PIONEER
Engineering & Environmental Services, LLC

2753 West 31st Street | Chicago, IL 60608
Tel: 773-722-9200 | Fax: 773-722-9201 | pioneerEES.com

Transmitted via Electronic Mail

October 15, 2024

Ms. Tena Seeds
Washington State Department of Ecology
Toxics Cleanup Program
15700 Dayton Ave N., Shoreline, WA 98133

RE: **Quarterly Progress Report: July 1 through September 30, 2024**
Time Oil Bulk Terminal Site, Cleanup Site ID #14604
Prospective Purchaser Consent Decree No. 20-2-15215-3 SEA

Dear Ms. Seeds:

Pioneer Engineering & Environmental Services, LLC on behalf of TOC Seattle Terminal 1, LLC submits the attached Quarterly Progress Report for the Time Oil Bulk Terminal Site per Section XII of the Prospective Purchaser Consent Decree between the Washington State Department of Ecology and TOC Seattle Terminal 1, LLC. The quarterly progress report consists of a brief narrative summary of notable activities that occurred during the reporting period and that are anticipated for the upcoming reporting period.

If you have any questions about this report, please contact me at 773-435-3725.

Sincerely,

Kim Hempel
Project Coordinator
Pioneer Engineering & Environmental Services, LLC

Distribution List:
Doug Ciserella and Mike Ciserella, TOC Seattle Terminal 1, LLC
Bill Joyce, Hillis Clark Martin & Peterson P.S.
Jamie Stevens, CRETE Consulting
Kristin Anderson, Floyd|Snider

TIME OIL BULK TERMINAL SITE
PROSPECTIVE PURCHASER CONSENT DECREE NO. 20-2-15215-3 SEA
QUARTERLY PROGRESS REPORT: JULY 1 THROUGH SEPTEMBER 30, 2024

This report has been prepared in accordance with the requirements of the Time Oil Bulk Terminal Site Prospective Purchaser Consent Decree (PPCD) between the Washington State Department of Ecology (Ecology) and TOC Seattle Terminal 1, LLC. This progress report provides details on the following: 1) all on site activities; 2) any deviations from required tasks; 3) anticipated problems in meeting schedule or objectives and associated solutions 4) sampling, testing, or other data received; 5) work planned for the upcoming 3-month period; and, 6) deliverables planned for the upcoming 3-month period.

Summary of On-Site Activities Performed During the Reporting Period (PPCD Section XII.A)

- A visual check of the site was conducted on August 7, 2024. Construction associated with redevelopment continues on Parcel F, and all interim surfaces on remaining portions of the Site remain in good condition and no other concerns were noted during the site visits.
- Floyd|Snider (F|S) personnel collected the seventh round of post-remediation groundwater samples on August 7 and 8, 2024 (Q3 2024) per the approved Groundwater Monitoring Plan (GMP) and additional Ecology email concurrence dated July 30, 2024. Monitoring included continued groundwater collection at contingency well 01MW107 and additional sampling at 01MW15 and 01MW58R based on elevated trichloroethene (TCE) in upgradient portions of the ASKO property and on the BNSF Property.
- Water samples were collected from the ASKO Property permeable reactive barrier vault and gravity well on August 7, 2024 for operation and maintenance (O&M) assessment purposes. O&M assessment will continue in Q4 2024 per Ecology's request.

Deliverables

Deliverables during this reporting period included the following:

- The Quarterly Progress Report for the second quarter of 2024 was submitted to Ecology on July 15, 2024.
- Groundwater sampling results for the third quarter of 2024 and associated contour maps were submitted to Ecology via email on September 23, 2024.

Deviations from Required Tasks (PPCD Section XII.B)

- None.

Anticipated Problems in Meeting Schedule or Objectives and Associated Solutions (PPCD Section XII.C and XII.D)

- Based on groundwater samples collected by BNSF in November 2023, TCE and associated cVOC as well as TPH contaminant concentrations originating from the upgradient BNSF property were identified in upgradient groundwater as part of the BNSF remedial investigation at levels considerably higher than those observed in the 2019 remedial investigation for the Time Oil Bulk Terminal Site. The elevated TCE and cVOC concentrations in groundwater on BNSF are impacting the shallow water bearing zone (WBZ) in groundwater wells on the downgradient ASKO parcel owned by TOC Seattle Terminal 1, LLC. These impacts, if they continue, represent an on-going source to groundwater and may affect achievement of the cleanup levels (CULs) at the conditional point of compliance (CPOC) within the predicted 15-year restoration timeframe.
- Aside from the item above, there are no other anticipated problems in meeting the schedule of deliverables specified in Exhibit D of the PPCD. The schedule of deliverables and activities specified in Table 8.1 of the Cleanup Action Plan (Exhibit C of the PPCD) are currently on track or ahead of schedule.

Raw Data Received (PPCD Section XII.E)

- Groundwater sampling results for the 3rd Quarter 2024 were received from Friedman & Bruya, Inc. on August 20, 2024. Results were received in one sample delivery group (F&BI 408160);
- Samples collected for O&M purposes from the ASKO property permeable reactive barrier vault and gravity well were received on August 16, 2024. Results were received in one sample delivery group (F&BI 408159); and
- Copies of the laboratory reports discussed herein are provided as an attachment to this Progress Report.

Work Planned During the Upcoming Reporting Period (PPCD Section XII.F)

The following work is planned for the 4th Quarter 2024:

- Eighth round of groundwater sampling and site-wide synoptic gauging is scheduled for early to mid-November 2024;
- Review of BNSF 3rd Quarter 2024 water levels and groundwater results;
- Construction on Lot F continues; and
- Site checks will be conducted periodically on all interim surfaces outside of Lot F to ensure that conditions remain stable during the interim period prior to site development.

Deliverables Planned During the Upcoming Reporting Period (PPCD Section XII.G)

The following deliverables are anticipated to be completed during the next quarterly reporting period of October through December 2024:

- Submittal of the Quarterly Progress Report for the 3rd Quarter 2024; and
- Transmittal of a summary of 4th Quarter 2024 groundwater sampling results and associated groundwater contour maps to Ecology via email.

Other Pertinent Information, Including Changes in Key Personnel

- None.

Attachments

- Attachment 1 – Laboratory Analytical Reports

END QUARTERLY PROGRESS REPORT

ATTACHMENT 1

Laboratory Analytical Reports

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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

5500 4th Ave South
Seattle, WA 98108-2419
(206) 285-8282
office@friedmanandbruya.com
www.friedmanandbruya.com

August 16, 2024

Kristin Anderson, Project Manager
Floyd-Snider
Two Union Square
601 Union St, Suite 600
Seattle, WA 98101

Dear Ms Anderson:

Included are the results from the testing of material submitted on August 8, 2024 from the Cantera/Time Oil, F&BI 408159 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 should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Floyd Snider Lab Data, Pamela Osterhout
FDS0816R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on August 8, 2024 by Friedman & Bruya, Inc. from the Floyd-Snider Cantera/Time Oil, F&BI 408159 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Floyd-Snider
408159 -01	Gravity-080724
408159 -02	Clear-080724
408159 -03	INF-Vault-080724

All quality control requirements were acceptable.

Date of Report: 08/16/24
Date Received: 08/08/24
Project: Cantera/Time Oil, F&BI 408159
Date Extracted: 08/11/24
Date Analyzed: 08/11/24

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

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 50-150)
Gravity-080724 408159-01	380 x	<250	97
Method Blank 04-1900 MB	<50	<250	88

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	Gravity-080724	Client:	Floyd-Snider
Date Received:	08/08/24	Project:	Cantera/Time Oil, F&BI 408159
Date Extracted:	08/14/24	Lab ID:	408159-01 1/10
Date Analyzed:	08/14/24	Data File:	081417.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	94	84	115
4-Bromofluorobenzene	98	72	130

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	6.3
cis-1,2-Dichloroethene	540
Trichloroethene	840

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	Clear-080724	Client:	Floyd-Snider
Date Received:	08/08/24	Project:	Cantera/Time Oil, F&BI 408159
Date Extracted:	08/14/24	Lab ID:	408159-02
Date Analyzed:	08/14/24	Data File:	081415.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	MD

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

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.02
cis-1,2-Dichloroethene	<1
Trichloroethene	9.2

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	INF-Vault-080724	Client:	Floyd-Snider
Date Received:	08/08/24	Project:	Cantera/Time Oil, F&BI 408159
Date Extracted:	08/14/24	Lab ID:	408159-03
Date Analyzed:	08/14/24	Data File:	081416.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	96	84	115
4-Bromofluorobenzene	99	72	130

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	0.18
cis-1,2-Dichloroethene	4.6
Trichloroethene	26

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	Method Blank	Client:	Floyd-Snider
Date Received:	Not Applicable	Project:	Cantera/Time Oil, F&BI 408159
Date Extracted:	08/14/24	Lab ID:	04-1838 mb
Date Analyzed:	08/14/24	Data File:	081409.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	97	84	115
4-Bromofluorobenzene	96	72	130

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.02
cis-1,2-Dichloroethene	<1
Trichloroethene	<0.5

Date of Report: 08/16/24
Date Received: 08/08/24
Project: Cantera/Time Oil, F&BI 408159

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

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	76	80	65-151	5

Date of Report: 08/16/24
Date Received: 08/08/24
Project: Cantera/Time Oil, F&BI 408159

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

Laboratory Code: 408159-02 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Vinyl chloride	ug/L (ppb)	10	<0.02	106	50-150
cis-1,2-Dichloroethene	ug/L (ppb)	10	<1	100	10-211
Trichloroethene	ug/L (ppb)	10	9.2	89 b	35-149

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	ug/L (ppb)	10	112	105	64-142	6
cis-1,2-Dichloroethene	ug/L (ppb)	10	102	100	70-130	2
Trichloroethene	ug/L (ppb)	10	92	89	70-130	3

Data Qualifiers & Definitions

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

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

ca - The calibration results for the analyte were outside of acceptance criteria, biased 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.

408159

SAMPLE CHAIN OF CUSTODY

08/08/24 F21VW2

Page # 1 of 1

Report To Kristin Anderson + Pamela Osterhout
Company Floyd Snider
Address 601 Union St, Suite 600
City, State, ZIP Seattle, WA 98101
Phone 206 292-2078 Email LabData@FloydSnider.com

SAMPLERS (*signature*)

PROJECT NAME: Cantera / Time 01
PO #:

REMARKS
* CVOCs include TCE, cis-1,2-DCE + vinylchloride
Project specific RLs? - Yes / No

INVOICE TO: Pioneer

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

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

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	CVOCs EPA 8260 *	PAHs EPA 8270	PCBs EPA 8082					Notes
GRAVITY-080724	01 A-D	8/7/24	11:50	W	4	✓				✓							
CLEAR-080724	02 A-C	"	12:15	"	3					✓							
INF-VAULT-080724	03 ↓	"	1235	"	3					✓							
						Samples received at 3 °C											

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Pamela Osterhout	Floyd Snider	8/8/24	1227
Received by:	Nhan Phan	FEBI	8/8/24	1227
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
5500 4th Ave S.
Seattle WA 98108
(206) 285-8282
office@friedmanandbruya.com

SAMPLE CONDITION UPON RECEIPT CHECKLIST

PROJECT # 408159 CLIENT Floyd Snider INITIALS/DATE: (AP) 08/08/24

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

Cooler/Sample temperature 3 °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 08/08/24
*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 _____

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

August 20, 2024

Kristin Anderson, Project Manager
Floyd-Snider
Two Union Square
601 Union St, Suite 600
Seattle, WA 98101

Dear Ms Anderson:

Included are the results from the testing of material submitted on August 8, 2024 from the Cantera/Time Oil, F&BI 408160 project. There are 36 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 should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Floyd Snider Lab Data, Pamela Osterhout
FDS0820R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on August 8, 2024 by Friedman & Bruya, Inc. from the Floyd-Snider Cantera/Time Oil, F&BI 408160 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Floyd-Snider
408160 -01	01MW12-080724
408160 -02	01MW19R-080724
408160 -03	01MW40-080724
408160 -04	01MW49R-080724
408160 -05	01MW84-080724
408160 -06	01MW46-080724
408160 -07	01MW58R-080724
408160 -08	01MW108-080724
408160 -09	01MW56-080724
408160 -10	02MW04R-080724
408160 -11	01MW15-080724
408160 -12	01MW80-080824
408160 -13	01MW85-080824
408160 -14	01MW53R-080824
408160 -15	01MW107-080824
408160 -16	MW05-080824
408160 -17	MW06-080824
408160 -18	MW06-080824-D

Samples 01MW85-080824, MW05-080824, and MW06-080824 were sent to Alliance Technical Group for total organic carbon and to Onsite Environmental for dissolved gases testing. The reports are enclosed.

All quality control requirements were acceptable.

Date of Report: 08/20/24
Date Received: 08/08/24
Project: Cantera/Time Oil, F&BI 408160
Date Extracted: 08/15/24
Date Analyzed: 08/15/24

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

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Gasoline Range	Surrogate (% Recovery) (Limit 50-150)
01MW12-080724 408160-01	<100	103
01MW19R-080724 408160-02	500	104
01MW40-080724 408160-03	<100	100
01MW49R-080724 408160-04	<100	102
01MW84-080724 408160-05 1/10	2,500	103
02MW04R-080724 408160-10	<100	94
Method Blank 04-1757 MB	<100	93

Date of Report: 08/20/24
Date Received: 08/08/24
Project: Cantera/Time Oil, F&BI 408160
Date Extracted: 08/13/24
Date Analyzed: 08/13/24

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

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 50-150)
01MW12-080724 408160-01	940 x	310 x	90
01MW19R-080724 408160-02	580 x	<250	102
01MW40-080724 408160-03	980 x	<250	98
01MW49R-080724 408160-04	240 x	<250	105
01MW84-080724 408160-05	970 x	<250	99
01MW58R-080724 408160-07	880 x	370 x	148
02MW04R-080724 408160-10	96 x	<250	96
Method Blank 04-1910 MB	<50	<250	85

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	01MW12-080724	Client:	Floyd-Snider
Date Received:	08/08/24	Project:	Cantera/Time Oil, F&BI 408160
Date Extracted:	08/12/24	Lab ID:	408160-01
Date Analyzed:	08/12/24	Data File:	081237.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	IJL

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	78	126
Toluene-d8	97	84	115
4-Bromofluorobenzene	101	72	130

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	01MW19R-080724	Client:	Floyd-Snider
Date Received:	08/08/24	Project:	Cantera/Time Oil, F&BI 408160
Date Extracted:	08/12/24	Lab ID:	408160-02
Date Analyzed:	08/12/24	Data File:	081238.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	102	84	115
4-Bromofluorobenzene	104	72	130

Compounds:	Concentration ug/L (ppb)
Benzene	0.98

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	01MW40-080724	Client:	Floyd-Snider
Date Received:	08/08/24	Project:	Cantera/Time Oil, F&BI 408160
Date Extracted:	08/12/24	Lab ID:	408160-03
Date Analyzed:	08/12/24	Data File:	081239.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	IJL

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	78	126
Toluene-d8	97	84	115
4-Bromofluorobenzene	103	72	130

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	01MW49R-080724	Client:	Floyd-Snider
Date Received:	08/08/24	Project:	Cantera/Time Oil, F&BI 408160
Date Extracted:	08/12/24	Lab ID:	408160-04
Date Analyzed:	08/12/24	Data File:	081240.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	95	84	115
4-Bromofluorobenzene	102	72	130

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	01MW84-080724	Client:	Floyd-Snider
Date Received:	08/08/24	Project:	Cantera/Time Oil, F&BI 408160
Date Extracted:	08/12/24	Lab ID:	408160-05
Date Analyzed:	08/12/24	Data File:	081241.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	96	84	115
4-Bromofluorobenzene	99	72	130

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	01MW46-080724	Client:	Floyd-Snider
Date Received:	08/08/24	Project:	Cantera/Time Oil, F&BI 408160
Date Extracted:	08/12/24	Lab ID:	408160-06 1/10
Date Analyzed:	08/13/24	Data File:	081252.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	IJL

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	106	78	126
Toluene-d8	97	84	115
4-Bromofluorobenzene	103	72	130

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	96
cis-1,2-Dichloroethene	610
Benzene	3.1 j
Trichloroethene	160

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	01MW58R-080724	Client:	Floyd-Snider
Date Received:	08/08/24	Project:	Cantera/Time Oil, F&BI 408160
Date Extracted:	08/12/24	Lab ID:	408160-07 1/10
Date Analyzed:	08/13/24	Data File:	081251.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	IJL

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	106	78	126
Toluene-d8	100	84	115
4-Bromofluorobenzene	105	72	130

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	13
cis-1,2-Dichloroethene	270
Trichloroethene	23

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	01MW108-080724	Client:	Floyd-Snider
Date Received:	08/08/24	Project:	Cantera/Time Oil, F&BI 408160
Date Extracted:	08/12/24	Lab ID:	408160-08
Date Analyzed:	08/12/24	Data File:	081242.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	IJL

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

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	0.081
cis-1,2-Dichloroethene	<1
Trichloroethene	<0.5

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	01MW56-080724	Client:	Floyd-Snider
Date Received:	08/08/24	Project:	Cantera/Time Oil, F&BI 408160
Date Extracted:	08/12/24	Lab ID:	408160-09
Date Analyzed:	08/12/24	Data File:	081245.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	97	84	115
4-Bromofluorobenzene	101	72	130

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	1.2
cis-1,2-Dichloroethene	<1
Trichloroethene	0.97

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	02MW04R-080724	Client:	Floyd-Snider
Date Received:	08/08/24	Project:	Cantera/Time Oil, F&BI 408160
Date Extracted:	08/12/24	Lab ID:	408160-10
Date Analyzed:	08/12/24	Data File:	081243.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	IJL

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	78	126
Toluene-d8	97	84	115
4-Bromofluorobenzene	101	72	130

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	01MW15-080724	Client:	Floyd-Snider
Date Received:	08/08/24	Project:	Cantera/Time Oil, F&BI 408160
Date Extracted:	08/12/24	Lab ID:	408160-11
Date Analyzed:	08/13/24	Data File:	081254.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	99	72	130

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	36
cis-1,2-Dichloroethene	8.9
Trichloroethene	0.59

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	01MW80-080824	Client:	Floyd-Snider
Date Received:	08/08/24	Project:	Cantera/Time Oil, F&BI 408160
Date Extracted:	08/12/24	Lab ID:	408160-12 1/10
Date Analyzed:	08/13/24	Data File:	081253.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	99	84	115
4-Bromofluorobenzene	98	72	130

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	65
cis-1,2-Dichloroethene	350
Benzene	2.4 j
Trichloroethene	180

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	01MW85-080824	Client:	Floyd-Snider
Date Received:	08/08/24	Project:	Cantera/Time Oil, F&BI 408160
Date Extracted:	08/12/24	Lab ID:	408160-13 1/10
Date Analyzed:	08/13/24	Data File:	081250.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	95	84	115
4-Bromofluorobenzene	98	72	130

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	33
cis-1,2-Dichloroethene	1,100
Trichloroethene	6.5

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	01MW53R-080824	Client:	Floyd-Snider
Date Received:	08/08/24	Project:	Cantera/Time Oil, F&BI 408160
Date Extracted:	08/12/24	Lab ID:	408160-14
Date Analyzed:	08/12/24	Data File:	081246.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	95	84	115
4-Bromofluorobenzene	98	72	130

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	0.76
cis-1,2-Dichloroethene	2.0
Trichloroethene	13

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	01MW107-080824	Client:	Floyd-Snider
Date Received:	08/08/24	Project:	Cantera/Time Oil, F&BI 408160
Date Extracted:	08/12/24	Lab ID:	408160-15
Date Analyzed:	08/12/24	Data File:	081244.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	98	84	115
4-Bromofluorobenzene	100	72	130

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.02
cis-1,2-Dichloroethene	<1
Trichloroethene	<0.5

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW05-080824	Client:	Floyd-Snider
Date Received:	08/08/24	Project:	Cantera/Time Oil, F&BI 408160
Date Extracted:	08/12/24	Lab ID:	408160-16 1/10
Date Analyzed:	08/13/24	Data File:	081249.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	98	84	115
4-Bromofluorobenzene	101	72	130

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	81
cis-1,2-Dichloroethene	840
Benzene	0.83 j
Trichloroethene	51

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW06-080824	Client:	Floyd-Snider
Date Received:	08/08/24	Project:	Cantera/Time Oil, F&BI 408160
Date Extracted:	08/12/24	Lab ID:	408160-17
Date Analyzed:	08/12/24	Data File:	081247.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	98	84	115
4-Bromofluorobenzene	102	72	130

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	2.0
cis-1,2-Dichloroethene	49
Benzene	<0.35
Trichloroethene	46

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW06-080824-D	Client:	Floyd-Snider
Date Received:	08/08/24	Project:	Cantera/Time Oil, F&BI 408160
Date Extracted:	08/12/24	Lab ID:	408160-18
Date Analyzed:	08/13/24	Data File:	081248.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	97	84	115
4-Bromofluorobenzene	103	72	130

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	2.1
cis-1,2-Dichloroethene	50
Benzene	<0.35
Trichloroethene	48

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	Method Blank	Client:	Floyd-Snider
Date Received:	Not Applicable	Project:	Cantera/Time Oil, F&BI 408160
Date Extracted:	08/12/24	Lab ID:	04-1833 mb
Date Analyzed:	08/12/24	Data File:	081235.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	IJL

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	78	126
Toluene-d8	93	84	115
4-Bromofluorobenzene	101	72	130

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.02
cis-1,2-Dichloroethene	<1
Benzene	<0.035 j
Trichloroethene	<0.5

Analysis For Total Metals By EPA Method 6020B

Client ID:	01MW85-080824	Client:	Floyd-Snider
Date Received:	08/08/24	Project:	Cantera/Time Oil, F&BI 408160
Date Extracted:	08/09/24	Lab ID:	408160-13 x40
Date Analyzed:	08/12/24	Data File:	408160-13 x40.148
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Iron	4,300

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW05-080824	Client:	Floyd-Snider
Date Received:	08/08/24	Project:	Cantera/Time Oil, F&BI 408160
Date Extracted:	08/09/24	Lab ID:	408160-16 x40
Date Analyzed:	08/12/24	Data File:	408160-16 x40.149
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Iron	2,200

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW06-080824	Client:	Floyd-Snider
Date Received:	08/08/24	Project:	Cantera/Time Oil, F&BI 408160
Date Extracted:	08/09/24	Lab ID:	408160-17 x40
Date Analyzed:	08/12/24	Data File:	408160-17 x40.150
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Iron	2,900

Analysis For Total Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Floyd-Snider
Date Received:	NA	Project:	Cantera/Time Oil, F&BI 408160
Date Extracted:	08/09/24	Lab ID:	I4-660 mb
Date Analyzed:	08/09/24	Data File:	I4-660 mb.171
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Iron	<50

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	01MW85-080824	Client:	Floyd-Snider
Date Received:	08/08/24	Project:	Cantera/Time Oil, F&BI 408160
Date Extracted:	08/13/24	Lab ID:	408160-13 x20
Date Analyzed:	08/14/24	Data File:	408160-13 x20.042
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Iron	4,000

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW05-080824	Client:	Floyd-Snider
Date Received:	08/08/24	Project:	Cantera/Time Oil, F&BI 408160
Date Extracted:	08/13/24	Lab ID:	408160-16 x20
Date Analyzed:	08/14/24	Data File:	408160-16 x20.043
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Iron	2,100

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW06-080824	Client:	Floyd-Snider
Date Received:	08/08/24	Project:	Cantera/Time Oil, F&BI 408160
Date Extracted:	08/13/24	Lab ID:	408160-17 x20
Date Analyzed:	08/14/24	Data File:	408160-17 x20.044
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Iron	2,500

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Floyd-Snider
Date Received:	NA	Project:	Cantera/Time Oil, F&BI 408160
Date Extracted:	08/13/24	Lab ID:	I4-672 mb
Date Analyzed:	08/13/24	Data File:	I4-672 mb.149
Matrix:	Water	Instrument:	ICPMS3
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Iron	<50 k

Date of Report: 08/20/24
Date Received: 08/08/24
Project: Cantera/Time Oil, F&BI 408160

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

Laboratory Code: 408160-01 (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	96	70-130

Date of Report: 08/20/24
Date Received: 08/08/24
Project: Cantera/Time Oil, F&BI 408160

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

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	76	92	65-151	19

Date of Report: 08/20/24
Date Received: 08/08/24
Project: Cantera/Time Oil, F&BI 408160

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

Laboratory Code: 408160-05 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Vinyl chloride	ug/L (ppb)	10	<0.02	117	50-150
cis-1,2-Dichloroethene	ug/L (ppb)	10	<1	106	10-211
Benzene	ug/L (ppb)	10	<0.35	105	50-150
Trichloroethene	ug/L (ppb)	10	<0.5	97	35-149

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	ug/L (ppb)	10	107	107	64-142	0
cis-1,2-Dichloroethene	ug/L (ppb)	10	98	99	70-130	1
Benzene	ug/L (ppb)	10	95	103	70-130	8
Trichloroethene	ug/L (ppb)	10	89	97	70-130	9

Date of Report: 08/20/24
Date Received: 08/08/24
Project: Cantera/Time Oil, F&BI 408160

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

Laboratory Code: 408161-44 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Iron	ug/L (ppb)	100	209	82 b	89 b	75-125	8 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Iron	ug/L (ppb)	100	80	80-120

Date of Report: 08/20/24
Date Received: 08/08/24
Project: Cantera/Time Oil, F&BI 408160

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR DISSOLVED METALS USING EPA METHOD 6020B

Laboratory Code: 408153-02 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Iron	ug/L (ppb)	100	87.5	104 b	81 b	75-125	25 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Iron	ug/L (ppb)	100	120	80-120

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.

408160

SAMPLE CHAIN OF CUSTODY

08/08/24 VW4/F3/K2

Page # 1 of 2

Report To Kristin Anderson + Pamela Osterhout
Company 1001 Union St, Suite 600
Address Seattle, WA 98101
City, State, ZIP Floyd Snider
Phone 206 292-7078 Email Lab Data@FloydSnider.com

SAMPLERS (*signature*)

PROJECT NAME: Cantera/Time Oil

PO #

REMARKS
* cVOCs include TCE, cis-1,2-DCE + vinyl chloride
Project specific RLs? - Yes / No

INVOICE TO: Pioneer

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

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

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	cVOCs EPA 8260 *	PAHs EPA 8270	PCBs EPA 8082	Benzene 8260				Notes
						ANALYSES REQUESTED											* Sub diss. gases to onsite for lower RLs (methane, ethene and ethane)
01MW12-080724	01 A-G	8/7/24	13:40	GW	7	✓	✓						✓				
01MW19R-080724	02		11:45		7	✓	✓						✓				
01MW40-080724	03		14:30		7	✓	✓						✓				
01MW49R-080724	04		10:45		7	✓	✓						✓				
01MW84-080724	05		12:45		7	✓	✓						✓				
01MW46-080724	06A-F		10:25		6					✓			✓				
01MW58R-080724	07A-D		11:12		4	✓				✓							
01MW108-080724	08A-C		13:40		3					✓							
01MW56-080724	09		15:40		3					✓							
02MW04R-080724	10A-G		15:30		7	✓	✓						✓				

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		Pamela Osterhout	Floyd Snider	8/8/24	12:28
Received by:		Nhan Phan	FEBI	8/8/24	1228
Relinquished by:			Samples received at 3 °C		
Received by:					

Friedman & Bruya, Inc.
5500 4th Ave S.
Seattle WA 98108
(206) 285-8282
office@friedmanandbruya.com

408160

SAMPLE CHAIN OF CUSTODY

08/08/24 VW4/F3/K2

Page 2 of 2

Report To Kristin Anderson + Pamela Osterhout
Company Floyd Snider
Address 601 Union St, Suite 600
City, State, ZIP Seattle, WA
Phone 206 292-2078 Email LabData@FloydSnider.com

SAMPLERS (*signature*)

PROJECT NAME: Cantera/Time Oil

PO #

REMARKS: * cVOCs include TCE, cis-1,2-DCE, + VC.
Project specific RLs? - Yes / No

INVOICE TO

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

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

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	cVOCs* EPA 8260	PAHs EPA 8270	PCBs EPA 8082	TOC	BTEX Benzene	Total + Diss Iron	Dissolved gases RSK	Notes
						ANALYSES REQUESTED											Diss. iron Field Filtered
01MW15-080724	11 A-D	8/7/24	14:30	GW	4					✓							Hold TOC
01MW80-080824	12 A-F	8/8/24	08:45		6					✓				✓			
01MW85-080824	13 A-M		09:40		13					✓			✓		✓	✓	HOLD Dx
01MW85R-080824	14 A-C		11:00		3					✓							
01MW107-080824	15 ↓		08:45		3					✓							
MW05-080824	16 A-M		09:31		13					✓			✓	✓	✓	✓	HOLD Dx
MW06-080824	17 ↓		11:00		13					✓			✓	✓	✓	✓	HOLD Dx
MW06-080824-D	18 A-F		11:11		6					✓				✓			
					AP 08/08												

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		Pamela Osterhout	F/S	8/8/24	1228
Received by:		Nhan Pham	FEBT	8/8/24	1228
Relinquished by:			Samples received at 3 °C		
Received by:					

Friedman & Bruya, Inc.
5500 4th Ave S.
Seattle WA 98108
(206) 285-8282
office@friedmanandbruya.com

SAMPLE CONDITION UPON RECEIPT CHECKLIST

PROJECT # 408160 CLIENT Floyd Snider INITIALS/ DATE: WP 08/08/24

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

Cooler/Sample temperature 3 °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 08/08/24
*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)

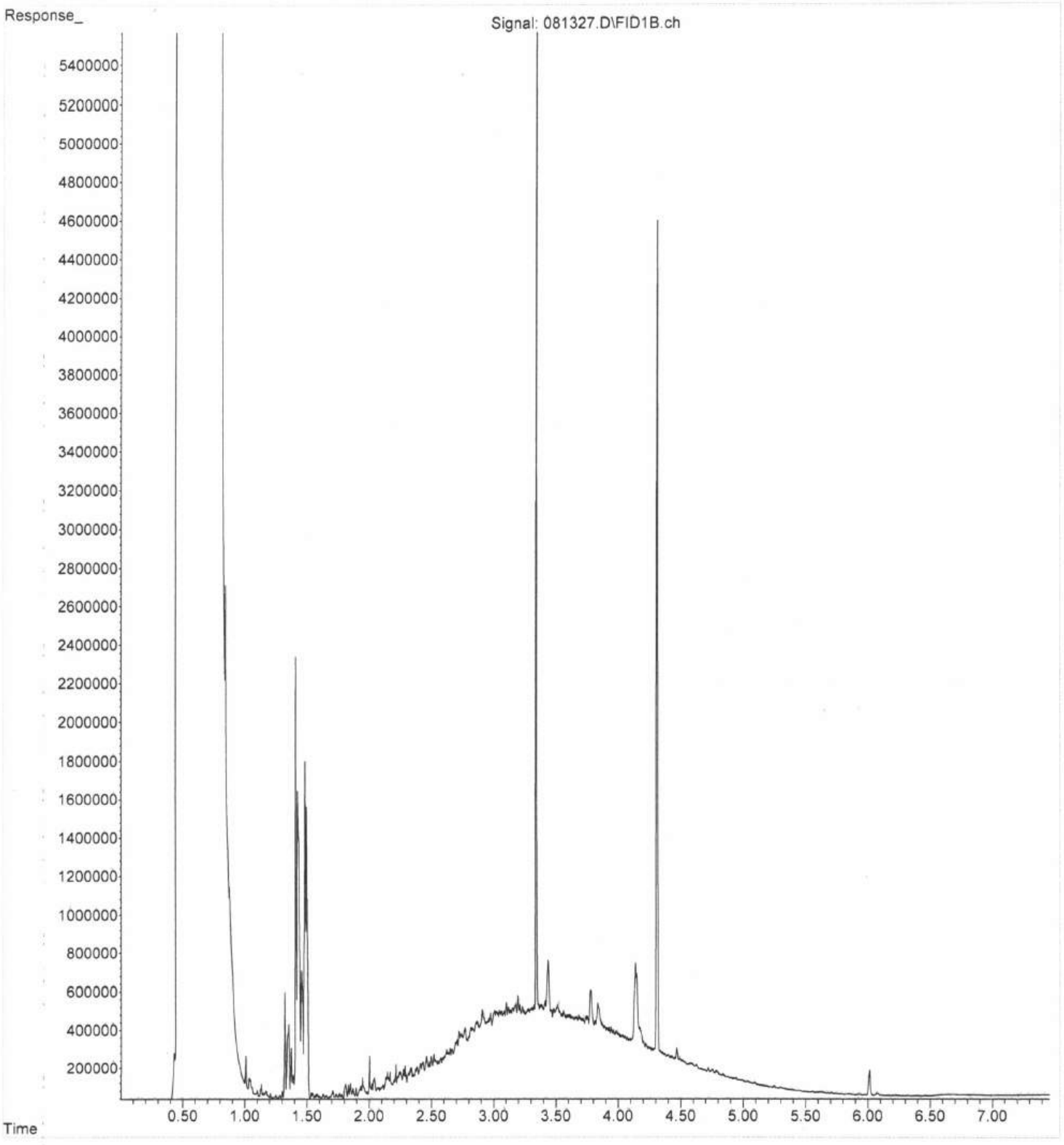
Sample ID's	☑ Yes ☐ No	☐ Not on COC/label
Date Sampled	☑ Yes ☐ No	☐ Not on COC/label
Time Sampled	☑ Yes ☐ No	☐ Not on COC/label
# of Containers	☐ Yes ☑ No	Not on COC. Added at lab for MW06-080824-D (18)
Relinquished	☑ Yes ☐ No	
Requested analysis	☑ Yes ☐ On Hold	

Other comments (use a separate page if needed)

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

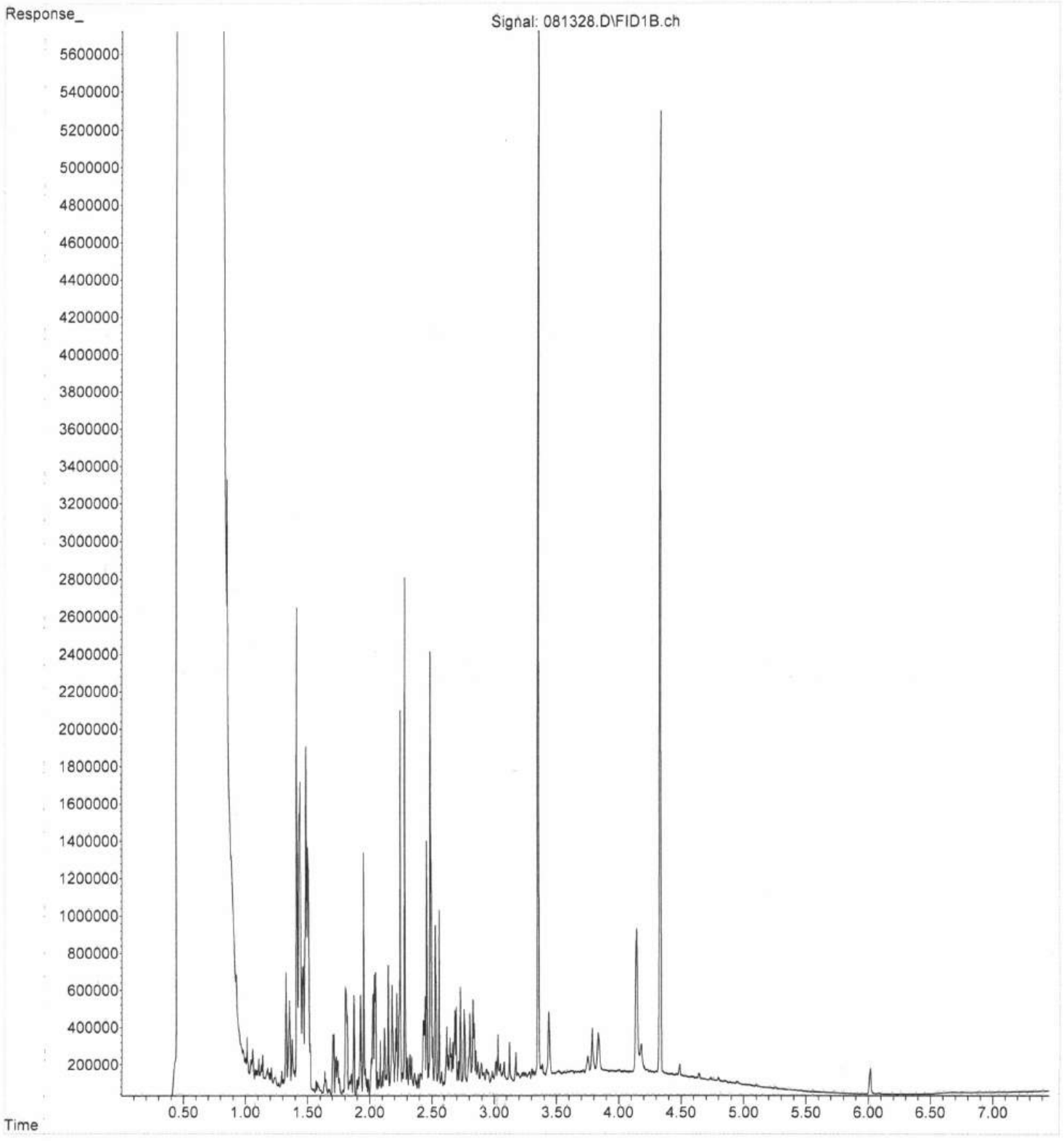
Number of unused TO15 canisters _____ **Number of unused TO17 tubes** _____

File :P:\Proc_GC14\08-13-24\081327.D
Operator : TL
Acquired : 13 Aug 2024 05:43 pm using AcqMethod DX.M
Instrument : GC14
Sample Name: 408160-01
Misc Info : ERR
Vial Number: 105

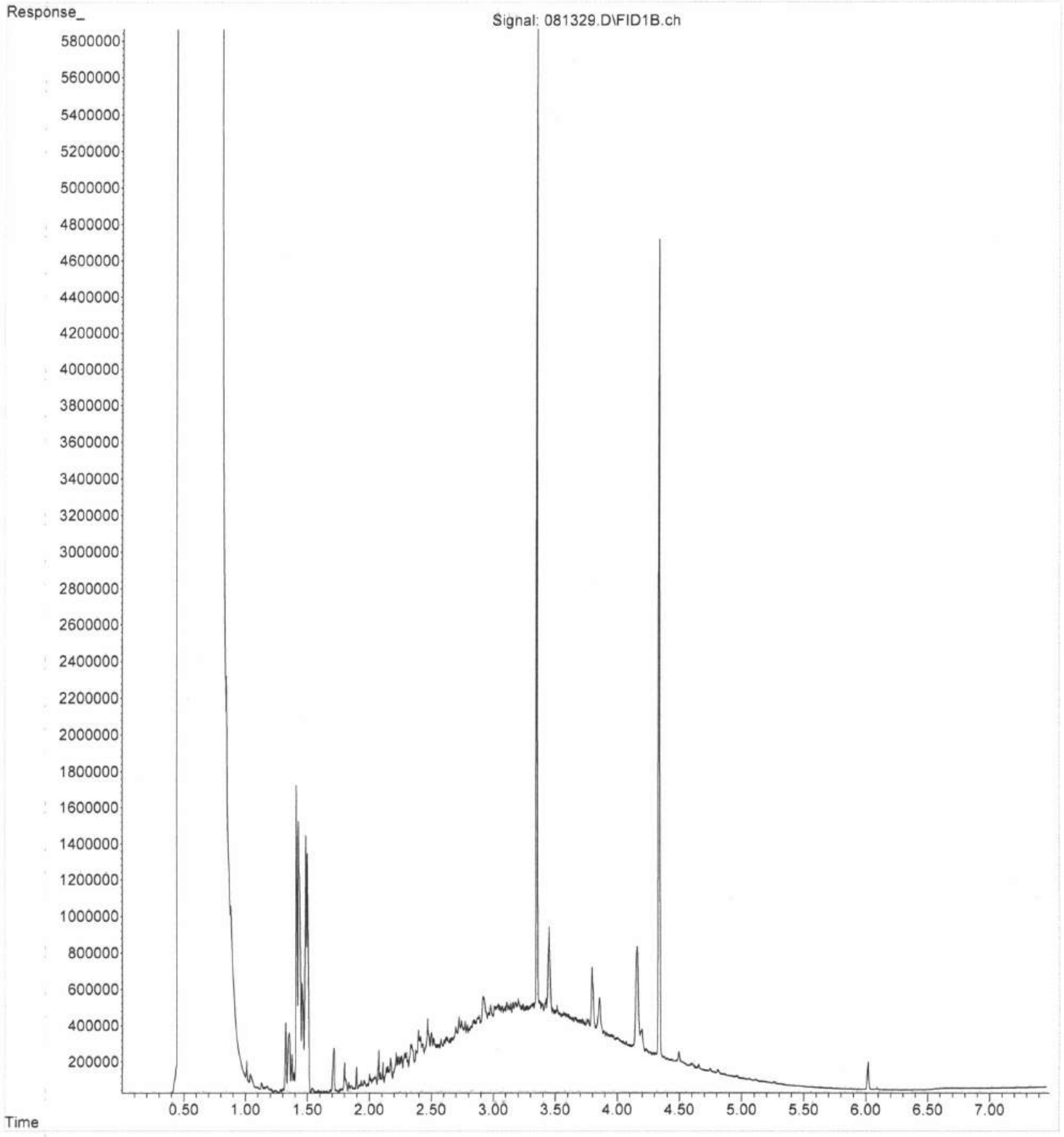


File :P:\Proc_GC14\08-13-24\081328.D
Operator : TL
Acquired : 13 Aug 2024 05:55 pm using AcqMethod DX.M
Instrument : GC14
Sample Name: 408160-02
Misc Info :
Vial Number: 106

ERR

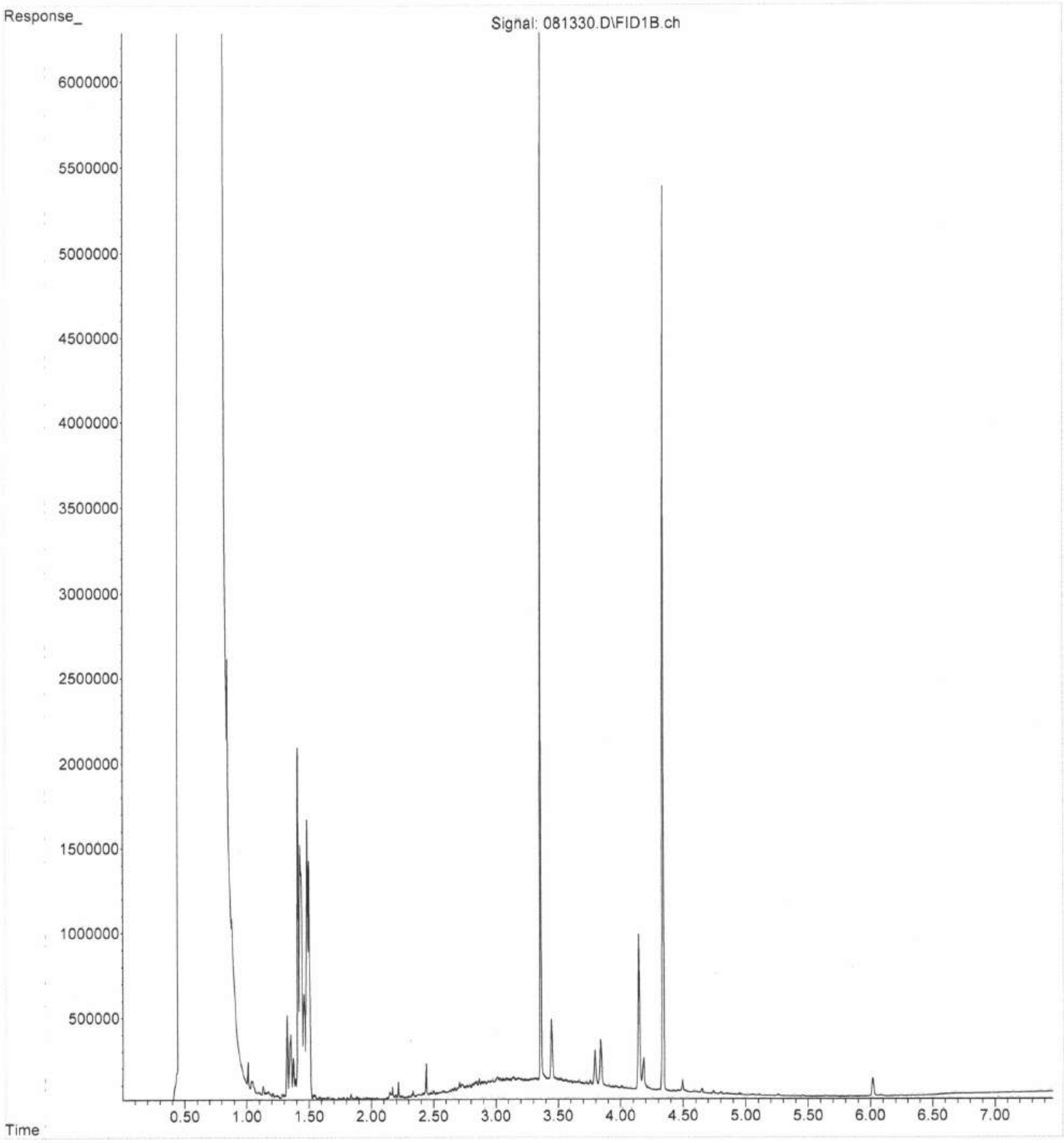


File : P:\Proc_GC14\08-13-24\081329.D
Operator : TL
Acquired : 13 Aug 2024 06:07 pm using AcqMethod DX.M
Instrument : GC14
Sample Name: 408160-03
Misc Info : ERR
Vial Number: 107

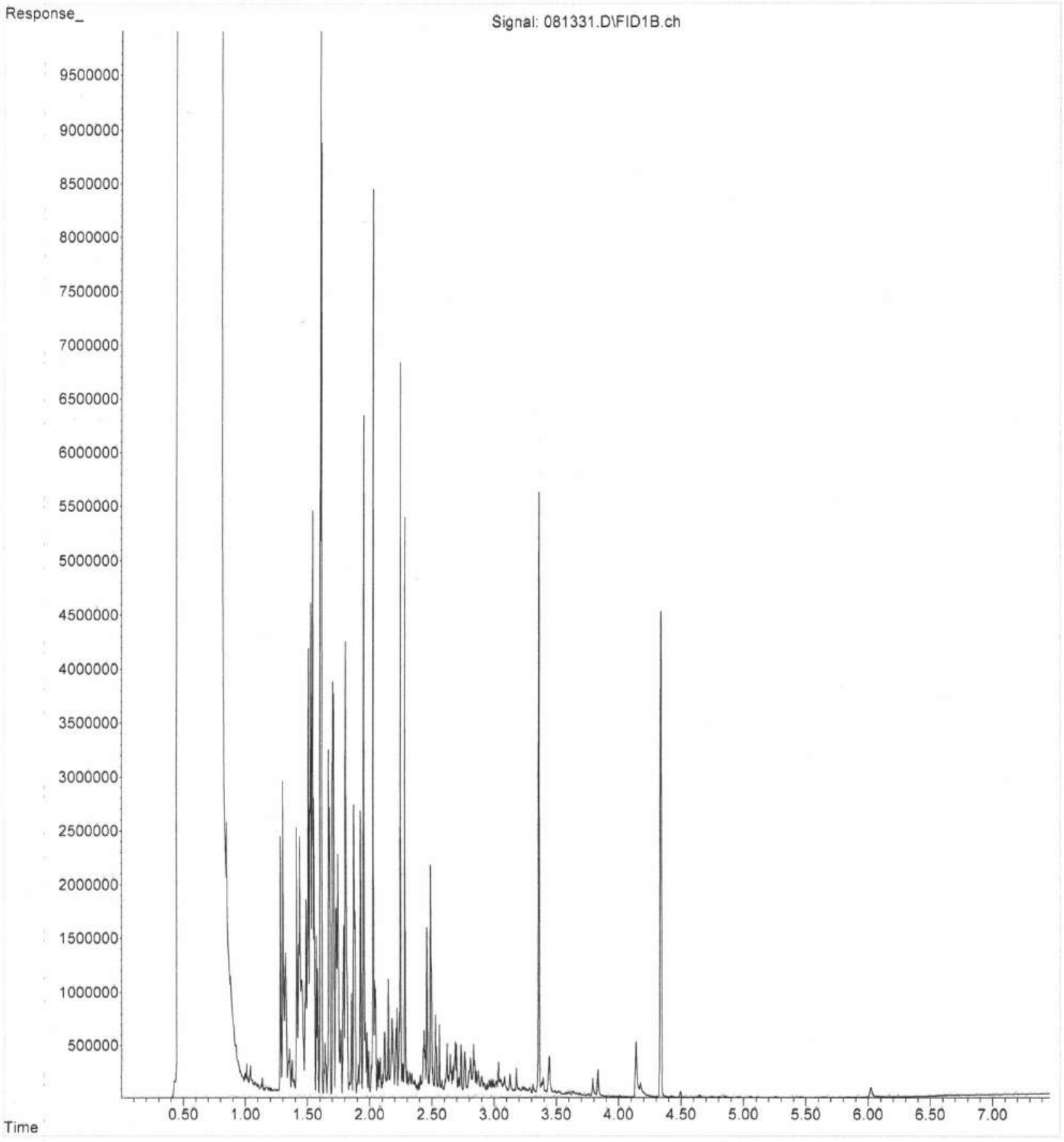


File :P:\Proc_GC14\08-13-24\081330.D
Operator : TL
Acquired : 13 Aug 2024 06:19 pm using AcqMethod DX.M
Instrument : GC14
Sample Name: 408160-04
Misc Info :
Vial Number: 108

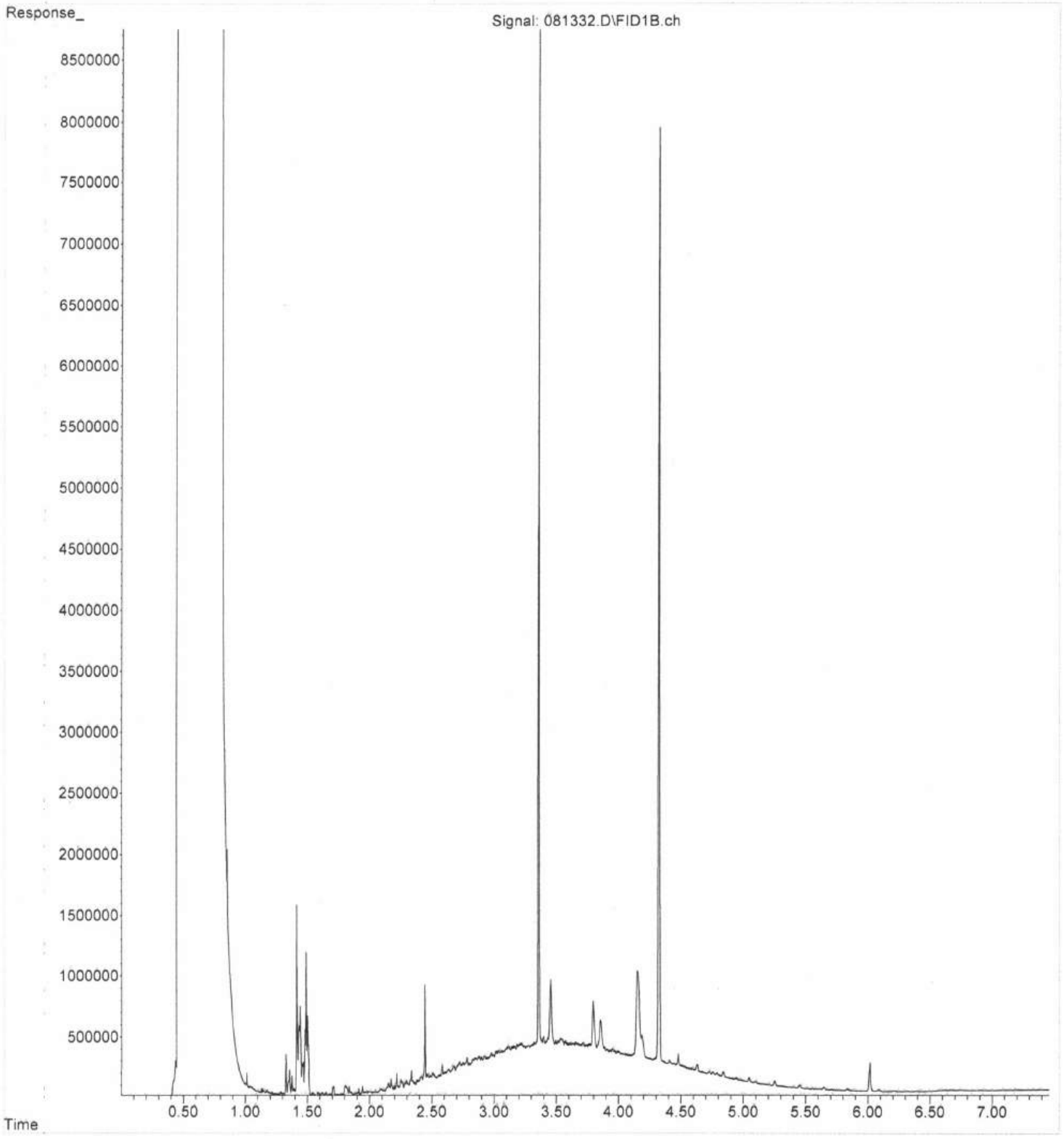
ERR



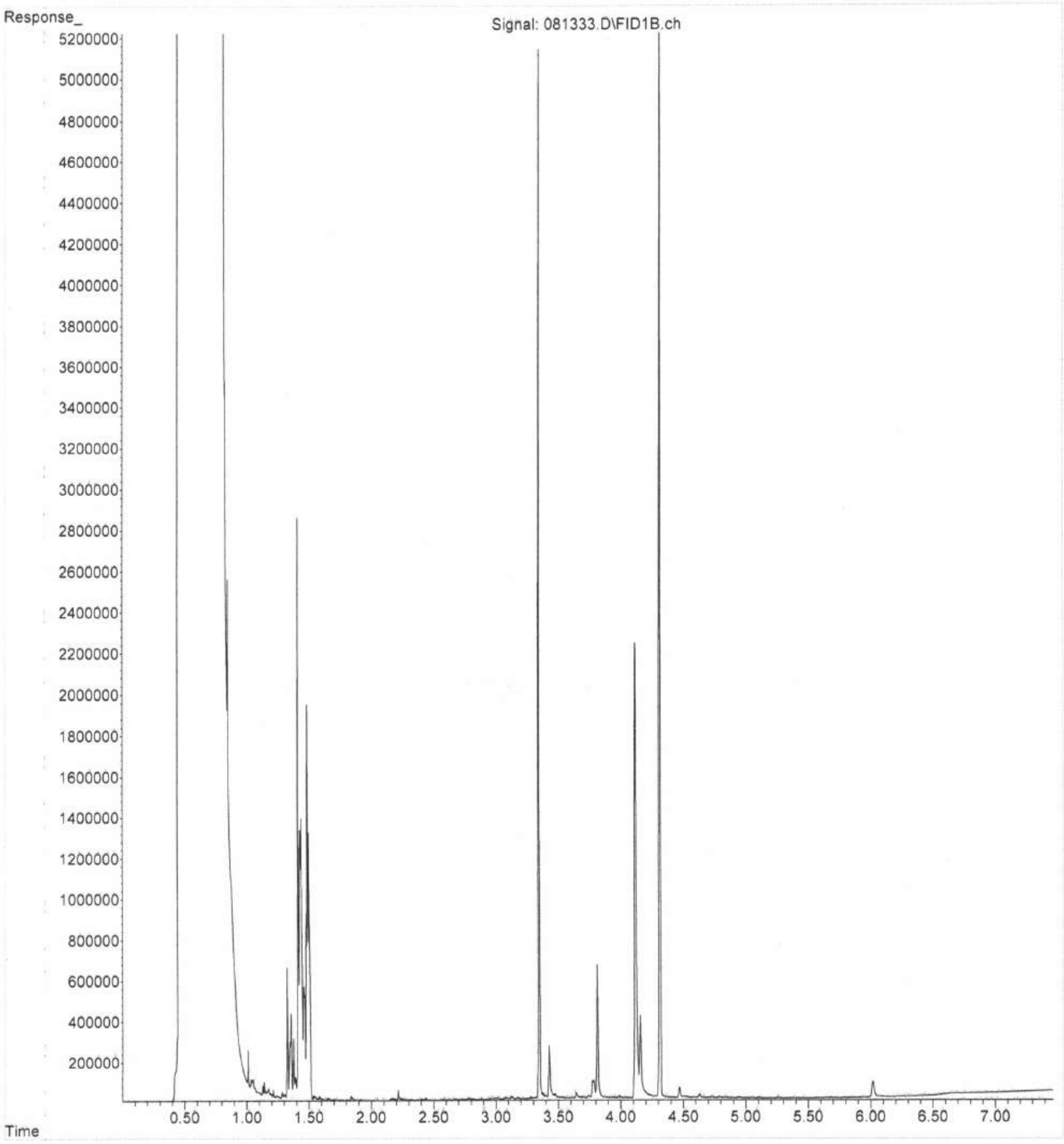
File : P:\Proc_GC14\08-13-24\081331.D
Operator : TL
Acquired : 13 Aug 2024 06:31 pm using AcqMethod DX.M
Instrument : GC14
Sample Name: 408160-05
Misc Info : ERR
Vial Number: 109



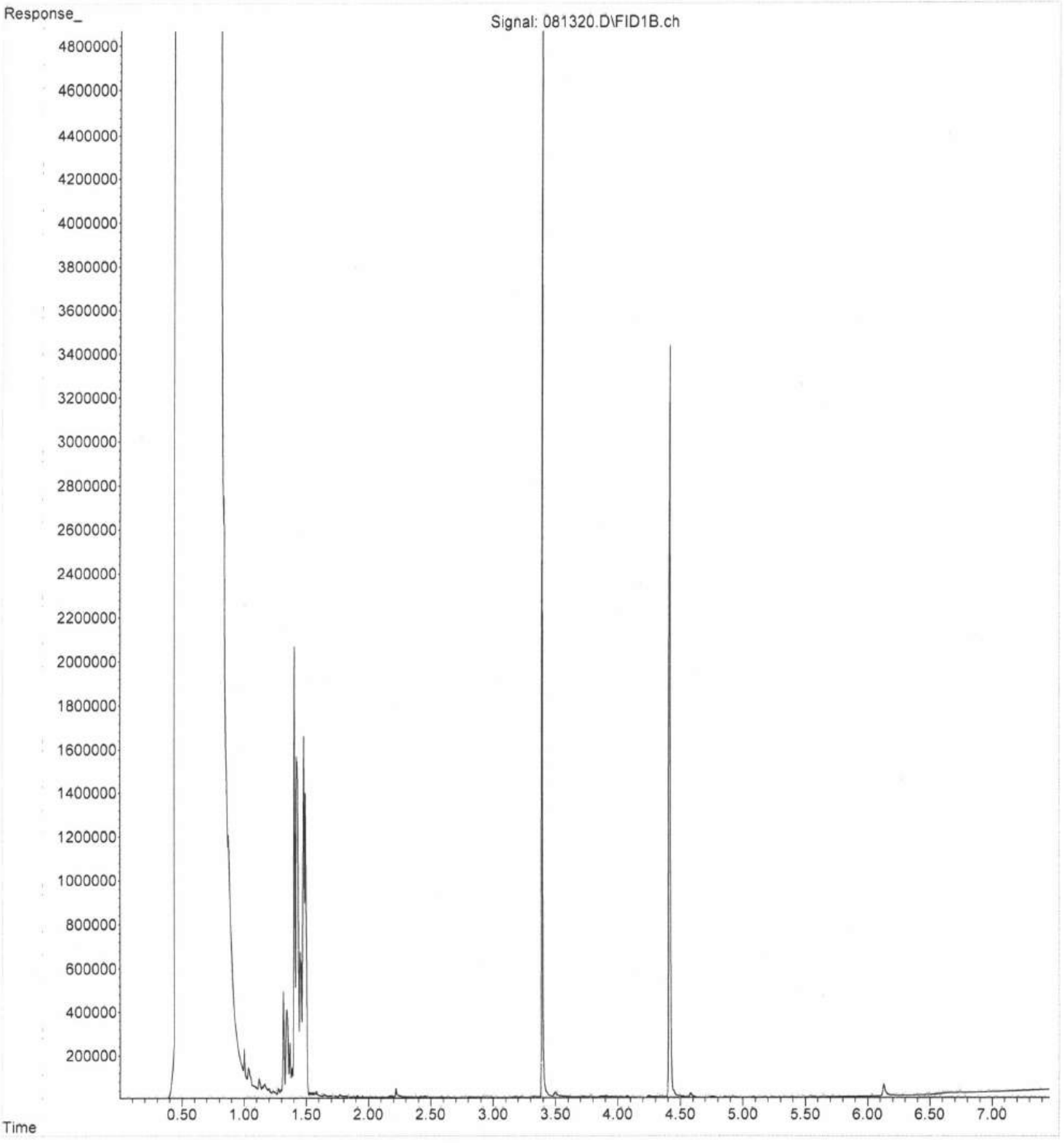
File :P:\Proc_GC14\08-13-24\081332.D
Operator : TL
Acquired : 13 Aug 2024 06:43 pm using AcqMethod DX.M
Instrument : GC14
Sample Name: 408160-07
Misc Info : ERR
Vial Number: 110



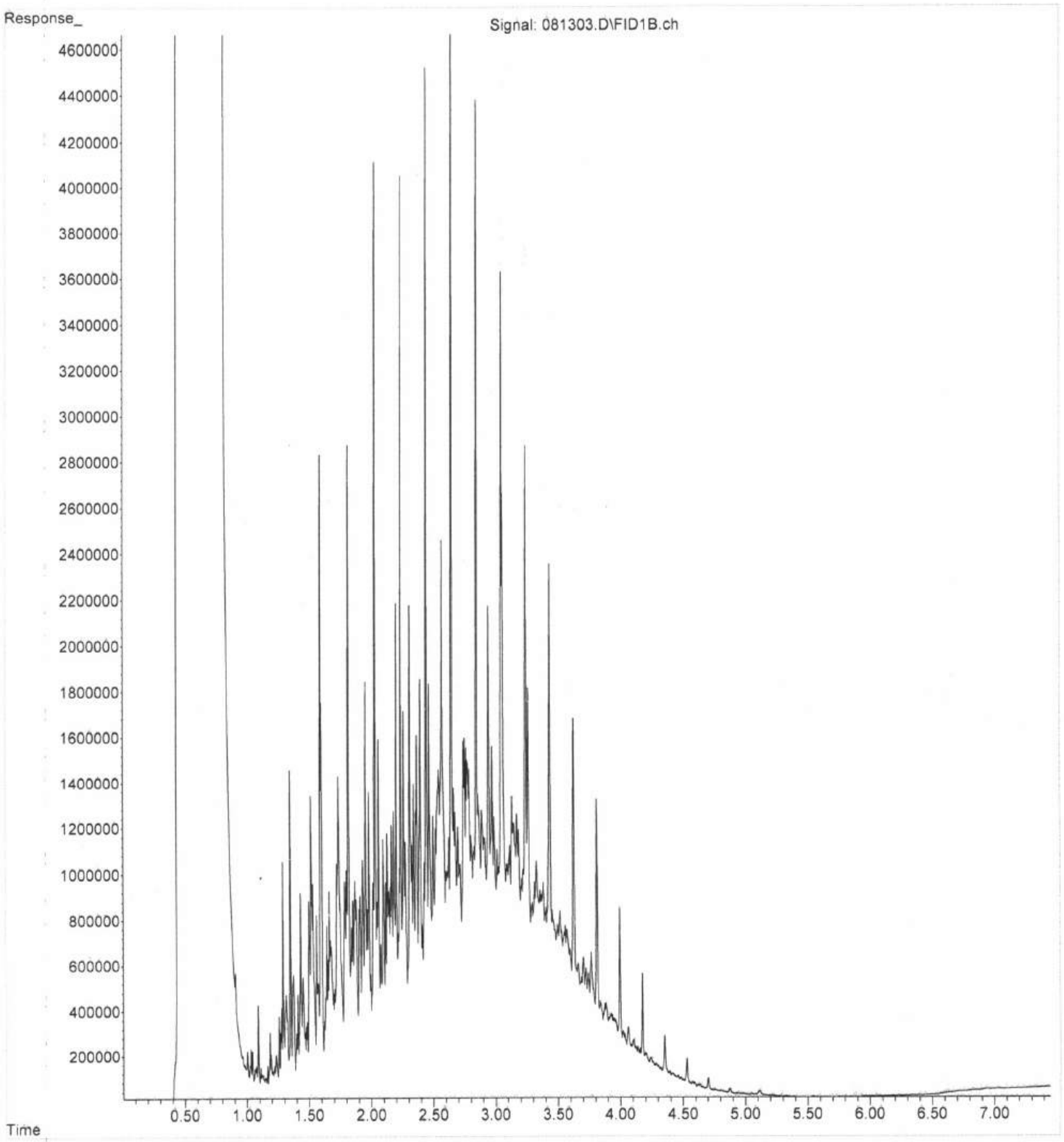
File :P:\Proc_GC14\08-13-24\081333.D
Operator : TL
Acquired : 13 Aug 2024 06:55 pm using AcqMethod DX.M
Instrument : GC14
Sample Name: 408160-10
Misc Info : ERR
Vial Number: 111



File :P:\Proc_GC14\08-13-24\081320.D
Operator : TL
Acquired : 13 Aug 2024 01:51 pm using AcqMethod DX.M
Instrument : GC14
Sample Name: 04-1910 mb
Misc Info : ERR
Vial Number: 102



File : P:\Proc_GC14\08-13-24\081303.D
Operator : TL
Acquired : 13 Aug 2024 09:41 am using AcqMethod DX.M
Instrument : GC14
Sample Name: 500 Dx 71-152C
Misc Info : ERR
Vial Number: 3



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

August 15, 2024

Michael Erdahl
Friedman & Bruya, Inc.
5500 4th Avenue South
Seattle, WA 98108

Re: Analytical Data for Project 408160
Laboratory Reference No. 2408-110

Dear Michael:

Enclosed are the analytical results and associated quality control data for samples submitted on August 9, 2024.

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

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

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: August 15, 2024
Samples Submitted: August 9, 2024
Laboratory Reference: 2408-110
Project: 408160

Case Narrative

Samples were collected on August 8, 2024 and received by the laboratory on August 9, 2024. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below. However the soil results for the QA/QC samples are reported on a wet-weight basis.

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

Date of Report: August 15, 2024
Samples Submitted: August 9, 2024
Laboratory Reference: 2408-110
Project: 408160

DISSOLVED GASES
RSK 175

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags	MDL
Client ID:	**01MW85-080824**						
Laboratory ID:	08-110-01						
Methane	**1000**	5.5	RSK 175	8-13-24	8-13-24		5.2
Ethane	**ND**	0.56	RSK 175	8-13-24	8-13-24		0.33
Ethene	**11**	0.58	RSK 175	8-13-24	8-13-24		0.33
Surrogate:	*Percent Recovery*	*Control Limits*					
1-Butene	*100*	*50-150*					
Client ID:	**MW05-080824**						
Laboratory ID:	08-110-02						
Methane	**31**	0.55	RSK 175	8-13-24	8-13-24		0.52
Ethane	**ND**	0.56	RSK 175	8-13-24	8-13-24		0.33
Ethene	**24**	0.58	RSK 175	8-13-24	8-13-24		0.33
Surrogate:	*Percent Recovery*	*Control Limits*					
1-Butene	*112*	*50-150*					
Client ID:	**MW06-080824**						
Laboratory ID:	08-110-03						
Methane	**29**	0.55	RSK 175	8-13-24	8-13-24		0.52
Ethane	**ND**	0.56	RSK 175	8-13-24	8-13-24		0.33
Ethene	**0.76**	0.58	RSK 175	8-13-24	8-13-24		0.33
Surrogate:	*Percent Recovery*	*Control Limits*					
1-Butene	*108*	*50-150*					

Date of Report: August 15, 2024
Samples Submitted: August 9, 2024
Laboratory Reference: 2408-110
Project: 408160

DISSOLVED GASES
RSK 175
QUALITY CONTROL

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags	MDL
METHOD BLANK							
Laboratory ID:	MB0813W1						
Methane	**ND**	0.55	RSK 175	8-13-24	8-13-24		0.52
Ethane	**ND**	0.56	RSK 175	8-13-24	8-13-24		0.33
Ethene	**ND**	0.58	RSK 175	8-13-24	8-13-24		0.33
Surrogate:	*Percent Recovery*	*Control Limits*					
1-Butene	*98*	*50-150*					

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANK										
Laboratory ID:	SB0813W1									
	SB	SBD	SB	SBD	SB	SBD				
Methane	**45.3**	**43.3**	44.2	44.2	102	98	75-125	5	25	
Ethane	**84.8**	**81.6**	83.2	83.2	102	98	75-125	4	25	
Ethene	**77.7**	**80.3**	77.7	77.7	100	103	75-125	3	25	
Surrogate:										
1-Butene					*104*	*107*	*50-150*			

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1 - Sample extract treated with a sulfuric acid/silica gel cleanup procedure.

X2 - Sample extract treated with a silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Y1 - Negative effects of the matrix from this sample on the instrument caused values for this analyte in the bracketing continuing calibration verification standard (CCVs) to be outside of 20% acceptance criteria. Because of this, quantitation limits and sample concentrations should be considered estimates.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

SUBCONTRACT SAMPLE CHAIN OF CUSTODY

Send Report To Michael Erdahl

Company Friedman & Bruya.

Address 5500 4th Ave S

City, State, ZIP Seattle, WA 98108

Phone # (206) 285-8282 merdahl@friedmanandbruya.com

SUBCONTRACTER
OnSite Environmental 08-110

PROJECT NAME/NO.
408160

PO #
E-339mg

REMARKS
Report to MDL | Floyd Snider
EDD

TURNAROUND TIME
☒ Standard
RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
Dispose after 30 days
Return samples
Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	ANALYSES REQUESTED: Dissolved Gases RSk	Methane, Ethane, Ethene									Notes
01MW85-080824	1	8/8/2024	9:40	water	3	x										
MW05-080824	2	8/8/2024	9:31	water	3	x										
MW06-080824	3	8/8/2024	11:00	water	3	x										

Friedman & Bruya, Inc.
5500 4th Ave S
Seattle, WA 98115
Ph. (206) 285-8282
Fax (206) 283-5044

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		Mac Goldman	Friedman and Bruya	8/9/24	9/31
Received by:		MNOUN	OKE	8/9/24	1500
Relinquished by:					
Received by:					

3600 Fremont Ave N
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

Friedman & Bruya
Michael Erdahl
5500 4th Ave S
Seattle, WA 98108

RE: 408160,
Work Order Number: 2408163

August 16, 2024

Attention Michael Erdahl:

Fremont Analytical, Inc, an Alliance Technical Group company, received 3 sample(s) on 8/9/2024 for the analyses presented in the following report.

Total Organic Carbon by SM 5310C

All analyses were performed according to our accredited Quality Assurance program. Please contact the laboratory if you should have any questions about the results.

Please note, while the appearance of our logo and branding will update, our commitment to accuracy, speed, and customer service remain values celebrated and shared by Alliance Technical Group. Thank you for the opportunity to serve you.

Sincerely,

Brianna Barnes
Project Manager

DoD-ELAP Accreditation #79636 by PJLA, ISO/IEC 17025:2017 and QSM 5.4 for Environmental Testing
ORELAP Certification: WA 100009 (NELAP Recognized) for Environmental Testing
Washington State Department of Ecology Accredited for Environmental Testing, Lab ID C910

Original

Date: *08/16/2024*

CLIENT: Friedman & Bruya
Project: 408160
Work Order: 2408163

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2408163-001	01MW85-080824	08/08/2024 9:40 AM	08/09/2024 4:08 PM
2408163-002	MW05-080824	08/08/2024 9:31 AM	08/09/2024 4:08 PM
2408163-003	MW06-080824	08/08/2024 11:00 AM	08/09/2024 4:08 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

Case Narrative

WO#: **2408163**

Date: **8/16/2024**

CLIENT: Friedman & Bruya
Project: 408160

I. SAMPLE RECEIPT:
Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:
Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:
Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Qualifiers:

* - Flagged value is not within established control limits
B - Analyte detected in the associated Method Blank
D - Dilution was required
E - Value above quantitation range
H - Holding times for preparation or analysis exceeded
I - Analyte with an internal standard that does not meet established acceptance criteria
J - Analyte detected below Reporting Limit
N - Tentatively Identified Compound (TIC)
Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria
S - Spike recovery outside accepted recovery limits
ND - Not detected at the Reporting Limit
R - High relative percent difference observed

Acronyms:

%Rec - Percent Recovery
CCB - Continued Calibration Blank
CCV - Continued Calibration Verification
DF - Dilution Factor
DUP - Sample Duplicate
HEM - Hexane Extractable Material
ICV - Initial Calibration Verification
LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
MCL - Maximum Contaminant Level
MB or MBLANK - Method Blank
MDL - Method Detection Limit
MS/MSD - Matrix Spike / Matrix Spike Duplicate
PDS - Post Digestion Spike
Ref Val - Reference Value
REP - Sample Replicate
RL - Reporting Limit
RPD - Relative Percent Difference
SD - Serial Dilution
SGT - Silica Gel Treatment
SPK - Spike
Surr - Surrogate

CLIENT: Friedman & Bruya
Project: 408160

Lab ID: 2408163-001 **Collection Date:** 8/8/2024 9:40:00 AM
Client Sample ID: **01MW85-080824** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Total Organic Carbon by SM 5310C				Batch ID: R93706		Analyst: SLL
Total Organic Carbon	3.20	0.700		mg/L	1	8/15/2024 8:07:00 PM

Lab ID: 2408163-002 **Collection Date:** 8/8/2024 9:31:00 AM
Client Sample ID: **MW05-080824** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Total Organic Carbon by SM 5310C				Batch ID: R93706		Analyst: SLL
Total Organic Carbon	4.19	0.700		mg/L	1	8/15/2024 9:34:00 PM

Lab ID: 2408163-003 **Collection Date:** 8/8/2024 11:00:00 AM
Client Sample ID: **MW06-080824** **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Total Organic Carbon by SM 5310C				Batch ID: R93706		Analyst: SLL
Total Organic Carbon	3.26	0.700		mg/L	1	8/15/2024 9:56:00 PM

Work Order: 2408163
CLIENT: Friedman & Bruya
Project: 408160

QC SUMMARY REPORT

Total Organic Carbon by SM 5310C

Sample ID: **MB-93706**	SampType: **MBLK**			Units: **mg/L**		Prep Date: **8/15/2024**		RunNo: **93706**		
Client ID: **MBLKW**	Batch ID: **R93706**					Analysis Date: **8/15/2024**		SeqNo: **1956956**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	ND	0.700									

Sample ID: **LCS-93706**	SampType: **LCS**			Units: **mg/L**		Prep Date: **8/15/2024**		RunNo: **93706**		
Client ID: **LCSW**	Batch ID: **R93706**					Analysis Date: **8/15/2024**		SeqNo: **1956957**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	24.6	0.700	25.00	0	98.5	87.6	109				

Sample ID: **2408163-001ADUP**	SampType: **DUP**			Units: **mg/L**		Prep Date: **8/15/2024**		RunNo: **93706**		
Client ID: **01MW85-080824**	Batch ID: **R93706**					Analysis Date: **8/15/2024**		SeqNo: **1956959**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	3.17	0.700						3.203	1.13	20	

Sample ID: **2408163-001AMS**	SampType: **MS**			Units: **mg/L**		Prep Date: **8/15/2024**		RunNo: **93706**		
Client ID: **01MW85-080824**	Batch ID: **R93706**					Analysis Date: **8/15/2024**		SeqNo: **1956960**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	26.4	0.700	25.00	3.203	92.9	76.5	111				

Sample ID: **2408163-001AMSD**	SampType: **MSD**			Units: **mg/L**		Prep Date: **8/15/2024**		RunNo: **93706**		
Client ID: **01MW85-080824**	Batch ID: **R93706**					Analysis Date: **8/15/2024**		SeqNo: **1956961**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	26.2	0.700	25.00	3.203	91.8	76.5	111	26.43	1.01	30	

Sample Log-In Check List

Client Name:	FB	Work Order Number:	2408163
Logged by:	Clare Griggs	Date Received:	8/9/2024 4:08:00 PM

Chain of Custody

1.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2.	How was the sample delivered?	Client		

Log In

3.	Custody Seals present on shipping container/cooler? (Refer to comments for Custody Seals not intact)	Yes ☐	No ☐	Not Present ☑
4.	Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5.	Were all items received at a temperature of >2°C to 6°C *	Yes ☑	No ☐	NA ☐
6.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
7.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8.	Are samples properly preserved?	Yes ☑	No ☐	
9.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10.	Is there headspace in the VOA vials?	Yes ☐	No ☐	NA ☑
11.	Did all samples containers arrive in good condition(unbroken)?	Yes ☑	No ☐	
12.	Does paperwork match bottle labels?	Yes ☑	No ☐	
13.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14.	Is it clear what analyses were requested?	Yes ☑	No ☐	
15.	Were all hold times (except field parameters, pH e.g.) able to be met?	Yes ☑	No ☐	

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified:		Date:	
By Whom:		Via:	☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:			
Client Instructions:			

17. Additional remarks:

Item Information

Item #	Temp ºC
Sample	3.1

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

SUBCONTRACT SAMPLE CHAIN OF CUSTODY

Page # 1 of 1

Send Report To Michael Erdahl

Company Friedman & Bruya.

Address 5500 4th Ave S

City, State, ZIP Seattle, WA 98108

Phone # (206) 285-8282 merdahl@friedmanandbruya.com

SUBCONTRACTER
Alliance Technical Group

PROJECT NAME/NO.	PO #
408160	E-340mg

REMARKS

Floyd Snider EDD 24081163

TURNAROUND TIME
☒ Standard
RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
Dispose after 30 days
Return samples
Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	ANALYSES REQUESTED: TOC										Notes
01MW85-080824		8/8/2024	9:40	water	1	x										
MW05-080824		8/8/2024	9:31	water	1	x										
MW06-080824		8/8/2024	11:00	water	1	x										

Friedman & Bruya, Inc.
5500 4th Ave S
Seattle, WA 98115
Ph. (206) 285-8282
Fax (206) 283-5044

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		Mac Goldman	Friedman and Bruya	8/9/24	9:31
Received by:		Jack Hawthorne	AFG	8/9/24	1608
Relinquished by:					
Received by:					