

FREMONT ENVIRONMENTAL INC.

April 27, 2021

Mr. Jason Davidson
Great Western Operating Company, LLC
1001 17th Street, Suite 2000
Denver, CO 80202

Subject: **Site Investigation Report**
 Schneider 179HNX Flow Line
 API # 05-123-46402
 NWSW Sec 7, T4N, R66W
 Weld County, Colorado
 Fremont Project No. C021-021
 Remediation #17320

Dear Mr. Davidson:

Enclosed please find a copy of the above referenced Site Investigation Report for the Schneider 179HNX flow line site in Weld County, Colorado. The enclosed report describes site investigation and sampling efforts to assess soil and groundwater quality at the site.

Please contact me at (303) 956-8714 if you require any additional information.

Fremont appreciates the opportunity to provide this service.

Sincerely,
FREMONT ENVIRONMENTAL INC.



Paul V. Henahan, P.E.
Senior Consultant

Enclosure

SITE INVESTIGATION REPORT
GREAT WESTERN OPERATING COMPANY, LLC
SCHNEIDER 179HNX FLOW LINE
WELD COUNTY, COLORADO
FREMONT PROJECT NO. C021-021
REMEDIATION #17320

Prepared by:

Fremont Environmental Inc.
1759 Redwing Lane
Broomfield, CO 80020
(303) 956-8714

April 27, 2021

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SITE INVESTIGATION REPORT
GREAT WESTERN OPERATING COMPANY, LLC
SCHNEIDER 179HNX FLOW LINE
WELD COUNTY, COLORADO
FREMONT PROJECT NO. C021-021
REMEDIATION #17320

1.0 INTRODUCTION

The purpose of this document is to present soil and groundwater quality data collected during a site investigation at the Great Western Operating Company, LLC (GWOC) Schneider 179HNX flow line site in Weld County, Colorado. Contaminated soil was identified at this location as a result of an underground piping failure. Five monitoring wells (MW-1 to MW-5) were installed during this investigation.

2.0 BACKGROUND INFORMATION

2.1 Site Location

The Schneider 179HNX site is located approximately one mile southeast of Milliken, Colorado in Weld County as shown on Figure 1. The site is located in an agricultural area approximately 0.4 miles northeast of the intersection of County Road 25 and County Road 46. The location is further described as the NW $\frac{1}{4}$ of the SW $\frac{1}{4}$ of Section 7, Township 4N, Range 66W.

2.2 Site History

The release area consists of the subsurface immediately beneath and adjacent to the flow line for the Schneider 179HNX well, which is approximately six feet west of the wellhead. The Schneider179HNX well was drilled in 2019 to a vertical depth of approximately 6,868 feet. Soil impacts were identified beneath the flow line during initial spill cleanup.

3.0 SITE INVESTIGATION ACTIVITIES

3.1 Soil Borings/Monitoring Wells

A site investigation was conducted at the facility on March 23, 2021. During this investigation, five soil borings were advanced utilizing a direct push Geoprobe rig. Each of these borings was completed as a 1-inch diameter monitoring well. These monitoring wells were used to delineate the extent of soil and groundwater impacts at the site. The locations of the monitoring wells are illustrated on the Figure 2.

As shown on the logs in Appendix A, the subsurface generally consists of coarse sand to a depth of approximately 10 feet, which is underlain by silty clay to 14 feet. Sand and gravel were present from 14 feet to 24 feet at which point a clay layer was encountered. Groundwater is present across the site at a depth of approximately 18 feet. Geologic cross sections for the site are presented on Figure 4.

The monitoring wells were constructed with 10 feet sections of well screen to intersect the water table and completed at the ground surface with flush-mounted well vaults. Soil samples from each of the borings were evaluated in the field for the presence of hydrocarbon vapor using a photoionization detector (PID). Logs of the monitoring wells are presented in Appendix A.

A soil sample from the vadose zone in each of the borings was sent to Origins Laboratories, Inc. in Denver, Colorado for the analyses of benzene, toluene, ethylbenzene and xylenes (BTEX), naphthalene, trimethylbenzenes and total petroleum hydrocarbons-gasoline range organics (TPH-GRO) by EPA method 8260 and methylnaphthalenes, TPH-diesel range organics (TPH-DRO) and TPH-residual range organics (TPH-RRO) by EPA method 8270. Boron analyses was also conducted on each sample. The results of these analyses are presented on Figure 5 and summarized on Table 1, 2 and 3 while the

laboratory's report is provided in Appendix B. The laboratory data indicate that all soil samples were less than their respective COGCC Table 915-1 limits.

3.2 Groundwater Monitoring

Groundwater levels were measured in the monitoring wells on March 27, 2021. These data are summarized in Table 4.

Water table contours inferred from the March 2021 data are illustrated on Figure 6. Based on these data, groundwater is inferred to flow to the southeast. The water table gradient was calculated at approximately 0.0093 feet per foot (ft/ft) for the March 2021 data.

3.3 Groundwater Sampling and Analysis

Groundwater samples were collected from the five new monitoring wells on March 27, 2021. The groundwater concentrations for all five monitoring wells were below their respective COGCC Table 915-1 limits. The groundwater chemistry data are shown on Figure 7 and summarized in Tables 4 and 5; a copy of the laboratory's report is presented in Appendix B.

4.0 DISCUSSION

A site investigation was conducted at the Schneider 179HNX location during March 2021 resulting from a flow line release. Five soil borings were advanced and completed as monitoring wells to delineate the magnitude and extent of soil and groundwater impacts. Soil and groundwater contamination above the COGCC Table 915-1 limits was not observed in any of the monitoring wells during the site investigation.

GWOC will monitor the groundwater at this site on a quarterly basis to evaluate the BTEX concentrations relative to the COGCC's Table 915-1 requirements. After four consecutive quarters of COGCC-compliant concentrations, GWOC will request closure of this site.

5.0 REMARKS

The discussion and conclusions contained in this report represent our professional opinions. These opinions are based on currently available information and are arrived at in accordance with currently accepted hydrogeologic and engineering practices at this time and location. Other than this, no warranty is implied or intended.

This report was prepared by **FREMONT ENVIRONMENTAL INC.**



Michael R. Gerstner, P.G.

Senior Geologist

4/27/2021
Date_____

Reviewed by:



Paul V. Henehan, P.E.

Senior Consultant

4/27/2021
Date_____

TABLES

TABLE 1
SUMMARY OF VOLATILE ORGANIC SOIL CHEMISTRY DATA
GREAT WESTERN OPERATING COMPANY
SCHNEIDER 179 HNX, WELD COUNTY, COLORADO
FREMONT PROJECT NO. C021-021

Sample	Depth (ft)	Date Sampled	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl- Benzene (mg/kg)	Xylenes (mg/kg)	1,2,4-Trimethyl- Benzene (mg/kg)	1,3,5-Trimethyl- Benzene (mg/kg)	Naphth- alene (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)
MW-1 (B-1-19')	19	3/23/2021	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.0038	<0.20	<50.0	<200
MW-2 (B-2-19')	19	3/23/2021	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.0038	<0.20	<50.0	<200
MW-3 (B-3-19')	19	3/23/2021	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.0038	<0.20	<50.0	<200
MW-4 (B-4-19')	19	3/23/2021	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.0038	<0.20	<50.0	<200
MW-5 (B-5-19')	19	3/23/2021	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.0038	<0.20	<50.0	<200
COGCC Table 915-1 Limits (Residential SSL)			1.2	490	5.8	58	30	27	2	500	500	500
COGCC Table 915-1 Limits (Protection of Groundwater SSL)			0.0026	0.69	0.78	9.9	0.0081	0.0087	0.0038	500*	500*	500*

Bold faced values exceed the COGCC Table 915-1 concentrations

TABLE 2
SUMMARY OF POLYCYCLIC AROMATIC HYDROCARBON SOIL CHEMISTRY DATA
GREAT WESTERN OPERATING COMPANY
SCHNEIDER 179HNX
FREMONT PROJECT NO. C021-024

Sample	Depth (ft)	Date Sampled	Acenaphthene (mg/kg)	Anthracene (mg/kg)	Benzo (a) anthracene (mg/kg)	Benzo (b) fluoranthene (mg/kg)	Benzo (k) fluoranthene (mg/kg)	Benzo (a) pyrene (mg/kg)	Chrysene (mg/kg)	Dibenz (a,h) anthracene (mg/kg)	Fluor- anthene (mg/kg)	Fluorene (mg/kg)	Indeno pyrene (mg/kg)	1-Methyl - naphthalene (mg/kg)	2-Methyl- naphthalene (mg/kg)	Pyrene (mg/kg)
MW-1 (B-1-19')	19	3/23/2021	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00048	<0.000542	NA
MW-2 (B-2-19')	19	3/23/2021	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00048	<0.000542	NA
MW-3 (B-3-19')	19	3/23/2021	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00048	<0.000542	NA
MW-4 (B-4-19')	19	3/23/2021	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00048	<0.000542	NA
MW-5 (B-5-19')	19	3/23/2021	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.00048	<0.000542	NA
COGCC Table 915-1 Limits (Residential SSL)			360	360	360	360	360	360	360	360	360	360	360	360	360	180
COGCC Table 915-1 Limits (Protection of Groundwater SSL)			0.55	5.8	0.011	0.3	2.9	0.24	9	0.096	8.9	0.54	0.98	0.006	0.019	1.3

Bold faced values exceed the COGCC Table 915-1 concentrations

Blue highlighted 915-1 Limits indicate the referenced soil screening level (SSL)

TABLE 3
SUMMARY OF INORGANIC SOIL CHEMISTRY DATA
GREAT WESTERN OPERATING COMPNAY
SCHNEIDER 179HNX
FREMONT PROJECT NO. C021-024

SAMPLE LOCATION	DATE SAMPLED	DEPTH ft	EC mmhos/cm	pH pH units	SAR units	BORON mg/L
MW-1 (B-1-19')	3/23/2021	19	NA	NA	NA	0.1
MW-2 (B-2-19')	3/23/2021	19	NA	NA	NA	0.1
MW-3 (B-3-19')	3/23/2021	19	NA	NA	NA	0.1
MW-4 (B-4-19')	3/23/2021	19	NA	NA	NA	0.1
MW-5 (B-5-19')	3/23/2021	19	NA	NA	NA	0.1
Table 915-1 Limits			<4	6-8.3	<6	2

Bold face values exceed the COGCC Limits

TABLE 4
SUMMARY OF ORGANIC GROUNDWATER CHEMISTRY DATA
GREAT WESTERN OPERATING COMPANY
SCHNEIDER 179 HNX, WELD COUNTY, COLORADO
FREMONT PROJECT NO. C021-021

SAMPLE LOCATION	DATE	BENZENE (µg/L)	TOLUENE (µg/L)	ETHYL BENZENE (µg/L)	TOTAL XYLENES (µg/L)	NAPH-THALENE (µg/L)	1,2,4 TMB (µg/L)	1,3,5 TMB (µg/L)	TOC ELEV (FT)	DTW (FT)	GW ELEV (FT)	LNAPL (FT)
MW-1	03/27/21	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	100.00	18.93	81.07	NP
MW-2	03/27/21	<1.0	<1.0	<1.0	6.05	<4.0	<1.0	1.07	99.67	18.74	80.93	NP
MW-3	03/27/21	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	99.80	18.78	81.02	NP
MW-4	03/27/21	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	99.62	18.39	81.23	NP
MW-5	03/27/21	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	99.73	18.38	81.35	NP
Table 915-1 Limits		5	560	700	1,400	140	67	67				

Bold face values exceed the COGCC limits

NP - No Free Product

TABLE 5
SUMMARY OF INORGANIC GROUNDWATER CHEMISTRY DATA
GREAT WESTERN OPERATING COMPANY
SCHNEIDER 179HNX
FREMONT PROJECT NO. C021-024

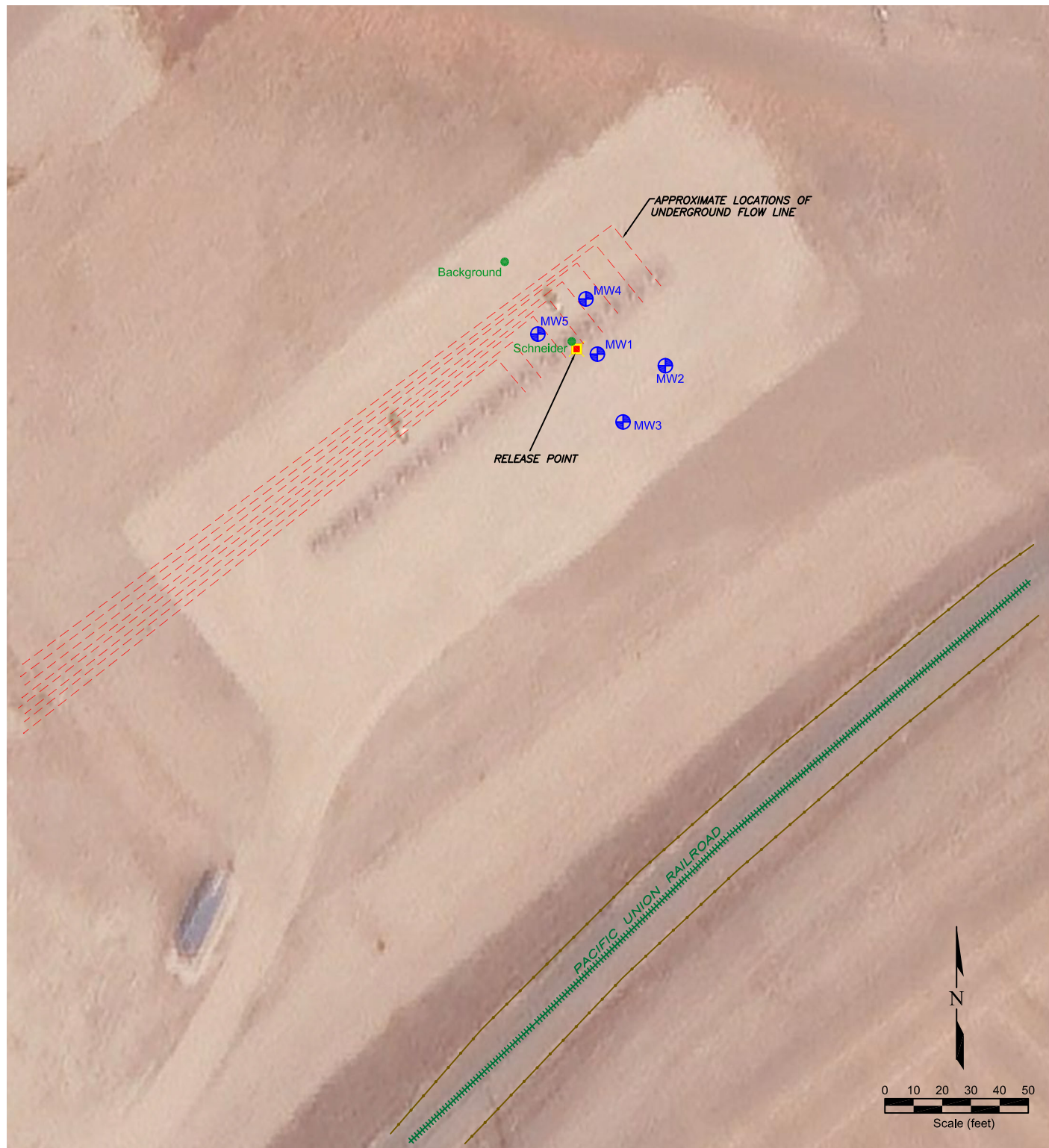
SAMPLE LOCATION	DATE	TDS (mg/L)	CHLORIDE ION (mg/L)	SULFATE ION (mg/L)
MW-1	03/27/21	1100	171	417
MW-2	03/27/21	1250	265	403
MW-3	03/27/21	986	48.0	400
MW-4	03/27/21	1010	60.2	371
MW-5	03/27/21	994	40.2	383
Table 915-1 Limits		<1.25 x local background	250	250

Bold face values exceed the COGCC limits

NA - Not Analyzed

NAP - Not Applicable

FIGURES



LEGEND

- | | |
|----------------------------|---------------------------------|
| ● SOIL BORING LOCATION | - - - - - UNDERGROUND FLOW LINE |
| ⊕ MONITORING WELL LOCATION | +++++ RAILROAD TRACKS |
| ■ RELEASE POINT | —+—+—+— FENCE LINE |

Figure 2
SITE MAP

Great Western Operating Company
SCHNEIDER 179 HNX (Flowline Release)
 NWSW Sec. 7, T4S, R66W 6th PM
 Weld County, Colorado

Project No.
C021-024

Prepared By

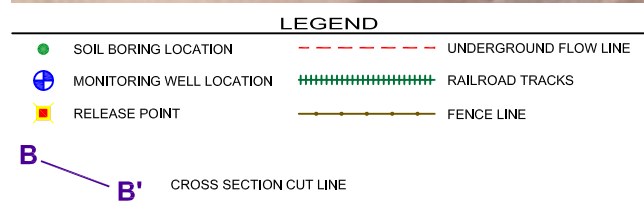
Drawn By
TA

Date
4/23/21

Reviewed By
PH

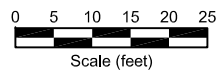
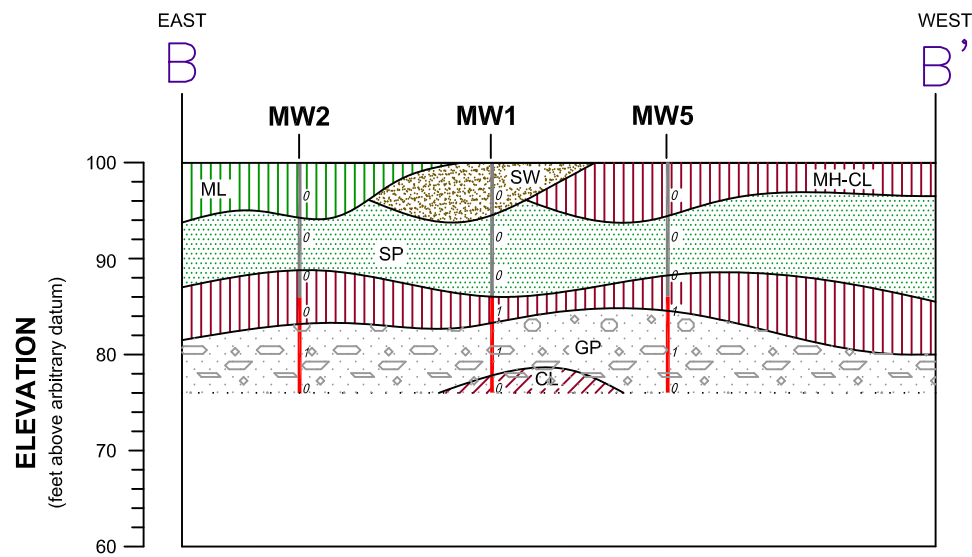
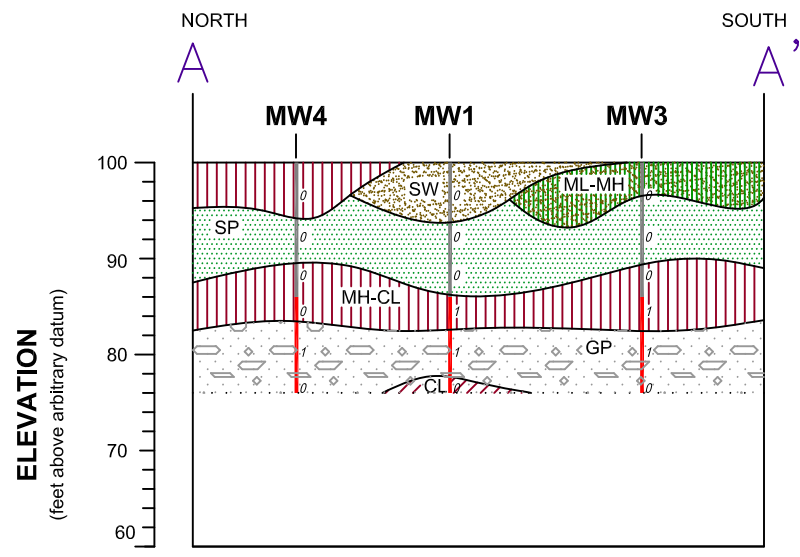
Filename
21024Q





Great Western Operating Company
SCHNEIDER 179 HNX (Flowline Release)
 NSW Sec. 7, T4S, R66W 6th PM
 Weld County, Colorado





LEGEND

CH	Clay, high plasticity	SW	Sand, well-graded	FILL
CL	Clay, low plasticity	SP	Sand, poorly-graded	Asphalt
MH	Silt, high plasticity	CL-S	Sand, clayey	Concrete
ML	Silt, low plasticity	SM	Sand silty	Basin fill
MH-CL	Clay, silty, high plasticity	GW	Gravel, well-graded	Claystone
CL-ML	Clay, silty, low plasticity	GP	Gravel, poorly-graded	Siltstone
MH-CH	Silt, clayey, high plasticity	GC	Gravel, clayey	Shale
ML-CL	Silt, clayey, low plasticity	GM	Gravel, silty	Sandstone

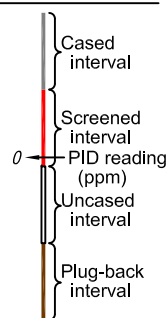


Figure 4
CROSS SECTION MAP

Great Western Operating Company
SCHNEIDER 179 HNX (Flowline Release)
 NWSW Sec. 7, T4S, R66W 6th PM
 Weld County, Colorado

Project No.
C021-024

Prepared by
TA

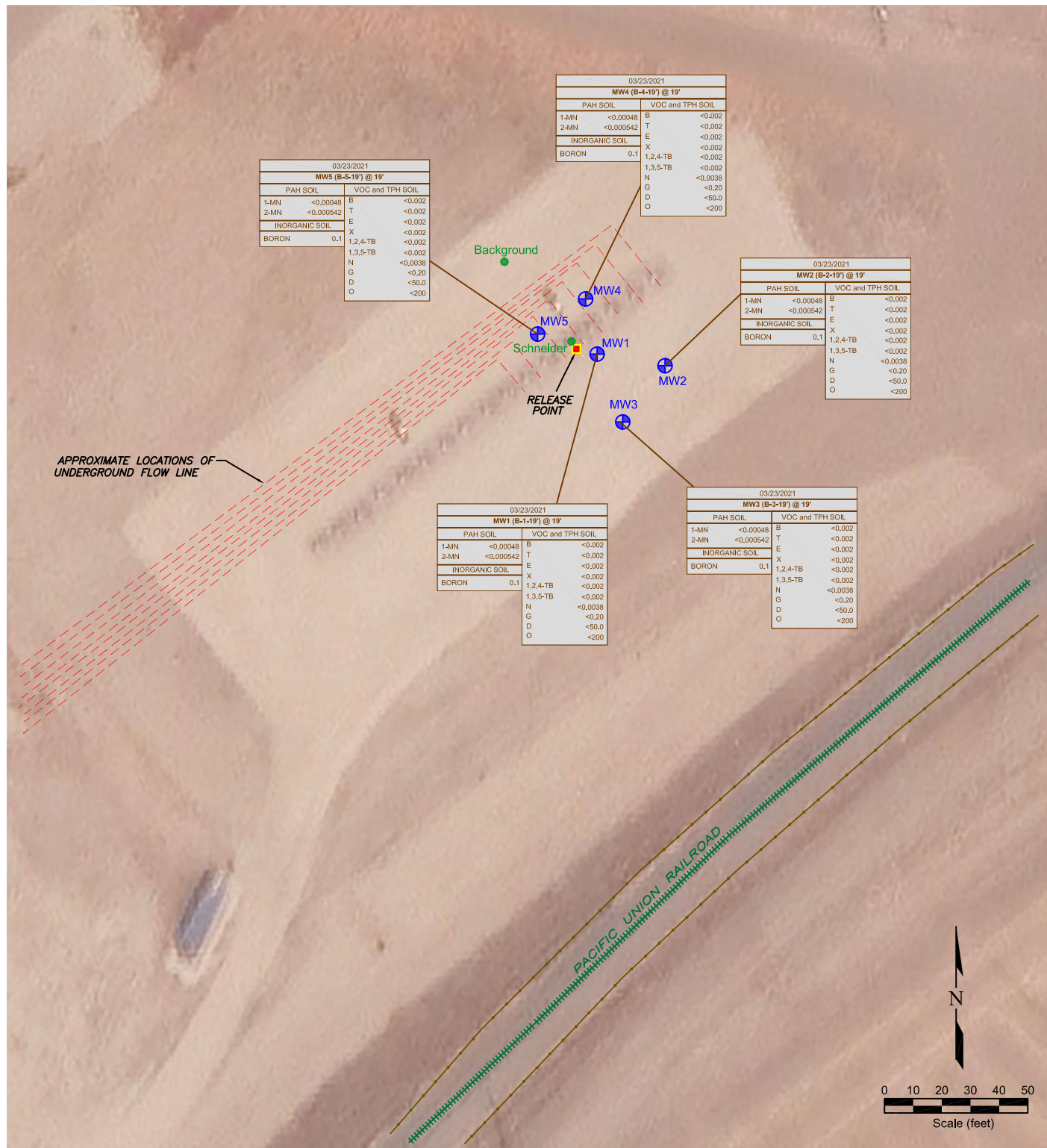
Drawn by
TA

Date
4/23/21

Reviewed by
PH

Filename
21024X





LEGEND

- SOIL BORING LOCATION
- MONITORING WELL LOCATION
- RELEASE POINT
- NOT ANALYZED
- UNDERGROUND FLOW LINE
- RAILROAD TRACKS
- FENCE LINE

DATE SAMPLED	03/23/2021	DATE SAMPLED	03/23/2021
SAMPLE ID and DEPTH (ft)	MW1 (B-1-19) @ 19"	SAMPLE ID and DEPTH (ft)	MW1 (B-1-19) @ 19"
LABORATORY ANALYSIS		LABORATORY ANALYSIS	
1-METHYLNAPHTHALENE (mg/kg)	1-MN <0.00048	BENZENE (mg/kg)	B <0.002
2-METHYLNAPHTHALENE (mg/kg)	2-MN <0.000542	TOLUENE (mg/kg)	T <0.002
		ETHYLBENZENE (mg/kg)	E <0.002
LABORATORY ANALYSIS		TOTAL XYLENES (mg/kg)	X <0.002
BORON (mg/L)	BORON 0.1	1,2,4-TRIMETHYLBENZENE (mg/kg)	1,2,4-TB <0.002
		1,3,5-TRIMETHYLBENZENE (mg/kg)	1,3,5-TB <0.002
		NAPHTHALENE (mg/kg)	N <0.0038
		TPH-GRO (mg/kg)	G <0.20
		TPH-DRO (mg/kg)	D <50.0
		TPH-ORO (mg/kg)	O <200

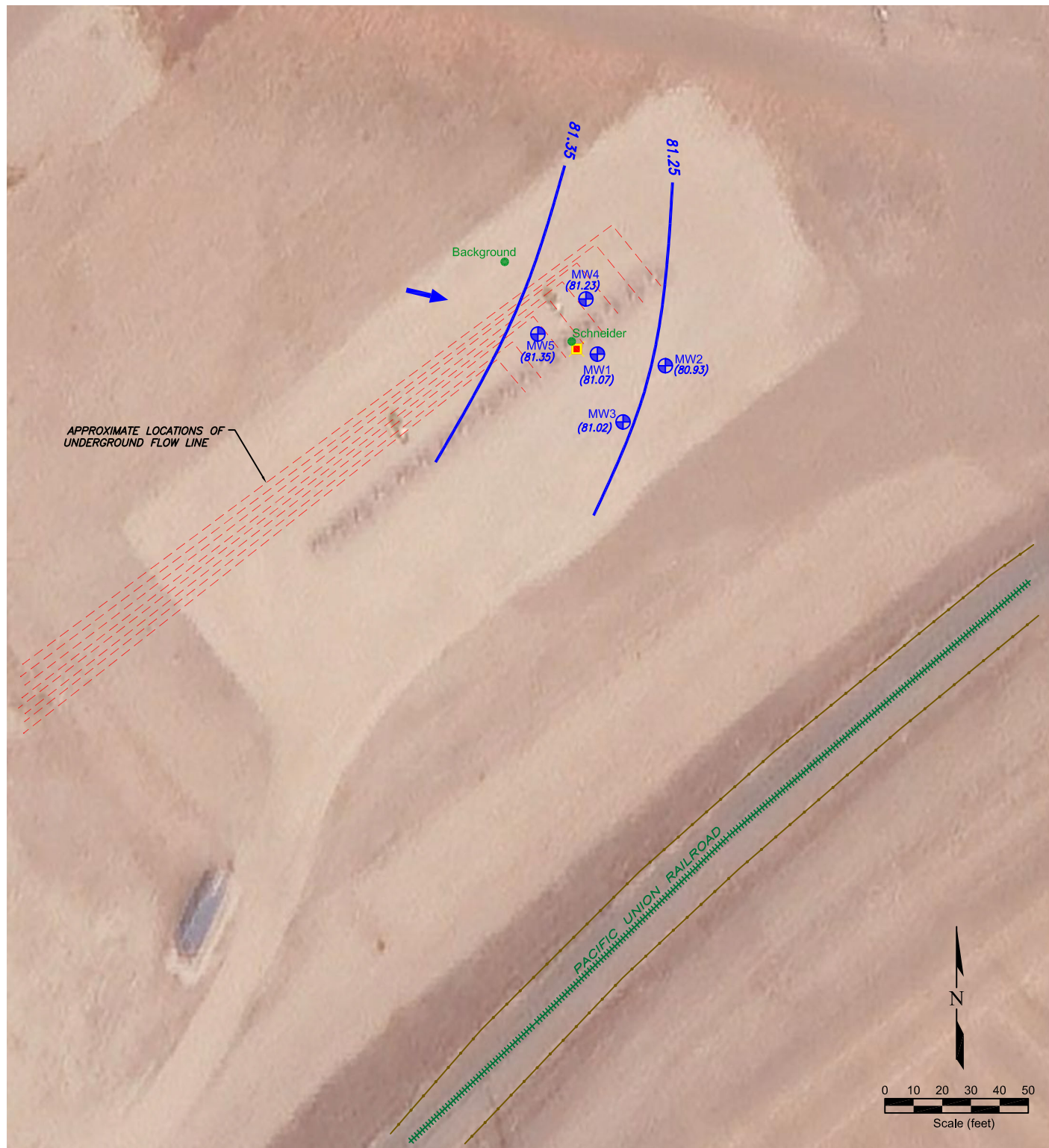
VOC = volatile organic
PAH = polycyclic aromatic hydrocarbon

Figure 5

SOIL CHEMISTRY MAP March 23, 2021

Great Western Operating Company
SCHNEIDER 179 HNX (Flowline Release)
NWSW Sec. 7, T4S, R66W 6th PM
Weld County, Colorado

Project No. C021-024	Prepared By	Drawn By TA	
Date 4/23/21	Reviewed By PH	Filename 21024QS	



LEGEND

- SOIL BORING LOCATION
- ⊕ MONITORING WELL LOCATION
- RELEASE POINT
- UNDERGROUND FLOW LINE
- + + + + + RAILROAD TRACKS
- FENCE LINE
- (81.07)
81.35
← GROUND WATER ELEVATION (ft above arbitrary datum)
- ← WATER TABLE CONTOUR
- ← GROUND WATER FLOW DIRECTION

Figure 6
INFERRED GROUNDWATER CONTOUR MAP
 March 27, 2021
Great Western Operating Company
SCHNEIDER 179 HNX (Flowline Release)
 NWSW Sec. 7, T4S, R66W 6th PM
 Weld County, Colorado

Project No.
C021-024

Prepared By

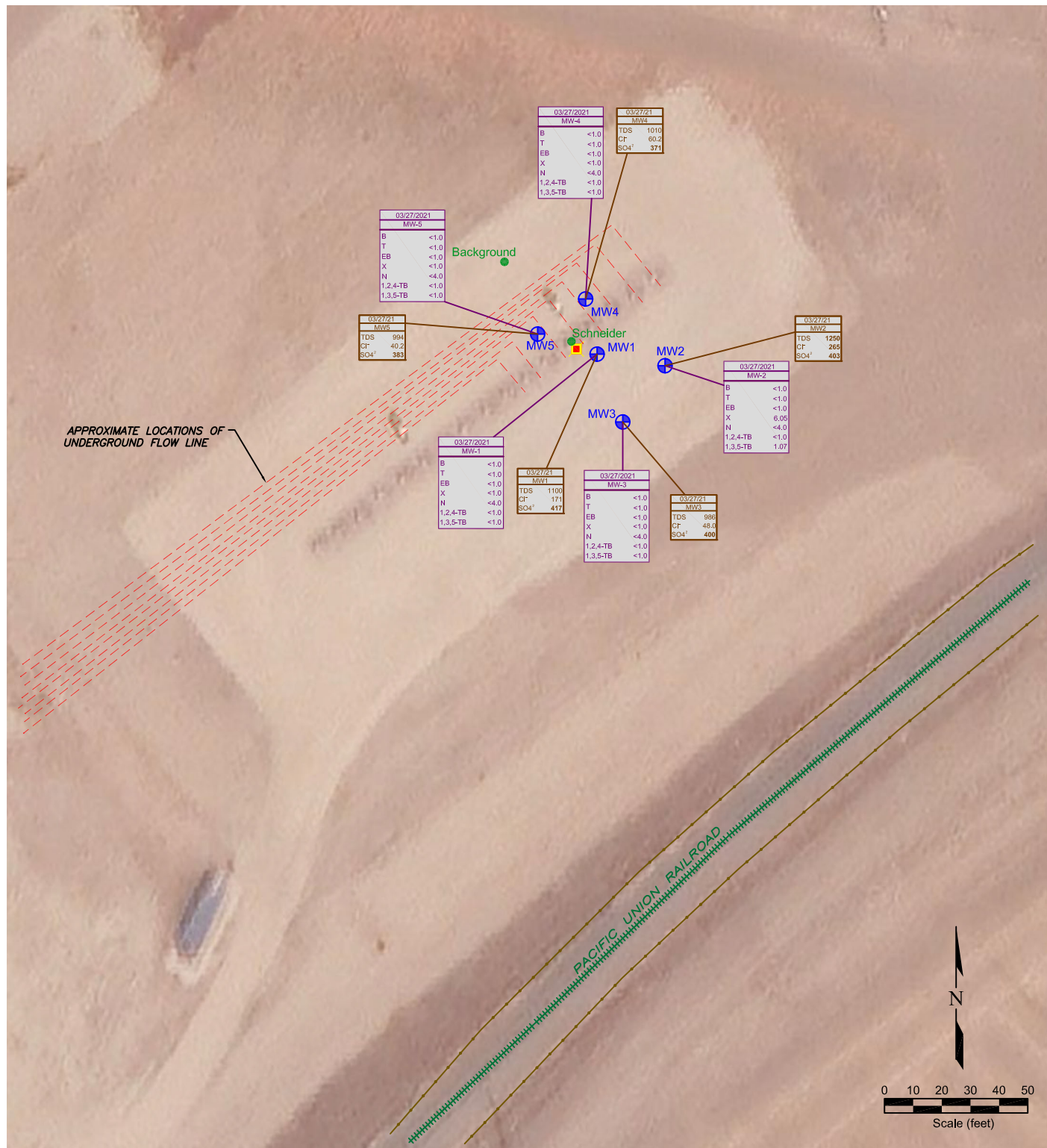
Drawn By
TA

Date
4/23/21

Reviewed By
PH

Filename
21024QG





LEGEND

- SOIL BORING LOCATION
- ⊕ MONITORING WELL LOCATION
- RELEASE POINT
- UNDERGROUND FLOW LINE
- ++++ RAILROAD TRACKS
- ==== FENCE LINE

03/27/2021	DATE SAMPLED
MW-1	SAMPLE ID
B	<1.0
T	<1.0
EB	<1.0
X	<1.0
N	<4.0
1,2,4-TB	<1.0
1,3,5-TB	<1.0

03/27/21	DATE SAMPLED
MW1	SAMPLE ID
TDS	1100
Cl ⁻	171
SO ₄ ⁻²	417

03/27/21	DATE SAMPLED
MW2	SAMPLE ID
TDS	1260
Cl ⁻	265
SO ₄ ⁻²	403

Figure 7
GROUNDWATER CHEMISTRY MAP
March 27, 2021
Great Western Operating Company
SCHNEIDER 179 HNX (Flowline Release)
 NWSW Sec. 7, T4S, R66W 6th PM
 Weld County, Colorado

Project No.
C021-024

Prepared By

Drawn By

TA

Date
4/28/21

Reviewed By
PH

Filename
21024QG



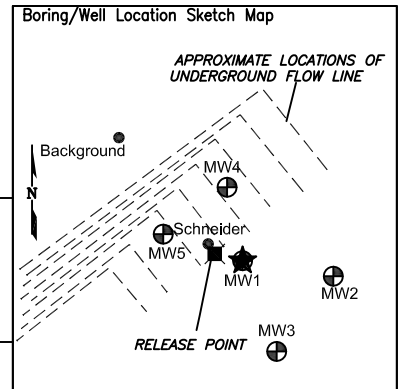
APPENDIX A

BORING LOGS

BORING/WELL CONSTRUCTION LOG

Page 1 of 2

Boring/Well No. MW-1		Total Depth 24'	Location Great Western Operating Company Schneider 179 HNX NWSW Sec. 7, T4S, R66W 6th PM Weld County, Colorado	
Project No./Name C021-024 / Great Western Operating Company			Approved By	
Drilling Contractor/Driller DrillPro				
Geologist/Office Mike Gerstner				
Drilling Equipment/Method Hurricane		Size/Type of Bit 2.5" direct push	Sampling Method direct push	Start/Finish Date 3/23/21
Well Installed? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Casing Mtrl./Dia. PVC/1"	Screen: Type Slotted Mtrl. PVC Length 10' Dia. 1" Slot Size 0.020"		
Elevation of: (ft. above datum)	Ground Surface 100.00	Top of Well Casing .	Top of Screen .	Bottom of Screen .
Ground Water Surface/Date Measured .				



DEPTH (feet)	WELL CONSTRUCTION		LITHOLOGY		Penetration Rate (blows/6")	Recovery (%)	Sample Interval (feet)	PID Values (ppm)
			GRAPHIC LOG	VISUAL DESCRIPTION				
5	Bentonite	1" Blank	SW	Sand fine to coarse, brown, silty, moist to wet				0
			SP	Sand coarse, moist, reddish brown				0
10			MH-CL	Silty clay, stiff, very moist, brown				0
15	#10-20 Silica Sand	1" Screen	GR	Sand with gravel, coarse, dry to wet at 18'				1
20								1

BORING/WELL CONSTRUCTION LOG

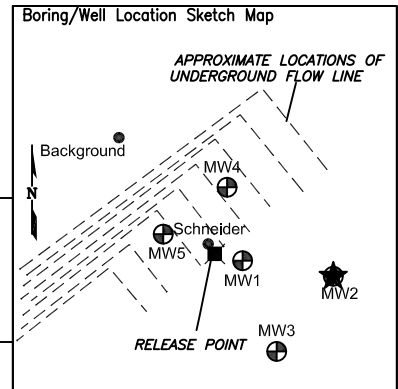
Page 2 of 2

Boring/Well No. MW-1			Location Great Western Operating Company Schneider 179 HNX NWSW Sec. 7, T4S, R66W 6th PM Weld County, Colorado					
Project No./Name C021-024 / Great Western Operating Company								
DEPTH (feet)	WELL CONSTRUCTION		LITHOLOGY		Penetration Rate (blows/6")	Recovery (%)	Sample Interval (feet)	PID Values (ppm)
			GRAPHIC LOG	VISUAL DESCRIPTION				
	#10-20 Silica Sand	1" Screen	GR	Sandy gravel with silt, wet				0
			CL	Clay, wet, soft TD - 24'				
25								
30								
35								
40								
45								

BORING/WELL CONSTRUCTION LOG

Page 1 of 2

Boring/Well No. MW-2		Total Depth 24'	Location Great Western Operating Company Schneider 179 HNX NWSW Sec. 7, T4S, R66W 6th PM Weld County, Colorado		
Project No./Name C021-024 / Great Western Operating Company			Approved By		
Drilling Contractor/Driller DrillPro			Geologist/Office Mike Gerstner		
Drilling Equipment/Method Hurricane			Size/Type of Bit 2.5" direct push	Sampling Method direct push	Start/Finish Date 3/23/21
Well Installed? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Casing Mtrl./Dia. PVC/1"	Screen: Type Slotted Mtrl. PVC Length 10' Dia. 1" Slot Size 0.020"			
Elevation of: (ft. above datum)	Ground Surface 100.00	Top of Well Casing .	Top of Screen .	Bottom of Screen .	Ground Water Surface/Date Measured .

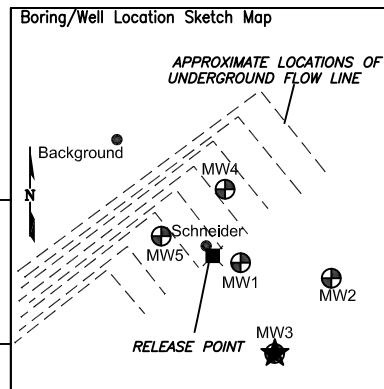


DEPTH (feet)	WELL CONSTRUCTION		LITHOLOGY		Penetration Rate (blows/6")	Recovery (%)	Sample Interval (feet)	PID Values (ppm)
			GRAPHIC LOG	VISUAL DESCRIPTION				
5				Silt with sand, dark brown, stiff, moist				0
				Sand, fine to coarse, dry to moist				0
10				Silt, clayey, brown				0
15				Sand coarse with gravel, dry to wet				0
20								0

BORING/WELL CONSTRUCTION LOG

Page 1 of 2

Boring/Well No. MW-3		Total Depth 24'	Location Great Western Operating Company Schneider 179 HNX NWSW Sec. 7, T4S, R66W 6th PM Weld County, Colorado	
Project No./Name C021-024 / Great Western Operating Company			Approved By	
Drilling Contractor/Driller DrillPro				
Geologist/Office Mike Gerstner				
Drilling Equipment/Method Hurricane		Size/Type of Bit 2.5" direct push	Sampling Method direct push	Start/Finish Date 3/23/21
Well Installed? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Casing Mtrl./Dia. PVC/1"	Screen: Type Slotted Mtrl. PVC Length 10' Dia. 1" Slot Size 0.020"		
Elevation of: (ft. above datum)	Ground Surface 100.00	Top of Well Casing .	Top of Screen .	Bottom of Screen .



DEPTH (feet)	WELL CONSTRUCTION		LITHOLOGY		Penetration Rate (blows/6")	Recovery (%)	Sample Interval (feet)	PID Values (ppm)
			GRAPHIC LOG	VISUAL DESCRIPTION				
5	Bentonite	1" Blank	ML-MH	Silt and sand and clay, brown, stiff				
			SP	Sand, brown, fine to coarse, dry				0
			SP	Sand, fine to coarse, dry to moist				0
10			MH-CL	Silty with clay, stiff, dark brown				0
15	#10-20 Silica Sand	1" Screen	GR	Sand, fine to coarse with gravel, wet at 19'				0
20								0



Boring/Well No.

MW-3

Project No./Name	Project Manager	Project Start Date	Project End Date	Project Status	Project Budget	Project Progress	Project Risks	Project Issues	Project Comments
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
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66									
67									

C021-024 / Great Western Operating Company

Location

Great Western Operating Company

Schneider 179 HNX

NWSW Sec. 7, T4S, R66W 6th PM

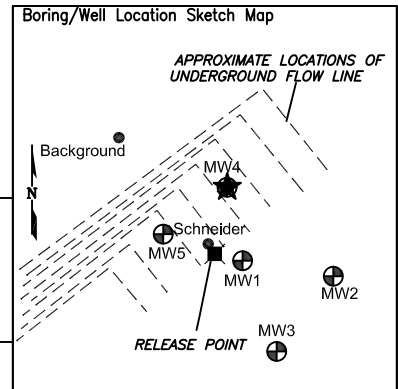
Weld County, Colorado

[illegible]

BORING/WELL CONSTRUCTION LOG

Page 1 of 2

Boring/Well No. MW-4		Total Depth 24'	Location Great Western Operating Company Schneider 179 HNX NWSW Sec. 7, T4S, R66W 6th PM Weld County, Colorado	
Project No./Name C021-024 / Great Western Operating Company			Approved By	
Drilling Contractor/Driller DrillPro				
Geologist/Office Mike Gerstner				
Drilling Equipment/Method Hurricane		Size/Type of Bit 2.5" direct push	Sampling Method direct push	Start/Finish Date 3/23/21
Well Installed? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Casing Mtrl./Dia. PVC/1"	Screen: Type Slotted Mtrl. PVC Length 10' Dia. 1" Slot Size 0.020"		
Elevation of: (ft. above datum)	Ground Surface 100.00	Top of Well Casing .	Top of Screen .	Bottom of Screen .
Ground Water Surface/Date Measured				



DEPTH (feet)	WELL CONSTRUCTION		LITHOLOGY		Penetration Rate (blows/6")	Recovery (%)	Sample Interval (feet)	PID Values (ppm)
			GRAPHIC LOG	VISUAL DESCRIPTION				
5			MH-CL	Silt, clayey, stiff, very moist				
			SP	Sand, brown, fine to coarse, dry				0
10			SP	Sand, fine to coarse, brown, dry to very moist				0
			MH-CL	Silt, clayey, stiff, dark brown, very moist				0
15								
			GR	Sand with gravel, brown, moist, wet at 19'				0
20								0

BORING/WELL CONSTRUCTION LOG

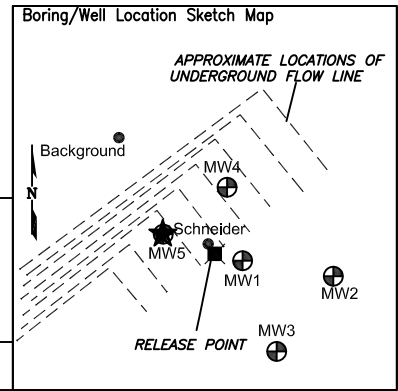
Page 2 of 2

Boring/Well No. MW-4			Location Great Western Operating Company Schneider 179 HNX NWSW Sec. 7, T4S, R66W 6th PM Weld County, Colorado					
Project No./Name C021-024 / Great Western Operating Company								
DEPTH (feet)	WELL CONSTRUCTION		LITHOLOGY		Penetration Rate (blows/6")	Recovery (%)	Sample Interval (feet)	PID Values (ppm)
			GRAPHIC LOG	VISUAL DESCRIPTION				
	#10-20 Silica Sand	1" Screen	GR	Sand with gravel continued				
25				TD - 24'				0
30								
35								
40								
45								

BORING/WELL CONSTRUCTION LOG

Page 1 of 2

Boring/Well No. MW-5		Total Depth 24'	Location Great Western Operating Company Schneider 179 HNX NWSW Sec. 7, T4S, R66W 6th PM Weld County, Colorado	
Project No./Name C021-024 / Great Western Operating Company			Approved By	
Drilling Contractor/Driller DrillPro				
Geologist/Office Mike Gerstner				
Drilling Equipment/Method Hurricane		Size/Type of Bit 2.5" direct push	Sampling Method direct push	Start/Finish Date 3/23/21
Well Installed? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Casing Mtrl./Dia. PVC/1"	Screen: Type Slotted Mtrl. PVC Length 10' Dia. 1" Slot Size 0.020"		
Elevation of: (ft. above datum)	Ground Surface 100.00	Top of Well Casing .	Top of Screen .	Bottom of Screen .
Ground Water Surface/Date Measured				



DEPTH (feet)	WELL CONSTRUCTION		LITHOLOGY		Penetration Rate (blows/6")	Recovery (%)	Sample Interval (feet)	PID Values (ppm)
			GRAPHIC LOG	VISUAL DESCRIPTION				
5			MH-CL	Silt with clay, brown				0
			SP	Sand, brown, fine to coarse, dry				
			SP	Sand, fine to coarse, brown, dry				0
10			MH-CL	Silt, clayey, stiff, moist				0
15			GR	Sand with minor gravel, wet at 19'				0
20								0

BORING/WELL CONSTRUCTION LOG

Page 2 of 2

Boring/Well No. MW-5			Location Great Western Operating Company Schneider 179 HNX NWSW Sec. 7, T4S, R66W 6th PM Weld County, Colorado					
Project No./Name C021-024 / Great Western Operating Company								
DEPTH (feet)	WELL CONSTRUCTION		LITHOLOGY		Penetration Rate (blows/6")	Recovery (%)	Sample Interval (feet)	PID Values (ppm)
			GRAPHIC LOG	VISUAL DESCRIPTION				
	#10-20 Silica Sand	1" Screen	GR	Sand with gravel continued				0
25				TD - 24'				
30								
35								
40								
45								

APPENDIX B

LABORATORY DOCUMENTATION



April 07, 2021

Fremont Environmental

Paul Henehan

8305 6th St, PO Box 1289

Wellington CO 80549

Project Name - GWOC - Schneider

Project Number - C021-024

Attached are your analytical results for GWOC - Schneider received by Origins Laboratory, Inc. March 24, 2021. This project is associated with Origins project number Y103382-01.

The analytical results in the following report were analyzed under the guidelines of EPA Methods. These methods are identified as follows; "SW" are defined in SW-846, "EPA" are defined in 40CFR part 136 and "SM" are defined in the most current revision of Standard Methods For the Examination of Water and Wastewater.

The analytical results apply specifically to the samples and analyses specified per the attached Chain of Custody. As such, this report shall not be reproduced except in full, without the written approval of Origin's laboratory.

Unless otherwise noted, the analytical results for all soil samples are reported on a wet weight basis. All analytical analyses were performed under NELAP guidelines unless noted by a data qualifier.

Any holding time exceedances, deviations from the method specifications or deviations from Origins Laboratory's Standard Operating Procedures are outlined in the case narrative.

Thank you for selecting Origins for your analytical needs. Please contact us with any questions concerning this report, or if we can help with anything at all.

Origins Laboratory, Inc.
303.433.1322
o-squad@oelabinc.com



1725 Elk Place, Denver, CO 80211 | Phone: 303.433.1322 | Fax: 303.265.9645

Fremont Environmental
8305 6th St, PO Box 1289
Wellington CO 80549

Paul Henehan
Project Number: C021-024
Project: GWOC - Schneider

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B-1-19'	Y103382-01	Soil	March 23, 2021 9:25	03/24/2021 11:15
B-2-19'	Y103382-02	Soil	March 23, 2021 10:30	03/24/2021 11:15
B-3-19'	Y103382-03	Soil	March 23, 2021 11:30	03/24/2021 11:15
B-4-19'	Y103382-04	Soil	March 23, 2021 12:35	03/24/2021 11:15
B-5-19'	Y103382-05	Soil	March 23, 2021 12:50	03/24/2021 11:15

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Fremont Environmental
8305 6th St, PO Box 1289
Wellington CO 80549

Paul Henehan
Project Number: C021-024
Project: GWOC - Schneider

ORIGINS
LABORATORY, INC

7103382

www.originslaboratory.com

page 1 of 1

Client: Fremont Environmental
Address: _____
Telephone Number: 970 231 2792
Email Address: _____

Project Manager: Paul Henehan
Project Name: GWOC - Schneider
Project Number: C021-024
Samples Collected By: Mike Gershow

Fax: 303.265.9645

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix		Analysis		Sample Instructions
				Unpreserved	HCl	HNO ₃	Other	Soil	Air Summa	Conister #	Other	
B-1-19'	7/23/21	0725	1									1 Lengthy sample, 10 min
B-2-19'		1030	1									2 Lengthy sample, 10 min
B-3-19'		1130	1									3 Lengthy sample, 10 min
B-4-19'		1235	1									4 Lengthy sample, 10 min
B-5-19'		1250	1									5 Lengthy sample, 10 min
												6 Lengthy sample, 10 min
												7 Lengthy sample, 10 min
												8 Lengthy sample, 10 min
												9 Lengthy sample, 10 min
												10 Lengthy sample, 10 min

Relinquished By:	Date:	Time:	Received By:	Date:	Time:	Turnaround Time:
<u>Mike Gershow</u>	3/24/21	0700	<u>[Signature]</u>	3/24/21	1115	Same Day <input type="checkbox"/> 24 Hr <input type="checkbox"/> 48 Hr <input type="checkbox"/> 72 Hr <input checked="" type="checkbox"/> Standard
Relinquished By:	Date:	Time:	Received By:	Date:	Time:	

Date Results Needed

1.9

Temp Received-

Origins Laboratory, Inc.

Jordan A. Merrill

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Fremont Environmental
8305 6th St, PO Box 1289
Wellington CO 80549

Paul Henehan
Project Number: C021-024
Project: GWOC - Schneider

Origins Laboratory

Sample Receipt Checklist

F-012207-01-R.1
Effective Date: 01/09/12

Origins Work Order: Y103382

Client: Fremont

Client Project ID: GWOC Schneider

Checklist Completed by: SG

Shipped Via: HD

(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Date/time completed: 3/24/21

Airbill #: M/H

Matrix(s) Received: (Check all that apply): X Soil/Solid

Water

Other:

Cooler Number/Temperature: 1 / 1.9 °C

(Describe)

Thermometer ID: T003

Requirement Description	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature between 0°C to ≤ 6°C ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Is there ice present (document if blue ice is used)?	<input checked="" type="checkbox"/>			
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)		<input checked="" type="checkbox"/>		
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)		<input checked="" type="checkbox"/>		
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Was adequate sample volume provided ⁽¹⁾ ?		<input checked="" type="checkbox"/>		
Are short holding time analytes or samples with HTs due within 48 hours present ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Is a chain-of-custody (COC) present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.			<input checked="" type="checkbox"/>	
Are samples preserved that require preservation and was it checked ⁽¹⁾ ? (note ID of confirmation instrument used in comments) / (preservation is not confirmed for subcontracted analyses in order to insure sample integrity) (pH < 2 for samples preserved with HNO ₃ , HCL, H ₂ SO ₄) / (pH > 10 for samples preserved with NaAsO ₂ +NaOH, ZnAc+NaOH)		<input checked="" type="checkbox"/>		
Additional Comments (if any):				

⁽¹⁾ If NO, then contact the client before proceeding with analysis and note date/time and person contacted as well as the corrective action to be taken in the additional comments (above) and the case narrative.

Reviewed by (Project Manager): Jm

3-25-21
Date/Time Reviewed

Origins Laboratory, Inc.

Jordan A. Merrill

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Fremont Environmental
8305 6th St, PO Box 1289
Wellington CO 80549

Paul Henehan
Project Number: C021-024
Project: GWOC - Schneider

B-1-19'
3/23/2021 9:25:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
---------	--------	---------------------	-----------------	-------	----------	-------	----------	----------	-------

AAL, Inc.
Y103382-01 (Soil)

Boron (Sorbitol)

Boron	0.1			mg/L	1	[none]	04/02/2021	04/06/2021	
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DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	50.0	mg/kg	1	B1C2502	03/24/2021	03/24/2021	U
Residual Range Organics (C28-C40)	ND	200	"	"	"	"	"	U

Surrogate: o-Terphenyl	82.8 %	50-150			"	"	"	
------------------------	--------	--------	--	--	---	---	---	--

GBTEX+TMBs

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B1C2410	03/24/2021	03/24/2021	U
Naphthalene	ND	0.00380	"	"	"	"	"	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	"	"	U
Benzene	ND	0.00200	"	"	"	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	"	"	U
Toluene	ND	0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	"	"	U
Xylenes, total	ND	0.00200	"	"	"	"	"	U

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Fremont Environmental

8305 6th St, PO Box 1289

Wellington CO 80549

Paul Henehan

Project Number: C021-024

Project: GWOC - Schneider

B-1-19'

3/23/2021 9:25:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.

Y103382-01 (Soil)

GBTEX+TMBs

Surrogate: 1,2-Dichloroethane-d4	112 %		70-130			B1C24 10	03/24/2021	03/24/2021	
Surrogate: Toluene-d8	93.7 %		70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	90.0 %		70-130			"	"	"	

PAH by EPA 8270D SIM

1-Methylnaphthalene	ND	0.00048	0.00067	mg/Kg	1	L543844	03/26/2021	03/26/2021	
2-Methylnaphthalene	ND	0.000542	0.00067	"	"	"	"	"	

Surrogate: 2-Fluorobiphenyl	58.6 %		33-115			"	"	"	
Surrogate: 4-Terphenyl-d14	66.2 %		33-122			"	"	"	
Surrogate: Nitrobenzene-d5	64 %		29-110			"	"	"	

Origins Laboratory, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Fremont Environmental
8305 6th St, PO Box 1289
Wellington CO 80549

Paul Henehan
Project Number: C021-024
Project: GWOC - Schneider

B-2-19'

3/23/2021 10:30:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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AAL, Inc.
Y103382-02 (Soil)

Boron (Sorbitol)

Boron	0.1			mg/L	1	[none]	04/02/2021	04/06/2021	
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DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	50.0	mg/kg	1	B1C2502	03/24/2021	03/24/2021	U
Residual Range Organics (C28-C40)	ND	200	"	"	"	"	"	U

Surrogate: o-Terphenyl	73.1 %	50-150			"	"	"	
------------------------	--------	--------	--	--	---	---	---	--

GBTEX+TMBs

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B1C2410	03/24/2021	03/24/2021	U
Naphthalene	ND	0.00380	"	"	"	"	"	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	"	"	U
Benzene	ND	0.00200	"	"	"	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	"	"	U
Toluene	ND	0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	"	"	U
Xylenes, total	ND	0.00200	"	"	"	"	"	U

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Fremont Environmental
8305 6th St, PO Box 1289
Wellington CO 80549

Paul Henehan
Project Number: C021-024
Project: GWOC - Schneider

B-2-19'

3/23/2021 10:30:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y103382-02 (Soil)

GBTEX+TMBs

Surrogate: 1,2-Dichloroethane-d4	113 %		70-130			B1C24 10	03/24/2021	03/24/2021	
Surrogate: Toluene-d8	93.9 %		70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	90.5 %		70-130			"	"	"	

PAH by EPA 8270D SIM

1-Methylnaphthalene	ND	0.00048	0.00067	mg/Kg	1	L543844	03/26/2021	03/26/2021	
2-Methylnaphthalene	ND	0.000542	0.00067	"	"	"	"	"	

Surrogate: 2-Fluorobiphenyl	57.5 %		33-115			"	"	"	
Surrogate: 4-Terphenyl-d14	64.8 %		33-122			"	"	"	
Surrogate: Nitrobenzene-d5	61.7 %		29-110			"	"	"	

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Fremont Environmental
8305 6th St, PO Box 1289
Wellington CO 80549

Paul Henehan
Project Number: C021-024
Project: GWOC - Schneider

B-3-19'

3/23/2021 11:30:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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AAL, Inc.
Y103382-03 (Soil)

Boron (Sorbitol)

Boron	0.1			mg/L	1	[none]	04/02/2021	04/06/2021	
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DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	50.0	mg/kg	1	B1C2502	03/24/2021	03/24/2021	U
Residual Range Organics (C28-C40)	ND	200	"	"	"	"	"	U

Surrogate: o-Terphenyl	78.9 %	50-150			"	"	"	
------------------------	--------	--------	--	--	---	---	---	--

GBTEX+TMBs

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B1C2410	03/24/2021	03/24/2021	U
Naphthalene	ND	0.00380	"	"	"	"	"	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	"	"	U
Benzene	ND	0.00200	"	"	"	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	"	"	U
Toluene	ND	0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	"	"	U
Xylenes, total	ND	0.00200	"	"	"	"	"	U

Origins Laboratory, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Fremont Environmental
8305 6th St, PO Box 1289
Wellington CO 80549

Paul Henehan
Project Number: C021-024
Project: GWOC - Schneider

B-3-19'

3/23/2021 11:30:00AM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y103382-03 (Soil)

GBTEX+TMBs

Surrogate: 1,2-Dichloroethane-d4	113 %		70-130			B1C24 10	03/24/2021	03/24/2021	
Surrogate: Toluene-d8	94.3 %		70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	90.8 %		70-130			"	"	"	

PAH by EPA 8270D SIM

1-Methylnaphthalene	ND	0.00048	0.00067	mg/Kg	1	L543844	03/26/2021	03/26/2021	
2-Methylnaphthalene	ND	0.000542	0.00067	"	"	"	"	"	

Surrogate: 2-Fluorobiphenyl	55.4 %		33-115			"	"	"	
Surrogate: 4-Terphenyl-d14	60.6 %		33-122			"	"	"	
Surrogate: Nitrobenzene-d5	60.6 %		29-110			"	"	"	

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Fremont Environmental
8305 6th St, PO Box 1289
Wellington CO 80549

Paul Henehan
Project Number: C021-024
Project: GWOC - Schneider

B-4-19'

3/23/2021 12:35:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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AAL, Inc.
Y103382-04 (Soil)

Boron (Sorbitol)

Boron	0.1		mg/L	1	[none]	04/02/2021	04/06/2021	
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DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	50.0	mg/kg	1	B1C2502	03/24/2021	03/24/2021	U
Residual Range Organics (C28-C40)	ND	200	"	"	"	"	"	U

Surrogate: o-Terphenyl	76.6 %	50-150			"	"	"	
------------------------	--------	--------	--	--	---	---	---	--

GBTEX+TMBs

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B1C2410	03/24/2021	03/25/2021	U
Naphthalene	ND	0.00380	"	"	"	"	"	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	"	"	U
Benzene	ND	0.00200	"	"	"	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	"	"	U
Toluene	ND	0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	"	"	U
Xylenes, total	ND	0.00200	"	"	"	"	"	U

Origins Laboratory, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Fremont Environmental
8305 6th St, PO Box 1289
Wellington CO 80549

Paul Henehan
Project Number: C021-024
Project: GWOC - Schneider

B-4-19'

3/23/2021 12:35:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y103382-04 (Soil)

GBTEX+TMBs

Surrogate: 1,2-Dichloroethane-d4	110 %		70-130			B1C24 10	03/24/2021	03/25/2021	
Surrogate: Toluene-d8	88.6 %		70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	95.1 %		70-130			"	"	"	

PAH by EPA 8270D SIM

1-Methylnaphthalene	ND	0.00048	0.00067	mg/Kg	1	L543844	03/26/2021	03/26/2021	
2-Methylnaphthalene	ND	0.000542	0.00067	"	"	"	"	"	

Surrogate: 2-Fluorobiphenyl	57.1 %		33-115			"	"	"	
Surrogate: 4-Terphenyl-d14	62.8 %		33-122			"	"	"	
Surrogate: Nitrobenzene-d5	59.8 %		29-110			"	"	"	

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Fremont Environmental
8305 6th St, PO Box 1289
Wellington CO 80549

Paul Henehan
Project Number: C021-024
Project: GWOC - Schneider

B-5-19'

3/23/2021 12:50:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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AAL, Inc.
Y103382-05 (Soil)

Boron (Sorbitol)

Boron	0.1		mg/L	1	[none]	04/02/2021	04/06/2021	
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DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	50.0	mg/kg	1	B1C2502	03/24/2021	03/24/2021	U
Residual Range Organics (C28-C40)	ND	200	"	"	"	"	"	U

Surrogate: o-Terphenyl	73.1 %	50-150			"	"	"	
------------------------	--------	--------	--	--	---	---	---	--

GBTEX+TMBs

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B1C2410	03/24/2021	03/24/2021	U
Naphthalene	ND	0.00380	"	"	"	"	"	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	"	"	U
Benzene	ND	0.00200	"	"	"	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	"	"	U
Toluene	ND	0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	"	"	U
Xylenes, total	ND	0.00200	"	"	"	"	"	U

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Fremont Environmental
8305 6th St, PO Box 1289
Wellington CO 80549

Paul Henehan
Project Number: C021-024
Project: GWOC - Schneider

B-5-19'

3/23/2021 12:50:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y103382-05 (Soil)

GBTEX+TMBs

Surrogate: 1,2-Dichloroethane-d4	115 %		70-130			B1C24 10	03/24/2021	03/24/2021	
Surrogate: Toluene-d8	93.3 %		70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	89.6 %		70-130			"	"	"	

PAH by EPA 8270D SIM

1-Methylnaphthalene	ND	0.00048	0.00067	mg/Kg	1	L543844	03/26/2021	03/26/2021	
2-Methylnaphthalene	ND	0.000542	0.00067	"	"	"	"	"	

Surrogate: 2-Fluorobiphenyl	62.7 %		33-115			"	"	"	
Surrogate: 4-Terphenyl-d14	69.7 %		33-122			"	"	"	
Surrogate: Nitrobenzene-d5	67 %		29-110			"	"	"	

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Fremont Environmental
8305 6th St, PO Box 1289
Wellington CO 80549

Paul Henehan
Project Number: C021-024
Project: GWOC - Schneider

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B1C2410 - EPA 5030 (soil)										
Blank (B1C2410-BLK1)					Prepared: 03/24/2021 Analyzed: 03/24/2021					
1,2,4-Trimethylbenzene	ND	0.00200	mg/kg							U
Naphthalene	ND	0.0100	"							U
1,3,5-Trimethylbenzene	ND	0.00200	"							U
Benzene	ND	0.00200	"							U
Ethylbenzene	ND	0.00200	"							U
Toluene	ND	0.00200	"							U
Xylenes, total	ND	0.00200	"							U
Gasoline Range Hydrocarbons	ND	0.200	"							U
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		99.2	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		103	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		98.6	70-130			

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Fremont Environmental
8305 6th St, PO Box 1289
Wellington CO 80549

Paul Henehan
Project Number: C021-024
Project: GWOC - Schneider

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B1C2410 - EPA 5030 (soil)										
LCS (B1C2410-BS1)					Prepared: 03/24/2021 Analyzed: 03/24/2021					
1,2,4-Trimethylbenzene	0.0556	0.00200	mg/kg	0.0500		111	70-130			
Naphthalene	0.0561	0.0100	"	0.0500		112	70-130			
1,3,5-Trimethylbenzene	0.0556	0.00200	"	0.0500		111	70-130			
Benzene	0.0513	0.00200	"	0.0500		103	70-130			
Ethylbenzene	0.0537	0.00200	"	0.0500		107	70-130			
m,p-Xylene	0.108	0.00400	"	0.100		108	70-130			
o-Xylene	0.0546	0.00200	"	0.0500		109	70-130			
Toluene	0.0523	0.00200	"	0.0500		105	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		99.9	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		100	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		99.6	70-130			

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Fremont Environmental
8305 6th St, PO Box 1289
Wellington CO 80549

Paul Henehan
Project Number: C021-024
Project: GWOC - Schneider

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B1C2410 - EPA 5030 (soil)										
Matrix Spike (B1C2410-MS1)		Source: Y103371-01			Prepared: 03/24/2021 Analyzed: 03/24/2021					
1,2,4-Trimethylbenzene	0.0595	0.00200	mg/kg	0.0500	ND	119	70-130			
Naphthalene	0.0618	0.0100	"	0.0500	ND	124	70-130			
1,3,5-Trimethylbenzene	0.0583	0.00200	"	0.0500	ND	117	70-130			
Benzene	0.0536	0.00200	"	0.0500	ND	107	70-130			
Ethylbenzene	0.0569	0.00200	"	0.0500	ND	114	70-130			
m,p-Xylene	0.117	0.00400	"	0.100	ND	117	70-130			
o-Xylene	0.0583	0.00200	"	0.0500	ND	117	70-130			
Toluene	0.0536	0.00200	"	0.0500	ND	107	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		102	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		99.1	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		102	70-130			

Origins Laboratory, Inc.



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Fremont Environmental
8305 6th St, PO Box 1289
Wellington CO 80549

Paul Henehan
Project Number: C021-024
Project: GWOC - Schneider

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B1C2410 - EPA 5030 (soil)										
Matrix Spike Dup (B1C2410-MSD1)			Source: Y103371-01		Prepared: 03/24/2021 Analyzed: 03/24/2021					
1,2,4-Trimethylbenzene	0.0563	0.00200	mg/kg	0.0500	ND	113	70-130	5.53	20	
Naphthalene	0.0587	0.0100	"	0.0500	ND	117	70-130	5.05	20	
1,3,5-Trimethylbenzene	0.0556	0.00200	"	0.0500	ND	111	70-130	4.67	20	
Benzene	0.0523	0.00200	"	0.0500	ND	105	70-130	2.42	20	
Ethylbenzene	0.0555	0.00200	"	0.0500	ND	111	70-130	2.38	20	
m,p-Xylene	0.112	0.00400	"	0.100	ND	112	70-130	4.75	20	
o-Xylene	0.0565	0.00200	"	0.0500	ND	113	70-130	3.03	20	
Toluene	0.0523	0.00200	"	0.0500	ND	105	70-130	2.53	20	
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		102	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		99.7	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		102	70-130			

Origins Laboratory, Inc.



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Fremont Environmental
8305 6th St, PO Box 1289
Wellington CO 80549

Paul Henehan
Project Number: C021-024
Project: GWOC - Schneider

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B1C2502 - EPA 3550B										
Blank (B1C2502-BLK1)					Prepared: 03/25/2021 Analyzed: 03/25/2021					
Diesel (C10-C28)	ND	25.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	100	"							U
Surrogate: o-Terphenyl	18		"	25.0		74.0	50-150			

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Fremont Environmental
8305 6th St, PO Box 1289
Wellington CO 80549

Paul Henehan
Project Number: C021-024
Project: GWOC - Schneider

Extractable Petroleum Hydrocarbons by 8015D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B1C2502 - EPA 3550B										
LCS (B1C2502-BS1)					Prepared: 03/25/2021 Analyzed: 03/25/2021					
Diesel (C10-C28)	758	50.0	mg/kg	1000		75.8	70-130			
Residual Range Organics (C28-C40)	747	200	"	1000		74.7	70-130			
Surrogate: o-Terphenyl	39		"	50.0		78.9	50-150			

Origins Laboratory, Inc.



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Fremont Environmental
8305 6th St, PO Box 1289
Wellington CO 80549

Paul Henehan
Project Number: C021-024
Project: GWOC - Schneider

Extractable Petroleum Hydrocarbons by 8015D - Quality Control Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B1C2502 - EPA 3550B										
Matrix Spike (B1C2502-MS1)		Source: Y103391-01			Prepared: 03/25/2021 Analyzed: 03/25/2021					
Diesel (C10-C28)	752	50.0	mg/kg	1000	ND	75.2	70-130			
Residual Range Organics (C28-C40)	747	200	"	1000	ND	74.7	70-130			
Surrogate: o-Terphenyl	48		"	50.0		95.4	50-150			

Origins Laboratory, Inc.



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Fremont Environmental
8305 6th St, PO Box 1289
Wellington CO 80549

Paul Henehan
Project Number: C021-024
Project: GWOC - Schneider

Extractable Petroleum Hydrocarbons by 8015D - Quality Control Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1C2502 - EPA 3550B

Matrix Spike Dup (B1C2502-MSD1)		Source: Y103391-01			Prepared: 03/25/2021 Analyzed: 03/25/2021					
Diesel (C10-C28)	776	50.0	mg/kg	1000	ND	77.6	70-130	3.25	35	
Residual Range Organics (C28-C40)	754	200	"	1000	ND	75.4	70-130	0.905	35	
Surrogate: o-Terphenyl	40		"	50.0		79.8	50-150			

Origins Laboratory, Inc.



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Fremont Environmental
8305 6th St, PO Box 1289
Wellington CO 80549

Paul Henehan
Project Number: C021-024
Project: GWOC - Schneider

Extractable Petroleum Hydrocarbons by 8015D - Quality Control

Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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PAH by EPA 8270D SIM - Quality Control

Waypoint Analytical, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch L543844 - 3550B

MSD (L 99036-MSD-L543844)		Source: Y103382-03			Prepared: 03/26/2021 Analyzed: 03/26/2021					
1-Methylnaphthalene	0.099	0.00048	mg/Kg	0.164	<0.000480	60.3	30-130	4.9	30	
2-Methylnaphthalene	0.0998	0.000542	"	0.164	<0.000542	60.8	30-130	5	30	
Surrogate: Nitrobenzene-d5	55.4		"	0.328	197	55.4	29-110			
Surrogate: 4-Terphenyl-d14	59.7		"	0.328	197	59.7	33-122			
Surrogate: 2-Fluorobiphenyl	55.4		"	0.328	180	55.4	33-115			
MS (L 99036-MS-L543844)		Source: Y103382-03			Prepared: 03/26/2021 Analyzed: 03/26/2021					
1-Methylnaphthalene	0.104	0.00048	mg/Kg	0.164	<0.000480	63.4	30-130			
2-Methylnaphthalene	0.105	0.000542	"	0.164	<0.000542	64	30-130			
Surrogate: 2-Fluorobiphenyl	60.7		"	0.329	180	60.7	33-115			
Surrogate: 4-Terphenyl-d14	70.5		"	0.329	197	70.5	33-122			
Surrogate: Nitrobenzene-d5	58.6		"	0.329	197	58.6	29-110			
LCS (LCS-L543844)					Prepared: 03/26/2021 Analyzed: 03/26/2021					
1-Methylnaphthalene	0.109	0.00048	mg/Kg	0.167		65.2	30-130			
2-Methylnaphthalene	0.11	0.000542	"	0.167		65.8	30-130			
Surrogate: Nitrobenzene-d5	63.6		"	0.333		63.6	29-110			
Surrogate: 4-Terphenyl-d14	69.6		"	0.333		69.6	33-122			
Surrogate: 2-Fluorobiphenyl	63		"	0.333		63	33-115			
LRB (LRB-L543844)					Prepared: 03/26/2021 Analyzed: 03/26/2021					
1-Methylnaphthalene	ND	0.00067	mg/Kg				-			
2-Methylnaphthalene	ND	0.00067	"				-			

Origins Laboratory, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Fremont Environmental
8305 6th St, PO Box 1289
Wellington CO 80549

Paul Henehan
Project Number: C021-024
Project: GWOC - Schneider

PAH by EPA 8270D SIM - Quality Control
Waypoint Analytical, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch L543844 - 3550B

LRB (LRB-L543844)

Prepared: 03/26/2021 Analyzed: 03/26/2021

Surrogate: Nitrobenzene-d5	63.9		mg/Kg	0.333	63.9		29-110			
Surrogate: 2-Fluorobiphenyl	60.6		"	0.333	60.6		33-115			
Surrogate: 4-Terphenyl-d14	70.5		"	0.333	70.5		33-122			

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Fremont Environmental
8305 6th St, PO Box 1289
Wellington CO 80549

Paul Henehan
Project Number: C021-024
Project: GWOC - Schneider

Notes and Definitions

U Sample is Non-Detect.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported on a wet weight basis.

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



April 05, 2021

Fremont Environmental

Paul Henehan

8305 6th St, PO Box 1289

Wellington CO 80549

Project Name - GWOC - Schneider

Project Number - C021-021

Attached are your analytical results for GWOC - Schneider received by Origins Laboratory, Inc. March 29, 2021. This project is associated with Origins project number Y103487-01.

The analytical results in the following report were analyzed under the guidelines of EPA Methods. These methods are identified as follows; "SW" are defined in SW-846, "EPA" are defined in 40CFR part 136 and "SM" are defined in the most current revision of Standard Methods For the Examination of Water and Wastewater.

The analytical results apply specifically to the samples and analyses specified per the attached Chain of Custody. As such, this report shall not be reproduced except in full, without the written approval of Origin's laboratory.

Unless otherwise noted, the analytical results for all soil samples are reported on a wet weight basis. All analytical analyses were performed under NELAP guidelines unless noted by a data qualifier.

Any holding time exceedances, deviations from the method specifications or deviations from Origins Laboratory's Standard Operating Procedures are outlined in the case narrative.

Thank you for selecting Origins for your analytical needs. Please contact us with any questions concerning this report, or if we can help with anything at all.

Origins Laboratory, Inc.
303.433.1322
o-squad@oelabinc.com



1725 Elk Place, Denver, CO 80211 | Phone: 303.433.1322 | Fax: 303.265.9645

Fremont Environmental

8305 6th St, PO Box 1289

Wellington CO 80549

Paul Henehan

Project Number: C021-021

Project: GWOC - Schneider

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	Y103487-01	Water	March 27, 2021 0:00	03/29/2021 12:00
MW-2	Y103487-02	Water	March 27, 2021 0:00	03/29/2021 12:00
MW-3	Y103487-03	Water	March 27, 2021 0:00	03/29/2021 12:00
MW-4	Y103487-04	Water	March 27, 2021 0:00	03/29/2021 12:00
MW-5	Y103487-05	Water	March 27, 2021 0:00	03/29/2021 12:00

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Jen Pellegrini For Noelle Doyle Mathis, President

Fremont Environmental
8305 6th St, PO Box 1289
Wellington CO 80549

Paul Henahan
Project Number: C021-021
Project: GWOC - Schneider

ORIGINS
LABORATORY, INC

www.originslaboratory.com

1103487

page 1 of 1

Client: Fremont Environmental Inc.
Address:
Telephone Number:
Email Address:

Project Manager: Henahan
Project Name: GWOC - SCHNEIDER 179 HNX
Project Number: C021-021
Samples Collected By: HENAHAN

Fax: 303.265.9645

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative			Matrix		Analysis				Sample Instructions			
				Unpreserved	HCl	HNO ₃	Groundwater	Soil	Air Summa #	Other	DB/ORO	PATs	PH, EC, SAR	915 metals	Arsenic	BTEXN+TMBs
MW-1	3/27/21		4	✓			✓								✓	1
MW-2																2
MW-3																3
MW-4																4
MW-5																5
																6
																7
																8
																9
																10

Relinquished By: [Signature] Date: 3/27/21 Time: [Blank]
Relinquished By: [Signature] Date: [Blank] Time: [Blank]

Received By: [Signature] Date: 3/29/21 Time: 1200
Received By: [Signature] Date: [Blank] Time: [Blank]

Turnaround Time: 24 Hr ☐ 48 Hr ☐ 72 Hr ☐ Standard ☒

Date Results Needed

5.6

Origins Laboratory, Inc.

Jefe Pellegrini

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Fremont Environmental
8305 6th St, PO Box 1289
Wellington CO 80549

Paul Henehan
Project Number: C021-021
Project: GWOC - Schneider

Origins Laboratory

F-012207-01-R1
Effective Date: 01/09/12

Sample Receipt Checklist

Origins Work Order: Y103487 Client: Fremont
Client Project ID: GWOC - Schneider

Checklist Completed by: JLH Shipped Via: HS
Date/time completed: 3/29/21 (UPS, FedEx, Hand Delivered, Pick-up, etc.)
Airbill #: N/A

Matrix(s) Received: (Check all that apply): Soil/Solid ☒ Water ☐ Other: ☐

Cooler Number/Temperature: 1 56 °C 1 °C 1 °C (Describe)

Thermometer ID: 1003

Requirement Description	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature between 0°C to ≤ 6°C ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is there ice present (document if blue ice is used)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are short holding time analytes or samples with HTs due within 48 hours present ⁽¹⁾ ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) present and filled out completely ⁽¹⁾ ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>No sample times</u>
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace (> 1/4 inch bubble) present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are samples preserved that require preservation and was it checked ⁽¹⁾ ? (note ID of confirmation instrument used in comments) * (preservation is not confirmed for subcontracted analyses in order to insure sample integrity)/(pH <2 for samples preserved with HNO3; HCL, H2SO4) / (pH >10 for samples preserved with NaAsO2+NaOH, ZnAc+NaOH)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Additional Comments (if any):				

⁽¹⁾ If NO, then contact the client before proceeding with analysis and note date/time and person contacted as well as the corrective action to in the additional comments (above) and the case narrative.

Reviewed by (Project Manager): Jm

3-30-21
Date/Time Reviewed

Origins Laboratory, Inc.

Jefe Pellegrini

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Fremont Environmental
8305 6th St, PO Box 1289
Wellington CO 80549

Paul Henehan
Project Number: C021-021
Project: GWOC - Schneider

MW-1

3/27/2021 12:00:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y103487-01 (Water)

Anions by IC 300.0

Chloride	171	31.2	mg/L	125	B1C3110	analy	03/31/2021	04/01/2021	
Sulfate	417	31.2	"	"	"	analy	"	"	

BTEX+N+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	1.00	ug/L	1	B1C2918	TEM	03/29/2021	04/01/2021	U
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	TEM	"	"	U
Benzene	ND	1.00	"	"	"	TEM	"	"	U
Ethylbenzene	ND	1.00	"	"	"	TEM	"	"	U
Naphthalene	ND	4.00	"	"	"	TEM	"	"	U
Toluene	ND	1.00	"	"	"	TEM	"	"	U
Xylenes, total	ND	1.00	"	"	"	TEM	"	"	U

Surrogate: 1,2-Dichloroethane-d4	107 %	70-130			"	"	"	
Surrogate: Toluene-d8	89.5 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	105 %	70-130			"	"	"	

Total Dissolved Solids by 2540C

Total Dissolved Solids	1100	5.00	mg/L	1	B1C3104	DJL	03/31/2021	04/02/2021	
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Origins Laboratory, Inc.



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Fremont Environmental

8305 6th St, PO Box 1289

Wellington CO 80549

Paul Henehan

Project Number: C021-021

Project: GWOC - Schneider

MW-2

3/27/2021 12:00:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y103487-02 (Water)

Anions by IC 300.0

Chloride	265	31.2	mg/L	125	B1C3110	analy	03/31/2021	04/01/2021	
Sulfate	403	31.2	"	"	"	analy	"	"	

BTEX+N+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	1.00	ug/L	1	B1C2918	TEM	03/29/2021	04/01/2021	U
1,3,5-Trimethylbenzene	1.07	1.00	"	"	"	TEM	"	"	
Benzene	ND	1.00	"	"	"	TEM	"	"	U
Ethylbenzene	ND	1.00	"	"	"	TEM	"	"	U
Naphthalene	ND	4.00	"	"	"	TEM	"	"	U
Toluene	ND	1.00	"	"	"	TEM	"	"	U
Xylenes, total	6.05	1.00	"	"	"	TEM	"	"	

Surrogate: 1,2-Dichloroethane-d4	107 %	70-130			"	"	"	
Surrogate: Toluene-d8	91.2 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	105 %	70-130			"	"	"	

Total Dissolved Solids by 2540C

Total Dissolved Solids	1250	5.00	mg/L	1	B1C3104	DJL	03/31/2021	04/02/2021	
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Origins Laboratory, Inc.



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Fremont Environmental

8305 6th St, PO Box 1289

Wellington CO 80549

Paul Henehan

Project Number: C021-021

Project: GWOC - Schneider

MW-3

3/27/2021 12:00:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y103487-03 (Water)

Anions by IC 300.0

Chloride	48.0	31.2	mg/L	125	B1C3110	analy	03/31/2021	04/01/2021	
Sulfate	400	31.2	"	"	"	analy	"	"	

BTEX+N+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	1.00	ug/L	1	B1C2918	TEM	03/29/2021	04/01/2021	U
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	TEM	"	"	U
Benzene	ND	1.00	"	"	"	TEM	"	"	U
Ethylbenzene	ND	1.00	"	"	"	TEM	"	"	U
Naphthalene	ND	4.00	"	"	"	TEM	"	"	U
Toluene	ND	1.00	"	"	"	TEM	"	"	U
Xylenes, total	ND	1.00	"	"	"	TEM	"	"	U

Surrogate: 1,2-Dichloroethane-d4

108 % 70-130

"

"

"

Surrogate: Toluene-d8

89.4 % 70-130

"

"

"

Surrogate: 4-Bromofluorobenzene

105 % 70-130

"

"

"

Total Dissolved Solids by 2540C

Total Dissolved Solids	986	5.00	mg/L	1	B1C3104	DJL	03/31/2021	04/02/2021	
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Origins Laboratory, Inc.



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Fremont Environmental

8305 6th St, PO Box 1289

Wellington CO 80549

Paul Henehan

Project Number: C021-021

Project: GWOC - Schneider

MW-4

3/27/2021 12:00:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y103487-04 (Water)

Anions by IC 300.0

Chloride	60.2	31.2	mg/L	125	B1C3110	analy	03/31/2021	04/01/2021	
Sulfate	371	31.2	"	"	"	analy	"	"	

BTEX+N+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	1.00	ug/L	1	B1C2918	TEM	03/29/2021	04/01/2021	U
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	TEM	"	"	U
Benzene	ND	1.00	"	"	"	TEM	"	"	U
Ethylbenzene	ND	1.00	"	"	"	TEM	"	"	U
Naphthalene	ND	4.00	"	"	"	TEM	"	"	U
Toluene	ND	1.00	"	"	"	TEM	"	"	U
Xylenes, total	ND	1.00	"	"	"	TEM	"	"	U

Surrogate: 1,2-Dichloroethane-d4

108 %

70-130

"

"

"

Surrogate: Toluene-d8

89.4 %

70-130

"

"

"

Surrogate: 4-Bromofluorobenzene

107 %

70-130

"

"

"

Total Dissolved Solids by 2540C

Total Dissolved Solids	1010	5.00	mg/L	1	B1C3104	DJL	03/31/2021	04/02/2021	
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Origins Laboratory, Inc.



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Fremont Environmental

8305 6th St, PO Box 1289

Wellington CO 80549

Paul Henehan

Project Number: C021-021

Project: GWOC - Schneider

MW-5

3/27/2021 12:00:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y103487-05 (Water)

Anions by IC 300.0

Chloride	40.2	31.2	mg/L	125	B1C3110	analy	03/31/2021	04/02/2021	
Sulfate	383	31.2	"	"	"	analy	"	"	

BTEX+N+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	1.00	ug/L	1	B1C2918	TEM	03/29/2021	04/01/2021	U
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	TEM	"	"	U
Benzene	ND	1.00	"	"	"	TEM	"	"	U
Ethylbenzene	ND	1.00	"	"	"	TEM	"	"	U
Naphthalene	ND	4.00	"	"	"	TEM	"	"	U
Toluene	ND	1.00	"	"	"	TEM	"	"	U
Xylenes, total	ND	1.00	"	"	"	TEM	"	"	U

Surrogate: 1,2-Dichloroethane-d4

114 % 70-130

"

"

"

Surrogate: Toluene-d8

86.2 % 70-130

"

"

"

Surrogate: 4-Bromofluorobenzene

102 % 70-130

"

"

"

Total Dissolved Solids by 2540C

Total Dissolved Solids	994	5.00	mg/L	1	B1C3104	DJL	03/31/2021	04/02/2021	
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Origins Laboratory, Inc.



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Fremont Environmental
8305 6th St, PO Box 1289
Wellington CO 80549

Paul Henehan
Project Number: C021-021
Project: GWOC - Schneider

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B1C2918 - EPA 5030B (Water)										
Blank (B1C2918-BLK1)					Prepared: 03/29/2021 Analyzed: 04/01/2021					
1,2,4-Trimethylbenzene	ND	1.00	ug/L							U
1,3,5-Trimethylbenzene	ND	1.00	"							U
Benzene	ND	1.00	"							U
Ethylbenzene	ND	1.00	"							U
Naphthalene	ND	4.00	"							U
Toluene	ND	1.00	"							U
Xylenes, total	ND	1.00	"							U
Surrogate: 1,2-Dichloroethane-d4	70		"	62.5		111	70-130			
Surrogate: Toluene-d8	56		"	62.5		89.3	70-130			
Surrogate: 4-Bromofluorobenzene	64		"	62.5		102	70-130			

Origins Laboratory, Inc.



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Fremont Environmental
8305 6th St, PO Box 1289
Wellington CO 80549

Paul Henehan
Project Number: C021-021
Project: GWOC - Schneider

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B1C2918 - EPA 5030B (Water)										
LCS (B1C2918-BS1)					Prepared: 03/29/2021 Analyzed: 04/01/2021					
1,2,4-Trimethylbenzene	37.5	1.00	ug/L	50.0		75.1	70-130			
1,3,5-Trimethylbenzene	36.5	1.00	"	50.0		73.0	70-130			
Benzene	40.0	1.00	"	50.0		80.1	70-130			
Ethylbenzene	35.1	1.00	"	50.0		70.2	70-130			
m,p-Xylene	78.8	2.00	"	100		78.8	70-130			
Naphthalene	39.6	4.00	"	50.0		79.2	70-130			
o-Xylene	44.5	1.00	"	50.0		88.9	70-130			
Toluene	35.0	1.00	"	50.0		70.0	70-130			
Surrogate: 1,2-Dichloroethane-d4	72		"	62.5		115	70-130			
Surrogate: Toluene-d8	60		"	62.5		95.4	70-130			
Surrogate: 4-Bromofluorobenzene	66		"	62.5		106	70-130			

Origins Laboratory, Inc.



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Fremont Environmental
8305 6th St, PO Box 1289
Wellington CO 80549

Paul Henehan
Project Number: C021-021
Project: GWOC - Schneider

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B1C2918 - EPA 5030B (Water)										
Matrix Spike (B1C2918-MS1)		Source: Y103487-01			Prepared: 03/29/2021 Analyzed: 04/01/2021					
1,2,4-Trimethylbenzene	33.6	1.00	ug/L	50.0	0.660	65.8	70-130			QM-07
1,3,5-Trimethylbenzene	38.0	1.00	"	50.0	0.640	74.7	70-130			
Benzene	40.5	1.00	"	50.0	ND	81.1	70-130			
Ethylbenzene	33.8	1.00	"	50.0	ND	67.6	70-130			QM-07
m,p-Xylene	68.2	2.00	"	100	ND	68.2	70-130			QM-07
Naphthalene	39.4	4.00	"	50.0	1.34	76.1	70-130			
o-Xylene	36.4	1.00	"	50.0	0.900	70.9	70-130			
Toluene	35.0	1.00	"	50.0	ND	70.0	70-130			
Surrogate: 1,2-Dichloroethane-d4	71		"	62.5		113	70-130			
Surrogate: Toluene-d8	58		"	62.5		92.8	70-130			
Surrogate: 4-Bromofluorobenzene	67		"	62.5		108	70-130			

Origins Laboratory, Inc.



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Fremont Environmental
8305 6th St, PO Box 1289
Wellington CO 80549

Paul Henehan
Project Number: C021-021
Project: GWOC - Schneider

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B1C2918 - EPA 5030B (Water)										
Matrix Spike Dup (B1C2918-MSD1)										
					Source: Y103487-01					
					Prepared: 03/29/2021		Analyzed: 04/01/2021			
1,2,4-Trimethylbenzene	37.5	1.00	ug/L	50.0	0.660	73.7	70-130	11.1	20	
1,3,5-Trimethylbenzene	42.4	1.00	"	50.0	0.640	83.6	70-130	11.1	20	
Benzene	45.7	1.00	"	50.0	ND	91.3	70-130	11.9	20	
Ethylbenzene	37.4	1.00	"	50.0	ND	74.9	70-130	10.3	20	
m,p-Xylene	74.8	2.00	"	100	ND	74.8	70-130	9.29	20	
Naphthalene	43.8	4.00	"	50.0	1.34	84.9	70-130	10.6	20	
o-Xylene	39.9	1.00	"	50.0	0.900	78.0	70-130	9.23	20	
Toluene	38.2	1.00	"	50.0	ND	76.5	70-130	8.79	20	
Surrogate: 1,2-Dichloroethane-d4	72		"	62.5		115	70-130			
Surrogate: Toluene-d8	57		"	62.5		90.7	70-130			
Surrogate: 4-Bromofluorobenzene	68		"	62.5		108	70-130			

Origins Laboratory, Inc.



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Fremont Environmental
8305 6th St, PO Box 1289
Wellington CO 80549

Paul Henehan
Project Number: C021-021
Project: GWOC - Schneider

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Classical Chemistry Parameters - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1C3104 - NO PREP

Blank (B1C3104-BLK1)

Prepared: 03/31/2021 Analyzed: 04/02/2021

Total Dissolved Solids ND 5.00 mg/L

LCS (B1C3104-BS1)

Prepared: 03/31/2021 Analyzed: 04/02/2021

Total Dissolved Solids 693 5.00 mg/L 716 96.8 85-115

Duplicate (B1C3104-DUP1)

Source: Y103487-01

Prepared: 03/31/2021 Analyzed: 04/02/2021

Total Dissolved Solids 1110 5.00 mg/L 1100 1.08 20

Batch B1C3110 - Filter .45um non acidified

Blank (B1C3110-BLK1)

Prepared: 03/31/2021 Analyzed: 04/01/2021

Chloride ND 0.250 mg/L

Sulfate ND 0.250 "

LCS (B1C3110-BS1)

Prepared: 03/31/2021 Analyzed: 04/01/2021

Chloride 1.84 mg/L 2.00 92.2 90-110

Sulfate 1.81 " 2.00 90.5 90-110

Duplicate (B1C3110-DUP1)

Source: Y103473-16

Prepared: 03/31/2021 Analyzed: 04/01/2021

Chloride 164 31.2 mg/L 164 0.0991 20

Fluoride ND 12.5 " ND 20

Bromide ND 12.5 " ND 20

Sulfate 171 31.2 " 170 0.249 20

Origins Laboratory, Inc.



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Fremont Environmental
8305 6th St, PO Box 1289
Wellington CO 80549

Paul Henehan
Project Number: C021-021
Project: GWOC - Schneider

Classical Chemistry Parameters - Quality Control Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B1C3110 - Filter .45um non acidified										
Duplicate (B1C3110-DUP1)		Source: Y103473-16			Prepared: 03/31/2021 Analyzed: 04/01/2021					
Nitrate	ND	31.2	mg/L		ND				20	
Nitrite	ND	12.5	"		ND				20	
Phosphate	ND	12.5	"		ND				20	
Matrix Spike (B1C3110-MS1)		Source: Y103473-16			Prepared: 03/31/2021 Analyzed: 04/01/2021					
Chloride	396		mg/L	250	164	92.8	80-120			
Sulfate	397		"	250	170	90.8	80-120			
Matrix Spike Dup (B1C3110-MSD1)		Source: Y103473-16			Prepared: 03/31/2021 Analyzed: 04/01/2021					
Chloride	395		mg/L	250	164	92.6	80-120	0.155	20	
Sulfate	398		"	250	170	91.0	80-120	0.0975	20	

Origins Laboratory, Inc.



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Fremont Environmental
8305 6th St, PO Box 1289
Wellington CO 80549

Paul Henehan
Project Number: C021-021
Project: GWOC - Schneider

Notes and Definitions

U Sample is Non-Detect.

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

Origins Laboratory, Inc.



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