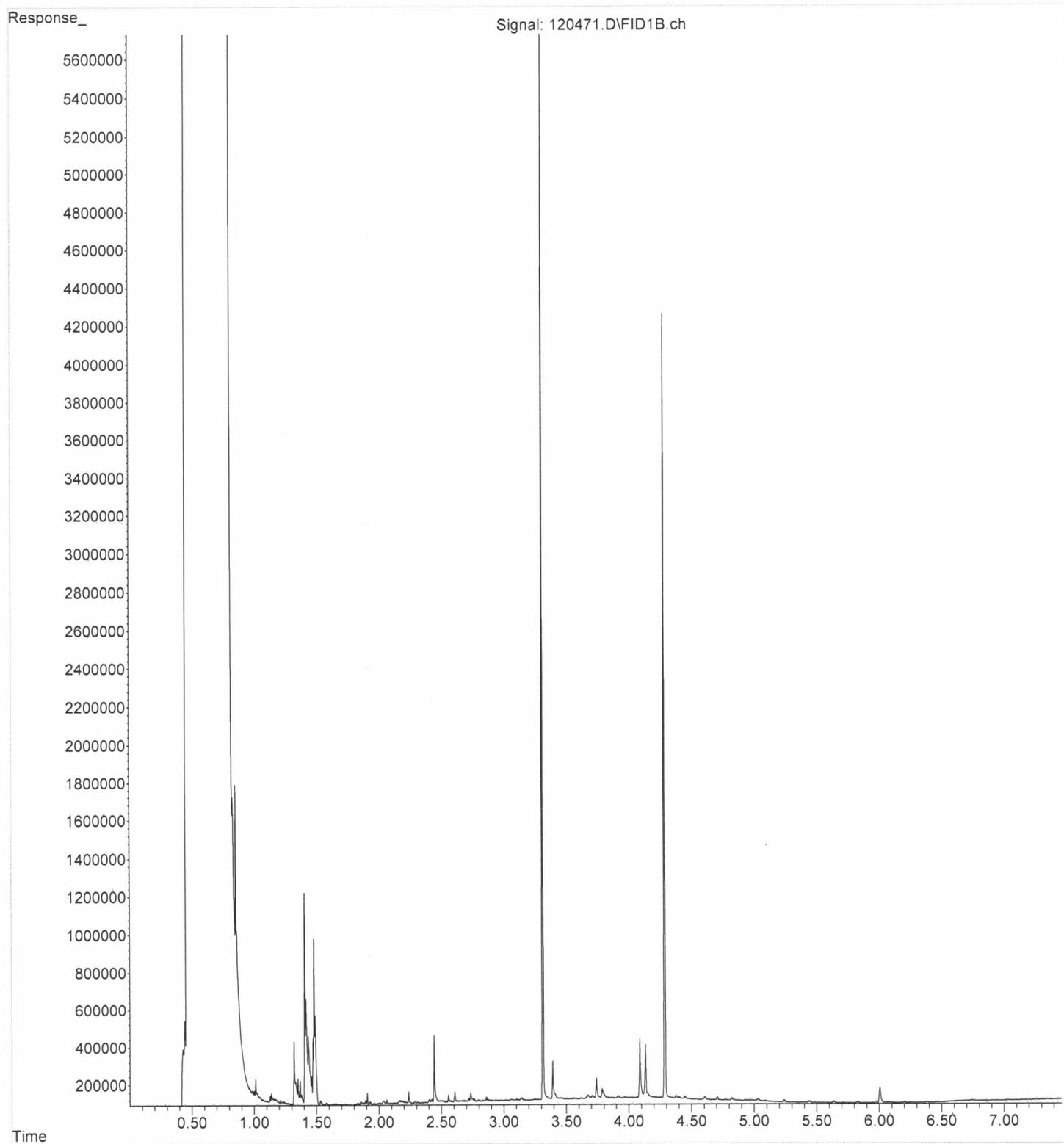
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Operator : IJL
Acquired : 05 Dec 2023 01:32 am using AcqMethod DX.M
Instrument : GC10
Sample Name: 311408-01
Misc Info :
Vial Number: 56



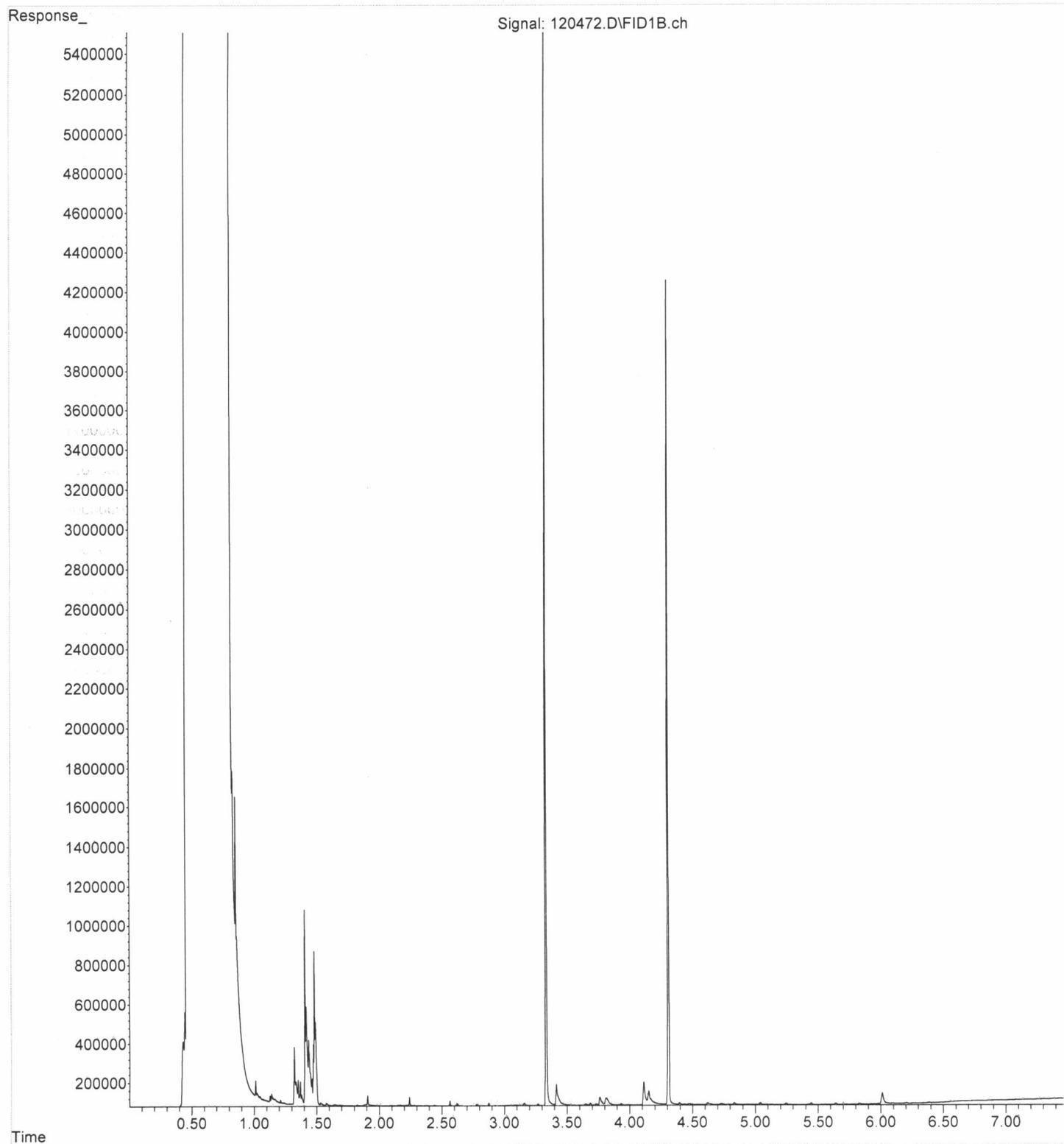
File : P:\Proc_GC10\12-04-23\120470.D
Operator : IJL
Acquired : 05 Dec 2023 01:43 am using AcqMethod DX.M
Instrument : GC10
Sample Name: 311408-02
Misc Info :
Vial Number: 57



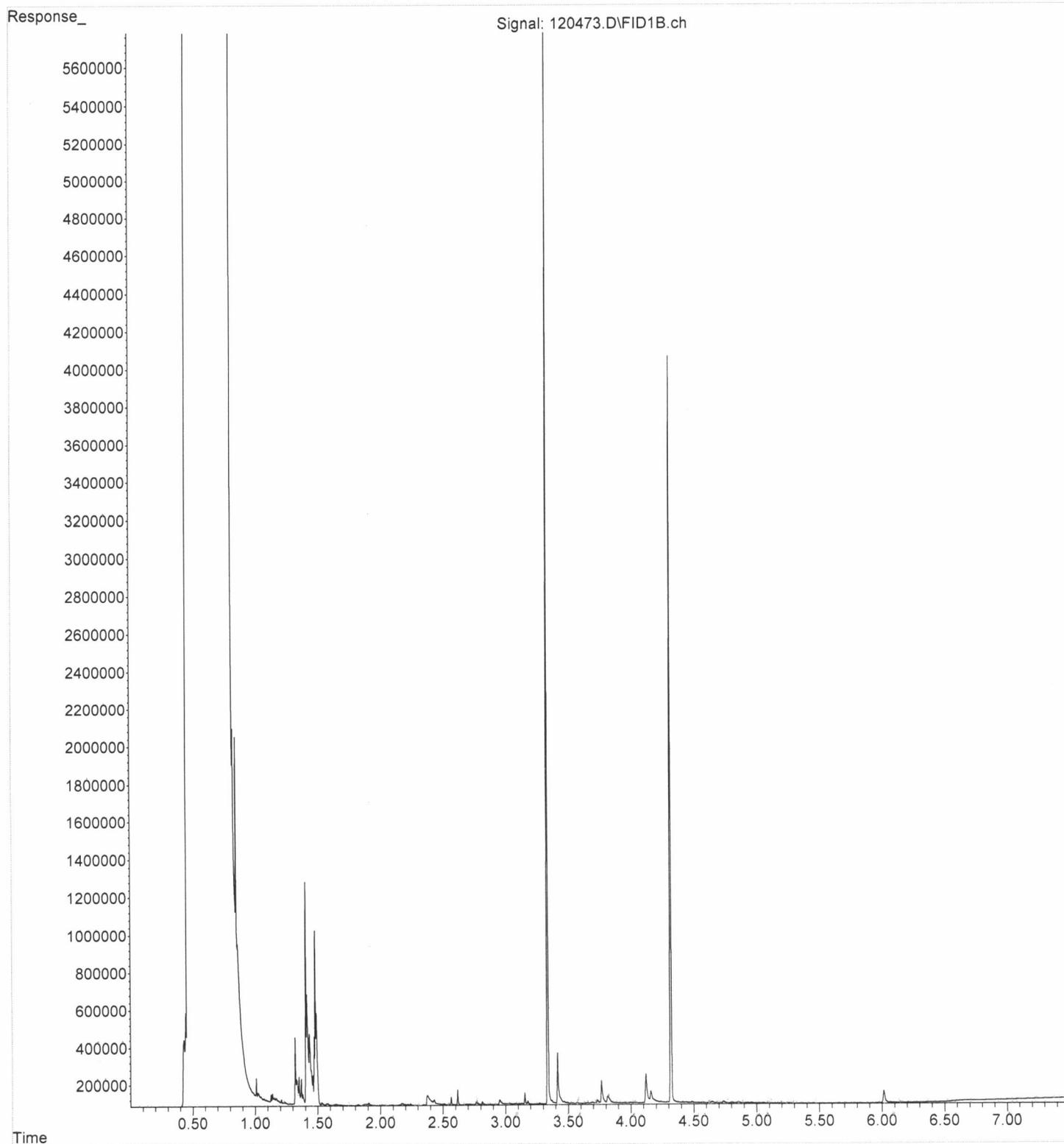
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Operator : IJL
Acquired : 05 Dec 2023 01:55 am using AcqMethod DX.M
Instrument : GC10
Sample Name: 311408-03
Misc Info :
Vial Number: 58



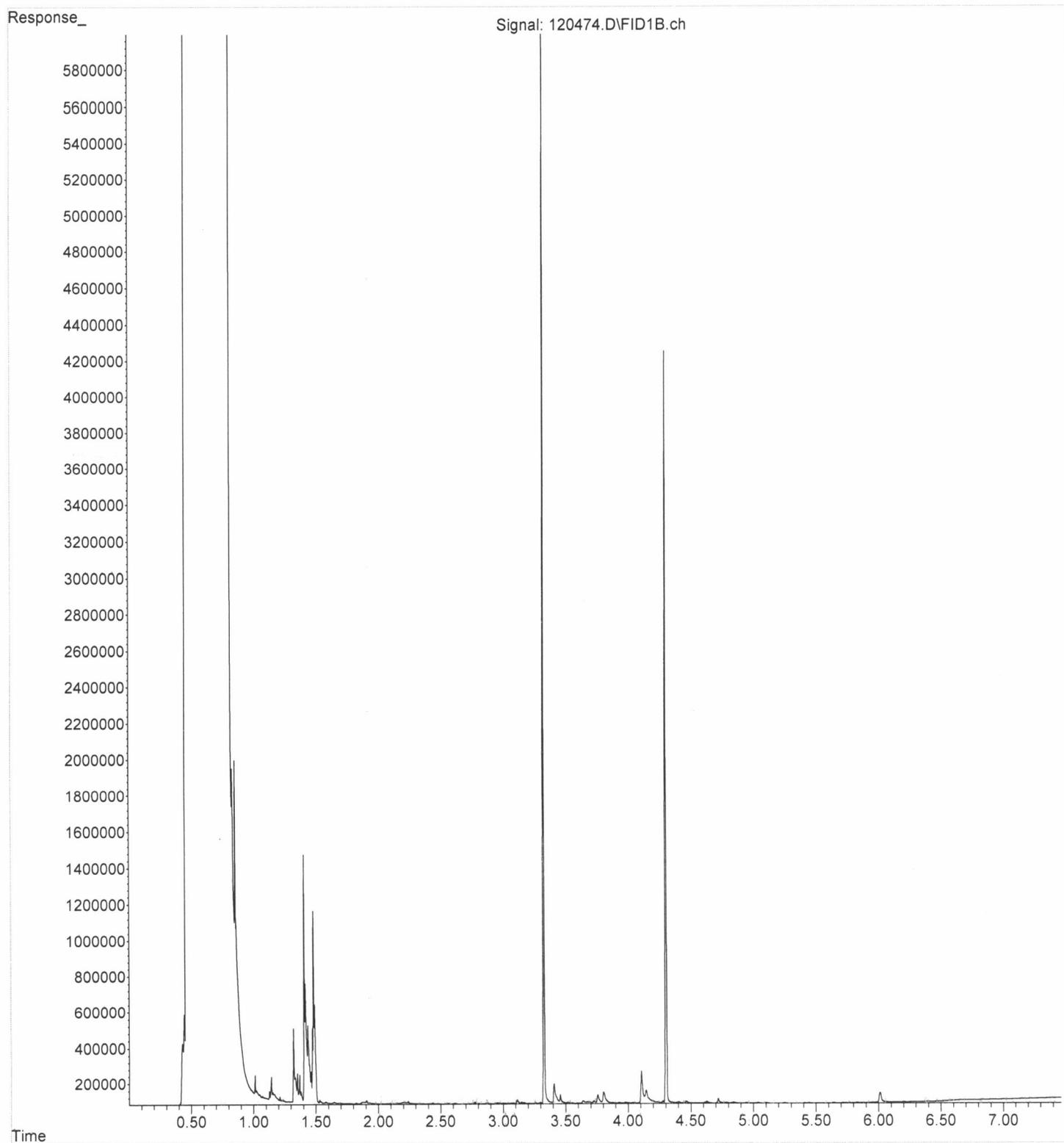
File : P:\Proc_GC10\12-04-23\120472.D
Operator : IJL
Acquired : 05 Dec 2023 02:07 am using AcqMethod DX.M
Instrument : GC10
Sample Name: 311408-04
Misc Info :
Vial Number: 59



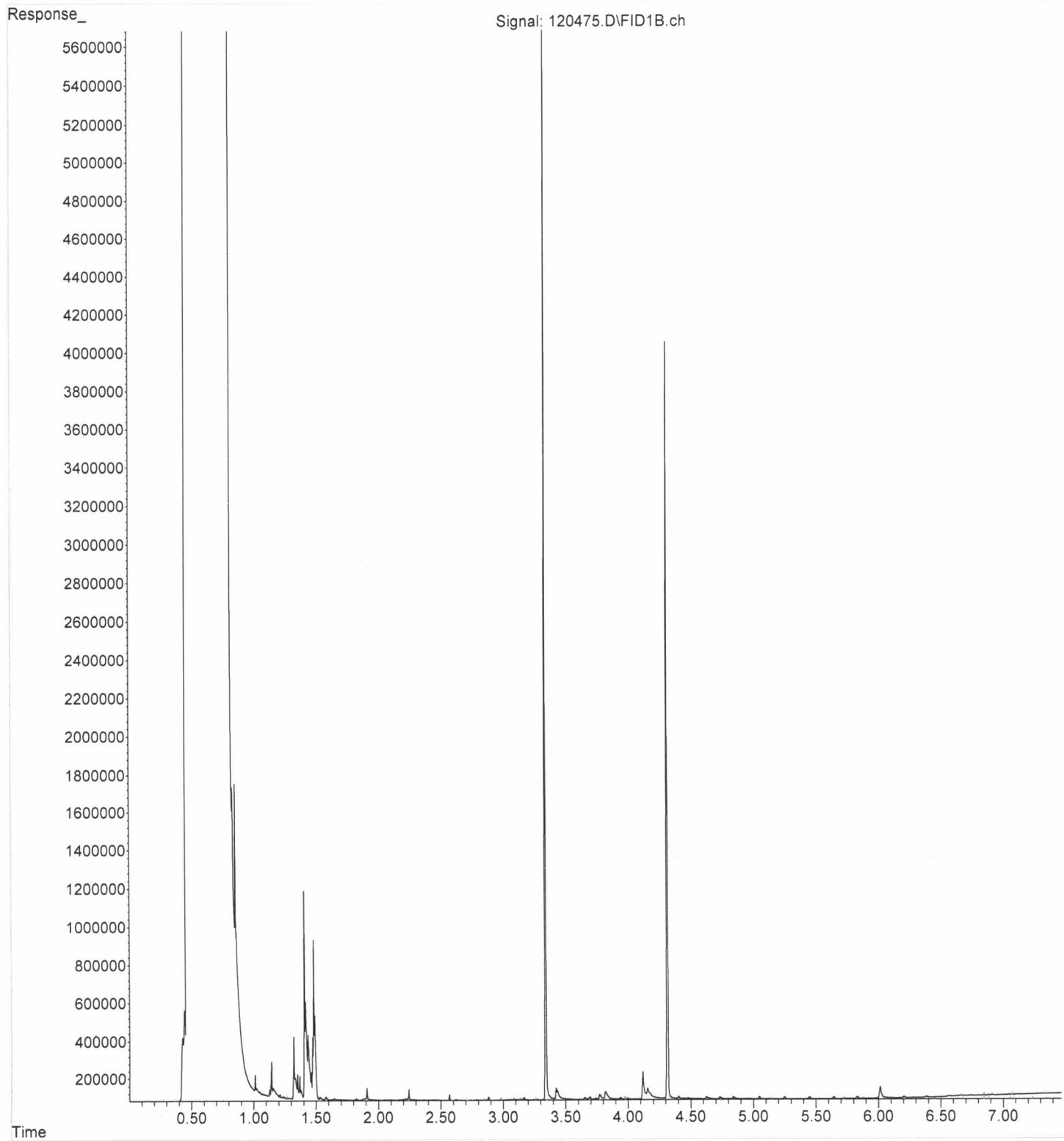
File : P:\Proc_GC10\12-04-23\120473.D
Operator : IJL
Acquired : 05 Dec 2023 02:18 am using AcqMethod DX.M
Instrument : GC10
Sample Name: 311408-05
Misc Info :
Vial Number: 60



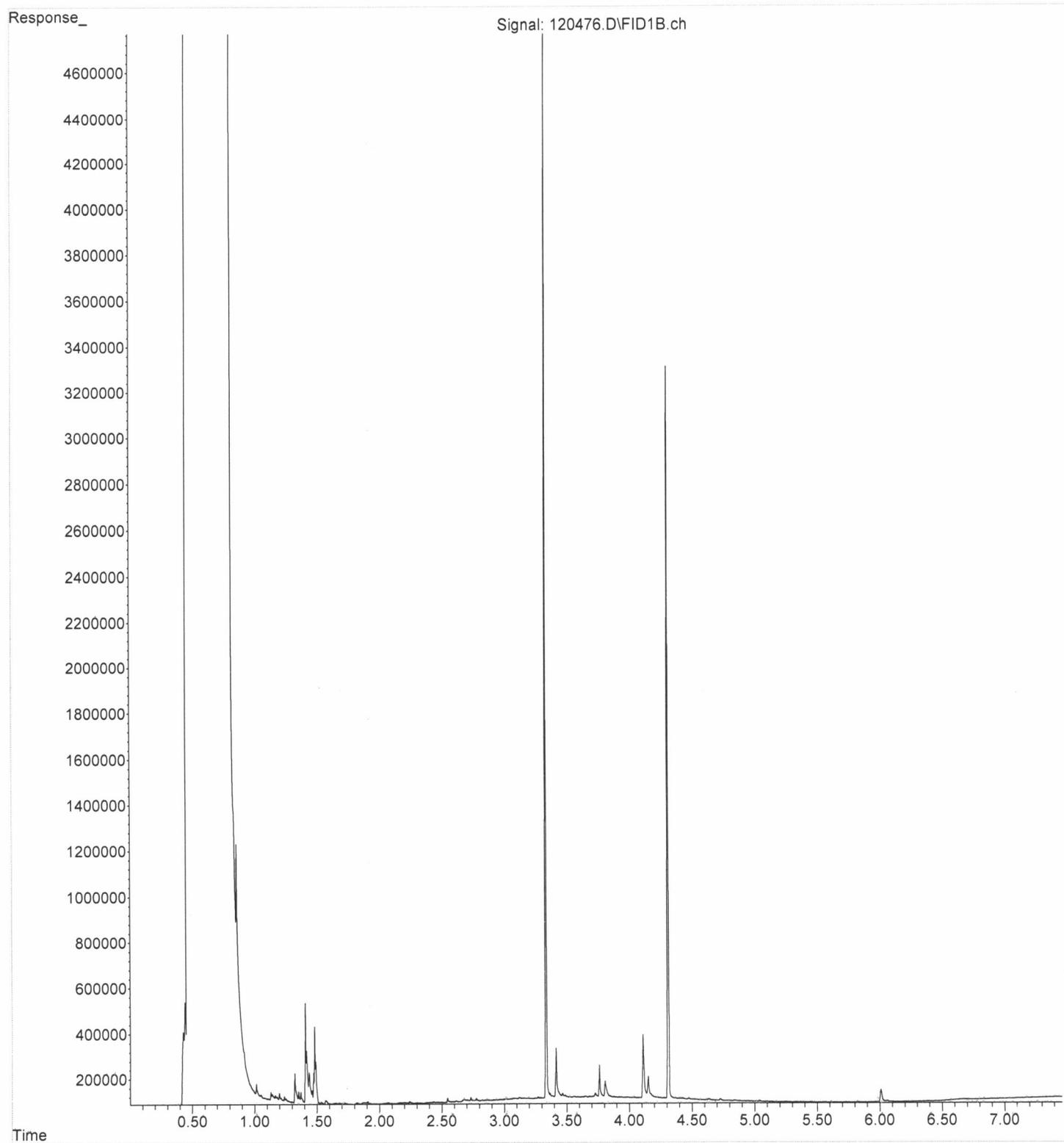
File :P:\Proc_GC10\12-04-23\120474.D
Operator : IJL
Acquired : 05 Dec 2023 02:30 am using AcqMethod DX.M
Instrument : GC10
Sample Name: 311408-06
Misc Info :
Vial Number: 61



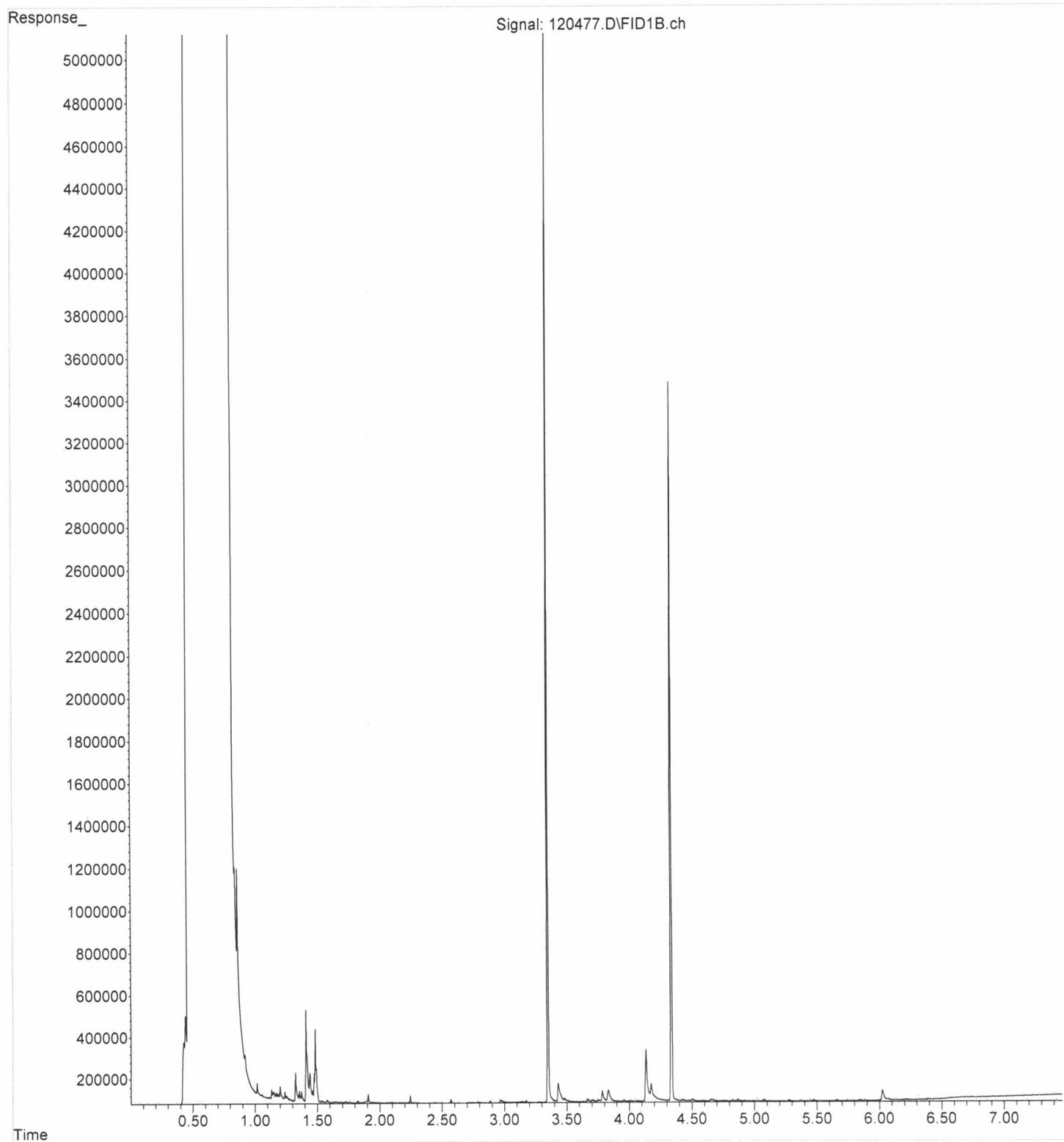
File :P:\Proc_GC10\12-04-23\120475.D
Operator : IJL
Acquired : 05 Dec 2023 02:42 am using AcqMethod DX.M
Instrument : GC10
Sample Name: 311408-07
Misc Info :
Vial Number: 62



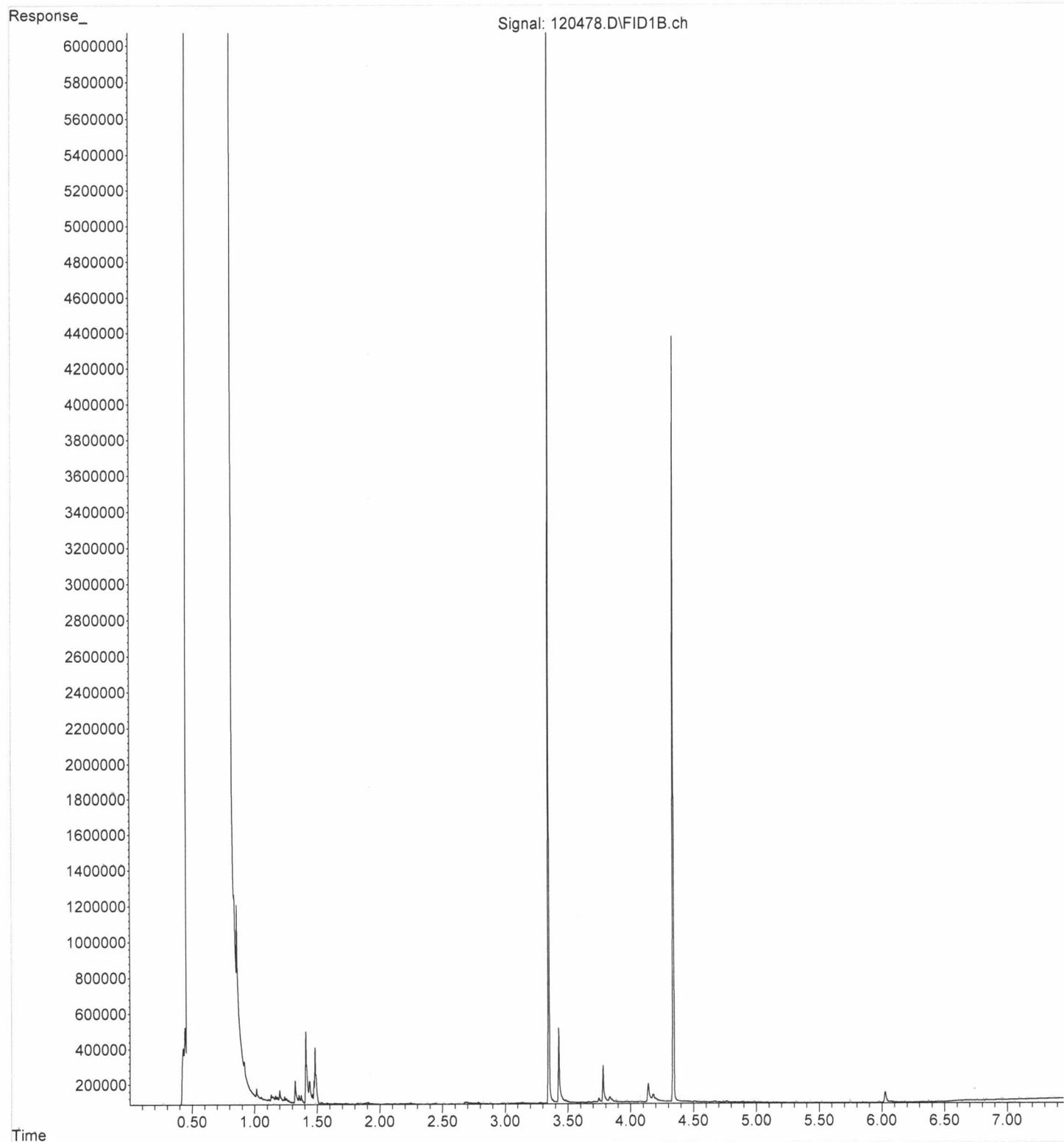
File :P:\Proc_GC10\12-04-23\120476.D
Operator : IJL
Acquired : 05 Dec 2023 02:53 am using AcqMethod DX.M
Instrument : GC10
Sample Name: 311408-08
Misc Info :
Vial Number: 63



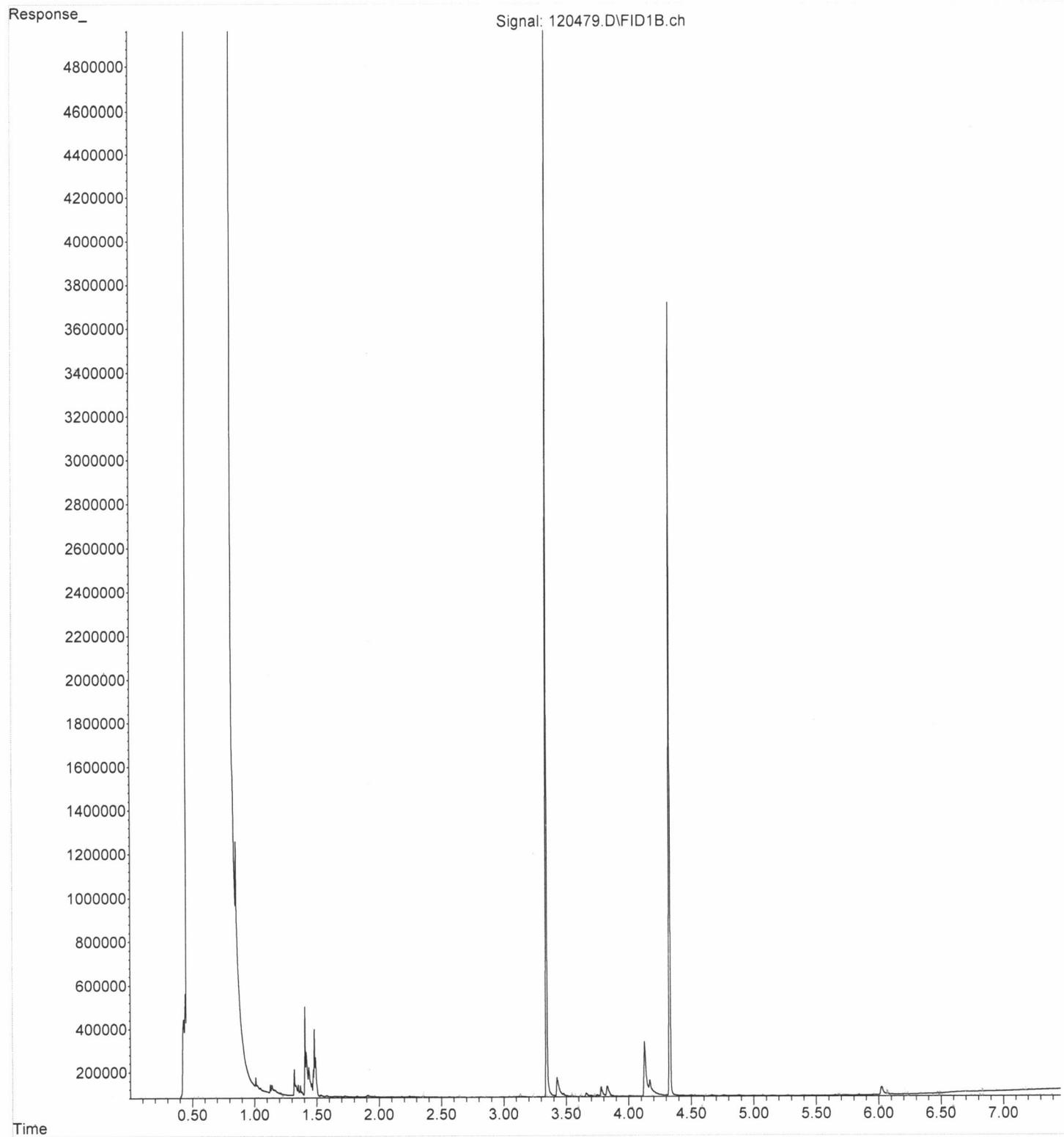
File :P:\Proc_GC10\12-04-23\120477.D
Operator : IJL
Acquired : 05 Dec 2023 03:05 am using AcqMethod DX.M
Instrument : GC10
Sample Name: 311408-09
Misc Info :
Vial Number: 64



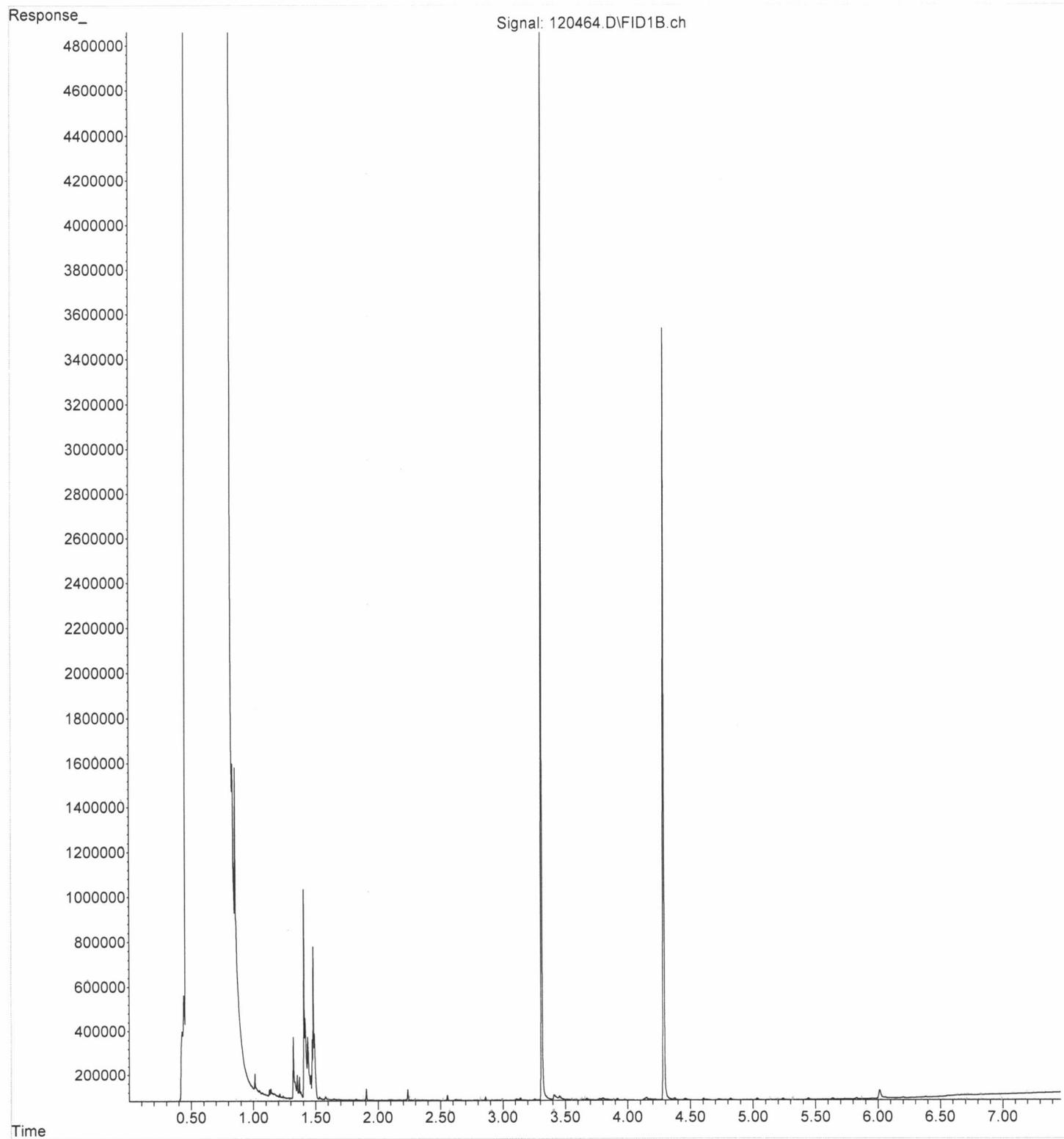
File : P:\Proc_GC10\12-04-23\120478.D
Operator : IJL
Acquired : 05 Dec 2023 03:17 am using AcqMethod DX.M
Instrument : GC10
Sample Name: 311408-10
Misc Info :
Vial Number: 65



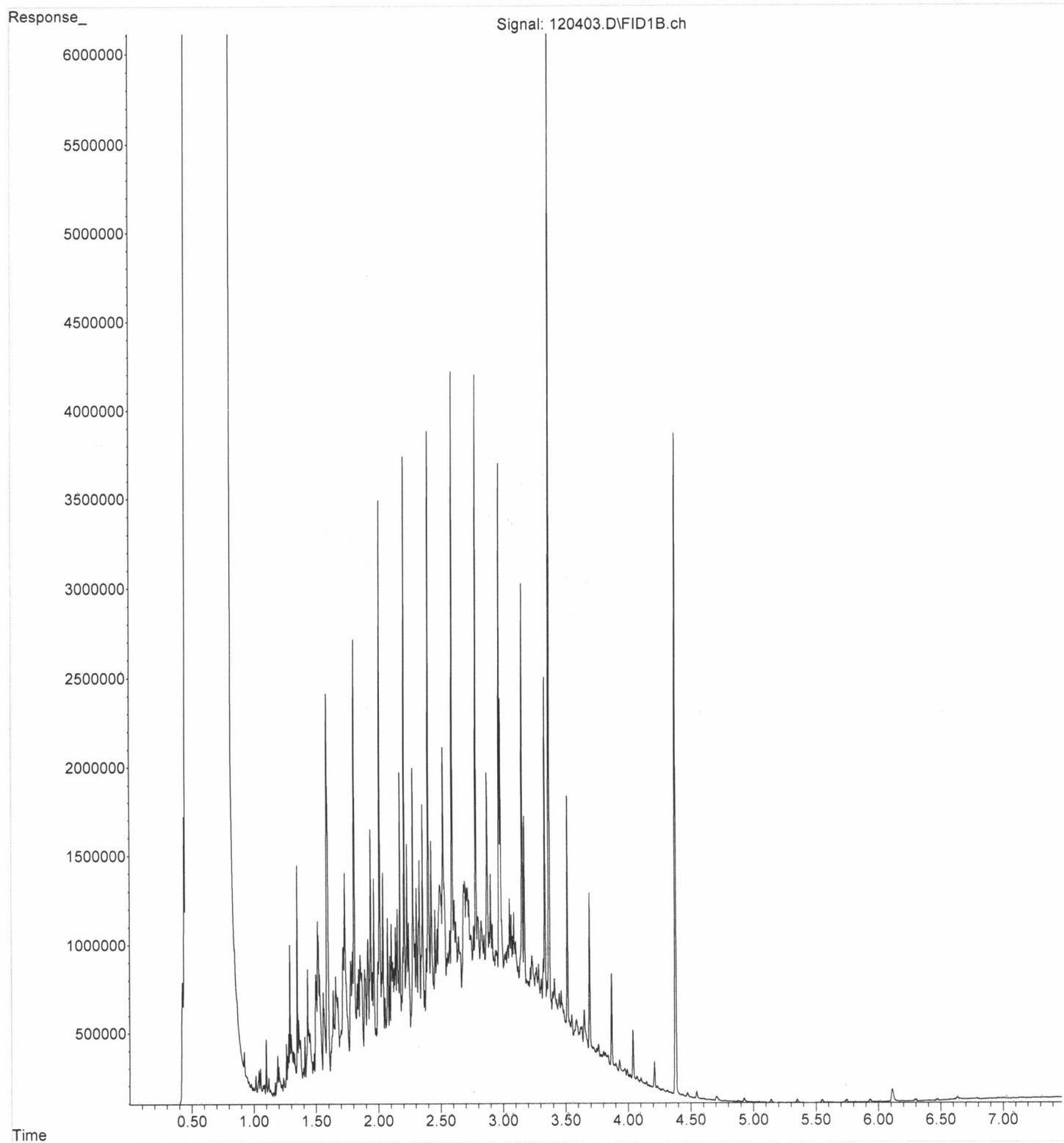
File :P:\Proc_GC10\12-04-23\120479.D
Operator : IJL
Acquired : 05 Dec 2023 03:28 am using AcqMethod DX.M
Instrument : GC10
Sample Name: 311408-11
Misc Info :
Vial Number: 66



File :P:\Proc_GC10\12-04-23\120464.D
Operator : IJL
Acquired : 05 Dec 2023 12:34 am using AcqMethod DX.M
Instrument : GC10
Sample Name: 03-2776 mb
Misc Info :
Vial Number: 53



File :P:\Proc_GC10\12-04-23\120403.D
Operator : IJL
Acquired : 04 Dec 2023 08:31 am using AcqMethod DX.M
Instrument : GC10
Sample Name: 500 DX 70-26F
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 Ave South
Seattle, WA 98108-2419
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March 6, 2024

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

Dear Mr Babcock:

Included are the results from the testing of material submitted on February 29, 2024 from the Texaco Strickland 180357, F&BI 402437 project. There are 20 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
ASP0306R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on February 29, 2024 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Texaco Strickland 180357, F&BI 402437 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Aspect Consulting, LLC</u>
402437 -01	MW-18R-022824
402437 -02	MW-25R-022824
402437 -03	MW-26-022824
402437 -04	MW-19-022824
402437 -05	MW-32-022824
402437 -06	MW-31-022824
402437 -07	MW-30-022824
402437 -08	MW-29-022824
402437 -09	MW-27-022824
402437 -10	MW-17-022924
402437 -11	MW-16-022924
402437 -12	Trip Blank

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 03/06/24
Date Received: 02/29/24
Project: Texaco Strickland 180357, F&BI 402437
Date Extracted: 03/01/24
Date Analyzed: 03/01/24

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES
FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
USING METHOD NWTPH-G_x**
Results Reported as ug/L (ppb)

<u>Sample ID</u> Laboratory ID	<u>Gasoline Range</u>	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 50-150)
MW-18R-022824 402437-01	<100	96
MW-25R-022824 402437-02	<100	98
MW-26-022824 402437-03	<100	97
MW-19-022824 402437-04	<100	99
MW-32-022824 402437-05	<100	98
MW-31-022824 402437-06	<100	101
MW-30-022824 402437-07	<100	101
MW-29-022824 402437-08	<100	102
MW-27-022824 402437-09	<100	99
MW-17-022924 402437-10	<100	98

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 03/06/24
Date Received: 02/29/24
Project: Texaco Strickland 180357, F&BI 402437
Date Extracted: 03/01/24
Date Analyzed: 03/01/24

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES
FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
USING METHOD NWTPH-G_x**
Results Reported as ug/L (ppb)

<u>Sample ID</u> Laboratory ID	<u>Gasoline Range</u>	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 50-150)
MW-16-022924 402437-11	380	101
Method Blank 04-429 MB	<100	95

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 03/06/24
 Date Received: 02/29/24
 Project: Texaco Strickland 180357, F&BI 402437
 Date Extracted: 03/01/24
 Date Analyzed: 03/01/24

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES
 FOR TOTAL PETROLEUM HYDROCARBONS AS
 DIESEL AND MOTOR OIL
 USING METHOD NWTPH-D_x**
 Results Reported as ug/L (ppb)

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C ₁₀ -C ₂₅)	<u>Motor Oil Range</u> (C ₂₅ -C ₃₆)	<u>Surrogate</u> (% Recovery) (Limit 50-150)
MW-18R-022824 402437-01	<50	<250	116
MW-25R-022824 402437-02	<50	<250	120
MW-26-022824 402437-03	<50	<250	111
MW-19-022824 402437-04	<50	<250	90
MW-32-022824 402437-05	83 x	<250	100
MW-31-022824 402437-06	<50	<250	107
MW-30-022824 402437-07	190 x	<250	124
MW-29-022824 402437-08	160 x	<250	121
MW-27-022824 402437-09	<50	<250	107
MW-17-022924 402437-10	64 x	<250	114
MW-16-022924 402437-11	250 x	<250	112
Method Blank 04-490 MB	<50	<250	112

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-18R-022824	Client:	Aspect Consulting, LLC
Date Received:	02/29/24	Project:	Texaco Strickland 180357
Date Extracted:	03/04/24 11:00	Lab ID:	402437-01
Date Analyzed:	03/04/24	Data File:	030411.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	IJL

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	78	126
Toluene-d8	101	84	115
4-Bromofluorobenzene	97	72	130

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-25R-022824	Client:	Aspect Consulting, LLC
Date Received:	02/29/24	Project:	Texaco Strickland 180357
Date Extracted:	03/04/24 11:00	Lab ID:	402437-02
Date Analyzed:	03/04/24	Data File:	030412.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	IJL

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	78	126
Toluene-d8	98	84	115
4-Bromofluorobenzene	92	72	130

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-26-022824	Client:	Aspect Consulting, LLC
Date Received:	02/29/24	Project:	Texaco Strickland 180357
Date Extracted:	03/04/24 11:00	Lab ID:	402437-03
Date Analyzed:	03/04/24	Data File:	030413.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	IJL

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	105	78	126
Toluene-d8	99	84	115
4-Bromofluorobenzene	98	72	130

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-19-022824	Client:	Aspect Consulting, LLC
Date Received:	02/29/24	Project:	Texaco Strickland 180357
Date Extracted:	03/04/24 11:00	Lab ID:	402437-04
Date Analyzed:	03/04/24	Data File:	030414.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	IJL

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	104	78	126
Toluene-d8	99	84	115
4-Bromofluorobenzene	95	72	130

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-32-022824	Client:	Aspect Consulting, LLC
Date Received:	02/29/24	Project:	Texaco Strickland 180357
Date Extracted:	03/04/24 11:00	Lab ID:	402437-05
Date Analyzed:	03/04/24	Data File:	030415.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	IJL

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	78	126
Toluene-d8	105	84	115
4-Bromofluorobenzene	102	72	130

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-31-022824	Client:	Aspect Consulting, LLC
Date Received:	02/29/24	Project:	Texaco Strickland 180357
Date Extracted:	03/04/24 11:00	Lab ID:	402437-06
Date Analyzed:	03/04/24	Data File:	030416.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	IJL

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	78	126
Toluene-d8	104	84	115
4-Bromofluorobenzene	105	72	130

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-30-022824	Client:	Aspect Consulting, LLC
Date Received:	02/29/24	Project:	Texaco Strickland 180357
Date Extracted:	03/04/24 11:00	Lab ID:	402437-07
Date Analyzed:	03/04/24	Data File:	030417.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	IJL

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	78	126
Toluene-d8	103	84	115
4-Bromofluorobenzene	100	72	130

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-29-022824	Client:	Aspect Consulting, LLC
Date Received:	02/29/24	Project:	Texaco Strickland 180357
Date Extracted:	03/04/24 11:00	Lab ID:	402437-08
Date Analyzed:	03/04/24	Data File:	030418.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	IJL

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	96	78	126
Toluene-d8	103	84	115
4-Bromofluorobenzene	103	72	130

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-27-022824	Client:	Aspect Consulting, LLC
Date Received:	02/29/24	Project:	Texaco Strickland 180357
Date Extracted:	03/04/24 11:00	Lab ID:	402437-09
Date Analyzed:	03/04/24	Data File:	030419.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	IJL

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	93	78	126
Toluene-d8	100	84	115
4-Bromofluorobenzene	103	72	130

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-17-022924	Client:	Aspect Consulting, LLC
Date Received:	02/29/24	Project:	Texaco Strickland 180357
Date Extracted:	03/04/24 11:00	Lab ID:	402437-10
Date Analyzed:	03/04/24	Data File:	030420.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	IJL

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	78	126
Toluene-d8	100	84	115
4-Bromofluorobenzene	103	72	130

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-16-022924	Client:	Aspect Consulting, LLC
Date Received:	02/29/24	Project:	Texaco Strickland 180357
Date Extracted:	03/04/24 11:00	Lab ID:	402437-11
Date Analyzed:	03/04/24	Data File:	030421.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	IJL

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	95	78	126
Toluene-d8	103	84	115
4-Bromofluorobenzene	106	72	130

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Texaco Strickland 180357
Date Extracted:	03/04/24	Lab ID:	04-0494 mb
Date Analyzed:	03/04/24	Data File:	030409.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	78	126
Toluene-d8	100	84	115
4-Bromofluorobenzene	100	72	130

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 03/06/24

Date Received: 02/29/24

Project: Texaco Strickland 180357, F&BI 402437

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

Laboratory Code: 402437-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 20)
Gasoline	ug/L (ppb)	<10	<10	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Gasoline	ug/L (ppb)	1,000	90	70-130

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 03/06/24

Date Received: 02/29/24

Project: Texaco Strickland 180357, F&BI 402437

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

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	96	100	72-139	4

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 03/06/24

Date Received: 02/29/24

Project: Texaco Strickland 180357, F&BI 402437

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

Laboratory Code: 402437-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent	
				Recovery MS	Acceptance Criteria
Benzene	ug/L (ppb)	10	<0.35	101	50-150
Toluene	ug/L (ppb)	10	<1	96	50-150
Ethylbenzene	ug/L (ppb)	10	<1	100	50-150
m,p-Xylene	ug/L (ppb)	20	<2	99	50-150
o-Xylene	ug/L (ppb)	10	<1	97	50-150
Naphthalene	ug/L (ppb)	10	<1	95	50-150

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent		Acceptance Criteria	RPD (Limit 20)
			Recovery LCS	Recovery LCSD		
Benzene	ug/L (ppb)	10	105	105	70-130	0
Toluene	ug/L (ppb)	10	100	102	70-130	2
Ethylbenzene	ug/L (ppb)	10	103	104	70-130	1
m,p-Xylene	ug/L (ppb)	20	101	102	70-130	1
o-Xylene	ug/L (ppb)	10	99	99	70-130	0
Naphthalene	ug/L (ppb)	10	100	96	70-130	4

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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 low; 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.

402437

SAMPLE CHAIN OF CUSTODY

02/29/24

VW41F3

Page # 1 of 2

Report To Daniel Babcock

Company Aspect Consulting

Address 710 2nd Ave #550

City, State, ZIP Seattle, WA, 98110

Phone 206-251-1243 Email Daniel.Babcock@aspectconsulting.com

SAMPLER'S (signature) [Signature]

PROJECT NAME Texaco Stickleland

PO # 180357

REMARKS

INVOICE TO

Project specific RIs? - 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	ANALYSES REQUESTED										Notes		
						NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	BTEX + Naphthalene EPA 8260					
MW-18R-022824	01 A-G	2/28/24	0810	W	7	X	X											
MW-25R-022824	02		0850															
MW-26-022824	03		0940															
MW-19-022824	04		1020															
MW-32-022824	05		1120															
MW-31-022824	06		1200															
MW-30-022824	07		1250															
MW-29-022824	08		1330															
MW-27-022824	09		1420															
MW-17-022924	10	2/29/24	0930	W	7													

SIGNATURE

PRINT NAME

COMPANY

DATE

TIME

Relinquished by: [Signature]

Carmen Tapero

Aspect

2/29/24

12:28

Received by: [Signature]

Michael Edell

Exbi

2/26/24

12:28

Received by:

Samples received at 2 of 0

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

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 Ave South
Seattle, WA 98108-2419
(206) 285-8282
office@friedmanandbruya.com
www.friedmanandbruya.com

June 6, 2024

Daniel Babcock, Project Manager
Aspect Consulting
710 2nd Ave S, Suite 550
Seattle, WA 98104

Dear Mr Babcock:

Included are the results from the testing of material submitted on May 30, 2024 from the Texaco Strickland AS180357, F&BI 405479 project. There are 20 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
ASP0606R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on May 30, 2024 by Friedman & Bruya, Inc. from the Aspect Consulting Texaco Strickland AS180357, F&BI 405479 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Aspect Consulting</u>
405479 -01	MW-18R-240529
405479 -02	MW-25R-240529
405479 -03	MW-26-240529
405479 -04	MW-19-240529
405479 -05	MW-32-240529
405479 -06	MW-31-240529
405479 -07	MW-30-240529
405479 -08	MW-29-240529
405479 -09	MW-27-240530
405479 -10	MW-16-240530
405479 -11	MW-17-240530
405479 -12	Trip Blank

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 06/06/24

Date Received: 05/30/24

Project: Texaco Strickland AS180357, F&BI 405479

Date Extracted: 05/30/24

Date Analyzed: 05/31/24

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES
FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
USING METHOD NWTPH-G_x**
Results Reported as ug/L (ppb)

<u>Sample ID</u> Laboratory ID	<u>Gasoline Range</u>	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 50-150)
MW-18R-240529 405479-01	<100	92
MW-25R-240529 405479-02	<100	96
MW-26-240529 405479-03	<100	97
MW-19-240529 405479-04	<100	101
MW-32-240529 405479-05	<100	97
MW-31-240529 405479-06	<100	98
MW-30-240529 405479-07	<100	98
MW-29-240529 405479-08	<100	99
MW-27-240530 405479-09	<100	106
MW-16-240530 405479-10	320	104

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 06/06/24

Date Received: 05/30/24

Project: Texaco Strickland AS180357, F&BI 405479

Date Extracted: 05/30/24

Date Analyzed: 05/31/24

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES
FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
USING METHOD NWTPH-G_x**
Results Reported as ug/L (ppb)

<u>Sample ID</u> Laboratory ID	<u>Gasoline Range</u>	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 50-150)
MW-17-240530 405479-11	<100	103
Method Blank 04-914 MB	<100	95

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 06/06/24

Date Received: 05/30/24

Project: Texaco Strickland AS180357, F&BI 405479

Date Extracted: 05/31/24

Date Analyzed: 05/31/24

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES
FOR TOTAL PETROLEUM HYDROCARBONS AS
DIESEL AND MOTOR OIL
USING METHOD NWTPH-D_x
Results Reported as ug/L (ppb)**

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C ₁₀ -C ₂₅)	<u>Motor Oil Range</u> (C ₂₅ -C ₃₆)	<u>Surrogate</u> (% Recovery) (Limit 50-150)
MW-18R-240529 405479-01	<50	<250	76
MW-25R-240529 405479-02	<50	<250	75
MW-26-240529 405479-03	<50	<250	82
MW-19-240529 405479-04	<50	<250	71
MW-32-240529 405479-05	<50	<250	79
MW-31-240529 405479-06	<50	<250	87
MW-30-240529 405479-07	78 x	<250	71
MW-29-240529 405479-08	140 x	<250	78
MW-27-240530 405479-09	<50	<250	68
MW-16-240530 405479-10	160 x	<250	78
MW-17-240530 405479-11	53 x	<250	86
Method Blank 04-1270 MB2	<50	<250	75

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-18R-240529	Client:	Aspect Consulting
Date Received:	05/30/24	Project:	Texaco Strickland AS180357
Date Extracted:	06/03/24	Lab ID:	405479-01
Date Analyzed:	06/03/24	Data File:	060332.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	110	79	128
Toluene-d8	99	84	121
4-Bromofluorobenzene	100	84	116

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-25R-240529	Client:	Aspect Consulting
Date Received:	05/30/24	Project:	Texaco Strickland AS180357
Date Extracted:	06/03/24	Lab ID:	405479-02
Date Analyzed:	06/03/24	Data File:	060333.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	107	79	128
Toluene-d8	98	84	121
4-Bromofluorobenzene	99	84	116

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-26-240529	Client:	Aspect Consulting
Date Received:	05/30/24	Project:	Texaco Strickland AS180357
Date Extracted:	06/03/24	Lab ID:	405479-03
Date Analyzed:	06/03/24	Data File:	060334.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	94	79	128
Toluene-d8	97	84	121
4-Bromofluorobenzene	101	84	116

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-19-240529	Client:	Aspect Consulting
Date Received:	05/30/24	Project:	Texaco Strickland AS180357
Date Extracted:	06/03/24	Lab ID:	405479-04
Date Analyzed:	06/03/24	Data File:	060335.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	106	79	128
Toluene-d8	103	84	121
4-Bromofluorobenzene	99	84	116

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-32-240529	Client:	Aspect Consulting
Date Received:	05/30/24	Project:	Texaco Strickland AS180357
Date Extracted:	06/03/24	Lab ID:	405479-05
Date Analyzed:	06/03/24	Data File:	060336.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	79	128
Toluene-d8	99	84	121
4-Bromofluorobenzene	107	84	116

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-31-240529	Client:	Aspect Consulting
Date Received:	05/30/24	Project:	Texaco Strickland AS180357
Date Extracted:	06/03/24	Lab ID:	405479-06
Date Analyzed:	06/03/24	Data File:	060337.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	79	128
Toluene-d8	99	84	121
4-Bromofluorobenzene	100	84	116

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-30-240529	Client:	Aspect Consulting
Date Received:	05/30/24	Project:	Texaco Strickland AS180357
Date Extracted:	06/03/24	Lab ID:	405479-07
Date Analyzed:	06/03/24	Data File:	060338.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	110	79	128
Toluene-d8	99	84	121
4-Bromofluorobenzene	97	84	116

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-29-240529	Client:	Aspect Consulting
Date Received:	05/30/24	Project:	Texaco Strickland AS180357
Date Extracted:	06/03/24	Lab ID:	405479-08
Date Analyzed:	06/03/24	Data File:	060339.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	110	79	128
Toluene-d8	104	84	121
4-Bromofluorobenzene	102	84	116

Compounds:	Concentration ug/L (ppb)
Benzene	1.6
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-27-240530	Client:	Aspect Consulting
Date Received:	05/30/24	Project:	Texaco Strickland AS180357
Date Extracted:	06/03/24	Lab ID:	405479-09
Date Analyzed:	06/03/24	Data File:	060340.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	86	79	128
Toluene-d8	98	84	121
4-Bromofluorobenzene	105	84	116

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-16-240530	Client:	Aspect Consulting
Date Received:	05/30/24	Project:	Texaco Strickland AS180357
Date Extracted:	06/03/24	Lab ID:	405479-10
Date Analyzed:	06/03/24	Data File:	060341.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	95	79	128
Toluene-d8	96	84	121
4-Bromofluorobenzene	97	84	116

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-17-240530	Client:	Aspect Consulting
Date Received:	05/30/24	Project:	Texaco Strickland AS180357
Date Extracted:	06/03/24	Lab ID:	405479-11
Date Analyzed:	06/03/24	Data File:	060342.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	90	79	128
Toluene-d8	95	84	121
4-Bromofluorobenzene	96	84	116

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	Method Blank	Client:	Aspect Consulting
Date Received:	Not Applicable	Project:	Texaco Strickland AS180357
Date Extracted:	06/03/24	Lab ID:	04-1231 mb
Date Analyzed:	06/03/24	Data File:	060329.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	105	78	126
Toluene-d8	100	84	115
4-Bromofluorobenzene	97	72	130

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35
Toluene	<1
Ethylbenzene	<1
m,p-Xylene	<2
o-Xylene	<1
Naphthalene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 06/06/24

Date Received: 05/30/24

Project: Texaco Strickland AS180357, F&BI 405479

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

Laboratory Code: 405440-01 (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	97	70-130

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 06/06/24

Date Received: 05/30/24

Project: Texaco Strickland AS180357, F&BI 405479

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

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	89	81	65-151	9

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 06/06/24

Date Received: 05/30/24

Project: Texaco Strickland AS180357, F&BI 405479

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

Laboratory Code: 405479-05 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent	Acceptance
				Recovery MS	Criteria
Benzene	ug/L (ppb)	10	<0.35	103	50-150
Toluene	ug/L (ppb)	10	<1	101	50-150
Ethylbenzene	ug/L (ppb)	10	<1	103	50-150
m,p-Xylene	ug/L (ppb)	20	<2	102	50-150
o-Xylene	ug/L (ppb)	10	<1	103	50-150
Naphthalene	ug/L (ppb)	10	<1	109	50-150

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent	Percent	Acceptance Criteria	RPD (Limit 20)
			Recovery LCS	Recovery LCSD		
Benzene	ug/L (ppb)	10	101	103	70-130	2
Toluene	ug/L (ppb)	10	101	101	70-130	0
Ethylbenzene	ug/L (ppb)	10	103	102	70-130	1
m,p-Xylene	ug/L (ppb)	20	101	101	70-130	0
o-Xylene	ug/L (ppb)	10	99	99	70-130	0
Naphthalene	ug/L (ppb)	10	103	102	70-130	1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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 low; 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.

405479

SAMPLE CHAIN OF CUSTODY

05/30/24

F3/VW4

Page # 1 of 2

Report To Daniel Bobcock

Company Aspect

Address _____

City, State, ZIP _____

Phone 404-210-6437

Email Daniel.Bobcock@aspectconsulting.com

SAMPLE # (signature) [Signature]

PROJECT NAME Texas - Strickland

PO # AS180357

REMARKS

INVOICE TO

Project specific RIs? - 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	ANALYSES REQUESTED							Notes	
						NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082		
MW-18R-240529	01A-G	5/29/24	0805	W	7	X	X						X	
MW-25R-240529	02		0900											
MW-26-240529	03		1020											
MW-19-240529	04		1200											
MW-32-240529	05		1305											
MW-31-240529	06		1345											
MW-30-240529	07		1445											
MW-29-240529	08		1550											
MW-27-240530	09	5/30/24	0805											
MW-16-240530	10		1050											

SIGNATURE

Relinquished by: [Signature]

Received by: [Signature]

PRINT NAME

Carmen Tappero

ANH PHAN

COMPANY

Aspect

ESB

DATE

5/30/24

05/30/24 12:58

TIME

12:58

Received by:

Received by:

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

SAMPLE CONDITION UPON RECEIPT CHECKLIST

PROJECT # 405479 CLIENT ASP

INITIALS/ DATE: AP
05/30/24

If custody seals are present on cooler, are they intact? NA YES NO

Cooler/Sample temperature _____ °C
Thermometer ID: Fluke 96312917

Were samples received on ice/cold packs? YES NO

How did samples arrive?
 Over the Counter Picked up by F&BI FedEx/UPS/GSO

Is there a Chain-of-Custody* (COC)? YES NO Initials/ Date: AP
*or other representative documents, letters, and/or shipping memos 05/30/24

Number of days samples have been sitting prior to receipt at laboratory 0-1 days

Are the samples clearly identified? (explain "no" answer below) YES NO

Were all sample containers received intact (i.e. not broken, leaking etc.)? (explain "no" answer below) YES NO

Were appropriate sample containers used? YES NO Unknown

If custody seals are present on samples, are they intact? NA YES NO

Are samples requiring no headspace, headspace free? NA YES NO

Is the following information provided on the COC, and does it match the sample label? (explain "no" answer below)

- Sample ID's Yes No _____ Not on COC/label
- Date Sampled Yes No _____ Not on COC/label
- Time Sampled Yes No _____ Not on COC/label
- # of Containers Yes No Added Trip Blank at lab
- Relinquished Yes No _____
- Requested analysis Yes On Hold _____

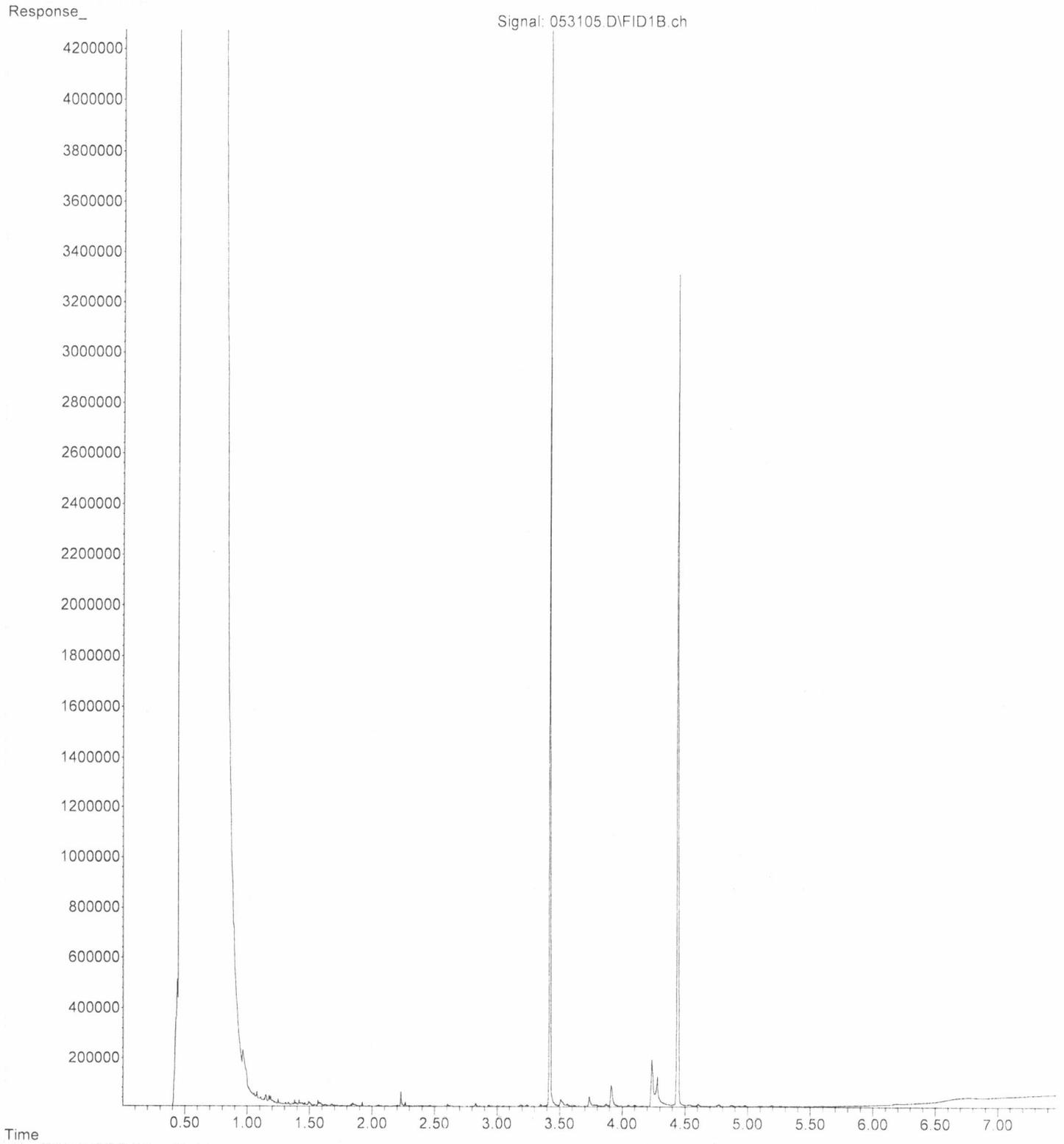
Other comments (use a separate page if needed)

Air Samples: Were any additional canisters/tubes received? NA YES NO

Number of unused TO15 canisters _____ Number of unused TO17 tubes _____

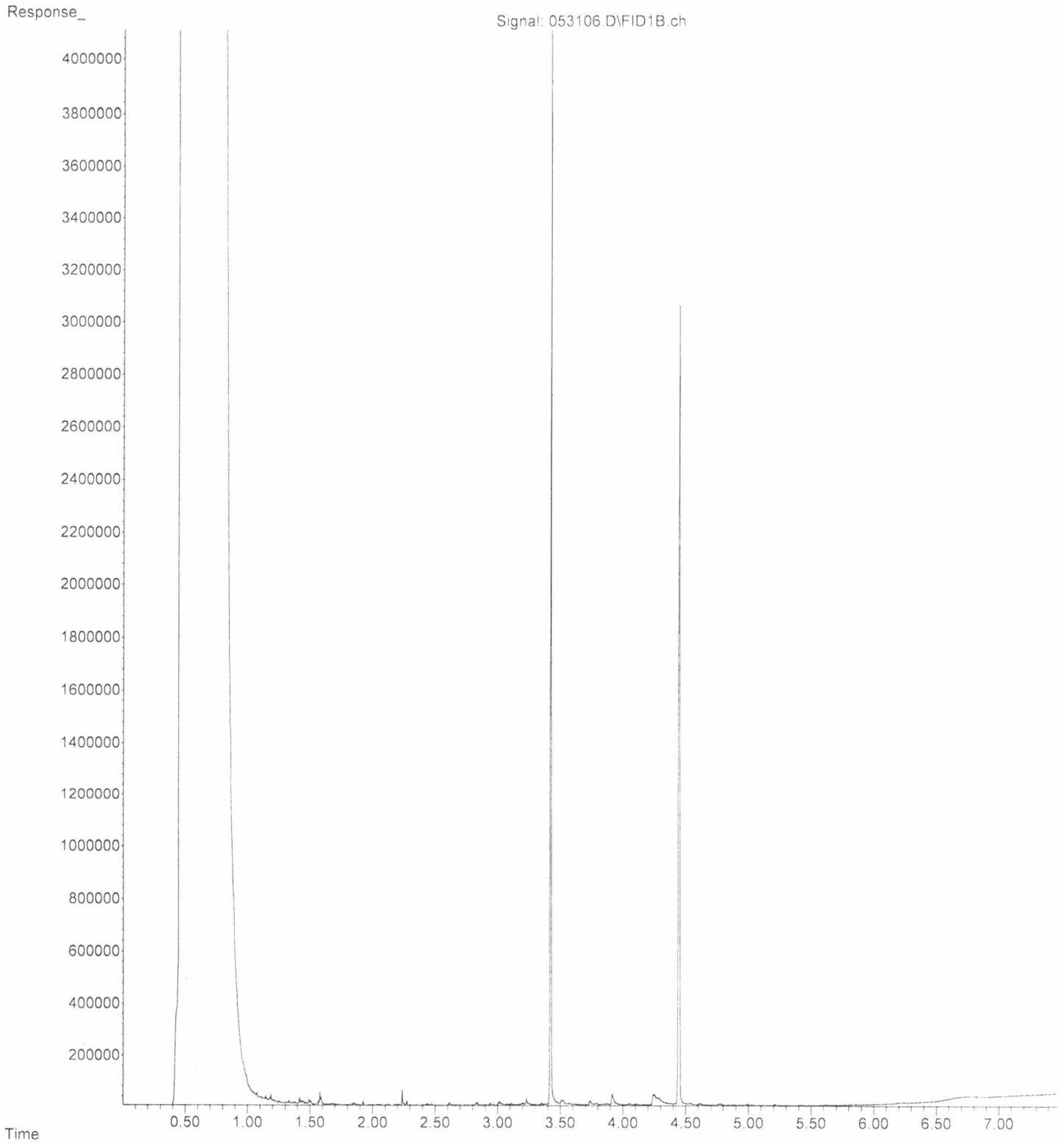
File : P:\Proc_GC14\05-31-24\053105.D
Operator : TL
Acquired : 31 May 2024 09:13 am using AcqMethod DX.M
Instrument : GC14
Sample Name: 405479-01
Misc Info :
Vial Number: 7

ERR



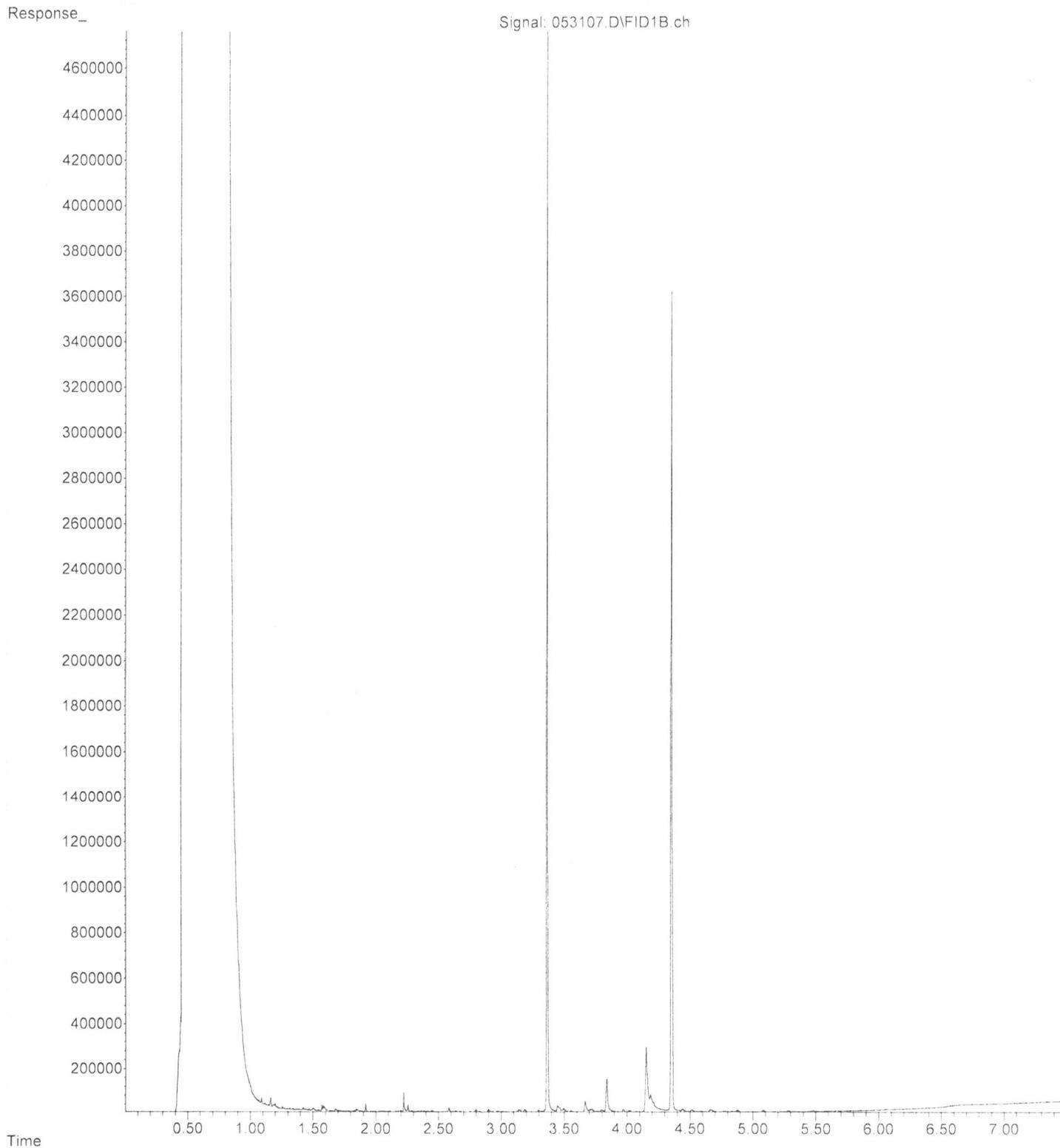
File : P:\Proc_GC14\05-31-24\053106.D
Operator : TL
Acquired : 31 May 2024 09:25 am using AcqMethod DX.M
Instrument : GC14
Sample Name: 405479-02
Misc Info :
Vial Number: 8

ERR



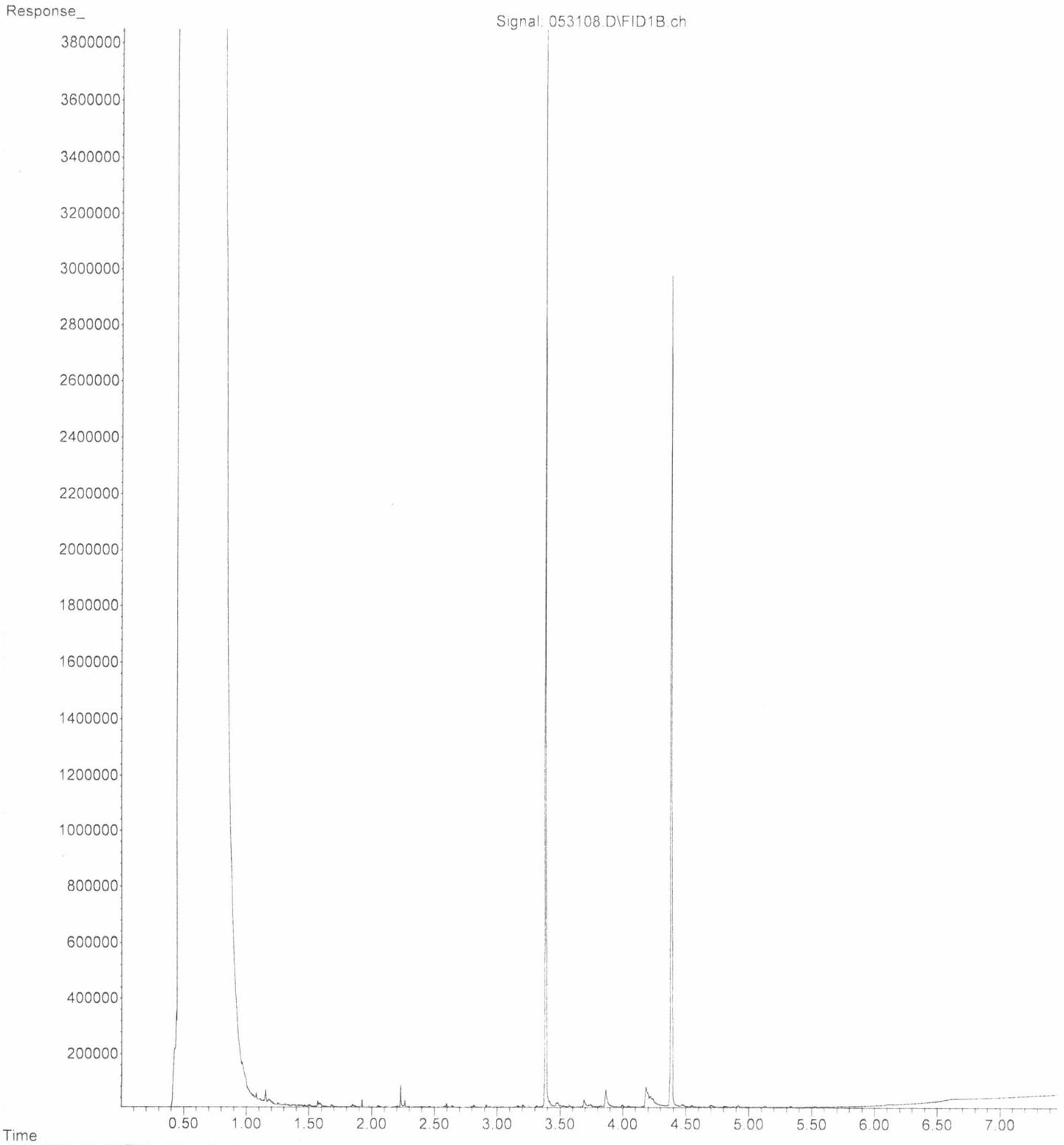
File : P:\Proc_GC14\05-31-24\053107.D
Operator : TL
Acquired : 31 May 2024 09:37 am using AcqMethod DX.M
Instrument : GC14
Sample Name: 405479-03
Misc Info :
Vial Number: 9

ERR



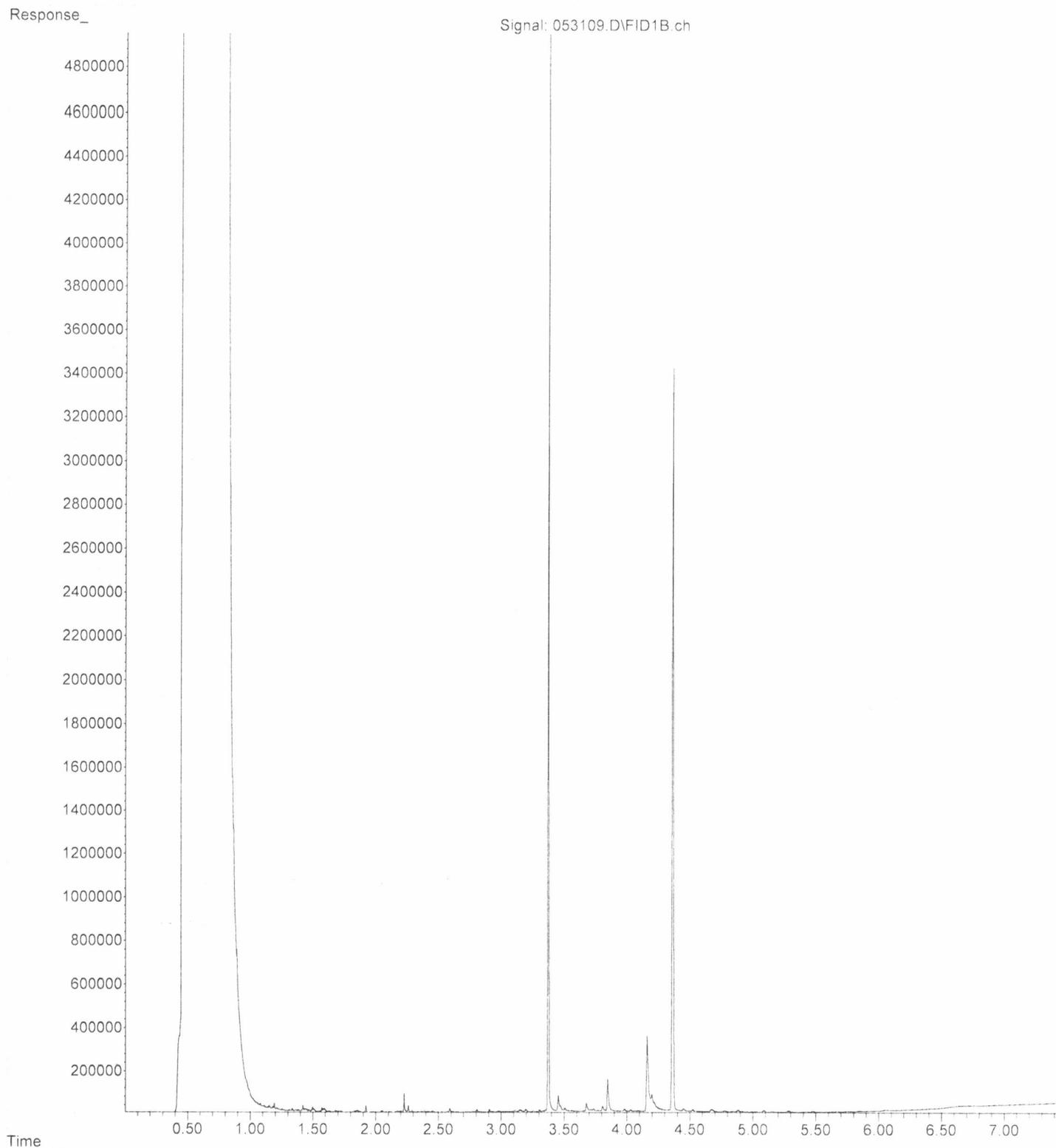
File :P:\Proc_GC14\05-31-24\053108.D
Operator : TL
Acquired : 31 May 2024 09:48 am using AcqMethod DX.M
Instrument : GC14
Sample Name: 405479-04
Misc Info :
Vial Number: 10

ERR



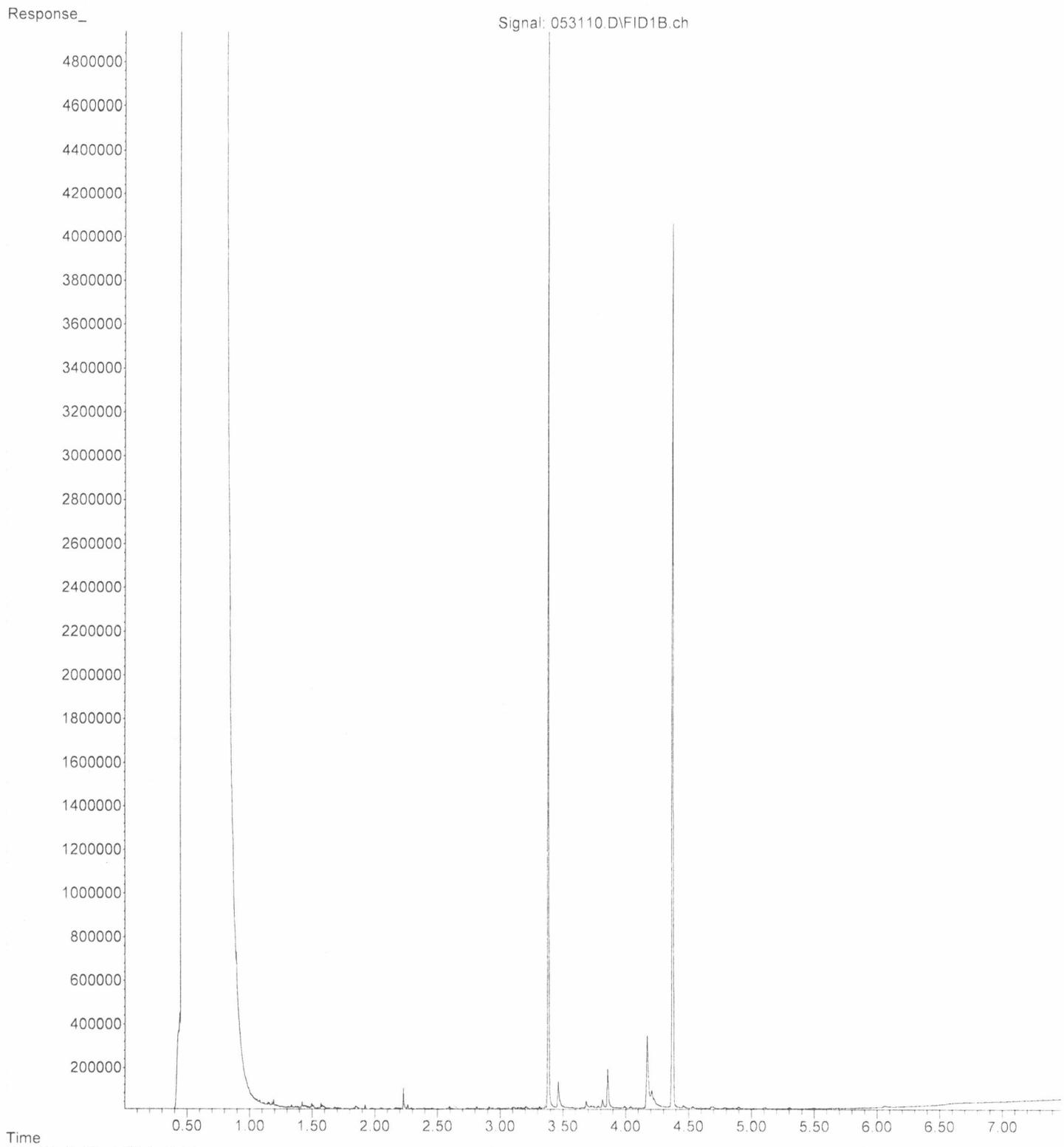
File :P:\Proc_GC14\05-31-24\053109.D
Operator : TL
Acquired : 31 May 2024 10:00 am using AcqMethod DX.M
Instrument : GC14
Sample Name: 405479-05
Misc Info :
Vial Number: 11

ERR



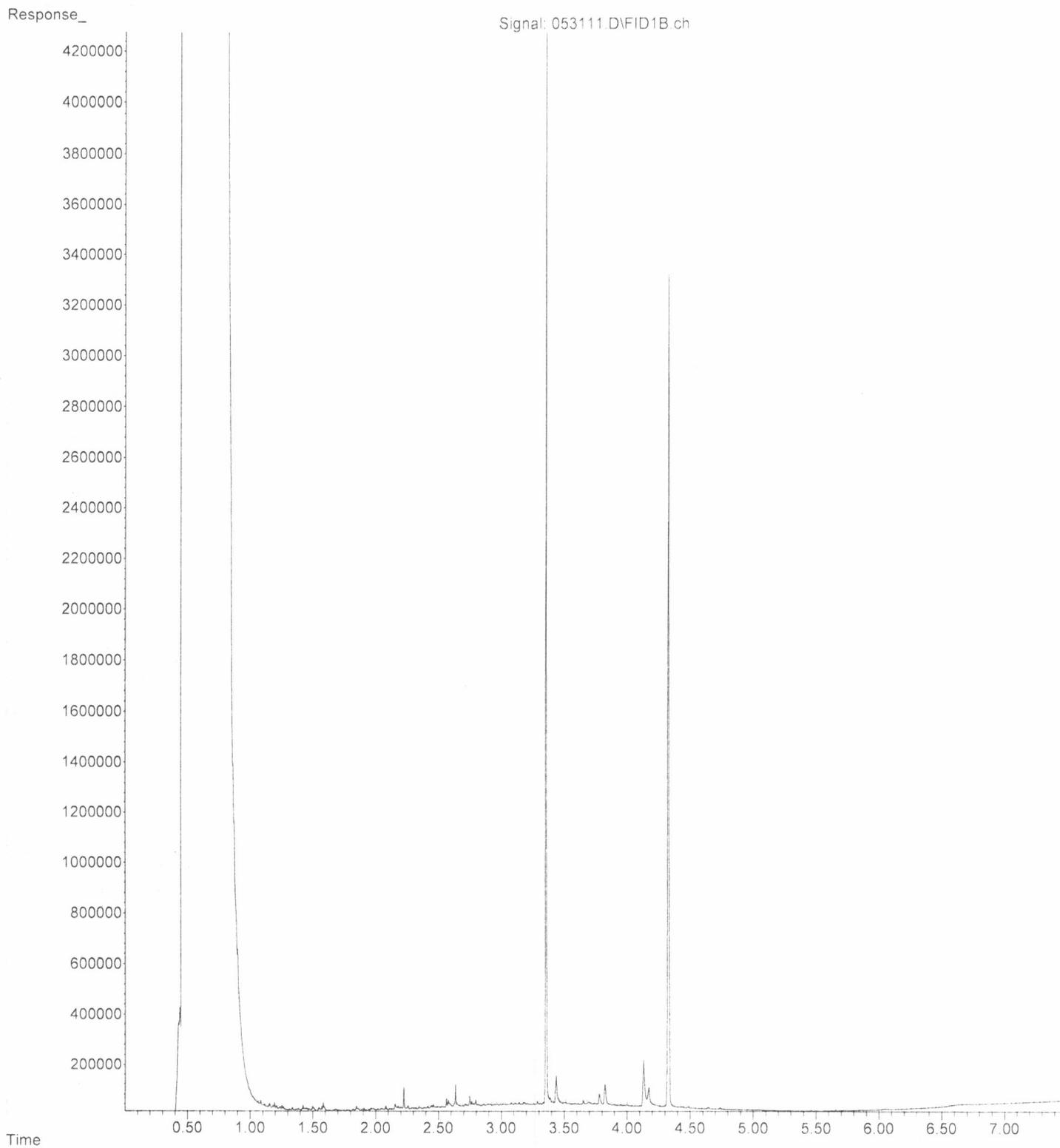
File : P:\Proc_GC14\05-31-24\053110.D
Operator : TL
Acquired : 31 May 2024 10:12 am using AcqMethod DX.M
Instrument : GC14
Sample Name: 405479-06
Misc Info :
Vial Number: 12

ERR



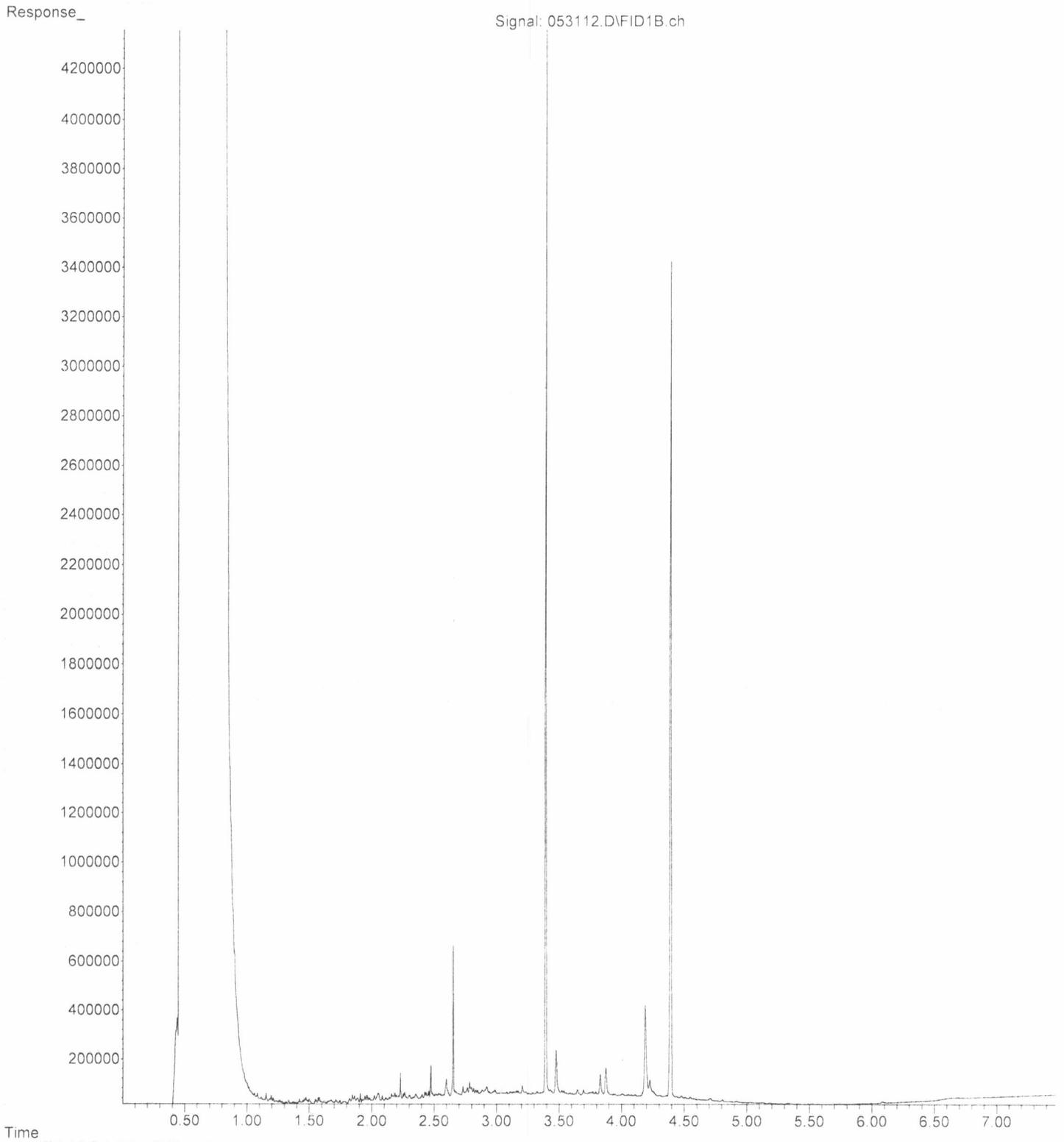
File : P:\Proc_GC14\05-31-24\053111.D
Operator : TL
Acquired : 31 May 2024 10:24 am using AcqMethod DX.M
Instrument : GC14
Sample Name: 405479-07
Misc Info :
Vial Number: 13

ERR



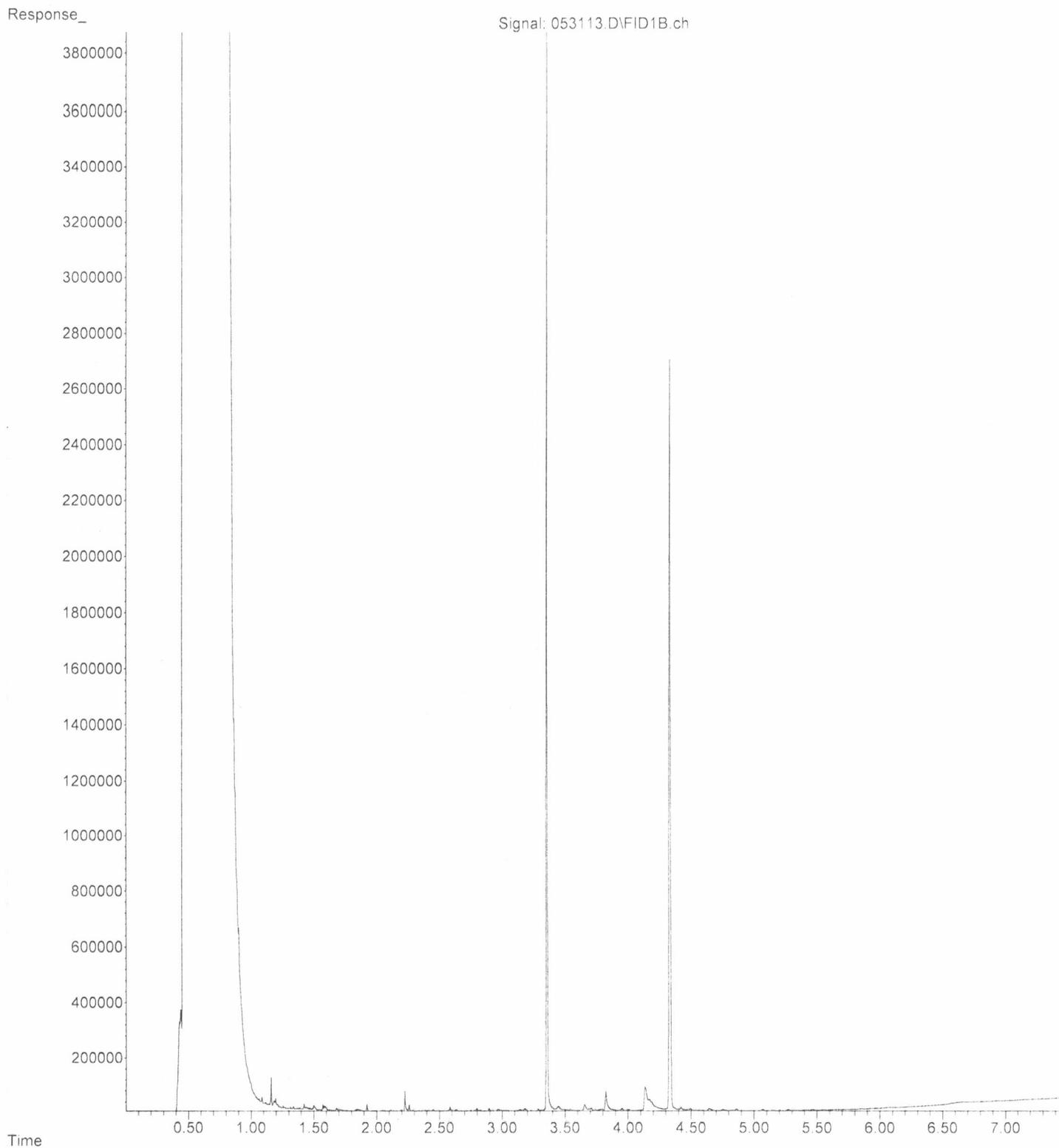
File : P:\Proc_GC14\05-31-24\053112.D
Operator : TL
Acquired : 31 May 2024 10:36 am using AcqMethod DX.M
Instrument : GC14
Sample Name: 405479-08
Misc Info :
Vial Number: 14

ERR



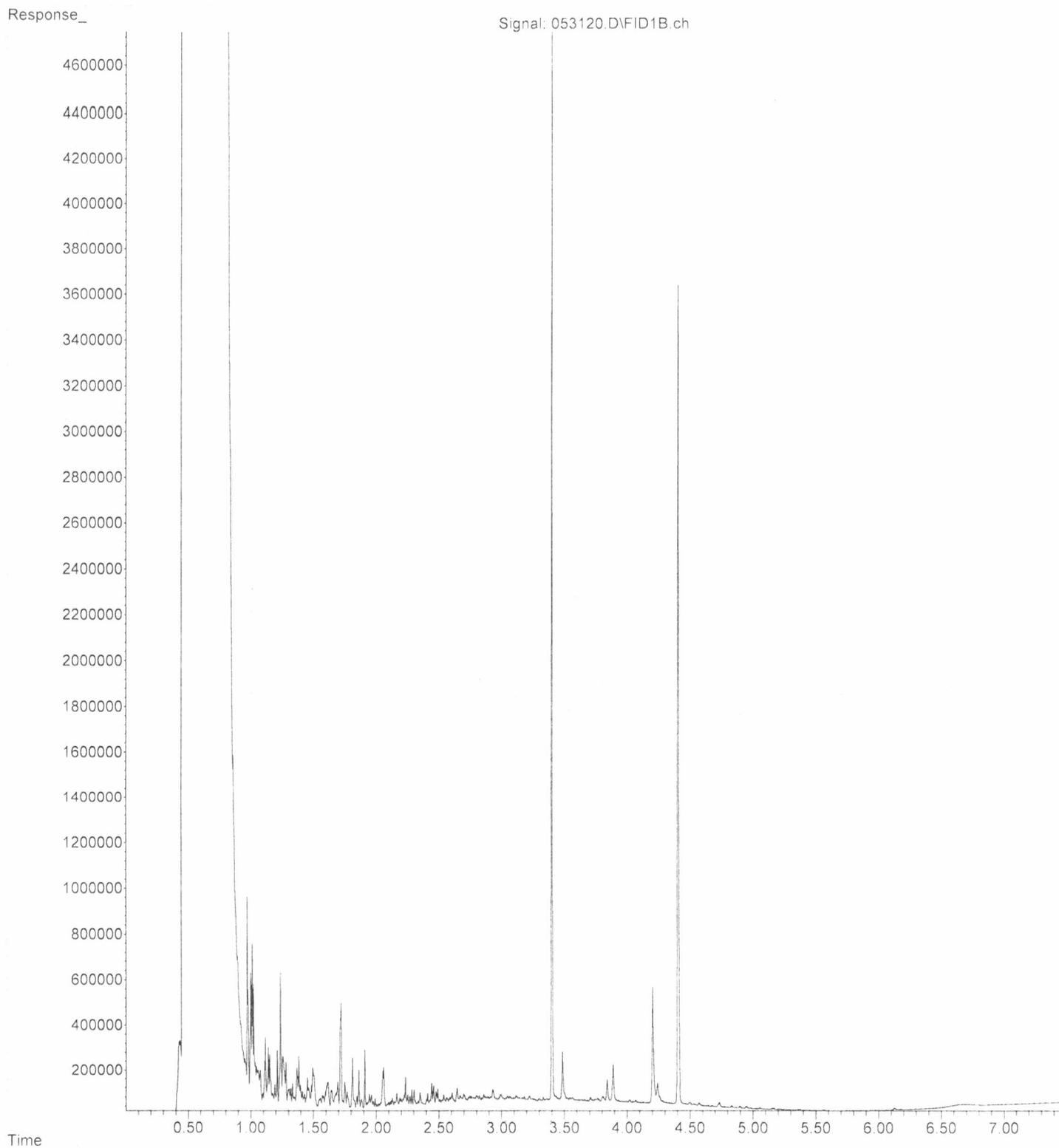
File :P:\Proc_GC14\05-31-24\053113.D
Operator : TL
Acquired : 31 May 2024 10:48 am using AcqMethod DX.M
Instrument : GC14
Sample Name: 405479-09
Misc Info :
Vial Number: 15

ERR



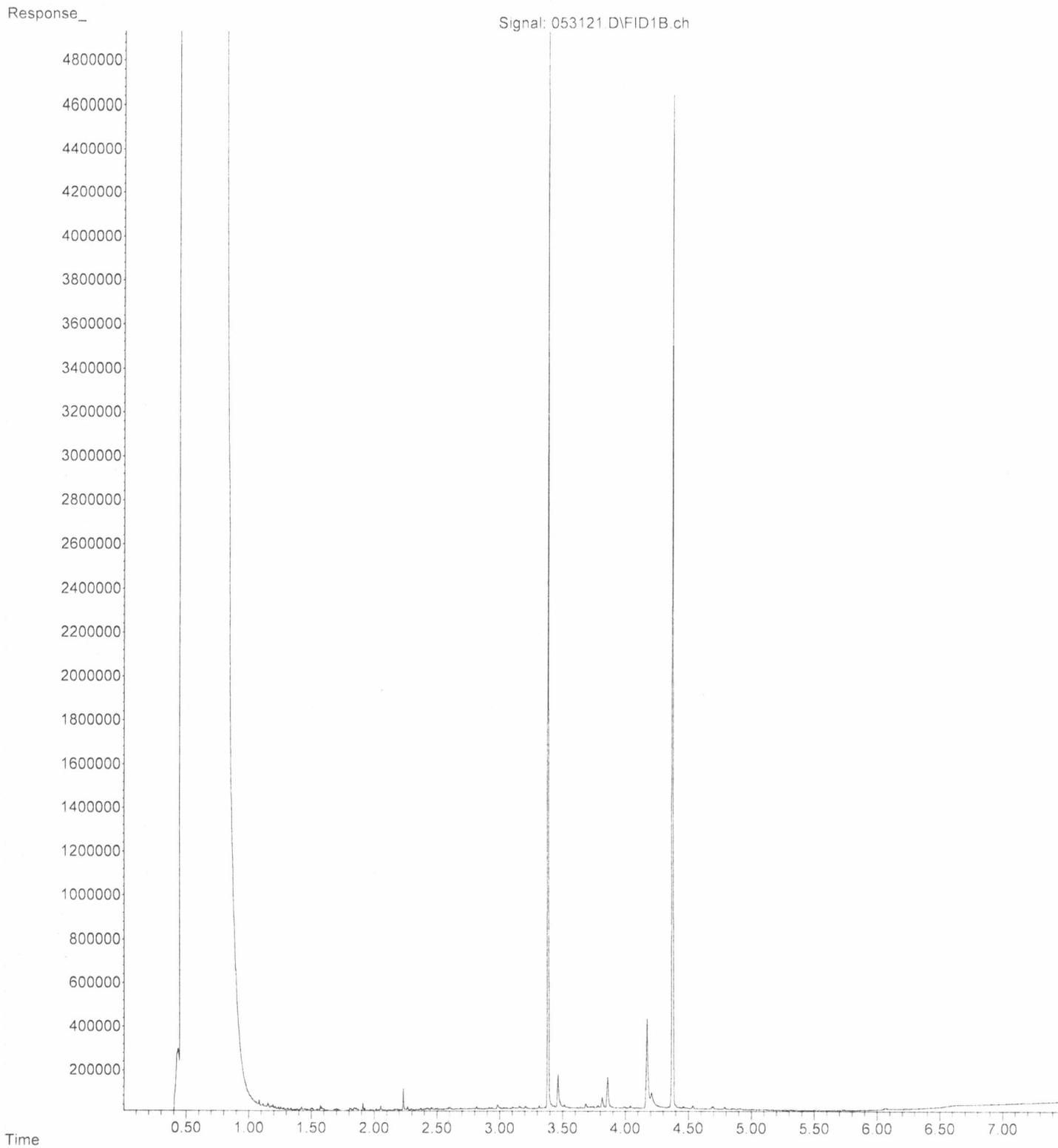
File : P:\Proc_GC14\05-31-24\053120.D
Operator : TL
Acquired : 31 May 2024 12:14 pm using AcqMethod DX.M
Instrument : GC14
Sample Name: 405479-10
Misc Info :
Vial Number: 16

ERR



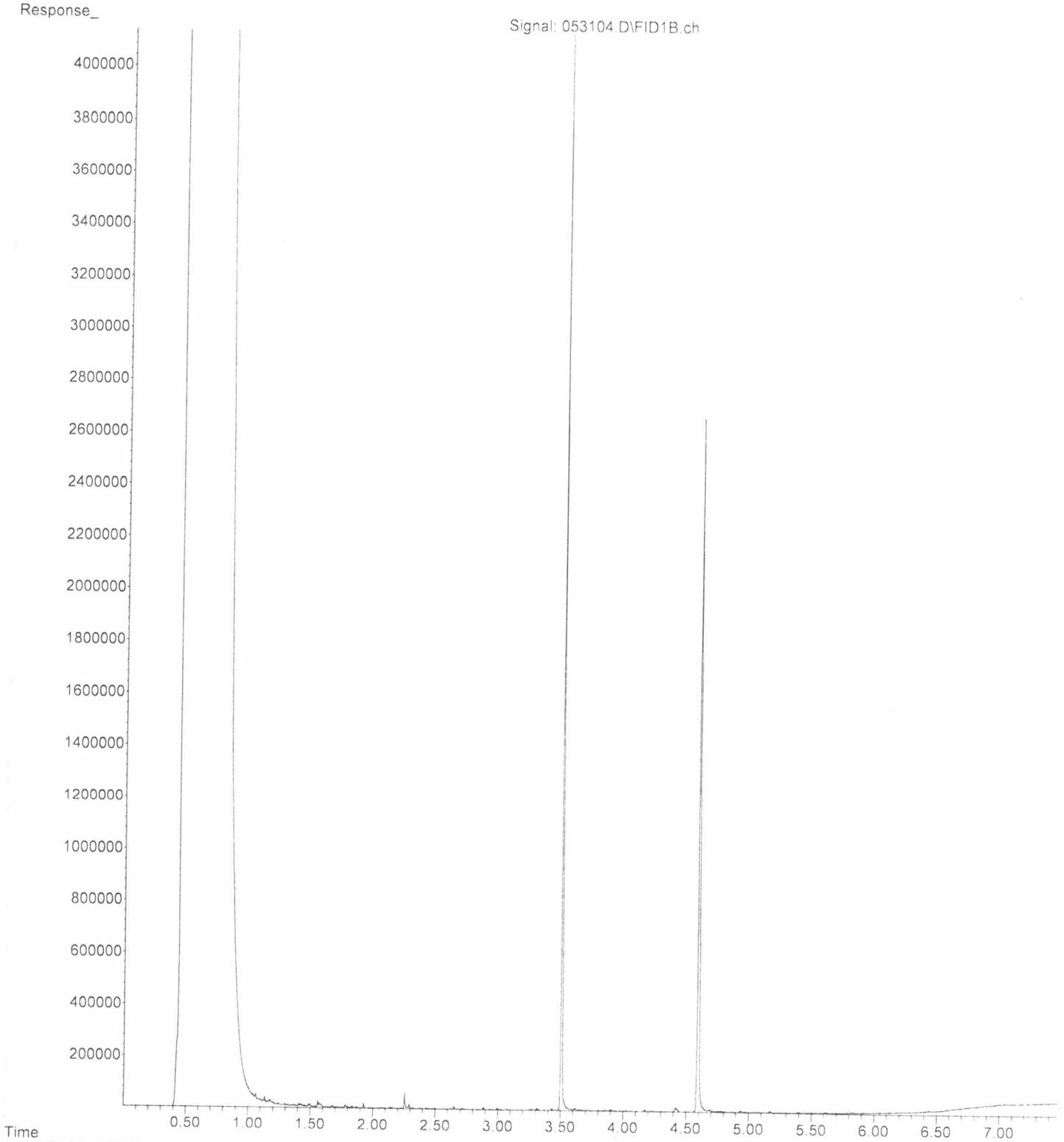
File : P:\Proc_GC14\05-31-24\053121.D
Operator : TL
Acquired : 31 May 2024 12:26 pm using AcqMethod DX.M
Instrument : GC14
Sample Name: 405479-11
Misc Info :
Vial Number: 17

ERR



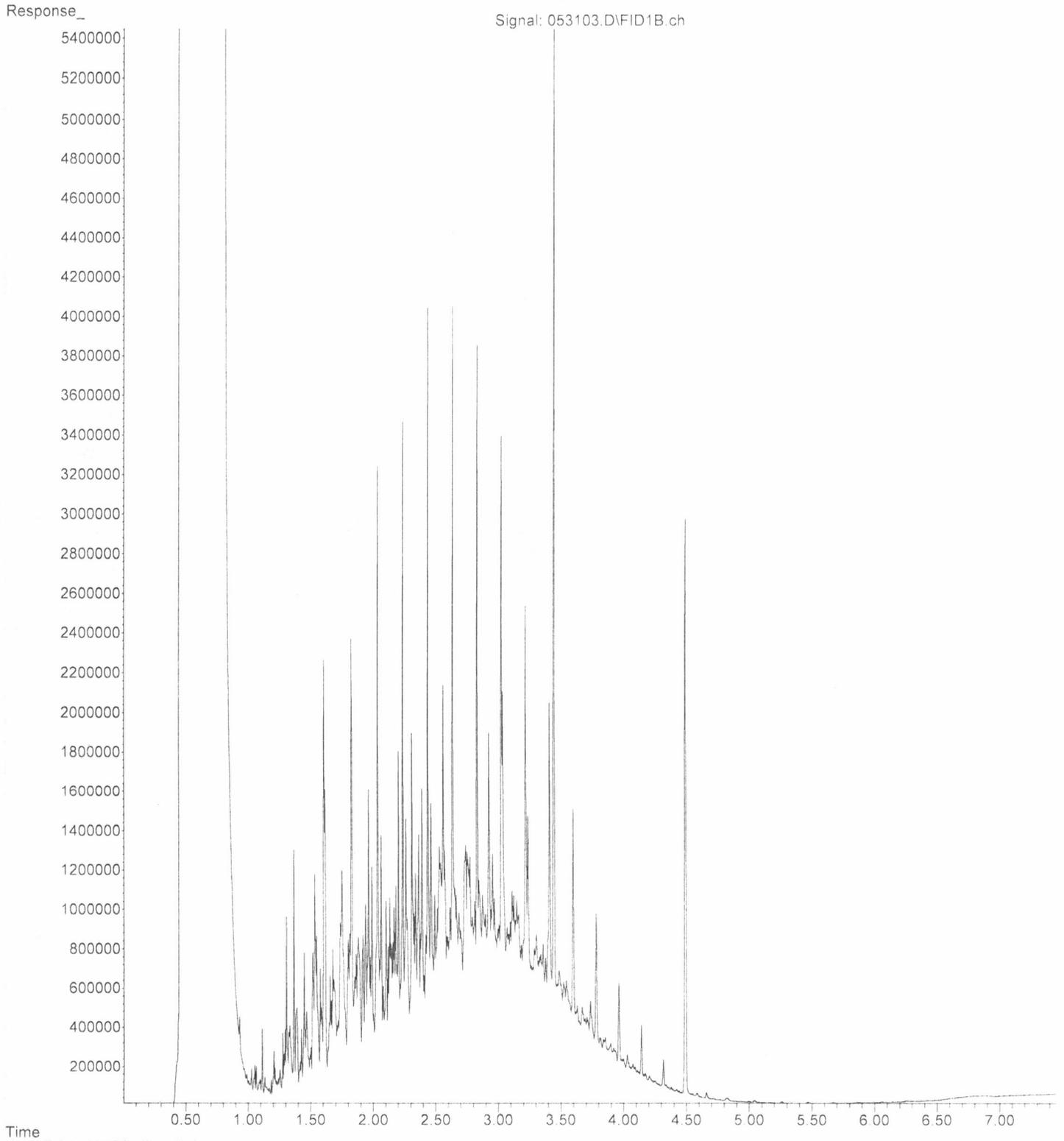
File : P:\Proc_GC14\05-31-24\053104.D
Operator : TL
Acquired : 31 May 2024 09:02 am using AcqMethod DX.M
Instrument : GC14
Sample Name: 04-1270 mb2
Misc Info :
Vial Number: 6

ERR



File : P:\Proc_GC14\05-31-24\053103.D
Operator : TL
Acquired : 31 May 2024 08:26 am using AcqMethod DX.M
Instrument : GC14
Sample Name: 500 Dx 71-400
Misc Info :
Vial Number: 3

ERR



APPENDIX C

Laboratory Analytical Reports - Vapor

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 Ave South
Seattle, WA 98108-2419
(206) 285-8282
office@friedmanandbruya.com
www.friedmanandbruya.com

October 29, 2024

Daniel Babcock, Project Manager
Aspect Consulting
710 2nd Ave S, Suite 550
Seattle, WA 98104

Dear Mr Babcock:

Included are the amended results from the testing of material submitted on September 27, 2024 from the Texaco-Strickland 180354, F&BI 409456 project. Sample US-EFF-240927 was re-analyzed at a lesser dilution.

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
ASP1015R.DOC

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 Ave South
Seattle, WA 98108-2419
(206) 285-8282
office@friedmanandbruya.com
www.friedmanandbruya.com

October 15, 2024

Daniel Babcock, Project Manager
Aspect Consulting
710 2nd Ave S, Suite 550
Seattle, WA 98104

Dear Mr Babcock:

Included are the results from the testing of material submitted on September 27, 2024 from the Texaco-Strickland 180354, F&BI 409456 project. There are 12 pages included in this report.

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
ASP1015R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on September 27, 2024 by Friedman & Bruya, Inc. from the Aspect Consulting Texaco-Strickland 180354, F&BI 409456 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Aspect Consulting</u>
409456 -01	AMB-1-240926
409456 -02	AMB-2-240926
409456 -03	US-EFF-240927

Non-petroleum compounds identified in the air phase hydrocarbon (APH) ranges were subtracted per the MA-APH method.

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	AMB-1-240926	Client:	Aspect Consulting
Date Received:	09/27/24	Project:	Texaco-Strickland 180354
Date Collected:	09/26/24	Lab ID:	409456-01
Date Analyzed:	10/04/24	Data File:	100415.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	84	70	130

Compounds:	Concentration
	ug/m3
APH EC5-8 aliphatics	100
APH EC9-12 aliphatics	43
APH EC9-10 aromatics	<25

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	AMB-2-240926	Client:	Aspect Consulting
Date Received:	09/27/24	Project:	Texaco-Strickland 180354
Date Collected:	09/26/24	Lab ID:	409456-02
Date Analyzed:	10/04/24	Data File:	100416.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	84	70	130

Compounds:	Concentration
	ug/m3
APH EC5-8 aliphatics	<100
APH EC9-12 aliphatics	<25
APH EC9-10 aromatics	<25

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	US-EFF-240927	Client:	Aspect Consulting
Date Received:	09/27/24	Project:	Texaco-Strickland 180354
Date Collected:	09/26/24	Lab ID:	409456-03 1/2.0
Date Analyzed:	10/18/24 15:23	Data File:	101812.D
Matrix:	Air	Instrument:	GCMS8
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	93	70	130

Compounds:	Concentration
	ug/m3
APH EC5-8 aliphatics	200
APH EC9-12 aliphatics	67
APH EC9-10 aromatics	<50

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	Method Blank	Client:	Aspect Consulting
Date Received:	Not Applicable	Project:	Texaco-Strickland 180354
Date Collected:	Not Applicable	Lab ID:	04-2348 MB
Date Analyzed:	10/04/24	Data File:	100411.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	87	70	130

Compounds:	Concentration
	ug/m3
APH EC5-8 aliphatics	<100
APH EC9-12 aliphatics	<25
APH EC9-10 aromatics	<25

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	AMB-1-240926	Client:	Aspect Consulting
Date Received:	09/27/24	Project:	Texaco-Strickland 180354
Date Collected:	09/26/24	Lab ID:	409456-01
Date Analyzed:	10/04/24	Data File:	100415.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	87	70	130

Compounds:	Concentration	
	ug/m3	ppbv
Benzene	0.38	0.12
Toluene	<7.5	<2
Ethylbenzene	<0.43	<0.1
m,p-Xylene	<0.87	<0.2
o-Xylene	<0.43	<0.1
Naphthalene	0.15	0.028

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	AMB-2-240926	Client:	Aspect Consulting
Date Received:	09/27/24	Project:	Texaco-Strickland 180354
Date Collected:	09/26/24	Lab ID:	409456-02
Date Analyzed:	10/04/24	Data File:	100416.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	87	70	130

Compounds:	Concentration	
	ug/m3	ppbv
Benzene	<0.32	<0.1
Toluene	<7.5	<2
Ethylbenzene	<0.43	<0.1
m,p-Xylene	<0.87	<0.2
o-Xylene	<0.43	<0.1
Naphthalene	0.084 j	0.016 j

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	US-EFF-240927	Client:	Aspect Consulting
Date Received:	09/27/24	Project:	Texaco-Strickland 180354
Date Collected:	09/26/24	Lab ID:	409456-03 1/2.0
Date Analyzed:	10/18/24	Data File:	101812.D
Matrix:	Air	Instrument:	GCMS8
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	94	70	130

Compounds:	Concentration	
	ug/m3	ppbv
Benzene	<0.32 j	<0.1 j
Toluene	<15	<4
Ethylbenzene	<0.87	<0.2
m,p-Xylene	3.7	0.86
o-Xylene	0.89	0.20
Naphthalene	<0.15 j	<0.028 j

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	Method Blank	Client:	Aspect Consulting
Date Received:	Not Applicable	Project:	Texaco-Strickland 180354
Date Collected:	Not Applicable	Lab ID:	04-2348 MB
Date Analyzed:	10/04/24	Data File:	100411.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	90	70	130

Compounds:	Concentration	
	ug/m3	ppbv
Benzene	<0.32	<0.1
Toluene	<7.5	<2
Ethylbenzene	<0.43	<0.1
m,p-Xylene	<0.87	<0.2
o-Xylene	<0.43	<0.1
Naphthalene	<0.073 j	<0.014 j

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 10/15/24

Date Received: 09/27/24

Project: Texaco-Strickland 180354, F&BI 409456

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES
FOR VOLATILES BY METHOD MA-APH**

Laboratory Code: 409456-03 1/5.8 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
APH EC5-8 aliphatics	ug/m3	<580	<580	nm
APH EC9-12 aliphatics	ug/m3	<140	<140	nm
APH EC9-10 aromatics	ug/m3	<140	<140	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
APH EC5-8 aliphatics	ug/m3	67	89	70-130
APH EC9-12 aliphatics	ug/m3	67	109	70-130
APH EC9-10 aromatics	ug/m3	67	100	70-130

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 10/15/24

Date Received: 09/27/24

Project: Texaco-Strickland 180354, F&BI 409456

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES
FOR VOLATILES BY METHOD TO-15**

Laboratory Code: 409456-03 1/5.8 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
Benzene	ug/m3	<1.9	<1.9	nm
Toluene	ug/m3	<44	<44	nm
Ethylbenzene	ug/m3	<2.5	<2.5	nm
m,p-Xylene	ug/m3	<5	<5	nm
o-Xylene	ug/m3	<2.5	<2.5	nm
Naphthalene	ug/m3	<1.5	<1.5	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	ug/m3	43	95	70-130
Toluene	ug/m3	51	104	70-130
Ethylbenzene	ug/m3	59	105	70-130
m,p-Xylene	ug/m3	120	107	70-130
o-Xylene	ug/m3	59	112	70-130
Naphthalene	ug/m3	71	111	70-130

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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 low; 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.

409456

SAMPLE CHAIN OF CUSTODY

09/27/24

Report To Daniel Barbacid
 Company Aspect Consulting
 Address 710 2nd Ave #550
 City, State, ZIP Seattle, WA
 Phone _____ Email daniel.barbacid@aspectconsulting.com

SAMPLERS (signature) <u>[Signature]</u>	
PROJECT NAME & ADDRESS <u>Rotoco - strike land</u>	PO # <u>180357</u>
NOTES: <u>Rotoco - strike land</u>	INVOICE TO <u>AP</u>

Page # 1 of 1
 TURNAROUND TIME
 Standard
 RUSH
 Rush charges authorized by: _____
 SAMPLE DISPOSAL
 Default: Clean following
 final report delivery
 Hold (Fee may apply): _____

Sample Name	Lab ID	Canister ID	Flow Cont. ID	Reporting Level: IA=Indoor Air SG=Soil Gas (Circle One)	Date Sampled	Initial Vac. (Hg)	Field Initial Time	Final Vac. (Hg)	Field Final Time	ANALYSIS REQUESTED				Notes	
										TO15 Full Scan	TO15 BTEXN	APH	Chlorinated VOCs		
AMB-1-240226	01	2546	2546	IA SG	09/27/24	29	1120	2.5	1055			X			
AMB-2-240226	02	18569	07845	IA SG	N	29	1120	5.5	1056						
US-EFF-240527	03	3311	18569	IA SG	09/27/24	29	0928	5	0938						
				IA / SG											
				IA / SG											
				IA / SG											
				IA / SG											
				IA / SG											

Samples received at 17

Friedman & Bruya, Inc.
 5500 4th Avenue South
 Seattle, WA 98108
 Ph. (206) 285-8282
 Fax (206) 283-5044
 FORMS.GOV\COCTO-15.DOC

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
<u>[Signature]</u>	Nickie Cannon	Aspect	09/27/24	12:04
<u>[Signature]</u>	Anh Phan	FBI	09/27/24	12:04
Received by:				
Relinquished by:				

SAMPLE CONDITION UPON RECEIPT CHECKLIST

PROJECT # 409456 CLIENT Aspect

INITIALS/ DATE: AP
09/27/24

If custody seals are present on cooler, are they intact? NA YES NO

Cooler/Sample temperature 17 °C
Thermometer ID: Fluke 96312917

Were samples received on ice/cold packs? YES NO

How did samples arrive?
 Over the Counter Picked up by F&BI FedEx/UPS/GSO

Is there a Chain-of-Custody* (COC)? YES NO Initials/ Date: NA 9/27
*or other representative documents, letters, and/or shipping memos

Number of days samples have been sitting prior to receipt at laboratory > 1 days

Are the samples clearly identified? (explain "no" answer below) YES NO

Were all sample containers received intact (i.e. not broken, leaking etc.)? (explain "no" answer below) YES NO

Were appropriate sample containers used? YES NO Unknown

If custody seals are present on samples, are they intact? NA YES NO

Are samples requiring no headspace, headspace free? NA YES NO

Is the following information provided on the COC, and does it match the sample label? (explain "no" answer below)

- Sample ID's Yes No Not on COC/label
- Date Sampled Yes No Not on COC/label
- Time Sampled Yes No Not on COC/label
- # of Containers Yes No
- Relinquished Yes No
- Requested analysis Yes On Hold

Other comments (use a separate page if needed)

Air Samples: Were any additional canisters/tubes received? NA YES NO

Number of unused TO15 canisters** _____ Number of unused TO17 tubes _____

**Fill out Green manifolds billing sheet

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 Ave South
Seattle, WA 98108-2419
(206) 285-8282
office@friedmanandbruya.com
www.friedmanandbruya.com

January 15, 2025

Daniel Babcock, Project Manager
Aspect Consulting
710 2nd Ave S, Suite 550
Seattle, WA 98104

Dear Mr Babcock:

Included are the results from the testing of material submitted on December 31, 2024 from the Texaco - Strickland 180357, F&BI 412508 project. There are 12 pages included in this report.

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
ASP0115R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on December 31, 2024 by Friedman & Bruya, Inc. from the Aspect Consulting Texaco - Strickland 180357, F&BI 412508 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Aspect Consulting</u>
412508 -01	AMB-1-241230
412508 -02	AMB-2-241230
412508 -03	VS-EFF-241231

Non-petroleum compounds identified in the air phase hydrocarbon (APH) ranges were subtracted per the MA-APH method.

Naphthalene was present in the TO15 method blank. The data were qualified accordingly.

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	AMB-1-241230	Client:	Aspect Consulting
Date Received:	12/31/24	Project:	Texaco - Strickland 180357
Date Collected:	12/30/24	Lab ID:	412508-01
Date Analyzed:	01/02/25	Data File:	010213.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	92	70	130

Compounds:	Concentration
	ug/m3
APH EC5-8 aliphatics	81
APH EC9-12 aliphatics	<25
APH EC9-10 aromatics	<25

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	AMB-2-241230	Client:	Aspect Consulting
Date Received:	12/31/24	Project:	Texaco - Strickland 180357
Date Collected:	12/30/24	Lab ID:	412508-02
Date Analyzed:	01/02/25	Data File:	010214.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	95	70	130

Compounds:	Concentration
	ug/m3
APH EC5-8 aliphatics	86
APH EC9-12 aliphatics	34
APH EC9-10 aromatics	<25

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	VS-EFF-241231	Client:	Aspect Consulting
Date Received:	12/31/24	Project:	Texaco - Strickland 180357
Date Collected:	12/30/24	Lab ID:	412508-03
Date Analyzed:	01/02/25	Data File:	010215.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	91	70	130

Compounds:	Concentration
	ug/m3
APH EC5-8 aliphatics	<75
APH EC9-12 aliphatics	31
APH EC9-10 aromatics	<25

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	Method Blank	Client:	Aspect Consulting
Date Received:	Not Applicable	Project:	Texaco - Strickland 180357
Date Collected:	01/02/25	Lab ID:	05-003 MB
Date Analyzed:	01/02/25	Data File:	010212.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	94	70	130

Compounds:	Concentration
	ug/m3
APH EC5-8 aliphatics	<75
APH EC9-12 aliphatics	<25
APH EC9-10 aromatics	<25

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	AMB-1-241230	Client:	Aspect Consulting
Date Received:	12/31/24	Project:	Texaco - Strickland 180357
Date Collected:	12/30/24	Lab ID:	412508-01
Date Analyzed:	01/02/25	Data File:	010213.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	92	70	130

Compounds:	Concentration	
	ug/m3	ppbv
Benzene	0.42	0.13
Toluene	<7.5	<2
Ethylbenzene	<0.43	<0.1
m,p-Xylene	<0.87	<0.2
o-Xylene	<0.43	<0.1
Naphthalene	0.073 j fb	0.014 j fb

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	AMB-2-241230	Client:	Aspect Consulting
Date Received:	12/31/24	Project:	Texaco - Strickland 180357
Date Collected:	12/30/24	Lab ID:	412508-02
Date Analyzed:	01/02/25	Data File:	010214.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	95	70	130

Compounds:	Concentration	
	ug/m3	ppbv
Benzene	0.60	0.19
Toluene	<7.5	<2
Ethylbenzene	<0.43	<0.1
m,p-Xylene	0.97	0.22
o-Xylene	<0.43	<0.1
Naphthalene	0.11 fb	0.020 fb

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	VS-EFF-241231	Client:	Aspect Consulting
Date Received:	12/31/24	Project:	Texaco - Strickland 180357
Date Collected:	12/30/24	Lab ID:	412508-03
Date Analyzed:	01/02/25	Data File:	010215.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	90	70	130

Compounds:	Concentration	
	ug/m3	ppbv
Benzene	<0.32	<0.1
Toluene	<7.5	<2
Ethylbenzene	<0.43	<0.1
m,p-Xylene	<0.87	<0.2
o-Xylene	<0.43	<0.1
Naphthalene	0.079 j fb	0.015 j fb

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	Method Blank	Client:	Aspect Consulting
Date Received:	Not Applicable	Project:	Texaco - Strickland 180357
Date Collected:	Not Applicable	Lab ID:	05-003 MB
Date Analyzed:	01/02/25	Data File:	010212.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	94	70	130

Compounds:	Concentration	
	ug/m3	ppbv
Benzene	<0.32	<0.1
Toluene	<7.5	<2
Ethylbenzene	<0.43	<0.1
m,p-Xylene	<0.87	<0.2
o-Xylene	<0.43	<0.1
Naphthalene	0.073 j lc	0.014 j lc

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 01/15/25

Date Received: 12/31/24

Project: Texaco - Strickland 180357, F&BI 412508

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES
FOR VOLATILES BY METHOD MA-APH**

Laboratory Code: 412493-01 1/10 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
APH EC5-8 aliphatics	ug/m3	2,500	2,900	15
APH EC9-12 aliphatics	ug/m3	320	340	6
APH EC9-10 aromatics	ug/m3	<250	<250	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
APH EC5-8 aliphatics	ug/m3	67	82	70-130
APH EC9-12 aliphatics	ug/m3	67	98	70-130
APH EC9-10 aromatics	ug/m3	67	94	70-130

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 01/15/25

Date Received: 12/31/24

Project: Texaco - Strickland 180357, F&BI 412508

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES
FOR VOLATILES BY METHOD TO-15**

Laboratory Code: 412493-01 1/10 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 25)
Benzene	ug/m3	5.5	5.6	2
Toluene	ug/m3	<75	<75	nm
Ethylbenzene	ug/m3	<4.3	<4.3	nm
m,p-Xylene	ug/m3	<8.7	<8.7	nm
o-Xylene	ug/m3	<4.3	<4.3	nm
Naphthalene	ug/m3	<2.6	<2.6	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	ug/m3	43	110	70-130
Toluene	ug/m3	51	115	70-130
Ethylbenzene	ug/m3	59	107	70-130
m,p-Xylene	ug/m3	120	108	70-130
o-Xylene	ug/m3	59	106	70-130
Naphthalene	ug/m3	71	108	70-130

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 low; 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 between the method detection limit and the lowest calibration point. 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.

412508

SAMPLE CHAIN OF CUSTODY

12/31/24

Page # of

Report To Daniel Babcock

Company Aspect Consulting

Address 710 2nd Ave #550

City, State, ZIP Seattle, WA

Phone _____ Email _____

SAMPLERS (signature) [Signature]

PROJECT NAME & ADDRESS
Texas - Strickland

PO #
180357

NOTES:

INVOICE TO
AP

Standard RUSH
Rush charges authorized by: _____

SAMPLE DISPOSAL
Default: Clean following final report delivery
Hold (Fee may apply): _____

SAMPLE INFORMATION

ANALYSIS REQUESTED

Sample Name	Lab ID	Canister ID	Flow Cont. ID	Reporting Level: IA=Indoor Air SG=Soil Gas (Circle One)	Date Sampled	Initial Vac. ("Hg)	Field Initial Time	Final Vac. ("Hg)	Field Final Time	TO15 Full Scan	TO15 BTEXN	APH	Chlorinated VOCs	Helium	Notes
AMB-1-241230	01	232330606		IA / SG	12/30/24	29.5	1024	0	0940	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			Hold AMB-1-241230 - per MC 12/14/24 Analyze AMB-1-241230 per DB 01/03/25 ME Notes I can want to O. Why in ~23 hours
AMB-2-241230	02	24137	20440	IA / SG	12/30/24	730	1025	2	1034	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
V3-EFF-241231	03	20542	01	IA / SG	12/31/24	29.5	0936	5	1034	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
				IA / SG											
				IA / SG											
				IA / SG											
				IA / SG											
				IA / SG											

Samples received at 13 °C

Friedman & Bruya, Inc.

5500 4th Avenue South

Seattle, WA 98108

Ph. (206) 285-8282

Fax (206) 283-5044

FORMS \OOC\COCTO-15.DOC

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
<u>[Signature]</u>	Nick Diaz Castro	Aspect	12/31/24	11:21
<u>[Signature]</u>	Anh Phan	FBI	12/31/24	11:21
Received by:				

SAMPLE CONDITION UPON RECEIPT CHECKLIST

PROJECT # 412508 CLIENT Aspect INITIALS/ DATE: AP 12/31/24

If custody seals are present on cooler, are they intact? NA YES NO

Cooler/Sample temperature 13 °C
Thermometer ID: Fluke 96312917

Were samples received on ice/cold packs? YES NO

How did samples arrive?
 Over the Counter Picked up by F&BI FedEx/UPS/GSO

Is there a Chain-of-Custody* (COC)? YES NO Initials/ Date: AP 12/31/24
*or other representative documents, letters, and/or shipping memos

Number of days samples have been sitting prior to receipt at laboratory 0-1 days

Are the samples clearly identified? (explain "no" answer below) YES NO

Were all sample containers received intact (i.e. not broken, leaking etc.)? (explain "no" answer below) YES NO

Were appropriate sample containers used? YES NO Unknown

If custody seals are present on samples, are they intact? NA YES NO

Are samples requiring no headspace, headspace free? NA YES NO

Is the following information provided on the COC, and does it match the sample label? (explain "no" answer below)

- Sample ID's Yes No _____ Not on COC/label
- Date Sampled Yes No _____ Not on COC/label
- Time Sampled Yes No _____ Not on COC/label
- # of Containers Yes No _____
- Relinquished Yes No _____
- Requested analysis Yes On Hold _____

Other comments (use a separate page if needed)

Air Samples: Were any additional canisters/tubes received? NA YES NO

Number of unused TO15 canisters** _____ Number of unused TO17 tubes _____
**Fill out Green manifolds billing sheet



LABORATORY DATA CONSULTANTS, INC.

2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

Aspect Consulting LLC
701 Second Ave., Suite 550
Seattle, WA 98104
ATTN: Daniel Babcock
Daniel.Babcock@aspectconsulting.com

June 3, 2025

SUBJECT: Texaco Strickland/Aloha Caf  - Data Validation

Dear Mr. Babcock,

Enclosed are the final validation reports for the fractions listed below. These SDGs were received on April 29, 2025. Attachment 1 is a summary of the samples that were reviewed for each analysis.

LDC Project #60968:

SDG #

402437
405479
409456
412508

Fraction

Volatiles, Gasoline Range Organics, Diesel Range Organics

The data validation was performed under Stage 2A guidelines. The analysis was validated using the following documents, as applicable to each method:

- Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019)
- USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020)
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update I, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998; IIIB, November 2004; update IV, February 2007; update V, July 2014; update VI, July 2018

Please feel free to contact us if you have any questions.

Sincerely,

Stella Cuenco
scuenco@lab-data.com
Project Manager/Senior Chemist

LDC #60968 (Aspect Consulting - Seattle, WA / Texaco Strickland/Aloha Cafe)

LDC	SDG#	Received Date	(21) Due Date	Validation Level	(6) VOCs (TO-15)	(6) VOCs (8260D)	VOCs (MA-APH)	TPH-G (NWTPH-Gx)	TPH-E (NWTPH-Dx)
Matrix Type:					Air	Water	Air	Water	Water
A	402437	4/29/25	5/20/25	Stage 2A		12		12	11
B	405479	4/29/25	5/20/25	Stage 2A		12		11	11
C	409456	4/29/25	5/20/25	Stage 2A	4		4		
D	412508	4/29/25	5/20/25	Stage 2A	3		3		
Total			PM: SC		7	24	7	23	22

EDD: EDD
 Stage 2A
 Project AS180357A
 WO AS180357A-137000278

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name: Texaco Strickland/Aloha Café

LDC Report Date: May 27, 2025

Parameters: Volatile Organic Compounds

Validation Level: Stage 2A

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Sample Delivery Group (SDG): 402437

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-18R-022824	402437-01	Water	02/28/24
MW-25R-022824	402437-02	Water	02/28/24
MW-26-022824	402437-03	Water	02/28/24
MW-19-022824	402437-04	Water	02/28/24
MW-32-022824	402437-05	Water	02/28/24
MW-31-022824	402437-06	Water	02/28/24
MW-30-022824	402437-07	Water	02/28/24
MW-29-022824	402437-08	Water	02/28/24
MW-17-022924	402437-10	Water	02/29/24
MW-16-022924	402437-11	Water	02/29/24
MW-18R-022824MS	402437-01MS	Water	02/28/24

Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Sampling and Analysis Plan for Groundwater Monitoring, Texaco Strickland Site (August 2023) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) SW 846 Method 8260D

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary reports.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

II. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

III. Field Blank

No field blanks were identified in this SDG.

IV. Surrogates

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

V. Matrix Spike/Matrix Spike Duplicate

Matrix spike (MS) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits.

VI. Laboratory Control Sample

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the method. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

VII. Field Duplicate

No field duplicates were identified in this SDG.

VIII. Target Analyte Quantitation

Raw data were not reviewed for Stage 2A validation.

IX. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Texaco Strickland/Aloha Café
Volatile Organic Compounds - Data Qualification Summary - SDG 402437**

No Sample Data Qualified in this SDG

**Texaco Strickland/Aloha Café
Volatile Organic Compounds - Laboratory Blank Data Qualification Summary -
SDG 402437**

No Sample Data Qualified in this SDG

**Texaco Strickland/Aloha Café
Volatile Organic Compounds - Field Blank Data Qualification Summary - SDG
402437**

No Sample Data Qualified in this SDG

VALIDATION COMPLETENESS WORKSHEET

LDC #: 60968A
 SDG #: 402437
 Laboratory: Friedman & Bruya Inc., Seattle, WA

Date: 5/1/2025
 Page: 1
 Reviewer: MAJ
 2nd Reviewer: MAJ

Method: Volatiles (EPA 8260D)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I	Sample Receipt/Technical Holding Time	A/A	
II	Laboratory Blanks	A	
III	Field Blank	N	
IV	Surrogate Spikes	A	
V	Matrix Spike/Matrix Spike Duplicate	A	
VI	Laboratory Control Sample	A	LCS/D
VII	Field Duplicate	N	
VIII	Target Analyte Quantitation	N	
IX	Overall Assessment of Data	A	

Note: A = Acceptable ND = Not detected FT = Field triplicate AB= Ambient blank R = Rinsate
 N = Not provided/applicable NQ = Not qualified TB = Trip blank SB = Source blank
 SW = See worksheet FD = Field duplicate FB = Field blank EB = Equipment blank

	Client ID	Lab ID	QC Type	Matrix	Date	Stage
1	MW-18R-022824	402437-01		Water	02/28/2024	Stage 2A
2	MW-25R-022824	402437-02		Water	02/28/2024	Stage 2A
3	MW-26-022824	402437-03		Water	02/28/2024	Stage 2A
4	MW-19-022824	402437-04		Water	02/28/2024	Stage 2A
5	MW-32-022824	402437-05		Water	02/28/2024	Stage 2A
6	MW-31-022824	402437-06		Water	02/28/2024	Stage 2A
7	MW-30-022824	402437-07		Water	02/28/2024	Stage 2A
8	MW-29-022824	402437-08		Water	02/28/2024	Stage 2A
9	MW-17-022924	402437-10		Water	02/29/2024	Stage 2A
10	MW-16-022924	402437-11		Water	02/29/2024	Stage 2A
11	MW-18R-022824MS	402437-01MS	MS	Water	02/28/2024	Stage 2A
12	MW-18R-022824DUP	402437-01DUP	DUP	Water	02/28/2024	Stage 2A

Notes:

- 04-0494 mb		

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name: Texaco Strickland/Aloha Café

LDC Report Date: May 27, 2025

Parameters: Gasoline Range Organics

Validation Level: Stage 2A

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Sample Delivery Group (SDG): 402437

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-18R-022824	402437-01	Water	02/28/24
MW-25R-022824	402437-02	Water	02/28/24
MW-26-022824	402437-03	Water	02/28/24
MW-19-022824	402437-04	Water	02/28/24
MW-32-022824	402437-05	Water	02/28/24
MW-31-022824	402437-06	Water	02/28/24
MW-30-022824	402437-07	Water	02/28/24
MW-29-022824	402437-08	Water	02/28/24
MW-27-022824	402437-09	Water	02/28/24
MW-17-022924	402437-10	Water	02/29/24
MW-16-022924	402437-11	Water	02/29/24
MW-18R-022824DUP	402437-01DUP	Water	02/28/24

Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Sampling and Analysis Plan for Groundwater Monitoring, Texaco Strickland Site (August 2023) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Gasoline Range Organics by NWTPH-Gx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary reports.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

II. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

III. Field Blank

No field blanks were identified in this SDG.

IV. Surrogates

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

V. Matrix Spike/Matrix Spike Duplicate/Laboratory Duplicate

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

Laboratory duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

VI. Laboratory Control Sample

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

VII. Field Duplicate

No field duplicates were identified in this SDG.

VIII. Target Analyte Quantitation

Raw data were not reviewed for Stage 2A validation.

IX. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Texaco Strickland/Aloha Café
Gasoline Range Organics - Data Qualification Summary - SDG 402437**

No Sample Data Qualified in this SDG

**Texaco Strickland/Aloha Café
Gasoline Range Organics - Laboratory Blank Data Qualification Summary - SDG
402437**

No Sample Data Qualified in this SDG

**Texaco Strickland/Aloha Café
Gasoline Range Organics - Field Blank Data Qualification Summary - SDG 402437**

No Sample Data Qualified in this SDG

VALIDATION COMPLETENESS WORKSHEET

LDC #: 60968A
 SDG #: 402437
 Laboratory: Friedman & Bruya Inc., Seattle, WA

Date: 5/1/2025
 Page: 1
 Reviewer:
 2nd Reviewer:

Method: Gasoline Range Organics (NWTPH-Gx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I	Sample Receipt/Technical Holding Time	A/A	
II	Laboratory Blanks	A	
III	Field Blank	N	
IV	Surrogate Spikes	A	
V	Matrix Spike/Matrix Spike Duplicate /Lab Dup	N/A	
VI	Laboratory Control Sample	A	LCS
VII	Field Duplicate	N	
VIII	Target Analyte Quantitation	N	
IX	Overall Assessment of Data	A	

Note: A = Acceptable ND = Not detected FT = Field triplicate AB= Ambient blank R = Rinsate
 N = Not provided/applicable NQ = Not qualified TB = Trip blank SB = Source blank
 SW = See worksheet FD = Field duplicate FB = Field blank EB = Equipment blank

	Client ID	Lab ID	QC Type	Matrix	Date	Stage
1	MW-18R-022824	402437-01		Water	02/28/2024	Stage 2A
2	MW-25R-022824	402437-02		Water	02/28/2024	Stage 2A
3	MW-26-022824	402437-03		Water	02/28/2024	Stage 2A
4	MW-19-022824	402437-04		Water	02/28/2024	Stage 2A
5	MW-32-022824	402437-05		Water	02/28/2024	Stage 2A
6	MW-31-022824	402437-06		Water	02/28/2024	Stage 2A
7	MW-30-022824	402437-07		Water	02/28/2024	Stage 2A
8	MW-29-022824	402437-08		Water	02/28/2024	Stage 2A
9	MW-27-022824	402437-09		Water	02/28/2024	Stage 2A
10	MW-17-022924	402437-10		Water	02/29/2024	Stage 2A
11	MW-16-022924	402437-11		Water	02/29/2024	Stage 2A
12	MW-18R-022824DUP	402437-01DUP	DUP	Water	02/28/2024	Stage 2A

Notes:

1 04-0429 MB		

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: Texaco Strickland/Aloha Café
LDC Report Date: May 27, 2025
Parameters: Diesel Range Organics
Validation Level: Stage 2A
Laboratory: Friedman & Bruya, Inc., Seattle, WA
Sample Delivery Group (SDG): 402437

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-18R-022824	402437-01	Water	02/28/24
MW-25R-022824	402437-02	Water	02/28/24
MW-26-022824	402437-03	Water	02/28/24
MW-19-022824	402437-04	Water	02/28/24
MW-32-022824	402437-05	Water	02/28/24
MW-31-022824	402437-06	Water	02/28/24
MW-30-022824	402437-07	Water	02/28/24
MW-29-022824	402437-08	Water	02/28/24
MW-27-022824	402437-09	Water	02/28/24
MW-17-022924	402437-10	Water	02/29/24
MW-16-022924	402437-11	Water	02/29/24

Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Sampling and Analysis Plan for Groundwater Monitoring, Texaco Strickland Site (August 2023) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Diesel Range Organics by NWTPH-Dx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary reports.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

II. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

III. Field Blank

No field blanks were identified in this SDG.

IV. Surrogates

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

V. Matrix Spike/Matrix Spike Duplicate

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VI. Laboratory Control Sample

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the method. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

VII. Field Duplicate

No field duplicates were identified in this SDG.

VIII. Target Analyte Quantitation

Raw data were not reviewed for Stage 2A validation.

IX. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Texaco Strickland/Aloha Café
Diesel Range Organics - Data Qualification Summary - SDG 402437**

No Sample Data Qualified in this SDG

**Texaco Strickland/Aloha Café
Diesel Range Organics - Laboratory Blank Data Qualification Summary - SDG
402437**

No Sample Data Qualified in this SDG

**Texaco Strickland/Aloha Café
Diesel Range Organics - Field Blank Data Qualification Summary - SDG 402437**

No Sample Data Qualified in this SDG

VALIDATION COMPLETENESS WORKSHEET

LDC #: 60968A
 SDG #: 402437
 Laboratory: Friedman & Bruya Inc., Seattle, WA
 Method: Diesel Range Organics (NWTPH-Dx)

Date: 5/1/2025
 Page: 1
 Reviewer: MN
 2nd Reviewer: AE

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I	Sample Receipt/Technical Holding Time	A/A	
II	Laboratory Blanks	A	
III	Field Blank	N	
IV	Surrogate Spikes	A	
V	Matrix Spike/Matrix Spike Duplicate	N	
VI	Laboratory Control Sample	A	LCSID
VII	Field Duplicate	N	
VIII	Target Analyte Quantitation	N	
IX	Overall Assessment of Data	A	

Note: A = Acceptable ND = Not detected FT = Field triplicate AB= Ambient blank R = Rinsate
 N = Not provided/applicable NQ = Not qualified TB = Trip blank SB = Source blank
 SW = See worksheet FD = Field duplicate FB = Field blank EB = Equipment blank

	Client ID	Lab ID	QC Type	Matrix	Date	Stage
1	MW-18R-022824	402437-01		Water	02/28/2024	Stage 2A
2	MW-25R-022824	402437-02		Water	02/28/2024	Stage 2A
3	MW-26-022824	402437-03		Water	02/28/2024	Stage 2A
4	MW-19-022824	402437-04		Water	02/28/2024	Stage 2A
5	MW-32-022824	402437-05		Water	02/28/2024	Stage 2A
6	MW-31-022824	402437-06		Water	02/28/2024	Stage 2A
7	MW-30-022824	402437-07		Water	02/28/2024	Stage 2A
8	MW-29-022824	402437-08		Water	02/28/2024	Stage 2A
9	MW-27-022824	402437-09		Water	02/28/2024	Stage 2A
10	MW-17-022924	402437-10		Water	02/29/2024	Stage 2A
11	MW-16-022924	402437-11		Water	02/29/2024	Stage 2A

Notes:

1 04-490MB		

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name: Texaco Strickland/Aloha Café

LDC Report Date: May 27, 2025

Parameters: Volatile Organic Compounds

Validation Level: Stage 2A

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Sample Delivery Group (SDG): 405479

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-18R-240529	405479-01	Water	05/29/24
MW-25R-240529	405479-02	Water	05/29/24
MW-26-240529	405479-03	Water	05/29/24
MW-19-240529	405479-04	Water	05/29/24
MW-32-240529	405479-05	Water	05/29/24
MW-31-240529	405479-06	Water	05/29/24
MW-30-240529	405479-07	Water	05/29/24
MW-29-240529	405479-08	Water	05/29/24
MW-27-240530	405479-09	Water	05/30/24
MW-16-240530	405479-10	Water	05/30/24
MW-17-240530	405479-11	Water	05/30/24
MW-32-240529MS	405479-05MS	Water	05/29/24

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Sampling and Analysis Plan for Groundwater Monitoring, Texaco Strickland Site (August 2023) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) SW 846 Method 8260D

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary reports.

I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

II. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

III. Field Blank

No field blanks were identified in this SDG.

IV. Surrogates

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

V. Matrix Spike/Matrix Spike Duplicate

Matrix spike (MS) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits.

VI. Laboratory Control Sample

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the method. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

VII. Field Duplicate

No field duplicates were identified in this SDG.

VIII. Target Analyte Quantitation

Raw data were not reviewed for Stage 2A validation.

IX. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Texaco Strickland/Aloha Café
Volatile Organic Compounds - Data Qualification Summary - SDG 405479**

No Sample Data Qualified in this SDG

**Texaco Strickland/Aloha Café
Volatile Organic Compounds - Laboratory Blank Data Qualification Summary -
SDG 405479**

No Sample Data Qualified in this SDG

**Texaco Strickland/Aloha Café
Volatile Organic Compounds - Field Blank Data Qualification Summary - SDG
405479**

No Sample Data Qualified in this SDG

VALIDATION COMPLETENESS WORKSHEET

LDC #: 60968B
 SDG #: 405479
 Laboratory: Friedman & Bruya Inc., Seattle, WA

Date: 5/1/2025
 Page: 1
 Reviewer: MW
 2nd Reviewer: AE

Method: Volatiles (EPA 8260D)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I	Sample Receipt/Technical Holding Time	A/A	
II	Laboratory Blanks	A	
III	Field Blank	N	
IV	Surrogate Spikes	A	
V	Matrix Spike/Matrix Spike Duplicate	A	
VI	Laboratory Control Sample	A	LCS/D
VII	Field Duplicate	N	
VIII	Target Analyte Quantitation	N	
IX	Overall Assessment of Data	A	

Note: A = Acceptable ND = Not detected FT = Field triplicate AB= Ambient blank R = Rinsate
 N = Not provided/applicable NQ = Not qualified TB = Trip blank SB = Source blank
 SW = See worksheet FD = Field duplicate FB = Field blank EB = Equipment blank

	Client ID	Lab ID	QC Type	Matrix	Date	Stage
1	MW-18R-240529	405479-01		Water	05/29/2024	Stage 2A
2	MW-25R-240529	405479-02		Water	05/29/2024	Stage 2A
3	MW-26-240529	405479-03		Water	05/29/2024	Stage 2A
4	MW-19-240529	405479-04		Water	05/29/2024	Stage 2A
5	MW-32-240529	405479-05		Water	05/29/2024	Stage 2A
6	MW-31-240529	405479-06		Water	05/29/2024	Stage 2A
7	MW-30-240529	405479-07		Water	05/29/2024	Stage 2A
8	MW-29-240529	405479-08		Water	05/29/2024	Stage 2A
9	MW-27-240530	405479-09		Water	05/30/2024	Stage 2A
10	MW-16-240530	405479-10		Water	05/30/2025	Stage 2A
11	MW-17-240530	405479-11		Water	05/30/2026	Stage 2A
12	MW-32-240529MS	405479-05MS	MS	Water	05/29/2024	Stage 2A

Notes:

04-1251mb		

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: Texaco Strickland/Aloha Café
LDC Report Date: May 27, 2025
Parameters: Gasoline Range Organics
Validation Level: Stage 2A
Laboratory: Friedman & Bruya, Inc., Seattle, WA
Sample Delivery Group (SDG): 405479

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-18R-240529	405479-01	Water	05/29/24
MW-25R-240529	405479-02	Water	05/29/24
MW-26-240529	405479-03	Water	05/29/24
MW-19-240529	405479-04	Water	05/29/24
MW-32-240529	405479-05	Water	05/29/24
MW-31-240529	405479-06	Water	05/29/24
MW-30-240529	405479-07	Water	05/29/24
MW-29-240529	405479-08	Water	05/29/24
MW-27-240530	405479-09	Water	05/30/25
MW-16-240530	405479-10	Water	05/30/25
MW-17-240530	405479-11	Water	05/30/25

Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Sampling and Analysis Plan for Groundwater Monitoring, Texaco Strickland Site (August 2023) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Gasoline Range Organics by NWTPH-Gx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary reports.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

II. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

III. Field Blank

No field blanks were identified in this SDG.

IV. Surrogates

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

V. Matrix Spike/Matrix Spike Duplicate

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VI. Laboratory Control Sample

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the method. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

VII. Field Duplicate

No field duplicates were identified in this SDG.

VIII. Target Analyte Quantitation

Raw data were not reviewed for Stage 2A validation.

IX. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Texaco Strickland/Aloha Café
Gasoline Range Organics - Data Qualification Summary - SDG 405479**

No Sample Data Qualified in this SDG

**Texaco Strickland/Aloha Café
Gasoline Range Organics - Laboratory Blank Data Qualification Summary - SDG
405479**

No Sample Data Qualified in this SDG

**Texaco Strickland/Aloha Café
Gasoline Range Organics - Field Blank Data Qualification Summary - SDG 405479**

No Sample Data Qualified in this SDG

VALIDATION COMPLETENESS WORKSHEET

LDC #: 60968B
 SDG #: 405479
 Laboratory: Friedman & Bruya Inc., Seattle, WA

Date: 5/1/2025
 Page: 1
 Reviewer: MNJ
 2nd Reviewer: AE

Method: Gasoline Range Organics (NWTPH-Gx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I	Sample Receipt/Technical Holding Time	1 / A	
II	Laboratory Blanks	A	
III	Field Blank	N	
IV	Surrogate Spikes	A	
V	Matrix Spike/Matrix Spike Duplicate	N	
VI	Laboratory Control Sample	A	LCS/D
VII	Field Duplicate	N	
VIII	Target Analyte Quantitation	A	
IX	Overall Assessment of Data	A	

Note: A = Acceptable ND = Not detected FT = Field triplicate AB= Ambient blank R = Rinsate
 N = Not provided/applicable NQ = Not qualified TB = Trip blank SB = Source blank
 SW = See worksheet FD = Field duplicate FB = Field blank EB = Equipment blank

	Client ID	Lab ID	QC Type	Matrix	Date	Stage
1	MW-18R-240529	405479-01		Water	05/29/2024	Stage 2A
2	MW-25R-240529	405479-02		Water	05/29/2024	Stage 2A
3	MW-26-240529	405479-03		Water	05/29/2024	Stage 2A
4	MW-19-240529	405479-04		Water	05/29/2024	Stage 2A
5	MW-32-240529	405479-05		Water	05/29/2024	Stage 2A
6	MW-31-240529	405479-06		Water	05/29/2024	Stage 2A
7	MW-30-240529	405479-07		Water	05/29/2024	Stage 2A
8	MW-29-240529	405479-08		Water	05/29/2024	Stage 2A
9	MW-27-240530	405479-09		Water	05/30/2025	Stage 2A
10	MW-16-240530	405479-10		Water	05/30/2025	Stage 2A
11	MW-17-240530	405479-11		Water	05/30/2025	Stage 2A

Notes:

04-914MB		

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: Texaco Strickland/Aloha Café
LDC Report Date: May 27, 2025
Parameters: Diesel Range Organics
Validation Level: Stage 2A
Laboratory: Friedman & Bruya, Inc., Seattle, WA
Sample Delivery Group (SDG): 405479

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-18R-240529	405479-01	Water	05/29/24
MW-25R-240529	405479-02	Water	05/29/24
MW-26-240529	405479-03	Water	05/29/24
MW-19-240529	405479-04	Water	05/29/24
MW-32-240529	405479-05	Water	05/29/24
MW-31-240529	405479-06	Water	05/29/24
MW-30-240529	405479-07	Water	05/29/24
MW-29-240529	405479-08	Water	05/29/24
MW-27-240530	405479-09	Water	05/30/25
MW-16-240530	405479-10	Water	05/30/25
MW-17-240530	405479-11	Water	05/30/25

Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Sampling and Analysis Plan for Groundwater Monitoring, Texaco Strickland Site (August 2023) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Diesel Range Organics by NWTPH-Dx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary reports.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

II. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

III. Field Blank

No field blanks were identified in this SDG.

IV. Surrogates

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

V. Matrix Spike/Matrix Spike Duplicate

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VI. Laboratory Control Sample

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the method. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

VII. Field Duplicate

No field duplicates were identified in this SDG.

VIII. Target Analyte Quantitation

Raw data were not reviewed for Stage 2A validation.

IX. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Texaco Strickland/Aloha Café
Diesel Range Organics - Data Qualification Summary - SDG 405479**

No Sample Data Qualified in this SDG

**Texaco Strickland/Aloha Café
Diesel Range Organics - Laboratory Blank Data Qualification Summary - SDG
405479**

No Sample Data Qualified in this SDG

**Texaco Strickland/Aloha Café
Diesel Range Organics - Field Blank Data Qualification Summary - SDG 405479**

No Sample Data Qualified in this SDG

VALIDATION COMPLETENESS WORKSHEET

LDC #: 60968B
 SDG #: 405479
 Laboratory: Friedman & Bruya Inc., Seattle, WA

Date: 5/1/2025
 Page: 1
 Reviewer: MW
 2nd Reviewer: TC

Method: Diesel Range Organics (NWTPH-Dx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I	Sample Receipt/Technical Holding Time	A / A	
II	Laboratory Blanks	A	
III	Field Blank	N	
IV	Surrogate Spikes	A	
V	Matrix Spike/Matrix Spike Duplicate	N	
VI	Laboratory Control Sample	A	LCSID
VII	Field Duplicate	N	
VIII	Target Analyte Quantitation	N	
IX	Overall Assessment of Data	A	

Note: A = Acceptable ND = Not detected FT = Field triplicate AB = Ambient blank R = Rinsate
 N = Not provided/applicable NQ = Not qualified TB = Trip blank SB = Source blank
 SW = See worksheet FD = Field duplicate FB = Field blank EB = Equipment blank

	Client ID	Lab ID	QC Type	Matrix	Date	Stage
1	MW-18R-240529	405479-01		Water	05/29/2024	Stage 2A
2	MW-25R-240529	405479-02		Water	05/29/2024	Stage 2A
3	MW-26-240529	405479-03		Water	05/29/2024	Stage 2A
4	MW-19-240529	405479-04		Water	05/29/2024	Stage 2A
5	MW-32-240529	405479-05		Water	05/29/2024	Stage 2A
6	MW-31-240529	405479-06		Water	05/29/2024	Stage 2A
7	MW-30-240529	405479-07		Water	05/29/2024	Stage 2A
8	MW-29-240529	405479-08		Water	05/29/2024	Stage 2A
9	MW-27-240530	405479-09		Water	05/30/2025	Stage 2A
10	MW-16-240530	405479-10		Water	05/30/2025	Stage 2A
11	MW-17-240530	405479-11		Water	05/30/2025	Stage 2A

Notes:

04-1270MB2		

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: Texaco Strickland/Aloha Café
LDC Report Date: May 28, 2025
Parameters: Volatile Organic Compounds
Validation Level: Stage 2A
Laboratory: Friedman & Bruya, Inc., Seattle, WA
Sample Delivery Group (SDG): 409456

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
AMB-1-240926	409456-01	Air	09/26/24
AMB-2-240926	409456-02	Air	09/26/24
US-EFF-240927	409456-03	Air	09/27/24
US-EFF-240927DUP	409456-03DUP	Air	09/27/24

Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) Method TO-15

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary reports.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

I. Sample Receipt and Technical Holding Times

The canisters were properly pressurized and handled.

All technical holding time requirements were met.

II. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

Canister blank analyses were performed for every sample canister. No contaminants were found in the canister blanks.

III. Field Blank

Samples AMB-1-240926 and AMB-2-240926 were identified as ambient blanks. No contaminants were found with the following exceptions:

Blank ID	Analyte	Concentration
AMB-1-240926	Benzene Naphthalene	0.38 ug/m ³ 0.15 ug/m ³
AMB-2-240926	Naphthalene	0.084 ug/m ³

IV. Surrogates

Although surrogates were not required by the method, surrogate analysis was performed by the laboratory. Surrogate recoveries (%R) were within QC limits.

V. Laboratory Duplicate

Laboratory duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

VI. Laboratory Control Sample

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

VII. Field Duplicate

No field duplicates were identified in this SDG.

VIII. Target Analyte Quantitation

Raw data were not reviewed for Stage 2A validation.

IX. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Texaco Strickland/Aloha Café
Volatile Organic Compounds - Data Qualification Summary - SDG 409456**

No Sample Data Qualified in this SDG

**Texaco Strickland/Aloha Café
Volatile Organic Compounds - Laboratory Blank Data Qualification Summary -
SDG 409456**

No Sample Data Qualified in this SDG

**Texaco Strickland/Aloha Café
Volatile Organic Compounds - Field Blank Data Qualification Summary - SDG
409456**

No Sample Data Qualified in this SDG

VALIDATION COMPLETENESS WORKSHEET

LDC #: 60968C
 SDG #: 409456
 Laboratory: Friedman & Bruya Inc., Seattle, WA
 Method: Volatiles (EPA TO-15)

Date: 5/9/2025
 Page: 1
 Reviewer: MN
 2nd Reviewer: AF

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I	Sample Receipt/Technical Holding Time	A/A	
II	Laboratory Blanks /canister	A/	
III	Field Blank	SW	AB = 1,2
IV	Surrogate Spikes	A	
V	Laboratory Duplicate	A	
VI	Laboratory Control Sample	A	LCS
VII	Field Duplicate	N	
VIII	Target Analyte Quantitation	N	
IX	Overall Assessment of Data	A	

Note: A = Acceptable ND = Not detected FT = Field triplicate AB = Ambient blank R = Rinsate
 N = Not provided/applicable NQ = Not qualified TB = Trip blank SB = Source blank
 SW = See worksheet FD = Field duplicate FB = Field blank EB = Equipment blank

	Client ID	Lab ID	QC Type	Matrix	Date	Stage
1	AMB-1-240926	409456-01		Air	09/26/2024	Stage 2A
2	AMB-2-240926	409456-02		Air	09/26/2024	Stage 2A
3	US-EFF-240927	409456-03		Air	09/27/2024	Stage 2A
4	US-EFF-240927DUP	409456-03DUP	DUP	Air	09/27/2024	Stage 2A

Notes:

1 04-2348 MB		

VALIDATION FINDINGS WORKSHEET

Field Blanks

METHOD: GC/MS Volatiles (EPA Method TO-15)

Field blanks were identified in this SDG.

No contaminants were found in the field blanks with the exceptions identified below.

Sampling date: 9/26/24 **Blank units:** ug/m3 **Associated sample units:** ug/m3

Field blank type: AB **Associated Samples:** none

(TB = Trip Blank; FB = Field Blank; EB = Equipment Blank; SB = Source Blank)

Compound	Blank ID	Blank ID	Sample Identification							
	1	2								
Benzene	0.38									
Naphthalene	0.15	0.084								

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: Texaco Strickland/Aloha Café
LDC Report Date: May 28, 2025
Parameters: Volatile Organic Compounds
Validation Level: Stage 2A
Laboratory: Friedman & Bruya, Inc., Seattle, WA
Sample Delivery Group (SDG): 409456

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
AMB-1-240926	409456-01	Air	09/26/24
AMB-2-240926	409456-02	Air	09/26/24
US-EFF-240927	409456-03	Air	09/27/24
US-EFF-240927DUP	409456-03DUP	Air	09/27/24

Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Method MA-APH

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary reports.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

I. Sample Receipt and Technical Holding Times

The canisters were properly pressurized and handled.

All technical holding time requirements were met.

II. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

III. Field Blank

Samples AMB-1-240926 and AMB-2-240926 were identified as ambient blanks. No contaminants were found with the following exceptions:

Blank ID	Analyte	Concentration
AMB-1-240926	APH EC5-8 aliphatics APH EC9-12 aliphatics	100 ug/m ³ 43 ug/m ³

IV. Surrogates

Although surrogates were not required by the method, surrogate analysis was performed by the laboratory. Surrogate recoveries (%R) were within QC limits.

V. Matrix Spike/Matrix Spike Duplicate/Laboratory Duplicate

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

Laboratory duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

VI. Laboratory Control Sample

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

VII. Field Duplicate

No field duplicates were identified in this SDG.

VIII. Target Analyte Quantitation

Raw data were not reviewed for Stage 2A validation.

IX. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Texaco Strickland/Aloha Café
Volatile Organic Compounds - Data Qualification Summary - SDG 409456**

No Sample Data Qualified in this SDG

**Texaco Strickland/Aloha Café
Volatile Organic Compounds - Laboratory Blank Data Qualification Summary -
SDG 409456**

No Sample Data Qualified in this SDG

**Texaco Strickland/Aloha Café
Volatile Organic Compounds - Field Blank Data Qualification Summary - SDG
409456**

No Sample Data Qualified in this SDG

VALIDATION COMPLETENESS WORKSHEET

LDC #: 60968C
 SDG #: 409456
 Laboratory: Friedman & Bruya Inc., Seattle, WA
 Method: VOCs (APH) (MA-APH)

Date: 5/1/2025
 Page: 1
 Reviewer: MAN
 2nd Reviewer: AE

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I	Sample Receipt/Technical Holding Time	A / A	
II	Laboratory Blanks	A	
III	Field Blank	SW	AB=1,2
IV	Surrogate Spikes	A	
V	Matrix Spike/Matrix Spike Duplicate / Lab Dup	N / A	
VI	Laboratory Control Sample	A	LCS
VII	Field Duplicate	N	
VIII	Target Analyte Quantitation	N	
IX	Overall Assessment of Data	A	

Note: A = Acceptable ND = Not detected FT = Field triplicate AB= Ambient blank R = Rinsate
 N = Not provided/applicable NQ = Not qualified TB = Trip blank SB = Source blank
 SW = See worksheet FD = Field duplicate FB = Field blank EB = Equipment blank

	Client ID	Lab ID	QC Type	Matrix	Date	Stage
1	AMB-1-240926	409456-01		Air	09/26/2024	Stage 2A
2	AMB-2-240926	409456-02		Air	09/26/2024	Stage 2A
3	US-EFF-240927	409456-03		Air	09/27/2024	Stage 2A
4	US-EFF-240927DUP	409456-03DUP	DUP	Air	09/27/2024	Stage 2A

Notes:

104-2348MB		

VALIDATION FINDINGS WORKSHEET

Field Blanks

METHOD: GC/MS Volatiles (EPA Method MA-APH)

Field blanks were identified in this SDG.

No contaminants were found in the field blanks with the exceptions identified below.

Sampling date: 9/26/24 **Blank units:** ug/m3 **Associated sample units:** ug/m3

Field blank type: AB **Associated Samples:** none

(TB = Trip Blank; FB = Field Blank; EB = Equipment Blank; SB = Source Blank)

Compound	Blank ID	Sample Identification							
	1								
APH EC5-8 aliphatics	100								
APH EC9-12 aliphatics	43								

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: Texaco Strickland/Aloha Café
LDC Report Date: May 28, 2025
Parameters: Volatile Organic Compounds
Validation Level: Stage 2A
Laboratory: Friedman & Bruya, Inc., Seattle, WA
Sample Delivery Group (SDG): 412508

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
AMB-1-241230	412508-01	Air	12/30/24
AMB-2-241230	412508-02	Air	12/30/24
VS-EFF-241231	412508-03	Air	12/31/24

Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) Method TO-15

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary reports.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

I. Sample Receipt and Technical Holding Times

The canisters were properly pressurized and handled.

All technical holding time requirements were met.

II. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks with the following exceptions:

Blank ID	Analysis Date	Analyte	Concentration (ug/m ³)	Associated Samples
50-003 MB	01/02/25	Naphthalene	0.073	All samples in SDG 412508

Canister blank analyses were performed for every sample canister. No contaminants were found in the canister blanks.

Sample concentrations were compared to concentrations detected in the laboratory blanks. The sample concentrations were either not detected or were significantly greater (>10X for common contaminants, >5X for other contaminants) than the concentrations found in the associated laboratory blanks with the following exceptions:

Sample	Analyte	Reported Concentration (ug/m ³)	Modified Final Concentration (ug/m ³)
AMB-1-241230	Naphthalene	0.073	0.073U
AMB-2-241230	Naphthalene	0.11	0.11U
VS-EFF-241231	Naphthalene	0.079	0.079U

III. Field Blank

Samples AMB-1-241230 and AMB-2-241230 were identified as ambient blanks. No contaminants were found with the following exceptions:

Blank ID	Analyte	Concentration
AMB-1-241230	Benzene Naphthalene	0.42 ug/m ³ 0.073 ug/m ³
AMB-2-241230	Benzene Naphthalene	0.60 ug/m ³ 0.11 ug/m ³

IV. Surrogates

Although surrogates were not required by the method, surrogate analysis was performed by the laboratory. Surrogate recoveries (%R) were within QC limits.

V. Laboratory Duplicate

The laboratory has indicated that there were no duplicate (DUP) analyses specified for the samples in this SDG, and therefore duplicate analyses were not performed for this SDG.

VI. Laboratory Control Sample

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

VII. Field Duplicate

No field duplicates were identified in this SDG.

VIII. Target Analyte Quantitation

Raw data were not reviewed for Stage 2A validation.

IX. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Data qualified due to laboratory blank contamination are summarized and presented in the Data Qualification Summary.

**Texaco Strickland/Aloha Café
Volatile Organic Compounds - Data Qualification Summary - SDG 412508**

No Sample Data Qualified in this SDG

**Texaco Strickland/Aloha Café
Volatile Organic Compounds - Laboratory Blank Data Qualification Summary -
SDG 412508**

Sample	Analyte	Modified Final Concentration (ug/m ³)
AMB-1-241230	Naphthalene	0.073U
AMB-2-241230	Naphthalene	0.11U
VS-EFF-241231	Naphthalene	0.079U

**Texaco Strickland/Aloha Café
Volatile Organic Compounds - Field Blank Data Qualification Summary - SDG
412508**

No Sample Data Qualified in this SDG

VALIDATION FINDINGS WORKSHEET

Field Blanks

METHOD: GC/MS Volatiles (EPA Method TO-15)

Field blanks were identified in this SDG.

No contaminants were found in the field blanks with the exceptions identified below.

Sampling date: 12/30/24 **Blank units:** ug/m3 **Associated sample units:** ug/m3

Field blank type: AB **Associated Samples:** none

(TB = Trip Blank; FB = Field Blank; EB = Equipment Blank; SB = Source Blank)

Compound	Blank ID	Blank ID	Sample Identification						
	1	2							
Benzene	0.42	0.60							
Naphthalene	0.073	0.11							

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: Texaco Strickland/Aloha Café
LDC Report Date: May 28, 2025
Parameters: Volatile Organic Compounds
Validation Level: Stage 2A
Laboratory: Friedman & Bruya, Inc., Seattle, WA
Sample Delivery Group (SDG): 412508

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
AMB-1-241230	412508-01	Air	12/30/24
AMB-2-241230	412508-02	Air	12/30/24
VS-EFF-241231	412508-03	Air	12/31/24

Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Method MA-APH

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary reports.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

I. Sample Receipt and Technical Holding Times

The canisters were properly pressurized and handled.

All technical holding time requirements were met.

II. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

III. Field Blank

Samples AMB-1-241230 and AMB-2-241230 were identified as ambient blanks. No contaminants were found with the following exceptions:

Blank ID	Analyte	Concentration
AMB-1-241230	APH EC5-8 aliphatics	86 ug/m ³
AMB-2-241230	APH EC5-8 aliphatics APH EC9-12 aliphatics	86 ug/m ³ 34 ug/m ³

IV. Surrogates

Although surrogates were not required by the method, surrogate analysis was performed by the laboratory. Surrogate recoveries (%R) were within QC limits.

V. Matrix Spike/Matrix Spike Duplicate

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VI. Laboratory Control Sample

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

VII. Field Duplicate

No field duplicates were identified in this SDG.

VIII. Target Analyte Quantitation

Raw data were not reviewed for Stage 2A validation.

VALIDATION COMPLETENESS WORKSHEET

LDC #: 60968D
 SDG #: 412508
 Laboratory: Friedman & Bruya Inc., Seattle, WA
 Method: VOCs (APH) (MA-APH)

Date: 5/1/2025
 Page: 1
 Reviewer: MAN
 2nd Reviewer: _____

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I	Sample Receipt/Technical Holding Time	A/A	
II	Laboratory Blanks	A	
III	Field Blank	SW	AB=1,2
IV	Surrogate Spikes	A	
V	Matrix Spike/Matrix Spike Duplicate	N	
VI	Laboratory Control Sample	A	LCS
VII	Field Duplicate	N	
VIII	Target Analyte Quantitation	N	
IX	Overall Assessment of Data	A	

Note: A = Acceptable ND = Not detected FT = Field triplicate AB= Ambient blank R = Rinsate
 N = Not provided/applicable NQ = Not qualified TB = Trip blank SB = Source blank
 SW = See worksheet FD = Field duplicate FB = Field blank EB = Equipment blank

	Client ID	Lab ID	QC Type	Matrix	Date	Stage
1	AMB-1-241230	412508-01		Air	12/30/2024	Stage 2A
2	AMB-2-241230	412508-02		Air	12/30/2024	Stage 2A
3	VS-EFF-241231	412508-03		Air	12/31/2024	Stage 2A

Notes:

1 05-003 MB		

APPENDIX D

Remedial Alternative Cost Estimates

Table D.1 - Cost Estimate - Excavation and Off-Site Disposal

Project No. AS180357, Texaco Strickland, Lynnwood, Washington

Site:	Texaco Strickland					
Remedial Action Description:	Excavation and Off-Site Disposal					
Cost Estimate Accuracy:	Feasibility Study Level (+50/-30 percent)					
Key Assumptions and Quantities:						
		Quantities				
	800 ft ²				total excavation area	
	12 ft				base depth	
	356 cy				PCS Excavation volume	
	1.7 ton/cy				soil density	
CONSTRUCTION COSTS						
	Item	Quantity	Unit	Unit Cost	Total Cost	Notes
Excavation						
	Mobilization/demobilization	1	LS	\$ 50,000	\$ 50,000	includes submittals and TESC
	Traffic controls for right-of-way closure	1	LS	\$ 20,000	\$ 20,000	Mobilization of traffic controls for 3 week-long implementation
	Hardscape demolition, hauling, and disposal	29	ton	\$ 50	\$ 1,450	assumes approx 800 sq ft asphalt and concrete removal, 145lb per cu. ft.
	Utility Locating/Protection/Temporary Disconnection	1	LS	\$ 100,000	\$ 100,000	public water, gas, telecom, power
	Shoring	1,584	sf	\$ 110	\$ 174,240	soldier pile 4 sides to 12 feet
	Excavate, direct load, haul and disposal of soil	604	ton	\$ 150	\$ 90,667	
	Analytical fees for soil confirmation sampling	21	ea	\$ 200	\$ 4,240	sample every 10' of sidewall and every 100ft2 of bottom, 24hr TAT, GRO/BTEX
	Import, place, and compact gravel borrow backfill	554	ton	\$ 45	\$ 24,933	
	Import, place, and crushed base course surfacing	50	ton	\$ 75	\$ 3,778	
	Replace asphalt roadway, hot mix	400	sf	\$ 25	\$ 10,000	
	Replace concrete sidewalk and curb	400	sf	\$ 35	\$ 14,000	
	<i>Subtotal Excavation</i>				\$ 493,308	
Professional Services						
	Engineering Design	1	LS	\$ 50,000	\$ 50,000	Includes construction plan set and specifications for competitive bidding
	Cleanup Action Permitting	1	LS	\$ 30,000	\$ 30,000	City, SEPA, grading permit, utility company coordination
	Bidding and Contractor Selection	1	LS	\$ 15,000	\$ 15,000	bid package preparation, site walk
	Project management, construction oversight and monitoring	1	LS	\$ 50,000	\$ 50,000	4 weeks of construction monitoring and oversight
	Cleanup Action Report	1	LS	\$ 30,000	\$ 30,000	
	<i>Subtotal Professional Services</i>				\$ 175,000	
	Tax	10.1%		\$ 493,308	\$ 49,824	
	Contingency	20%		\$ 718,132	\$ 143,626	10% scope + 10% bid contingency
ESTIMATED CONSTRUCTION COST					\$ 862,000	
TOTAL ESTIMATED COST:					\$ 860,000	rounded to the nearest \$10,000

Aspect Consulting

8/1/2025

\\ASP-Bai-01\Projects\Aloha Cafe - Strickland\Report Drafts\FS\Tables\Table 4, Figure 5, and Appendix D_DCA and cost estimates

Table D.1

Feasibility Study

Page 1 of 1

Table D.2. Cost Estimate - Engineering and Institutional Controls

Project No. AS180357, Texaco Strickland, Lynnwood, Washington

Site:	Texaco Strickland					
Remedial Action Description:	Engineering and Institutional Controls					
Cost Estimate Accuracy:	Feasibility Study Level (+50/-30 percent)					
Key Assumptions and Quantities:	30 year duration Future costs for compliance monitoring adjusted to net present value (NPV) using a discount rate of 2%					
MONITORING COSTS						
	Item	Quantity	Unit	Unit Cost	Total Cost	Notes
Professional Services						
	Environmental Covenants	1	ls	\$ 25,000	\$ 25,000	For Property, and Public Right-of-Way
	<i>Subtotal</i>				\$ 25,000	
Compliance Monitoring						
	Annual Cap Inspections	30	yr	\$ 4,000	\$ 120,000	
	5-Year Review	6	ea	\$ 8,000	\$ 48,000	Based on current equipment rates
	<i>Subtotal</i>				\$ 168,000	
	<i>Subtotal (NPV)</i>				\$ 120,000	
	Contingency	10%		\$ 145,000	\$ 14,500	10% scope contingency
ESTIMATED MONITORING COST (NPV)					\$ 159,500	
TOTAL ESTIMATED COST (NPV)					\$ 160,000	rounded to nearest \$10,000

APPENDIX E

Data Validation Reports



LABORATORY DATA CONSULTANTS, INC.

2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

Aspect Consulting LLC
701 Second Ave., Suite 550
Seattle, WA 98104
ATTN: Jason Yabandeh
jyabandeh@aspectconsulting.com

November 29, 2023

SUBJECT: Aloha Café - Data Validation

Dear Mr. Yabandeh,

Enclosed are the final validation reports for the fractions listed below. These SDGs were received on October 23, 2023. Attachment 1 is a summary of the samples that were reviewed for each analysis.

LDC Project #57781:

<u>SDG #</u>	<u>Fraction</u>
308491	Volatiles, Total Petroleum Hydrocarbons as Gasoline, Total
309537	Petroleum Hydrocarbons as Extractables,

The data validation was performed under Stage 2A guidelines. The analysis was validated using the following documents, as applicable to each method:

- Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019)
- USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020)
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update I, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998; IIIB, November 2004; update IV, February 2007; update V, July 2014; update VI, July 2018

Please feel free to contact us if you have any questions.

Sincerely,

Stella Cuenco
scuenco@lab-data.com
Project Manager/Senior Chemist

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: Aloha Café
LDC Report Date: November 15, 2023
Parameters: Volatiles
Validation Level: Stage 2A
Laboratory: Friedman & Bruya, Inc., Seattle, WA
Sample Delivery Group (SDG): 308491

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-18R-083023	308491-01	Water	08/30/23
MW-25R-083023	308491-02	Water	08/30/23
MW-26-083023	308491-03	Water	08/30/23
MW-29-083023	308491-04	Water	08/30/23
MW-19-083023	308491-05	Water	08/30/23
MW-30-083023	308491-06	Water	08/30/23
MW-31-083023	308491-07	Water	08/30/23
MW-16-083123	308491-08	Water	08/31/23
MW-32-083123	308491-09	Water	08/31/23
4W-18R-083023MS	308491-01MS	Water	08/30/23

Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) SW 846 Method 8260D

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

II. GC/MS Instrument Performance Check

Instrument performance check data were not reviewed for Stage 2A validation.

III. Initial Calibration and Initial Calibration Verification

Initial calibration data were not reviewed for Stage 2A validation.

IV. Continuing Calibration

Continuing calibration data were not reviewed for Stage 2A validation.

V. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

VI. Field Blanks

No field blanks were identified in this SDG.

VII. Surrogates

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

VIII. Matrix Spike

Matrix spike (MS) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits.

IX. Laboratory Control Samples

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the method. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

X. Field Duplicates

No field duplicates were identified in this SDG.

XI. Internal Standards

Internal standard data were not reviewed for Stage 2A validation.

XII. Target Analyte Quantitation

Raw data were not reviewed for Stage 2A validation.

XIII. Target Analyte Identification

Raw data were not reviewed for Stage 2A validation.

XIV. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Aloha Café
Volatiles - Data Qualification Summary - SDG 308491

No Sample Data Qualified in this SDG

Aloha Café
Volatiles - Laboratory Blank Data Qualification Summary - SDG 308491

No Sample Data Qualified in this SDG

Aloha Café
Volatiles - Field Blank Data Qualification Summary - SDG 308491

No Sample Data Qualified in this SDG

LDC #: 57781A1a

VALIDATION COMPLETENESS WORKSHEET

Date: 11/14/23

SDG #: 308491

Stage 2A

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Reviewer: JCE
2nd Reviewer: A

METHOD: GC/MS Volatiles (EPA SW-846 Method 8260D)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A, A	
II.	GC/MS Instrument performance check	N	
III.	Initial calibration/ICV	N/N	
IV.	Continuing calibration	N	
V.	Laboratory Blanks	A	
VI.	Field blanks	N	
VII.	Surrogate spikes	A	
VIII.	Matrix spike Matrix spike duplicates	A	
IX.	Laboratory control samples	A	LCS 1p
X.	Field duplicates	N	
XI.	Internal standards	N	
XII.	Target analyte quantitation	N	
XIII.	Target analyte identification	N	
XIV.	Overall assessment of data	A	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet

ND = No compounds detected
R = Rinsate
FB = Field blank

D = Duplicate
TB = Trip blank
EB = Equipment blank

SB=Source blank
OTHER:

	Client ID	Lab ID	Matrix	Date
1	MW-18R-083023	308491-01	Water	08/30/23
2	MW-25R-083023	308491-02	Water	08/30/23
3	MW-26-083023	308491-03	Water	08/30/23
4	MW-29-083023	308491-04	Water	08/30/23
5	MW-19-083023	308491-05	Water	08/30/23
6	MW-30-083023	308491-06	Water	08/30/23
7	MW-31-083023	308491-07	Water	08/30/23
8	MW-16-083123	308491-08	Water	08/31/23
9	MW-32-083123	308491-09	Water	08/31/23
10	4W-18R-083023MS	308491-01MS	Water	08/30/23
11				

Notes:

- 03-1982 MP ₂				

BTEX + Naphthalene

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name: Aloha Café

LDC Report Date: November 15, 2023

Parameters: Total Petroleum Hydrocarbons as Gasoline

Validation Level: Stage 2A

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Sample Delivery Group (SDG): 308491

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-18R-083023	308491-01	Water	08/30/23
MW-25R-083023	308491-02	Water	08/30/23
MW-26-083023	308491-03	Water	08/30/23
MW-29-083023	308491-04	Water	08/30/23
MW-19-083023	308491-05	Water	08/30/23
MW-30-083023	308491-06	Water	08/30/23
MW-31-083023	308491-07	Water	08/30/23
MW-16-083123	308491-08	Water	08/31/23
MW-32-083123	308491-09	Water	08/31/23
MW-18R-083023DUP	308491-01DUP	Water	08/30/23

Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Gasoline by NWTPH-Gx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

II. Initial Calibration and Initial Calibration Verification

Initial calibration data were not reviewed for Stage 2A validation.

III. Continuing Calibration

Continuing calibration data were not reviewed for Stage 2A validation.

IV. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

V. Field Blanks

No field blanks were identified in this SDG.

VI. Surrogates

Surrogates were added to all samples as required by the method.

VII. Matrix Spike/Matrix Spike Duplicates/Duplicate Sample Analysis

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

Duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

VIII. Laboratory Control Samples

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

IX. Field Duplicates

No field duplicates were identified in this SDG.

X. Target Analyte Quantitation

Raw data were not reviewed for Stage 2A validation.

XI. Target Analyte Identification

Raw data were not reviewed for Stage 2A validation.

XII. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Aloha Café
Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG 308491

No Sample Data Qualified in this SDG

Aloha Café
Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification Summary - SDG 308491

No Sample Data Qualified in this SDG

Aloha Café
Total Petroleum Hydrocarbons as Gasoline - Field Blank Data Qualification Summary - SDG 308491

No Sample Data Qualified in this SDG

LDC #: 57781A7

VALIDATION COMPLETENESS WORKSHEET

Date: 1/14/23

SDG #: 308491

Stage 2A

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Reviewer: SW

2nd Reviewer: A

METHOD: GC TPH as Gasoline (NWTPH-Gx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A, A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	N	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates /LD	N/A	
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	N	
X.	Target analyte quantitation	N	
XI.	Target analyte identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet

ND = No compounds detected
R = Rinsate
FB = Field blank

D = Duplicate
TB = Trip blank
EB = Equipment blank

SB=Source blank
OTHER:

	Client ID	Lab ID	Matrix	Date
1	MW-18R-083023	308491-01	Water	08/30/23
2	MW-25R-083023	308491-02	Water	08/30/23
3	MW-26-083023	308491-03	Water	08/30/23
4	MW-29-083023	308491-04	Water	08/30/23
5	MW-19-083023	308491-05	Water	08/30/23
6	MW-30-083023	308491-06	Water	08/30/23
7	MW-31-083023	308491-07	Water	08/30/23
8	MW-16-083123	308491-08	Water	08/31/23
9	MW-32-083123	308491-09	Water	08/31/23
10	MW-18R-083023DUP	308491-01DUP	Water	08/30/23
11				
12				
13				

Notes:

1	03-2071 MB				

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Aloha Café

LDC Report Date: November 15, 2023

Parameters: Total Petroleum Hydrocarbons as Extractables

Validation Level: Stage 2A

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Sample Delivery Group (SDG): 308491

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-18R-083023	308491-01	Water	08/30/23
MW-25R-083023	308491-02	Water	08/30/23
MW-26-083023	308491-03	Water	08/30/23
MW-29-083023	308491-04	Water	08/30/23
MW-19-083023	308491-05	Water	08/30/23
MW-30-083023	308491-06	Water	08/30/23
MW-31-083023	308491-07	Water	08/30/23
MW-16-083123	308491-08	Water	08/31/23
MW-32-083123	308491-09	Water	08/31/23

Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Extractables by NWTPH-Dx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

II. Initial Calibration and Initial Calibration Verification

Initial calibration data were not reviewed for Stage 2A validation.

III. Continuing Calibration

Continuing calibration data were not reviewed for Stage 2A validation.

IV. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

V. Field Blanks

No field blanks were identified in this SDG.

VI. Surrogates

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the method. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

IX. Field Duplicates

No field duplicates were identified in this SDG.

X. Target Analyte Quantitation

Raw data were not reviewed for Stage 2A validation.

XI. Target Analyte Identification

Raw data were not reviewed for Stage 2A validation.

XII. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

LDC #: 57781A8

VALIDATION COMPLETENESS WORKSHEET

Date: 11/14/23

SDG #: 308491

Stage 2A

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Reviewer: JV

2nd Reviewer: [Signature]

METHOD: GC TPH as Extractables (NWTPH-Dx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A, A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	N	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	
VIII.	Laboratory control samples	A	LCS ✓
IX.	Field duplicates	N	
X.	Target analyte quantitation	N	
XI.	Target analyte identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable
 N = Not provided/applicable
 SW = See worksheet

ND = No compounds detected
 R = Rinsate
 FB = Field blank

D = Duplicate
 TB = Trip blank
 EB = Equipment blank

SB=Source blank
 OTHER:

	Client ID	Lab ID	Matrix	Date
1	MW-18R-083023	308491-01	Water	08/30/23
2	MW-25R-083023	308491-02	Water	08/30/23
3	MW-26-083023	308491-03	Water	08/30/23
4	MW-29-083023	308491-04	Water	08/30/23
5	MW-19-083023	308491-05	Water	08/30/23
6	MW-30-083023	308491-06	Water	08/30/23
7	MW-31-083023	308491-07	Water	08/30/23
8	MW-16-083123	308491-08	Water	08/31/23
9	MW-32-083123	308491-09	Water	08/31/23
10				
11				
12				
13				

Notes:

	03-2065 MB2			

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name: Aloha Café

LDC Report Date: November 15, 2023

Parameters: Volatiles

Validation Level: Stage 2A

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Sample Delivery Group (SDG): 309537

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
IA-125-1-230928	309537-01	Air	09/28/23
IA-125-2-230928	309537-02	Air	09/28/23
IA-127-1-230928	309537-03	Air	09/28/23
IA-127-2-230928	309537-04	Air	09/28/23
IA-129-1-230928	309537-05	Air	09/28/23
IA-129-2-230928	309537-06	Air	09/28/23
IA-131-1-230928	309537-07	Air	09/28/23
IA-FD-230928	309537-08	Air	09/28/23
AMB-2-230928	309537-10	Air	09/28/23
VS-EFF-230928	309537-11	Air	09/28/23
CS-125-230928	309537-12	Air	09/28/23
CS-127-230928	309537-13	Air	09/28/23
CS-129-230928	309537-14	Air	09/28/23
CS-131-230928	309537-15	Air	09/28/23
VS-EFF-230928DUP	309537-11DUP	Air	09/28/23

Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) Method TO-15

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

I. Sample Receipt and Technical Holding Times

The canisters were properly pressurized and handled.

All technical holding time requirements were met.

II. GC/MS Instrument Performance Check

Instrument performance check data were not reviewed for Stage 2A validation.

III. Initial Calibration and Initial Calibration Verification

Initial calibration data were not reviewed for Stage 2A validation.

IV. Continuing Calibration

Continuing calibration data were not reviewed for Stage 2A validation.

V. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

VI. Field Blanks

No field blanks were identified in this SDG.

VII. Surrogates

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

VIII. Duplicate Sample Analysis

Duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

IX. Laboratory Control Samples

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

X. Field Duplicates

Samples IA-131-1-230928 and IA-FD-230928 were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

Analyte	Concentration (ug/m ³)		RPD (≤35)	Difference (Limits)
	IA-131-1-230928	IA-FD-230928		
Benzene	0.59	0.66	-	0.07 (≤0.64)
Naphthalene	0.19	0.22	-	0.03 (≤0.104)

XI. Internal Standards

Internal standards data were not reviewed for Stage 2A validation.

XII. Target Analyte Quantitation

Raw data were not reviewed for Stage 2A validation.

XIII. Target Analyte Identification

Raw data were not reviewed for Stage 2A validation.

XIV. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Aloha Café
Volatiles - Data Qualification Summary - SDG 309537

No Sample Data Qualified in this SDG

Aloha Café
Volatiles - Laboratory Blank Data Qualification Summary - SDG 309537

No Sample Data Qualified in this SDG

Aloha Café
Volatiles - Field Blank Data Qualification Summary - SDG 309537

No Sample Data Qualified in this SDG

LDC #: 57781B48a

VALIDATION COMPLETENESS WORKSHEET

Date: 11/14/23

SDG #: 309537

Stage 2A

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Reviewer: JVG

2nd Reviewer: A

METHOD: GC/MS Volatiles (EPA Method TO-15)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	GC/MS Instrument performance check	N	
III.	Initial calibration/ICV	N/N	
IV.	Continuing calibration	N	
V.	Laboratory Blanks	A	
VI.	Field blanks	N	
VII.	Surrogate spikes	A	
VIII.	Duplicate sample analysis	A	
IX.	Laboratory control samples	A	LCS
X.	Field duplicates	SW	b = 7/8
XI.	Internal standards	N	
XII.	Target analyte quantitation	N	
XIII.	Target analyte identification	N	
XIV.	Leak Check Compounds	-	
XV.	Overall assessment of data	A	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet

ND = No compounds detected
R = Rinsate
FB = Field blank

D = Duplicate
TB = Trip blank
EB = Equipment blank

SB=Source blank
OTHER:

	Client ID	Lab ID	Matrix	Date
1	IA-125-1-230928	309537-01	Air	09/28/23
2	IA-125-2-230928	309537-02	Air	09/28/23
3	IA-127-1-230928	309537-03	Air	09/28/23
4	IA-127-2-230928	309537-04	Air	09/28/23
5	IA-129-1-230928	309537-05	Air	09/28/23
6	IA-129-2-230928	309537-06	Air	09/28/23
7	IA-131-1-230928 D	309537-07	Air	09/28/23
8	IA-FD-230928 D	309537-08	Air	09/28/23
9	AMB-2-230928	309537-10	Air	09/28/23
10	VS-EFF-230928	309537-11	Air	09/28/23
11	CS-125-230928	309537-12	Air	09/28/23
12	CS-127-230928	309537-13	Air	09/28/23
13	CS-129-230928	309537-14	Air	09/28/23
14	CS-131-230928	309537-15	Air	09/28/23

LDC #: 57781B48a

VALIDATION COMPLETENESS WORKSHEET

Date: _____

SDG #: 309537

Stage 2A

Page: ___ of ___

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Reviewer: _____

2nd Reviewer: _____

METHOD: GC/MS Volatiles (EPA Method TO-15)

	Client ID	Lab ID	Matrix	Date
15	VS-EFF-230928DUP	309537-11DUP	Air	09/28/23
16				
17				
18				

Notes:

03-2298 MB					

BTEX + Naphthalene

AMB-1-230928 - not analyzed, vacuum -30" Hg

TARGET COMPOUND WORKSHEET

METHOD: VOA

A. Chloromethane	AA. Tetrachloroethene	AAA. 1,3,5-Trimethylbenzene	AAAA. Ethyl tert-butyl ether	A1. 1,3-Butadiene	A2. 1,2,4,5-Tetramethylbenzene
B. Bromomethane	BB. 1,1,2,2-Tetrachloroethane	BBB. 4-Chlorotoluene	BBBB. tert-Amyl methyl ether	B1. Hexane	B2. n-Octane
C. Vinyl chloride	CC. Toluene	CCC. tert-Butylbenzene	CCCC. 1-Chlorohexane	C1. Heptane	C2. n-Propyl alcohol
D. Chloroethane	DD. Chlorobenzene	DDD. 1,2,4-Trimethylbenzene	DDDD. Isopropyl alcohol	D1. Propylene	D2. n-Pentane
E. Methylene chloride	EE. Ethylbenzene	EEE. sec-Butylbenzene	EEEE. Acetonitrile	E1. Freon 11	E2. n-Decane
F. Acetone	FF. Styrene	FFF. 1,3-Dichlorobenzene	FFFF. Acrolein	F1. Freon 12	F2. Chlorodifluoromethane
G. Carbon disulfide	GG. Xylenes, total	GGG. p-Isopropyltoluene	GGGG. Acrylonitrile	G1. Freon 113	G2. cis-decahydronaphthalene
H. 1,1-Dichloroethene	HH. Vinyl acetate	HHH. 1,4-Dichlorobenzene	HHHH. 1,4-Dioxane	H1. Freon 114	H2. trans-decahydronaphthalene
I. 1,1-Dichloroethane	II. 2-Chloroethylvinyl ether	III. n-Butylbenzene	IIII. Isobutyl alcohol	I1. 2-Nitropropane	I2. n-Nonane
J. 1,2-Dichloroethene, total	JJ. Dichlorodifluoromethane	JJJ. 1,2-Dichlorobenzene	JJJJ. Methacrylonitrile	J1. Dimethyl disulfide	J2. n-Undecane
K. Chloroform	KK. Trichlorofluoromethane	KKK. 1,2,4-Trichlorobenzene	KKKK. Propionitrile	K1. 2,3-Dimethyl pentane	K2. Chloroprene
L. 1,2-Dichloroethane	LL. Methyl-tert-butyl ether	LLL. Hexachlorobutadiene	LLLL. Ethyl ether	L1. 2,4-Dimethyl pentane	L2. n-Butanol
M. 2-Butanone	MM. 1,2-Dibromo-3-chloropropane	MMM. Naphthalene	MMMM. Benzyl chloride	M1. 3,3-Dimethyl pentane	M2. n-Butyl acetate
N. 1,1,1-Trichloroethane	NN. Methyl ethyl ketone	NNN. 1,2,3-Trichlorobenzene	NNNN. Iodomethane	N1. 2-Methylpentane	N2. Nitrobenzene
O. Carbon tetrachloride	OO. 2,2-Dichloropropane	OOO. 1,3,5-Trichlorobenzene	OOOO. 1,1-Difluoroethane	O1. 3-Methylpentane	O2.
P. Bromodichloromethane	PP. Bromochloromethane	PPP. trans-1,2-Dichloroethene	PPPP. Tetrahydrofuran	P1. 3-Ethylpentane	P2.
Q. 1,2-Dichloropropane	QQ. 1,1-Dichloropropene	QQQ. cis-1,2-Dichloroethene	QQQQ. Methyl acetate	Q1. 2,2-Dimethylpentane	Q2.
R. cis-1,3-Dichloropropene	RR. Dibromomethane	RRR. m,p-Xylenes	RRRR. Ethyl acetate	R1. 2,2,3-Trimethylbutane	R2.
S. Trichloroethene	SS. 1,3-Dichloropropane	SSS. o-Xylene	SSSS. Cyclohexane	S1. 2,2,4-Trimethylpentane	S2.
T. Dibromochloromethane	TT. 1,2-Dibromoethane	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	TTTT. Methylcyclohexane	T1. 2-Methylhexane	T2.
U. 1,1,2-Trichloroethane	UU. 1,1,1,2-Tetrachloroethane	UUU. 1,2-Dichlorotetrafluoroethane	UUUU. Allyl chloride	U1. Nonanal	U2.
V. Benzene	VV. Isopropylbenzene	VVV. 4-Ethyltoluene	VVVV. Methyl methacrylate	V1. 2-Methylnaphthalene	V2.
W. trans-1,3-Dichloropropene	WW. Bromobenzene	WWW. Ethanol	WWWW. Ethyl methacrylate	W1. Methanol	W2.
X. Bromoform	XX. 1,2,3-Trichloropropane	XXX. Di-isopropyl ether	XXXX. cis-1,4-Dichloro-2-butene	X1. 1,2,3-Trimethylbenzene	X2.
Y. 4-Methyl-2-pentanone	YY. n-Propylbenzene	YYY. tert-Butanol	YYYY. trans-1,4-Dichloro-2-butene	Y1. 2-Propanol	Y2.
Z. 2-Hexanone	ZZ. 2-Chlorotoluene	ZZZ. tert-Butyl alcohol	ZZZZ. Pentachloroethane	Z1. p-Diethylbenzene	Z2.

VALIDATION FINDINGS WORKSHEET
Field Duplicates**METHOD:** GCMS VOA (EPA Method TO15)

Compound	Concentration (ug/m3)		RPD ($\leq 35\%$)	Difference (ug/m3)	Limits ($\leq 2 \times \text{LOQ}$)	Qualifications (Parent Only)
	7	8				
V	0.59	0.66		0.07	≤ 0.64	
MMM	0.19	0.22		0.03	≤ 0.104	

V:\Josephine\FIELD DUPLICATES\57781B48a aspect consulting aloha cafe diff.wpd

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name: Aloha Café

LDC Report Date: November 15, 2023

Parameters: Volatiles

Validation Level: Stage 2A

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Sample Delivery Group (SDG): 309537

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
IA-125-1-230928	309537-01	Air	09/28/23
IA-125-2-230928	309537-02	Air	09/28/23
IA-127-1-230928	309537-03	Air	09/28/23
IA-127-2-230928	309537-04	Air	09/28/23
IA-129-1-230928	309537-05	Air	09/28/23
IA-129-2-230928	309537-06	Air	09/28/23
IA-131-1-230928	309537-07	Air	09/28/23
IA-FD-230928	309537-08	Air	09/28/23
AMB-2-230928	309537-10	Air	09/28/23
VS-EFF-230928	309537-11	Air	09/28/23
CS-125-230928	309537-12	Air	09/28/23
CS-127-230928	309537-13	Air	09/28/23
CS-129-230928	309537-14	Air	09/28/23
CS-131-230928	309537-15	Air	09/28/23
VS-EFF-230928DUP	309537-11DUP	Air	09/28/23

Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by MA-APH

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

I. Sample Receipt and Technical Holding Times

The canisters were properly pressurized and handled.

All technical holding time requirements were met.

II. GC/MS Instrument Performance Check

Instrument performance check data were not reviewed for Stage 2A validation.

III. Initial Calibration and Initial Calibration Verification

Initial calibration data were not reviewed for Stage 2A validation.

IV. Continuing Calibration

Continuing calibration data were not reviewed for Stage 2A validation.

V. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

VI. Field Blanks

No field blanks were identified in this SDG.

VII. Surrogates

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

VIII. Duplicate Sample Analysis

Duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

IX. Laboratory Control Samples

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

X. Field Duplicates

Samples IA-131-1-230928 and IA-FD-230928 were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

Analyte	Concentration (ug/m ³)		RPD (≤35)	Difference (Limits)
	IA-131-1-230928	IA-FD-230928		
APH EC5-8 aliphatics	86	91	-	5 (≤150)
APH EC9-12 aliphatics	29	34	-	5 (≤50)

XI. Internal Standards

Internal standards data were not reviewed for Stage 2A validation.

XII. Target Analyte Quantitation

Raw data were not reviewed for Stage 2A validation.

XIII. Target Analyte Identification

Raw data were not reviewed for Stage 2A validation.

XIV. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Aloha Café
Volatiles - Data Qualification Summary - SDG 309537

No Sample Data Qualified in this SDG

Aloha Café
Volatiles - Laboratory Blank Data Qualification Summary - SDG 309537

No Sample Data Qualified in this SDG

Aloha Café
Volatiles - Field Blank Data Qualification Summary - SDG 309537

No Sample Data Qualified in this SDG

LDC #: 57781B48b

VALIDATION COMPLETENESS WORKSHEET

Date: 11/14/23

SDG #: 309537

Stage 2A

Page: 1 of 2

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Reviewer: YG

2nd Reviewer: JK

METHOD: GC/MS Volatiles (MA-APH)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A, A	
II.	GC/MS Instrument performance check	N	
III.	Initial calibration/ICV	N/N	
IV.	Continuing calibration	N	
V.	Laboratory Blanks	A	
VI.	Field blanks	N	
VII.	Surrogate spikes	A	
VIII.	Duplicate sample analysis	A	
IX.	Laboratory control samples	A	LCS
X.	Field duplicates	SW	D = 7/8
XI.	Internal standards	N	
XII.	Target analyte quantitation	N	
XIII.	Target analyte identification	N	
XIV.	Leak Check Compounds	-	
XV.	Overall assessment of data	A	

Note: A = Acceptable
 N = Not provided/applicable
 SW = See worksheet

ND = No compounds detected
 R = Rinsate
 FB = Field blank

D = Duplicate
 TB = Trip blank
 EB = Equipment blank

SB=Source blank
 OTHER:

	Client ID	Lab ID	Matrix	Date
1 ⁺	IA-125-1-230928	309537-01	Air	09/28/23
2	IA-125-2-230928	309537-02	Air	09/28/23
3	IA-127-1-230928	309537-03	Air	09/28/23
4	IA-127-2-230928	309537-04	Air	09/28/23
5	IA-129-1-230928	309537-05	Air	09/28/23
6	IA-129-2-230928	309537-06	Air	09/28/23
7	IA-131-1-230928 <i>b</i>	309537-07	Air	09/28/23
8	IA-FD-230928 <i>D</i>	309537-08	Air	09/28/23
9	AMB-2-230928	309537-10	Air	09/28/23
10	VS-EFF-230928	309537-11	Air	09/28/23
11	CS-125-230928	309537-12	Air	09/28/23
12	CS-127-230928	309537-13	Air	09/28/23
13	CS-129-230928	309537-14	Air	09/28/23
14	CS-131-230928	309537-15	Air	09/28/23

LDC #: 57781B48b

VALIDATION COMPLETENESS WORKSHEET

SDG #: 309537

Stage 2A

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Date: 1/14/23

Page: 2 of 2

Reviewer: SVG

2nd Reviewer: AK

METHOD: GC/MS Volatiles (MA-APH)

	Client ID	Lab ID	Matrix	Date
15	VS-EFF-230928DUP	309537-11DUP	Air	09/28/23
16				
17				
18				

Notes:

	03-2298 MB						

AMB-1-230928 - not analyzed, vacuum -30"Hg

VALIDATION FINDINGS WORKSHEET
Field Duplicates**METHOD:** GCMS Volatiles (MA-APH)

Compound	Concentration (ug/m3)		RPD ($\leq 35\%$)	Difference (ug/m3)	Limits ($\leq 2 \times \text{LOQ}$)	Qualifications (Parent Only)
	7	8				
APH EC5-8 aliphatics	86	91		5	≤ 150	
APH EC9-12 aliphatics	29	34		5	≤ 50	

V:\Josephine\FIELD DUPLICATES\57781B48b aspect consulting aloha cafe diff.wpd



LABORATORY DATA CONSULTANTS, INC.

2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

Aspect Consulting LLC
701 Second Ave., Suite 550
Seattle, WA 98104
ATTN: Jason Yabandeh
jyabandeh@aspectconsulting.com

December 22, 2023

SUBJECT: Aloha Café - Data Validation

Dear Mr. Yabandeh,

Enclosed are the final validation reports for the fractions listed below. This SDG was received on November 14, 2023. Attachment 1 is a summary of the samples that were reviewed for each analysis.

LDC Project #57892:

SDG #

311054

Fraction

Volatiles, Total Petroleum Hydrocarbons as Gasoline, Total Petroleum Hydrocarbons as Extractables

The data validation was performed under Stage 2A guidelines. The analysis was validated using the following documents, as applicable to each method:

- Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019)
- USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020)
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update I, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998; IIIB, November 2004; update IV, February 2007; update V, July 2014; update VI, July 2018

Please feel free to contact us if you have any questions.

Sincerely,

Stella Cuenco
scuenco@lab-data.com
Project Manager/Senior Chemist

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name: Aloha Café
LDC Report Date: December 13, 2023
Parameters: Volatiles
Validation Level: Stage 2A
Laboratory: Friedman & Bruya, Inc., Seattle, WA
Sample Delivery Group (SDG): 311054

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-17-110223	311054-01	Water	11/02/23

Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) SW 846 Method 8260D

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

II. GC/MS Instrument Performance Check

Instrument performance check data were not reviewed for Stage 2A validation.

III. Initial Calibration and Initial Calibration Verification

Initial calibration data were not reviewed for Stage 2A validation.

IV. Continuing Calibration

Continuing calibration data were not reviewed for Stage 2A validation.

V. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

VI. Field Blanks

No field blanks were identified in this SDG.

VII. Surrogates

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

VIII. Matrix Spike

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

IX. Laboratory Control Samples

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the method. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

X. Field Duplicates

No field duplicates were identified in this SDG.

XI. Internal Standards

Internal standard data were not reviewed for Stage 2A validation.

XII. Target Analyte Quantitation

Raw data were not reviewed for Stage 2A validation.

XIII. Target Analyte Identification

Raw data were not reviewed for Stage 2A validation.

XIV. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Aloha Café
Volatiles - Data Qualification Summary - SDG 311054

No Sample Data Qualified in this SDG

Aloha Café
Volatiles - Laboratory Blank Data Qualification Summary - SDG 311054

No Sample Data Qualified in this SDG

Aloha Café
Volatiles - Field Blank Data Qualification Summary - SDG 311054

No Sample Data Qualified in this SDG

LDC #: 57892A1a

VALIDATION COMPLETENESS WORKSHEET

Date: 12/12/23

SDG #: 311054

Stage 2A

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Reviewer: *[Signature]*

2nd Reviewer: *[Signature]*

METHOD: GC/MS Volatiles (EPA SW-846 Method 8260D)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/ A	
II.	GC/MS Instrument performance check	N	
III.	Initial calibration/ICV	N/N	
IV.	Continuing calibration	N	
V.	Laboratory Blanks	A	
VI.	Field blanks	N	
VII.	Surrogate spikes	A	
VIII.	Matrix spike/Matrix spike duplicates	N	
IX.	Laboratory control samples	A	LCS B
X.	Field duplicates	N	
XI.	Internal standards	N	
XII.	Target analyte quantitation	N	
XIII.	Target analyte identification	N	
XIV.	Overall assessment of data	A	

Note: A = Acceptable
 N = Not provided/applicable
 SW = See worksheet

ND = No compounds detected
 R = Rinsate
 FB = Field blank

D = Duplicate
 TB = Trip blank
 EB = Equipment blank

SB=Source blank
 OTHER:

	Client ID	Lab ID	Matrix	Date
1	MW-17-110223	311054-01	Water	11/02/23
2				
3				
4				
5				
6				
7				
8				
9				
10				

Notes:

03-2623 MB					

BTEX + Naphthalene

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name: Aloha Café
LDC Report Date: December 13, 2023
Parameters: Total Petroleum Hydrocarbons as Gasoline
Validation Level: Stage 2A
Laboratory: Friedman & Bruya, Inc., Seattle, WA
Sample Delivery Group (SDG): 311054

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-17-110223	311054-01	Water	11/02/23

Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Gasoline by NWTPH-Gx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

II. Initial Calibration and Initial Calibration Verification

Initial calibration data were not reviewed for Stage 2A validation.

III. Continuing Calibration

Continuing calibration data were not reviewed for Stage 2A validation.

IV. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

V. Field Blanks

No field blanks were identified in this SDG.

VI. Surrogates

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

IX. Field Duplicates

No field duplicates were identified in this SDG.

X. Target Analyte Quantitation

Raw data were not reviewed for Stage 2A validation.

XI. Target Analyte Identification

Raw data were not reviewed for Stage 2A validation.

XII. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café
Total Petroleum Hydrocarbons as Gasoline - Data Qualification Summary - SDG
311054**

No Sample Data Qualified in this SDG

**Aloha Café
Total Petroleum Hydrocarbons as Gasoline - Laboratory Blank Data Qualification
Summary - SDG 311054**

No Sample Data Qualified in this SDG

**Aloha Café
Total Petroleum Hydrocarbons as Gasoline - Field Blank Data Qualification
Summary - SDG 311054**

No Sample Data Qualified in this SDG

LDC #: 57892A7

VALIDATION COMPLETENESS WORKSHEET

Date: 12/12/23

SDG #: 311054

Stage 2A

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Reviewer: JVL

2nd Reviewer: JL

METHOD: GC TPH as Gasoline (NWTPH-Gx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A, A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	N	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	
VIII.	Laboratory control samples	A	LCS
IX.	Field duplicates	N	
X.	Target analyte quantitation	N	
XI.	Target analyte identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable
 N = Not provided/applicable
 SW = See worksheet

ND = No compounds detected
 R = Rinsate
 FB = Field blank

D = Duplicate
 TB = Trip blank
 EB = Equipment blank

SB=Source blank
 OTHER:

	Client ID	Lab ID	Matrix	Date
1	MW-17-110223	311054-01	Water	11/02/23
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				

Notes:

03-2489 MB					

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name: Aloha Café

LDC Report Date: December 13, 2023

Parameters: Total Petroleum Hydrocarbons as Extractables

Validation Level: Stage 2A

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Sample Delivery Group (SDG): 311054

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-17-110223	311054-01	Water	11/02/23

Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Total Petroleum Hydrocarbons (TPH) as Extractables by NWTPH-Dx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

II. Initial Calibration and Initial Calibration Verification

Initial calibration data were not reviewed for Stage 2A validation.

III. Continuing Calibration

Continuing calibration data were not reviewed for Stage 2A validation.

IV. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

V. Field Blanks

No field blanks were identified in this SDG.

VI. Surrogates

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the method. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

IX. Field Duplicates

No field duplicates were identified in this SDG.

X. Target Analyte Quantitation

Raw data were not reviewed for Stage 2A validation.

XI. Target Analyte Identification

Raw data were not reviewed for Stage 2A validation.

XII. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Aloha Café
Total Petroleum Hydrocarbons as Extractables - Data Qualification Summary -
SDG 311054**

No Sample Data Qualified in this SDG

**Aloha Café
Total Petroleum Hydrocarbons as Extractables - Laboratory Blank Data
Qualification Summary - SDG 311054**

No Sample Data Qualified in this SDG

**Aloha Café
Total Petroleum Hydrocarbons as Extractables - Field Blank Data Qualification
Summary - SDG 311054**

No Sample Data Qualified in this SDG

LDC #: 57892A8

VALIDATION COMPLETENESS WORKSHEET

Date: 12/12/23

SDG #: 311054

Stage 2A

Page: 1 of 1

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Reviewer: *SVK*

2nd Reviewer: *HC*

METHOD: GC TPH as Extractables (NWTPH-Dx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	Initial calibration/ICV	N/N	
III.	Continuing calibration	N	
IV.	Laboratory Blanks	A	
V.	Field blanks	N	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	
VIII.	Laboratory control samples	A	LCS 12
IX.	Field duplicates	N	
X.	Target analyte quantitation	N	
XI.	Target analyte identification	N	
XII.	Overall assessment of data	A	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet

ND = No compounds detected
R = Rinsate
FB = Field blank

D = Duplicate
TB = Trip blank
EB = Equipment blank

SB=Source blank
OTHER:

	Client ID	Lab ID	Matrix	Date
1+	MW-17-110223	311054-01	Water	11/02/23
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				

Notes:

-	03-2610 MB2				



LABORATORY DATA CONSULTANTS, INC.

2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

Aspect Consulting LLC
701 Second Ave., Suite 550
Seattle, WA 98104
ATTN: Daniel Babcock
Daniel.Babcock@aspectconsulting.com

June 3, 2025

SUBJECT: Texaco Strickland/Aloha Caf  - Data Validation

Dear Mr. Babcock,

Enclosed are the final validation reports for the fractions listed below. These SDGs were received on April 29, 2025. Attachment 1 is a summary of the samples that were reviewed for each analysis.

LDC Project #60968:

SDG #

402437
405479
409456
412508

Fraction

Volatiles, Gasoline Range Organics, Diesel Range Organics

The data validation was performed under Stage 2A guidelines. The analysis was validated using the following documents, as applicable to each method:

- Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019)
- USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020)
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update I, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998; IIIB, November 2004; update IV, February 2007; update V, July 2014; update VI, July 2018

Please feel free to contact us if you have any questions.

Sincerely,

Stella Cuenco
scuenco@lab-data.com
Project Manager/Senior Chemist

LDC #60968 (Aspect Consulting - Seattle, WA / Texaco Strickland/Aloha Cafe)

LDC	SDG#	Received Date	(21) Due Date	Validation Level	(6) VOCs (TO-15)	(6) VOCs (8260D)	VOCs (MA-APH)	TPH-G (NWTPH-Gx)	TPH-E (NWTPH-Dx)
Matrix Type:					Air	Water	Air	Water	Water
A	402437	4/29/25	5/20/25	Stage 2A		12		12	11
B	405479	4/29/25	5/20/25	Stage 2A		12		11	11
C	409456	4/29/25	5/20/25	Stage 2A	4		4		
D	412508	4/29/25	5/20/25	Stage 2A	3		3		
Total			PM: SC		7	24	7	23	22

EDD: EDD
 Stage 2A
 Project AS180357A
 WO AS180357A-137000278

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name: Texaco Strickland/Aloha Café

LDC Report Date: May 27, 2025

Parameters: Volatile Organic Compounds

Validation Level: Stage 2A

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Sample Delivery Group (SDG): 402437

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-18R-022824	402437-01	Water	02/28/24
MW-25R-022824	402437-02	Water	02/28/24
MW-26-022824	402437-03	Water	02/28/24
MW-19-022824	402437-04	Water	02/28/24
MW-32-022824	402437-05	Water	02/28/24
MW-31-022824	402437-06	Water	02/28/24
MW-30-022824	402437-07	Water	02/28/24
MW-29-022824	402437-08	Water	02/28/24
MW-17-022924	402437-10	Water	02/29/24
MW-16-022924	402437-11	Water	02/29/24
MW-18R-022824MS	402437-01MS	Water	02/28/24

Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Sampling and Analysis Plan for Groundwater Monitoring, Texaco Strickland Site (August 2023) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) SW 846 Method 8260D

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary reports.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

II. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

III. Field Blank

No field blanks were identified in this SDG.

IV. Surrogates

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

V. Matrix Spike/Matrix Spike Duplicate

Matrix spike (MS) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits.

VI. Laboratory Control Sample

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the method. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

VII. Field Duplicate

No field duplicates were identified in this SDG.

VIII. Target Analyte Quantitation

Raw data were not reviewed for Stage 2A validation.

IX. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Texaco Strickland/Aloha Café
Volatile Organic Compounds - Data Qualification Summary - SDG 402437**

No Sample Data Qualified in this SDG

**Texaco Strickland/Aloha Café
Volatile Organic Compounds - Laboratory Blank Data Qualification Summary -
SDG 402437**

No Sample Data Qualified in this SDG

**Texaco Strickland/Aloha Café
Volatile Organic Compounds - Field Blank Data Qualification Summary - SDG
402437**

No Sample Data Qualified in this SDG

VALIDATION COMPLETENESS WORKSHEET

LDC #: 60968A
 SDG #: 402437
 Laboratory: Friedman & Bruya Inc., Seattle, WA

Date: 5/1/2025
 Page: 1
 Reviewer: MAJ
 2nd Reviewer: MAJ

Method: Volatiles (EPA 8260D)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I	Sample Receipt/Technical Holding Time	A/A	
II	Laboratory Blanks	A	
III	Field Blank	N	
IV	Surrogate Spikes	A	
V	Matrix Spike/Matrix Spike Duplicate	A	
VI	Laboratory Control Sample	A	LCS/D
VII	Field Duplicate	N	
VIII	Target Analyte Quantitation	N	
IX	Overall Assessment of Data	A	

Note: A = Acceptable ND = Not detected FT = Field triplicate AB= Ambient blank R = Rinsate
 N = Not provided/applicable NQ = Not qualified TB = Trip blank SB = Source blank
 SW = See worksheet FD = Field duplicate FB = Field blank EB = Equipment blank

	Client ID	Lab ID	QC Type	Matrix	Date	Stage
1	MW-18R-022824	402437-01		Water	02/28/2024	Stage 2A
2	MW-25R-022824	402437-02		Water	02/28/2024	Stage 2A
3	MW-26-022824	402437-03		Water	02/28/2024	Stage 2A
4	MW-19-022824	402437-04		Water	02/28/2024	Stage 2A
5	MW-32-022824	402437-05		Water	02/28/2024	Stage 2A
6	MW-31-022824	402437-06		Water	02/28/2024	Stage 2A
7	MW-30-022824	402437-07		Water	02/28/2024	Stage 2A
8	MW-29-022824	402437-08		Water	02/28/2024	Stage 2A
9	MW-17-022924	402437-10		Water	02/29/2024	Stage 2A
10	MW-16-022924	402437-11		Water	02/29/2024	Stage 2A
11	MW-18R-022824MS	402437-01MS	MS	Water	02/28/2024	Stage 2A
12	MW-18R-022824DUP	402437-01DUP	DUP	Water	02/28/2024	Stage 2A

Notes:

- 04-0494 mb		

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name: Texaco Strickland/Aloha Café

LDC Report Date: May 27, 2025

Parameters: Gasoline Range Organics

Validation Level: Stage 2A

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Sample Delivery Group (SDG): 402437

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-18R-022824	402437-01	Water	02/28/24
MW-25R-022824	402437-02	Water	02/28/24
MW-26-022824	402437-03	Water	02/28/24
MW-19-022824	402437-04	Water	02/28/24
MW-32-022824	402437-05	Water	02/28/24
MW-31-022824	402437-06	Water	02/28/24
MW-30-022824	402437-07	Water	02/28/24
MW-29-022824	402437-08	Water	02/28/24
MW-27-022824	402437-09	Water	02/28/24
MW-17-022924	402437-10	Water	02/29/24
MW-16-022924	402437-11	Water	02/29/24
MW-18R-022824DUP	402437-01DUP	Water	02/28/24

Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Sampling and Analysis Plan for Groundwater Monitoring, Texaco Strickland Site (August 2023) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Gasoline Range Organics by NWTPH-Gx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary reports.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

II. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

III. Field Blank

No field blanks were identified in this SDG.

IV. Surrogates

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

V. Matrix Spike/Matrix Spike Duplicate/Laboratory Duplicate

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

Laboratory duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

VI. Laboratory Control Sample

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

VII. Field Duplicate

No field duplicates were identified in this SDG.

VIII. Target Analyte Quantitation

Raw data were not reviewed for Stage 2A validation.

IX. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Texaco Strickland/Aloha Café
Gasoline Range Organics - Data Qualification Summary - SDG 402437**

No Sample Data Qualified in this SDG

**Texaco Strickland/Aloha Café
Gasoline Range Organics - Laboratory Blank Data Qualification Summary - SDG
402437**

No Sample Data Qualified in this SDG

**Texaco Strickland/Aloha Café
Gasoline Range Organics - Field Blank Data Qualification Summary - SDG 402437**

No Sample Data Qualified in this SDG

VALIDATION COMPLETENESS WORKSHEET

LDC #: 60968A
 SDG #: 402437
 Laboratory: Friedman & Bruya Inc., Seattle, WA

Date: 5/1/2025
 Page: 1
 Reviewer:
 2nd Reviewer:

Method: Gasoline Range Organics (NWTPH-Gx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I	Sample Receipt/Technical Holding Time	A/A	
II	Laboratory Blanks	A	
III	Field Blank	N	
IV	Surrogate Spikes	A	
V	Matrix Spike/Matrix Spike Duplicate /Lab Dup	N/A	
VI	Laboratory Control Sample	A	LCS
VII	Field Duplicate	N	
VIII	Target Analyte Quantitation	N	
IX	Overall Assessment of Data	A	

Note: A = Acceptable ND = Not detected FT = Field triplicate AB= Ambient blank R = Rinsate
 N = Not provided/applicable NQ = Not qualified TB = Trip blank SB = Source blank
 SW = See worksheet FD = Field duplicate FB = Field blank EB = Equipment blank

	Client ID	Lab ID	QC Type	Matrix	Date	Stage
1	MW-18R-022824	402437-01		Water	02/28/2024	Stage 2A
2	MW-25R-022824	402437-02		Water	02/28/2024	Stage 2A
3	MW-26-022824	402437-03		Water	02/28/2024	Stage 2A
4	MW-19-022824	402437-04		Water	02/28/2024	Stage 2A
5	MW-32-022824	402437-05		Water	02/28/2024	Stage 2A
6	MW-31-022824	402437-06		Water	02/28/2024	Stage 2A
7	MW-30-022824	402437-07		Water	02/28/2024	Stage 2A
8	MW-29-022824	402437-08		Water	02/28/2024	Stage 2A
9	MW-27-022824	402437-09		Water	02/28/2024	Stage 2A
10	MW-17-022924	402437-10		Water	02/29/2024	Stage 2A
11	MW-16-022924	402437-11		Water	02/29/2024	Stage 2A
12	MW-18R-022824DUP	402437-01DUP	DUP	Water	02/28/2024	Stage 2A

Notes:

1 04-0429 MB		

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name: Texaco Strickland/Aloha Café

LDC Report Date: May 27, 2025

Parameters: Diesel Range Organics

Validation Level: Stage 2A

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Sample Delivery Group (SDG): 402437

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-18R-022824	402437-01	Water	02/28/24
MW-25R-022824	402437-02	Water	02/28/24
MW-26-022824	402437-03	Water	02/28/24
MW-19-022824	402437-04	Water	02/28/24
MW-32-022824	402437-05	Water	02/28/24
MW-31-022824	402437-06	Water	02/28/24
MW-30-022824	402437-07	Water	02/28/24
MW-29-022824	402437-08	Water	02/28/24
MW-27-022824	402437-09	Water	02/28/24
MW-17-022924	402437-10	Water	02/29/24
MW-16-022924	402437-11	Water	02/29/24

Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Sampling and Analysis Plan for Groundwater Monitoring, Texaco Strickland Site (August 2023) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Diesel Range Organics by NWTPH-Dx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary reports.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

II. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

III. Field Blank

No field blanks were identified in this SDG.

IV. Surrogates

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

V. Matrix Spike/Matrix Spike Duplicate

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VI. Laboratory Control Sample

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the method. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

VII. Field Duplicate

No field duplicates were identified in this SDG.

VIII. Target Analyte Quantitation

Raw data were not reviewed for Stage 2A validation.

IX. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Texaco Strickland/Aloha Café
Diesel Range Organics - Data Qualification Summary - SDG 402437**

No Sample Data Qualified in this SDG

**Texaco Strickland/Aloha Café
Diesel Range Organics - Laboratory Blank Data Qualification Summary - SDG
402437**

No Sample Data Qualified in this SDG

**Texaco Strickland/Aloha Café
Diesel Range Organics - Field Blank Data Qualification Summary - SDG 402437**

No Sample Data Qualified in this SDG

VALIDATION COMPLETENESS WORKSHEET

LDC #: 60968A
 SDG #: 402437
 Laboratory: Friedman & Bruya Inc., Seattle, WA
 Method: Diesel Range Organics (NWTPH-Dx)

Date: 5/1/2025
 Page: 1
 Reviewer: MN
 2nd Reviewer: AE

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I	Sample Receipt/Technical Holding Time	A/A	
II	Laboratory Blanks	A	
III	Field Blank	N	
IV	Surrogate Spikes	A	
V	Matrix Spike/Matrix Spike Duplicate	N	
VI	Laboratory Control Sample	A	LCSID
VII	Field Duplicate	N	
VIII	Target Analyte Quantitation	N	
IX	Overall Assessment of Data	A	

Note: A = Acceptable ND = Not detected FT = Field triplicate AB= Ambient blank R = Rinsate
 N = Not provided/applicable NQ = Not qualified TB = Trip blank SB = Source blank
 SW = See worksheet FD = Field duplicate FB = Field blank EB = Equipment blank

	Client ID	Lab ID	QC Type	Matrix	Date	Stage
1	MW-18R-022824	402437-01		Water	02/28/2024	Stage 2A
2	MW-25R-022824	402437-02		Water	02/28/2024	Stage 2A
3	MW-26-022824	402437-03		Water	02/28/2024	Stage 2A
4	MW-19-022824	402437-04		Water	02/28/2024	Stage 2A
5	MW-32-022824	402437-05		Water	02/28/2024	Stage 2A
6	MW-31-022824	402437-06		Water	02/28/2024	Stage 2A
7	MW-30-022824	402437-07		Water	02/28/2024	Stage 2A
8	MW-29-022824	402437-08		Water	02/28/2024	Stage 2A
9	MW-27-022824	402437-09		Water	02/28/2024	Stage 2A
10	MW-17-022924	402437-10		Water	02/29/2024	Stage 2A
11	MW-16-022924	402437-11		Water	02/29/2024	Stage 2A

Notes:

1 04-490MB		

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name: Texaco Strickland/Aloha Café

LDC Report Date: May 27, 2025

Parameters: Volatile Organic Compounds

Validation Level: Stage 2A

Laboratory: Friedman & Bruya, Inc., Seattle, WA

Sample Delivery Group (SDG): 405479

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-18R-240529	405479-01	Water	05/29/24
MW-25R-240529	405479-02	Water	05/29/24
MW-26-240529	405479-03	Water	05/29/24
MW-19-240529	405479-04	Water	05/29/24
MW-32-240529	405479-05	Water	05/29/24
MW-31-240529	405479-06	Water	05/29/24
MW-30-240529	405479-07	Water	05/29/24
MW-29-240529	405479-08	Water	05/29/24
MW-27-240530	405479-09	Water	05/30/24
MW-16-240530	405479-10	Water	05/30/24
MW-17-240530	405479-11	Water	05/30/24
MW-32-240529MS	405479-05MS	Water	05/29/24

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Sampling and Analysis Plan for Groundwater Monitoring, Texaco Strickland Site (August 2023) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) SW 846 Method 8260D

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary reports.

I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

II. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

III. Field Blank

No field blanks were identified in this SDG.

IV. Surrogates

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

V. Matrix Spike/Matrix Spike Duplicate

Matrix spike (MS) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits.

VI. Laboratory Control Sample

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the method. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

VII. Field Duplicate

No field duplicates were identified in this SDG.

VIII. Target Analyte Quantitation

Raw data were not reviewed for Stage 2A validation.

IX. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Texaco Strickland/Aloha Café
Volatile Organic Compounds - Data Qualification Summary - SDG 405479**

No Sample Data Qualified in this SDG

**Texaco Strickland/Aloha Café
Volatile Organic Compounds - Laboratory Blank Data Qualification Summary -
SDG 405479**

No Sample Data Qualified in this SDG

**Texaco Strickland/Aloha Café
Volatile Organic Compounds - Field Blank Data Qualification Summary - SDG
405479**

No Sample Data Qualified in this SDG

VALIDATION COMPLETENESS WORKSHEET

LDC #: 60968B
 SDG #: 405479
 Laboratory: Friedman & Bruya Inc., Seattle, WA

Date: 5/1/2025
 Page: 1
 Reviewer: MW
 2nd Reviewer: AE

Method: Volatiles (EPA 8260D)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I	Sample Receipt/Technical Holding Time	A/A	
II	Laboratory Blanks	A	
III	Field Blank	N	
IV	Surrogate Spikes	A	
V	Matrix Spike/Matrix Spike Duplicate	A	
VI	Laboratory Control Sample	A	LCS/D
VII	Field Duplicate	N	
VIII	Target Analyte Quantitation	N	
IX	Overall Assessment of Data	A	

Note: A = Acceptable ND = Not detected FT = Field triplicate AB= Ambient blank R = Rinsate
 N = Not provided/applicable NQ = Not qualified TB = Trip blank SB = Source blank
 SW = See worksheet FD = Field duplicate FB = Field blank EB = Equipment blank

	Client ID	Lab ID	QC Type	Matrix	Date	Stage
1	MW-18R-240529	405479-01		Water	05/29/2024	Stage 2A
2	MW-25R-240529	405479-02		Water	05/29/2024	Stage 2A
3	MW-26-240529	405479-03		Water	05/29/2024	Stage 2A
4	MW-19-240529	405479-04		Water	05/29/2024	Stage 2A
5	MW-32-240529	405479-05		Water	05/29/2024	Stage 2A
6	MW-31-240529	405479-06		Water	05/29/2024	Stage 2A
7	MW-30-240529	405479-07		Water	05/29/2024	Stage 2A
8	MW-29-240529	405479-08		Water	05/29/2024	Stage 2A
9	MW-27-240530	405479-09		Water	05/30/2024	Stage 2A
10	MW-16-240530	405479-10		Water	05/30/2025	Stage 2A
11	MW-17-240530	405479-11		Water	05/30/2026	Stage 2A
12	MW-32-240529MS	405479-05MS	MS	Water	05/29/2024	Stage 2A

Notes:

04-1251mb		

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: Texaco Strickland/Aloha Café
LDC Report Date: May 27, 2025
Parameters: Gasoline Range Organics
Validation Level: Stage 2A
Laboratory: Friedman & Bruya, Inc., Seattle, WA
Sample Delivery Group (SDG): 405479

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-18R-240529	405479-01	Water	05/29/24
MW-25R-240529	405479-02	Water	05/29/24
MW-26-240529	405479-03	Water	05/29/24
MW-19-240529	405479-04	Water	05/29/24
MW-32-240529	405479-05	Water	05/29/24
MW-31-240529	405479-06	Water	05/29/24
MW-30-240529	405479-07	Water	05/29/24
MW-29-240529	405479-08	Water	05/29/24
MW-27-240530	405479-09	Water	05/30/25
MW-16-240530	405479-10	Water	05/30/25
MW-17-240530	405479-11	Water	05/30/25

Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Sampling and Analysis Plan for Groundwater Monitoring, Texaco Strickland Site (August 2023) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Gasoline Range Organics by NWTPH-Gx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary reports.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

II. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

III. Field Blank

No field blanks were identified in this SDG.

IV. Surrogates

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

V. Matrix Spike/Matrix Spike Duplicate

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VI. Laboratory Control Sample

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the method. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

VII. Field Duplicate

No field duplicates were identified in this SDG.

VIII. Target Analyte Quantitation

Raw data were not reviewed for Stage 2A validation.

IX. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Texaco Strickland/Aloha Café
Gasoline Range Organics - Data Qualification Summary - SDG 405479**

No Sample Data Qualified in this SDG

**Texaco Strickland/Aloha Café
Gasoline Range Organics - Laboratory Blank Data Qualification Summary - SDG
405479**

No Sample Data Qualified in this SDG

**Texaco Strickland/Aloha Café
Gasoline Range Organics - Field Blank Data Qualification Summary - SDG 405479**

No Sample Data Qualified in this SDG

VALIDATION COMPLETENESS WORKSHEET

LDC #: 60968B
 SDG #: 405479
 Laboratory: Friedman & Bruya Inc., Seattle, WA

Date: 5/1/2025
 Page: 1
 Reviewer: MNJ
 2nd Reviewer: AE

Method: Gasoline Range Organics (NWTPH-Gx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I	Sample Receipt/Technical Holding Time	1 / A	
II	Laboratory Blanks	A	
III	Field Blank	N	
IV	Surrogate Spikes	A	
V	Matrix Spike/Matrix Spike Duplicate	N	
VI	Laboratory Control Sample	A	LCS/D
VII	Field Duplicate	N	
VIII	Target Analyte Quantitation	A	
IX	Overall Assessment of Data	A	

Note: A = Acceptable ND = Not detected FT = Field triplicate AB= Ambient blank R = Rinsate
 N = Not provided/applicable NQ = Not qualified TB = Trip blank SB = Source blank
 SW = See worksheet FD = Field duplicate FB = Field blank EB = Equipment blank

	Client ID	Lab ID	QC Type	Matrix	Date	Stage
1	MW-18R-240529	405479-01		Water	05/29/2024	Stage 2A
2	MW-25R-240529	405479-02		Water	05/29/2024	Stage 2A
3	MW-26-240529	405479-03		Water	05/29/2024	Stage 2A
4	MW-19-240529	405479-04		Water	05/29/2024	Stage 2A
5	MW-32-240529	405479-05		Water	05/29/2024	Stage 2A
6	MW-31-240529	405479-06		Water	05/29/2024	Stage 2A
7	MW-30-240529	405479-07		Water	05/29/2024	Stage 2A
8	MW-29-240529	405479-08		Water	05/29/2024	Stage 2A
9	MW-27-240530	405479-09		Water	05/30/2025	Stage 2A
10	MW-16-240530	405479-10		Water	05/30/2025	Stage 2A
11	MW-17-240530	405479-11		Water	05/30/2025	Stage 2A

Notes:

04-914MB		

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: Texaco Strickland/Aloha Café
LDC Report Date: May 27, 2025
Parameters: Diesel Range Organics
Validation Level: Stage 2A
Laboratory: Friedman & Bruya, Inc., Seattle, WA
Sample Delivery Group (SDG): 405479

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
MW-18R-240529	405479-01	Water	05/29/24
MW-25R-240529	405479-02	Water	05/29/24
MW-26-240529	405479-03	Water	05/29/24
MW-19-240529	405479-04	Water	05/29/24
MW-32-240529	405479-05	Water	05/29/24
MW-31-240529	405479-06	Water	05/29/24
MW-30-240529	405479-07	Water	05/29/24
MW-29-240529	405479-08	Water	05/29/24
MW-27-240530	405479-09	Water	05/30/25
MW-16-240530	405479-10	Water	05/30/25
MW-17-240530	405479-11	Water	05/30/25

Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Sampling and Analysis Plan for Groundwater Monitoring, Texaco Strickland Site (August 2023) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Diesel Range Organics by NWTPH-Dx

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary reports.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

II. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

III. Field Blank

No field blanks were identified in this SDG.

IV. Surrogates

Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

V. Matrix Spike/Matrix Spike Duplicate

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VI. Laboratory Control Sample

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the method. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

VII. Field Duplicate

No field duplicates were identified in this SDG.

VIII. Target Analyte Quantitation

Raw data were not reviewed for Stage 2A validation.

IX. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Texaco Strickland/Aloha Café
Diesel Range Organics - Data Qualification Summary - SDG 405479**

No Sample Data Qualified in this SDG

**Texaco Strickland/Aloha Café
Diesel Range Organics - Laboratory Blank Data Qualification Summary - SDG
405479**

No Sample Data Qualified in this SDG

**Texaco Strickland/Aloha Café
Diesel Range Organics - Field Blank Data Qualification Summary - SDG 405479**

No Sample Data Qualified in this SDG

VALIDATION COMPLETENESS WORKSHEET

LDC #: 60968B
 SDG #: 405479
 Laboratory: Friedman & Bruya Inc., Seattle, WA

Date: 5/1/2025
 Page: 1
 Reviewer: MW
 2nd Reviewer: TC

Method: Diesel Range Organics (NWTPH-Dx)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I	Sample Receipt/Technical Holding Time	A / A	
II	Laboratory Blanks	A	
III	Field Blank	N	
IV	Surrogate Spikes	A	
V	Matrix Spike/Matrix Spike Duplicate	N	
VI	Laboratory Control Sample	A	LCSID
VII	Field Duplicate	N	
VIII	Target Analyte Quantitation	N	
IX	Overall Assessment of Data	A	

Note: A = Acceptable ND = Not detected FT = Field triplicate AB = Ambient blank R = Rinsate
 N = Not provided/applicable NQ = Not qualified TB = Trip blank SB = Source blank
 SW = See worksheet FD = Field duplicate FB = Field blank EB = Equipment blank

	Client ID	Lab ID	QC Type	Matrix	Date	Stage
1	MW-18R-240529	405479-01		Water	05/29/2024	Stage 2A
2	MW-25R-240529	405479-02		Water	05/29/2024	Stage 2A
3	MW-26-240529	405479-03		Water	05/29/2024	Stage 2A
4	MW-19-240529	405479-04		Water	05/29/2024	Stage 2A
5	MW-32-240529	405479-05		Water	05/29/2024	Stage 2A
6	MW-31-240529	405479-06		Water	05/29/2024	Stage 2A
7	MW-30-240529	405479-07		Water	05/29/2024	Stage 2A
8	MW-29-240529	405479-08		Water	05/29/2024	Stage 2A
9	MW-27-240530	405479-09		Water	05/30/2025	Stage 2A
10	MW-16-240530	405479-10		Water	05/30/2025	Stage 2A
11	MW-17-240530	405479-11		Water	05/30/2025	Stage 2A

Notes:

04-1270MB2		

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: Texaco Strickland/Aloha Café
LDC Report Date: May 28, 2025
Parameters: Volatile Organic Compounds
Validation Level: Stage 2A
Laboratory: Friedman & Bruya, Inc., Seattle, WA
Sample Delivery Group (SDG): 409456

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
AMB-1-240926	409456-01	Air	09/26/24
AMB-2-240926	409456-02	Air	09/26/24
US-EFF-240927	409456-03	Air	09/27/24
US-EFF-240927DUP	409456-03DUP	Air	09/27/24

Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) Method TO-15

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary reports.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

I. Sample Receipt and Technical Holding Times

The canisters were properly pressurized and handled.

All technical holding time requirements were met.

II. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

Canister blank analyses were performed for every sample canister. No contaminants were found in the canister blanks.

III. Field Blank

Samples AMB-1-240926 and AMB-2-240926 were identified as ambient blanks. No contaminants were found with the following exceptions:

Blank ID	Analyte	Concentration
AMB-1-240926	Benzene Naphthalene	0.38 ug/m ³ 0.15 ug/m ³
AMB-2-240926	Naphthalene	0.084 ug/m ³

IV. Surrogates

Although surrogates were not required by the method, surrogate analysis was performed by the laboratory. Surrogate recoveries (%R) were within QC limits.

V. Laboratory Duplicate

Laboratory duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

VI. Laboratory Control Sample

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

VII. Field Duplicate

No field duplicates were identified in this SDG.

VIII. Target Analyte Quantitation

Raw data were not reviewed for Stage 2A validation.

IX. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Texaco Strickland/Aloha Café
Volatile Organic Compounds - Data Qualification Summary - SDG 409456**

No Sample Data Qualified in this SDG

**Texaco Strickland/Aloha Café
Volatile Organic Compounds - Laboratory Blank Data Qualification Summary -
SDG 409456**

No Sample Data Qualified in this SDG

**Texaco Strickland/Aloha Café
Volatile Organic Compounds - Field Blank Data Qualification Summary - SDG
409456**

No Sample Data Qualified in this SDG

VALIDATION COMPLETENESS WORKSHEET

LDC #: 60968C
 SDG #: 409456
 Laboratory: Friedman & Bruya Inc., Seattle, WA
 Method: Volatiles (EPA TO-15)

Date: 5/9/2025
 Page: 1
 Reviewer: MN
 2nd Reviewer: AF

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I	Sample Receipt/Technical Holding Time	A/A	
II	Laboratory Blanks /canister	A/	
III	Field Blank	SW	AB = 1,2
IV	Surrogate Spikes	A	
V	Laboratory Duplicate	A	
VI	Laboratory Control Sample	A	LCS
VII	Field Duplicate	N	
VIII	Target Analyte Quantitation	N	
IX	Overall Assessment of Data	A	

Note: A = Acceptable ND = Not detected FT = Field triplicate AB = Ambient blank R = Rinsate
 N = Not provided/applicable NQ = Not qualified TB = Trip blank SB = Source blank
 SW = See worksheet FD = Field duplicate FB = Field blank EB = Equipment blank

	Client ID	Lab ID	QC Type	Matrix	Date	Stage
1	AMB-1-240926	409456-01		Air	09/26/2024	Stage 2A
2	AMB-2-240926	409456-02		Air	09/26/2024	Stage 2A
3	US-EFF-240927	409456-03		Air	09/27/2024	Stage 2A
4	US-EFF-240927DUP	409456-03DUP	DUP	Air	09/27/2024	Stage 2A

Notes:

1 04-2348 MB		

VALIDATION FINDINGS WORKSHEET

Field Blanks

METHOD: GC/MS Volatiles (EPA Method TO-15)

Field blanks were identified in this SDG.

No contaminants were found in the field blanks with the exceptions identified below.

Sampling date: 9/26/24 **Blank units:** ug/m3 **Associated sample units:** ug/m3

Field blank type: AB **Associated Samples:** none

(TB = Trip Blank; FB = Field Blank; EB = Equipment Blank; SB = Source Blank)

Compound	Blank ID	Blank ID	Sample Identification							
	1	2								
Benzene	0.38									
Naphthalene	0.15	0.084								

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: Texaco Strickland/Aloha Café
LDC Report Date: May 28, 2025
Parameters: Volatile Organic Compounds
Validation Level: Stage 2A
Laboratory: Friedman & Bruya, Inc., Seattle, WA
Sample Delivery Group (SDG): 409456

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
AMB-1-240926	409456-01	Air	09/26/24
AMB-2-240926	409456-02	Air	09/26/24
US-EFF-240927	409456-03	Air	09/27/24
US-EFF-240927DUP	409456-03DUP	Air	09/27/24

Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Method MA-APH

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary reports.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

I. Sample Receipt and Technical Holding Times

The canisters were properly pressurized and handled.

All technical holding time requirements were met.

II. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

III. Field Blank

Samples AMB-1-240926 and AMB-2-240926 were identified as ambient blanks. No contaminants were found with the following exceptions:

Blank ID	Analyte	Concentration
AMB-1-240926	APH EC5-8 aliphatics APH EC9-12 aliphatics	100 ug/m ³ 43 ug/m ³

IV. Surrogates

Although surrogates were not required by the method, surrogate analysis was performed by the laboratory. Surrogate recoveries (%R) were within QC limits.

V. Matrix Spike/Matrix Spike Duplicate/Laboratory Duplicate

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

Laboratory duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

VI. Laboratory Control Sample

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

VII. Field Duplicate

No field duplicates were identified in this SDG.

VIII. Target Analyte Quantitation

Raw data were not reviewed for Stage 2A validation.

IX. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

**Texaco Strickland/Aloha Café
Volatile Organic Compounds - Data Qualification Summary - SDG 409456**

No Sample Data Qualified in this SDG

**Texaco Strickland/Aloha Café
Volatile Organic Compounds - Laboratory Blank Data Qualification Summary -
SDG 409456**

No Sample Data Qualified in this SDG

**Texaco Strickland/Aloha Café
Volatile Organic Compounds - Field Blank Data Qualification Summary - SDG
409456**

No Sample Data Qualified in this SDG

VALIDATION COMPLETENESS WORKSHEET

LDC #: 60968C
 SDG #: 409456
 Laboratory: Friedman & Bruya Inc., Seattle, WA
 Method: VOCs (APH) (MA-APH)

Date: 5/1/2025
 Page: 1
 Reviewer: MAN
 2nd Reviewer: AE

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I	Sample Receipt/Technical Holding Time	A / A	
II	Laboratory Blanks	A	
III	Field Blank	SW	AB = 1, 2
IV	Surrogate Spikes	A	
V	Matrix Spike/Matrix Spike Duplicate / Lab Dup	N / A	
VI	Laboratory Control Sample	A	LCS
VII	Field Duplicate	N	
VIII	Target Analyte Quantitation	N	
IX	Overall Assessment of Data	A	

Note: A = Acceptable ND = Not detected FT = Field triplicate AB = Ambient blank R = Rinsate
 N = Not provided/applicable NQ = Not qualified TB = Trip blank SB = Source blank
 SW = See worksheet FD = Field duplicate FB = Field blank EB = Equipment blank

	Client ID	Lab ID	QC Type	Matrix	Date	Stage
1	AMB-1-240926	409456-01		Air	09/26/2024	Stage 2A
2	AMB-2-240926	409456-02		Air	09/26/2024	Stage 2A
3	US-EFF-240927	409456-03		Air	09/27/2024	Stage 2A
4	US-EFF-240927DUP	409456-03DUP	DUP	Air	09/27/2024	Stage 2A

Notes:

104-2348MB		

VALIDATION FINDINGS WORKSHEET

Field Blanks

METHOD: GC/MS Volatiles (EPA Method MA-APH)

Field blanks were identified in this SDG.

No contaminants were found in the field blanks with the exceptions identified below.

Sampling date: 9/26/24 **Blank units:** ug/m3 **Associated sample units:** ug/m3

Field blank type: AB **Associated Samples:** none

(TB = Trip Blank; FB = Field Blank; EB = Equipment Blank; SB = Source Blank)

Compound	Blank ID	Sample Identification							
	1								
APH EC5-8 aliphatics	100								
APH EC9-12 aliphatics	43								

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: Texaco Strickland/Aloha Café
LDC Report Date: May 28, 2025
Parameters: Volatile Organic Compounds
Validation Level: Stage 2A
Laboratory: Friedman & Bruya, Inc., Seattle, WA
Sample Delivery Group (SDG): 412508

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
AMB-1-241230	412508-01	Air	12/30/24
AMB-2-241230	412508-02	Air	12/30/24
VS-EFF-241231	412508-03	Air	12/31/24

Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Environmental Protection Agency (EPA) Method TO-15

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary reports.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

I. Sample Receipt and Technical Holding Times

The canisters were properly pressurized and handled.

All technical holding time requirements were met.

II. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks with the following exceptions:

Blank ID	Analysis Date	Analyte	Concentration (ug/m ³)	Associated Samples
50-003 MB	01/02/25	Naphthalene	0.073	All samples in SDG 412508

Canister blank analyses were performed for every sample canister. No contaminants were found in the canister blanks.

Sample concentrations were compared to concentrations detected in the laboratory blanks. The sample concentrations were either not detected or were significantly greater (>10X for common contaminants, >5X for other contaminants) than the concentrations found in the associated laboratory blanks with the following exceptions:

Sample	Analyte	Reported Concentration (ug/m ³)	Modified Final Concentration (ug/m ³)
AMB-1-241230	Naphthalene	0.073	0.073U
AMB-2-241230	Naphthalene	0.11	0.11U
VS-EFF-241231	Naphthalene	0.079	0.079U

III. Field Blank

Samples AMB-1-241230 and AMB-2-241230 were identified as ambient blanks. No contaminants were found with the following exceptions:

Blank ID	Analyte	Concentration
AMB-1-241230	Benzene Naphthalene	0.42 ug/m ³ 0.073 ug/m ³
AMB-2-241230	Benzene Naphthalene	0.60 ug/m ³ 0.11 ug/m ³

IV. Surrogates

Although surrogates were not required by the method, surrogate analysis was performed by the laboratory. Surrogate recoveries (%R) were within QC limits.

V. Laboratory Duplicate

The laboratory has indicated that there were no duplicate (DUP) analyses specified for the samples in this SDG, and therefore duplicate analyses were not performed for this SDG.

VI. Laboratory Control Sample

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

VII. Field Duplicate

No field duplicates were identified in this SDG.

VIII. Target Analyte Quantitation

Raw data were not reviewed for Stage 2A validation.

IX. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Data qualified due to laboratory blank contamination are summarized and presented in the Data Qualification Summary.

**Texaco Strickland/Aloha Café
Volatile Organic Compounds - Data Qualification Summary - SDG 412508**

No Sample Data Qualified in this SDG

**Texaco Strickland/Aloha Café
Volatile Organic Compounds - Laboratory Blank Data Qualification Summary -
SDG 412508**

Sample	Analyte	Modified Final Concentration (ug/m ³)
AMB-1-241230	Naphthalene	0.073U
AMB-2-241230	Naphthalene	0.11U
VS-EFF-241231	Naphthalene	0.079U

**Texaco Strickland/Aloha Café
Volatile Organic Compounds - Field Blank Data Qualification Summary - SDG
412508**

No Sample Data Qualified in this SDG

VALIDATION COMPLETENESS WORKSHEET

LDC #: 60968D
 SDG #: 412508
 Laboratory: Friedman & Bruya Inc., Seattle, WA

Date: 5/9/2025
 Page: 1
 Reviewer: MMJ
 2nd Reviewer:

Method: Volatiles (EPA TO-15)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I	Sample Receipt/Technical Holding Time	A/A	
II	Laboratory Blanks /canister	SW/	
III	Field Blank	SW	
IV	Surrogate Spikes	A	
V	Laboratory Duplicate	N	
VI	Laboratory Control Sample	A	LCSTR
VII	Field Duplicate	N	
VIII	Target Analyte Quantitation	N	
IX	Overall Assessment of Data	A	

Note: A = Acceptable ND = Not detected FT = Field triplicate AB= Ambient blank R = Rinsate
 N = Not provided/applicable NQ = Not qualified TB = Trip blank SB = Source blank
 SW = See worksheet FD = Field duplicate FB = Field blank EB = Equipment blank

	Client ID	Lab ID	QC Type	Matrix	Date	Stage
1	AMB-1-241230	412508-01		Air	12/30/2024	Stage 2A
2	AMB-2-241230	412508-02		Air	12/30/2024	Stage 2A
3	VS-EFF-241231	412508-03		Air	12/31/2024	Stage 2A

Notes:

1 05-003 MB		

VALIDATION FINDINGS WORKSHEET
Blanks

METHOD: GC/MS Volatiles (EPA Method TO-15)

Method blanks were performed at the required frequency and sequence.

No contaminants were found in the method blanks with the exceptions identified below.

Blank analysis date: ~~_____~~ ~~05-003 MB~~ 1/2/25

Associated samples: all _____

Conc. units: ug/m3

Compound	Blank ID	Sample Identification						
		1	2	3				
Naphthalene	0.073	0.073U	0.11U	0.079U				

VALIDATION FINDINGS WORKSHEET Field Blanks

METHOD: GC/MS Volatiles (EPA Method TO-15)

Field blanks were identified in this SDG.

No contaminants were found in the field blanks with the exceptions identified below.

Sampling date: 12/30/24 **Blank units:** ug/m3 **Associated sample units:** ug/m3

Field blank type: AB **Associated Samples:** none

(TB = Trip Blank; FB = Field Blank; EB = Equipment Blank; SB = Source Blank)

Compound	Blank ID	Blank ID	Sample Identification							
	1	2								
Benzene	0.42	0.60								
Naphthalene	0.073	0.11								

**Laboratory Data Consultants, Inc.
Data Validation Report**

Project/Site Name: Texaco Strickland/Aloha Café
LDC Report Date: May 28, 2025
Parameters: Volatile Organic Compounds
Validation Level: Stage 2A
Laboratory: Friedman & Bruya, Inc., Seattle, WA
Sample Delivery Group (SDG): 412508

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
AMB-1-241230	412508-01	Air	12/30/24
AMB-2-241230	412508-02	Air	12/30/24
VS-EFF-241231	412508-03	Air	12/31/24

Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Appendix E, CEMC Review Draft, Sampling and Analysis/Quality Assurance Project Plan (February 2019) and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (November 2020). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Volatile Organic Compounds (VOCs) by Method MA-APH

All sample results were subjected to Stage 2A data validation, which comprises an evaluation of quality control (QC) summary reports.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- U (Non-detected): The analyte was analyzed for but was determined to be non-detect above the reported sample quantitation limit, or the quantitation limit was raised to the concentration found in the sample due to blank contamination.
- UJ (Non-detected estimated): The analyte was not detected above the reported quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R (Rejected): The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be verified.
- DNR (Do Not Report): Do not report from this analysis; the result for this analyte is to be reported from an alternative analysis.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

I. Sample Receipt and Technical Holding Times

The canisters were properly pressurized and handled.

All technical holding time requirements were met.

II. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

III. Field Blank

Samples AMB-1-241230 and AMB-2-241230 were identified as ambient blanks. No contaminants were found with the following exceptions:

Blank ID	Analyte	Concentration
AMB-1-241230	APH EC5-8 aliphatics	86 ug/m ³
AMB-2-241230	APH EC5-8 aliphatics APH EC9-12 aliphatics	86 ug/m ³ 34 ug/m ³

IV. Surrogates

Although surrogates were not required by the method, surrogate analysis was performed by the laboratory. Surrogate recoveries (%R) were within QC limits.

V. Matrix Spike/Matrix Spike Duplicate

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VI. Laboratory Control Sample

Laboratory control samples (LCS) were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

VII. Field Duplicate

No field duplicates were identified in this SDG.

VIII. Target Analyte Quantitation

Raw data were not reviewed for Stage 2A validation.

VALIDATION COMPLETENESS WORKSHEET

LDC #: 60968D
 SDG #: 412508
 Laboratory: Friedman & Bruya Inc., Seattle, WA
 Method: VOCs (APH) (MA-APH)

Date: 5/1/2025
 Page: 1
 Reviewer: MAN
 2nd Reviewer: _____

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I	Sample Receipt/Technical Holding Time	A/A	
II	Laboratory Blanks	A	
III	Field Blank	SW	AB=1,2
IV	Surrogate Spikes	A	
V	Matrix Spike/Matrix Spike Duplicate	N	
VI	Laboratory Control Sample	A	LCS
VII	Field Duplicate	N	
VIII	Target Analyte Quantitation	N	
IX	Overall Assessment of Data	A	

Note: A = Acceptable ND = Not detected FT = Field triplicate AB= Ambient blank R = Rinsate
 N = Not provided/applicable NQ = Not qualified TB = Trip blank SB = Source blank
 SW = See worksheet FD = Field duplicate FB = Field blank EB = Equipment blank

	Client ID	Lab ID	QC Type	Matrix	Date	Stage
1	AMB-1-241230	412508-01		Air	12/30/2024	Stage 2A
2	AMB-2-241230	412508-02		Air	12/30/2024	Stage 2A
3	VS-EFF-241231	412508-03		Air	12/31/2024	Stage 2A

Notes:

1 05-003 MB		

VALIDATION FINDINGS WORKSHEET

Field Blanks

METHOD: GC/MS Volatiles (EPA Method MA-APH)

Field blanks were identified in this SDG.

No contaminants were found in the field blanks with the exceptions identified below.

Sampling date: 12/30/24 **Blank units:** ug/m3 **Associated sample units:** ug/m3

Field blank type: AB **Associated Samples:** none

(TB = Trip Blank; FB = Field Blank; EB = Equipment Blank; SB = Source Blank)

Compound	Blank ID	Blank ID	Sample Identification						
	1	2							
APH EC5-8 aliphatics	86	86							
APH EC9-12 aliphatics		34							