

February 10, 2025

Zak Wall
Northwest Region Toxics Cleanup Program
Washington State Department of Ecology
PO Box 330316
Shoreline, Washington 98133

Via email: zak.wall@ecy.wa.gov

Regarding: Monthly Progress Report No. 9 (January 2025)
Spic N Span Cleaners Site
SCIDpda PPCD No. 24-2-05868-1
652 S Dearborn Street
Seattle, Washington
PBS Project 41593.006

Dear Zak:

This progress report was prepared by PBS Engineering and Environmental LLC (PBS) for the Spic N Span Cleaners site (Site), which has undergone thermal remediation and monitoring to ultimately facilitate redevelopment of the property into affordable housing by Seattle Chinatown International District Preservation and Development Authority (SCIDpda).

This progress report is being completed as a condition of the Prospective Purchaser Consent Decree (PPCD) signed between SCIDpda and the Washington State Department of Ecology (Ecology), filed March 18, 2024.

The following is a summary of project activities completed for January 2025.

A. On-Site Activities and Progress Made during Reporting Period

- Prepared monthly progress report for December 2024 and submitted it on Friday, January 10, 2025.
- Conducted well repair activities from January 13 to 14, 2025.
- Conducted First Quarter 2025 groundwater sampling event from January 21 to 22, 2025.
- Conducted survey of select repaired wells on January 25, 2025.
- There were no sample results deviations during the reporting period.
- Selected potential locations for two new monitoring wells.

B. Deviations from Required Tasks

- There were no deviations of required tasks during the reporting period.

C. Description of Deviations from the Scope of Work and Schedule

- There were no deviations to the scope of work or schedule during the reporting period.

D. Plan for Recovering Lost Time for Schedule Deviations

- Not applicable

E. Raw Data Received from Laboratory

- Please see the attached laboratory report for the January groundwater sampling event. Dissolved hydrogen analytical data is not yet available from the laboratory.

F. List of Planned Activities for the Next Month

- Review data from the First Quarter 2025 sampling event and begin tabulating data.

Please feel free to contact me at 206.766.7640 or melanie.young@pbsusa.com with any questions or comments.

Sincerely,

Melanie Young, PE
Senior Environmental Engineer

cc: Josh Sellers Park, SCIDpda
Crystal Ng, SCIDpda

Attachments: Laboratory Report for January 2025 groundwater sampling event.








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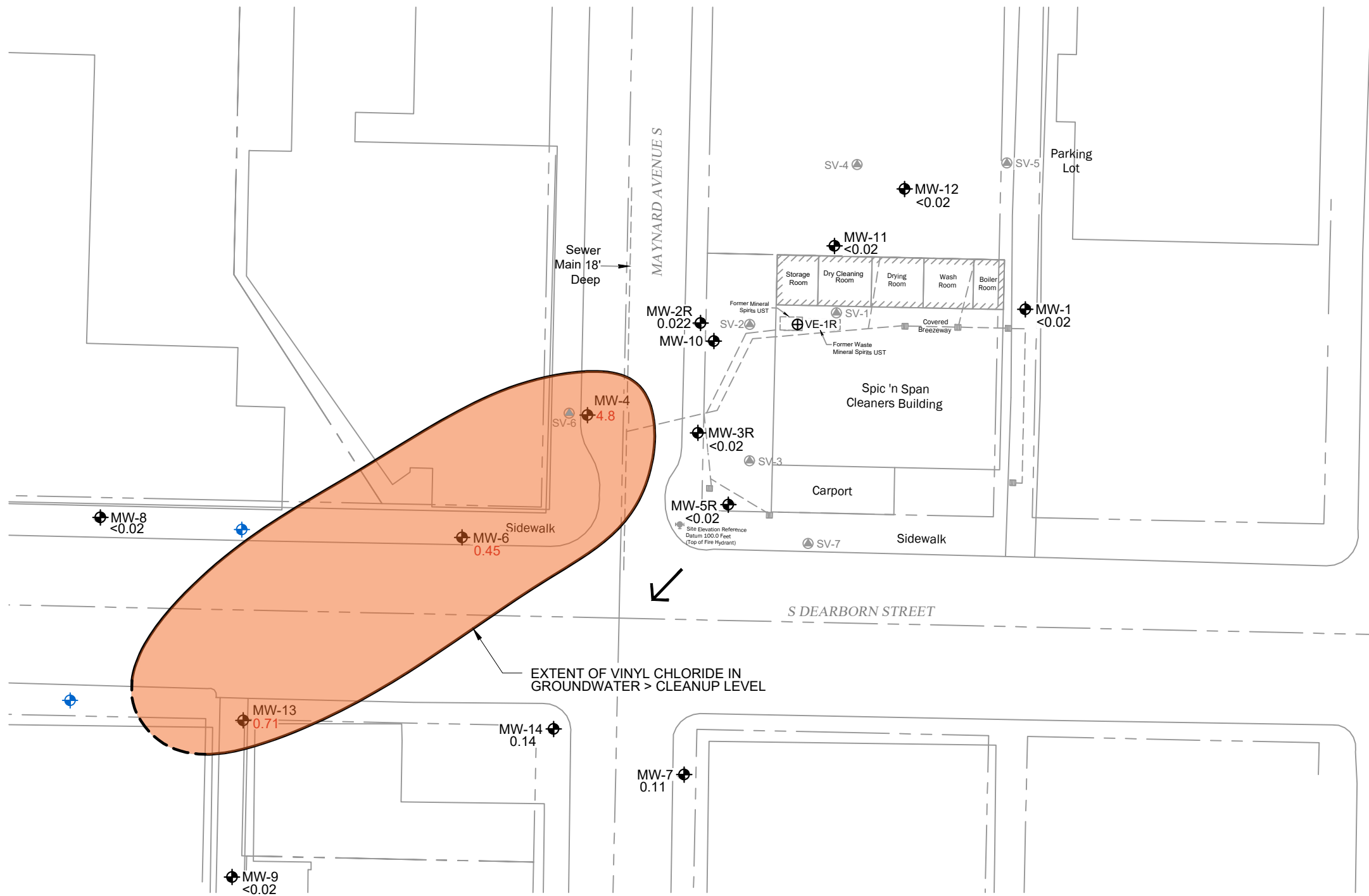
Filename: \\apexccs.local\PBS_L\Projects\41000\41593_Big Village LLLP-SCID\41593.006_650 Dearborn Street\DWG\41593.006_Fig_4_FEB25.dwg
 User: Katie Breymann
 Layout Tab: FIG 4
 CAD Plot Date/Time: 2/10/2025 10:27:27 AM

GENERAL NOTES

- THIS DRAWING IS DIAGRAMMATIC. IT IS FOR GENERAL INFORMATION ONLY.
- BASEMAP, MONITORING WELL LOCATIONS AND PROPOSED SOIL VAPOR LOCATIONS PROVIDED BY ASPECT CONSULTING, 2023.

LEGEND

-  SV-# SOIL VAPOR PROBE
-  FORMER UST LOCATION
-  CATCH BASIN
-  VE-# VAPOR EXTRACTION WELL
-  GROUNDWATER MONITORING WELL
- MW-2R WELL ID
32.37 VINYL CHLORIDE CONCENTRATION IN µg/L
(RED TEXT INDICATED CONCENTRATION EXCEEDS CLEANUP LEVEL)
- µg/L MICROGRAMS PER LITER
-  GROUNDWATER FLOW DIRECTION
-  PROPOSED NEW MONITORING WELL

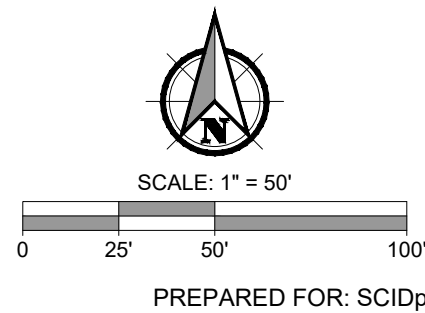


PBS Engineering and
 Environmental Inc.
 214 East Galer St, Ste 300
 Seattle, WA 98102
 206.233.9639
 pbsusa.com



PROPOSED WELL LOCATIONS & EXTENT OF VINYL CHLORIDE IN GROUNDWATER - Q1 2025
SPIC 'N SPAN CLEANERS SITE
 652 S DEARBORN STREET, SEATTLE, WASHINGTON

PROJECT
41593.006
DATE
FEBRUARY 2025
FIGURE:
4



FULL SIZE SHEET FORMAT IS 11X17; IF PRINTED SIZE IS NOT 11X17, THEN THIS SHEET FORMAT HAS BEEN MODIFIED & INDICATED DRAWING SCALE IS NOT ACCURATE.

PREPARED FOR: SCIDpda

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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

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Seattle, WA 98108-2419
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www.friedmanandbruya.com

November 1, 2024

Melanie Young, Project Manager
PBS Engineering and Environmental, Inc.
214 E. Galer St, Suite 300
Seattle, WA 98102

Dear Ms Young:

Included are the results from the testing of material submitted on October 24, 2024 from the Spic N Span 41593.006, F&BI 410457 project. There are 23 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

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

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures

c: Michael Andrews, Josh Trierweiler
PBS1101R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on October 24, 2024 by Friedman & Bruya, Inc. from the PBS Engineering and Environmental Spic N Span 41593.006, F&BI 410457 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>PBS Engineering and Environmental</u>
410457 -01	MW-2R
410457 -02	MW-2R-D
410457 -03	MW-3R
410457 -04	MW-4
410457 -05	MW-5R
410457 -06	MW-6
410457 -07	MW-7
410457 -08	MW-8
410457 -09	MW-9
410457 -10	MW-10
410457 -11	MW-11
410457 -12	MW-12
410457 -13	MW-13
410457 -14	MW-14
410457 -15	DUP-1

The samples marked for anions, methane, TOC, alkalinity, and ferrous iron were sent to Alliance Technical Group for analysis. The report is enclosed.

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

All other quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/01/24
Date Received: 10/24/24
Project: Spic N Span 41593.006, F&BI 410457
Date Extracted: 10/25/24
Date Analyzed: 10/25/24

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

<u>Sample ID</u> Laboratory ID	<u>Gasoline Range</u>	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 50-150)
MW-2R 410457-01	120	114
MW-2R-D 410457-02	<100	102
MW-3R 410457-03	<100	101
MW-4 410457-04	<100	108
MW-5R 410457-05	<100	111
MW-6 410457-06	<100	104
MW-7 410457-07	<100	100
MW-8 410457-08	<100	108
MW-9 410457-09	<100	108
MW-10 410457-10	<100	110
MW-11 410457-11	<100	110

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/01/24
Date Received: 10/24/24
Project: Spic N Span 41593.006, F&BI 410457
Date Extracted: 10/25/24
Date Analyzed: 10/25/24

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

<u>Sample ID</u> Laboratory ID	<u>Gasoline Range</u>	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 50-150)
MW-12 410457-12	<100	104
MW-13 410457-13	<100	111
MW-14 410457-14	<100	112
DUP-1 410457-15	<100	107
Method Blank 04-2435 MB	<100	107

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-2R	Client:	PBS Engineering and Environmental
Date Received:	10/24/24	Project:	Spic N Span 41593.006
Date Extracted:	10/25/24	Lab ID:	410457-01
Date Analyzed:	10/25/24	Data File:	102531.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	IJL

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	115	71	132
Toluene-d8	100	68	139
4-Bromofluorobenzene	107	62	136

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	0.048	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<0.01
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50 ca	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20 ca	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	4.6
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10 ca		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-2R-D	Client:	PBS Engineering and Environmental
Date Received:	10/24/24	Project:	Spic N Span 41593.006
Date Extracted:	10/25/24	Lab ID:	410457-02
Date Analyzed:	10/25/24	Data File:	102532.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	IJL

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	112	71	132
Toluene-d8	100	68	139
4-Bromofluorobenzene	103	62	136

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	0.084	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<0.01
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50 ca	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	1.3	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20 ca	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10 ca		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-3R	Client:	PBS Engineering and Environmental
Date Received:	10/24/24	Project:	Spic N Span 41593.006
Date Extracted:	10/25/24	Lab ID:	410457-03
Date Analyzed:	10/25/24	Data File:	102534.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	IJL

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	116	71	132
Toluene-d8	100	68	139
4-Bromofluorobenzene	99	62	136

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<0.01
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50 ca	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20 ca	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	45
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10 ca		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-4	Client:	PBS Engineering and Environmental
Date Received:	10/24/24	Project:	Spic N Span 41593.006
Date Extracted:	10/25/24	Lab ID:	410457-04
Date Analyzed:	10/26/24	Data File:	102542.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	IJL

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	112	71	132
Toluene-d8	97	68	139
4-Bromofluorobenzene	101	62	136

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	1.2	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<0.01
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50 ca	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20 ca	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	1.7	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10 ca		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-5R	Client:	PBS Engineering and Environmental
Date Received:	10/24/24	Project:	Spic N Span 41593.006
Date Extracted:	10/25/24	Lab ID:	410457-05
Date Analyzed:	10/25/24	Data File:	102530.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	IJL

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	112	71	132
Toluene-d8	102	68	139
4-Bromofluorobenzene	105	62	136

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<0.01
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50 ca	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20 ca	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10 ca		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID: MW-6	Client: PBS Engineering and Environmental
Date Received: 10/24/24	Project: Spic N Span 41593.006
Date Extracted: 10/25/24	Lab ID: 410457-06
Date Analyzed: 10/25/24	Data File: 102536.D
Matrix: Water	Instrument: GCMS13
Units: ug/L (ppb)	Operator: IJL

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	112	71	132
Toluene-d8	99	68	139
4-Bromofluorobenzene	101	62	136

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	0.42	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<0.01
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50 ca	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20 ca	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10 ca		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-7	Client:	PBS Engineering and Environmental
Date Received:	10/24/24	Project:	Spic N Span 41593.006
Date Extracted:	10/25/24	Lab ID:	410457-07
Date Analyzed:	10/25/24	Data File:	102540.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	IJL

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	114	71	132
Toluene-d8	100	68	139
4-Bromofluorobenzene	101	62	136

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	2.5	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	0.15	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<0.01
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50 ca	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20 ca	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	0.21	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10 ca		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID: MW-8	Client: PBS Engineering and Environmental
Date Received: 10/24/24	Project: Spic N Span 41593.006
Date Extracted: 10/25/24	Lab ID: 410457-08
Date Analyzed: 10/25/24	Data File: 102537.D
Matrix: Water	Instrument: GCMS13
Units: ug/L (ppb)	Operator: IJL

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	109	71	132
Toluene-d8	99	68	139
4-Bromofluorobenzene	100	62	136

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<5	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<0.01
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50 ca	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20 ca	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10 ca		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-9	Client:	PBS Engineering and Environmental
Date Received:	10/24/24	Project:	Spic N Span 41593.006
Date Extracted:	10/25/24	Lab ID:	410457-09
Date Analyzed:	10/25/24	Data File:	102527.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	IJL

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	114	71	132
Toluene-d8	98	68	139
4-Bromofluorobenzene	101	62	136

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<0.01
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50 ca	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20 ca	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10 ca		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-10	Client:	PBS Engineering and Environmental
Date Received:	10/24/24	Project:	Spic N Span 41593.006
Date Extracted:	10/25/24	Lab ID:	410457-10
Date Analyzed:	10/25/24	Data File:	102533.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	IJL

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	111	71	132
Toluene-d8	98	68	139
4-Bromofluorobenzene	101	62	136

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	0.030	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<0.01
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50 ca	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20 ca	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10 ca		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID: MW-11	Client: PBS Engineering and Environmental
Date Received: 10/24/24	Project: Spic N Span 41593.006
Date Extracted: 10/25/24	Lab ID: 410457-11
Date Analyzed: 10/25/24	Data File: 102528.D
Matrix: Water	Instrument: GCMS13
Units: ug/L (ppb)	Operator: IJL

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	104	71	132
Toluene-d8	97	68	139
4-Bromofluorobenzene	104	62	136

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<0.01
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50 ca	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20 ca	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10 ca		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID: MW-12	Client: PBS Engineering and Environmental
Date Received: 10/24/24	Project: Spic N Span 41593.006
Date Extracted: 10/25/24	Lab ID: 410457-12
Date Analyzed: 10/25/24	Data File: 102529.D
Matrix: Water	Instrument: GCMS13
Units: ug/L (ppb)	Operator: IJL

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	114	71	132
Toluene-d8	100	68	139
4-Bromofluorobenzene	106	62	136

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<0.01
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50 ca	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	1.3	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20 ca	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10 ca		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-13	Client:	PBS Engineering and Environmental
Date Received:	10/24/24	Project:	Spic N Span 41593.006
Date Extracted:	10/25/24	Lab ID:	410457-13
Date Analyzed:	10/25/24	Data File:	102538.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	IJL

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	71	132
Toluene-d8	92	68	139
4-Bromofluorobenzene	101	62	136

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	0.75	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<0.01
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50 ca	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20 ca	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10 ca		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-14	Client:	PBS Engineering and Environmental
Date Received:	10/24/24	Project:	Spic N Span 41593.006
Date Extracted:	10/25/24	Lab ID:	410457-14
Date Analyzed:	10/25/24	Data File:	102541.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	IJL

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	111	71	132
Toluene-d8	98	68	139
4-Bromofluorobenzene	102	62	136

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	1.4	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	0.21	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<0.01
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50 ca	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20 ca	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10 ca		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	DUP-1	Client:	PBS Engineering and Environmental
Date Received:	10/24/24	Project:	Spic N Span 41593.006
Date Extracted:	10/25/24	Lab ID:	410457-15
Date Analyzed:	10/25/24	Data File:	102539.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	IJL

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	115	71	132
Toluene-d8	100	68	139
4-Bromofluorobenzene	105	62	136

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	0.40	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<0.01
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50 ca	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20 ca	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10 ca		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	Method Blank	Client:	PBS Engineering and Environmental
Date Received:	Not Applicable	Project:	Spic N Span 41593.006
Date Extracted:	10/25/24	Lab ID:	04-2602 mb
Date Analyzed:	10/25/24	Data File:	102508.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	108	71	132
Toluene-d8	98	68	139
4-Bromofluorobenzene	103	62	136

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<0.01
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50 ca	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20 ca	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/01/24

Date Received: 10/24/24

Project: Spic N Span 41593.006, F&BI 410457

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

Laboratory Code: 410442-01 (Duplicate)

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

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Gasoline	ug/L (ppb)	1,000	98	70-130

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/01/24

Date Received: 10/24/24

Project: Spic N Span 41593.006, F&BI 410457

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

Laboratory Code: 410457-09 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent	Acceptance
				Recovery MS	Criteria
Dichlorodifluoromethane	ug/L (ppb)	10	<1	81	27-164
Chloromethane	ug/L (ppb)	10	<10	106	34-141
Vinyl chloride	ug/L (ppb)	10	<0.02	103	16-176
Bromomethane	ug/L (ppb)	10	<5	92	10-193
Chloroethane	ug/L (ppb)	10	<1	92	50-150
Trichlorofluoromethane	ug/L (ppb)	10	<1	86	50-150
Acetone	ug/L (ppb)	50	<50	38	15-179
1,1-Dichloroethene	ug/L (ppb)	10	<1	94	50-150
Hexane	ug/L (ppb)	10	<5	82	49-161
Methylene chloride	ug/L (ppb)	10	<5	87	40-143
Methyl t-butyl ether (MTBE)	ug/L (ppb)	10	<1	87	50-150
trans-1,2-Dichloroethene	ug/L (ppb)	10	<1	92	50-150
1,1-Dichloroethane	ug/L (ppb)	10	<1	90	50-150
2,2-Dichloropropane	ug/L (ppb)	10	<1	86	62-152
cis-1,2-Dichloroethene	ug/L (ppb)	10	<1	93	50-150
Chloroform	ug/L (ppb)	10	<1	86	50-150
2-Butanone (MEK)	ug/L (ppb)	50	<20	57	34-168
1,2-Dichloroethane (EDC)	ug/L (ppb)	10	<0.2	84	50-150
1,1,1-Trichloroethane	ug/L (ppb)	10	<1	87	50-150
1,1-Dichloropropene	ug/L (ppb)	10	<1	88	50-150
Carbon tetrachloride	ug/L (ppb)	10	<0.5	85	50-150
Benzene	ug/L (ppb)	10	<0.35	93	50-150
Trichloroethene	ug/L (ppb)	10	<0.5	91	43-133
1,2-Dichloropropane	ug/L (ppb)	10	<1	91	50-150
Bromodichloromethane	ug/L (ppb)	10	<0.5	93	50-150
Dibromomethane	ug/L (ppb)	10	<1	90	50-150
4-Methyl-2-pentanone	ug/L (ppb)	50	<10	89	50-150
cis-1,3-Dichloropropene	ug/L (ppb)	10	<0.4	85	48-145
Toluene	ug/L (ppb)	10	<1	94	50-150
trans-1,3-Dichloropropene	ug/L (ppb)	10	<0.4	90	37-152
1,1,2-Trichloroethane	ug/L (ppb)	10	<0.5	94	50-150
2-Hexanone	ug/L (ppb)	50	<10	71	50-150
1,3-Dichloropropane	ug/L (ppb)	10	<1	95	50-150
Tetrachloroethene	ug/L (ppb)	10	<1	96	50-150
Dibromochloromethane	ug/L (ppb)	10	<0.5	95	33-164
1,2-Dibromoethane (EDB)	ug/L (ppb)	10	<0.01	99	50-150
Chlorobenzene	ug/L (ppb)	10	<1	99	50-150
Ethylbenzene	ug/L (ppb)	10	<1	94	50-150
1,1,1,2-Tetrachloroethane	ug/L (ppb)	10	<1	98	50-150
m,p-Xylene	ug/L (ppb)	20	<2	96	50-150
o-Xylene	ug/L (ppb)	10	<1	95	50-150
Styrene	ug/L (ppb)	10	<1	94	50-150
Isopropylbenzene	ug/L (ppb)	10	<1	93	50-150
Bromoform	ug/L (ppb)	10	<5	94	23-161
n-Propylbenzene	ug/L (ppb)	10	<1	93	50-150
Bromobenzene	ug/L (ppb)	10	<1	100	50-150
1,3,5-Trimethylbenzene	ug/L (ppb)	10	<1	95	50-150
1,1,2,2-Tetrachloroethane	ug/L (ppb)	10	<0.2	106	57-162
1,2,3-Trichloropropane	ug/L (ppb)	10	<1	96	33-151
2-Chlorotoluene	ug/L (ppb)	10	<1	96	50-150
4-Chlorotoluene	ug/L (ppb)	10	<1	96	50-150
tert-Butylbenzene	ug/L (ppb)	10	<1	94	50-150
1,2,4-Trimethylbenzene	ug/L (ppb)	10	<1	95	50-150
sec-Butylbenzene	ug/L (ppb)	10	<1	94	46-139
p-Isopropyltoluene	ug/L (ppb)	10	<1	95	46-140
1,3-Dichlorobenzene	ug/L (ppb)	10	<1	99	50-150
1,4-Dichlorobenzene	ug/L (ppb)	10	<1	98	50-150
1,2-Dichlorobenzene	ug/L (ppb)	10	<1	99	50-150
1,2-Dibromo-3-chloropropane	ug/L (ppb)	10	<10	98	50-150
1,2,4-Trichlorobenzene	ug/L (ppb)	10	<1	93	50-150
Hexachlorobutadiene	ug/L (ppb)	10	<0.5	82	42-150
Naphthalene	ug/L (ppb)	10	<1	100	50-150
1,2,3-Trichlorobenzene	ug/L (ppb)	10	<1	98	44-155

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/01/24

Date Received: 10/24/24

Project: Spic N Span 41593.006, F&BI 410457

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

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Dichlorodifluoromethane	ug/L (ppb)	10	86	81	49-149	6
Chloromethane	ug/L (ppb)	10	112	107	34-143	5
Vinyl chloride	ug/L (ppb)	10	109	104	43-149	5
Bromomethane	ug/L (ppb)	10	100	101	28-182	1
Chloroethane	ug/L (ppb)	10	95	91	59-157	4
Trichlorofluoromethane	ug/L (ppb)	10	91	87	59-141	4
Acetone	ug/L (ppb)	50	42	43	20-139	2
1,1-Dichloroethene	ug/L (ppb)	10	99	97	67-138	2
Hexane	ug/L (ppb)	10	105	101	50-161	4
Methylene chloride	ug/L (ppb)	10	98	93	29-192	5
Methyl t-butyl ether (MTBE)	ug/L (ppb)	10	93	90	70-130	3
trans-1,2-Dichloroethene	ug/L (ppb)	10	99	95	70-130	4
1,1-Dichloroethane	ug/L (ppb)	10	97	92	70-130	5
2,2-Dichloropropane	ug/L (ppb)	10	104	100	71-148	4
cis-1,2-Dichloroethene	ug/L (ppb)	10	99	96	70-130	3
Chloroform	ug/L (ppb)	10	90	87	70-130	3
2-Butanone (MEK)	ug/L (ppb)	50	60	59	50-157	2
1,2-Dichloroethane (EDC)	ug/L (ppb)	10	87	83	70-130	5
1,1,1-Trichloroethane	ug/L (ppb)	10	92	89	70-130	3
1,1-Dichloropropene	ug/L (ppb)	10	95	93	70-130	2
Carbon tetrachloride	ug/L (ppb)	10	93	88	70-130	6
Benzene	ug/L (ppb)	10	99	96	70-130	3
Trichloroethene	ug/L (ppb)	10	97	94	70-130	3
1,2-Dichloropropane	ug/L (ppb)	10	98	95	70-130	3
Bromodichloromethane	ug/L (ppb)	10	95	93	70-130	2
Dibromomethane	ug/L (ppb)	10	95	90	70-130	5
4-Methyl-2-pentanone	ug/L (ppb)	50	99	92	70-130	7
cis-1,3-Dichloropropene	ug/L (ppb)	10	97	91	70-130	6
Toluene	ug/L (ppb)	10	93	91	70-130	2
trans-1,3-Dichloropropene	ug/L (ppb)	10	93	89	70-130	4
1,1,2-Trichloroethane	ug/L (ppb)	10	92	89	70-130	3
2-Hexanone	ug/L (ppb)	50	69	68	66-132	1
1,3-Dichloropropane	ug/L (ppb)	10	93	93	70-130	0
Tetrachloroethene	ug/L (ppb)	10	96	94	70-130	2
Dibromochloromethane	ug/L (ppb)	10	91	90	63-142	1
1,2-Dibromoethane (EDB)	ug/L (ppb)	10	96	94	70-130	2
Chlorobenzene	ug/L (ppb)	10	99	96	70-130	3
Ethylbenzene	ug/L (ppb)	10	96	93	70-130	3
1,1,1,2-Tetrachloroethane	ug/L (ppb)	10	99	94	70-130	5
m,p-Xylene	ug/L (ppb)	20	98	95	70-130	3
o-Xylene	ug/L (ppb)	10	97	93	70-130	4
Styrene	ug/L (ppb)	10	98	95	70-130	3
Isopropylbenzene	ug/L (ppb)	10	97	94	70-130	3
Bromoform	ug/L (ppb)	10	92	89	50-157	3
n-Propylbenzene	ug/L (ppb)	10	100	97	70-130	3
Bromobenzene	ug/L (ppb)	10	99	97	70-130	2
1,3,5-Trimethylbenzene	ug/L (ppb)	10	103	97	52-150	6
1,1,2,2-Tetrachloroethane	ug/L (ppb)	10	106	103	75-140	3
1,2,3-Trichloropropane	ug/L (ppb)	10	95	92	40-153	3
2-Chlorotoluene	ug/L (ppb)	10	100	98	70-130	2
4-Chlorotoluene	ug/L (ppb)	10	98	95	70-130	3
tert-Butylbenzene	ug/L (ppb)	10	103	98	70-130	5
1,2,4-Trimethylbenzene	ug/L (ppb)	10	103	99	70-130	4
sec-Butylbenzene	ug/L (ppb)	10	103	100	70-130	3
p-Isopropyltoluene	ug/L (ppb)	10	103	101	70-130	2
1,3-Dichlorobenzene	ug/L (ppb)	10	104	101	70-130	3
1,4-Dichlorobenzene	ug/L (ppb)	10	102	98	70-130	4
1,2-Dichlorobenzene	ug/L (ppb)	10	101	97	70-130	4
1,2-Dibromo-3-chloropropane	ug/L (ppb)	10	98	97	70-130	1
1,2,4-Trichlorobenzene	ug/L (ppb)	10	103	99	70-130	4
Hexachlorobutadiene	ug/L (ppb)	10	101	94	70-130	7
Naphthalene	ug/L (ppb)	10	109	104	61-133	5
1,2,3-Trichlorobenzene	ug/L (ppb)	10	107	102	69-143	5

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Data Qualifiers & Definitions

- a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.
- b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.
- ca - The calibration results for the analyte were outside of acceptance criteria, biased low; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.
- c - The presence of the analyte may be due to carryover from previous sample injections.
- cf - The sample was centrifuged prior to analysis.
- d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.
- dv - Insufficient sample volume was available to achieve normal reporting limits.
- f - The sample was laboratory filtered prior to analysis.
- fb - The analyte was detected in the method blank.
- fc - The analyte is a common laboratory and field contaminant.
- hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.
- hs - Headspace was present in the container used for analysis.
- ht - The analysis was performed outside the method or client-specified holding time requirement.
- ip - Recovery fell outside of control limits due to sample matrix effects.
- j - The analyte concentration is reported below the standard reporting limit. The value reported is an estimate.
- J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.
- jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.
- js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.
- k - The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.
- lc - The presence of the analyte is likely due to laboratory contamination.
- L - The reported concentration was generated from a library search.
- nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.
- pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.
- ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.
- vo - The value reported fell outside the control limits established for this analyte.
- x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

410457

SAMPLE CH 1 OF CUSTODY

10/24/24

JS/uvy

Report To Melanie Young

Company PBS Engr

Address 214 E Galer St, Ste 300

City, State, ZIP Seattle, WA 98102

Phone 206.766.7640 Email melanie.young@pbsusa.com

Project Specific RIs - Yes / No
pbstusa.com / michael.anderson@pbstusa.com

SAMPLERS (signature) [Signature]

PROJECT NAME Spic N Span

REMARKS

INVOICE TO

PO # 41543006

INVOICE TO

Page # 1 of 2

TURNAROUND TIME

Standard Turnaround X

RUSH X

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	ANALYSES REQUESTED										Notes
						NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Nitrate-Sulfate-Chloride by 3020	Methane by 3011	TOC SM5310C	Alkalinity	
VE-1R				GW	13	X	X	X	X	X	X	X	X	X	X	
VE-1R-D					6	X	X	X	X	X	X	X	X	X	X	
MW-2R					13	X	X	X	X	X	X	X	X	X	X	
MW-2R-D					13	X	X	X	X	X	X	X	X	X	X	
MW-3R	02 A-F	10/23/24	1935		6	X	X	X	X	X	X	X	X	X	X	
MW-4	03 A-L	10/24/24	1517		13	X	X	X	X	X	X	X	X	X	X	
MW-5R	04	10/23/24	1048		13	X	X	X	X	X	X	X	X	X	X	
MW-6	05	10/23/24	1504		13	X	X	X	X	X	X	X	X	X	X	
MW-7	06	10/23/24	1447		13	X	X	X	X	X	X	X	X	X	X	
	07	10/23/24	1208	Y	13	X	X	X	X	X	X	X	X	X	X	

Friedman & Bryga, Inc.

5500 4th Avenue S

Seattle, WA 98108

Ph. (206) 285-8282

FORMS \COO\COO.DOC

SIGNATURE

Reinquished by:

Received by:

Reinquished by:

Received by:

PRINT NAME

Josh Triewerler

Josh Triewerler

Josh Triewerler

Josh Triewerler

COMPANY

PBS

PBS

PBS

PBS

DATE

10/24/24

10/24/24

10/24/24

10/24/24

TIME

10:12

10:12

10:12

10:12

Samples received at 4 °C

410457

SAMPLE CHAIN OF CUSTODY

10/24/24

JSJ
W44

Report To Melanie Young

Company PBS Eng'r

Address 214 E Galer St, Ste 300

City, State, ZIP Seattle, WA 98102

Phone 206-766-7640 Email melanie.young@pbsusa.com

phs.usa.com; michael.trienweiler@pbsusa.com

SAMPLERS (signature)	PROJECT NAME <u>Spic N Span</u>	PO # <u>41513.006</u>
REMARKS	INVOICE TO	

TURNAROUND TIME Standard Turnaround <input checked="" type="checkbox"/> RUSH	SAMPLE DISPOSAL Dispose after 30 days Archive Samples Other
Rush charges authorized by:	

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED										Notes
						NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Nitrate, Sulfate, Chloride 3000	Methane RSK175	TOC SM5310C	Alkalinity	
MW-8	08A.L	10/23/24	1720	GW	13	X	X	X	X	X	X	X	X	X	X	
MW-9	09	10/23/24	1702		1	X	X	X	X	X	X	X	X	X	X	
MW-10	10	10/22/24	1543		1	X	X	X	X	X	X	X	X	X	X	
MW-11	11	10/22/24	1631		1	X	X	X	X	X	X	X	X	X	X	
MW-12	12	10/22/24	1703		1	X	X	X	X	X	X	X	X	X	X	
MW-13	13	10/23/24	1755		1	X	X	X	X	X	X	X	X	X	X	
MW-14	14	10/23/24	1612		1	X	X	X	X	X	X	X	X	X	X	
DVP-1	15	10/23/24			1	X	X	X	X	X	X	X	X	X	X	

Friedman & Bruja, Inc.
5500 4th Avenue S
Seattle, WA 98108
Ph. (206) 285-8282
FORMS\COC\COC.DOC

SIGNATURE		PRINT NAME		COMPANY		DATE	TIME
<u>[Signature]</u>		<u>Josh Trienweiler</u>		<u>PBS</u>		<u>10/24/24</u>	
Received by:		Reinquinshed by:		Samples received at		<u>4</u>	<u>OC</u>
<u>[Signature]</u>		<u>Josh Trienweiler</u>		<u>FBI</u>		<u>10/24/24</u>	<u>10:12</u>
Received by:		Reinquinshed by:		Samples received at		<u>4</u>	<u>OC</u>
<u>[Signature]</u>		<u>Josh Trienweiler</u>		<u>FBI</u>		<u>10/24/24</u>	<u>10:12</u>

SAMPLE CONDITION UPON RECEIPT CHECKLIST

INITIALS/ AP
DATE: 10/24/24

PROJECT # 410457 CLIENT PBS

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/ (NP)
*or other representative documents, letters, and/or shipping memos Date: 10/24/24

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 Received 12 containers of eacho samples.
- Relinquished Yes No _____
- Requested analysis Yes On Hold _____

Other comments (use a separate page if needed)

Air Samples: Were any additional canisters/tubes received? NA YES NO
Number of unused TO15 canisters _____ Number of unused TO17 tubes _____

Friedman & Bruya

Michael Erdahl
5500 4th Ave S
Seattle, WA 98108

RE: 410457,

Work Order Number: 2410483

October 31, 2024

Attention Michael Erdahl:

Fremont Analytical, Inc, an Alliance Technical Group company, received 14 sample(s) on 10/24/2024 for the analyses presented in the following report.

Dissolved Gases by RSK-175

Ferrous Iron by SM3500-Fe B

Ion Chromatography by EPA 300.0

Total Alkalinity by EPA 310.2

Total Organic Carbon by SM 5310C

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

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

Sincerely,



Brianna Barnes
Project Manager

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

Original



CLIENT: Friedman & Bruya
Project: 410457
Work Order: 2410483

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2410483-001	MW-2R	10/23/2024 12:52 PM	10/24/2024 2:31 PM
2410483-002	MW-3R	10/22/2024 3:17 PM	10/24/2024 2:31 PM
2410483-003	MW-4	10/23/2024 10:48 AM	10/24/2024 2:31 PM
2410483-004	MW-5R	10/23/2024 3:04 PM	10/24/2024 2:31 PM
2410483-005	MW-6	10/23/2024 2:47 PM	10/24/2024 2:31 PM
2410483-006	MW-7	10/23/2024 12:48 PM	10/24/2024 2:31 PM
2410483-007	MW-8	10/23/2024 5:20 PM	10/24/2024 2:31 PM
2410483-008	MW-9	10/23/2024 5:02 PM	10/24/2024 2:31 PM
2410483-009	MW-10	10/22/2024 3:43 PM	10/24/2024 2:31 PM
2410483-010	MW-11	10/22/2024 4:31 PM	10/24/2024 2:31 PM
2410483-011	MW-12	10/22/2024 5:03 PM	10/24/2024 2:31 PM
2410483-012	MW-13	10/23/2024 5:55 PM	10/24/2024 2:31 PM
2410483-013	MW-14	10/23/2024 4:12 PM	10/24/2024 2:31 PM
2410483-014	DUP-1	10/23/2024 12:00 AM	10/24/2024 2:31 PM

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

CLIENT: Friedman & Bruya

Project: 410457

I. SAMPLE RECEIPT:

Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:

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

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

III. ANALYSES AND EXCEPTIONS:

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

Qualifiers:

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

Acronyms:

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

CLIENT: Friedman & Bruya
Project: 410457

Lab ID: 2410483-001

Collection Date: 10/23/2024 12:52:00 PM

Client Sample ID: MW-2R

Matrix: Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Dissolved Gases by RSK-175</u>				Batch ID: R95288		Analyst: LB
Methane	3.38	0.100	D	mg/L	20	10/25/2024 4:02:00 PM
<u>Ion Chromatography by EPA 300.0</u>				Batch ID: 45642		Analyst: SLL
Chloride	62.1	4.00	D	mg/L	20	10/28/2024 7:15:00 PM
Nitrate (as N)	ND	0.400	D	mg/L	2	10/24/2024 8:57:00 PM
Sulfate	10.7	2.00	D	mg/L	2	10/24/2024 8:57:00 PM
NOTES: Diluted due to matrix.						
<u>Total Organic Carbon by SM 5310C</u>				Batch ID: R95311		Analyst: SLL
Total Organic Carbon	10.8	0.700		mg/L	1	10/28/2024 3:32:00 PM
<u>Total Alkalinity by EPA 310.2</u>				Batch ID: R95371		Analyst: NR
Alkalinity, Total (As CaCO ₃)	368	50.0	D	mg/L	20	10/30/2024 3:34:00 PM
<u>Ferrous Iron by SM3500-Fe B</u>				Batch ID: R95241		Analyst: JH
Ferrous Iron	1.87	0.150	H	mg/L	1	10/25/2024 8:30:30 AM

CLIENT: Friedman & Bruya
Project: 410457

Lab ID: 2410483-002

Collection Date: 10/22/2024 3:17:00 PM

Client Sample ID: MW-3R

Matrix: Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Dissolved Gases by RSK-175</u>				Batch ID: R95288		Analyst: LB
Methane	4.87	0.125	D	mg/L	25	10/25/2024 4:04:00 PM
<u>Ion Chromatography by EPA 300.0</u>				Batch ID: 45642		Analyst: SLL
Chloride	29.5	2.00	D	mg/L	10	10/25/2024 9:57:00 PM
Nitrate (as N)	ND	0.400	DH	mg/L	2	10/24/2024 9:21:00 PM
Sulfate	ND	2.00	D	mg/L	2	10/24/2024 9:21:00 PM
NOTES: Diluted due to matrix.						
<u>Total Organic Carbon by SM 5310C</u>				Batch ID: R95311		Analyst: SLL
Total Organic Carbon	15.4	0.700		mg/L	1	10/28/2024 5:07:00 PM
<u>Total Alkalinity by EPA 310.2</u>				Batch ID: R95371		Analyst: NR
Alkalinity, Total (As CaCO ₃)	504	50.0	D	mg/L	20	10/30/2024 3:38:00 PM
<u>Ferrous Iron by SM3500-Fe B</u>				Batch ID: R95241		Analyst: JH
Ferrous Iron	0.674	0.150	H	mg/L	1	10/25/2024 8:30:30 AM

CLIENT: Friedman & Bruya
Project: 410457

Lab ID: 2410483-003
Client Sample ID: MW-4

Collection Date: 10/23/2024 10:48:00 AM
Matrix: Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Dissolved Gases by RSK-175</u>				Batch ID: R95288		Analyst: LB
Methane	3.94	0.125	D	mg/L	25	10/25/2024 4:06:00 PM
<u>Ion Chromatography by EPA 300.0</u>				Batch ID: 45642		Analyst: SLL
Chloride	52.0	2.00	D	mg/L	10	10/25/2024 10:20:00 PM
Nitrate (as N)	ND	0.400	D	mg/L	2	10/24/2024 9:44:00 PM
Sulfate	ND	2.00	D	mg/L	2	10/24/2024 9:44:00 PM
NOTES: Diluted due to matrix.						
<u>Total Organic Carbon by SM 5310C</u>				Batch ID: R95311		Analyst: SLL
Total Organic Carbon	13.0	0.700		mg/L	1	10/28/2024 5:26:00 PM
<u>Total Alkalinity by EPA 310.2</u>				Batch ID: R95371		Analyst: NR
Alkalinity, Total (As CaCO ₃)	430	50.0	D	mg/L	20	10/30/2024 3:41:00 PM
<u>Ferrous Iron by SM3500-Fe B</u>				Batch ID: R95241		Analyst: JH
Ferrous Iron	4.66	0.750	DH	mg/L	5	10/25/2024 8:30:30 AM

CLIENT: Friedman & Bruya
Project: 410457

Lab ID: 2410483-004

Collection Date: 10/23/2024 3:04:00 PM

Client Sample ID: MW-5R

Matrix: Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Dissolved Gases by RSK-175</u>				Batch ID: R95288		Analyst: LB
Methane	5.19	0.125	D	mg/L	25	10/25/2024 4:09:00 PM
<u>Ion Chromatography by EPA 300.0</u>				Batch ID: 45642		Analyst: SLL
Chloride	38.5	2.00	D	mg/L	10	10/25/2024 10:43:00 PM
Nitrate (as N)	ND	1.00	D	mg/L	5	10/24/2024 10:53:00 PM
Sulfate	ND	5.00	D	mg/L	5	10/24/2024 10:53:00 PM
NOTES: Diluted due to matrix.						
<u>Total Organic Carbon by SM 5310C</u>				Batch ID: R95311		Analyst: SLL
Total Organic Carbon	20.2	0.700		mg/L	1	10/28/2024 5:47:00 PM
<u>Total Alkalinity by EPA 310.2</u>				Batch ID: R95371		Analyst: NR
Alkalinity, Total (As CaCO ₃)	660	75.0	D	mg/L	30	10/30/2024 5:25:00 PM
<u>Ferrous Iron by SM3500-Fe B</u>				Batch ID: R95230		Analyst: SLL
Ferrous Iron	ND	0.150	Q	mg/L	1	10/24/2024 2:45:21 PM
NOTES: Q - Indicates an analyte with a continuing calibration that does not meet acceptance criteria						

CLIENT: Friedman & Bruya
Project: 410457

Lab ID: 2410483-005
Client Sample ID: MW-6

Collection Date: 10/23/2024 2:47:00 PM
Matrix: Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Dissolved Gases by RSK-175</u>				Batch ID: R95288		Analyst: LB
Methane	1.16	0.0250	D	mg/L	5	10/25/2024 4:11:00 PM
<u>Ion Chromatography by EPA 300.0</u>				Batch ID: 45642		Analyst: SLL
Chloride	26.1	2.00	D	mg/L	10	10/25/2024 11:07:00 PM
Nitrate (as N)	ND	0.400	D	mg/L	2	10/24/2024 11:16:00 PM
Sulfate	13.3	2.00	D	mg/L	2	10/24/2024 11:16:00 PM
NOTES: Diluted due to matrix.						
<u>Total Organic Carbon by SM 5310C</u>				Batch ID: R95311		Analyst: SLL
Total Organic Carbon	2.20	0.700		mg/L	1	10/28/2024 6:09:00 PM
<u>Total Alkalinity by EPA 310.2</u>				Batch ID: R95371		Analyst: NR
Alkalinity, Total (As CaCO ₃)	358	50.0	D	mg/L	20	10/30/2024 3:47:00 PM
<u>Ferrous Iron by SM3500-Fe B</u>				Batch ID: R95230		Analyst: SLL
Ferrous Iron	2.50	0.750	DQ	mg/L	5	10/24/2024 2:45:21 PM
NOTES: Q - Indicates an analyte with a continuing calibration that does not meet acceptance criteria						

CLIENT: Friedman & Bruya
Project: 410457

Lab ID: 2410483-006
Client Sample ID: MW-7

Collection Date: 10/23/2024 12:48:00 PM
Matrix: Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Dissolved Gases by RSK-175</u>				Batch ID: R95346		Analyst: LN
Methane	5.37	0.125	D	mg/L	25	10/29/2024 2:55:00 PM
<u>Ion Chromatography by EPA 300.0</u>				Batch ID: 45642		Analyst: SLL
Chloride	74.5	4.00	D	mg/L	20	10/25/2024 11:30:00 PM
Nitrate (as N)	ND	0.200	H	mg/L	1	10/28/2024 7:38:00 PM
Nitrate (as N)	ND	1.00	D	mg/L	5	10/24/2024 11:40:00 PM
Sulfate	ND	1.00		mg/L	1	10/28/2024 7:38:00 PM
NOTES: Diluted due to matrix.						
<u>Total Organic Carbon by SM 5310C</u>				Batch ID: R95311		Analyst: SLL
Total Organic Carbon	13.5	0.700		mg/L	1	10/28/2024 6:30:00 PM
<u>Total Alkalinity by EPA 310.2</u>				Batch ID: R95371		Analyst: NR
Alkalinity, Total (As CaCO ₃)	720	75.0	D	mg/L	30	10/30/2024 5:28:00 PM
<u>Ferrous Iron by SM3500-Fe B</u>				Batch ID: R95241		Analyst: JH
Ferrous Iron	6.66	0.750	DH	mg/L	5	10/25/2024 8:30:30 AM

CLIENT: Friedman & Bruya
Project: 410457

Lab ID: 2410483-007
Client Sample ID: MW-8

Collection Date: 10/23/2024 5:20:00 PM
Matrix: Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Dissolved Gases by RSK-175</u>				Batch ID: R95346		Analyst: LN
Methane	0.159	0.00500		mg/L	1	10/29/2024 3:01:00 PM
<u>Ion Chromatography by EPA 300.0</u>				Batch ID: 45642		Analyst: SLL
Chloride	56.7	4.00	D	mg/L	20	10/26/2024 12:16:00 AM
Nitrate (as N)	ND	1.00	D	mg/L	5	10/25/2024 12:03:00 AM
Sulfate	142	5.00	D	mg/L	5	10/25/2024 12:03:00 AM
NOTES: Diluted due to matrix.						
<u>Total Organic Carbon by SM 5310C</u>				Batch ID: R95311		Analyst: SLL
Total Organic Carbon	2.31	0.700		mg/L	1	10/28/2024 7:44:00 PM
<u>Total Alkalinity by EPA 310.2</u>				Batch ID: R95371		Analyst: NR
Alkalinity, Total (As CaCO3)	580	50.0	D	mg/L	20	10/30/2024 3:53:00 PM
<u>Ferrous Iron by SM3500-Fe B</u>				Batch ID: R95230		Analyst: SLL
Ferrous Iron	6.52	0.750	DQ	mg/L	5	10/24/2024 2:45:21 PM
NOTES: Q - Indicates an analyte with a continuing calibration that does not meet acceptance criteria						

CLIENT: Friedman & Bruya
Project: 410457

Lab ID: 2410483-008
Client Sample ID: MW-9

Collection Date: 10/23/2024 5:02:00 PM
Matrix: Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Dissolved Gases by RSK-175</u>					Batch ID: R95346	Analyst: LN
Methane	0.00906	0.00500		mg/L	1	10/29/2024 3:03:00 PM
<u>Ion Chromatography by EPA 300.0</u>					Batch ID: 45642	Analyst: SLL
Chloride	117	4.00	D	mg/L	20	10/26/2024 1:26:00 AM
Nitrate (as N)	12.4	4.00	DH	mg/L	20	10/26/2024 1:26:00 AM
Nitrate (as N)	12.3	0.400	DE	mg/L	2	10/25/2024 12:26:00 AM
Sulfate	56.3	2.00	D	mg/L	2	10/25/2024 12:26:00 AM
<u>Total Organic Carbon by SM 5310C</u>					Batch ID: R95311	Analyst: SLL
Total Organic Carbon	0.915	0.700		mg/L	1	10/28/2024 8:02:00 PM
<u>Total Alkalinity by EPA 310.2</u>					Batch ID: R95371	Analyst: NR
Alkalinity, Total (As CaCO3)	125	25.0	D	mg/L	10	10/30/2024 5:33:00 PM
<u>Ferrous Iron by SM3500-Fe B</u>					Batch ID: R95230	Analyst: SLL
Ferrous Iron	ND	0.150	Q	mg/L	1	10/24/2024 2:45:21 PM

NOTES:

Q - Indicates an analyte with a continuing calibration that does not meet acceptance criteria

CLIENT: Friedman & Bruya
Project: 410457

Lab ID: 2410483-009

Collection Date: 10/22/2024 3:43:00 PM

Client Sample ID: MW-10

Matrix: Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Dissolved Gases by RSK-175</u>				Batch ID: R95346		Analyst: LN
Methane	4.36	0.100	D	mg/L	20	10/29/2024 3:09:00 PM
<u>Ion Chromatography by EPA 300.0</u>				Batch ID: 45642		Analyst: SLL
Chloride	68.3	4.00	D	mg/L	20	10/26/2024 1:49:00 AM
Chloride	57.9	0.800	DE	mg/L	4	10/25/2024 12:49:00 AM
Nitrate (as N)	ND	0.800	DH	mg/L	4	10/25/2024 12:49:00 AM
Sulfate	6.07	4.00	D	mg/L	4	10/25/2024 12:49:00 AM
NOTES: Diluted due to matrix.						
<u>Total Organic Carbon by SM 5310C</u>				Batch ID: R95311		Analyst: SLL
Total Organic Carbon	20.9	0.700		mg/L	1	10/28/2024 8:24:00 PM
<u>Total Alkalinity by EPA 310.2</u>				Batch ID: R95371		Analyst: NR
Alkalinity, Total (As CaCO ₃)	588	50.0	D	mg/L	20	10/30/2024 3:59:00 PM
<u>Ferrous Iron by SM3500-Fe B</u>				Batch ID: R95241		Analyst: JH
Ferrous Iron	5.14	0.750	DH	mg/L	5	10/25/2024 8:30:30 AM

CLIENT: Friedman & Bruya
Project: 410457

Lab ID: 2410483-010
Client Sample ID: MW-11

Collection Date: 10/22/2024 4:31:00 PM
Matrix: Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Dissolved Gases by RSK-175</u>				Batch ID: R95346		Analyst: LN
Methane	0.0671	0.00500		mg/L	1	10/29/2024 3:12:00 PM
<u>Ion Chromatography by EPA 300.0</u>				Batch ID: 45642		Analyst: SLL
Chloride	43.3	4.00	D	mg/L	20	10/26/2024 2:12:00 AM
Nitrate (as N)	0.516	0.400	DH	mg/L	2	10/25/2024 1:12:00 AM
Sulfate	32.3	2.00	D	mg/L	2	10/25/2024 1:12:00 AM
<u>Total Organic Carbon by SM 5310C</u>				Batch ID: R95311		Analyst: SLL
Total Organic Carbon	3.57	0.700		mg/L	1	10/28/2024 8:55:00 PM
<u>Total Alkalinity by EPA 310.2</u>				Batch ID: R95371		Analyst: NR
Alkalinity, Total (As CaCO ₃)	236	50.0	D	mg/L	20	10/30/2024 4:08:00 PM
<u>Ferrous Iron by SM3500-Fe B</u>				Batch ID: R95241		Analyst: JH
Ferrous Iron	0.160	0.150	H	mg/L	1	10/25/2024 8:30:30 AM

CLIENT: Friedman & Bruya
Project: 410457

Lab ID: 2410483-011

Collection Date: 10/22/2024 5:03:00 PM

Client Sample ID: MW-12

Matrix: Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Dissolved Gases by RSK-175</u>				Batch ID: R95346		Analyst: LN
Methane	0.0132	0.00500		mg/L	1	10/29/2024 3:15:00 PM
<u>Ion Chromatography by EPA 300.0</u>				Batch ID: 45642		Analyst: SLL
Chloride	179	8.00	D	mg/L	40	10/28/2024 8:01:00 PM
Nitrate (as N)	14.4	4.00	HD	mg/L	20	10/26/2024 2:36:00 AM
Sulfate	59.6	20.0	D	mg/L	20	10/26/2024 2:36:00 AM
<u>Total Organic Carbon by SM 5310C</u>				Batch ID: R95311		Analyst: SLL
Total Organic Carbon	1.20	0.700		mg/L	1	10/28/2024 9:13:00 PM
<u>Total Alkalinity by EPA 310.2</u>				Batch ID: R95371		Analyst: NR
Alkalinity, Total (As CaCO ₃)	167	25.0	D	mg/L	10	10/30/2024 5:36:00 PM
<u>Ferrous Iron by SM3500-Fe B</u>				Batch ID: R95241		Analyst: JH
Ferrous Iron	ND	0.150	H	mg/L	1	10/25/2024 8:30:30 AM

CLIENT: Friedman & Bruya
Project: 410457

Lab ID: 2410483-012

Collection Date: 10/23/2024 5:55:00 PM

Client Sample ID: MW-13

Matrix: Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Dissolved Gases by RSK-175</u>				Batch ID: R95346		Analyst: LN
Methane	5.23	0.250	D	mg/L	50	10/29/2024 3:22:00 PM
<u>Ion Chromatography by EPA 300.0</u>				Batch ID: 45642		Analyst: SLL
Chloride	32.1	4.00	D	mg/L	20	10/26/2024 2:59:00 AM
Nitrate (as N)	ND	0.400	D	mg/L	2	10/25/2024 2:45:00 AM
Sulfate	ND	2.00	D	mg/L	2	10/25/2024 2:45:00 AM
NOTES: Diluted due to matrix.						
<u>Total Organic Carbon by SM 5310C</u>				Batch ID: R95311		Analyst: SLL
Total Organic Carbon	5.41	0.700		mg/L	1	10/28/2024 10:24:00 PM
<u>Total Alkalinity by EPA 310.2</u>				Batch ID: R95371		Analyst: NR
Alkalinity, Total (As CaCO ₃)	576	50.0	D	mg/L	20	10/30/2024 4:13:00 PM
<u>Ferrous Iron by SM3500-Fe B</u>				Batch ID: R95230		Analyst: SLL
Ferrous Iron	5.33	0.750	DQ	mg/L	5	10/24/2024 2:45:21 PM
NOTES: Q - Indicates an analyte with a continuing calibration that does not meet acceptance criteria						

CLIENT: Friedman & Bruya
Project: 410457

Lab ID: 2410483-013

Collection Date: 10/23/2024 4:12:00 PM

Client Sample ID: MW-14

Matrix: Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Dissolved Gases by RSK-175</u>				Batch ID: R95346		Analyst: LN
Methane	7.60	0.250	D	mg/L	50	10/29/2024 3:28:00 PM
<u>Ion Chromatography by EPA 300.0</u>				Batch ID: 45642		Analyst: SLL
Chloride	119	4.00	D	mg/L	20	10/26/2024 3:45:00 AM
Nitrate (as N)	ND	0.400	HD	mg/L	2	10/28/2024 8:25:00 PM
Nitrate (as N)	ND	2.00	D	mg/L	10	10/25/2024 3:08:00 AM
Sulfate	ND	2.00	D	mg/L	2	10/28/2024 8:25:00 PM
NOTES: Diluted due to matrix.						
<u>Total Organic Carbon by SM 5310C</u>				Batch ID: R95311		Analyst: SLL
Total Organic Carbon	18.0	0.700		mg/L	1	10/28/2024 10:45:00 PM
<u>Total Alkalinity by EPA 310.2</u>				Batch ID: R95371		Analyst: NR
Alkalinity, Total (As CaCO ₃)	729	75.0	D	mg/L	30	10/30/2024 5:30:00 PM
<u>Ferrous Iron by SM3500-Fe B</u>				Batch ID: R95230		Analyst: SLL
Ferrous Iron	0.178	0.150	Q	mg/L	1	10/24/2024 2:45:21 PM
NOTES: Q - Indicates an analyte with a continuing calibration that does not meet acceptance criteria						

CLIENT: Friedman & Bruya
Project: 410457

Lab ID: 2410483-014
Client Sample ID: DUP-1

Collection Date: 10/23/2024
Matrix: Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Dissolved Gases by RSK-175</u>				Batch ID: R95346		Analyst: LN
Methane	1.06	0.0250	D	mg/L	5	10/29/2024 3:34:00 PM
<u>Ion Chromatography by EPA 300.0</u>				Batch ID: 45642		Analyst: SLL
Chloride	25.6	4.00	D	mg/L	20	10/26/2024 4:08:00 AM
Nitrate (as N)	ND	0.400	DH	mg/L	2	10/25/2024 3:32:00 AM
Sulfate	13.3	2.00	D	mg/L	2	10/25/2024 3:32:00 AM
NOTES: Diluted due to matrix.						
<u>Total Organic Carbon by SM 5310C</u>				Batch ID: R95311		Analyst: SLL
Total Organic Carbon	2.26	0.700		mg/L	1	10/28/2024 11:16:00 PM
<u>Total Alkalinity by EPA 310.2</u>				Batch ID: R95371		Analyst: NR
Alkalinity, Total (As CaCO ₃)	414	50.0	D	mg/L	20	10/30/2024 4:37:00 PM
<u>Ferrous Iron by SM3500-Fe B</u>				Batch ID: R95241		Analyst: JH
Ferrous Iron	2.40	0.750	DH	mg/L	5	10/25/2024 8:30:30 AM

Work Order: 2410483
 CLIENT: Friedman & Bruya
 Project: 410457

QC SUMMARY REPORT
Total Alkalinity by EPA 310.2

Sample ID: MB-95371	SampType: MBLK	Units: mg/L			Prep Date: 10/30/2024	RunNo: 95371
Client ID: MBLKW	Batch ID: R95371				Analysis Date: 10/30/2024	SeqNo: 1990446
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Alkalinity, Total (As CaCO3)	ND	2.50				

Sample ID: LCS-95371	SampType: LCS	Units: mg/L			Prep Date: 10/30/2024	RunNo: 95371
Client ID: LCSW	Batch ID: R95371				Analysis Date: 10/30/2024	SeqNo: 1990447
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Alkalinity, Total (As CaCO3)	29.2	2.50	25.00	0	117	83.8 121

Sample ID: 2410483-001ADUP	SampType: DUP	Units: mg/L			Prep Date: 10/30/2024	RunNo: 95371
Client ID: MW-2R	Batch ID: R95371				Analysis Date: 10/30/2024	SeqNo: 1990469
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Alkalinity, Total (As CaCO3)	334	50.0				368.0 9.69 20 D

Sample ID: 2410483-014A DUP	SampType: DUP	Units: mg/L			Prep Date: 10/30/2024	RunNo: 95371
Client ID: DUP-1	Batch ID: R95371				Analysis Date: 10/30/2024	SeqNo: 1990485
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Alkalinity, Total (As CaCO3)	360	50.0				414.0 14.0 20 D

Work Order: 2410483
 CLIENT: Friedman & Bruya
 Project: 410457

QC SUMMARY REPORT
Ferrous Iron by SM3500-Fe B

Sample ID: 2410483-005CDUP	SampType: DUP	Units: mg/L			Prep Date: 10/24/2024	RunNo: 95230					
Client ID: MW-6	Batch ID: R95230				Analysis Date: 10/24/2024	SeqNo: 1987827					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ferrous Iron	2.80	0.750						2.500	11.5	20	DQ

NOTES:

Q - Indicates an analyte with a continuing calibration that does not meet acceptance criteria

Sample ID: 2410483-005CMS	SampType: MS	Units: mg/L			Prep Date: 10/24/2024	RunNo: 95230					
Client ID: MW-6	Batch ID: R95230				Analysis Date: 10/24/2024	SeqNo: 1987828					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ferrous Iron	12.9	0.750	10.00	2.500	104	70	130				DE

Sample ID: 2410483-005CMSD	SampType: MSD	Units: mg/L			Prep Date: 10/24/2024	RunNo: 95230					
Client ID: MW-6	Batch ID: R95230				Analysis Date: 10/24/2024	SeqNo: 1987829					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ferrous Iron	12.4	0.750	10.00	2.500	99.2	70	130	12.89	3.67	30	DE

Sample ID: MB-R95241	SampType: MBLK	Units: mg/L			Prep Date: 10/25/2024	RunNo: 95241					
Client ID: MBLKW	Batch ID: R95241				Analysis Date: 10/25/2024	SeqNo: 1987854					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ferrous Iron	ND	0.150									

Sample ID: LCS-R95241	SampType: LCS	Units: mg/L			Prep Date: 10/25/2024	RunNo: 95241					
Client ID: LCSW	Batch ID: R95241				Analysis Date: 10/25/2024	SeqNo: 1987855					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ferrous Iron	0.358	0.150	0.4000	0	89.4	85	115				

Work Order: 2410483
 CLIENT: Friedman & Bruya
 Project: 410457

QC SUMMARY REPORT
Ferrous Iron by SM3500-Fe B

Sample ID: 2410483-002CDUP	SampType: DUP	Units: mg/L			Prep Date: 10/25/2024	RunNo: 95241					
Client ID: MW-3R	Batch ID: R95241				Analysis Date: 10/25/2024	SeqNo: 1987858					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ferrous Iron	0.703	0.150						0.7351	4.44	20	H

Sample ID: 2410483-002CMS	SampType: MS	Units: mg/L			Prep Date: 10/25/2024	RunNo: 95241					
Client ID: MW-3R	Batch ID: R95241				Analysis Date: 10/25/2024	SeqNo: 1987859					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ferrous Iron	1.11	0.150	0.4000	0.7351	94.3	70	130				H

Sample ID: 2410483-002CMSD	SampType: MSD	Units: mg/L			Prep Date: 10/25/2024	RunNo: 95241					
Client ID: MW-3R	Batch ID: R95241				Analysis Date: 10/25/2024	SeqNo: 1987860					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ferrous Iron	1.05	0.150	0.4000	0.7351	79.8	70	130	1.112	5.36	30	H

Sample ID: 2410483-011CDUP	SampType: DUP	Units: mg/L			Prep Date: 10/25/2024	RunNo: 95241					
Client ID: MW-12	Batch ID: R95241				Analysis Date: 10/25/2024	SeqNo: 1987872					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ferrous Iron	ND	0.150						0		20	H

Sample ID: 2410483-011CMS	SampType: MS	Units: mg/L			Prep Date: 10/25/2024	RunNo: 95241					
Client ID: MW-12	Batch ID: R95241				Analysis Date: 10/25/2024	SeqNo: 1987873					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ferrous Iron	0.448	0.150	0.4000	0.06760	95.0	70	130				H

Work Order: 2410483
 CLIENT: Friedman & Bruya
 Project: 410457

QC SUMMARY REPORT
Ion Chromatography by EPA 300.0

Sample ID: MB-45642	SampType: MBLK	Units: mg/L			Prep Date: 10/24/2024	RunNo: 95314					
Client ID: MBLKW	Batch ID: 45642				Analysis Date: 10/24/2024	SeqNo: 1989301					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	ND	0.200									
Nitrate (as N)	ND	0.200									
Sulfate	ND	1.00									

Sample ID: LCS-45642	SampType: LCS	Units: mg/L			Prep Date: 10/24/2024	RunNo: 95314					
Client ID: LCSW	Batch ID: 45642				Analysis Date: 10/24/2024	SeqNo: 1989302					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	0.740	0.200	0.7500	0	98.7	90	110				
Nitrate (as N)	0.726	0.200	0.7500	0	96.8	90	110				
Sulfate	3.38	1.00	3.750	0	90.2	90	110				

Sample ID: 2410459-001BDUP	SampType: DUP	Units: mg/L			Prep Date: 10/24/2024	RunNo: 95314					
Client ID: BATCH	Batch ID: 45642				Analysis Date: 10/24/2024	SeqNo: 1989304					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	0.295	0.200						0.3010	2.01	20	
Nitrate (as N)	ND	0.200						0		20	
Sulfate	4.06	1.00						3.992	1.71	20	

Sample ID: 2410459-001BMS	SampType: MS	Units: mg/L			Prep Date: 10/24/2024	RunNo: 95314					
Client ID: BATCH	Batch ID: 45642				Analysis Date: 10/24/2024	SeqNo: 1989305					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	1.06	0.200	0.7500	0.3010	102	80	120				
Nitrate (as N)	0.818	0.200	0.7500	0.06800	100	80	120				
Sulfate	7.97	1.00	3.750	3.992	106	80	120				

Work Order: 2410483
 CLIENT: Friedman & Bruya
 Project: 410457

QC SUMMARY REPORT
Ion Chromatography by EPA 300.0

Sample ID: 2410459-001BMSD	SampType: MSD	Units: mg/L				Prep Date: 10/24/2024	RunNo: 95314				
Client ID: BATCH	Batch ID: 45642					Analysis Date: 10/24/2024	SeqNo: 1989306				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	1.05	0.200	0.7500	0.3010	99.7	80	120	1.065	1.51	20	
Nitrate (as N)	0.811	0.200	0.7500	0.06800	99.1	80	120	0.8180	0.859	20	
Sulfate	7.94	1.00	3.750	3.992	105	80	120	7.966	0.289	20	

Sample ID: 2410483-014ADUP	SampType: DUP	Units: mg/L				Prep Date: 10/24/2024	RunNo: 95314				
Client ID: DUP-1	Batch ID: 45642					Analysis Date: 10/25/2024	SeqNo: 1989344				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	22.9	0.400						22.96	0.183	20	DE
Nitrate (as N)	ND	0.400						0		20	DH
Sulfate	13.3	2.00						13.30	0.0301	20	D

Sample ID: 2410483-014AMS	SampType: MS	Units: mg/L				Prep Date: 10/24/2024	RunNo: 95314				
Client ID: DUP-1	Batch ID: 45642					Analysis Date: 10/25/2024	SeqNo: 1989345				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	23.9	0.400	1.500	22.96	60.3	80	120				DES
Nitrate (as N)	1.45	0.400	1.500	0	96.9	80	120				DH
Sulfate	20.9	2.00	7.500	13.30	101	80	120				D

NOTES:

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

Work Order: 2410483
 CLIENT: Friedman & Bruya
 Project: 410457

QC SUMMARY REPORT
Total Organic Carbon by SM 5310C

Sample ID: MB-95311	SampType: MBLK	Units: mg/L			Prep Date: 10/28/2024	RunNo: 95311					
Client ID: MBLKW	Batch ID: R95311				Analysis Date: 10/28/2024	SeqNo: 1989238					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	ND	0.700									

Sample ID: LCS-95311	SampType: LCS	Units: mg/L			Prep Date: 10/28/2024	RunNo: 95311					
Client ID: LCSW	Batch ID: R95311				Analysis Date: 10/28/2024	SeqNo: 1989239					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	23.7	0.700	25.00	0	94.6	87.6	109				

Sample ID: 2410483-001BDUP	SampType: DUP	Units: mg/L			Prep Date: 10/28/2024	RunNo: 95311					
Client ID: MW-2R	Batch ID: R95311				Analysis Date: 10/28/2024	SeqNo: 1989241					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	10.8	0.700						10.85	0.0645	20	

Sample ID: 2410483-001BMS	SampType: MS	Units: mg/L			Prep Date: 10/28/2024	RunNo: 95311					
Client ID: MW-2R	Batch ID: R95311				Analysis Date: 10/28/2024	SeqNo: 1989242					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	34.3	0.700	25.00	10.85	93.7	73.1	113				

Sample ID: 2410483-001BMSD	SampType: MSD	Units: mg/L			Prep Date: 10/28/2024	RunNo: 95311					
Client ID: MW-2R	Batch ID: R95311				Analysis Date: 10/28/2024	SeqNo: 1989243					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	34.3	0.700	25.00	10.85	93.7	73.1	113	34.27	0.00584	30	

Work Order: 2410483
CLIENT: Friedman & Bruya
Project: 410457

QC SUMMARY REPORT
Total Organic Carbon by SM 5310C

Sample ID: 2410483-011BDUP		SampType: DUP		Units: mg/L		Prep Date: 10/28/2024		RunNo: 95311			
Client ID: MW-12		Batch ID: R95311				Analysis Date: 10/28/2024		SeqNo: 1989256			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	1.20	0.700						1.204	0	20	

Sample ID: 2410483-011BMS		SampType: MS		Units: mg/L		Prep Date: 10/28/2024		RunNo: 95311			
Client ID: MW-12		Batch ID: R95311				Analysis Date: 10/28/2024		SeqNo: 1989231			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	24.6	0.700	25.00	1.204	93.4	73.1	113				

Work Order: 2410483
 CLIENT: Friedman & Bruya
 Project: 410457

QC SUMMARY REPORT
Dissolved Gases by RSK-175

Sample ID: LCS-R95288	SampType: LCS	Units: ppmv	Prep Date: 10/25/2024	RunNo: 95288							
Client ID: LCSW	Batch ID: R95288		Analysis Date: 10/25/2024	SeqNo: 1988781							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methane	1,100	0.00500	1,000	0	110	73.6	124				

Sample ID: MB-R95288	SampType: MBLK	Units: mg/L	Prep Date: 10/25/2024	RunNo: 95288							
Client ID: MBLKW	Batch ID: R95288		Analysis Date: 10/25/2024	SeqNo: 1988772							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methane	ND	0.00500									

Sample ID: 2410483-005DREP	SampType: REP	Units: mg/L	Prep Date: 10/25/2024	RunNo: 95288							
Client ID: MW-6	Batch ID: R95288		Analysis Date: 10/25/2024	SeqNo: 1988766							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methane	1.05	0.00500						1.055	0.592	30	E

Sample ID: LCS-95346	SampType: LCS	Units: ppmv	Prep Date: 10/29/2024	RunNo: 95346							
Client ID: LCSW	Batch ID: R95346		Analysis Date: 10/29/2024	SeqNo: 1989936							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methane	1,090	0.00500	1,000	0	109	73.6	124				

Sample ID: MB-95346	SampType: MBLK	Units: mg/L	Prep Date: 10/29/2024	RunNo: 95346							
Client ID: MBLKW	Batch ID: R95346		Analysis Date: 10/29/2024	SeqNo: 1989935							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methane	ND	0.00500									

Work Order: 2410483
CLIENT: Friedman & Bruya
Project: 410457

QC SUMMARY REPORT
Dissolved Gases by RSK-175

Sample ID: 2410483-006DDUP	SampType: DUP	Units: mg/L	Prep Date: 10/29/2024	RunNo: 95346							
Client ID: MW-7	Batch ID: R95346	Analysis Date: 10/29/2024	SeqNo: 1989920								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methane	5.31	0.125						5.372	1.15	20	D

Client Name: FB	Work Order Number: 2410483
Logged by: Morgan Wilson	Date Received: 10/24/2024 2:31:00 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:	<input type="text" value="Michael Erdahl"/>	Date:	<input type="text" value="10/24/2024"/>
By Whom:	<input type="text" value="Morgan Wilson"/>	Via:	<input checked="" type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input "dup-1"="" mw-15".="" received="" type="text" value="Ferrous Iron Hold Times. No Sample "/>		
Client Instructions:	<input type="text" value="Correct Sample ID to DUP-1"/>		

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



2410483

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 Alliance Technical Group		PROJECT NAME/NO. 410457	PO # E-486
REMARKS EIM			

TURNAROUND TIME <input checked="" type="checkbox"/> Standard TAT <input type="checkbox"/> 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					Notes
						nitrate, sulfate, chloride	methane RSK	TOC	Alkalinity	Ferrous Iron	
MW-2R		10/23/2024	1252	water	6	x	x	x	x	x	
MW-3R		10/22/2024	1517	water	6	x	x	x	x	x	
MW-4		10/23/2024	1048	water	6	x	x	x	x	x	
MW-5R		10/23/2024	1504	water	6	x	x	x	x	x	
MW-6		10/23/2024	1447	water	6	x	x	x	x	x	
MW-7		10/23/2024	1248	water	6	x	x	x	x	x	
MW-8		10/23/2024	1720	water	6	x	x	x	x	x	
MW-9		10/23/2024	1702	water	6	x	x	x	x	x	
MW-10		10/22/2024	1543	water	6	x	x	x	x	x	
MW-11		10/22/2024	1631	water	6	x	x	x	x	x	
MW-12		10/22/2024	1703	water	6	x	x	x	x	x	
MW-13		10/23/2024	1755	water	6	x	x	x	x	x	
MW-14		10/23/2024	1612	water	6	x	x	x	x	x	
MW-15		10/23/2024	NA	water	6	x	x	x	x	x	

Friedman & Bruya, Inc. 3012 16th Avenue West Seattle, WA 98119-2029 Ph. (206) 285-8282		SIGNATURE 		PRINT NAME Michael Erdahl		COMPANY Friedman & Bruya		DATE 10/24/24	TIME 10:33
Received by: 		Reinquished by: _____		Michael Erdahl		Brana Ballard		10/24	2:31 PM

SUBCONTRACT SAMPLE CHAIN OF CUSTODY

2410483



Page # 1 of 1

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 Alliance Technical Group		PROJECT NAME/NO. 410457	PO # E-486
REMARKS EIM		Update per bottles & ME -mw 10/25/24	

TURNAROUND TIME <input checked="" type="checkbox"/> Standard TAT <input type="checkbox"/> 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				Notes	
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MW-5R		10/23/2024	1504	water	6	x	x	x	x		
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MW-9		10/23/2024	1702	water	6	x	x	x	x		
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MW-11		10/22/2024	1631	water	6	x	x	x	x		
MW-12		10/22/2024	1703	water	6	x	x	x	x		
MW-13		10/23/2024	1755	water	6	x	x	x	x		
MW-14		10/23/2024	1612	water	6	x	x	x	x		
MW-15 DUP-1		10/23/2024	NA	water	6	x	x	x	x		

Friedman & Bruya, Inc. 3012 16th Avenue West Seattle, WA 98119-2029 Ph. (206) 285-8282		SIGNATURE 		PRINT NAME Michael Erdahl		COMPANY Friedman & Bruya		DATE 10/24/24	TIME 10:33
Received by: 		Reinquished by: _____		Brana Ballard		ATS		10/24	2:31 PM