PERSONAL AND CONFIDENTIAL

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April 25, 2025

CASCADE

Attn: Alex Amort
415-302-1231
AAmort@cascade-env.com

Re: Acid Spills Soil Assessment Results
13600 SE Ambler Road, Clackamas, Oregon

Dear Alex Amort:

At the request of Cascade Environmental (Cascade – client), EVREN Northwest, Inc. (ENW) has prepared this letter documenting the methods and results of soil sampling performed on February 3, 2025 and March 10, 2025 in response to two unrelated acid spills that occurred on the above referenced property (subject site; Figure 1).

Background

On February 27, 2024, while Advanced Chemical Transport LLC (ACT) was unloading a trailer of waste materials, an estimated 165 gallons of waste nitric and hydrofluoric acids were released to a graveled area. The spilled material and upper most gravel material was cleaned up by ACT, and soil samples were collected within the vicinity of the spill in several separate sampling events occurring in March, April, May, and September of 2024. ENW was contracted in December 2024 to assess these cleanup efforts and provide an opinion of possible data gaps. In a December 16, 2024 opinion letter, ENW identified potential data gaps and recommended additional assessment of near surface soils within the spill area, specifically to screen soils for potentially altered pH, as well as for hexavalent chromium, total titanium, and the priority pollutant list of metals.[1] ENW was authorized to perform the recommended additional soil assessment in January 2025. While awaiting laboratory results, a second acid spill event occurred in early March 2025. ENW was authorized to conduct a similar scope of work in response to the second spill event. This letter summarizes the findings of sampling conducted in response to both spill events.

[1] ENW, December 2024. Spill Response Summary Letter, December 16, 2024.

Assessment Sampling

ENW conducted two surface soil assessment events on February 3, 2025 and March 10, 2025 to support characterization of soil within the vicinity of two separate acid spills. Sampling was conducted using incremental sampling methodology (ISM) developed by the Interstate Technology & Regulatory Council (ITRC; 2012).[2] Deeper discrete soil samples were also collected from both spill areas to investigate the vertical extent of potential impacts. Additionally, field pH measurements of surface soil were collected to assess the potential for residual acid in the soils within the spill areas.

METHODOLOGY. ENW field staff assessed the soil surrounding both acid spills using ISM, through which multiple "increments" (samples of equal mass) are collected across a targeted area, identified as a "decision unit" or DU. The increments from each DU are composited and processed to derive a statistically valid average concentration across the target area. For the purpose of this investigation, the February 2024 acid spill sampling area was designated as DU01 and the March 2025 acid spill sampling area was designated as DU02, as illustrated on Figure 1.

A total of 30 increment samples were collected from each DU01 and DU02 using a decontaminated stainless-steel hand auger. A skid steer operated by ACT personnel was used to break up compacted surficial gravels to facilitate sample collection. All incremental samples were collected at a depth of approximately 0.25 feet below ground surface (ft bgs). In addition to the incremental samples, discrete grab soil samples were collected from within each spill area where the greatest evidence of impacts was suggested at depths of 1-foot and 2-feet bgs. Photos taken during sample collection are included in Attachment A and sample locations are summarized in the table below.

Table 1-1. Sample Locations

Sample ID	Date Sampled	Depth Sampled (feet)	Sampled By	Location
DU01-250203-IS-0.25	2/3/2025	0.25	ENW	February 2024 Acid Spill Area (DU01)
GS01-1.0	2/3/2025	1	ENW	
GS02-2.0	2/3/2025	2	ENW	
DU02-250310-IS	3/10/2025	0.25	ENW	March 2025 Acid Spill Area (DU02)
GS-03-1.0	3/10/2025	1	ENW	
GS04-2.0	3/10/2025	2	ENW	

[2] ITRC, 2012. Incremental Sampling Methodology, Technical and Regulatory Guidance: Prepared by the Interstate Technology & Regulatory Council Incremental Sampling Methodology Team. February 2012.

Sample increments for ISM samples were placed into dedicated laboratory-provided 1-gallon glass sample jars and grab samples were collected in 4oz sample jars. All sample containers were uniquely labelled and immediately placed in cooled storage pending delivery to the laboratory. Sampling personnel wore fresh Nitrile gloves, and all sampling equipment was decontaminated prior to and after sample collection to prevent cross-contamination between samples.

Samples were submitted to Friedman & Bruya, Inc. (F&BI) of Seattle, Washington ISM samples were processed in accordance with Interstate Technology & Regulatory Council (ITRC) protocols, prior to analysis. Per the ISM protocol, the samples were dried, sieved, sub-sampled and composited, and from each processed sample, an aliquot of sediment was randomly selected for analysis. The incremental soil samples were analyzed for:

- Hexavalent chromium (CrVI) via EPA Method 7196A
    - Subcontracted to Alliance Technical Group
- Total Priority Pollutant 13 (PP13) metals (antimony, arsenic, beryllium, cadmium, chromium (total), copper, lead, mercury, nickel, selenium, silver, thallium, and zinc) via EPA Method 6020B.
- The ISM sample collected from decision unit DU02 was additionally analyzed for volatile organic compounds (VOCs) via EPA Method 8260D.

Based on initial findings, all deeper discrete grab soil samples were analyzed for hexavalent chromium via the above-mentioned method.

Findings

Material Description. During the February 3, 2025 sampling event, ENW field staff reported encountering surficial compacted gravel overlying gravelly silt in DU01. During the March 10, 2025 sampling event, ENW field staff reported encountering compacted gravel overlying sandy soil in DU02.

Sediment collected in the ISM samples was described, in general, as gray and wet, with ponding observed in the northern portion of DU02 during sample collection. No evidence of a chemical odor or a sheen was observed. Field measurements around pH 5 were observed in some low-lying areas of DU01.

Laboratory Results. Laboratory analytical reports are included in Attachment B and analytical results are summarized in Table 1, where the results are compared to:

- SLRBCs derived in accordance with the ODEQ's *Risk-Based Decision Making for the Remediation of Contaminated Sites* (RBDM) guidance document.[3]
- Background metal concentrations in soil established by ODEQ.[4] ODEQ does not require cleanup for metals concentrations below default background concentrations.
- CFSLs for upland sites established by the ODEQ.[5] ODEQ does not require materials in which contaminant concentrations are less than or equal to CFSLs to be regulated as a solid waste.

[3] Applicable to underground storage tanks regulated under the *Cleanup Rules for Leaking Petroleum Underground Storage Tank Systems* (OAR 340-122-0205 through 340-122-0360) and other sources of contamination regulated under the *Hazardous Substance Remedial Action Rules* (OAR 340-122-0010 through 340-122-0115).
[4] ODEQ, March 20, 2013. Fact Sheet: Background Levels of Metals in Soils for Cleanups.
[5] ODEQ, 2014. Clean Fill Determinations: Internal Management Directive, last updated July 23, 2014, by Bill Mason. Clean Fill Table for Uplands last updated by Bill Mason, ODEQ-Eugene, June 10, 2014.

CFSLs are used to determine if impacts to soil may require future management and are not used for risk-screening.[6]

Hexavalent Chromium (CrVI) – CrVI was detected in both surficial ISM samples at concentrations above its SLRBC of 0.3 mg/Kg. However, CrVI was not detected in the deeper discrete samples collected at 1- and 2-feet bgs, suggesting that impacts are unlikely to be vertically extensive.

Total Metals – Total arsenic was detected above its SLRBC but below its regional background concentration, suggesting that arsenic has not been enriched in the sampled material.

Total chromium, copper, lead, nickel, and zinc were detected at concentrations less than their respective SLRCBs, CFSLs, and regional background concentrations suggesting no enrichment of these metals in the sampled material.

The remaining PP13 metals were not detected at or above their respective laboratory method reporting limits (MRLs).

VOCs – Dichloromethane was detected in the sample collected from DU02 at a concentration above its SLRBC. However, this result was flagged as likely the result of laboratory contamination as dichloromethane is utilized for extraction as part of VOC analysis. No other analyzed VOCs were detected at concentrations above their respective MRLs.

QUALITY ASSURANCE / QUALITY CONTROL. A review of the laboratory reports for soil samples indicates samples were generally analyzed within appropriate quality assurance/quality control procedures and specified holding times (see Appendix B for laboratory data validation forms completed for this project).

Additional Soil Removal

Based on CrVI concentrations in shallow soils above the SLRBC, ENW recommended additional soil removal in both spill areas to a depth of 1-foot bgs where findings suggest attenuation of CrVI concentrations. On April 18, 2025, ACT, under ENW oversight, excavated the upper 1 foot of soils from both spill areas. Excavation spoils were placed into two 10-yard drop boxes for offsite disposal by Republic Services under an approved waste profile. Following removal, both excavation areas were backfilled with clean imported gravel and compacted to match the surrounding grade.

[6] CFSLs do not constitute rulemaking by the Environmental Quality Commission and may not be relied upon to create an enforceable right or benefit, substantive or procedural, enforceable at law or in equity, by any person. Therefore, CFSLs should be considered as general guidance only for best practices during future development of the subject site.

Conclusions and Recommendations

On behalf of Cascade, ENW assessed surficial soils within two distinct acid waste spill areas. Laboratory findings suggested CrVI concentrations above screening levels in near surface gravels that appeared to attenuate to below detectable levels by 1-foot bgs. ENW oversaw the subsequent removal of the uppermost 1-foot of soil within both spill areas, followed by backfilling with clean, imported material. Based on the findings of this investigation, no additional action related to these two acid spill events is recommended at this time.

Should you have any questions about the findings of this assessment, please do not hesitate to phone me at (503) 452-5561.

Kind regards,

EVREN Northwest, Inc.

Evan Bruggeman, R.G.
Principal Field Geologist

ATTACHED:

TABLE	1	Summary of Analytical Data
FIGURES	1	Site Plan and Sample Location Diagram
ATTACHMENTS	A	Photographic Log
	B	Laboratory Analytical Reports

LIMITATIONS. We have performed our services for this project in accordance with our agreement and understanding with the Client. This document and the information contained herein have been prepared solely for the use of the Client. No other representation, expressed or implied, and no warranty or guarantee is included or intended. The standard of care used to conduct this work was consistent with reasonable and normal standards used by engineering and certified engineering geologist professionals. EVREN Northwest, Inc. may not be held responsible for conditions that they did not specifically evaluate at the time this report was prepared.

TABLE

Table 1 - Summary of Analytical Data, Soil

Location ID		DU01	GS01	GS02	DU02	GS03	GS04	Maximum Soil Concentration (remaining soil)	ODEQs Screening-Level Risk-Based Concentrations SLRBCs[1] (Soil)	Background Concentrations (Regional Default)	Clean Fill Screening Levels or Background Concentrations (as applicable)	Exceeds ODEQs Screening-Level SLRBCs (Soil) and/or Soil Matrix Cleanup Level
Sample ID		DU01-250203-IS-0.25	GS01-1.0	GS02-2.0	DU02-250310-0.25	GS03-1.0	GS04-2.0					
Date Sampled		2/3/2025	2/3/2025	2/3/2025	3/10/2025	3/10/2025	3/10/2025					
Depth Sampled (feet)		0.25	1.0	2.0	0.25	1.0	2.0					
Sampled By		ENW	ENW	ENW	ENW	ENW	ENW					
Location		First Spill Area (February 2024)			Second Spill Area (March 2025)					Portland Basin		TRUE OR Y FALSE OR N
Constituent of Interest	Note	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)				
Volatile Organic Constituents												
Benzene	c, v	---	---	---	<0.03 (ND)	---	---	<0.03 (ND)	0.023	---	0.023	(Y)
Bromodichloromethane	c, v	---	---	---	<0.05 (ND)	---	---	<0.05 (ND)	0.002	---	0.002	(Y)
Bromoform	c, v	---	---	---	<0.05 (ND)	---	---	<0.05 (ND)	0.046	---	0.046	(Y)
Bromomethane	nc, v	---	---	---	<0.5 (ND)	---	---	<0.5 (ND)	0.083	---	0.083	(Y)
Carbon tetrachloride	c, v	---	---	---	<0.05 k (ND)	---	---	<0.05 k (ND)	0.013	---	0.013	(Y)
Chlorobenzene	nc, v	---	---	---	<0.05 (ND)	---	---	<0.05 (ND)	5.8	---	2.4	N
Chlorodibromomethane (dibromochloromethane)	c, v	---	---	---	<0.5 (ND)	---	---	<0.5 (ND)	0.0024	---	0.0024	(Y)
Chloroethane (ethyl chloride)	nc, v	---	---	---	<0.5 (ND)	---	---	<0.5 (ND)	310	---	310	N
Chloroform	c, v	---	---	---	<0.05 (ND)	---	---	<0.05 (ND)	0.0034	---	0.0034	(Y)
Chloromethane	nc, v	---	---	---	<0.5 ca (ND)	---	---	<0.5 ca (ND)	2.2	---	2.2	N
Dichlorobenzene, 1,2-	nc, v	---	---	---	<0.05 (ND)	---	---	<0.05 (ND)	36	---	0.92	N
Dichlorobenzene, 1,4-	c, v	---	---	---	<0.05 (ND)	---	---	<0.05 (ND)	0.057	---	0.057	N
Dichloroethane, 1,1-	c, v	---	---	---	<0.05 (ND)	---	---	<0.05 (ND)	0.044	---	0.044	(Y)
Dichloroethene, 1,1-	nc, v	---	---	---	<0.05 (ND)	---	---	<0.05 (ND)	6.7	---	6.7	N
Dichloroethene, cis-1,2-	nc, v	---	---	---	<0.05 (ND)	---	---	<0.05 (ND)	0.63	---	0.63	N
Dichloroethene, trans-1,2-	nc, v	---	---	---	<0.05 (ND)	---	---	<0.05 (ND)	7.0	---	7	N
Dichloromethane (Methylene Chloride)	c, v	---	---	---	0.98 lc	---	---	0.98 lc	0.14	---	0.14	N
EDB (dibromoethane, 1,2-)	c, v	---	---	---	<0.05 (ND)	---	---	<0.05 (ND)	0.00012	---	0.00012	(Y)
EDC (dichloroethane, 1,2-)	c, v	---	---	---	<0.05 (ND)	---	---	<0.05 (ND)	0.0028	---	0.0028	(Y)
Ethylbenzene	c, v	---	---	---	<0.05 (ND)	---	---	<0.05 (ND)	0.22	---	0.22	N
MTBE (methyl t-butyl ether)	c, v	---	---	---	<0.05 (ND)	---	---	<0.05 (ND)	0.11	---	0.11	N
Naphthalene	c, v	---	---	---	<0.05 (ND)	---	---	<0.05 (ND)	0.077	---	0.077	N
iso-Propylbenzene (cumene)	nc, v	---	---	---	<0.05 (ND)	---	---	<0.05 (ND)	96	---	96	N
Tetrachloroethene (PCE)	c, v	---	---	---	<0.025 (ND)	---	---	<0.025 (ND)	0.46	---	0.18	N
Toluene	nc, v	---	---	---	<0.05 (ND)	---	---	<0.05 (ND)	83	---	23	N
Trichloroethane, 1,1,1-	nc, v	---	---	---	<0.05 k (ND)	---	---	<0.05 k (ND)	190	---	190	N
Trichloroethane, 1,1,2-	c, v	---	---	---	<0.05 (ND)	---	---	<0.05 (ND)	0.0063	---	0.0063	(Y)
Trichloroethene (TCE)	NA, v	---	---	---	<0.02 (ND)	---	---	<0.02 (ND)	0.013	---	0.013	(Y)
Trichlorofluoromethane (Freon 11)	nc, v	---	---	---	<0.5 (ND)	---	---	<0.5 (ND)	61	---	52	N
Trimethylbenzene, 1,3,5-	nc, v	---	---	---	<0.05 (ND)	---	---	<0.05 (ND)	11	---	11	N
Vinyl chloride	c, v	---	---	---	<0.05 ca (ND)	---	---	<0.05 ca (ND)	0.00057	---	0.00057	(Y)
Xylenes	nc, v	---	---	---	<0.15 (ND)	---	---	<0.15 (ND)	23	---	1.4	N
Metals												
Antimony		<1 (ND)	---	---	<2 ca (ND)	---	---	<2 ca (ND)	NE	NE	NE	
Arsenic	c, nv	3.6	---	---	2.3	---	---	3.6	0.43	8.8	8.8	BKG
Beryllium	c, nv	<1 (ND)	---	---	<2 (ND)	---	---	<2 (ND)	160	2	2	N
Cadmium	nc, nv	<1 (ND)	---	---	<2 (ND)	---	---	<2 (ND)	78	0.63	0.63	N
Chromium (III)	nc, nv	18	---	---	11	---	---	18	120000	76	76	N
Chromium (VI)	c, nv	1.30	<0.558 (ND)	<0.552 (ND)	0.597	<0.0591 (ND)	<0.557 (ND)	1.30	0.3	---	---	Y
Copper	nc, nv	21	---	---	18	---	---	21	3100	34	34	N
Lead	NA, nv	22	---	---	21	---	---	22	400	79	28	N
Mercury	nc, nv	<1 (ND)	---	---	<2 (ND)	---	---	<2 (ND)	23	0.23	0.23	N
Nickel	c, nv	19	---	---	13	---	---	19	1500	47	47	N
Selenium		<1 (ND)	---	---	<2 (ND)	---	---	<2 (ND)	NE			
Silver	nc, nv	<1 (ND)	---	---	<2 (ND)	---	---	<2 (ND)	390	0.82	0.82	N
Thallium		<0.8 (ND)	---	---	<0.8 k (ND)	---	---	<0.8 (ND)	NE			
Titanium (Total)		2160	---	---	---	---	---	2160	NE			
Zinc		180 ve	---	---	70	---	---	180 ve	NE			

Notes:
mg/Kg = milligram per kilogram or parts per million (ppm).
<# (ND) = not detected at or above the laboratory method reporting limit shown.

NE = not established.
— = not analyzed or not applicable.

c = carcinogenic
nc = noncarcinogenic
v = volatile

nv = nonvolatile

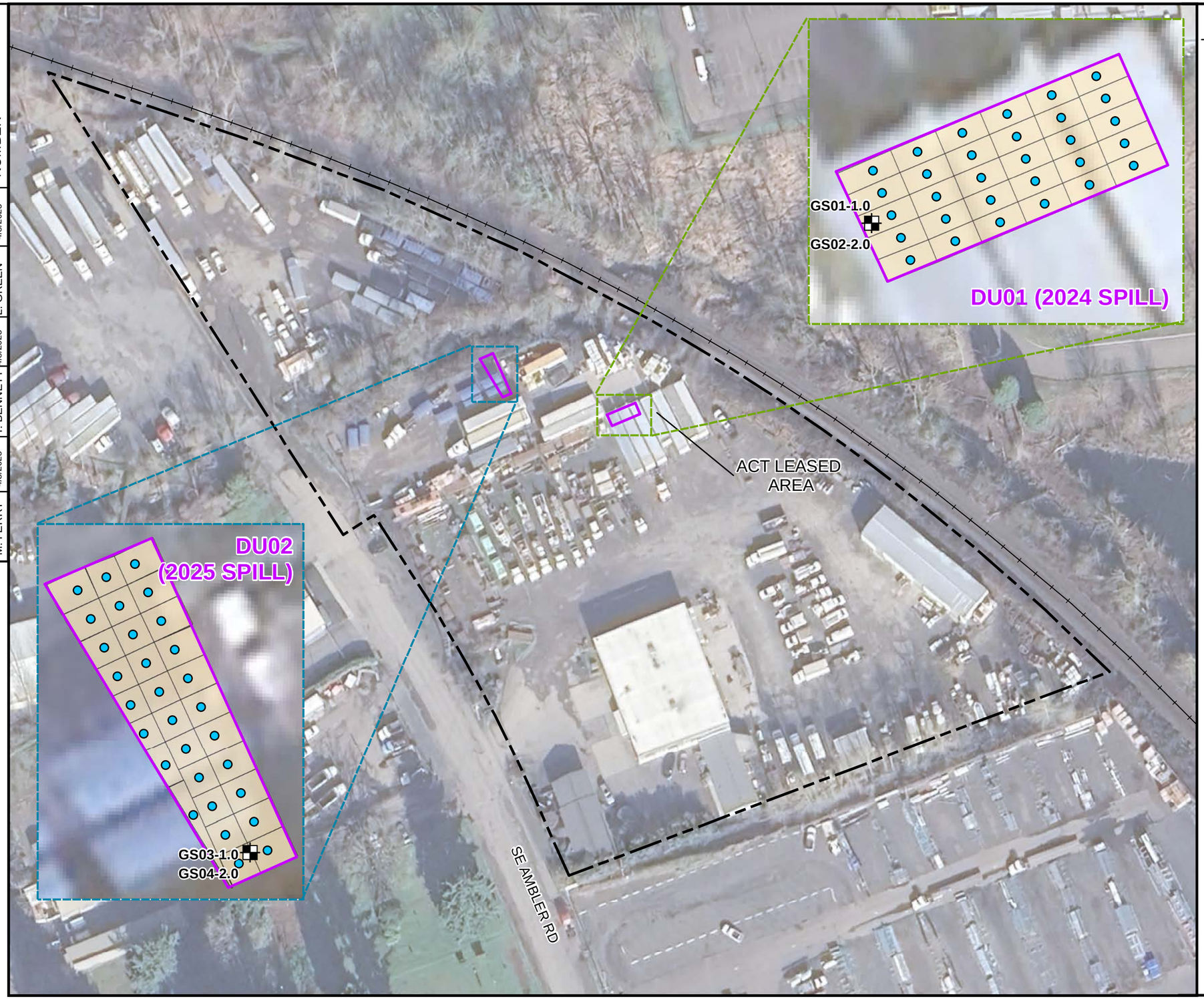
Shaded concentrations exceed screening level risk-based concentrations and background concentrations, as applicable.

[1] Lowest Risk-Based Concentration for soil (screening level assumes residential use, from ODEQ RBCs dated May 2018).

(Y) indicates analyte not detected, but detection limit is above screening concentration.
lc = The presence of the compound indicated is likely due to laboratory contamination.
BKG = constituent exceeded its SLRBC; however, was not detected above default backgound concentrations in soil

FIGURES

DRAWING NUMBER	702-22001(V03)
APPROVED BY	L. GREEN 4/8/2025
CHECKED BY	T. BENNETT 4/8/2025
DRAWN BY	M. FERRY 4/8/2025



LEGEND:

- CASCADE PROPERTY BOUNDARIES
- DECISION UNIT
- RAILROADS
- DISCRETE GRAB SAMPLE LOCATION
- APPROXIMATE INCREMENT LOCATION (ISM)

NOTES:

1. BASE MAP DEVELOPED FROM AN AERIAL PHOTOGRAPH MAP DATED 2024 AND ENW FIELD NOTES.
2. ALL BUILDING, STREET, AND FEATURE LOCATIONS ARE APPROXIMATE.
3. SYMBOLS REPRESENT LOCATION AND DO NOT ALWAYS REPRESENT EXACT SHAPE, SIZE, OR ORIENTATION

0 55 110 220 Feet

N

EVREN NORTHWEST INC.
environmental & natural resource consultants

FIGURE 1

SITE PLAN AND SAMPLE LOCATION DIAGRAM

INDUSTRIAL PROPERTY
13600 AMBLER ROAD
CLACKAMAS, OREGON

ATTACHMENT A

Photographic Log

View of loading dock where the February 2024 acid spill occurred (DU01). Photo taken February 2025 during ENW's ISM sample collection.

A skid steer was used to facilitate sample collection within the compacted surficial gravel.

View of incremental soil sample location within the February 2024 spill area (DU01), near loading dock stairs.

View of subsurface soil, during incremental sampling with a hand auger within DU01.

EVREN NORTHWEST INC environmental natural resource consultants	13600 SE Ambler Road Clackamas, OR	**Site Photographs**	Project No. 702-2201-02 Attachment **A**

View of the March 2025 acid spill area (DU02) during ENW's ISM sampling event, following ACT's initial cleanup action.

Ponding of rainwater observed in the vicinity of the spill area provided visual evidence of the possible extent of impacts from the acid spill and was utilized to inform decisions regarding the decision unit area.

On April 18, 2025 additional soil was removed by ACT from both acid spill areas (DU01 and DU02).

Excavated soils were placed into 10-yard drop boxes for appropriate offsite disposal coordinated by ACT.

EVREN NORTHWEST INC environmental / natural resource consultants	13600 SE Ambler Road Clackamas, OR	**Site Photographs**	Project No. 702-2201-02 Attachment **A**

View of soil removal within the DU01 area.

At least one foot of soil was removed from each acid spill area based on sample data collected during ENW's assessment.

Following removal, both areas were backfilled with clean imported gravel.

EVREN NORTHWEST INC. environmental natural resource consultants	13600 SE Ambler Road Clackamas, OR	**Site Photographs**	Project No. 702-2201-02 Attachment **A**

ATTACHMENT B

Laboratory Analytical Report

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Elizabeth Webber-Bruya
Ann Webber-Bruya
Michael Erdahl
Vineta Mills
Eric Young

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

February 26, 2025

Lynn Green, Project Manager
Evren Northwest, Inc.
PO Box 14488
Portland, OR 97293

Dear Mr Green:

Included are the results from the testing of material submitted on February 4, 2025 from the 702-22001-02, F&BI 502014 project. There are 5 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: Paul Trone, Evan Bruggeman
ENW0226R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on February 4, 2025 by Friedman & Bruya, Inc. from the Evren Northwest 702-22001-02, F&BI 502014 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Evren Northwest
502014 -01	DU01-250203-IS-0.25
502014 -02	GS01-1.0
502014 -03	GS02-2.0

Sample DU01-250203-IS-0.25 was sent to Alliance Technical Group for total titanium and Cr VI testing. The report is enclosed.

The 6020B antimony calibration standard did not meet the acceptance criteria in the method blank. The data were flagged accordingly.

All other quality control requirements were acceptable.

Analysis For Total Metals By EPA Method 6020B

Client ID:	DU01-250203-IS-0.25	Client:	Evren Northwest
Date Received:	02/04/25	Project:	702-22001-02, F&BI 502014
Date Extracted:	02/05/25	Lab ID:	502014-01
Date Analyzed:	02/06/25 and 02/12/25	Data File:	502014-01.152 and 502014-01.063
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Antimony	<1
Arsenic	3.6
Beryllium	<1
Cadmium	<1
Chromium	18
Copper	21
Lead	22
Mercury	<1
Nickel	19
Selenium	<1
Silver	<1
Thallium	<1
Zinc	280

Analysis For Total Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Evren Northwest
Date Received:	Not Applicable	Project:	702-22001-02, F&BI 502014
Date Extracted:	02/05/25	Lab ID:	I5-101 mb2
Date Analyzed:	02/05/25	Data File:	I5-101 mb2.045
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Antimony	<1 ca
Arsenic	<1
Beryllium	<1
Cadmium	<1
Chromium	<1
Copper	<5
Lead	<1
Mercury	<1
Nickel	<1
Selenium	<1
Silver	<1
Thallium	<1
Zinc	<5

Date of Report: 02/26/25
Date Received: 02/04/25
Project: 702-22001-02, F&BI 502014

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

Laboratory Code: 502029-01 x5 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Antimony	mg/kg (ppm)	20	<5	89	89	75-125	0
Arsenic	mg/kg (ppm)	10	<5	92	90	75-125	2
Beryllium	mg/kg (ppm)	5	<5	96	97	75-125	1
Cadmium	mg/kg (ppm)	10	<5	103	96	75-125	7
Chromium	mg/kg (ppm)	50	67.2	98 b	76 b	75-125	25 b
Copper	mg/kg (ppm)	50	177	144 b	68 b	75-125	72 b
Lead	mg/kg (ppm)	50	33.0	110 b	93 b	75-125	17 b
Mercury	mg/kg (ppm	5	<5	89	86	75-125	3
Nickel	mg/kg (ppm)	25	49.7	104 b	89 b	75-125	16 b
Selenium	mg/kg (ppm)	5	<5	79	83	75-125	5
Silver	mg/kg (ppm)	10	<5	92	94	75-125	2
Thallium	mg/kg (ppm)	5	<4	92	94	75-125	2
Zinc	mg/kg (ppm)	50	529	293 b	76 b	75-125	118 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Antimony	mg/kg (ppm)	20	91	80-120
Arsenic	mg/kg (ppm)	10	96	80-120
Beryllium	mg/kg (ppm)	5	90	80-120
Cadmium	mg/kg (ppm)	10	99	80-120
Chromium	mg/kg (ppm)	50	104	80-120
Copper	mg/kg (ppm)	50	100	80-120
Lead	mg/kg (ppm)	50	98	80-120
Mercury	mg/kg (ppm)	5	91	80-120
Nickel	mg/kg (ppm)	25	103	80-120
Selenium	mg/kg (ppm)	5	97	80-120
Silver	mg/kg (ppm)	10	99	80-120
Thallium	mg/kg (ppm)	5	102	80-120
Zinc	mg/kg (ppm)	50	99	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 between the method detection limit and the lowest calibration point. The value reported is an estimate.

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

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

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

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

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

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

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

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

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

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

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

502014

SAMPLE CHAIN OF CUSTODY

02/04/25

ISM/F1/01

Page # 1 of 1

Report To Lynn Green

Company EVREN-NW

Address 40 SE 24th Ave

City, State, ZIP Portland, Oregon 97214

Phone 503-452-5561 Email lynng@evren-nw.com

SAMPLERS (*signature*)

PROJECT NAME: 702-22001-02

PO #

REMARKS

Project Specific RLs - Yes / No

INVOICE TO

TURNAROUND TIME
X Standard Turnaround
RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
Dispose after 30 days
Archive Samples
Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	PP13	Total Titanium	Total Cr(VI)	ISM Prep	Notes
DU01-250203-IS-0.25	01	2/03/25	1045	soil	1							X	X	X	X	
G501-1.0	02	2/03/25	1052	↓	1											HOLD
G502-2.0	03	2/03/25	1058	↓	1											HOLD

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Dan Sayko	ENW	2/03/25	18:00
Received by:	Anna Bruya	F&B	2/4/25	0954
Relinquished by:				
Received by:				

Samples received at 4 °C

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

SAMPLE CONDITION UPON RECEIPT CHECKLIST

PROJECT # 502014 CLIENT ENW INITIALS/ DATE: AUB 2/4

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

Cooler/Sample temperature 4 °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: AUB 2/4
*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** _____

GLS.

800-322-5555
www.gls-us.com

Ship From
EVREN NW
DAN SAJKO
40 SE 24TH AVE
PORTLAND, OR 97214

Ship To
FRIEDMAN & BRUYA, INC
MICHAEL ERDAHL
5500 4TH AVE S
SEATTLE, WA 98108

COD: $0.00
Weight: 0 lb(s)
Reference:

Delivery Instructions:

Signature Type: STANDARD

Tracking #: 562473627

PDS

SEATTLE

S06437C

23342496

KNT WA980-7C0

Print Date: 1/6/2025 3:02 PM

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: 502014,
Work Order Number: 2502066

February 12, 2025

Attention Michael Erdahl:

Alliance Technical Group, LLC - Seattle received 1 sample(s) on 2/5/2025 for the analyses presented in the following report.

Hexavalent Chromium by EPA 7196A
Sample Moisture (Percent Moisture)
Total Metals by EPA 6020B

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

Alliance Technical Group is committed to accuracy, speed, and customer service. Thank you for choosing Alliance Technical Group's Seattle laboratory team for your analytical needs. We appreciate this opportunity to serve you!

Sincerely,

Kelley Lovejoy
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: *02/12/2025*

CLIENT: Friedman & Bruya
Project: 502014
Work Order: 2502066

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2502066-001	DU01-250203-IS-0.25	02/03/2025 10:45 AM	02/05/2025 11:30 AM

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

Case Narrative

WO#: **2502066**

Date: **2/12/2025**

CLIENT: Friedman & Bruya
Project: 502014

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

Analytical Report

Work Order: **2502066**
Date Reported: **2/12/2025**

CLIENT: Friedman & Bruya
Project: 502014

Lab ID: 2502066-001 **Collection Date:** 2/3/2025 10:45:00 AM
Client Sample ID: **DU01-250203-IS-0.25** **Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Total Metals by EPA 6020B				Batch ID: 46676		Analyst: ME
Titanium	2,160	8.07	D	mg/Kg-dry	20	2/12/2025 11:51:00 AM
Sample Moisture (Percent Moisture)				Batch ID: R97433		Analyst: PC
Percent Moisture	7.49	0.500		wt%	1	2/6/2025 9:51:52 AM
Hexavalent Chromium by EPA 7196A				Batch ID: 46701		Analyst: NR
Chromium, Hexavalent	1.30	0.549		mg/Kg-dry	1	2/10/2025 1:22:00 PM

Work Order: 2502066
CLIENT: Friedman & Bruya
Project: 502014

QC SUMMARY REPORT

Hexavalent Chromium by EPA 7196A

Sample ID: **MB-46701**	SampType: **MBLK**			Units: **mg/Kg**		Prep Date: **2/7/2025**		RunNo: **97527**		
Client ID: **MBLKS**	Batch ID: **46701**					Analysis Date: **2/10/2025**		SeqNo: **2032147**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium, Hexavalent	ND	0.500									

Sample ID: **LCS-46701**	SampType: **LCS**			Units: **mg/Kg**		Prep Date: **2/7/2025**		RunNo: **97527**		
Client ID: **LCSS**	Batch ID: **46701**					Analysis Date: **2/10/2025**		SeqNo: **2032148**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium, Hexavalent	10.8	0.500	12.87	0	84.2	65.1	105				

Sample ID: **2502024-001ADUP**	SampType: **DUP**			Units: **mg/Kg-dry**		Prep Date: **2/7/2025**		RunNo: **97527**		
Client ID: **BATCH**	Batch ID: **46701**					Analysis Date: **2/10/2025**		SeqNo: **2032150**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium, Hexavalent	ND	0.605						0		30	

Sample ID: **2502024-001AMS1**	SampType: **MS**			Units: **mg/Kg-dry**		Prep Date: **2/7/2025**		RunNo: **97527**		
Client ID: **BATCH**	Batch ID: **46701**					Analysis Date: **2/10/2025**		SeqNo: **2032151**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium, Hexavalent	12.8	0.590	15.20	0	84.5	32	106				

Sample ID: **2502024-001AMS2**	SampType: **MS**			Units: **mg/Kg-dry**		Prep Date: **2/7/2025**		RunNo: **97527**		
Client ID: **BATCH**	Batch ID: **46701**					Analysis Date: **2/10/2025**		SeqNo: **2032152**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium, Hexavalent	9.92	0.568	11.35	0	87.4	32	106				

Work Order: 2502066
CLIENT: Friedman & Bruya
Project: 502014

QC SUMMARY REPORT

Total Metals by EPA 6020B

Sample ID: **MB-46676**	SampType: **MBLK**	Units: **mg/Kg**	Prep Date: **2/6/2025**	RunNo: **97584**
Client ID: **MBLKS**	Batch ID: **46676**		Analysis Date: **2/11/2025**	SeqNo: **2033466**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Titanium	ND	0.300									

Sample ID: **LCS-46676**	SampType: **LCS**	Units: **mg/Kg**	Prep Date: **2/6/2025**	RunNo: **97584**
Client ID: **LCSS**	Batch ID: **46676**		Analysis Date: **2/11/2025**	SeqNo: **2033467**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Titanium	36.1	0.300	40.00	0	90.2	80	120				

Sample ID: **2502068-001AMS**	SampType: **MS**	Units: **mg/Kg-dry**	Prep Date: **2/6/2025**	RunNo: **97584**
Client ID: **BATCH**	Batch ID: **46676**		Analysis Date: **2/11/2025**	SeqNo: **2033471**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Titanium	448	0.317	42.26	466.3	-42.2	75	125				ES

NOTES:
S - Spiked amount was low relative to sample concentration. Outlying spike recoveries may be expected.

Sample ID: **2502068-001AMSD**	SampType: **MSD**	Units: **mg/Kg-dry**	Prep Date: **2/6/2025**	RunNo: **97584**
Client ID: **BATCH**	Batch ID: **46676**		Analysis Date: **2/11/2025**	SeqNo: **2033475**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Titanium	519	0.330	44.00	466.3	121	75	125	448.5	14.7	20	E

Sample Log-In Check List

Client Name:	FB	Work Order Number:	2502066
Logged by:	Morgan Wilson	Date Received:	2/5/2025 11:30:00 AM

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 °C
Sample	4.8

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

SUBCONTRACT SAMPLE CHAIN OF CUSTODY

Send Report To Michael Erdahl

Company Friedman and Bruya, Inc.

Address 5500 4th Ave S

City, State, ZIP Seattle, WA 98108

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

SUBCONTRACTER ATG	
PROJECT NAME/NO. 502014	PO # F-54
REMARKS 2502066	

TURNAROUND TIME
- ☒ Standard TAT
- ☐ 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: Cr VI	Total Titanium									Notes
DU01-250203-IS-0.25		2/3/2025	1045	soil	6	x	x									

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		Michael Erdahl	Friedman & Bruya	2/5/25	0730
Received by:		Nathan Hatfield	ATG	2/5/25	1130
Relinquished by:					
Received by:					

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Elizabeth Webber-Bruya
Ann Webber-Bruya
Michael Erdahl
Vineta Mills
Eric Young

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

March 10, 2025

Lynn Green, Project Manager
Evren Northwest, Inc.
PO Box 14488
Portland, OR 97293

Dear Mr Green:

Included are the additional results from the testing of material submitted on February 4, 2025 from the 702-22001-02, F&BI 502014 project. There is 1 page 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: Paul Trone, Evan Bruggeman
ENW0310R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on February 4, 2025 by Friedman & Bruya, Inc. from the Evren Northwest 702-22001-02, F&BI 502014 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Evren Northwest
502014 -01	DU01-250203-IS-0.25
502014 -02	GS01-1.0
502014 -03	GS01-1.0

Samples GS01-1.0 and GS01-1.0 were sent to Alliance Technical Group for hexavalent chromium testing. The report is enclosed.

502014

SAMPLE CHAIN OF CUSTODY

02/04/25

ISM/F1/01

Report To Lynn Green

Company EVREN-NW

Address 40 SE 24th Ave

City, State, ZIP Portland, Oregon 97214

Phone 503-452-5561 Email lynng@evren-nw.com

SAMPLERS (*signature*)

PROJECT NAME 702-22001-02

PO #

REMARKS

Project Specific RLs - Yes / No

INVOICE TO

Page # 1 of 1

TURNAROUND TIME

X Standard Turnaround

RUSH

Rush charges authorized by:

SAMPLE DISPOSAL

Dispose after 30 days

Archive Samples

Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	PP13	Total Titanium	Total Cr(VI)	ISM Prep	Notes
DH01-250203-IS-0.25	01	2/03/25	1045	soil	1							X	X	X	X	A-per EB 02/28/25 ME
G501-1.0	02	2/03/25	1052	↓	1									A		~~HOLD~~
G502-2.0	03	2/03/25	1058	↓	1									A		~~HOLD~~

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Dan Sayko	ENW	2/03/25	18:00
Received by:	Annie Bruya	F&B	2/4/25	0954
Relinquished by:				
Received by:				

Samples received at 4 °C

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

SAMPLE CONDITION UPON RECEIPT CHECKLIST

PROJECT # 502014 CLIENT ENW INITIALS/ DATE: AUB 2/4

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

Cooler/Sample temperature 4 °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: AUB 2/4
*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** _____

GLS.

800-322-5555
www.gls-us.com

Ship From
EVREN NW
DAN SAJKO
40 SE 24TH AVE
PORTLAND, OR 97214

Ship To
FRIEDMAN & BRUYA, INC
MICHAEL ERDAHL
5500 4TH AVE S
SEATTLE, WA 98108

COD: $0.00
Weight: 0 lb(s)
Reference:

Delivery Instructions:

Signature Type: STANDARD

Tracking #: 562473627

PDS

SEATTLE

S06437C

23342496

KNT WA980-7C0

Print Date: 1/6/2025 3:02 PM

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: 502014,
Work Order Number: 2502600

March 07, 2025

Attention Michael Erdahl:

Alliance Technical Group, LLC - Seattle received 2 sample(s) on 2/28/2025 for the analyses presented in the following report.

Hexavalent Chromium by EPA 7196A
Sample Moisture (Percent Moisture)

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

Alliance Technical Group is committed to accuracy, speed, and customer service. Thank you for choosing Alliance Technical Group's Seattle laboratory team for your analytical needs. We appreciate this opportunity to serve you!

Sincerely,

Kelley Lovejoy
Project Manager

Date: *03/07/2025*

CLIENT: Friedman & Bruya
Project: 502014
Work Order: 2502600

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2502600-001	GS01-1.0	02/03/2025 10:52 AM	02/28/2025 4:20 PM
2502600-002	GS02-2.0	02/03/2025 10:58 AM	02/28/2025 4:20 PM

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

Case Narrative

WO#: **2502600**

Date: **3/7/2025**

CLIENT: Friedman & Bruya

Project: 502014

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

Analytical Report

Work Order: **2502600**
Date Reported: **3/7/2025**

CLIENT: Friedman & Bruya
Project: 502014

Lab ID: 2502600-001 **Collection Date:** 2/3/2025 10:52:00 AM
Client Sample ID: **GS01-1.0** **Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Sample Moisture (Percent Moisture)				Batch ID: R97963		Analyst: PC
Percent Moisture	14.5	0.500		wt%	1	3/3/2025 9:17:28 AM
Hexavalent Chromium by EPA 7196A				Batch ID: 46911		Analyst: NR
Chromium, Hexavalent	ND	0.558		mg/Kg-dry	1	3/3/2025 3:08:19 PM

Lab ID: 2502600-002 **Collection Date:** 2/3/2025 10:58:00 AM
Client Sample ID: **GS02-2.0** **Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Sample Moisture (Percent Moisture)				Batch ID: R97963		Analyst: PC
Percent Moisture	17.4	0.500		wt%	1	3/3/2025 9:17:28 AM
Hexavalent Chromium by EPA 7196A				Batch ID: 46911		Analyst: NR
Chromium, Hexavalent	ND	0.552		mg/Kg-dry	1	3/3/2025 3:08:19 PM

Work Order: 2502600
CLIENT: Friedman & Bruya
Project: 502014

QC SUMMARY REPORT

Hexavalent Chromium by EPA 7196A

Sample ID: **MB-46911**	SampType: **MBLK**			Units: **mg/Kg**		Prep Date: **3/3/2025**			RunNo: **97982**		
Client ID: **MBLKS**	Batch ID: **46911**					Analysis Date: **3/3/2025**			SeqNo: **2041661**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium, Hexavalent	ND	0.500									

Sample ID: **LCS-46911**	SampType: **LCS**			Units: **mg/Kg**		Prep Date: **3/3/2025**			RunNo: **97982**		
Client ID: **LCSS**	Batch ID: **46911**					Analysis Date: **3/3/2025**			SeqNo: **2041662**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium, Hexavalent	9.98	0.500	12.87	0	77.5	65.1	105				

Sample ID: **2502436-001ADUP**	SampType: **DUP**			Units: **mg/Kg-dry**		Prep Date: **3/3/2025**			RunNo: **97982**		
Client ID: **BATCH**	Batch ID: **46911**					Analysis Date: **3/3/2025**			SeqNo: **2041664**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium, Hexavalent	ND	0.538						0		30	

Sample ID: **2502436-001AMS1**	SampType: **MS**			Units: **mg/Kg-dry**		Prep Date: **3/3/2025**			RunNo: **97982**		
Client ID: **BATCH**	Batch ID: **46911**					Analysis Date: **3/3/2025**			SeqNo: **2041665**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium, Hexavalent	10.5	0.513	13.22	0	79.1	32	106				

Sample ID: **2502436-001AMS2**	SampType: **MS**			Units: **mg/Kg-dry**		Prep Date: **3/3/2025**			RunNo: **97982**		
Client ID: **BATCH**	Batch ID: **46911**					Analysis Date: **3/3/2025**			SeqNo: **2041666**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium, Hexavalent	8.73	0.491	9.823	0	88.9	32	106				

Sample Log-In Check List

Client Name:	FB	Work Order Number:	2502600
Logged by:	Morgan Wilson	Date Received:	2/28/2025 4:20:00 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 °C
Sample	6.0

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

SUBCONTRACT SAMPLE CHAIN OF CUSTODY

25026000

Send Report To Michael Erdahl

Company Friedman and Bruya, Inc.

Address 5500 4th Ave S

City, State, ZIP Seattle, WA 98108

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

SUBCONTRACTER ATG	
PROJECT NAME/NO. 502014	PO # F-96
REMARKS	

TURNAROUND TIME
☒ Standard TAT
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: Cr VI										Notes
GS01-1.0		2/3/2025	1052	soil	1	x										
GS02-2.0		2/3/2025	1058	soil	1	x										

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		Michael Erdahl	Friedman & Bruya	2/28/25	1230
Received by:		gina gerard	ATG	2/28/25	4:20PM
Relinquished by:					
Received by:					

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Elizabeth Webber-Bruya
Ann Webber-Bruya
Michael Erdahl
Vineta Mills
Eric Young

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

March 25, 2025

Lynn Green, Project Manager
Evren Northwest, Inc.
PO Box 14488
Portland, OR 97293

Dear Mr Green:

Included are the results from the testing of material submitted on March 11, 2025 from the 702-22001-03, F&BI 503133 project. There are 9 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

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

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Paul Trone, Evan Bruggeman
ENW0325R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on March 11, 2025 by Friedman & Bruya, Inc. from the Evren Northwest 702-22001-03, F&BI 503133 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Evren Northwest
503133 -01	DU02-250310-0.25
503133 -02	GS03-1.0
503133 -03	GS04-2.0

The 6020B calibration standard did not meet the acceptance criteria for antimony. The data were flagged accordingly.

The 6020B thallium calibration standard exceeded the acceptance criteria. The metal was not detected, therefore this did not represent an out of control condition, and were qualified with a "k" qualifier.

The 8260D calibration standard did not meet the acceptance criteria for several analytes. The data were flagged accordingly.

The sample DU02-250310-0.25 was sent to Alliance Technical Group for hexavalent chromium testing. The data were qualified accordingly.

All other quality control requirements were acceptable.

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	DU02-250310-0.25	Client:	Evren Northwest
Date Received:	03/11/25	Project:	702-22001-03, F&BI 503133
Date Extracted:	03/17/25	Lab ID:	503133-01
Date Analyzed:	03/17/25	Data File:	031715.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	IJL

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	111	86	114
Toluene-d8	103	86	115
4-Bromofluorobenzene	93	83	116

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5 ca	Tetrachloroethene	<0.025
Vinyl chloride	<0.05 ca	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.05
Chloroethane	<0.5	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.05
Acetone	<5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.05	m,p-Xylene	<0.1
Hexane	<0.25	o-Xylene	<0.05
Methylene chloride	0.98	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.05	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.05	Bromoform	<0.05
1,1-Dichloroethane	<0.05	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.05	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<1	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.05	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.05 k	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05 k	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.03	sec-Butylbenzene	<0.05
Trichloroethene	<0.02	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<1	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.05	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.05
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<1		

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	Method Blank	Client:	Evren Northwest
Date Received:	Not Applicable	Project:	702-22001-03, F&BI 503133
Date Extracted:	03/17/25	Lab ID:	05-0547 mb
Date Analyzed:	03/17/25	Data File:	031723.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	IJL

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	86	114
Toluene-d8	102	86	115
4-Bromofluorobenzene	99	83	116

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5 ca	Tetrachloroethene	<0.025
Vinyl chloride	<0.05 ca	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.05
Chloroethane	<0.5	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.05
Acetone	<5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.05	m,p-Xylene	<0.1
Hexane	<0.25	o-Xylene	<0.05
Methylene chloride	<0.5	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.05	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.05	Bromoform	<0.05
1,1-Dichloroethane	<0.05	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.05	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<1	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.05	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.05 k	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05 k	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.03	sec-Butylbenzene	<0.05
Trichloroethene	<0.02	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<1	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.05	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.05
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<1		

Analysis For Total Metals By EPA Method 6020B

Client Sample ID:	DU02-250310-0.25	Client:	Evren Northwest
Date Received:	03/11/25	Project:	702-22001-03, F&BI 503133
Date Extracted:	03/12/25	Lab ID:	503133-01 x2
Date Analyzed:	03/14/25	Data File:	503133-01 x2.187
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Antimony	<2 ca
Arsenic	2.3
Beryllium	<2
Cadmium	<2
Chromium	11
Copper	18
Lead	21
Mercury	<2
Nickel	13
Selenium	<2
Silver	<2
Thallium	<0.8 k
Zinc	70

Analysis For Total Metals By EPA Method 6020B

Client Sample ID:	Method Blank	Client:	Evren Northwest
Date Received:	Not Applicable	Project:	702-22001-03, F&BI 503133
Date Extracted:	03/12/25	Lab ID:	I5-216 mb
Date Analyzed:	03/12/25	Data File:	I5-216 mb.066
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Antimony	<1
Arsenic	<1
Beryllium	<1
Cadmium	<1
Chromium	<1
Copper	<5
Lead	<1
Mercury	<1
Nickel	<1
Selenium	<1
Silver	<1
Thallium	<0.4
Zinc	<5

Date of Report: 03/25/25
Date Received: 03/11/25
Project: 702-22001-03, F&BI 503133

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

Laboratory Code: 503258-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Dichlorodifluoromethane	mg/kg (ppm)	2	<0.5	46	59	10-142	25 vo
Chloromethane	mg/kg (ppm)	2	<0.5	46	54	10-126	16
Vinyl chloride	mg/kg (ppm)	2	<0.05	52	61	10-138	16
Bromomethane	mg/kg (ppm)	2	<0.5	76	92	10-163	19
Chloroethane	mg/kg (ppm)	2	<0.5	62	74	10-176	18
Trichlorofluoromethane	mg/kg (ppm)	2	<0.5	82	94	10-176	14
Acetone	mg/kg (ppm)	10	<5	76	88	10-163	15
1,1-Dichloroethene	mg/kg (ppm)	2	<0.05	66	75	10-160	13
Hexane	mg/kg (ppm)	2	<0.25	65	77	10-137	17
Methylene chloride	mg/kg (ppm)	2	<0.5	67	80	10-156	18
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2	<0.05	81	93	21-145	14
trans-1,2-Dichloroethene	mg/kg (ppm)	2	<0.05	78	91	14-137	15
1,1-Dichloroethane	mg/kg (ppm)	2	<0.05	76	85	19-140	11
2,2-Dichloropropane	mg/kg (ppm)	2	<0.05	88	102	10-158	15
cis-1,2-Dichloroethene	mg/kg (ppm)	2	<0.05	81	93	25-135	14
Chloroform	mg/kg (ppm)	2	<0.05	84	98	21-145	15
2-Butanone (MEK)	mg/kg (ppm)	10	<1	78	87	19-147	11
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2	<0.05	98	112	12-160	13
1,1,1-Trichloroethane	mg/kg (ppm)	2	<0.05	100	117	10-156	16
1,1-Dichloropropene	mg/kg (ppm)	2	<0.05	81	95	17-140	16
Carbon tetrachloride	mg/kg (ppm)	2	<0.05	135	158	9-164	16
Benzene	mg/kg (ppm)	2	<0.03	79	87	29-129	10
Trichloroethene	mg/kg (ppm)	2	<0.02	85	97	21-139	13
1,2-Dichloropropane	mg/kg (ppm)	2	<0.05	73	82	30-135	12
Bromodichloromethane	mg/kg (ppm)	2	<0.05	94	107	23-155	13
Dibromomethane	mg/kg (ppm)	2	<0.05	85	99	23-145	15
4-Methyl-2-pentanone	mg/kg (ppm)	10	<1	84	95	24-155	12
cis-1,3-Dichloropropene	mg/kg (ppm)	2	<0.05	82	96	28-144	16
Toluene	mg/kg (ppm)	2	<0.05	80	90	35-130	12
trans-1,3-Dichloropropene	mg/kg (ppm)	2	<0.05	85	97	26-149	13
1,1,2-Trichloroethane	mg/kg (ppm)	2	<0.05	74	87	10-205	16
2-Hexanone	mg/kg (ppm)	10	<1	74	80	15-166	8
1,3-Dichloropropane	mg/kg (ppm)	2	<0.05	77	87	31-137	12
Tetrachloroethene	mg/kg (ppm)	2	<0.025	88	102	20-133	15
Dibromochloromethane	mg/kg (ppm)	2	<0.05	92	105	28-150	13
1,2-Dibromoethane (EDB)	mg/kg (ppm)	2	<0.05	81	92	28-142	13
Chlorobenzene	mg/kg (ppm)	2	<0.05	81	95	32-129	16
Ethylbenzene	mg/kg (ppm)	2	<0.05	81	93	32-137	14
1,1,1,2-Tetrachloroethane	mg/kg (ppm)	2	<0.05	95	112	31-143	16
m,p-Xylene	mg/kg (ppm)	4	<0.1	80	94	34-136	16
o-Xylene	mg/kg (ppm)	2	<0.05	80	92	33-134	14
Styrene	mg/kg (ppm)	2	<0.05	78	92	35-137	16
Isopropylbenzene	mg/kg (ppm)	2	<0.05	82	99	31-142	19
Bromoform	mg/kg (ppm)	2	<0.05	90	109	21-156	19
n-Propylbenzene	mg/kg (ppm)	2	<0.05	79	88	23-146	11
Bromobenzene	mg/kg (ppm)	2	<0.05	83	94	34-130	12
1,3,5-Trimethylbenzene	mg/kg (ppm)	2	<0.05	83	93	18-149	11
1,1,2,2-Tetrachloroethane	mg/kg (ppm)	2	<0.05	68	80	28-140	16
1,2,3-Trichloropropane	mg/kg (ppm)	2	<0.05	73	82	25-144	12
2-Chlorotoluene	mg/kg (ppm)	2	<0.05	78	88	31-134	12
4-Chlorotoluene	mg/kg (ppm)	2	<0.05	82	91	31-136	10
tert-Butylbenzene	mg/kg (ppm)	2	<0.05	83	96	30-137	15
1,2,4-Trimethylbenzene	mg/kg (ppm)	2	<0.05	81	92	10-182	13
sec-Butylbenzene	mg/kg (ppm)	2	<0.05	81	94	23-145	15
p-Isopropyltoluene	mg/kg (ppm)	2	<0.05	84	95	21-149	12
1,3-Dichlorobenzene	mg/kg (ppm)	2	<0.05	82	93	30-131	13
1,4-Dichlorobenzene	mg/kg (ppm)	2	<0.05	80	91	29-129	13
1,2-Dichlorobenzene	mg/kg (ppm)	2	<0.05	83	94	31-132	12
1,2-Dibromo-3-chloropropane	mg/kg (ppm)	2	<0.5	84	95	11-161	12
1,2,4-Trichlorobenzene	mg/kg (ppm)	2	<0.25	90	102	22-142	12
Hexachlorobutadiene	mg/kg (ppm)	2	<0.25	96	111	10-142	14
Naphthalene	mg/kg (ppm)	2	<0.05	80	92	14-157	14
1,2,3-Trichlorobenzene	mg/kg (ppm)	2	<0.25	90	102	20-144	12

Date of Report: 03/25/25
Date Received: 03/11/25
Project: 702-22001-03, F&BI 503133

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

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Dichlorodifluoromethane	mg/kg (ppm)	2	71	10-146
Chloromethane	mg/kg (ppm)	2	67	27-133
Vinyl chloride	mg/kg (ppm)	2	75	22-139
Bromomethane	mg/kg (ppm)	2	82	10-201
Chloroethane	mg/kg (ppm)	2	75	10-163
Trichlorofluoromethane	mg/kg (ppm)	2	92	10-196
Acetone	mg/kg (ppm)	10	65	52-141
1,1-Dichloroethene	mg/kg (ppm)	2	74	47-128
Hexane	mg/kg (ppm)	2	81	43-142
Methylene chloride	mg/kg (ppm)	2	81	10-184
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2	91	60-123
trans-1,2-Dichloroethene	mg/kg (ppm)	2	88	64-132
1,1-Dichloroethane	mg/kg (ppm)	2	86	64-135
2,2-Dichloropropane	mg/kg (ppm)	2	92	52-170
cis-1,2-Dichloroethene	mg/kg (ppm)	2	89	64-135
Chloroform	mg/kg (ppm)	2	92	61-139
2-Butanone (MEK)	mg/kg (ppm)	10	80	30-197
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2	108	56-135
1,1,1-Trichloroethane	mg/kg (ppm)	2	109	62-131
1,1-Dichloropropene	mg/kg (ppm)	2	95	64-136
Carbon tetrachloride	mg/kg (ppm)	2	149 vo	60-139
Benzene	mg/kg (ppm)	2	88	65-136
Trichloroethene	mg/kg (ppm)	2	97	63-139
1,2-Dichloropropane	mg/kg (ppm)	2	85	61-145
Bromodichloromethane	mg/kg (ppm)	2	102	57-126
Dibromomethane	mg/kg (ppm)	2	96	62-123
4-Methyl-2-pentanone	mg/kg (ppm)	10	92	45-145
cis-1,3-Dichloropropene	mg/kg (ppm)	2	93	65-143
Toluene	mg/kg (ppm)	2	90	66-126
trans-1,3-Dichloropropene	mg/kg (ppm)	2	95	65-131
1,1,2-Trichloroethane	mg/kg (ppm)	2	88	62-131
2-Hexanone	mg/kg (ppm)	10	78	33-152
1,3-Dichloropropane	mg/kg (ppm)	2	88	67-128
Tetrachloroethene	mg/kg (ppm)	2	99	68-128
Dibromochloromethane	mg/kg (ppm)	2	103	55-121
1,2-Dibromoethane (EDB)	mg/kg (ppm)	2	92	66-129
Chlorobenzene	mg/kg (ppm)	2	92	67-128
Ethylbenzene	mg/kg (ppm)	2	90	64-123
1,1,1,2-Tetrachloroethane	mg/kg (ppm)	2	106	64-121
m,p-Xylene	mg/kg (ppm)	4	92	68-128
o-Xylene	mg/kg (ppm)	2	88	67-129
Styrene	mg/kg (ppm)	2	89	67-129
Isopropylbenzene	mg/kg (ppm)	2	92	68-128
Bromoform	mg/kg (ppm)	2	106	56-132
n-Propylbenzene	mg/kg (ppm)	2	90	68-129
Bromobenzene	mg/kg (ppm)	2	95	69-128
1,3,5-Trimethylbenzene	mg/kg (ppm)	2	95	69-129
1,1,2,2-Tetrachloroethane	mg/kg (ppm)	2	82	56-143
1,2,3-Trichloropropane	mg/kg (ppm)	2	86	61-137
2-Chlorotoluene	mg/kg (ppm)	2	89	69-128
4-Chlorotoluene	mg/kg (ppm)	2	92	67-127
tert-Butylbenzene	mg/kg (ppm)	2	95	69-129
1,2,4-Trimethylbenzene	mg/kg (ppm)	2	93	69-128
sec-Butylbenzene	mg/kg (ppm)	2	91	69-130
p-Isopropyltoluene	mg/kg (ppm)	2	94	69-130
1,3-Dichlorobenzene	mg/kg (ppm)	2	92	69-127
1,4-Dichlorobenzene	mg/kg (ppm)	2	91	68-126
1,2-Dichlorobenzene	mg/kg (ppm)	2	94	69-127
1,2-Dibromo-3-chloropropane	mg/kg (ppm)	2	95	58-138
1,2,4-Trichlorobenzene	mg/kg (ppm)	2	100	64-135
Hexachlorobutadiene	mg/kg (ppm)	2	107	50-153
Naphthalene	mg/kg (ppm)	2	94	62-128
1,2,3-Trichlorobenzene	mg/kg (ppm)	2	103	61-126

Date of Report: 03/25/25
Date Received: 03/11/25
Project: 702-22001-03, F&BI 503133

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

Laboratory Code: 503118-04 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Antimony	mg/kg (ppm)	20	<1	98	89	75-125	10
Arsenic	mg/kg (ppm)	10	1.33	100	89	75-125	12
Beryllium	mg/kg (ppm)	5	<1	101	88	75-125	14
Cadmium	mg/kg (ppm)	10	<1	104	90	75-125	14
Chromium	mg/kg (ppm)	50	13.5	78 b	69 b	75-125	12 b
Copper	mg/kg (ppm)	50	7.36	78	70 vo	75-125	11
Lead	mg/kg (ppm)	50	2.17	106	93	75-125	13
Mercury	mg/kg (ppm	5	<1	104	93	75-125	11
Nickel	mg/kg (ppm)	25	16.5	74 b	60 b	75-125	21 b
Selenium	mg/kg (ppm)	5	<1	77	69 vo	75-125	11
Silver	mg/kg (ppm)	10	<1	100	88	75-125	13
Thallium	mg/kg (ppm)	5	<0.8	104	92	75-125	12
Zinc	mg/kg (ppm)	50	17.9	78 b	68 b	75-125	14 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Antimony	mg/kg (ppm)	20	100	80-120
Arsenic	mg/kg (ppm)	10	99	80-120
Beryllium	mg/kg (ppm)	5	96	80-120
Cadmium	mg/kg (ppm)	10	99	80-120
Chromium	mg/kg (ppm)	50	102	80-120
Copper	mg/kg (ppm)	50	98	80-120
Lead	mg/kg (ppm)	50	102	80-120
Mercury	mg/kg (ppm)	5	100	80-120
Nickel	mg/kg (ppm)	25	98	80-120
Selenium	mg/kg (ppm)	5	96	80-120
Silver	mg/kg (ppm)	10	100	80-120
Thallium	mg/kg (ppm)	5	100	80-120
Zinc	mg/kg (ppm)	50	99	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 between the method detection limit and the lowest calibration point. The value reported is an estimate.

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

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

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

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

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

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

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

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

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

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

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

SAMPLE CHAIN OF CUSTODY

03133

03/11/25

Page # 1 of 1

Report To Lynn Green
Company Ensen Northwest
Address PO Box 14488
City, State, ZIP Portland OR 97293
Phone 503-452-5611 Email lynng@ensen-nw.com

SAMPLERS (*signature*)

PROJECT NAME 702-22001-03

PO #

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	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	RCRA 8 Metals	Lead	Cr (VI)	TSM Prep	Notes
DU02-250310-0.25	01 A B	3/10/25	11:05	Soil	2					X			X		X	X	
GS03-1.0	02 A-E	3/10/25	11:25	Soil	5												HOLD
GS04-2.0	03 ↓	3/10/25	11:40	Soil	5												HOLD

Samples received at 6 °C

ANALYSES REQUESTED

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

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		Dan Smith	ENW	3/10/25	1800
Received by:		Andy Bruya	FB	3/11/25	1000
Relinquished by:					
Received by:					

SAMPLE CONDITION UPON RECEIPT CHECKLIST

PROJECT # 503133 CLIENT GNW INITIALS/DATE: ALW 3/11

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

Cooler/Sample temperature 4 °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/ AP
*or other representative documents, letters, and/or shipping memos Date: 03/11/25

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	labeled on VOAs G503-2.0 for Lab ID based on time (036→E) ☐ Not on COC/label
Date Sampled	☑ Yes ☐ No	☐ Not on COC/label
Time Sampled	☑ Yes ☐ No	☐ Not on COC/label
# of Containers	☑ Yes ☐ No	
Relinquished	☑ Yes ☐ No	
Requested analysis	☑ Yes ☐ On Hold	

Other comments (use a separate page if needed)

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

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

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: 503133,
Work Order Number: 2503208

March 19, 2025

Attention Michael Erdahl:

Alliance Technical Group, LLC - Seattle received 1 sample(s) on 3/12/2025 for the analyses presented in the following report.

Hexavalent Chromium by EPA 7196A
Sample Moisture (Percent Moisture)

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

Alliance Technical Group is committed to accuracy, speed, and customer service. Thank you for choosing Alliance Technical Group's Seattle laboratory team for your analytical needs. We appreciate this opportunity to serve you!

Sincerely,

Lyann Rivera
Project Manager

Date: *03/19/2025*

CLIENT: Friedman & Bruya
Project: 503133
Work Order: 2503208

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2503208-001	DU02-250310-0.25	03/10/2025 11:05 AM	03/12/2025 12:33 PM

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

Original

Case Narrative

WO#: **2503208**

Date: **3/19/2025**

CLIENT: Friedman & Bruya
Project: 503133

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

Analytical Report

Work Order: **2503208**
Date Reported: **3/19/2025**

CLIENT: Friedman & Bruya
Project: 503133

Lab ID: 2503208-001 **Collection Date:** 3/10/2025 11:05:00 AM
Client Sample ID: **DU02-250310-0.25** **Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Sample Moisture (Percent Moisture)				Batch ID: R98213		Analyst: PC
Percent Moisture	10.3	0.500		wt%	1	3/13/2025 9:14:33 AM
Hexavalent Chromium by EPA 7196A				Batch ID: 47077		Analyst: NR
Chromium, Hexavalent	0.597	0.549		mg/Kg-dry	1	3/19/2025 1:01:00 PM

Work Order: 2503208
CLIENT: Friedman & Bruya
Project: 503133

QC SUMMARY REPORT

Hexavalent Chromium by EPA 7196A

Sample ID: **MB-47077**	SampType: **MBLK**			Units: **mg/Kg**		Prep Date: **3/18/2025**		RunNo: **98352**		
Client ID: **MBLKS**	Batch ID: **47077**					Analysis Date: **3/19/2025**		SeqNo: **2049407**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium, Hexavalent	ND	0.500									

Sample ID: **LCS-47077**	SampType: **LCS**			Units: **mg/Kg**		Prep Date: **3/18/2025**		RunNo: **98352**		
Client ID: **LCSS**	Batch ID: **47077**					Analysis Date: **3/19/2025**		SeqNo: **2049408**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium, Hexavalent	10.5	0.500	12.87	0	81.9	66.3	106				

Sample ID: **2503335-001ADUP**	SampType: **DUP**			Units: **mg/Kg-dry**		Prep Date: **3/18/2025**		RunNo: **98352**		
Client ID: **BATCH**	Batch ID: **47077**					Analysis Date: **3/19/2025**		SeqNo: **2049410**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium, Hexavalent	ND	0.539						0		30	

Sample ID: **2503335-001AMS1**	SampType: **MS**			Units: **mg/Kg-dry**		Prep Date: **3/18/2025**		RunNo: **98352**		
Client ID: **BATCH**	Batch ID: **47077**					Analysis Date: **3/19/2025**		SeqNo: **2049411**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium, Hexavalent	11.7	0.568	14.64	0	80.1	35.5	107				

Sample ID: **2503335-001AMS2**	SampType: **MS**			Units: **mg/Kg-dry**		Prep Date: **3/18/2025**		RunNo: **98352**		
Client ID: **BATCH**	Batch ID: **47077**					Analysis Date: **3/19/2025**		SeqNo: **2049412**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium, Hexavalent	8.73	0.560	11.19	0	78.0	35.5	107				

Sample Log-In Check List

Client Name:	FB	Work Order Number:	2503208
Logged by:	Morgan Wilson	Date Received:	3/12/2025 12:33:00 PM

Chain of Custody

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

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	6.0

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

SUBCONTRACT SAMPLE CHAIN OF CUSTODY

2503208

Send Report To Michael Erdahl

Company Friedman and Bruya, Inc.

Address 5500 4th Ave S

City, State, ZIP Seattle, WA 98108

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

SUBCONTRACTER ATG	
PROJECT NAME/NO. 503133	PO # F-115
REMARKS	

TURNAROUND TIME
☒ Standard TAT
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: Cr VI										Notes
DU02-250310-0.25		3/10/2025	1105	soil	3	x										

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		Michael Erdahl	Friedman & Bruya	3/12/25	0830
Received by:		Briana Ballard	ATG	3/12	12:33 PM
Relinquished by:					
Received by:					

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Elizabeth Webber-Bruya
Ann Webber-Bruya
Michael Erdahl
Vineta Mills
Eric Young

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

April 10, 2025

Lynn Green, Project Manager
Evren Northwest, Inc.
PO Box 14488
Portland, OR 97293

Dear Mr Green:

Included are the additional results from the testing of material submitted on March 11, 2025 from the 702-22001-03, F&BI 503133 project. There are 9 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: Paul Trone, Evan Bruggeman
ENW0410R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on March 11, 2025 by Friedman & Bruya, Inc. from the Evren Northwest 702-22001-03, F&BI 503133 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Evren Northwest
503133 -01	DU02-250310-0.25
503133 -02	GS03-1.0
503133 -03	GS04-2.0

Samples GS03-1.0 and GS04-2.0 were sent to Alliance Technical Group for hexavalent chromium testing. The report is enclosed.

The 6020B calibration standard did not meet the acceptance criteria for antimony. The data were flagged accordingly.

The 6020B thallium calibration standard exceeded the acceptance criteria. The metal was not detected, therefore this did not represent an out of control condition, and were qualified with a "k" qualifier.

Methylene chloride was detected in the 8260D analysis of sample DU02-250310-0.25. The data were flagged as due to laboratory contamination.

The 8260D calibration standard did not meet the acceptance criteria for several analytes. The data were flagged accordingly.

The sample DU02-250310-0.25 was sent to Alliance Technical Group for hexavalent chromium testing. The report is enclosed.

All other quality control requirements were acceptable.

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	DU02-250310-0.25	Client:	Evren Northwest
Date Received:	03/11/25	Project:	702-22001-03, F&BI 503133
Date Extracted:	03/17/25	Lab ID:	503133-01
Date Analyzed:	03/17/25	Data File:	031715.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	IJL

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	111	86	114
Toluene-d8	103	86	115
4-Bromofluorobenzene	93	83	116

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5 ca	Tetrachloroethene	<0.025
Vinyl chloride	<0.05 ca	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.05
Chloroethane	<0.5	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.05
Acetone	<5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.05	m,p-Xylene	<0.1
Hexane	<0.25	o-Xylene	<0.05
Methylene chloride	0.98 lc	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.05	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.05	Bromoform	<0.05
1,1-Dichloroethane	<0.05	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.05	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<1	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.05	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.05 k	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05 k	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.03	sec-Butylbenzene	<0.05
Trichloroethene	<0.02	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<1	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.05	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.05
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<1		

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	Method Blank	Client:	Evren Northwest
Date Received:	Not Applicable	Project:	702-22001-03, F&BI 503133
Date Extracted:	03/17/25	Lab ID:	05-0547 mb
Date Analyzed:	03/17/25	Data File:	031723.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	IJL

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	86	114
Toluene-d8	102	86	115
4-Bromofluorobenzene	99	83	116

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.5	1,3-Dichloropropane	<0.05
Chloromethane	<0.5 ca	Tetrachloroethene	<0.025
Vinyl chloride	<0.05 ca	Dibromochloromethane	<0.05
Bromomethane	<0.5	1,2-Dibromoethane (EDB)	<0.05
Chloroethane	<0.5	Chlorobenzene	<0.05
Trichlorofluoromethane	<0.5	Ethylbenzene	<0.05
Acetone	<5	1,1,1,2-Tetrachloroethane	<0.05
1,1-Dichloroethene	<0.05	m,p-Xylene	<0.1
Hexane	<0.25	o-Xylene	<0.05
Methylene chloride	<0.5	Styrene	<0.05
Methyl t-butyl ether (MTBE)	<0.05	Isopropylbenzene	<0.05
trans-1,2-Dichloroethene	<0.05	Bromoform	<0.05
1,1-Dichloroethane	<0.05	n-Propylbenzene	<0.05
2,2-Dichloropropane	<0.05	Bromobenzene	<0.05
cis-1,2-Dichloroethene	<0.05	1,3,5-Trimethylbenzene	<0.05
Chloroform	<0.05	1,1,2,2-Tetrachloroethane	<0.05
2-Butanone (MEK)	<1	1,2,3-Trichloropropane	<0.05
1,2-Dichloroethane (EDC)	<0.05	2-Chlorotoluene	<0.05
1,1,1-Trichloroethane	<0.05 k	4-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	tert-Butylbenzene	<0.05
Carbon tetrachloride	<0.05 k	1,2,4-Trimethylbenzene	<0.05
Benzene	<0.03	sec-Butylbenzene	<0.05
Trichloroethene	<0.02	p-Isopropyltoluene	<0.05
1,2-Dichloropropane	<0.05	1,3-Dichlorobenzene	<0.05
Bromodichloromethane	<0.05	1,4-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,2-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<1	1,2-Dibromo-3-chloropropane	<0.5
cis-1,3-Dichloropropene	<0.05	1,2,4-Trichlorobenzene	<0.25
Toluene	<0.05	Hexachlorobutadiene	<0.25
trans-1,3-Dichloropropene	<0.05	Naphthalene	<0.05
1,1,2-Trichloroethane	<0.05	1,2,3-Trichlorobenzene	<0.25
2-Hexanone	<1		

Analysis For Total Metals By EPA Method 6020B

Client Sample ID:	DU02-250310-0.25	Client:	Evren Northwest
Date Received:	03/11/25	Project:	702-22001-03, F&BI 503133
Date Extracted:	03/12/25	Lab ID:	503133-01 x2
Date Analyzed:	03/14/25	Data File:	503133-01 x2.187
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Antimony	<2 ca
Arsenic	2.3
Beryllium	<2
Cadmium	<2
Chromium	11
Copper	18
Lead	21
Mercury	<2
Nickel	13
Selenium	<2
Silver	<2
Thallium	<0.8 k
Zinc	70

Analysis For Total Metals By EPA Method 6020B

Client Sample ID:	Method Blank	Client:	Evren Northwest
Date Received:	Not Applicable	Project:	702-22001-03, F&BI 503133
Date Extracted:	03/12/25	Lab ID:	I5-216 mb
Date Analyzed:	03/12/25	Data File:	I5-216 mb.066
Matrix:	Soil	Instrument:	ICPMS3
Units:	mg/kg (ppm) Dry Weight	Operator:	SP

Analyte:	Concentration mg/kg (ppm)
Antimony	<1
Arsenic	<1
Beryllium	<1
Cadmium	<1
Chromium	<1
Copper	<5
Lead	<1
Mercury	<1
Nickel	<1
Selenium	<1
Silver	<1
Thallium	<0.4
Zinc	<5

Date of Report: 04/10/25
Date Received: 03/11/25
Project: 702-22001-03, F&BI 503133

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

Laboratory Code: 503258-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Dichlorodifluoromethane	mg/kg (ppm)	2	<0.5	46	59	10-142	25 vo
Chloromethane	mg/kg (ppm)	2	<0.5	46	54	10-126	16
Vinyl chloride	mg/kg (ppm)	2	<0.05	52	61	10-138	16
Bromomethane	mg/kg (ppm)	2	<0.5	76	92	10-163	19
Chloroethane	mg/kg (ppm)	2	<0.5	62	74	10-176	18
Trichlorofluoromethane	mg/kg (ppm)	2	<0.5	82	94	10-176	14
Acetone	mg/kg (ppm)	10	<5	76	88	10-163	15
1,1-Dichloroethene	mg/kg (ppm)	2	<0.05	66	75	10-160	13
Hexane	mg/kg (ppm)	2	<0.25	65	77	10-137	17
Methylene chloride	mg/kg (ppm)	2	<0.5	67	80	10-156	18
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2	<0.05	81	93	21-145	14
trans-1,2-Dichloroethene	mg/kg (ppm)	2	<0.05	78	91	14-137	15
1,1-Dichloroethane	mg/kg (ppm)	2	<0.05	76	85	19-140	11
2,2-Dichloropropane	mg/kg (ppm)	2	<0.05	88	102	10-158	15
cis-1,2-Dichloroethene	mg/kg (ppm)	2	<0.05	81	93	25-135	14
Chloroform	mg/kg (ppm)	2	<0.05	84	98	21-145	15
2-Butanone (MEK)	mg/kg (ppm)	10	<1	78	87	19-147	11
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2	<0.05	98	112	12-160	13
1,1,1-Trichloroethane	mg/kg (ppm)	2	<0.05	100	117	10-156	16
1,1-Dichloropropene	mg/kg (ppm)	2	<0.05	81	95	17-140	16
Carbon tetrachloride	mg/kg (ppm)	2	<0.05	135	158	9-164	16
Benzene	mg/kg (ppm)	2	<0.03	79	87	29-129	10
Trichloroethene	mg/kg (ppm)	2	<0.02	85	97	21-139	13
1,2-Dichloropropane	mg/kg (ppm)	2	<0.05	73	82	30-135	12
Bromodichloromethane	mg/kg (ppm)	2	<0.05	94	107	23-155	13
Dibromomethane	mg/kg (ppm)	2	<0.05	85	99	23-145	15
4-Methyl-2-pentanone	mg/kg (ppm)	10	<1	84	95	24-155	12
cis-1,3-Dichloropropene	mg/kg (ppm)	2	<0.05	82	96	28-144	16
Toluene	mg/kg (ppm)	2	<0.05	80	90	35-130	12
trans-1,3-Dichloropropene	mg/kg (ppm)	2	<0.05	85	97	26-149	13
1,1,2-Trichloroethane	mg/kg (ppm)	2	<0.05	74	87	10-205	16
2-Hexanone	mg/kg (ppm)	10	<1	74	80	15-166	8
1,3-Dichloropropane	mg/kg (ppm)	2	<0.05	77	87	31-137	12
Tetrachloroethene	mg/kg (ppm)	2	<0.025	88	102	20-133	15
Dibromochloromethane	mg/kg (ppm)	2	<0.05	92	105	28-150	13
1,2-Dibromoethane (EDB)	mg/kg (ppm)	2	<0.05	81	92	28-142	13
Chlorobenzene	mg/kg (ppm)	2	<0.05	81	95	32-129	16
Ethylbenzene	mg/kg (ppm)	2	<0.05	81	93	32-137	14
1,1,1,2-Tetrachloroethane	mg/kg (ppm)	2	<0.05	95	112	31-143	16
m,p-Xylene	mg/kg (ppm)	4	<0.1	80	94	34-136	16
o-Xylene	mg/kg (ppm)	2	<0.05	80	92	33-134	14
Styrene	mg/kg (ppm)	2	<0.05	78	92	35-137	16
Isopropylbenzene	mg/kg (ppm)	2	<0.05	82	99	31-142	19
Bromoform	mg/kg (ppm)	2	<0.05	90	109	21-156	19
n-Propylbenzene	mg/kg (ppm)	2	<0.05	79	88	23-146	11
Bromobenzene	mg/kg (ppm)	2	<0.05	83	94	34-130	12
1,3,5-Trimethylbenzene	mg/kg (ppm)	2	<0.05	83	93	18-149	11
1,1,2,2-Tetrachloroethane	mg/kg (ppm)	2	<0.05	68	80	28-140	16
1,2,3-Trichloropropane	mg/kg (ppm)	2	<0.05	73	82	25-144	12
2-Chlorotoluene	mg/kg (ppm)	2	<0.05	78	88	31-134	12
4-Chlorotoluene	mg/kg (ppm)	2	<0.05	82	91	31-136	10
tert-Butylbenzene	mg/kg (ppm)	2	<0.05	83	96	30-137	15
1,2,4-Trimethylbenzene	mg/kg (ppm)	2	<0.05	81	92	10-182	13
sec-Butylbenzene	mg/kg (ppm)	2	<0.05	81	94	23-145	15
p-Isopropyltoluene	mg/kg (ppm)	2	<0.05	84	95	21-149	12
1,3-Dichlorobenzene	mg/kg (ppm)	2	<0.05	82	93	30-131	13
1,4-Dichlorobenzene	mg/kg (ppm)	2	<0.05	80	91	29-129	13
1,2-Dichlorobenzene	mg/kg (ppm)	2	<0.05	83	94	31-132	12
1,2-Dibromo-3-chloropropane	mg/kg (ppm)	2	<0.5	84	95	11-161	12
1,2,4-Trichlorobenzene	mg/kg (ppm)	2	<0.25	90	102	22-142	12
Hexachlorobutadiene	mg/kg (ppm)	2	<0.25	96	111	10-142	14
Naphthalene	mg/kg (ppm)	2	<0.05	80	92	14-157	14
1,2,3-Trichlorobenzene	mg/kg (ppm)	2	<0.25	90	102	20-144	12

Date of Report: 04/10/25
Date Received: 03/11/25
Project: 702-22001-03, F&BI 503133

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

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Dichlorodifluoromethane	mg/kg (ppm)	2	71	10-146
Chloromethane	mg/kg (ppm)	2	67	27-133
Vinyl chloride	mg/kg (ppm)	2	75	22-139
Bromomethane	mg/kg (ppm)	2	82	10-201
Chloroethane	mg/kg (ppm)	2	75	10-163
Trichlorofluoromethane	mg/kg (ppm)	2	92	10-196
Acetone	mg/kg (ppm)	10	65	52-141
1,1-Dichloroethene	mg/kg (ppm)	2	74	47-128
Hexane	mg/kg (ppm)	2	81	43-142
Methylene chloride	mg/kg (ppm)	2	81	10-184
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2	91	60-123
trans-1,2-Dichloroethene	mg/kg (ppm)	2	88	64-132
1,1-Dichloroethane	mg/kg (ppm)	2	86	64-135
2,2-Dichloropropane	mg/kg (ppm)	2	92	52-170
cis-1,2-Dichloroethene	mg/kg (ppm)	2	89	64-135
Chloroform	mg/kg (ppm)	2	92	61-139
2-Butanone (MEK)	mg/kg (ppm)	10	80	30-197
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2	108	56-135
1,1,1-Trichloroethane	mg/kg (ppm)	2	109	62-131
1,1-Dichloropropene	mg/kg (ppm)	2	95	64-136
Carbon tetrachloride	mg/kg (ppm)	2	149 vo	60-139
Benzene	mg/kg (ppm)	2	88	65-136
Trichloroethene	mg/kg (ppm)	2	97	63-139
1,2-Dichloropropane	mg/kg (ppm)	2	85	61-145
Bromodichloromethane	mg/kg (ppm)	2	102	57-126
Dibromomethane	mg/kg (ppm)	2	96	62-123
4-Methyl-2-pentanone	mg/kg (ppm)	10	92	45-145
cis-1,3-Dichloropropene	mg/kg (ppm)	2	93	65-143
Toluene	mg/kg (ppm)	2	90	66-126
trans-1,3-Dichloropropene	mg/kg (ppm)	2	95	65-131
1,1,2-Trichloroethane	mg/kg (ppm)	2	88	62-131
2-Hexanone	mg/kg (ppm)	10	78	33-152
1,3-Dichloropropane	mg/kg (ppm)	2	88	67-128
Tetrachloroethene	mg/kg (ppm)	2	99	68-128
Dibromochloromethane	mg/kg (ppm)	2	103	55-121
1,2-Dibromoethane (EDB)	mg/kg (ppm)	2	92	66-129
Chlorobenzene	mg/kg (ppm)	2	92	67-128
Ethylbenzene	mg/kg (ppm)	2	90	64-123
1,1,1,2-Tetrachloroethane	mg/kg (ppm)	2	106	64-121
m,p-Xylene	mg/kg (ppm)	4	92	68-128
o-Xylene	mg/kg (ppm)	2	88	67-129
Styrene	mg/kg (ppm)	2	89	67-129
Isopropylbenzene	mg/kg (ppm)	2	92	68-128
Bromoform	mg/kg (ppm)	2	106	56-132
n-Propylbenzene	mg/kg (ppm)	2	90	68-129
Bromobenzene	mg/kg (ppm)	2	95	69-128
1,3,5-Trimethylbenzene	mg/kg (ppm)	2	95	69-129
1,1,2,2-Tetrachloroethane	mg/kg (ppm)	2	82	56-143
1,2,3-Trichloropropane	mg/kg (ppm)	2	86	61-137
2-Chlorotoluene	mg/kg (ppm)	2	89	69-128
4-Chlorotoluene	mg/kg (ppm)	2	92	67-127
tert-Butylbenzene	mg/kg (ppm)	2	95	69-129
1,2,4-Trimethylbenzene	mg/kg (ppm)	2	93	69-128
sec-Butylbenzene	mg/kg (ppm)	2	91	69-130
p-Isopropyltoluene	mg/kg (ppm)	2	94	69-130
1,3-Dichlorobenzene	mg/kg (ppm)	2	92	69-127
1,4-Dichlorobenzene	mg/kg (ppm)	2	91	68-126
1,2-Dichlorobenzene	mg/kg (ppm)	2	94	69-127
1,2-Dibromo-3-chloropropane	mg/kg (ppm)	2	95	58-138
1,2,4-Trichlorobenzene	mg/kg (ppm)	2	100	64-135
Hexachlorobutadiene	mg/kg (ppm)	2	107	50-153
Naphthalene	mg/kg (ppm)	2	94	62-128
1,2,3-Trichlorobenzene	mg/kg (ppm)	2	103	61-126

Date of Report: 04/10/25
Date Received: 03/11/25
Project: 702-22001-03, F&BI 503133

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

Laboratory Code: 503118-04 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Antimony	mg/kg (ppm)	20	<1	98	89	75-125	10
Arsenic	mg/kg (ppm)	10	1.33	100	89	75-125	12
Beryllium	mg/kg (ppm)	5	<1	101	88	75-125	14
Cadmium	mg/kg (ppm)	10	<1	104	90	75-125	14
Chromium	mg/kg (ppm)	50	13.5	78 b	69 b	75-125	12 b
Copper	mg/kg (ppm)	50	7.36	78	70 vo	75-125	11
Lead	mg/kg (ppm)	50	2.17	106	93	75-125	13
Mercury	mg/kg (ppm	5	<1	104	93	75-125	11
Nickel	mg/kg (ppm)	25	16.5	74 b	60 b	75-125	21 b
Selenium	mg/kg (ppm)	5	<1	77	69 vo	75-125	11
Silver	mg/kg (ppm)	10	<1	100	88	75-125	13
Thallium	mg/kg (ppm)	5	<0.8	104	92	75-125	12
Zinc	mg/kg (ppm)	50	17.9	78 b	68 b	75-125	14 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Antimony	mg/kg (ppm)	20	100	80-120
Arsenic	mg/kg (ppm)	10	99	80-120
Beryllium	mg/kg (ppm)	5	96	80-120
Cadmium	mg/kg (ppm)	10	99	80-120
Chromium	mg/kg (ppm)	50	102	80-120
Copper	mg/kg (ppm)	50	98	80-120
Lead	mg/kg (ppm)	50	102	80-120
Mercury	mg/kg (ppm)	5	100	80-120
Nickel	mg/kg (ppm)	25	98	80-120
Selenium	mg/kg (ppm)	5	96	80-120
Silver	mg/kg (ppm)	10	100	80-120
Thallium	mg/kg (ppm)	5	100	80-120
Zinc	mg/kg (ppm)	50	99	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 between the method detection limit and the lowest calibration point. The value reported is an estimate.

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

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

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

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

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

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

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

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

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

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

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

SAMPLE CHAIN OF CUSTODY

03133

03/11/25

Page # 1 of 1

Report To Lynn Green
Company Ensen Northwest
Address PO Box 14488
City, State, ZIP Portland OR 97293
Phone 503-452-5[illegible] Email lynng@ensen-nw.com

SAMPLERS (*signature*)

PROJECT NAME 702-22001-03

PO #

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	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	RP13 metals	Total Cr (VI)	ISM Prep	A-per EB 03/28/25 ME Notes
DH02-250310-0.25	01 A B	3/10/25	11:05	Soil	2					X			X	X	X	
GS03-1.0	02 A-E	3/10/25	11:25	Soil	5										A	~~HOLD~~
GS04-2.0	03 ↓	3/10/25	11:40	Soil	5										A	~~HOLD~~

ANALYSES REQUESTED

Samples received at 6 °C

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Dan Smith	ENW	3/10/25	1800
Received by:	Alan Bruya	F&B	3/11/25	1000
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 # 503133 CLIENT GNW INITIALS/DATE: ALW 3/11

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

Cooler/Sample temperature 4 °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/ AP
*or other representative documents, letters, and/or shipping memos Date: 03/11/25

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	labeled on VOAs G503-2.0 for Lab ID based on time (036→E) ☐ Not on COC/label
Date Sampled	☑ Yes ☐ No	☐ Not on COC/label
Time Sampled	☑ Yes ☐ No	☐ Not on COC/label
# of Containers	☑ Yes ☐ No	
Relinquished	☑ Yes ☐ No	
Requested analysis	☑ Yes ☐ On Hold	

Other comments (use a separate page if needed)

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

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

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: 503133,
Work Order Number: 2503620

April 04, 2025

Attention Michael Erdahl:

Alliance Technical Group, LLC - Seattle received 2 sample(s) on 3/28/2025 for the analyses presented in the following report.

Hexavalent Chromium by EPA 7196A
Sample Moisture (Percent Moisture)

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

Alliance Technical Group is committed to accuracy, speed, and customer service. Thank you for choosing Alliance Technical Group's Seattle laboratory team for your analytical needs. We appreciate this opportunity to serve you!

Sincerely,

Kelley Lovejoy
Project Manager

Date: *04/04/2025*

CLIENT: Friedman & Bruya
Project: 503133
Work Order: 2503620

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2503620-001	GS03-1.0	03/10/2025 11:25 AM	03/28/2025 3:37 PM
2503620-002	GS04-2.0	03/10/2025 11:40 AM	03/28/2025 3:37 PM

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

Case Narrative

WO#: **2503620**

Date: **4/4/2025**

CLIENT: Friedman & Bruya
Project: 503133

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

Analytical Report

Work Order: **2503620**
Date Reported: **4/4/2025**

CLIENT: Friedman & Bruya
Project: 503133

Lab ID: 2503620-001 **Collection Date:** 3/10/2025 11:25:00 AM
Client Sample ID: **GS03-1.0** **Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Sample Moisture (Percent Moisture)				Batch ID: R98588		Analyst: PC
Percent Moisture	15.9	0.500		wt%	1	3/31/2025 10:25:29 AM
Hexavalent Chromium by EPA 7196A				Batch ID: 47236		Analyst: NR
Chromium, Hexavalent	ND	0.591		mg/Kg-dry	1	4/3/2025 1:20:00 PM

Lab ID: 2503620-002 **Collection Date:** 3/10/2025 11:40:00 AM
Client Sample ID: **GS04-2.0** **Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Sample Moisture (Percent Moisture)				Batch ID: R98588		Analyst: PC
Percent Moisture	11.8	0.500		wt%	1	3/31/2025 10:25:29 AM
Hexavalent Chromium by EPA 7196A				Batch ID: 47236		Analyst: NR
Chromium, Hexavalent	ND	0.557		mg/Kg-dry	1	4/3/2025 1:23:00 PM

Work Order: 2503620
CLIENT: Friedman & Bruya
Project: 503133

QC SUMMARY REPORT

Hexavalent Chromium by EPA 7196A

Sample ID: **MB-47236**	SampType: **MBLK**			Units: **mg/Kg**		Prep Date: **4/2/2025**			RunNo: **98716**		
Client ID: **MBLKS**	Batch ID: **47236**					Analysis Date: **4/3/2025**			SeqNo: **2056085**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium, Hexavalent	ND	0.500									

Sample ID: **LCS-47236**	SampType: **LCS**			Units: **mg/Kg**		Prep Date: **4/2/2025**			RunNo: **98716**		
Client ID: **LCSS**	Batch ID: **47236**					Analysis Date: **4/3/2025**			SeqNo: **2056086**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium, Hexavalent	10.6	0.500	12.87	0	82.3	66.3	106				

Sample ID: **2503581-001ADUP**	SampType: **DUP**			Units: **mg/Kg-dry**		Prep Date: **4/2/2025**			RunNo: **98716**		
Client ID: **BATCH**	Batch ID: **47236**					Analysis Date: **4/3/2025**			SeqNo: **2056088**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium, Hexavalent	4.69	0.531						4.671	0.500	30	H

Sample ID: **2503581-001AMS1**	SampType: **MS**			Units: **mg/Kg-dry**		Prep Date: **4/2/2025**			RunNo: **98716**		
Client ID: **BATCH**	Batch ID: **47236**					Analysis Date: **4/3/2025**			SeqNo: **2056089**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium, Hexavalent	16.4	0.524	13.50	4.671	86.7	35.5	107				H

Sample ID: **2503581-001AMS2**	SampType: **MS**			Units: **mg/Kg-dry**		Prep Date: **4/2/2025**			RunNo: **98716**		
Client ID: **BATCH**	Batch ID: **47236**					Analysis Date: **4/3/2025**			SeqNo: **2056090**		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium, Hexavalent	14.5	0.529	10.58	4.671	93.2	35.5	107				H

Sample Log-In Check List

Client Name:	FB	Work Order Number:	2503620
Logged by:	Morgan Wilson	Date Received:	3/28/2025 3:37:00 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 °C
Sample	2.2

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

SUBCONTRACT SAMPLE CHAIN OF CUSTODY

2503620

Send Report To Michael Erdahl

Company Friedman and Bruya, Inc.

Address 5500 4th Ave S

City, State, ZIP Seattle, WA 98108

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

SUBCONTRACTER ATG	
PROJECT NAME/NO. 503133	PO # F-150
REMARKS	

TURNAROUND TIME
☒ Standard TAT
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: Cr VI										Notes
GS03-1.0		3/10/2025	1125	soil	1	x										
GS04-2.0		3/10/2025	1140	soil	1	x										

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		Michael Erdahl	Friedman & Bruya	3/28/25	0920
Received by:		Nicholas Moller	ATG	3/28/25	1537
Relinquished by:					
Received by:					