

TABLE 1
FORMER BAUER 5 WELLHEAD
SOIL ANALYTICAL RESULTS SUMMARY TABLE
ORGANIC COMPOUNDS

Sample ID	Date Sampled	Depth	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	1, 2, 4-TMB (mg/kg)	1, 3, 5-TMB (mg/kg)	Naphthalene (mg/kg)	TPH ⁽⁴⁾ (mg/kg)
Residential SSL^(1,2)			1.2	490	5.8	58	30	27	2	500
Protection of Groundwater SSL^(1,2,3)			0.0026	0.69	0.78	9.9	0.0081	0.0087	0.0038	500
WH01 @ 6'	2/11/2022	6 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50
FLR01 @ 4'	2/11/2022	4 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50
FL01-01 @ 4'	2/11/2022	4 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50
FL01-02 @ 4'	2/11/2022	4 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50
FL01-03 @ 4'	2/11/2022	4 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50
FL01-04 @ 4'	2/11/2022	4 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50
FL01-05 @ 4'	2/11/2022	4 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50
FL01-06 @ 4'	2/11/2022	4 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50

Notes:

1. Compounds referenced from the COGCC 2 CCR 404-1, Table 915-1, effective January 15, 2021.
2. Soil Screening Levels (SSL) referenced from EPA Regional Screening Levels (EPA RSLs) for Chemical Contaminants at Superfund Sites, effective November 2020.
3. SSLs are applicable if a pathway for communication with groundwater is present.
4. Value calculated by adding TVPH-GRO, TEPH-DRO, and TEPH-ORO concentrations.

COGCC = Colorado Oil and Gas Conservation Commission

(<) = Analytical result is less than the indicated laboratory reporting limit.

TVPH-GRO = Total volatile petroleum hydrocarbons - gasoline range organics

TEPH-DRO = Total extractable petroleum hydrocarbons - diesel range organics

TEPH-ORO = Total extractable petroleum hydrocarbons - oil range organics

mg/kg = Milligrams per kilogram

TMB = Trimethylbenzene

ft. = Feet

bgs = Below ground surface

TABLE 2
FORMER BAUER 5 WELLHEAD
SOIL ANALYTICAL RESULTS SUMMARY TABLE
INORGANIC COMPOUNDS

Sample ID	Date Sampled	Depth	pH (units)	EC (mmhos/cm)	SAR (units)	Boron (mg/L)
Soil Suitability for Reclamation Standard ⁽¹⁾			6-8.3	<4	<6	2
WH01 @ 6'	2/11/2022	6 ft. bgs	8.36	0.524	0.0435	0.0996
FLR01 @ 4'	2/11/2022	4 ft. bgs	8.35	0.574	0.0579	0.162
BKG01 @ 4'	2/11/2022	4 ft. bgs	8.22	NA	NA	NA
BKG01 @ 6'	2/11/2022	6 ft. bgs	8.06	NA	NA	NA

Notes:

1. Compounds referenced from the COGCC 2 CCR 404-1, Table 915-1, effective January 15, 2021.

COGCC = Colorado Oil and Gas Conservation Commission

EC = Electrical conductivity

SAR = Sodium adsorption ratio

mmhos/cm = Millimhos per centimeter

mg/L = Milligrams per liter

ft. = Feet

bgs = Below ground surface

NA=Not Analyzed

BOLD = Analytical result is in exceedance of applicable standard.

TABLE 3
FORMER BAUER 5 WELLHEAD
SOIL ANALYTICAL RESULTS SUMMARY TABLE
ORGANIC COMPOUNDS - PAHs

Sample ID	Date Sampled	Depth	Acenaphthene (mg/kg)	Anthracene (mg/kg)	Benz(a) (mg/kg)	Benzo(a) (mg/kg)	Benzo(b) (mg/kg)	Benzo(k) (mg/kg)	Chrysene (mg/kg)	A,H (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	1,2,3-CD (mg/kg)	Pyrene (mg/kg)	1-M (mg/kg)	2-M (mg/kg)
Residential SSL^(1,2)			360	1,800	1.1	0.11	1.1	11	110	0.11	240	240	1.1	180	18	24
Protection of Groundwater SSL^(1,2,3)			0.55	5.8	0.011	0.24	0.3	2.9	9	0.096	8.9	0.54	0.98	1.3	0.006	0.019
WH01 @ 6'	2/11/2022	6 ft. bgs	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
FLR01 @ 4'	2/11/2022	4 ft. bgs	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500

Notes:

1. Compounds referenced from the COGCC 2 CCR 404-1, Table 915-1, effective January 15, 2021.
2. Soil Screening Levels (SSL) referenced from EPA Regional Screening Levels (EPA RSLs) for Chemical Contaminants at Superfund Sites, effective November 2020.
3. SSLs are applicable if a pathway for communication with groundwater is present.

COGCC = Colorado Oil and Gas Conservation Commission

(<) = Analytical result is less than the indicated laboratory reporting limit.

PAHs = Polycyclic aromatic hydrocarbons

Benzo(a) = Benzantracene

Benzo(a) = Benzopyrene

Benzo(b) = Benzofluoranthene

Benzo(k) = Benzofluoranthene

A,H = Dibenzoanthracene

1,2,3-CD = Indenopyrene

M = Methylanthalene

mg/kg = Milligrams per kilogram

ft. = Feet

bgs = Below ground surface

**TABLE 4
FORMER BAUER 5 WELLHEAD
FIELD DATA SUMMARY TABLE**

Sample ID	Date Sampled	Depth	GPS Data ⁽¹⁾		PDOP Value	VOC Concentration ⁽²⁾ (ppm)
			Latitude	Longitude		
WH01 @ 6'	2/11/2022	6 ft. bgs	40.432249	-104.560012	1.5	0.2
FLR01 @ 4'	2/11/2022	4 ft. bgs	40.432263	-104.560033	1.6	0.4
WHS01-N @ 0-6"	2/11/2022	0-6 in. bgs	40.432325	-104.559997	1.4	0.0
WHS01-W @ 0-6"	2/11/2022	0-6 in. bgs	40.432248	-104.560104	1.4	0.0
WHS01-S @ 0-6"	2/11/2022	0-6 in. bgs	40.432184	-104.560007	2.0	0.0
WHS01-E @ 0-6"	2/11/2022	0-6 in. bgs	40.432244	-104.559909	1.7	0.1
FL01-01 @ 4'	2/11/2022	4 ft. bgs	40.432267	-104.562334	1.8	0.4
FL01-02 @ 4'	2/11/2022	4 ft. bgs	40.433480	-104.562363	1.3	0.0
FL01-03 @ 4'	2/11/2022	4 ft. bgs	40.433472	-104.562828	1.6	0.1
FL01-04 @ 4'	2/11/2022	4 ft. bgs	40.433476	-104.562928	1.3	0.0
FL01-05 @ 4'	2/11/2022	4 ft. bgs	40.433521	-104.564359	2.1	0.0
FL01-06 @ 4'	2/11/2022	4 ft. bgs	40.433510	-104.564444	1.4	0.0
BKG01 @ 4'	2/11/2022	4 ft. bgs	40.432156	-104.560210	1.5	0.0
BKG01 @ 6'	2/11/2022	6 ft. bgs	40.432156	-104.560210	1.5	0.0

Notes:

1. Global Positioning System (GPS) data is provided in decimal degrees using World Geodetic System (WGS) 84 UTM Zone 13 North.
2. Volatile organic compound (VOC) concentrations are measured in the field using a photoionization detector (PID).

PDOP = Position Dilution of Precision

ppm = Parts per million

ft. = Feet

in. = Inches

bgs = Below ground surface

Attachment A

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

May 02, 2022

Mark Longhurst

PDC Energy

1775 Sherman St. STE. 3000

Denver, CO 80203

RE: Bauer 5 Wellhead

Work Order #2202141

Enclosed are the results of analyses for samples received by Summit Scientific on 02/11/22 17:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Paul Shrewsbury For Muri Premer
Project Manager



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bauer 5 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
05/02/22 12:04

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
WH01@6'	2202141-01	Soil	02/11/22 09:00	02/11/22 17:00
FLR01@4'	2202141-02	Soil	02/11/22 09:05	02/11/22 17:00
FL01-01@4'	2202141-03	Soil	02/11/22 09:30	02/11/22 17:00
FL01-02@4'	2202141-04	Soil	02/11/22 12:30	02/11/22 17:00
FL01-03@4'	2202141-05	Soil	02/11/22 12:35	02/11/22 17:00
FL01-04@4'	2202141-06	Soil	02/11/22 12:40	02/11/22 17:00
FL01-05@4'	2202141-07	Soil	02/11/22 12:45	02/11/22 17:00
FL01-06@4'	2202141-08	Soil	02/11/22 12:50	02/11/22 17:00
BKG01@4'	2202141-09	Soil	02/11/22 12:20	02/11/22 17:00
BKG01@6'	2202141-10	Soil	02/11/22 12:25	02/11/22 17:00

Summit Scientific

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Summit Scientific

2202141

S₂

4653 Table Mountain Drive ♦ Golden, Colorado 80403

303-277-9310

Page 1 of 1

Client: PDC / Tasman Project Manager: Mark Longhurst
 Address: 6855 W 119th Ave E-Mail: mark.longhurst@PDCE.com
 City/State/Zip: Broomfield/ CO/ 80020
 Phone: 303-487-1228 Project Name: Bauer 5 Tank Battery Wellhead
 Sampler Name: Mike Connolly Project Number: N/A

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested							Special Instructions		
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	BTEXN - 8260B	TPH - (C6 - C36)	1,2,4 & 1,3,5-TMB	Boron - HWS	pH, EC, SAR	PAH - 915	On Hold			
1	WHO1 @ 6'	2/11/22	900	3			X			X			X	X	X	X	X	X				pH, EC, SAR by saturated paste
2	FL01 @ 4'		905	3			X			X			X	X	X	X	X	X				
3	FL01-01 @ 4'		930	2			X			X			X	X	X							
4	FL01-02 @ 4'		1230	3			X			X			X	X	X							
5	FL01-03 @ 4'		1235	3			X			X			X	X	X							
6	FL01-04 @ 4'		1240	3			X			X			X	X	X							
7	FL01-05 @ 4'		1245	3			X			X			X	X	X							
8	FL01-06 @ 4'		1250	3			X			X			X	X	X							
9	BKG01 @ 4'		1220	1			X			X												X
10	BKG01 @ 6'		1225	1			X			X												X

Relinquished by: <i>M. Connolly</i>	Date/Time: 2/11/22 1700	Received by: Tasman's Lock Box	Date/Time:	Turn Around Time (Check)	Notes:
Relinquished by: Tasman's Lock Box	Date/Time:	Received by: <i>[Signature]</i>	Date/Time: 2/11/22 1700	Same Day _____ 72 hours _____	
Relinquished by:	Date/Time:	Received by:	Date/Time:	24 hours _____ Standard <u>X</u>	
				48 hours _____	
				Sample Integrity:	
				Temperature Upon Receipt: <u>3.8</u>	
				Samples Intact: <u>(Yes)</u> No	

S₂

2202141

Sample Receipt Checklist

S2 Work Order# _____

Client: PDC Tasman Client Project ID: Baver S wellhead.

Shipped Via: H.D./P.U./FedEx/UPS/USPS/Other _____ Airbill #: _____

Matrix (check all that apply): Air Soil/Solid Water Other: _____ (Describe)

Temp (°C) 3.8

Thermometer ID: G86A9201901378

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C ⁽¹⁾ ? NOTE: If samples are delivered the same day of sampling, this requirement is met if there is evidence that cooling has begun.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>ON ICE</u>
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"/>	
If custody seals are present, are they intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are samples with holding times due within 48 hours sample due within 48 hours present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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 w/ date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ? Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ? Record the pH in Comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Additional Comments (if any):

⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.

[Signature]
Custodian Printed Name or Initials

21122
Date/Time



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bauer 5 Wellhead

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
05/02/22 12:04

WH01@6'
2202141-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/11/22 09:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BFB0147	02/14/22	02/18/22	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **02/11/22 09:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		96.8 %		70-130		"	"	"	"	
Surrogate: Toluene-d8		104 %		70-130		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		107 %		70-130		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/11/22 09:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BFB0146	02/14/22	02/17/22	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **02/11/22 09:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl		86.2 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bauer 5 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
05/02/22 12:04

WH01@6'
2202141-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/11/22 09:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFB0154	02/15/22	02/16/22	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **02/11/22 09:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		61.0 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		67.4 %	40-150		"	"	"	"	

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **02/11/22 09:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	48.4	0.0636	mg/L dry	1	BFC0482	03/22/22	03/26/22	EPA 6020B	
Magnesium	4.44	0.0636	"	"	"	"	"	"	
Sodium	1.18	0.0636	"	"	"	"	"	"	

Calculated Analysis

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bauer 5 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
05/02/22 12:04

WH01@6'
2202141-01 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **02/11/22 09:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0435	0.00100	units	1	BFC0618	03/26/22	03/26/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **02/11/22 09:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	78.6		%	1	BFB0134	02/14/22	02/14/22	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **02/11/22 09:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.524	0.0100	mmhos/cm	1	BFC0485	03/22/22	03/22/22	EPA 120.1	

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **02/11/22 09:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.36		pH Units	1	BFC0486	03/22/22	03/22/22	EPA 9045D	

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bauer 5 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
05/02/22 12:04

FLR01@4'
2202141-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/11/22 09:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFB0147	02/14/22	02/18/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **02/11/22 09:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		97.8 %	70-130		"	"	"	"	
Surrogate: Toluene-d8		108 %	70-130		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		107 %	70-130		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/11/22 09:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BFB0146	02/14/22	02/17/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **02/11/22 09:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		84.5 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bauer 5 Wellhead

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
05/02/22 12:04

FLR01@4'
2202141-02 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **02/11/22 09:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFB0154	02/15/22	02/16/22	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **02/11/22 09:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		57.1 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		62.9 %	40-150		"	"	"	"	

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction

Date Sampled: **02/11/22 09:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	34.3	0.0646	mg/L dry	1	BFC0482	03/22/22	03/26/22	EPA 6020B	
Magnesium	6.12	0.0646	"	"	"	"	"	"	
Sodium	1.40	0.0646	"	"	"	"	"	"	

Calculated Analysis

Summit Scientific

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PDC Energy
 1775 Sherman St. STE. 3000
 Denver CO, 80203

Project: Bauer 5 Wellhead

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
 05/02/22 12:04

FLR01@4'
2202141-02 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **02/11/22 09:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0579	0.00100	units	1	BFC0618	03/26/22	03/26/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **02/11/22 09:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	77.4		%	1	BFB0134	02/14/22	02/14/22	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **02/11/22 09:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.574	0.0100	mmhos/cm	1	BFC0485	03/22/22	03/22/22	EPA 120.1	

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **02/11/22 09:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.35		pH Units	1	BFC0486	03/22/22	03/22/22	EPA 9045D	

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bauer 5 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
05/02/22 12:04

FL01-01@4'
2202141-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/11/22 09:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFB0147	02/14/22	02/18/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **02/11/22 09:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		93.7 %	70-130		"	"	"	"	
Surrogate: Toluene-d8		106 %	70-130		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		107 %	70-130		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/11/22 09:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BFB0146	02/14/22	02/17/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **02/11/22 09:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		80.2 %	30-150		"	"	"	"	

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bauer 5 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
05/02/22 12:04

FL01-02@4'
2202141-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/11/22 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFB0147	02/14/22	02/19/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **02/11/22 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		110 %	70-130		"	"	"	"	
Surrogate: Toluene-d8		91.6 %	70-130		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		91.6 %	70-130		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/11/22 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BFB0146	02/14/22	02/17/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **02/11/22 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		103 %	30-150		"	"	"	"	

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bauer 5 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
05/02/22 12:04

FL01-03@4'
2202141-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/11/22 12:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFB0147	02/14/22	02/19/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **02/11/22 12:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		109 %	70-130		"	"	"	"	
Surrogate: Toluene-d8		90.1 %	70-130		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		91.1 %	70-130		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/11/22 12:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BFB0146	02/14/22	02/17/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **02/11/22 12:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		120 %	30-150		"	"	"	"	

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bauer 5 Wellhead

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
05/02/22 12:04

FL01-04@4'
2202141-06 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/11/22 12:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFB0147	02/14/22	02/19/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **02/11/22 12:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		106 %	70-130		"	"	"	"	
Surrogate: Toluene-d8		91.2 %	70-130		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		89.6 %	70-130		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/11/22 12:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BFB0146	02/14/22	02/17/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **02/11/22 12:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		96.6 %	30-150		"	"	"	"	

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bauer 5 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
05/02/22 12:04

FL01-05@4'
2202141-07 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/11/22 12:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	BFB0147	02/14/22	02/19/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **02/11/22 12:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		110 %	70-130		"	"	"	"	
Surrogate: Toluene-d8		92.0 %	70-130		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		91.0 %	70-130		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/11/22 12:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	BFB0146	02/14/22	02/17/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **02/11/22 12:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		71.9 %	30-150		"	"	"	"	

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bauer 5 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
05/02/22 12:04

FL01-06@4'
2202141-08 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **02/11/22 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFB0147	02/14/22	02/19/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **02/11/22 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		113 %	70-130		"	"	"	"	
Surrogate: Toluene-d8		89.2 %	70-130		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		87.5 %	70-130		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **02/11/22 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BFB0146	02/14/22	02/17/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **02/11/22 12:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		137 %	30-150		"	"	"	"	

Summit Scientific

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PDC Energy
 1775 Sherman St. STE. 3000
 Denver CO, 80203

Project: Bauer 5 Wellhead
 Project Number: [none]
 Project Manager: Mark Longhurst

Reported:
 05/02/22 12:04

BKG01@4'
2202141-09 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **02/11/22 12:20**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
pH	8.22		pH Units	1	BFD0674	04/29/22	04/29/22	EPA 9045D	I-02

Summit Scientific

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PDC Energy
 1775 Sherman St. STE. 3000
 Denver CO, 80203

Project: Bauer 5 Wellhead
 Project Number: [none]
 Project Manager: Mark Longhurst

Reported:
 05/02/22 12:04

BKG01@6'
2202141-10 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction

Date Sampled: **02/11/22 12:25**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
pH	8.06		pH Units	1	BFD0674	04/29/22	04/29/22	EPA 9045D	I-02

Summit Scientific

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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bauer 5 Wellhead

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
05/02/22 12:04

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source	%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch BFB0147 - EPA 5030 Soil MS

Blank (BFB0147-BLK1)

Prepared: 02/14/22 Analyzed: 02/18/22

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
1,2,4-Trimethylbenzene	ND	0.0050	"							
1,3,5-Trimethylbenzene	ND	0.0050	"							
Naphthalene	ND	0.0038	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0415		"	0.0400		104	70-130			
<i>Surrogate: Toluene-d8</i>	0.0364		"	0.0400		91.0	70-130			
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0364		"	0.0400		91.0	70-130			

LCS (BFB0147-BS1)

Prepared: 02/14/22 Analyzed: 02/19/22

Benzene	0.0813	0.0020	mg/kg	0.100		81.3	70-130			
Toluene	0.0760	0.0050	"	0.100		76.0	70-130			
Ethylbenzene	0.109	0.0050	"	0.100		109	70-130			
m,p-Xylene	0.218	0.010	"	0.200		109	70-130			
o-Xylene	0.106	0.0050	"	0.100		106	70-130			
1,2,4-Trimethylbenzene	0.111	0.0050	"	0.100		111	70-130			
1,3,5-Trimethylbenzene	0.109	0.0050	"	0.100		109	70-130			
Naphthalene	0.0853	0.0038	"	0.100		85.3	70-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0432		"	0.0400		108	70-130			
<i>Surrogate: Toluene-d8</i>	0.0369		"	0.0400		92.3	70-130			
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0363		"	0.0400		90.8	70-130			

Matrix Spike (BFB0147-MS1)

Source: 2202139-01

Prepared: 02/14/22 Analyzed: 02/19/22

Benzene	0.0830	0.0020	mg/kg	0.100	ND	83.0	70-130			
Toluene	0.0787	0.0050	"	0.100	ND	78.7	70-130			
Ethylbenzene	0.112	0.0050	"	0.100	ND	112	70-130			
m,p-Xylene	0.224	0.010	"	0.200	ND	112	70-130			
o-Xylene	0.107	0.0050	"	0.100	ND	107	70-130			
1,2,4-Trimethylbenzene	0.115	0.0050	"	0.100	ND	115	70-130			
1,3,5-Trimethylbenzene	0.112	0.0050	"	0.100	ND	112	70-130			
Naphthalene	0.0883	0.0038	"	0.100	ND	88.3	70-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0422		"	0.0400		106	70-130			
<i>Surrogate: Toluene-d8</i>	0.0374		"	0.0400		93.4	70-130			
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0365		"	0.0400		91.4	70-130			

Summit Scientific

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PDC Energy
 1775 Sherman St. STE. 3000
 Denver CO, 80203

Project: Bauer 5 Wellhead

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
 05/02/22 12:04

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source	%REC			RPD	Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch BFB0147 - EPA 5030 Soil MS

Matrix Spike Dup (BFB0147-MSD1)	Source: 2202139-01			Prepared: 02/14/22 Analyzed: 02/19/22						
Benzene	0.0811	0.0020	mg/kg	0.100	ND	81.1	70-130	2.27	30	
Toluene	0.0763	0.0050	"	0.100	ND	76.3	70-130	3.10	30	
Ethylbenzene	0.108	0.0050	"	0.100	ND	108	70-130	3.80	30	
m,p-Xylene	0.217	0.010	"	0.200	ND	108	70-130	3.16	30	
o-Xylene	0.104	0.0050	"	0.100	ND	104	70-130	2.30	30	
1,2,4-Trimethylbenzene	0.113	0.0050	"	0.100	ND	113	70-130	1.71	30	
1,3,5-Trimethylbenzene	0.109	0.0050	"	0.100	ND	109	70-130	2.60	30	
Naphthalene	0.0995	0.0038	"	0.100	ND	99.5	70-130	11.9	30	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0434</i>		<i>"</i>	<i>0.0400</i>		<i>108</i>	<i>70-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0369</i>		<i>"</i>	<i>0.0400</i>		<i>92.2</i>	<i>70-130</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0358</i>		<i>"</i>	<i>0.0400</i>		<i>89.6</i>	<i>70-130</i>			

Summit Scientific

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.



PDC Energy
 1775 Sherman St. STE. 3000
 Denver CO, 80203

Project: Bauer 5 Wellhead
 Project Number: [none]
 Project Manager: Mark Longhurst

Reported:
 05/02/22 12:04

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

Analyte	Result	Reporting		Spike	Source		%REC		RPD		Notes
		Limit	Units	Level	Result	%REC	Limits	RPD	Limit		

Batch BFB0146 - EPA 3550A

Blank (BFB0146-BLK1)

Prepared: 02/14/22 Analyzed: 02/17/22

C10-C28 (DRO)	ND	50	mg/kg								
C28-C36 (ORO)	ND	50	"								

LCS (BFB0146-BS1)

Prepared: 02/14/22 Analyzed: 02/17/22

C10-C28 (DRO)	469	50	mg/kg	500	93.9	70-130					
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Matrix Spike (BFB0146-MS1)

Source: 2202139-01

Prepared: 02/14/22 Analyzed: 02/17/22

C10-C28 (DRO)	461	50	mg/kg	500	31.8	85.9	70-130				
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Matrix Spike Dup (BFB0146-MSD1)

Source: 2202139-01

Prepared: 02/14/22 Analyzed: 02/17/22

C10-C28 (DRO)	439	50	mg/kg	500	31.8	81.5	70-130	4.87	20		
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Summit Scientific

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.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bauer 5 Wellhead

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
05/02/22 12:04

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source	%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch BFB0154 - EPA 5030 Soil MS

Blank (BFB0154-BLK1)

Prepared & Analyzed: 02/15/22

Acenaphthene	ND	0.00500	mg/kg							
Anthracene	ND	0.00500	"							
Benzo (a) anthracene	ND	0.00500	"							
Benzo (a) pyrene	ND	0.00500	"							
Benzo (b) fluoranthene	ND	0.00500	"							
Benzo (k) fluoranthene	ND	0.00500	"							
Chrysene	ND	0.00500	"							
Dibenz (a,h) anthracene	ND	0.00500	"							
Fluoranthene	ND	0.00500	"							
Fluorene	ND	0.00500	"							
Indeno (1,2,3-cd) pyrene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
1-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
<i>Surrogate: 2-Methylnaphthalene-d10</i>	0.0285		"	0.0333		85.4	40-150			
<i>Surrogate: Fluoranthene-d10</i>	0.0293		"	0.0333		87.9	40-150			

LCS (BFB0154-BS1)

Prepared & Analyzed: 02/15/22

Acenaphthene	0.0304	0.00500	mg/kg	0.0333		91.2	31-137			
Anthracene	0.0281	0.00500	"	0.0333		84.3	30-120			
Benzo (a) anthracene	0.0280	0.00500	"	0.0333		83.9	30-120			
Benzo (a) pyrene	0.0263	0.00500	"	0.0333		79.0	30-120			
Benzo (b) fluoranthene	0.0274	0.00500	"	0.0333		82.2	30-120			
Benzo (k) fluoranthene	0.0286	0.00500	"	0.0333		85.8	30-120			
Chrysene	0.0309	0.00500	"	0.0333		92.6	30-120			
Dibenz (a,h) anthracene	0.0239	0.00500	"	0.0333		71.7	30-120			
Fluoranthene	0.0275	0.00500	"	0.0333		82.5	30-120			
Fluorene	0.0289	0.00500	"	0.0333		86.7	30-120			
Indeno (1,2,3-cd) pyrene	0.0138	0.00500	"	0.0333		41.4	30-120			
Pyrene	0.0309	0.00500	"	0.0333		92.6	35-142			
1-Methylnaphthalene	0.0275	0.00500	"	0.0333		82.5	35-142			
2-Methylnaphthalene	0.0323	0.00500	"	0.0333		96.8	35-142			
<i>Surrogate: 2-Methylnaphthalene-d10</i>	0.0278		"	0.0333		83.3	40-150			
<i>Surrogate: Fluoranthene-d10</i>	0.0256		"	0.0333		76.8	40-150			

Summit Scientific

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.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bauer 5 Wellhead

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
05/02/22 12:04

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source	%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch BFB0154 - EPA 5030 Soil MS

Matrix Spike (BFB0154-MS1)	Source: 2202138-02			Prepared & Analyzed: 02/15/22								
Acenaphthene	0.0298	0.00500	mg/kg	0.0333	ND	89.4	31-137					
Anthracene	0.0285	0.00500	"	0.0333	ND	85.4	30-120					
Benzo (a) anthracene	0.0339	0.00500	"	0.0333	ND	102	30-120					
Benzo (a) pyrene	0.0266	0.00500	"	0.0333	ND	79.8	30-120					
Benzo (b) fluoranthene	0.0268	0.00500	"	0.0333	ND	80.4	30-120					
Benzo (k) fluoranthene	0.0250	0.00500	"	0.0333	ND	75.0	30-120					
Chrysene	0.0314	0.00500	"	0.0333	ND	94.1	30-120					
Dibenz (a,h) anthracene	0.0255	0.00500	"	0.0333	ND	76.6	30-120					
Fluoranthene	0.0297	0.00500	"	0.0333	ND	89.2	30-120					
Fluorene	0.0330	0.00500	"	0.0333	ND	99.1	30-120					
Indeno (1,2,3-cd) pyrene	0.0166	0.00500	"	0.0333	ND	49.7	30-120					
Pyrene	0.0330	0.00500	"	0.0333	ND	99.0	35-142					
1-Methylnaphthalene	0.0465	0.00500	"	0.0333	0.0207	77.6	15-130					
2-Methylnaphthalene	0.0838	0.00500	"	0.0333	0.0521	95.0	15-130					
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0287</i>		<i>"</i>	<i>0.0333</i>		<i>86.2</i>	<i>40-150</i>					
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0301</i>		<i>"</i>	<i>0.0333</i>		<i>90.2</i>	<i>40-150</i>					

Matrix Spike Dup (BFB0154-MSD1)	Source: 2202138-02			Prepared & Analyzed: 02/15/22								
Acenaphthene	0.0268	0.00500	mg/kg	0.0333	ND	80.4	31-137	10.6	30			
Anthracene	0.0255	0.00500	"	0.0333	ND	76.6	30-120	10.9	30			
Benzo (a) anthracene	0.0302	0.00500	"	0.0333	ND	90.6	30-120	11.6	30			
Benzo (a) pyrene	0.0242	0.00500	"	0.0333	ND	72.6	30-120	9.45	30			
Benzo (b) fluoranthene	0.0240	0.00500	"	0.0333	ND	71.9	30-120	11.1	30			
Benzo (k) fluoranthene	0.0216	0.00500	"	0.0333	ND	64.7	30-120	14.8	30			
Chrysene	0.0269	0.00500	"	0.0333	ND	80.8	30-120	15.2	30			
Dibenz (a,h) anthracene	0.0220	0.00500	"	0.0333	ND	65.9	30-120	15.1	30			
Fluoranthene	0.0271	0.00500	"	0.0333	ND	81.2	30-120	9.36	30			
Fluorene	0.0279	0.00500	"	0.0333	ND	83.8	30-120	16.8	30			
Indeno (1,2,3-cd) pyrene	0.0155	0.00500	"	0.0333	ND	46.4	30-120	6.76	30			
Pyrene	0.0285	0.00500	"	0.0333	ND	85.5	35-142	14.6	30			
1-Methylnaphthalene	0.0500	0.00500	"	0.0333	0.0207	88.0	15-130	7.20	50			
2-Methylnaphthalene	0.0918	0.00500	"	0.0333	0.0521	119	15-130	9.11	50			
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0250</i>		<i>"</i>	<i>0.0333</i>		<i>75.0</i>	<i>40-150</i>					
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0272</i>		<i>"</i>	<i>0.0333</i>		<i>81.6</i>	<i>40-150</i>					

Summit Scientific

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PDC Energy
 1775 Sherman St. STE. 3000
 Denver CO, 80203

Project: Bauer 5 Wellhead

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
 05/02/22 12:04

Soluble Nutrients by EPA 6020/USDA60 6(2) - Saturated Paste Extraction - Quality Control

Summit Scientific

Analyte	Result	Reporting		Spike Level	Source Result	%REC		RPD		Notes
		Limit	Units			%REC	Limits	RPD	Limit	

Batch BFC0482 - General Preparation

Blank (BFC0482-BLK1)

Prepared: 03/22/22 Analyzed: 03/26/22

Calcium	ND	0.0500	mg/L wet							
Magnesium	ND	0.0500	"							
Sodium	ND	0.0500	"							

LCS (BFC0482-BS1)

Prepared: 03/22/22 Analyzed: 03/26/22

Calcium	5.95	0.0500	mg/L wet	5.00	119	70-130				
Magnesium	5.70	0.0500	"	5.00	114	70-130				
Sodium	5.53	0.0500	"	5.00	111	70-130				

Summit Scientific

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.



PDC Energy
 1775 Sherman St. STE. 3000
 Denver CO, 80203

Project: Bauer 5 Wellhead

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
 05/02/22 12:04

Physical Parameters by APHA/ASTM/EPA Methods - Quality Control

Summit Scientific

Analyte	Result	Reporting		Spike	Source	%REC			RPD	Notes
		Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch BFB0134 - General Preparation

Duplicate (BFB0134-DUP1)

Source: 2201162-02

Prepared & Analyzed: 02/14/22

% Solids	83.1		%		83.0			0.121	20	
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Summit Scientific

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PDC Energy
 1775 Sherman St. STE. 3000
 Denver CO, 80203

Project: Bauer 5 Wellhead

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
 05/02/22 12:04

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction - Quality Control

Summit Scientific

Analyte	Result	Reporting		Spike Level	Source		%REC		RPD		Notes
		Limit	Units		Result	%REC	Limits	RPD	Limit		

Batch BFC0485 - General Preparation

Blank (BFC0485-BLK1)

Prepared & Analyzed: 03/22/22

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BFC0485-BS1)

Prepared & Analyzed: 03/22/22

Specific Conductance (EC) 0.155 0.0100 mmhos/cm 0.150 103 95-105

Duplicate (BFC0485-DUP1)

Source: 2201361-01

Prepared & Analyzed: 03/22/22

Specific Conductance (EC) 2.60 0.0100 mmhos/cm 2.60 0.154 20

Summit Scientific

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.



PDC Energy
 1775 Sherman St. STE. 3000
 Denver CO, 80203

Project: Bauer 5 Wellhead

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
 05/02/22 12:04

Physical Parameters by APHA/ASTM/EPA Methods, Saturated Paste Extraction - Quality Control

Summit Scientific

Analyte	Result	Reporting		Spike	Source	%REC		RPD		Notes
		Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch BFC0486 - General Preparation

LCS (BFC0486-BS1)

Prepared & Analyzed: 03/22/22

pH	9.09		pH Units	9.18	99.0	95-105			
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Duplicate (BFC0486-DUP1)

Source: 2201361-01

Prepared & Analyzed: 03/22/22

pH	8.90		pH Units	8.92			0.224	20	
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Batch BFD0674 - General Preparation

LCS (BFD0674-BS1)

Prepared & Analyzed: 04/29/22

pH	9.03		pH Units	9.18	98.4	95-105			
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Duplicate (BFD0674-DUP1)

Source: 2202085-03

Prepared & Analyzed: 04/29/22

pH	10.0		pH Units	8.56			15.6	20	
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Summit Scientific

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.



PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Bauer 5 Wellhead

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
05/02/22 12:04

Notes and Definitions

I-02 This sample was analyzed outside of the recommended holding time.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference



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

Summit Scientific
Paul Shrewsbury
4653 Table Mountain Dr
Golden, CO 80403

RE: 2202141
Work Order Number: 2202337

March 22, 2022

Attention Paul Shrewsbury:

Fremont Analytical, Inc. received 2 sample(s) on 2/15/2022 for the analyses presented in the following report.

Total Metals by EPA Method 6020B

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

A handwritten signature in blue ink, appearing to read "Brianna Barnes".

Brianna Barnes
Project Manager

CC:
Muri Premer

*DoD-ELAP Accreditation #79636 by PJLA, ISO/IEC 17025:2017 and QSM 5.3 for Environmental Testing
ORELAP Certification: WA 100009 (NELAP Recognized) for Environmental Testing
Washington State Department of Ecology Accredited for Environmental Testing, Lab ID C910*

Original



Date: 03/22/2022

CLIENT: Summit Scientific
Project: 2202141
Work Order: 2202337

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2202337-001	WH01@6'	02/11/2022 9:00 AM	02/15/2022 4:43 PM
2202337-001	WH01@6'	02/11/2022 9:00 AM	02/15/2022 4:43 PM
2202337-002	FLR01@4'	02/11/2022 9:05 AM	02/15/2022 4:43 PM

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

CLIENT: Summit Scientific
Project: 2202141

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.

The following preparation methods were performed per client request:

Boron was prepared using Hot Water Soluble Method provided by client.

Conductivity, Sodium Adsorption Ratio, and pH were prepared using Saturated Paste Method provided by client.

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: Summit Scientific

Project: 2202141

Lab ID: 2202337-001

Client Sample ID: WH01@6'

Collection Date: 2/11/2022 9:00:00 AM

Matrix: Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Total Metals by EPA Method 6020B

Batch ID: 35535

Analyst: EH

Boron	0.0996	0.00971		mg/L	1	3/16/2022 1:24:49 PM
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Lab ID: 2202337-002

Client Sample ID: FLR01@4'

Collection Date: 2/11/2022 9:05:00 AM

Matrix: Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Total Metals by EPA Method 6020B

Batch ID: 35575

Analyst: EH

Boron	0.162	0.00987	B	mg/L	1	3/22/2022 8:48:51 AM
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Work Order: 2202337
 CLIENT: Summit Scientific
 Project: 2202141

QC SUMMARY REPORT
Total Metals by EPA Method 6020B

Sample ID: MB-35535	SampType: MBLK	Units: mg/L	Prep Date: 2/28/2022	RunNo: 74025							
Client ID: MBLKS	Batch ID: 35535		Analysis Date: 3/16/2022	SeqNo: 1517245							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Boron ND 0.0100

Sample ID: LCS-35535	SampType: LCS	Units: mg/L	Prep Date: 2/28/2022	RunNo: 74025							
Client ID: LCSS	Batch ID: 35535		Analysis Date: 3/16/2022	SeqNo: 1517246							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Boron 4.50 0.0100 5.000 0 90.1 80 120

Sample ID: 2202268-007BDUP	SampType: DUP	Units: mg/L	Prep Date: 2/28/2022	RunNo: 74025							
Client ID: BATCH	Batch ID: 35535		Analysis Date: 3/16/2022	SeqNo: 1517248							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Boron 0.0343 0.00986 0.03721 8.12 20

Sample ID: 2202268-007BMS	SampType: MS	Units: mg/L	Prep Date: 2/28/2022	RunNo: 74025							
Client ID: BATCH	Batch ID: 35535		Analysis Date: 3/16/2022	SeqNo: 1517249							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Boron 1.19 0.00978 4.892 0.03721 23.5 75 125 S

NOTES:

S - Outlying spike recovery(ies) observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

Sample ID: 2202268-007BMSD	SampType: MSD	Units: mg/L	Prep Date: 2/28/2022	RunNo: 74025							
Client ID: BATCH	Batch ID: 35535		Analysis Date: 3/16/2022	SeqNo: 1517250							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Boron 1.12 0.00978 4.888 0.03721 22.2 75 125 1.189 5.77 20 S

NOTES:

S - Outlying spike recovery(ies) observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

Work Order: 2202337
 CLIENT: Summit Scientific
 Project: 2202141

QC SUMMARY REPORT
Total Metals by EPA Method 6020B

Sample ID: MB-35575	SampType: MBLK	Units: mg/L	Prep Date: 3/3/2022	RunNo: 74174							
Client ID: MBLKS	Batch ID: 35575		Analysis Date: 3/22/2022	SeqNo: 1521196							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Boron 0.0293 0.0100

Sample ID: LCS-35575	SampType: LCS	Units: mg/L	Prep Date: 3/3/2022	RunNo: 74174							
Client ID: LCSS	Batch ID: 35575		Analysis Date: 3/22/2022	SeqNo: 1521197							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Boron 5.22 0.0100 5.000 0 104 80 120

Sample ID: 2202338-001BDUP	SampType: DUP	Units: mg/L	Prep Date: 3/3/2022	RunNo: 74174							
Client ID: BATCH	Batch ID: 35575		Analysis Date: 3/22/2022	SeqNo: 1521199							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Boron 0.0667 0.00990 0.06180 7.68 20 B

Sample ID: 2202338-001BMS	SampType: MS	Units: mg/L	Prep Date: 3/3/2022	RunNo: 74174							
Client ID: BATCH	Batch ID: 35575		Analysis Date: 3/22/2022	SeqNo: 1521200							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Boron 1.97 0.0100 5.000 0.06180 38.1 75 125 S

NOTES:

S - Outlying spike recovery(ies) observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

Sample ID: 2202338-001BMSD	SampType: MSD	Units: mg/L	Prep Date: 3/3/2022	RunNo: 74174							
Client ID: BATCH	Batch ID: 35575		Analysis Date: 3/22/2022	SeqNo: 1521201							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Boron 2.20 0.00991 4.955 0.06180 43.1 75 125 1.967 11.1 20 S

NOTES:

S - Outlying spike recovery(ies) observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

Client Name: **SUMSCI**

 Work Order Number: **2202337**

 Logged by: **Gabrielle Coeuille**

 Date Received: **2/15/2022 4:43:00 PM**
Chain of Custody

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

Log In

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

Special Handling (if applicable)

18. Was client notified of all discrepancies with this order? Yes No NA

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

19. Additional remarks:

Item Information

Item #	Temp °C
Sample 1	13.9

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



Fremont
Analytical

3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: 2-14-22 Page: 1 of 1 Laboratory Project No (Internal): 2002257

Project Name: 2202141 Special Remarks:

Client: Summit Scientific
Address: 4653 Table Mountain Drive
City, State, Zip: Golden, CO. 80403
Telephone: 303-277-9310
Sample Disposal: Return to client Disposal by lab (after 30 days)

PM Email: mpremer@s2scientific.com, pshrewsbury@s2scientific.com

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	Comments
1 WHO106'	2-11-22	900	S	By Hot Water Soluble SAD ELUPH by Saturated Paste
2 FLR01C4'	2-11-22	905	S	
3				
4				
5				
6				
7				
8				
9				
10				

Turn-around Time:
 Standard
 3 Day
 2 Day
 Next Day
 Same Day (specify) _____

Individual:
 Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished: _____ Date/Time: 2-14-22 1000
 Received: *Ally Steed* 2/15/22 16:43
 Relinquished: _____ Date/Time: _____
 Received: _____ Date/Time: _____



Fremont
Analytical

3600 Fremont Ave N.
Seattle, WA 98103
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Chain of Custody Record & Laboratory Services Agreement

Date: 2-14-22 Page: 1 of 1 Laboratory Project No (Internal): 2002257

Project Name: 2202141 Special Remarks:

Client: Summit Scientific

Address: 4653 Table Mountain Drive

City, State, Zip: Golden, CO. 80403

Telephone: 303-277-9310

Fax:

Report To (PM):

PM Email: mpremer@s2scientific.com, pshrewsbury@s2scientific.com

Sample Disposal: Return to client Disposal by lab (after 30 days)

Turn-around Time:

Standard 3 Day 2 Day Next Day Same Day (specify)

Received Date/Time: 2/15/22 16:43

Relinquished Date/Time:

Received Date/Time:

Relinquished Date/Time:

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	Comments
1 WHO106'	2-11-22	900	S	By Hot Water Soluble
2 FLR01C4'	2-11-22	905	S	SAD ELUPH by Saturated Paste
3				
4				
5				
6				
7				
8				
9				
10				

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.