January 17, 2023

Dale Myers
Washington State Department of Ecology
Northwest Regional Office
15700 Dayton Avenue North
Shoreline, WA 98133

Re: Progress Report No. 17 – 4th Quarter 2022
Texaco Strickland Cleanup Site
6808 196th Street SW
Lynnwood, Washington
Agreed Order No. 14315
Ecology PM – Dale Myers
Aspect Project No. 180357

Dear Dale:

Aspect Consulting, LLC (Aspect) is pleased to provide Progress Report No. 17 on behalf of potentially liable persons (PLPs) Strickland Real Estate Holdings (SREH) and Chevron Environmental Management Company (CEMC), who are signatories to Washington State Department of Ecology (Ecology) Agreed Order (AO) #14315, effective September 10, 2018, for the Texaco Strickland Site (Site). The AO requires that the PLPs submit quarterly progress reports to Ecology until satisfaction of the Agreed Order.

This Progress Report No. 17 is for the fourth quarter 2022 reporting period ending on December 31, 2022.

Progress Made During the Reporting Period

The Remedial Investigation (RI) and Interim Action (IA) for the Site are progressing on separate tracks. The following sections detail the progress made for each during the reporting period.

Remedial Investigation

All data gaps identified in the RI Work Plan have been closed, except one: assessment of potential petroleum vapor impacts within the Chri-Mar Apartment building, which is south-adjacent to the Site. A Tier II vapor intrusion assessment was reported to Ecology in the final Vapor Intrusion Assessment Report (VIAR) on March 28, 2022. Ecology requested a second round of ambient, crawlspace, indoor air, and soil gas sampling be conducted in accordance with the sampling procedures outlined in the VIAR.

The second air sampling event was conducted on November 15 and 16, 2022 after the IA excavation and soil export was completed by November 3. Analytical results for air (both crawlspace and indoor air) were adjusted for ambient, background conditions in accordance with Ecology guidance (Ecology, 2022) and compared to the generic MTCA Method B cleanup level for

total petroleum hydrocarbons (TPH[1]) in indoor air. Adjusted indoor air concentrations of benzene, naphthalene, and TPH exceeded their respective MTCA Method B cleanup levels in one or more indoor air sample locations during the November 2022 sampling event. Draft, unvalidated sampling results were transmitted to Ecology on December 13, 2022.

Interim Action

Progress on the IA during the fourth quarter 2022 is summarized as follows:

- Continued export of petroleum-contaminated soil and disposal at the Cadman facility in Everett.
- Advanced excavation and lagging to final excavation limits (maximum of 25 feet deep) and installed all tiebacks.
- Transmitted IA Status Letter to Ecology on December 8, 2022, that contained all performance sampling results and laboratory reports available to date.
- Achieved planned excavation limits on October 31, 2022. Overexcavation of the one performance soil sample in eastern sidewall, which exceeded remediation levels, occurred between December 6 and 7, 2022.
- Contaminated soil between the north wall and the property boundary is being excavated using a vactor truck. It is anticipated that exceedances of remediation levels will remain at the final north wall limits in off-Property soils in the right-of-way.
- Initiated backfill of excavation on October 31, 2022, and substantially completed backfill on December 9, 2022. Crushed surfacing base course was imported for final grade completion on December 13 and 27, 2022.

Sampling and/or Testing Reports Received

IA performance soil sampling results from the eastern sidewall overexcavation and north wall vactor excavation are included in Table 1 and Attachment A.

Summary of Deviations

North wall vactor excavation was added to the IA scope to remove contaminated soil between the north shoring wall and the property line. This was described in the December 8, 2022 IA Status Letter.

Contacts with Other Entities or Public

November 2022 Air Analytical Results were transmitted to Ecology on December 13, 2022. Per Ecology's request, the November 2022 Air Analytical Results were transmitted to the Snohomish County Health District on December 14, 2022.

Potential Problems and Suggested Solutions

No potential problems are anticipated for first quarter 2023 activities.

[1] TPH in air is the sum of Ecology guidance specified aliphatic hydrocarbons, aromatic hydrocarbons, and gasoline-range VOCs.

Changes in Key Personnel

No changes in key personnel occurred during fourth quarter 2022.

Activities Planned for the Next Reporting Period

The following activities for the RI and IA are planned for the first quarter 2023:

Remedial Investigation

- As a result of the November 2022 air sampling event results, Ecology requested urgent implementation of crawlspace ventilation for the protection of potential indoor air exposure at the Chri-Mar Apartment building. Aspect prepared a Draft Ventilation Work Plan, transmitted for Ecology review on January 6, 2023 and implemented crawlspace ventilation on January 10, 2023.
- Prior to ventilation, air sampling was conducted on January 9, 2023. Once the crawlspace ventilation has been active for a minimum of one month, the air sampling will be repeated. Both events will be conducted in accordance with the sampling procedures in the VIAR.
- As a result of the November 2022 air sampling results, Aspect filed an AO Schedule Extension Request on December 13, 2022, which was granted. The Agency Review Draft RI Report is now due to Ecology on July 10, 2023.

Interim Action

- The IA substantial completion date was January 6, 2023. The schedule was extended to accommodate eastern sidewall overexcavation and north wall excavation. Weather-induced delays were also encountered in the second half of December during north wall vactor excavation.
- The north wall excavation extends to the property line and additional overexcavation of the sidewall is impracticable, regardless of performance sampling results.. All other soil performance sampling at excavation sidewalls and excavation bottom verify compliance with remediation levels.
- Aspect will begin preparation of the Ecology Review Draft Interim Action Report (IAR), which is due to Ecology within 90 days of construction completion and receipt of all analytical results.

The next quarterly progress report will be submitted on or before April 10, 2023.

If you have any questions concerning this progress report, please contact Adam Griffin at 206-780-7746.

Sincerely,

Aspect Consulting, LLC

Adam Griffin, PE
Associate Remediation Engineer
agriffin@aspectconsulting.com

Breeyn Greer, PE
Project Engineer
bgreer@aspectconsulting.com

Attachments:
Table 1 – IA Soil Performance Sampling results received since December 8, 2022
Attachment A – IA Laboratory Reports received since December 8, 2022

cc: Ryan Megenity – Rainier Property Management Co. LLC
Doug Steding – Northwest Resource Law PLLC
Nate Blomgren – Chevron Environmental Management Company
Jon-Erik Magnus – Rogers Joseph O'Donnell PLLC
Robert Goodman – Rogers Joseph O'Donnell PLLC
Eric Epple – Arcadis
Ada Hamilton – Arcadis

V:\180357 Aloha Cafe\Deliverables\AO Progress Reports\2022_Q4\Texaco Strickland AO Progress Report No. 17_2023.01.03.docx

TABLE

Table 1. December 2022 IA Performance Sampling Results

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

			Location	B-N14-W14	PL-N07	PL-N07	SW-E12	SW-E14	SW-E15
			Date	12/06/2022	12/08/2022	12/08/2022	12/07/2022	12/07/2022	12/07/2022
			Sample	N14-W14-439	PL-N07-447	PL-N07-442	N15-W12-442	N16-W14-442	N15-W15-442
			Elevation (ft)	439	447	442	442	442	442
Analyte	**Unit**	**Interim Action Soil Remediation Level**							
TPH									
Gasoline Range Organics	mg/kg	30	< 5 U	< 5 U	**1400**	< 5 U	< 5 U	< 5 U
Diesel Range Organics	mg/kg	2000	< 50 U	< 50 U	**400 X**	< 50 U	< 50 U	< 50 U
Motor Oil Range Organics	mg/kg	2000	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U	< 250 U
Diesel and Oil Extended Range Organics	mg/kg	2000	< 250 U	< 250 U	**400 X**	< 250 U	< 250 U	< 250 U
BTEX									
Benzene	mg/kg	0.03	< 0.03 U	< 0.03 U	< 0.03 U	< 0.03 U	< 0.03 U	< 0.03 U
Toluene	mg/kg	7	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U
Ethylbenzene	mg/kg	6	< 0.05 U	< 0.05 U	**12**	< 0.05 U	< 0.05 U	< 0.05 U
Total Xylenes	mg/kg	9	< 0.1 U	< 0.1 U	**65**	< 0.1 U	< 0.1 U	< 0.1 U
PAHs									
Naphthalene	mg/kg	5	< 0.05 U	< 0.05 U	**10**	< 0.05 U	< 0.05 U	< 0.05 U

Notes:

Bold - detected

Blue Shaded - Detected result or nondetected RL exceeded screening level

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

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

TPH - Total Petroleum Hydrocarbons

BTEX - Benzene, toluene, ethylbenzene, and xylenes

PAHs - Polycyclic aromatic hydrocarbons

ATTACHMENT A

IA Laboratory Reports received since December 8, 2022

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 1, 2022

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

Dear Mr Yonkofski:

Included are the results from the testing of material submitted on November 17, 2022 from the Texaco Strickland 180357, F&BI 211255 project. There are 34 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
ASP1201R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on November 17, 2022 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Texaco Strickland 180357, F&BI 211255 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Aspect Consulting, LLC
211255 -01	CS-125-111622
211255 -02	CS-127-111622
211255 -03	CS-129-111622
211255 -04	CS-131-111622
211255 -05	IA-125-1-111622
211255 -06	IA-125-2-111622
211255 -07	IA-127-1-111622
211255 -08	IA-127-2-111622
211255 -09	IA-129-1-111622
211255 -10	IA-129-2-111622
211255 -11	IA-131-1-111622
211255 -12	IA-FD-111622
211255 -13	AMB-1-111622
211255 -14	AMB-2-111622

Individually certified canisters were provided for TO-15 sampling.

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

All quality control requirements were acceptable.

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	CS-125-111622	Client:	Aspect Consulting, LLC
Date Received:	11/17/22	Project:	Texaco Strickland 180357
Date Collected:	11/16/22	Lab ID:	211255-01
Date Analyzed:	11/19/22	Data File:	111824.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
APH EC5-8 aliphatics	2,200
APH EC9-12 aliphatics	35
APH EC9-10 aromatics	<25

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	CS-127-111622	Client:	Aspect Consulting, LLC
Date Received:	11/17/22	Project:	Texaco Strickland 180357
Date Collected:	11/16/22	Lab ID:	211255-02
Date Analyzed:	11/19/22	Data File:	111823.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	85	70	130

Compounds:	Concentration ug/m3
APH EC5-8 aliphatics	750
APH EC9-12 aliphatics	<25
APH EC9-10 aromatics	<25

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	CS-129-111622	Client:	Aspect Consulting, LLC
Date Received:	11/17/22	Project:	Texaco Strickland 180357
Date Collected:	11/16/22	Lab ID:	211255-03
Date Analyzed:	11/19/22	Data File:	111822.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
APH EC5-8 aliphatics	1,500
APH EC9-12 aliphatics	<25
APH EC9-10 aromatics	<25

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	CS-131-111622	Client:	Aspect Consulting, LLC
Date Received:	11/17/22	Project:	Texaco Strickland 180357
Date Collected:	11/16/22	Lab ID:	211255-04
Date Analyzed:	11/19/22	Data File:	111821.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
APH EC5-8 aliphatics	360
APH EC9-12 aliphatics	37
APH EC9-10 aromatics	<25

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	IA-125-1-111622	Client:	Aspect Consulting, LLC
Date Received:	11/17/22	Project:	Texaco Strickland 180357
Date Collected:	11/16/22	Lab ID:	211255-05
Date Analyzed:	11/19/22	Data File:	111820.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
APH EC5-8 aliphatics	77
APH EC9-12 aliphatics	140
APH EC9-10 aromatics	<25

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	IA-125-2-111622	Client:	Aspect Consulting, LLC
Date Received:	11/17/22	Project:	Texaco Strickland 180357
Date Collected:	11/16/22	Lab ID:	211255-06
Date Analyzed:	11/19/22	Data File:	111819.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	86	70	130

Compounds:	Concentration ug/m3
APH EC5-8 aliphatics	85
APH EC9-12 aliphatics	130
APH EC9-10 aromatics	<25

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	IA-127-1-111622	Client:	Aspect Consulting, LLC
Date Received:	11/17/22	Project:	Texaco Strickland 180357
Date Collected:	11/16/22	Lab ID:	211255-07
Date Analyzed:	11/19/22	Data File:	111818.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	86	70	130

Compounds:	Concentration ug/m3
APH EC5-8 aliphatics	<75
APH EC9-12 aliphatics	38
APH EC9-10 aromatics	<25

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	IA-127-2-111622	Client:	Aspect Consulting, LLC
Date Received:	11/17/22	Project:	Texaco Strickland 180357
Date Collected:	11/16/22	Lab ID:	211255-08
Date Analyzed:	11/19/22	Data File:	111817.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

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

Compounds:	Concentration ug/m3
APH EC5-8 aliphatics	<75
APH EC9-12 aliphatics	41
APH EC9-10 aromatics	<25

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	IA-129-1-111622	Client:	Aspect Consulting, LLC
Date Received:	11/17/22	Project:	Texaco Strickland 180357
Date Collected:	11/16/22	Lab ID:	211255-09
Date Analyzed:	11/19/22	Data File:	111816.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	89	70	130

Compounds:	Concentration ug/m3
APH EC5-8 aliphatics	94
APH EC9-12 aliphatics	62
APH EC9-10 aromatics	<25

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	IA-129-2-111622	Client:	Aspect Consulting, LLC
Date Received:	11/17/22	Project:	Texaco Strickland 180357
Date Collected:	11/16/22	Lab ID:	211255-10
Date Analyzed:	11/19/22	Data File:	111815.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
APH EC5-8 aliphatics	76
APH EC9-12 aliphatics	26
APH EC9-10 aromatics	<25

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	IA-131-1-111622	Client:	Aspect Consulting, LLC
Date Received:	11/17/22	Project:	Texaco Strickland 180357
Date Collected:	11/16/22	Lab ID:	211255-11
Date Analyzed:	11/19/22	Data File:	111814.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	86	70	130

Compounds:	Concentration ug/m3
APH EC5-8 aliphatics	100
APH EC9-12 aliphatics	54
APH EC9-10 aromatics	<25

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	IA-FD-111622	Client:	Aspect Consulting, LLC
Date Received:	11/17/22	Project:	Texaco Strickland 180357
Date Collected:	11/16/22	Lab ID:	211255-12
Date Analyzed:	11/18/22	Data File:	111813.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	88	70	130

Compounds:	Concentration ug/m3
APH EC5-8 aliphatics	93
APH EC9-12 aliphatics	47
APH EC9-10 aromatics	<25

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	AMB-1-111622	Client:	Aspect Consulting, LLC
Date Received:	11/17/22	Project:	Texaco Strickland 180357
Date Collected:	11/16/22	Lab ID:	211255-13
Date Analyzed:	11/18/22	Data File:	111812.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

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

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

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	AMB-2-111622	Client:	Aspect Consulting, LLC
Date Received:	11/17/22	Project:	Texaco Strickland 180357
Date Collected:	11/16/22	Lab ID:	211255-14
Date Analyzed:	11/18/22	Data File:	111811.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	83	70	130

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

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Texaco Strickland 180357
Date Collected:	Not Applicable	Lab ID:	02-2771 MB
Date Analyzed:	11/18/22	Data File:	111810.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	83	70	130

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

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	CS-125-111622	Client:	Aspect Consulting, LLC
Date Received:	11/17/22	Project:	Texaco Strickland 180357
Date Collected:	11/16/22	Lab ID:	211255-01
Date Analyzed:	11/19/22	Data File:	111824.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	0.76	0.24
Toluene	<19	<5
Ethylbenzene	0.90	0.21
m,p-Xylene	3.5	0.81
o-Xylene	1.2	0.27
Naphthalene	0.079 j	0.015 j

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	CS-127-111622	Client:	Aspect Consulting, LLC
Date Received:	11/17/22	Project:	Texaco Strickland 180357
Date Collected:	11/16/22	Lab ID:	211255-02
Date Analyzed:	11/19/22	Data File:	111823.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

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

Compounds:	Concentration ug/m3	ppbv
Benzene	0.63	0.20
Toluene	<19	<5
Ethylbenzene	0.55	0.13
m,p-Xylene	2.1	0.49
o-Xylene	0.73	0.17
Naphthalene	0.42	0.08

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	CS-129-111622	Client:	Aspect Consulting, LLC
Date Received:	11/17/22	Project:	Texaco Strickland 180357
Date Collected:	11/16/22	Lab ID:	211255-03
Date Analyzed:	11/19/22	Data File:	111822.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	0.71	0.22
Toluene	<19	<5
Ethylbenzene	0.60	0.14
m,p-Xylene	2.3	0.53
o-Xylene	0.80	0.18
Naphthalene	0.047 j	0.009 j

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	CS-131-111622	Client:	Aspect Consulting, LLC
Date Received:	11/17/22	Project:	Texaco Strickland 180357
Date Collected:	11/16/22	Lab ID:	211255-04
Date Analyzed:	11/19/22	Data File:	111821.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	0.62	0.19
Toluene	<19	<5
Ethylbenzene	0.59	0.14
m,p-Xylene	2.4	0.54
o-Xylene	0.81	0.19
Naphthalene	<0.047 j	<0.0089 j

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	IA-125-1-111622	Client:	Aspect Consulting, LLC
Date Received:	11/17/22	Project:	Texaco Strickland 180357
Date Collected:	11/16/22	Lab ID:	211255-05
Date Analyzed:	11/19/22	Data File:	111820.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	0.62	0.19
Toluene	<19	<5
Ethylbenzene	0.50	0.12
m,p-Xylene	1.5	0.34
o-Xylene	0.61	0.14
Naphthalene	0.12	0.022

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	IA-125-2-111622	Client:	Aspect Consulting, LLC
Date Received:	11/17/22	Project:	Texaco Strickland 180357
Date Collected:	11/16/22	Lab ID:	211255-06
Date Analyzed:	11/19/22	Data File:	111819.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	0.61	0.19
Toluene	<19	<5
Ethylbenzene	0.48	0.11
m,p-Xylene	1.4	0.33
o-Xylene	0.56	0.13
Naphthalene	0.14	0.026

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	IA-127-1-111622	Client:	Aspect Consulting, LLC
Date Received:	11/17/22	Project:	Texaco Strickland 180357
Date Collected:	11/16/22	Lab ID:	211255-07
Date Analyzed:	11/19/22	Data File:	111818.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	0.47	0.15
Toluene	<19	<5
Ethylbenzene	<0.43	<0.1
m,p-Xylene	1.1	0.24
o-Xylene	0.46	0.10
Naphthalene	0.079	0.015 j

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	IA-127-2-111622	Client:	Aspect Consulting, LLC
Date Received:	11/17/22	Project:	Texaco Strickland 180357
Date Collected:	11/16/22	Lab ID:	211255-08
Date Analyzed:	11/19/22	Data File:	111817.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

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

Compounds:	Concentration ug/m3	ppbv
Benzene	0.46	0.14
Toluene	<19	<5
Ethylbenzene	<0.43	<0.1
m,p-Xylene	0.97	0.22
o-Xylene	<0.43	<0.1
Naphthalene	0.079	0.015 j

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	IA-129-1-111622	Client:	Aspect Consulting, LLC
Date Received:	11/17/22	Project:	Texaco Strickland 180357
Date Collected:	11/16/22	Lab ID:	211255-09
Date Analyzed:	11/19/22	Data File:	111816.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	97	70	130

Compounds:	Concentration ug/m3	ppbv
Benzene	0.51	0.16
Toluene	<19	<5
Ethylbenzene	<0.43	<0.1
m,p-Xylene	1.0	0.23
o-Xylene	<0.43	<0.1
Naphthalene	0.23	0.044

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	IA-129-2-111622	Client:	Aspect Consulting, LLC
Date Received:	11/17/22	Project:	Texaco Strickland 180357
Date Collected:	11/16/22	Lab ID:	211255-10
Date Analyzed:	11/19/22	Data File:	111815.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	0.53	0.17
Toluene	<19	<5
Ethylbenzene	<0.43	<0.1
m,p-Xylene	0.89	0.20
o-Xylene	<0.43	<0.1
Naphthalene	0.13	0.025

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	IA-131-1-111622	Client:	Aspect Consulting, LLC
Date Received:	11/17/22	Project:	Texaco Strickland 180357
Date Collected:	11/16/22	Lab ID:	211255-11
Date Analyzed:	11/19/22	Data File:	111814.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	0.87	0.27
Toluene	<19	<5
Ethylbenzene	0.46	0.10
m,p-Xylene	1.4	0.33
o-Xylene	0.51	0.12
Naphthalene	0.24	0.046

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	IA-FD-111622	Client:	Aspect Consulting, LLC
Date Received:	11/17/22	Project:	Texaco Strickland 180357
Date Collected:	11/16/22	Lab ID:	211255-12
Date Analyzed:	11/18/22	Data File:	111813.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	96	70	130

Compounds:	Concentration ug/m3	ppbv
Benzene	0.88	0.28
Toluene	<19	<5
Ethylbenzene	0.46	0.11
m,p-Xylene	1.4	0.32
o-Xylene	0.51	0.12
Naphthalene	0.26	0.050

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	AMB-1-111622	Client:	Aspect Consulting, LLC
Date Received:	11/17/22	Project:	Texaco Strickland 180357
Date Collected:	11/16/22	Lab ID:	211255-13
Date Analyzed:	11/18/22	Data File:	111812.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

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

Compounds:	Concentration ug/m3	ppbv
Benzene	0.7	0.22
Toluene	<19	<5
Ethylbenzene	<0.43	<0.1
m,p-Xylene	1.1	0.24
o-Xylene	<0.43	<0.1
Naphthalene	0.057 j	0.011 j

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	AMB-2-111622	Client:	Aspect Consulting, LLC
Date Received:	11/17/22	Project:	Texaco Strickland 180357
Date Collected:	11/16/22	Lab ID:	211255-14
Date Analyzed:	11/18/22	Data File:	111811.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

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

Compounds:	Concentration ug/m3	ppbv
Benzene	0.69	0.21
Toluene	<19	<5
Ethylbenzene	<0.43	<0.1
m,p-Xylene	1.1	0.24
o-Xylene	<0.43	<0.1
Naphthalene	<0.047 j	<0.0089 j

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Texaco Strickland 180357
Date Collected:	Not Applicable	Lab ID:	02-2771 MB
Date Analyzed:	11/18/22	Data File:	111810.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

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

Compounds:	Concentration ug/m3	ppbv
Benzene	<0.32	<0.1
Toluene	<19	<5
Ethylbenzene	<0.43	<0.1
m,p-Xylene	<0.87	<0.2
o-Xylene	<0.43	<0.1
Naphthalene	<0.047 j	<0.0089 j

Date of Report: 12/01/22
Date Received: 11/17/22
Project: Texaco Strickland 180357, F&BI 211255

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

Laboratory Code: 211168-01 1/7.1 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
APH EC5-8 aliphatics	ug/m3	1,300	1,400	7
APH EC9-12 aliphatics	ug/m3	370	370	0
APH EC9-10 aromatics	ug/m3	<180	<180	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
APH EC5-8 aliphatics	ug/m3	67	92	70-130
APH EC9-12 aliphatics	ug/m3	67	115	70-130
APH EC9-10 aromatics	ug/m3	67	111	70-130

Date of Report: 12/01/22
Date Received: 11/17/22
Project: Texaco Strickland 180357, F&BI 211255

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

Laboratory Code: 211168-01 1/7.1 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
Benzene	ug/m3	<2.3	<2.3	nm
Toluene	ug/m3	<130	<130	nm
Ethylbenzene	ug/m3	8.1	8.1	0
m,p-Xylene	ug/m3	28	28	0
o-Xylene	ug/m3	9.6	9.7	1
Naphthalene	ug/m3	<1.9	<1.9	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	ug/m3	43	91	70-130
Toluene	ug/m3	51	92	70-130
Ethylbenzene	ug/m3	59	90	70-130
m,p-Xylene	ug/m3	120	90	70-130
o-Xylene	ug/m3	59	92	70-130
Naphthalene	ug/m3	71	70	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. 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 lowest calibration standard. 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.

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.

211255

SAMPLE CHAIN OF CUSTODY

11/17/22

Report To Andrew YonKofski

Company Aspect Consulting

Address

City, State, ZIP

Phone Email

SAMPLERS (signature)

PROJECT NAME & ADDRESS: Texaco Strickland

PO #: 180357

NOTES:

INVOICE TO

TURNAROUND TIME
☑ Standard
RUSH
Rush charges authorized by:

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

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	TO15 cVOCs	APH	Helium		Notes
CS-125-111622	01	18566	15209	(IA) / SG	11/16/22	30	0940	6	0930		X		X			
CS-127-111622	02	20545 ~~152~~	06602	(IA) / SG		30	0940	8	0930							
CS-129-111622	03	40708	05551	(IA) / SG		30	0940	2	0901							
CS-131-111622	04	18561	15211	(IA) / SG		30	0940	4	0901							
IA-125-1-111622	05	35331	15212	(IA) / SG		730	0955	8	0940							
IA-125-2-111622	06	37235	05356	(IA) / SG		30	8 LL 1000	6	0945							
IA-127-1-111622	07	20541	15218	(IA) / SG		730	1017	6	1007							
IA-127-2-111622	08	20551	15216	(IA) / SG	↓	730	1018	7	1008		↓		↓			

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Lillian Graham	Aspect	11/17/22	1140
Received by:				
Relinquished by:				
Received by:	ANH PHAN	FSB	11/17/22	11:40

Samples received at 19 °C

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

211255

SAMPLE CHAIN OF CUSTODY

11/17/22

Page # 2 of 2

Report To _____

Company _____

Address _____

City, State, ZIP _____

Phone _____ Email _____

SAMPLERS (signature)	
PROJECT NAME & ADDRESS	PO #
NOTES:	INVOICE TO

TURNAROUND TIME
Standard
RUSH _____
Rush charges authorized by: _____

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

SAMPLE INFORMATION

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: TO15 Full Scan	TO15 BTEXN	TO15 cVOCs	APH	Helium		Notes
IA-129-1-111622	09	18564	15217	(IA) / SG	11/16/22	29	1029	6	1015		X		X			
IA-129-2-111622	10	37203	15208	(IA) / SG	↓	>30	1030	7	1017		↓		↓			
IA-131-1-111622	11	20555	05349	(IA) / SG		30	1042	6	1029							
IA-FD-111622	12	37214	07848	(IA) / SG		29	1042	5	1029							
AMB-1-111622	13	40703	07870	(IA) / SG		>30	1107	5	1053							
AMB-2-111622	14	40707	06605	(IA) / SG	↓	>30	1059	7	1048		↓		↓			
				IA / SG												
				IA / SG	↓											

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

FORMS\COC\COCTO-15.DOC

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Lillian Graham	Aspect	11/17/22	1140
Received by:				
Relinquished by:				
Received by:	ANH PHAN	F&B	11/17/22	11:40

Samples received at 19 °C

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 9, 2022

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 December 7, 2022 from the Texaco Strickland 180357, F&BI 212097 project. There are 12 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, Breeyn Greer
ASP1209R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on December 7, 2022 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Texaco Strickland 180357, F&BI 212097 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Aspect Consulting, LLC
212097 -01	N14-W13-450
212097 -02	N14-W14-439
212097 -03	N15-W14-447
212097 -04	N15-W13-442
212097 -05	N15-W14-440
212097 -06	N13-W12-442
212097 -07	N16-W14-442
212097 -08	N15-W15-442
212097 -09	N15-W12-442

All quality control requirements were acceptable.

Date of Report: 12/09/22
Date Received: 12/07/22
Project: Texaco Strickland 180357, F&BI 212097
Date Extracted: 12/08/22
Date Analyzed: 12/08/22

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

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

Sample ID Laboratory ID	Gasoline Range	Surrogate (% Recovery) (Limit 58-139)
N14-W14-439 212097-02	<5	97
N16-W14-442 212097-07	<5	92
N15-W15-442 212097-08	<5	94
N15-W12-442 212097-09	<5	96
Method Blank 02-2837 MB	<5	96

Date of Report: 12/09/22
Date Received: 12/07/22
Project: Texaco Strickland 180357, F&BI 212097
Date Extracted: 12/08/22
Date Analyzed: 12/08/22

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

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

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 50-150)
N14-W14-439 212097-02	<50	<250	88
N16-W14-442 212097-07	<50	<250	85
N15-W15-442 212097-08	<50	<250	87
N15-W12-442 212097-09	<50	<250	90
Method Blank 02-2910 MB	<50	<250	87

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	N14-W14-439	Client:	Aspect Consulting, LLC
Date Received:	12/07/22	Project:	Texaco Strickland 180357, F&BI 212097
Date Extracted:	12/08/22	Lab ID:	212097-02
Date Analyzed:	12/08/22	Data File:	120806.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	lm

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	95	90	109
Toluene-d8	103	89	112
4-Bromofluorobenzene	101	84	115

Compounds:	Concentration mg/kg (ppm)
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05
Naphthalene	<0.05

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	N16-W14-442	Client:	Aspect Consulting, LLC
Date Received:	12/07/22	Project:	Texaco Strickland 180357, F&BI 212097
Date Extracted:	12/08/22	Lab ID:	212097-07
Date Analyzed:	12/08/22	Data File:	120807.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	lm

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	92	90	109
Toluene-d8	103	89	112
4-Bromofluorobenzene	101	84	115

Compounds:	Concentration mg/kg (ppm)
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05
Naphthalene	<0.05

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	N15-W15-442	Client:	Aspect Consulting, LLC
Date Received:	12/07/22	Project:	Texaco Strickland 180357, F&BI 212097
Date Extracted:	12/08/22	Lab ID:	212097-08
Date Analyzed:	12/08/22	Data File:	120808.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	lm

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	90	109
Toluene-d8	101	89	112
4-Bromofluorobenzene	98	84	115

Compounds:	Concentration mg/kg (ppm)
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05
Naphthalene	<0.05

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	N15-W12-442	Client:	Aspect Consulting, LLC
Date Received:	12/07/22	Project:	Texaco Strickland 180357, F&BI 212097
Date Extracted:	12/08/22	Lab ID:	212097-09
Date Analyzed:	12/08/22	Data File:	120809.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	lm

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	90	109
Toluene-d8	104	89	112
4-Bromofluorobenzene	101	84	115

Compounds:	Concentration mg/kg (ppm)
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05
Naphthalene	<0.05

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Texaco Strickland 180357, F&BI 212097
Date Extracted:	12/08/22	Lab ID:	02-2857 mb
Date Analyzed:	12/08/22	Data File:	120805.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	lm

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	93	90	109
Toluene-d8	98	89	112
4-Bromofluorobenzene	100	84	115

Compounds:	Concentration mg/kg (ppm)
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05
Naphthalene	<0.05

Date of Report: 12/09/22
Date Received: 12/07/22
Project: Texaco Strickland 180357, F&BI 212097

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

Laboratory Code: 212073-01 (Duplicate)

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

Laboratory Code: Laboratory Control Sample

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

Date of Report: 12/09/22
Date Received: 12/07/22
Project: Texaco Strickland 180357, F&BI 212097

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

Laboratory Code: 212097-02 (Matrix Spike)

Analyte	Reporting Units	Spike Level	(Wet wt) Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	2,000	<50	90	90	70-130	0

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	2,000	84	70-130

Date of Report: 12/09/22
Date Received: 12/07/22
Project: Texaco Strickland 180357, F&BI 212097

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

Laboratory Code: 212097-02 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Benzene	mg/kg (ppm)	1	<0.03	73	78	29-129	7
Toluene	mg/kg (ppm)	1	<0.05	73	82	35-130	12
Ethylbenzene	mg/kg (ppm)	1	<0.05	75	84	32-137	11
m,p-Xylene	mg/kg (ppm)	2	<0.1	74	82	34-136	10
o-Xylene	mg/kg (ppm)	1	<0.05	74	83	33-134	11
Naphthalene	mg/kg (ppm)	1	<0.05	75	83	14-157	10

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	mg/kg (ppm)	1	78	71-118
Toluene	mg/kg (ppm)	1	79	66-126
Ethylbenzene	mg/kg (ppm)	1	77	64-123
m,p-Xylene	mg/kg (ppm)	2	78	78-122
o-Xylene	mg/kg (ppm)	1	77	77-124
Naphthalene	mg/kg (ppm)	1	76	63-140

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. 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 lowest calibration standard. 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.

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.

SAMPLE CHAIN OF CUSTODY

12/07/22 G2 / ~~VS~~ VS-03

212097

Report To Daniel Babcock + Breeyn Greer
Company Aspect Consulting, LLC
Address 710 2nd Ave Suite #550
City, State, ZIP Seattle, WA 98104
Phone (316) 617-0499 Email dbabcock@aspectconsulting.com

SAMPLERS (*signature*)

PROJECT NAME: Texaco Strickland
PO #: 180357
REMARKS: Project specific RLs? - Yes / No
INVOICE TO: Aspect Consulting

Page # _____ of _____

TURNAROUND TIME
☐ Standard turnaround
☒ RUSH 24-hr
Rush charges authorized by: Daniel Babcock

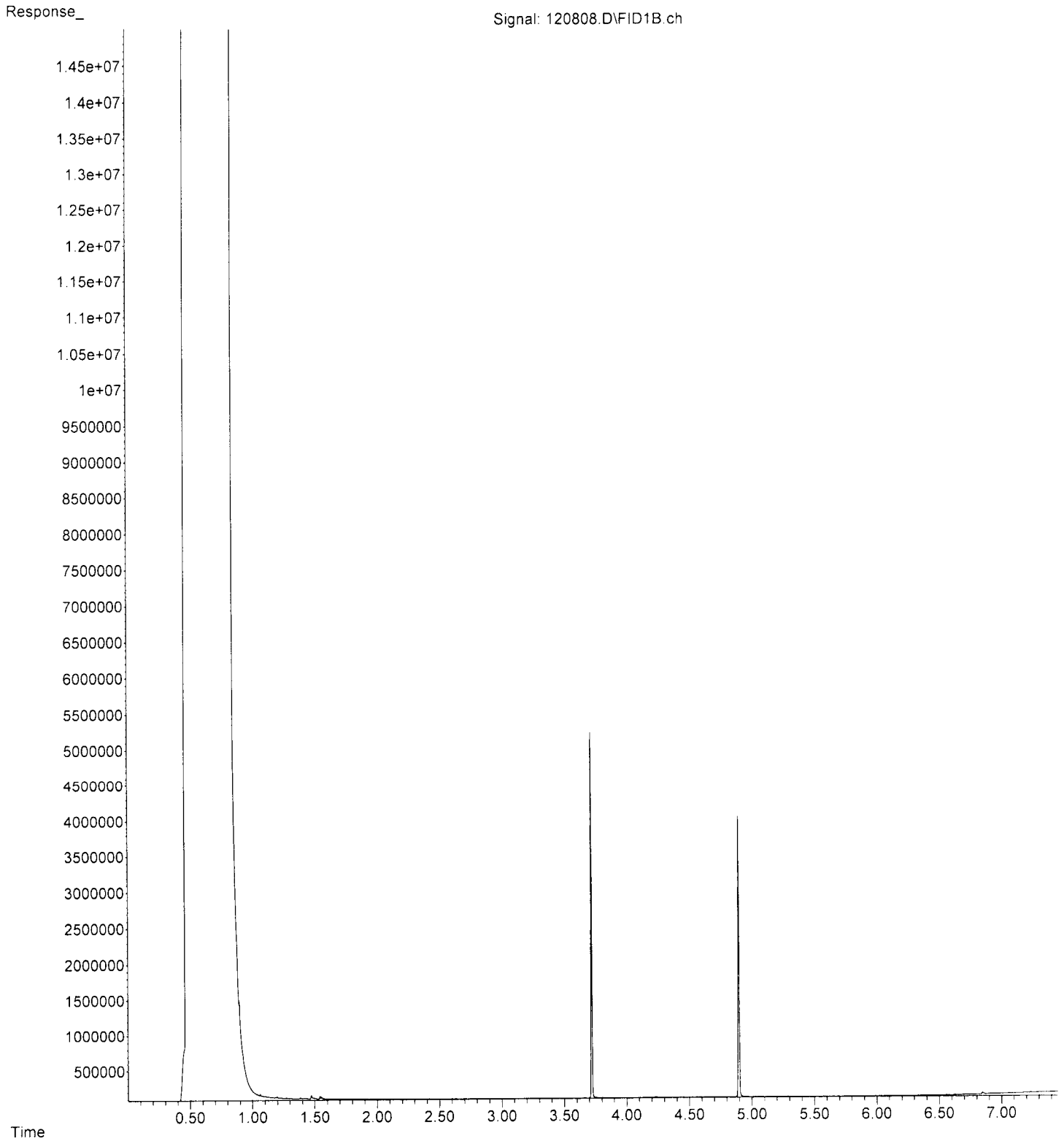
SAMPLE DISPOSAL
☐ Archive samples
☐ Other _____
Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	BTEX 8260				Notes
						ANALYSES REQUESTED											
N14 - W13 - 450	01 A-E	12/5/2022	1340	Soil	5												Hold
N14 - W14 - 439	02	12/6/2022	0925			X	X						X				Run 24-hr
N15 - W14 - 447	03		0750														Hold
N15 - W13 - 442	04		0945														
N15 - W14 - 440	05		0925														
N13 - W12 - 442	06	↓	0935														↓
N16 - W14 - 442	07	12/7/2022	0740			X	X						X				Run 24-hr
N15 - W15 - 442	09		1100			X	X						X				
N15 - W12 - 442	09	↓	1105	↓	↓	X	X						X				↓

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Risi Nau	Aspect Consulting	12/07/22	1318
Received by:	TOM LADD	FSI	12-07-22	1318
Relinquished by:				
Received by:		Samples received at 3 °C		

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

File :D:\GC13\GC13_Data\12-08-22\120808.D
Operator : TL
Acquired : 08 Dec 2022 09:17 am using AcqMethod Dx.M
Instrument : GC13
Sample Name: 212097-02
Misc Info : ERR
Vial Number: 10



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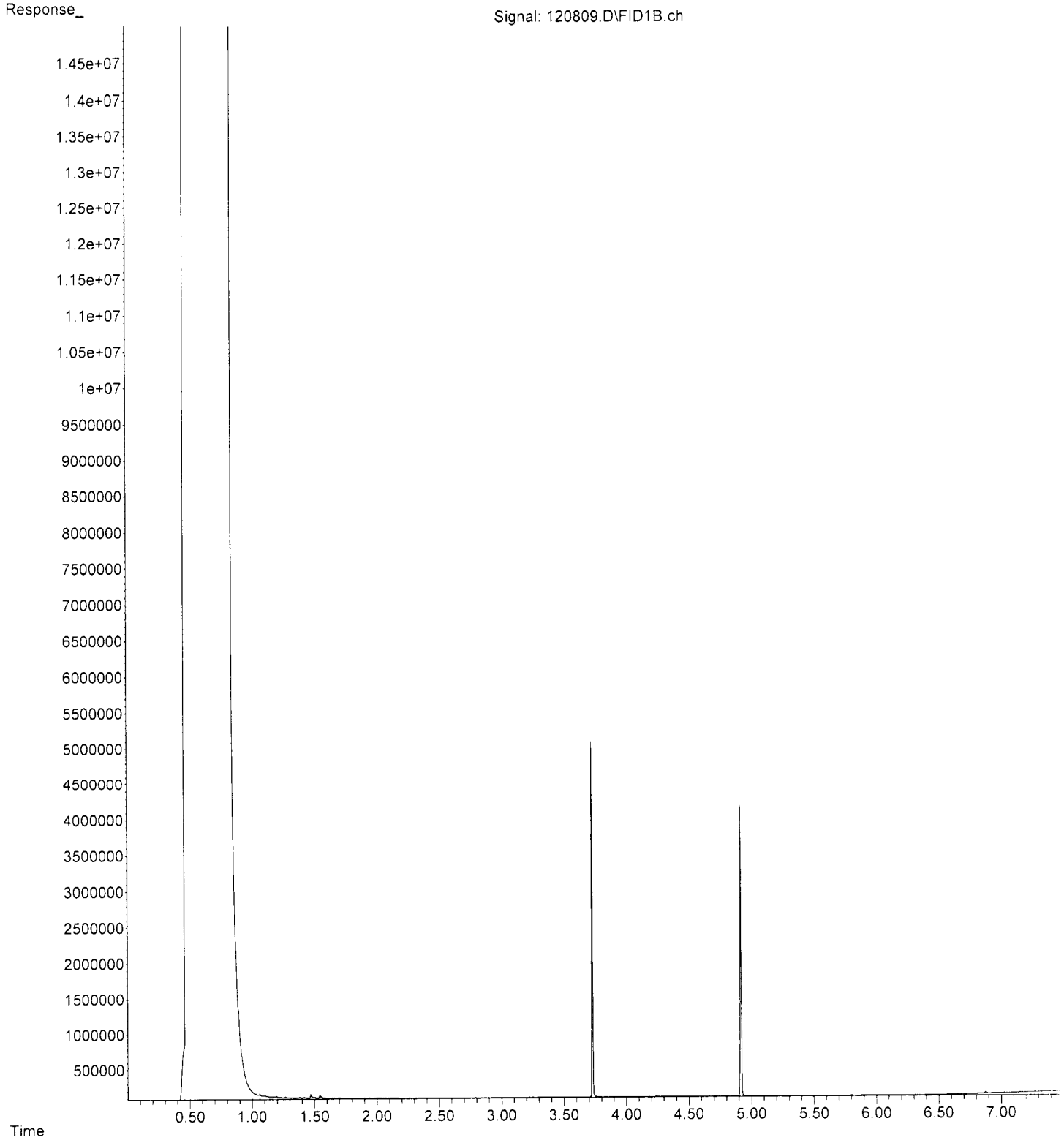
Operator : TL
Acquired : 08 Dec 2022 09:29 am using AcqMethod Dx.M
Instrument : GC13
Sample Name: 212097-07
Misc Info : ERR
Vial Number: 11



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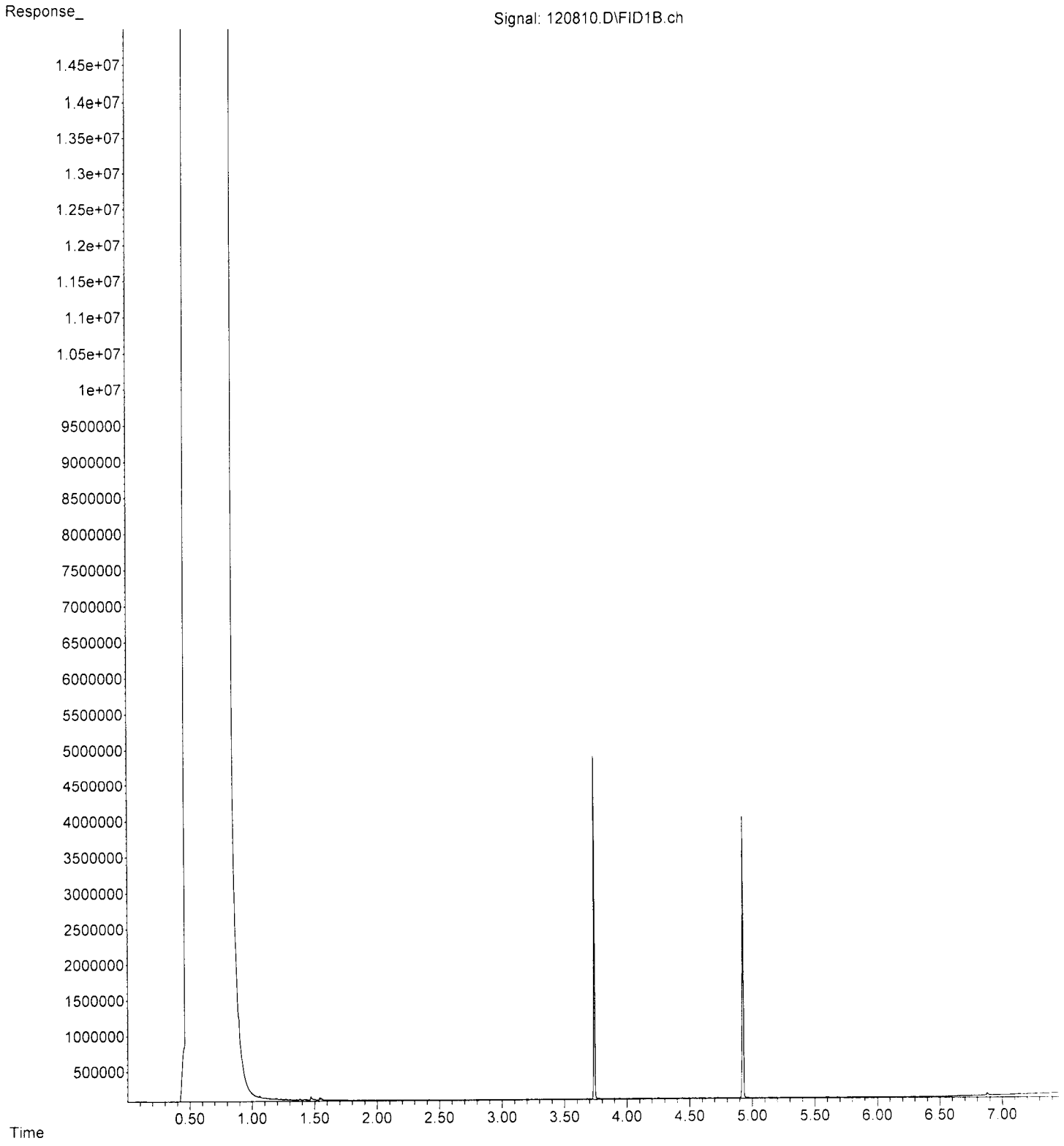
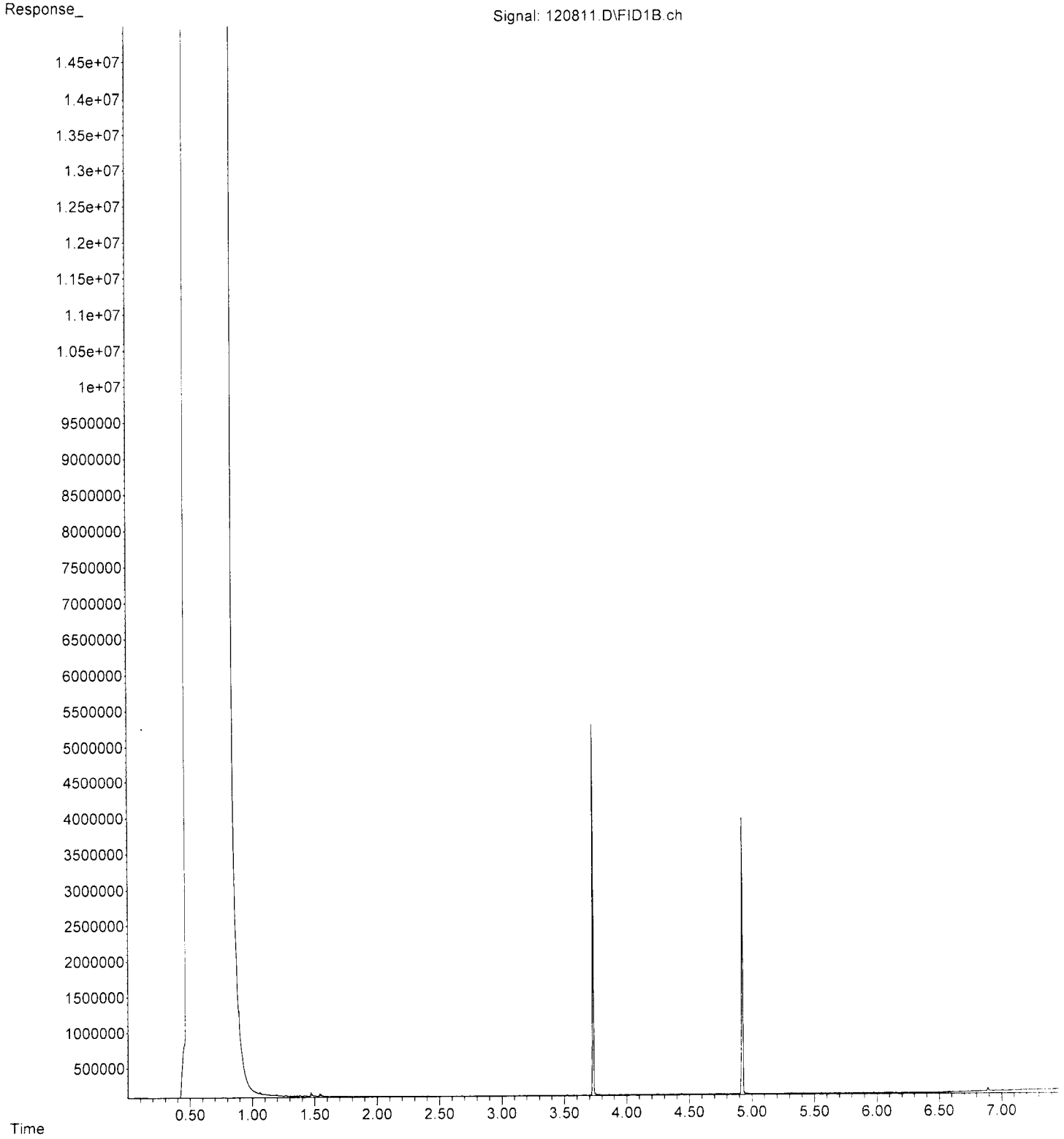
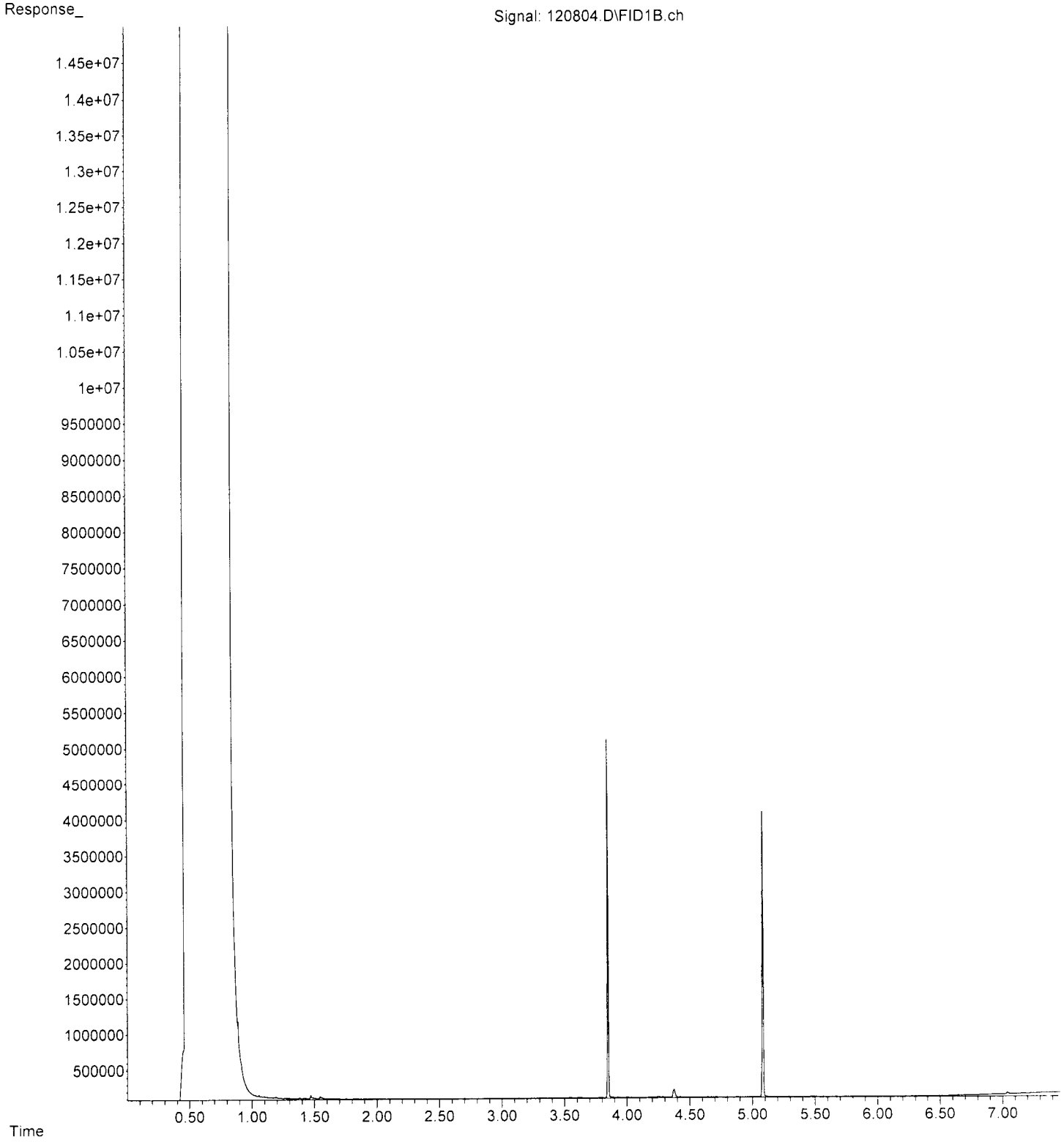
Operator : TL
Acquired : 08 Dec 2022 09:41 am using AcqMethod Dx.M
Instrument : GC13
Sample Name: 212097-08
Misc Info : ERR
Vial Number: 12



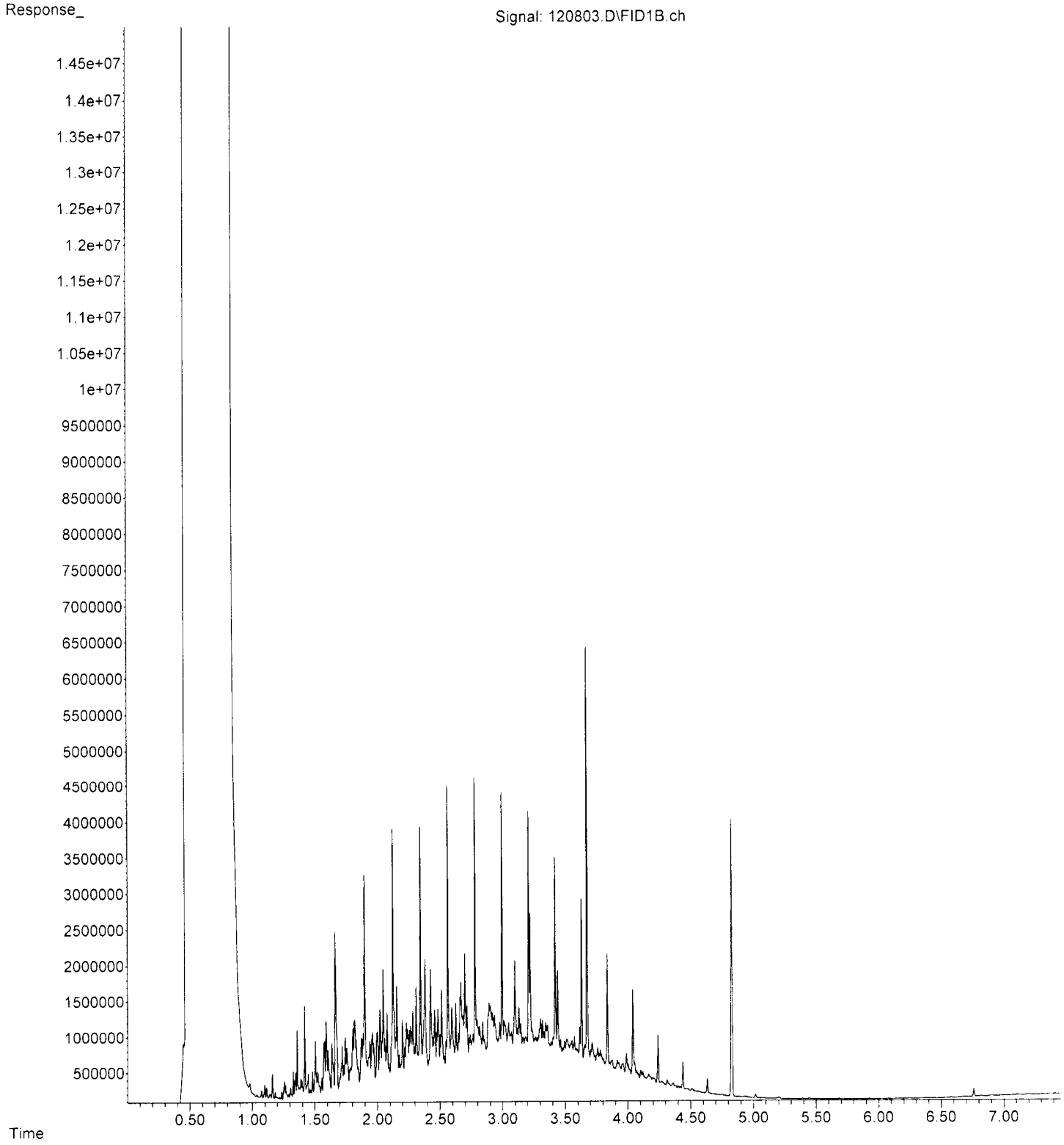
File :D:\GC13\GC13_Data\12-08-22\120811.D
Operator : TL
Acquired : 08 Dec 2022 09:52 am using AcqMethod Dx.M
Instrument : GC13
Sample Name: 212097-09
Misc Info : ERR
Vial Number: 13



File :D:\GC13\GC13_Data\12-08-22\120804.D
Operator : TL
Acquired : 08 Dec 2022 08:30 am using AcqMethod Dx.M
Instrument : GC13
Sample Name: 02-2910 mb
Misc Info : ERR
Vial Number: 6



File :D:\GC13\GC13_Data\12-08-22\120803.D
Operator : TL
Acquired : 08 Dec 2022 06:50 am using AcqMethod Dx.M
Instrument : GC13
Sample Name: 500 Dx 66-186H
Misc Info : ERR
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

December 16, 2022

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 December 8, 2022 from the Texaco Strickland 180357, F&BI 212149 project. There are 11 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, Breeyn Greer
ASP1216R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on December 8, 2022 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Texaco Strickland 180357, F&BI 212149 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Aspect Consulting, LLC
212149 -01	PL-N07-447
212149 -02	PL-N07-442

All quality control requirements were acceptable.

Date of Report: 12/16/22
Date Received: 12/08/22
Project: Texaco Strickland 180357, F&BI 212149
Date Extracted: 12/13/22
Date Analyzed: 12/13/22

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

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

Sample ID Laboratory ID	Gasoline Range	Surrogate (% Recovery) (Limit 58-139)
PL-N07-447 212149-01	<5	95
PL-N07-442 212149-02 1/20	1,400	125
Method Blank 02-2925 MB	<5	93

Date of Report: 12/16/22
Date Received: 12/08/22
Project: Texaco Strickland 180357, F&BI 212149
Date Extracted: 12/09/22
Date Analyzed: 12/09/22

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

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

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 50-150)
PL-N07-447 212149-01	<50	<250	84
PL-N07-442 212149-02	400 x	<250	89
Method Blank 02-2919 MB2	<50	<250	90

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	PL-N07-447	Client:	Aspect Consulting, LLC
Date Received:	12/08/22	Project:	Texaco Strickland 180357
Date Extracted:	12/09/22	Lab ID:	212149-01
Date Analyzed:	12/09/22	Data File:	120911.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	lm

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	90	109
Toluene-d8	103	89	112
4-Bromofluorobenzene	101	84	115

Compounds:	Concentration mg/kg (ppm)
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05
Naphthalene	<0.05

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	PL-N07-442	Client:	Aspect Consulting, LLC
Date Received:	12/08/22	Project:	Texaco Strickland 180357
Date Extracted:	12/09/22	Lab ID:	212149-02
Date Analyzed:	12/09/22	Data File:	120912.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	lm

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	90	90	109
Toluene-d8	110	89	112
4-Bromofluorobenzene	109	84	115

Compounds:	Concentration mg/kg (ppm)
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	12
m,p-Xylene	52 ve
o-Xylene	12
Naphthalene	10

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	PL-N07-442	Client:	Aspect Consulting, LLC
Date Received:	12/08/22	Project:	Texaco Strickland 180357
Date Extracted:	12/09/22	Lab ID:	212149-02 1/10
Date Analyzed:	12/09/22	Data File:	120916.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	lm

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	93	90	109
Toluene-d8	107	89	112
4-Bromofluorobenzene	110	84	115

Compounds:	Concentration mg/kg (ppm)
m,p-Xylene	53

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Texaco Strickland 180357
Date Extracted:	12/09/22	Lab ID:	02-2863 mb
Date Analyzed:	12/09/22	Data File:	120910.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	lm

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	90	109
Toluene-d8	99	89	112
4-Bromofluorobenzene	101	84	115

Compounds:	Concentration mg/kg (ppm)
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05
Naphthalene	<0.05

Date of Report: 12/16/22
Date Received: 12/08/22
Project: Texaco Strickland 180357, F&BI 212149

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

Laboratory Code: 212149-01 (Duplicate)

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

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Gasoline	mg/kg (ppm)	20	95	61-153

Date of Report: 12/16/22
Date Received: 12/08/22
Project: Texaco Strickland 180357, F&BI 212149

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

Laboratory Code: 212145-03 (Matrix Spike)

Analyte	Reporting Units	Spike Level	(Wet wt) Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	2,000	290	102	96	70-130	6

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	2,000	98	70-130

Date of Report: 12/16/22
Date Received: 12/08/22
Project: Texaco Strickland 180357, F&BI 212149

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

Laboratory Code: 212149-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Benzene	mg/kg (ppm)	1	<0.03	97	102	29-129	5
Toluene	mg/kg (ppm)	1	<0.05	97	105	35-130	8
Ethylbenzene	mg/kg (ppm)	1	<0.05	99	106	32-137	7
m,p-Xylene	mg/kg (ppm)	2	<0.1	100	107	34-136	7
o-Xylene	mg/kg (ppm)	1	<0.05	99	105	33-134	6
Naphthalene	mg/kg (ppm)	1	<0.05	104	108	14-157	4

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	mg/kg (ppm)	1	111	71-118
Toluene	mg/kg (ppm)	1	111	66-126
Ethylbenzene	mg/kg (ppm)	1	113	64-123
m,p-Xylene	mg/kg (ppm)	2	113	78-122
o-Xylene	mg/kg (ppm)	1	111	77-124
Naphthalene	mg/kg (ppm)	1	108	63-140

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. 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 lowest calibration standard. 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.

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.

212149

SAMPLE CHAIN OF CUSTODY

12/08/22 G1/VS-01

Page # 1 of 1

Report To Daniel Babcock + Breejn Greer

Company Aspect Consulting

Address 710 2nd Ave suite #550

City, State, ZIP Seattle, WA 98104

Phone (316) 617 0499 Email dbabcock@aspectconsulting.com

SAMPLERS (*signature*)

PROJECT NAME: Texaco Strickland

PO #: 180357

REMARKS

Project specific RLs? - Yes / No

INVOICE TO: Aspect Consulting

TURNAROUND TIME
- [x] Standard turnaround
- [ ] RUSH
- Rush charges authorized by:

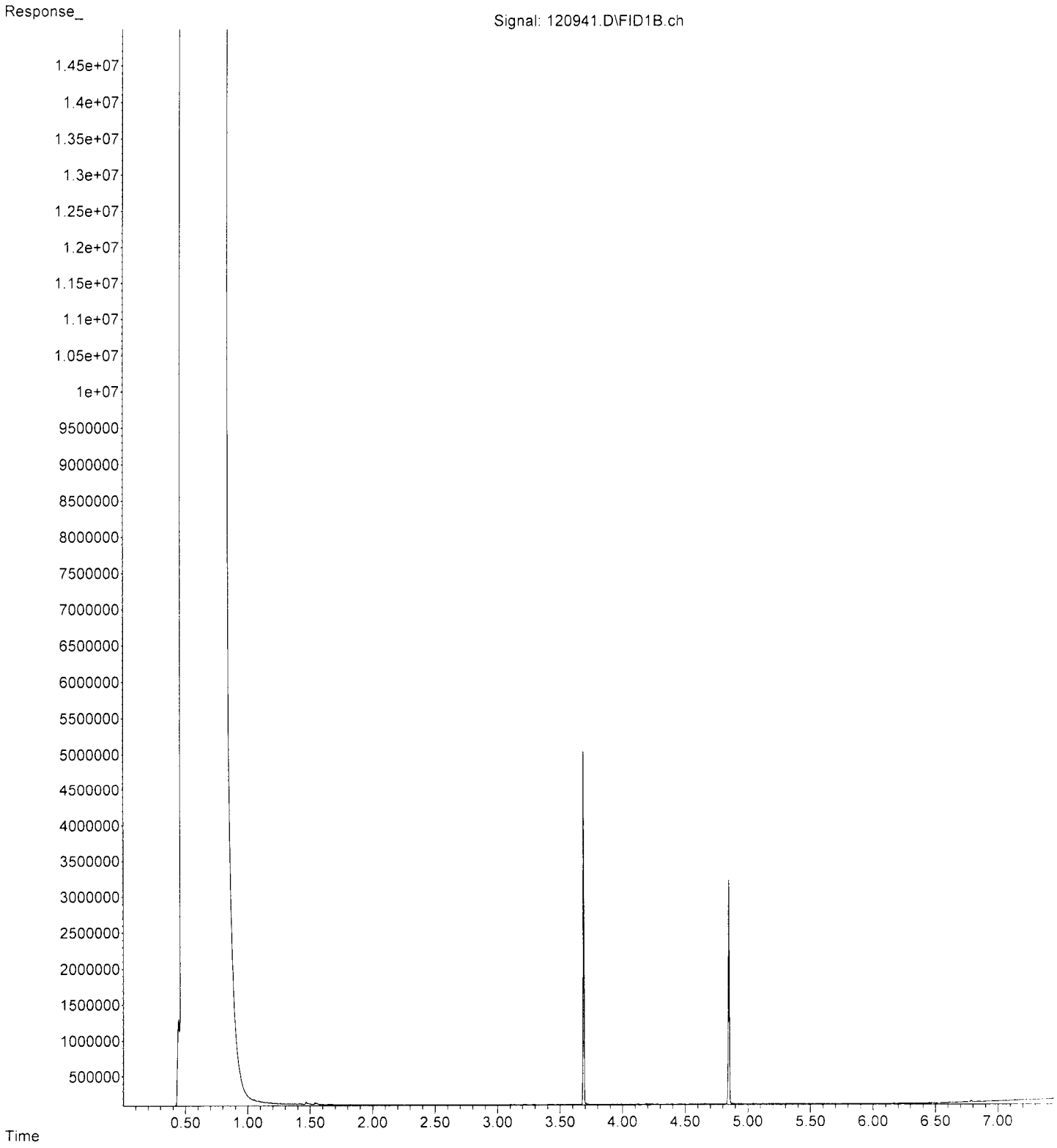
SAMPLE DISPOSAL
- [ ] Archive samples
- [ ] Other
- Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	BTEX 8260				Notes
						ANALYSES REQUESTED											● analyze per DB 12/8/22 ME
PL-NO7-447	01 A-E	12/08/2022	1300	Soil	5	●	X						X				~~Hold on diesel range hydroca~~
PL-NO7-442	02	12/08/2022	1320	Soil	5	●	X						X				~~Hold on diesel range hydroca~~

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Risi Naa	Aspect Consulting LLC	12/08/2022	1533
Received by:	ANH PHAN	FSB	12/08/22	15:33
Relinquished by:				
Received by:		Samples received at 1 °C		

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

File :D:\GC13\GC13_Data\12-09-22\120941.D
Operator : TL
Acquired : 09 Dec 2022 05:50 pm using AcqMethod Dx.M
Instrument : GC13
Sample Name: 212149-01
Misc Info : ERR
Vial Number: 37



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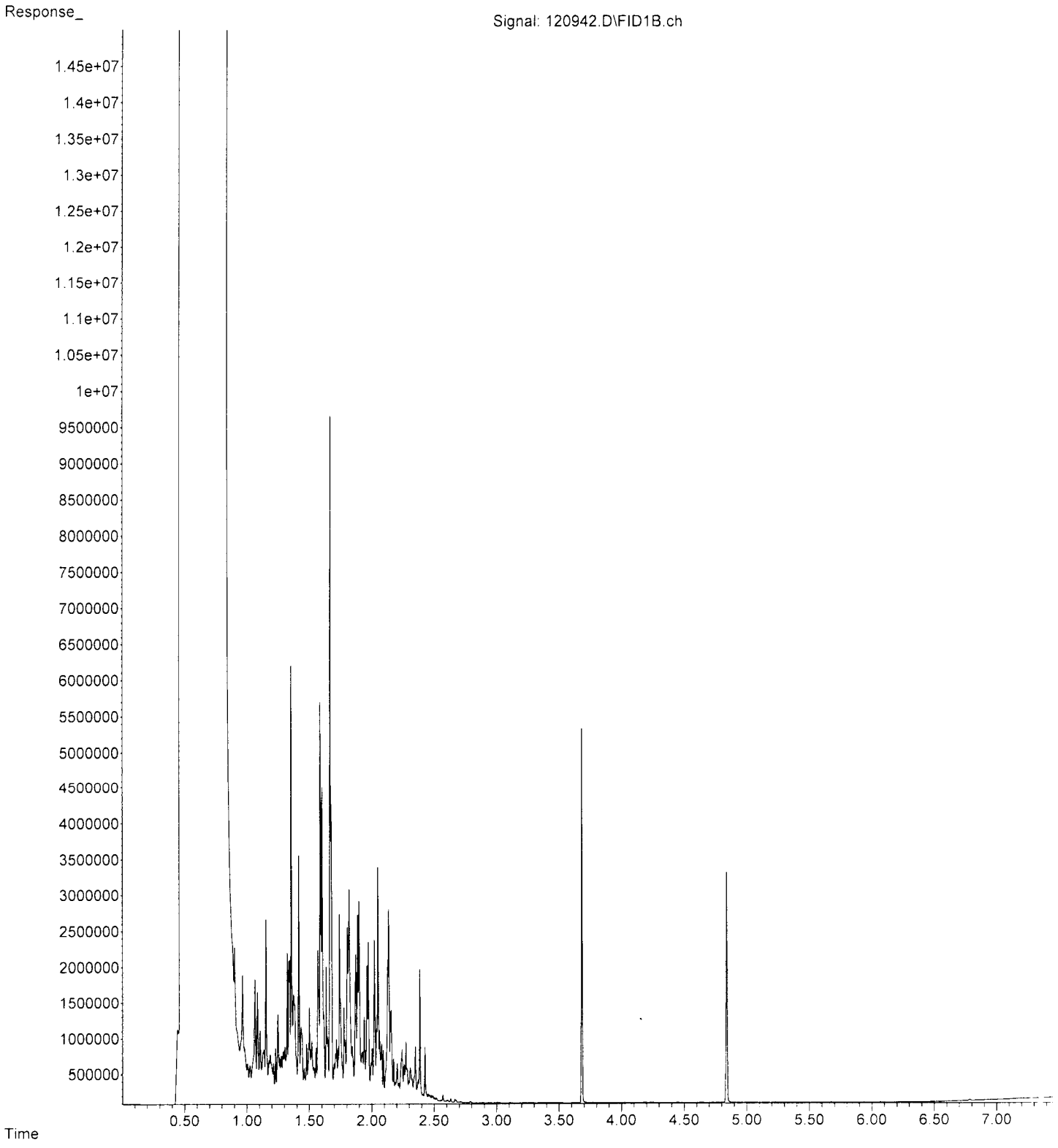
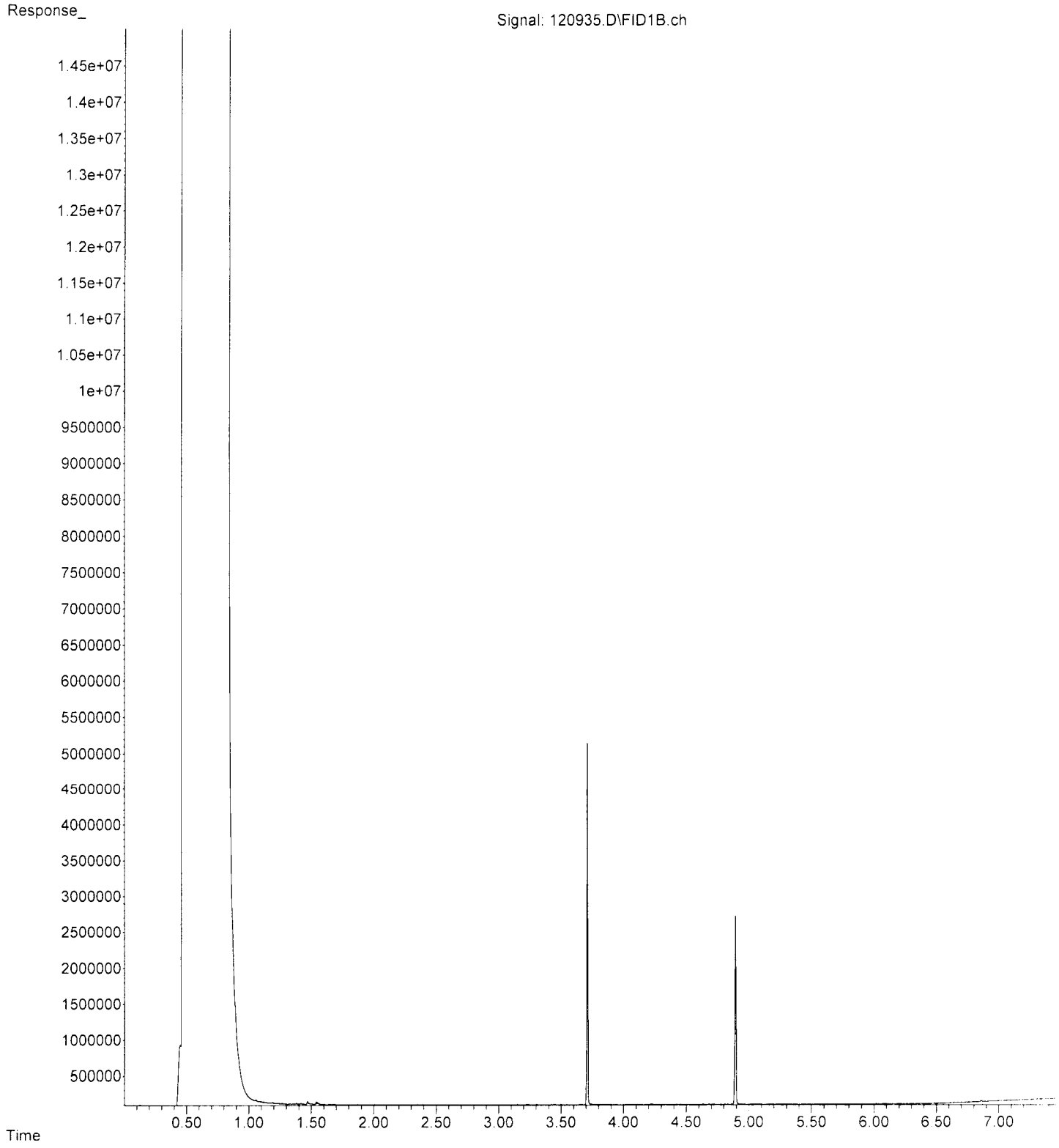
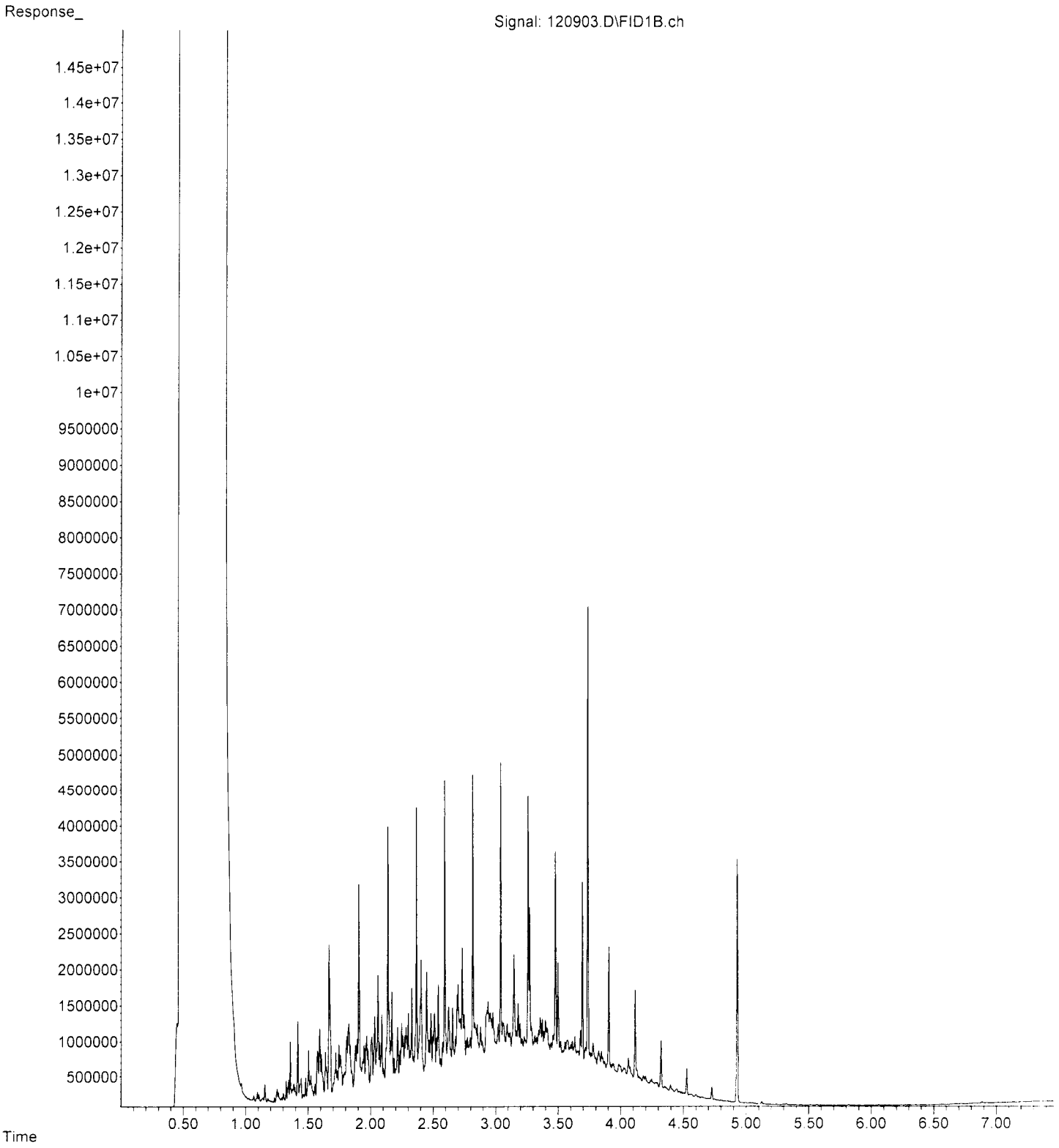
Operator : TL
Acquired : 09 Dec 2022 06:02 pm using AcqMethod Dx.M
Instrument : GC13
Sample Name: 212149-02
Misc Info : ERR
Vial Number: 38



File :D:\GC13\GC13_Data\12-09-22\120935.D
Operator : TL
Acquired : 09 Dec 2022 04:39 pm using AcqMethod Dx.M
Instrument : GC13
Sample Name: 02-2919 mb2
Misc Info : ERR
Vial Number: 31



File :D:\GC13\GC13_Data\12-09-22\120903.D
Operator : TL
Acquired : 09 Dec 2022 06:40 am using AcqMethod Dx.M
Instrument : GC13
Sample Name: 500 Dx 66-186H
Misc Info : ERR
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.

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Seattle, WA 98108
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

December 20, 2022

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 December 12, 2022 from the Texaco Strickland 180357, F&BI 212189 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, Breeyn Greer
ASP1220R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on December 12, 2022 by Friedman & Bruya, Inc. from the Aspect Consulting, LLC Texaco Strickland 180357, F&BI 212189 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Aspect Consulting, LLC
212189 -01	SW-W01-449
212189 -02	SW-W03-449
212189 -03	SW-W06-449
212189 -04	SW-W09-449
212189 -05	SW-W11-449
212189 -06	SW-W14-449
212189 -07	SW-W16-449
212189 -08	SW-S08-448
212189 -09	SW-S10-448

All quality control requirements were acceptable.

Date of Report: 12/20/22
Date Received: 12/12/22
Project: Texaco Strickland 180357, F&BI 212189
Date Extracted: 12/15/22
Date Analyzed: 12/15/22

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

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

Sample ID Laboratory ID	Gasoline Range	Surrogate (% Recovery) (Limit 58-139)
SW-W01-449 212189-01	<5	93
SW-W03-449 212189-02	<5	98
SW-W06-449 212189-03	<5	99
SW-W09-449 212189-04	<5	95
SW-W11-449 212189-05	<5	96
SW-W14-449 212189-06	<5	82
SW-W16-449 212189-07	<5	99
SW-S08-448 212189-08	<5	97
SW-S10-448 212189-09	<5	100
Method Blank 02-2929 MB	<5	98

Date of Report: 12/20/22
Date Received: 12/12/22
Project: Texaco Strickland 180357, F&BI 212189
Date Extracted: 12/13/22
Date Analyzed: 12/13/22

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

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

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 50-150)
SW-W01-449 212189-01	<50	<250	107
SW-W03-449 212189-02	<50	<250	105
SW-W06-449 212189-03	<50	<250	108
SW-W09-449 212189-04	<50	<250	118
SW-W11-449 212189-05	<50	<250	115
SW-W14-449 212189-06	<50	<250	110
SW-W16-449 212189-07	<50	<250	111
SW-S08-448 212189-08	<50	<250	109
SW-S10-448 212189-09	<50	<250	110
Method Blank 02-2944 MB2	<50	<250	111

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	SW-W01-449	Client:	Aspect Consulting, LLC
Date Received:	12/12/22	Project:	Texaco Strickland 180357
Date Extracted:	12/13/22	Lab ID:	212189-01
Date Analyzed:	12/13/22	Data File:	121310.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	lm

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	90	90	109
Toluene-d8	103	89	112
4-Bromofluorobenzene	101	84	115

Compounds:	Concentration mg/kg (ppm)
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05
Naphthalene	<0.05

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	SW-W03-449	Client:	Aspect Consulting, LLC
Date Received:	12/12/22	Project:	Texaco Strickland 180357
Date Extracted:	12/13/22	Lab ID:	212189-02
Date Analyzed:	12/13/22	Data File:	121311.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	lm

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	95	90	109
Toluene-d8	101	89	112
4-Bromofluorobenzene	99	84	115

Compounds:	Concentration mg/kg (ppm)
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05
Naphthalene	<0.05

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	SW-W06-449	Client:	Aspect Consulting, LLC
Date Received:	12/12/22	Project:	Texaco Strickland 180357
Date Extracted:	12/13/22	Lab ID:	212189-03
Date Analyzed:	12/13/22	Data File:	121312.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	lm

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	95	90	109
Toluene-d8	102	89	112
4-Bromofluorobenzene	97	84	115

Compounds:	Concentration mg/kg (ppm)
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05
Naphthalene	<0.05

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	SW-W09-449	Client:	Aspect Consulting, LLC
Date Received:	12/12/22	Project:	Texaco Strickland 180357
Date Extracted:	12/13/22	Lab ID:	212189-04
Date Analyzed:	12/13/22	Data File:	121313.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	lm

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	92	90	109
Toluene-d8	102	89	112
4-Bromofluorobenzene	101	84	115

Compounds:	Concentration mg/kg (ppm)
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05
Naphthalene	<0.05

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	SW-W11-449	Client:	Aspect Consulting, LLC
Date Received:	12/12/22	Project:	Texaco Strickland 180357
Date Extracted:	12/13/22	Lab ID:	212189-05
Date Analyzed:	12/14/22	Data File:	121412.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	lm

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	92	90	109
Toluene-d8	104	89	112
4-Bromofluorobenzene	102	84	115

Compounds:	Concentration mg/kg (ppm)
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05
Naphthalene	<0.05

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	SW-W14-449	Client:	Aspect Consulting, LLC
Date Received:	12/12/22	Project:	Texaco Strickland 180357
Date Extracted:	12/13/22	Lab ID:	212189-06
Date Analyzed:	12/13/22	Data File:	121315.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	lm

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	90	109
Toluene-d8	101	89	112
4-Bromofluorobenzene	102	84	115

Compounds:	Concentration mg/kg (ppm)
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05
Naphthalene	<0.05

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	SW-W16-449	Client:	Aspect Consulting, LLC
Date Received:	12/12/22	Project:	Texaco Strickland 180357
Date Extracted:	12/13/22	Lab ID:	212189-07
Date Analyzed:	12/13/22	Data File:	121316.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	lm

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	90	90	109
Toluene-d8	102	89	112
4-Bromofluorobenzene	101	84	115

Compounds:	Concentration mg/kg (ppm)
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05
Naphthalene	<0.05

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	SW-S08-448	Client:	Aspect Consulting, LLC
Date Received:	12/12/22	Project:	Texaco Strickland 180357
Date Extracted:	12/13/22	Lab ID:	212189-08
Date Analyzed:	12/13/22	Data File:	121317.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	lm

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	92	90	109
Toluene-d8	104	89	112
4-Bromofluorobenzene	103	84	115

Compounds:	Concentration mg/kg (ppm)
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05
Naphthalene	<0.05

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	SW-S10-448	Client:	Aspect Consulting, LLC
Date Received:	12/12/22	Project:	Texaco Strickland 180357
Date Extracted:	12/13/22	Lab ID:	212189-09
Date Analyzed:	12/13/22	Data File:	121318.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	lm

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	96	90	109
Toluene-d8	102	89	112
4-Bromofluorobenzene	100	84	115

Compounds:	Concentration mg/kg (ppm)
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05
Naphthalene	<0.05

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	Method Blank	Client:	Aspect Consulting, LLC
Date Received:	Not Applicable	Project:	Texaco Strickland 180357
Date Extracted:	12/13/22	Lab ID:	02-2851 mb
Date Analyzed:	12/13/22	Data File:	121307.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	lm

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	93	90	109
Toluene-d8	103	89	112
4-Bromofluorobenzene	103	84	115

Compounds:	Concentration mg/kg (ppm)
Benzene	<0.03
Toluene	<0.05
Ethylbenzene	<0.05
m,p-Xylene	<0.1
o-Xylene	<0.05
Naphthalene	<0.05

Date of Report: 12/20/22
Date Received: 12/12/22
Project: Texaco Strickland 180357, F&BI 212189

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

Laboratory Code: 212189-01 (Duplicate)

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

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Gasoline	mg/kg (ppm)	20	110	61-153

Date of Report: 12/20/22
Date Received: 12/12/22
Project: Texaco Strickland 180357, F&BI 212189

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

Laboratory Code: 212166-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	(Wet wt) Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	2,000	140	109	99	70-130	10

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	2,000	106	70-130

Date of Report: 12/20/22
Date Received: 12/12/22
Project: Texaco Strickland 180357, F&BI 212189

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

Laboratory Code: 212189-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Benzene	mg/kg (ppm)	1	<0.03	78	86	29-129	10
Toluene	mg/kg (ppm)	1	<0.05	78	87	35-130	11
Ethylbenzene	mg/kg (ppm)	1	<0.05	80	89	32-137	11
m,p-Xylene	mg/kg (ppm)	2	<0.1	81	89	34-136	9
o-Xylene	mg/kg (ppm)	1	<0.05	80	89	33-134	11
Naphthalene	mg/kg (ppm)	1	<0.05	77	84	14-157	9

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	mg/kg (ppm)	1	109	71-118
Toluene	mg/kg (ppm)	1	110	66-126
Ethylbenzene	mg/kg (ppm)	1	109	64-123
m,p-Xylene	mg/kg (ppm)	2	110	78-122
o-Xylene	mg/kg (ppm)	1	105	77-124
Naphthalene	mg/kg (ppm)	1	108	63-140

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. 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 lowest calibration standard. 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.

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.

212189

SAMPLE CHAIN OF CUSTODY

12/12/22

G3/VS-D1

Page # 1 of 1

Report To Daniel Babiash & Breeya Greer

Company Aspect Consulting

Address

City, State, ZIP

Phone 316.617.0499 Email

SAMPLERS (signature)

PROJECT NAME: Texaco Strickland

PO #: 180357

REMARKS

Project specific RLs? - Yes / No

INVOICE TO

TURNAROUND TIME
- [x] Standard turnaround
- [ ] RUSH
Rush charges authorized by:

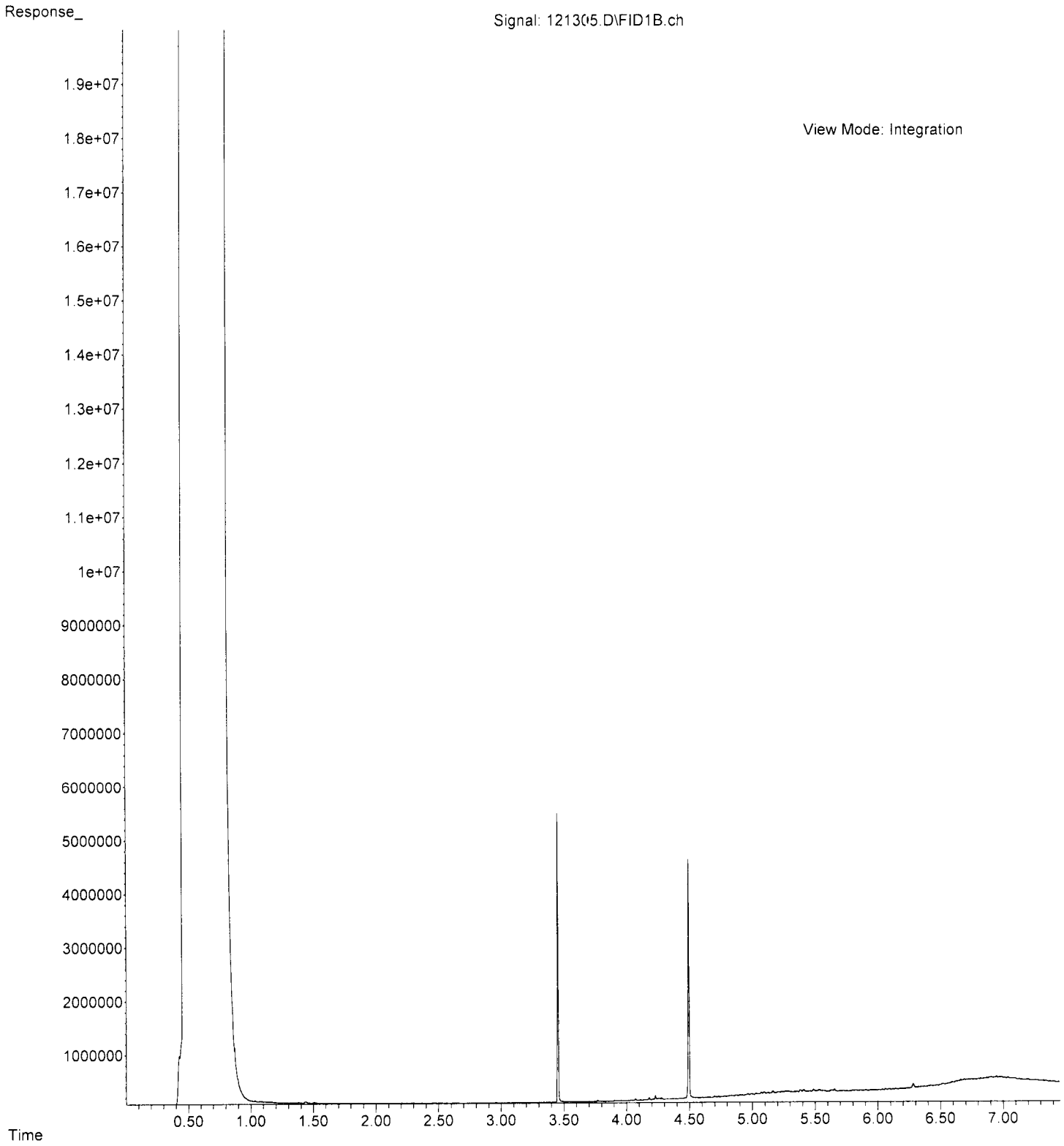
SAMPLE DISPOSAL
- [ ] Archive samples
- [ ] Other
Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED: NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	BTEX by 8260D				Notes
SW-W01-449	01 A-E	12/12/22	0725	Soil	5	X	X						X				
SW-W03-449	02		0730														
SW-W06-449	03		0735														
SW-W09-449	04		0740														
SW-W11-449	05		0745														
SW-W14-449	06		0750														
SW-W16-449	07		0755														
SW-S08-448	08		0800														
SW-S10-448	09		0805														

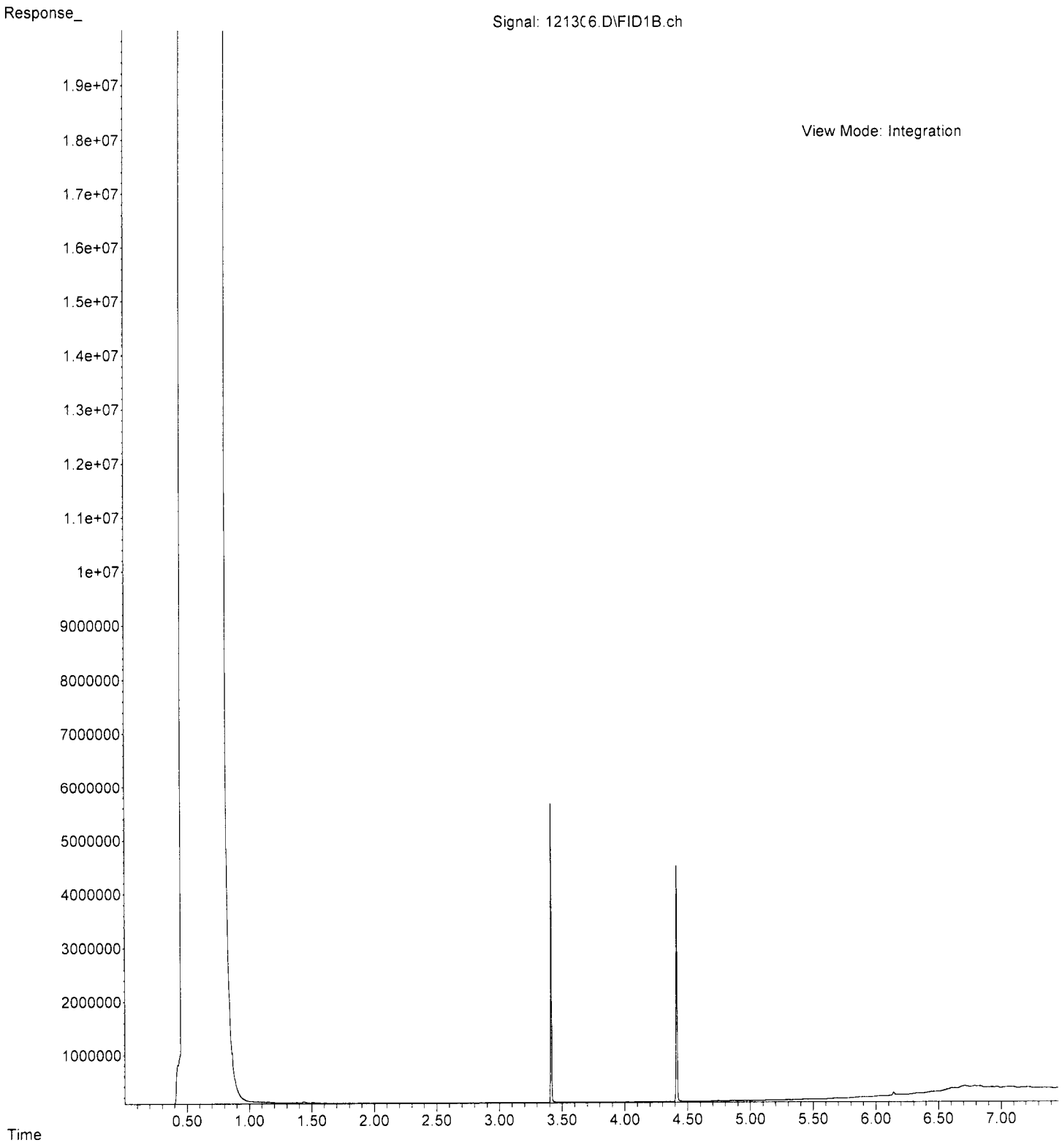
SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Daniel Babiash	Aspect Consulting	12/12/22	1140
Received by:	ANHPHAN	FSD	12/12/22	11:40
Relinquished by:				
Received by:		Samples received at 0 °C		

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

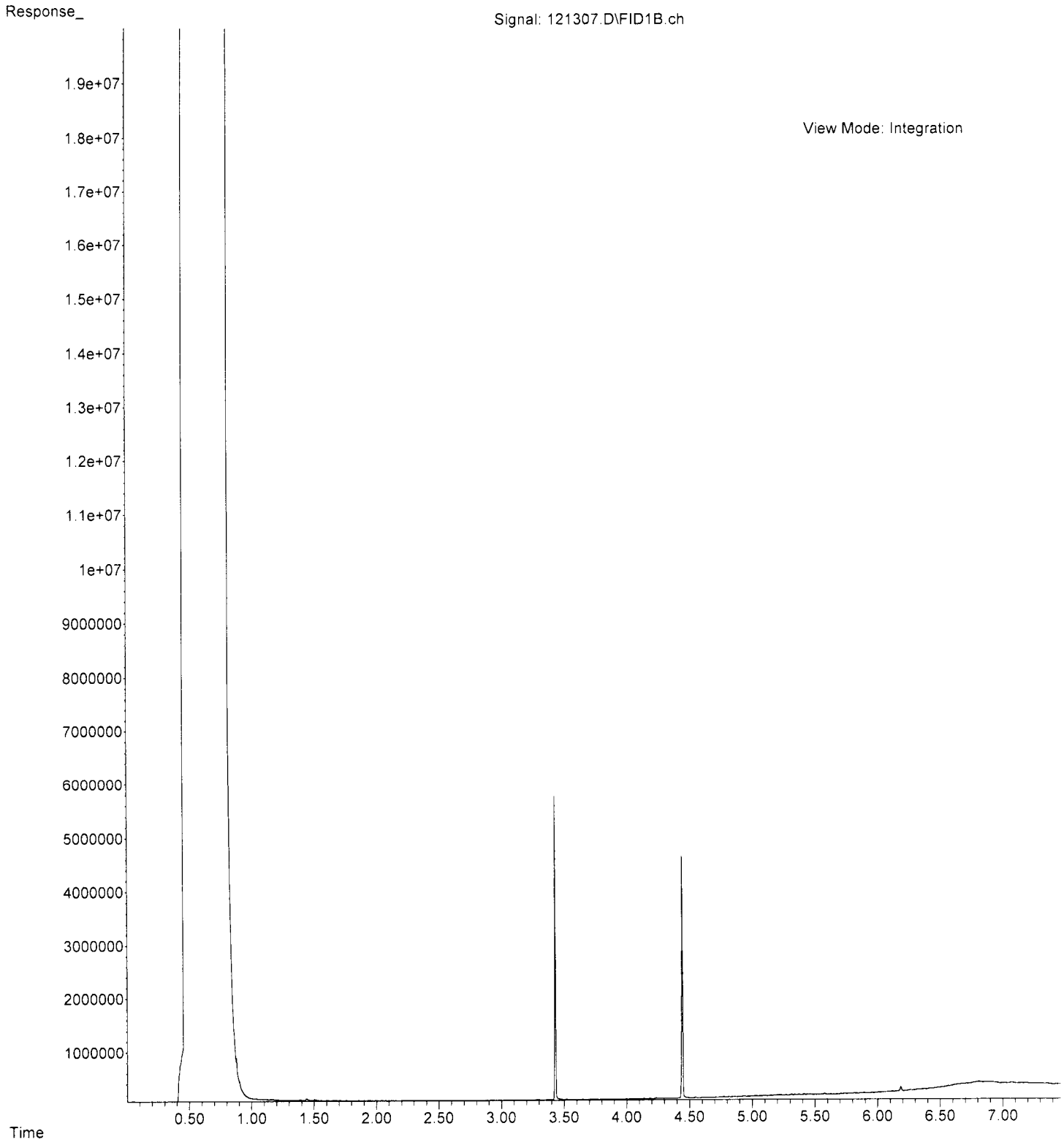
File :D:\GC10\GC10_Data\12-13-22\121305.D
Operator : TL
Acquired : 13 Dec 2022 08:28 using AcqMethod DX.M
Instrument : GC10
Sample Name: 212189-01
Misc Info :
Vial Number: 7



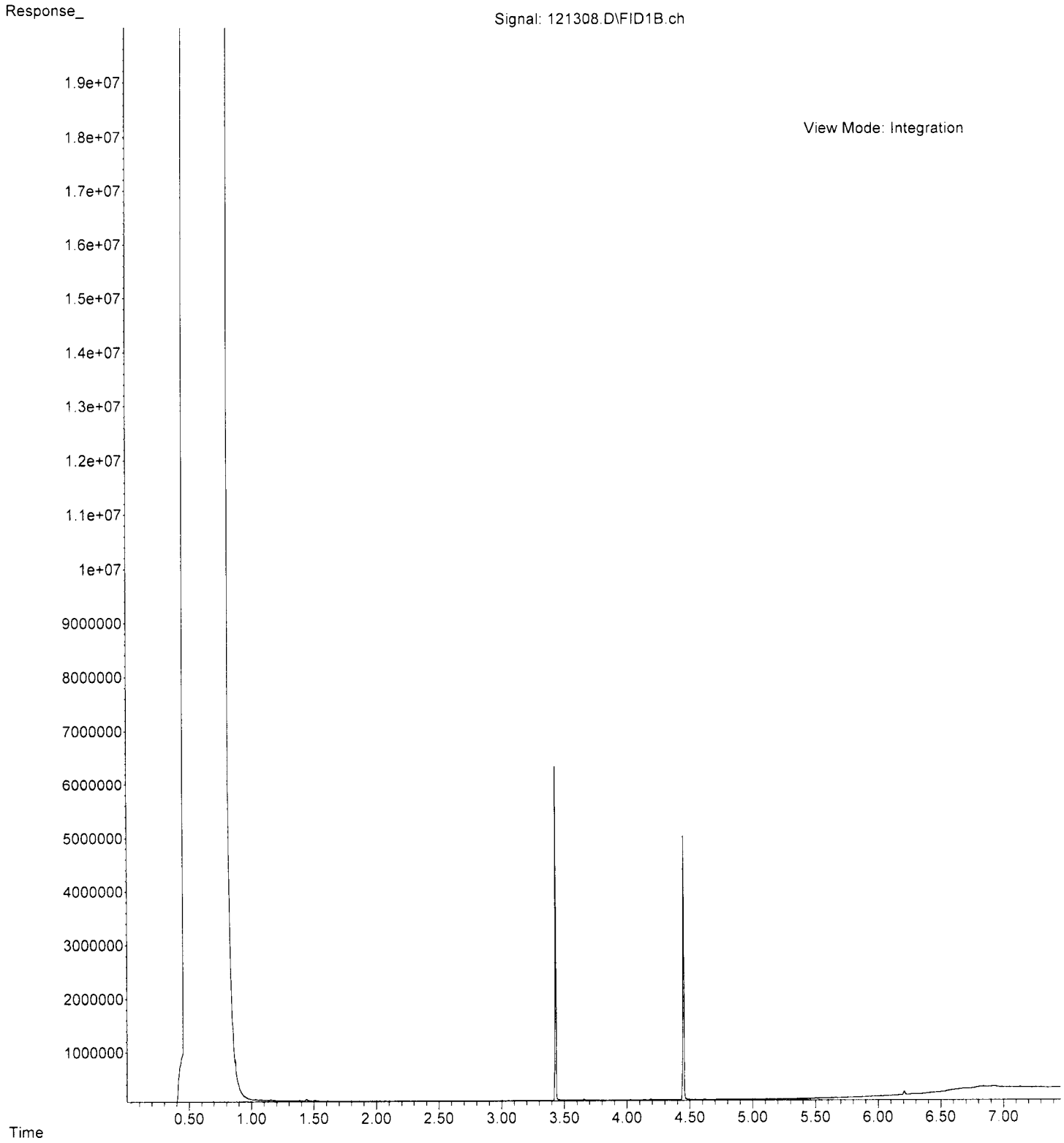
File :D:\GC10\GC10_Data\12-13-22\121306.D
Operator : TL
Acquired : 13 Dec 2022 08:40 using AcqMethod DX.M
Instrument : GC10
Sample Name: 212189-02
Misc Info :
Vial Number: 8



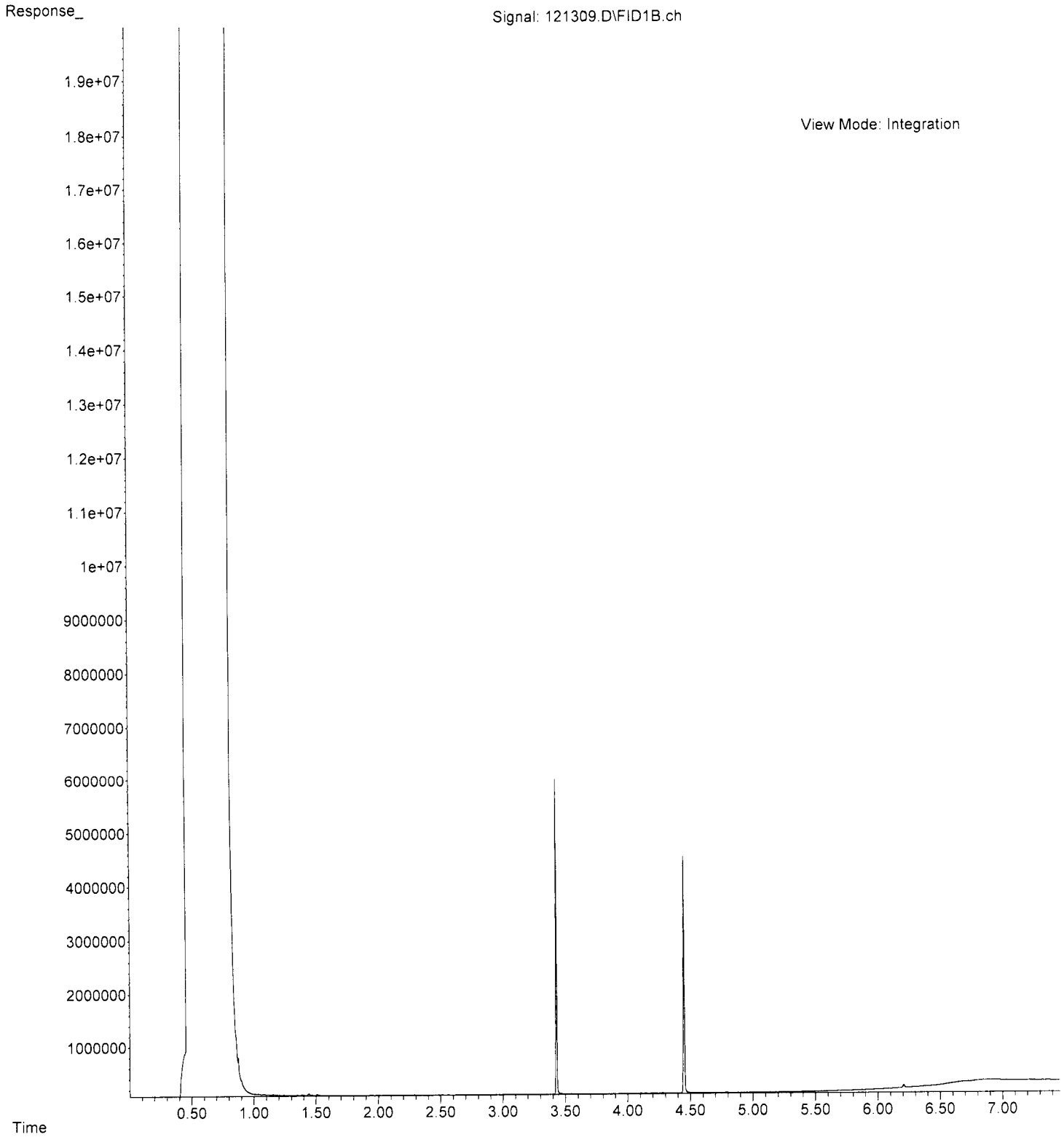
File :D:\GC10\GC10_Data\12-13-22\121307.D
Operator : TL
Acquired : 13 Dec 2022 08:51 using AcqMethod DX.M
Instrument : GC10
Sample Name: 212189-03
Misc Info :
Vial Number: 9



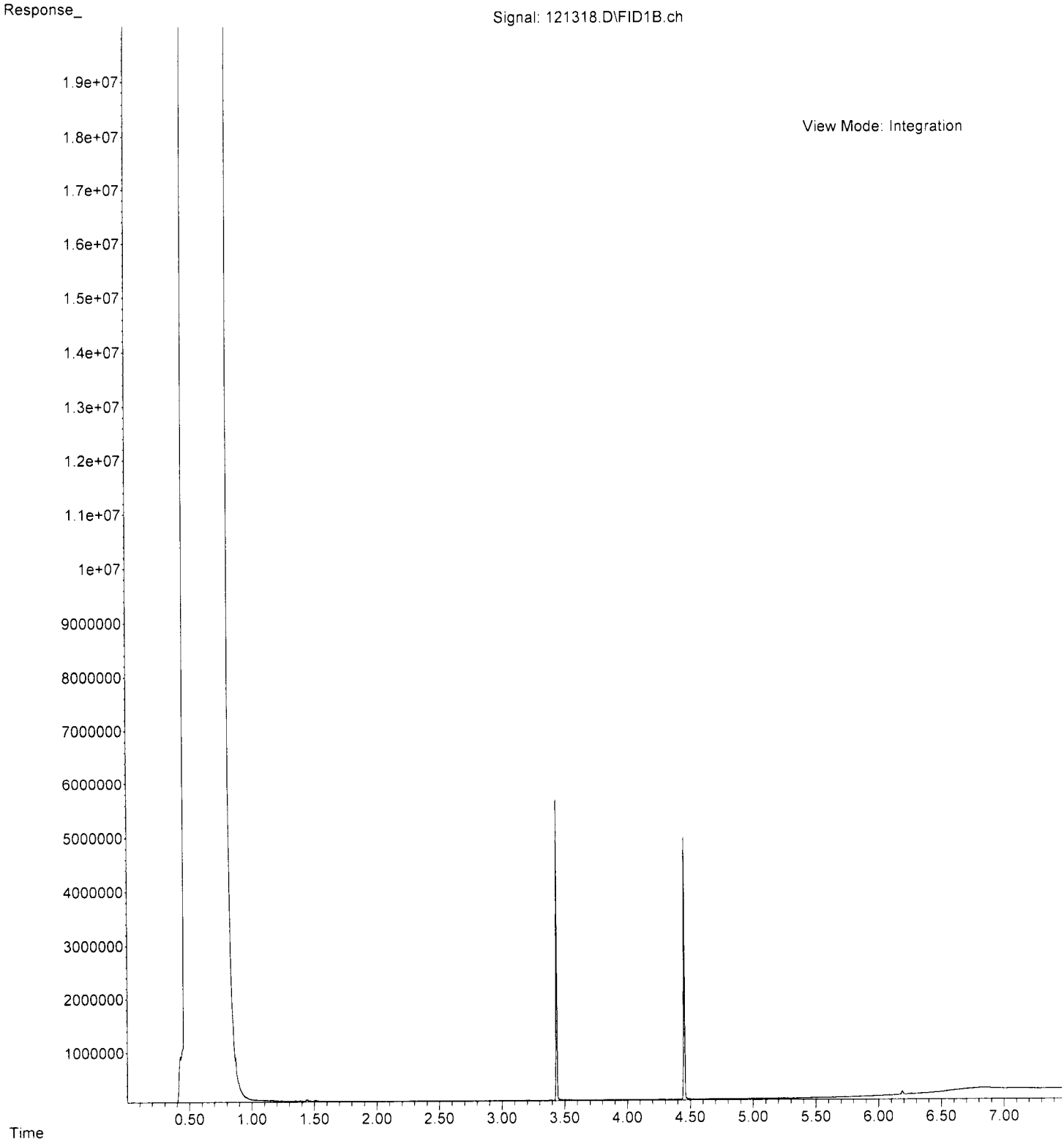
File :D:\GC10\GC10_Data\12-13-22\121308.D
Operator : TL
Acquired : 13 Dec 2022 09:03 using AcqMethod DX.M
Instrument : GC10
Sample Name: 212189-04
Misc Info :
Vial Number: 10



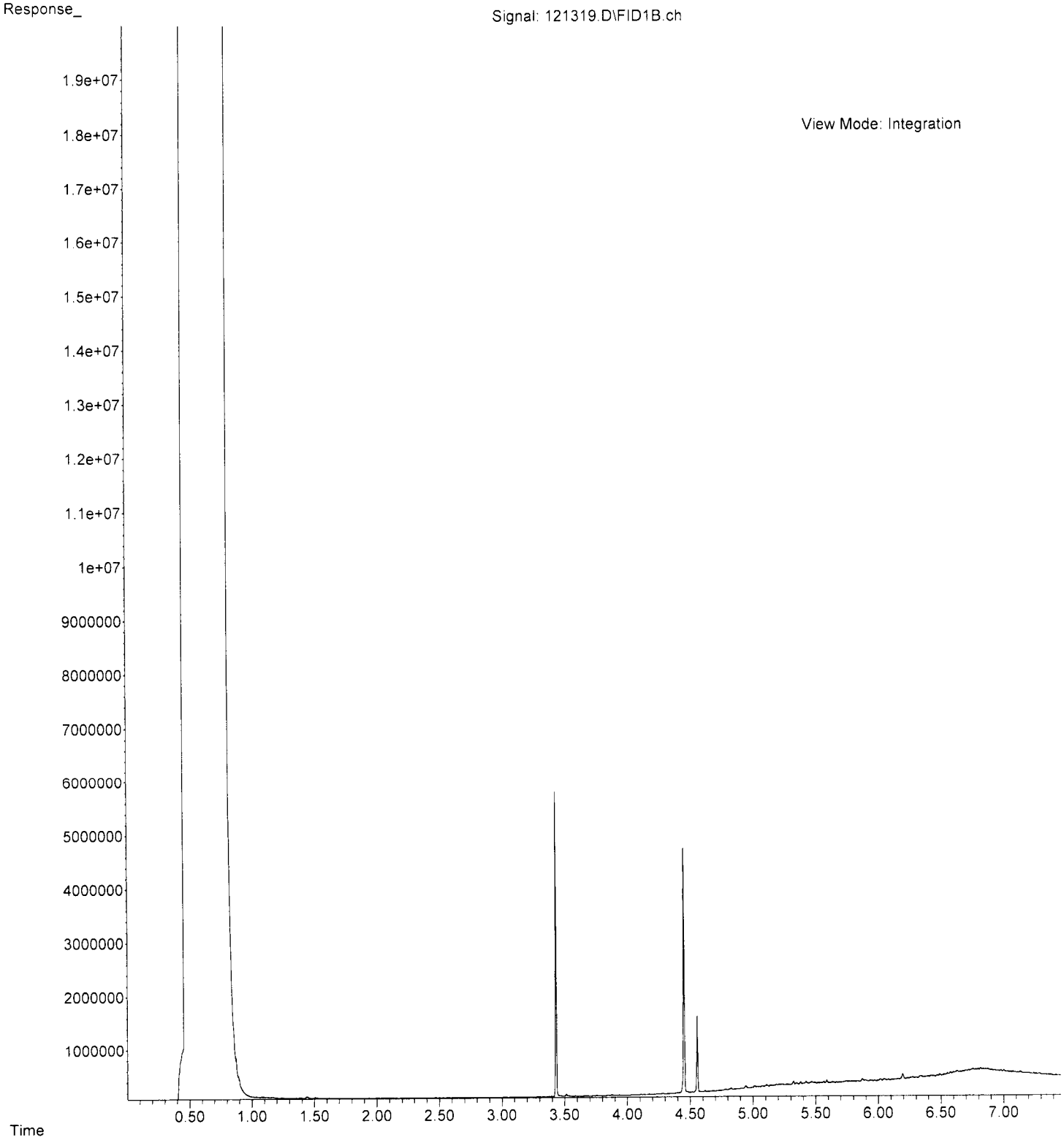
File :D:\GC10\GC10_Data\12-13-22\121309.D
Operator : TL
Acquired : 13 Dec 2022 09:15 using AcqMethod DX.M
Instrument : GC10
Sample Name: 212189-05
Misc Info :
Vial Number: 11



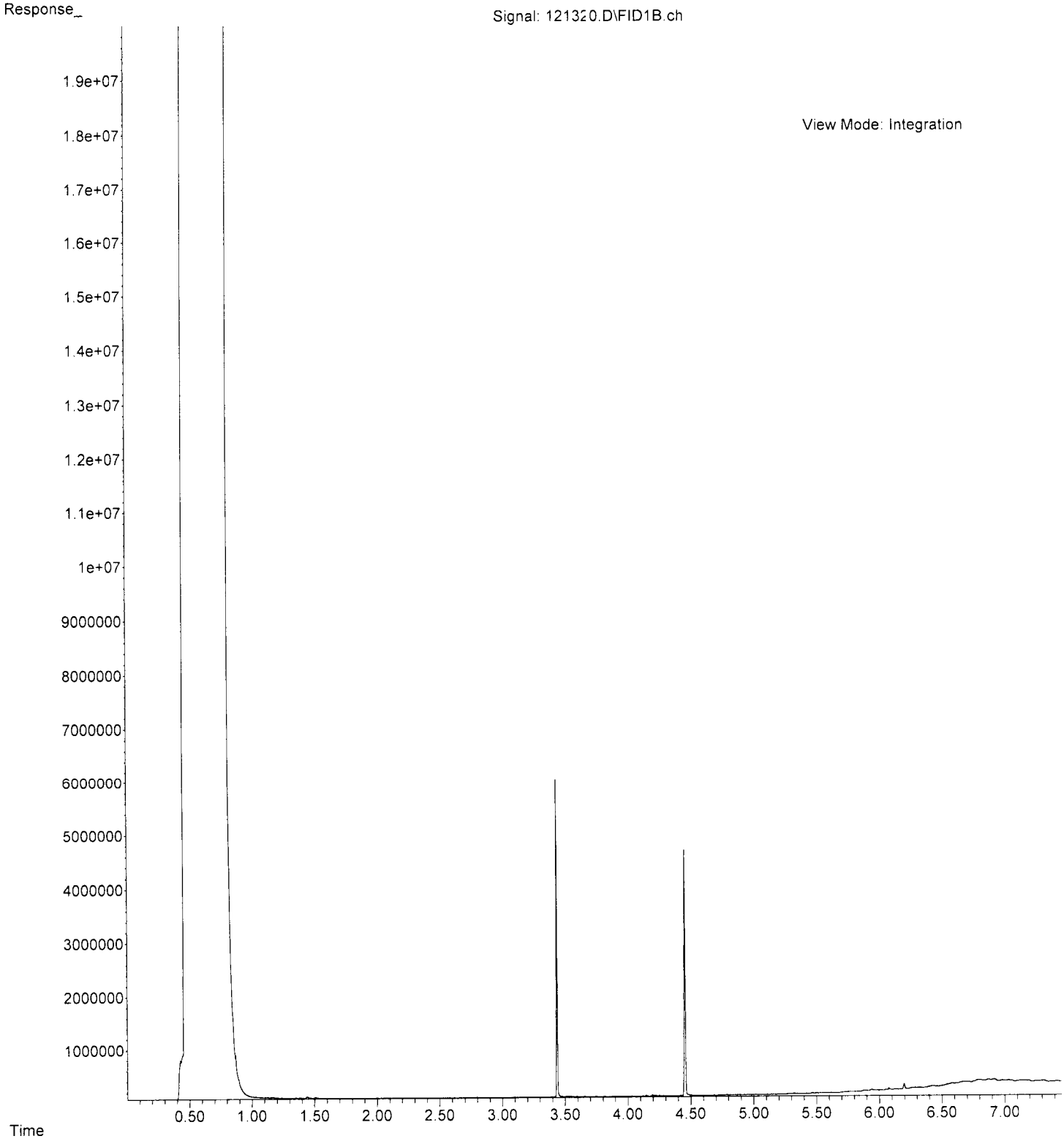
File :D:\GC10\GC10_Data\12-13-22\121318.D
Operator : TL
Acquired : 13 Dec 2022 11:01 using AcqMethod DX.M
Instrument : GC10
Sample Name: 212189-06
Misc Info :
Vial Number: 12



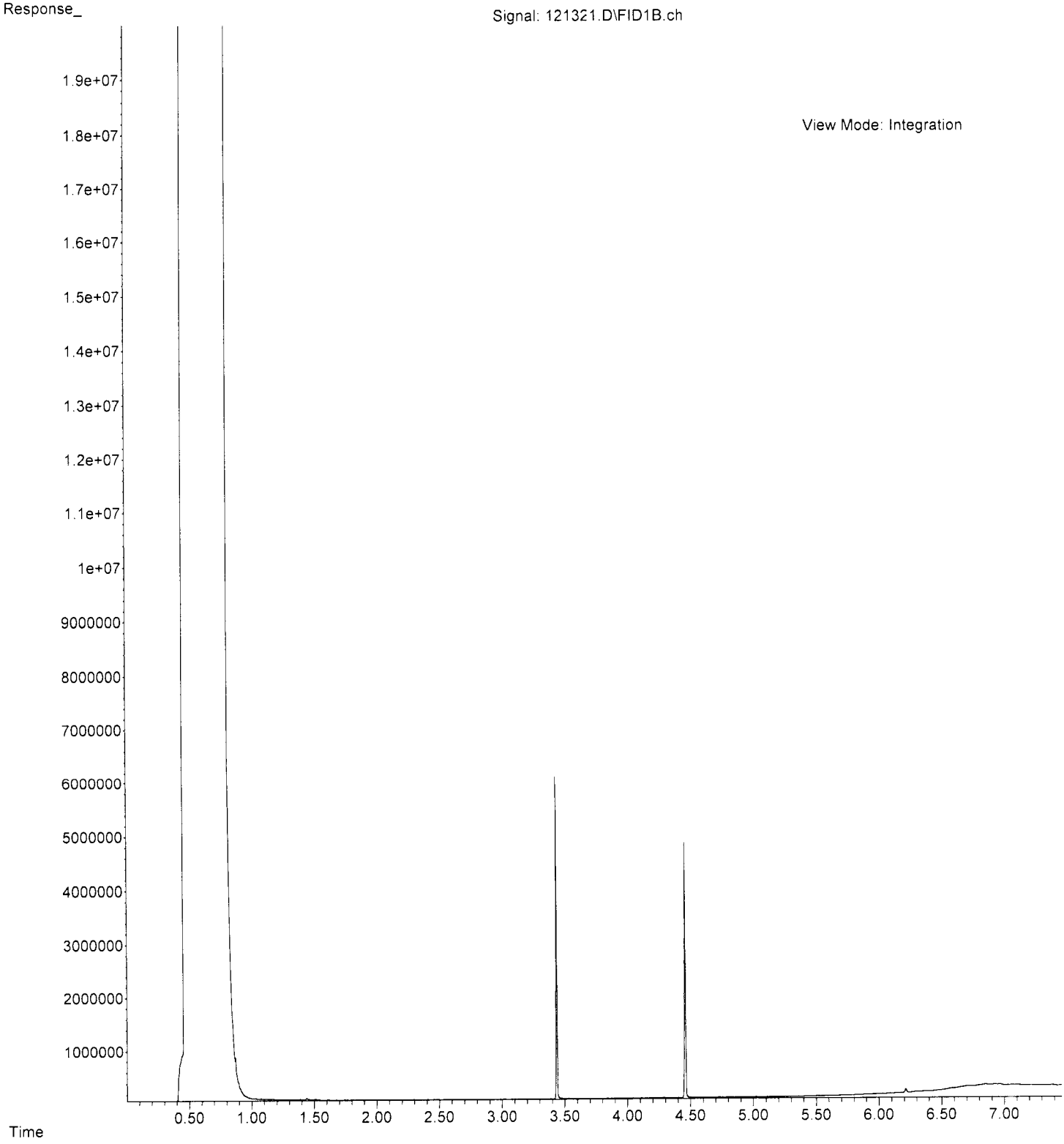
File :D:\GC10\GC10_Data\12-13-22\121319.D
Operator : TL
Acquired : 13 Dec 2022 11:12 using AcqMethod DX.M
Instrument : GC10
Sample Name: 212189-07
Misc Info :
Vial Number: 13



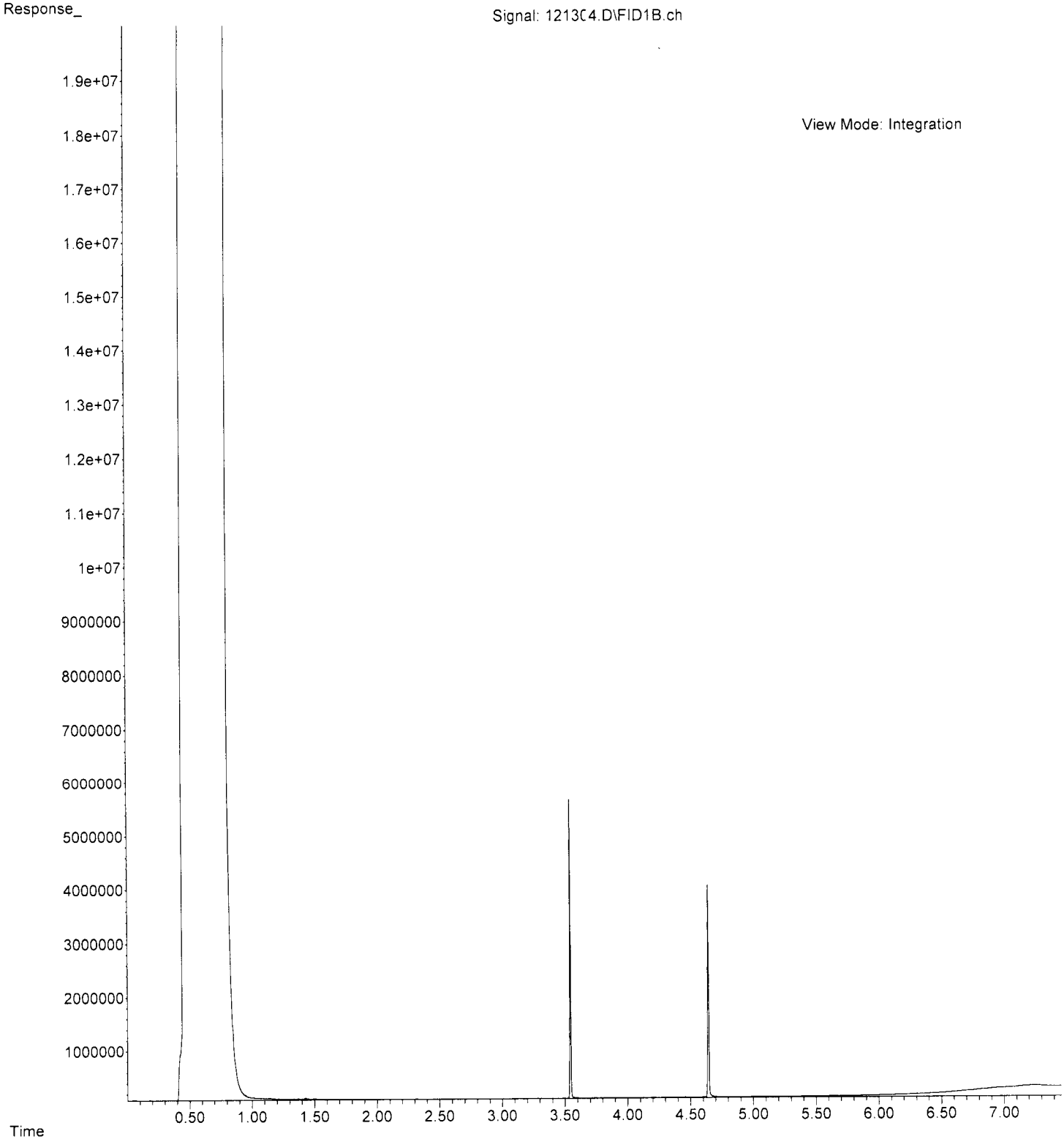
File :D:\GC10\GC10_Data\12-13-22\121320.D
Operator : TL
Acquired : 13 Dec 2022 11:24 using AcqMethod DX.M
Instrument : GC10
Sample Name: 212189-08
Misc Info :
Vial Number: 14



File :D:\GC10\GC10_Data\12-13-22\121321.D
Operator : TL
Acquired : 13 Dec 2022 11:36 using AcqMethod DX.M
Instrument : GC10
Sample Name: 212189-09
Misc Info :
Vial Number: 15



File :D:\GC10\GC10_Data\12-13-22\121304.D
Operator : TL
Acquired : 13 Dec 2022 08:16 using AcqMethod DX.M
Instrument : GC10
Sample Name: 02-2944 mb2
Misc Info :
Vial Number: 6



File :D:\GC10\GC10_Data\12-13-22\121303.D
Operator : TL
Acquired : 13 Dec 2022 07:46 using AcqMethod DX.M
Instrument : GC10
Sample Name: 500 DX 67-143B
Misc Info :
Vial Number: 3