

# Summit Scientific

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4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

September 14, 2022

Levi Kirk

K.P. Kauffman

1675 Broadway

Denver, CO 80202

RE: Rodgers #1 Flowline

Work Order #2209028

Enclosed are the results of analyses for samples received by Summit Scientific on 09/01/22 15:45. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Mikayla Axtell For Paul Shrewsbury

President



K.P. Kauffman  
1675 Broadway  
Denver CO, 80202

Project: Rodgers #1 Flowline

Project Number: [none]  
Project Manager: Levi Kirk

**Reported:**  
09/14/22 11:47

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB-1@7.5'	2209028-01	Soil	09/01/22 10:30	09/01/22 15:45
SB-1@15'	2209028-02	Soil	09/01/22 10:40	09/01/22 15:45
SB-2@10'	2209028-03	Soil	09/01/22 10:55	09/01/22 15:45
SB-2@15'	2209028-04	Soil	09/01/22 11:00	09/01/22 15:45
SB-3@7.5'	2209028-05	Soil	09/01/22 09:10	09/01/22 15:45
SB-3@15'	2209028-06	Soil	09/01/22 09:20	09/01/22 15:45
SB-5@7.5'	2209028-07	Soil	09/01/22 09:40	09/01/22 15:45
SB-5@15'	2209028-08	Soil	09/01/22 09:55	09/01/22 15:45

Summit Scientific

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# Summit Scientific

2209028

4653 Table Mountain Drive ♦ Golden, Colorado 80403  
303-277-9310

Page 1 of 1

Client: K.P. Kaufman Company, Inc.

Project Manager: LEV: Kirk

Address: 1675 Broadway

E-Mail: Primary Contractor @ MarCom

City/State/Zip: Denver, CO 80202

Phone: 303-825-4822

Project Name: Hodges #1 Flowline

Sampler Name: HC

Project Number:

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested						Special Instructions	
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	EWI Table							
1	SB-1 @ 7.5'	1030	9-1-22	3			X			X				X						
2	SB-1 @ 15'	1040					X													
3	SB-2 @ 10'	1055					X													
4	SB-2 @ 15'	1100					X													
5	SB-3 @ 7.5'	0910					X													
6	SB-3 @ 15'	0920					X													
7	SB-5 @ 7.5'	0940					X													
8	SB-5 @ 15'	0955					X													
9																				
10																				

Relinquished by: <u>[Signature]</u>	Date/Time: <u>9-1-22 1945</u>	Received by: <u>[Signature]</u>	Date/Time: <u>9-1-22 1545</u>	<b>Turn Around Time</b> (Check) Same Day <input type="checkbox"/> 72 hours 24 hours <input type="checkbox"/> Standard <input checked="" type="checkbox"/> 48 hours <input type="checkbox"/>	<b>Notes:</b>
Relinquished by:	Date/Time:	Received by:	Date/Time:		
Temperature Upon Receipt: <u>5.7</u>	Corrected Temperature: <u>0</u>	HNO3 lot #		<b>Sample Integrity:</b> Samples Intact: <input checked="" type="radio"/> Yes <input type="radio"/> No	
IR gun correction: <u>0</u>	IR gun #:				

S<sub>2</sub>

Sample Receipt Checklist

S2 Work Order# 2209028

Client: KPK Client Project ID: Rodgers #1 Flowline

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

Grid of boxes for shipping details: [ ] - [ ] [ ] [ ] [ ]

Matrix (Check all that apply) Air  Soil/Solid  Water  Other

Temp (°C) 5.7 Thermometer # 1

	Yes	No	N/A	Comments (if any)
If samples require cooling, is the temperature < 6 °C ? <b>NOTE:</b> If samples are delivered the same day of sampling, this requirement is met if there is evidence that cooling has begun.	-			
If custody seals are present, are they intact (1)?	-			ONTAE
Are samples due within 48 hours present?		-		
Are water samples with short hold times present? Note the short hold analysis in the comments column - pH, Nitrate/Nitrite, Ferrous Iron (Fe <sup>2+</sup> ), Hexavalent Chromium (Cr <sup>6+</sup> , Cr VI), COD/BOD, Total Coliform, E. Coli, Total Residual Chlorine (TRC), Dissolved Oxygen			-	
Is a chain-of-custody (COC) form present and filled out completely (1)?	-			
Is the COC properly relinquished by the client w/ date and time recorded (1)?	-			
Were all samples received intact (1)?	-			
Was adequate sample volume provided (1)?	-			
Does the COC agree with the number and type of sample bottles received (1)?	-			
Do the sample IDs on the bottle labels match the COC (1)?	-			
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.			-	
Are samples preserved that require preservation (excluding cooling) (1)? Note the type of preservative in the comments column – HCl, H <sub>2</sub> SO <sub>4</sub> , NaOH, HNO <sub>3</sub> , etc.			-	
If samples are acid preserved for metals, is the pH ≤ 2(1)? Record the pH in Comments.			-	
If dissolved metals are requested, were samples field filtered?			-	

Additional Comments (if any):

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

QJ

Custodian Printed Name

9-1-22  
Date/Time

18:30



K.P. Kauffman  
1675 Broadway  
Denver CO, 80202

Project: Rodgers #1 Flowline

Project Number: [none]  
Project Manager: Levi Kirk

**Reported:**  
09/14/22 11:47

**SB-1@7.5'**  
**2209028-01 (Soil)**

Summit Scientific

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **09/01/22 10:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BF10097	09/06/22	09/06/22	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: **09/01/22 10:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		127 %		50-150		"	"	"	"	
Surrogate: Toluene-d8		102 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.2 %		50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **09/01/22 10:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BF10099	09/06/22	09/07/22	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **09/01/22 10:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl		108 %		30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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1675 Broadway  
Denver CO, 80202

Project: Rodgers #1 Flowline

Project Number: [none]  
Project Manager: Levi Kirk

**Reported:**  
09/14/22 11:47

**SB-1@7.5'**  
**2209028-01 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **09/01/22 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BF10126	09/07/22	09/08/22	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: **09/01/22 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		48.3 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		64.7 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **09/01/22 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.598</b>	0.0100	mg/L	1	BF10160	09/07/22	09/09/22	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **09/01/22 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Summit Scientific

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1675 Broadway  
Denver CO, 80202

Project: Rodgers #1 Flowline

Project Number: [none]  
Project Manager: Levi Kirk

**Reported:**  
09/14/22 11:47

**SB-1@7.5'**  
**2209028-01 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	3.42	0.223	mg/kg dry	1	BFI0213	09/09/22	09/09/22	EPA 6020B	
Barium	30.6	0.446	"	"	"	"	"	"	
Cadmium	ND	0.223	"	"	"	"	"	"	
Copper	4.92	0.446	"	"	"	"	"	"	
Lead	4.82	0.223	"	"	"	"	"	"	
Nickel	7.73	0.446	"	"	"	"	"	"	
Selenium	0.557	0.290	"	"	"	"	"	"	
Silver	ND	0.0223	"	"	"	"	"	"	
Zinc	32.6	0.446	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **09/01/22 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BFI0211	09/09/22	09/09/22	EPA 7196A	

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

Date Sampled: **09/01/22 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	10.3	0.0558	mg/L dry	1	BFI0079	09/05/22	09/07/22	EPA 6020B	
Magnesium	4.45	0.0558	"	"	"	"	"	"	
Sodium	47.5	0.0558	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **09/01/22 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	3.11	0.00100	units	1	BFI0177	09/08/22	09/08/22	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

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Denver CO, 80202

Project: Rodgers #1 Flowline

Project Number: [none]  
Project Manager: Levi Kirk

**Reported:**  
09/14/22 11:47

**SB-1@7.5'**  
**2209028-01 (Soil)**

**Summit Scientific**

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **09/01/22 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	89.6		%	1	BF10136	09/07/22	09/07/22	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **09/01/22 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.261	0.0100	mmhos/cm	1	BF10109	09/06/22	09/06/22	EPA 120.1	

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

Date Sampled: **09/01/22 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.98		pH Units	1	BF10106	09/06/22	09/06/22	EPA 9045D	

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1675 Broadway  
Denver CO, 80202

Project: Rodgers #1 Flowline

Project Number: [none]  
Project Manager: Levi Kirk

**Reported:**  
09/14/22 11:47

**SB-1@15'**  
**2209028-02 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **09/01/22 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFI0097	09/06/22	09/06/22	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: **09/01/22 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		136 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		102 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.3 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **09/01/22 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BFI0099	09/06/22	09/07/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **09/01/22 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		113 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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Denver CO, 80202

Project: Rodgers #1 Flowline

Project Number: [none]  
Project Manager: Levi Kirk

**Reported:**  
09/14/22 11:47

**SB-1@15'**  
**2209028-02 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **09/01/22 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BF10126	09/07/22	09/09/22	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: **09/01/22 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		49.9 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		71.9 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **09/01/22 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.420</b>	0.0100	mg/L	1	BF10160	09/07/22	09/09/22	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **09/01/22 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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1675 Broadway  
Denver CO, 80202

Project: Rodgers #1 Flowline

Project Number: [none]  
Project Manager: Levi Kirk

**Reported:**  
09/14/22 11:47

**SB-1@15'**  
**2209028-02 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	4.08	0.227	mg/kg dry	1	BFI0213	09/09/22	09/09/22	EPA 6020B	
Barium	17.8	0.454	"	"	"	"	"	"	
Cadmium	ND	0.227	"	"	"	"	"	"	
Copper	7.68	0.454	"	"	"	"	"	"	
Lead	7.00	0.227	"	"	"	"	"	"	
Nickel	9.16	0.454	"	"	"	"	"	"	
Selenium	0.778	0.295	"	"	"	"	"	"	
Silver	ND	0.0227	"	"	"	"	"	"	
Zinc	44.4	0.454	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **09/01/22 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BFI0211	09/09/22	09/09/22	EPA 7196A	

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

Date Sampled: **09/01/22 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	126	0.0567	mg/L dry	1	BFI0079	09/05/22	09/07/22	EPA 6020B	
Magnesium	64.9	0.0567	"	"	"	"	"	"	
Sodium	235	0.0567	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **09/01/22 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	4.24	0.00100	units	1	BFI0177	09/08/22	09/08/22	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

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K.P. Kauffman  
1675 Broadway  
Denver CO, 80202

Project: Rodgers #1 Flowline

Project Number: [none]  
Project Manager: Levi Kirk

**Reported:**  
09/14/22 11:47

**SB-1@15'**  
**2209028-02 (Soil)**

**Summit Scientific**

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **09/01/22 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	88.1		%	1	BFI0136	09/07/22	09/07/22	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **09/01/22 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	2.34	0.0100	mmhos/cm	1	BFI0109	09/06/22	09/06/22	EPA 120.1	

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

Date Sampled: **09/01/22 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.80		pH Units	1	BFI0106	09/06/22	09/06/22	EPA 9045D	

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K.P. Kauffman  
1675 Broadway  
Denver CO, 80202

Project: Rodgers #1 Flowline

Project Number: [none]  
Project Manager: Levi Kirk

**Reported:**  
09/14/22 11:47

**SB-2@10'**  
**2209028-03 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **09/01/22 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFI0097	09/06/22	09/06/22	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: **09/01/22 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		124 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		104 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.4 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **09/01/22 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BFI0099	09/06/22	09/07/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **09/01/22 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		116 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

Summit Scientific

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K.P. Kauffman  
1675 Broadway  
Denver CO, 80202

Project: Rodgers #1 Flowline

Project Number: [none]  
Project Manager: Levi Kirk

**Reported:**  
09/14/22 11:47

**SB-2@10'**  
**2209028-03 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **09/01/22 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BF10126	09/07/22	09/09/22	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: **09/01/22 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		50.6 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		66.9 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **09/01/22 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.780</b>	0.0100	mg/L	1	BF10160	09/07/22	09/09/22	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **09/01/22 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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K.P. Kauffman  
1675 Broadway  
Denver CO, 80202

Project: Rodgers #1 Flowline

Project Number: [none]  
Project Manager: Levi Kirk

**Reported:**  
09/14/22 11:47

**SB-2@10'**  
**2209028-03 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	3.82	0.225	mg/kg dry	1	BFI0213	09/09/22	09/09/22	EPA 6020B	
Barium	43.0	0.450	"	"	"	"	"	"	
Cadmium	ND	0.225	"	"	"	"	"	"	
Copper	6.84	0.450	"	"	"	"	"	"	
Lead	6.00	0.225	"	"	"	"	"	"	
Nickel	7.33	0.450	"	"	"	"	"	"	
Selenium	0.591	0.293	"	"	"	"	"	"	
Silver	ND	0.0225	"	"	"	"	"	"	
Zinc	33.9	0.450	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **09/01/22 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BFI0211	09/09/22	09/09/22	EPA 7196A	

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

Date Sampled: **09/01/22 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	473	0.0563	mg/L dry	1	BFI0079	09/05/22	09/07/22	EPA 6020B	
Magnesium	300	0.0563	"	"	"	"	"	"	
Sodium	410	0.0563	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **09/01/22 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	3.63	0.00100	units	1	BFI0177	09/08/22	09/08/22	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

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K.P. Kauffman  
1675 Broadway  
Denver CO, 80202

Project: Rodgers #1 Flowline

Project Number: [none]  
Project Manager: Levi Kirk

**Reported:**  
09/14/22 11:47

**SB-2@10'**  
**2209028-03 (Soil)**

**Summit Scientific**

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **09/01/22 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	88.8		%	1	BFI0136	09/07/22	09/07/22	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **09/01/22 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	6.55	0.0100	mmhos/cm	1	BFI0109	09/06/22	09/06/22	EPA 120.1	

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

Date Sampled: **09/01/22 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.66		pH Units	1	BFI0106	09/06/22	09/06/22	EPA 9045D	

Summit Scientific

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K.P. Kauffman  
1675 Broadway  
Denver CO, 80202

Project: Rodgers #1 Flowline

Project Number: [none]  
Project Manager: Levi Kirk

**Reported:**  
09/14/22 11:47

**SB-2@15'**  
**2209028-04 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **09/01/22 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFI0097	09/06/22	09/06/22	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: **09/01/22 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		129 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		98.8 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.8 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **09/01/22 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BFI0099	09/06/22	09/07/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **09/01/22 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		117 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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K.P. Kauffman  
1675 Broadway  
Denver CO, 80202

Project: Rodgers #1 Flowline

Project Number: [none]  
Project Manager: Levi Kirk

**Reported:**  
09/14/22 11:47

**SB-2@15'**  
**2209028-04 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **09/01/22 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BF10126	09/07/22	09/09/22	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: **09/01/22 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		49.4 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		71.2 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **09/01/22 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.725</b>	0.0100	mg/L	1	BF10160	09/07/22	09/09/22	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **09/01/22 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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K.P. Kauffman  
1675 Broadway  
Denver CO, 80202

Project: Rodgers #1 Flowline

Project Number: [none]  
Project Manager: Levi Kirk

**Reported:**  
09/14/22 11:47

**SB-2@15'**  
**2209028-04 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	6.31	0.228	mg/kg dry	1	BF10213	09/09/22	09/09/22	EPA 6020B	
Barium	18.1	0.457	"	"	"	"	"	"	
Cadmium	ND	0.228	"	"	"	"	"	"	
Copper	12.2	0.457	"	"	"	"	"	"	
Lead	8.83	0.228	"	"	"	"	"	"	
Nickel	10.4	0.457	"	"	"	"	"	"	
Selenium	0.893	0.297	"	"	"	"	"	"	
Silver	0.0337	0.0228	"	"	"	"	"	"	
Zinc	53.9	0.457	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: 09/01/22 11:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BF10211	09/09/22	09/09/22	EPA 7196A	

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

Date Sampled: 09/01/22 11:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	464	0.0571	mg/L dry	1	BF10079	09/05/22	09/07/22	EPA 6020B	
Magnesium	221	0.0571	"	"	"	"	"	"	
Sodium	357	0.0571	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: 09/01/22 11:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	3.42	0.00100	units	1	BF10177	09/08/22	09/08/22	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: 09/01/22 11:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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K.P. Kauffman  
1675 Broadway  
Denver CO, 80202

Project: Rodgers #1 Flowline

Project Number: [none]  
Project Manager: Levi Kirk

**Reported:**  
09/14/22 11:47

**SB-2@15'**  
**2209028-04 (Soil)**

**Summit Scientific**

**Physical Parameters by APHA/ASTM/EPA Methods**

% Solids	87.6	%	1	BFI0136	09/07/22	09/07/22	Calculation
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**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **09/01/22 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	5.64	0.0100	mmhos/cm	1	BFI0109	09/06/22	09/06/22	EPA 120.1	

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

Date Sampled: **09/01/22 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.65		pH Units	1	BFI0106	09/06/22	09/06/22	EPA 9045D	

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K.P. Kauffman  
1675 Broadway  
Denver CO, 80202

Project: Rodgers #1 Flowline

Project Number: [none]  
Project Manager: Levi Kirk

**Reported:**  
09/14/22 11:47

**SB-3@7.5'**  
**2209028-05 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **09/01/22 09:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFI0097	09/06/22	09/06/22	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: **09/01/22 09:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		128 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		102 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		103 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **09/01/22 09:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BFI0099	09/06/22	09/07/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **09/01/22 09:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		136 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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1675 Broadway  
Denver CO, 80202

Project: Rodgers #1 Flowline

Project Number: [none]  
Project Manager: Levi Kirk

**Reported:**  
09/14/22 11:47

**SB-3@7.5'**  
**2209028-05 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **09/01/22 09:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BF10126	09/07/22	09/09/22	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: **09/01/22 09:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		52.0 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		71.3 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **09/01/22 09:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.605</b>	0.0100	mg/L	1	BF10160	09/07/22	09/09/22	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **09/01/22 09:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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K.P. Kauffman  
1675 Broadway  
Denver CO, 80202

Project: Rodgers #1 Flowline

Project Number: [none]  
Project Manager: Levi Kirk

**Reported:**  
09/14/22 11:47

**SB-3@7.5'**  
**2209028-05 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	3.64	0.216	mg/kg dry	1	BF10213	09/09/22	09/09/22	EPA 6020B	
Barium	96.1	0.432	"	"	"	"	"	"	
Cadmium	ND	0.216	"	"	"	"	"	"	
Copper	8.15	0.432	"	"	"	"	"	"	
Lead	6.07	0.216	"	"	"	"	"	"	
Nickel	7.96	0.432	"	"	"	"	"	"	
Selenium	0.626	0.281	"	"	"	"	"	"	
Silver	0.0248	0.0216	"	"	"	"	"	"	
Zinc	36.3	0.432	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **09/01/22 09:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BF10211	09/09/22	09/09/22	EPA 7196A	

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

Date Sampled: **09/01/22 09:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	69.9	0.0540	mg/L dry	1	BF10079	09/05/22	09/07/22	EPA 6020B	
Magnesium	63.9	0.0540	"	"	"	"	"	"	
Sodium	110	0.0540	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **09/01/22 09:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	2.29	0.00100	units	1	BF10177	09/08/22	09/08/22	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **09/01/22 09:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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K.P. Kauffman  
 1675 Broadway  
 Denver CO, 80202

Project: Rodgers #1 Flowline

Project Number: [none]  
 Project Manager: Levi Kirk

**Reported:**  
 09/14/22 11:47

**SB-3@7.5'**  
**2209028-05 (Soil)**

**Summit Scientific**

**Physical Parameters by APHA/ASTM/EPA Methods**

<b>% Solids</b>	<b>92.7</b>	%	1	BFI0136	09/07/22	09/07/22	Calculation
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**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **09/01/22 09:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Specific Conductance (EC)</b>	<b>1.39</b>	0.0100	mmhos/cm	1	BFI0109	09/06/22	09/06/22	EPA 120.1	

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

Date Sampled: **09/01/22 09:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>pH</b>	<b>7.88</b>		pH Units	1	BFI0106	09/06/22	09/06/22	EPA 9045D	

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K.P. Kauffman  
1675 Broadway  
Denver CO, 80202

Project: Rodgers #1 Flowline

Project Number: [none]  
Project Manager: Levi Kirk

**Reported:**  
09/14/22 11:47

**SB-3@15'**  
**2209028-06 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **09/01/22 09:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFI0097	09/06/22	09/06/22	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: **09/01/22 09:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		127 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		101 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.2 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **09/01/22 09:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BFI0099	09/06/22	09/07/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **09/01/22 09:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		117 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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K.P. Kauffman  
1675 Broadway  
Denver CO, 80202

Project: Rodgers #1 Flowline

Project Number: [none]  
Project Manager: Levi Kirk

**Reported:**  
09/14/22 11:47

**SB-3@15'**  
**2209028-06 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **09/01/22 09:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BF10126	09/07/22	09/09/22	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: **09/01/22 09:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		54.0 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		83.9 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **09/01/22 09:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.810</b>	0.0100	mg/L	1	BF10160	09/07/22	09/09/22	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **09/01/22 09:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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K.P. Kauffman  
1675 Broadway  
Denver CO, 80202

Project: Rodgers #1 Flowline

Project Number: [none]  
Project Manager: Levi Kirk

**Reported:**  
09/14/22 11:47

**SB-3@15'**  
**2209028-06 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	4.90	0.226	mg/kg dry	1	BF10213	09/09/22	09/09/22	EPA 6020B	
Barium	23.9	0.451	"	"	"	"	"	"	
Cadmium	ND	0.226	"	"	"	"	"	"	
Copper	9.53	0.451	"	"	"	"	"	"	
Lead	6.79	0.226	"	"	"	"	"	"	
Nickel	9.96	0.451	"	"	"	"	"	"	
Selenium	0.605	0.293	"	"	"	"	"	"	
Silver	0.0256	0.0226	"	"	"	"	"	"	
Zinc	40.4	0.451	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **09/01/22 09:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BF10211	09/09/22	09/09/22	EPA 7196A	

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

Date Sampled: **09/01/22 09:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	293	0.0564	mg/L dry	1	BF10079	09/05/22	09/07/22	EPA 6020B	
Magnesium	178	0.0564	"	"	"	"	"	"	
Sodium	298	0.0564	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **09/01/22 09:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	3.39	0.00100	units	1	BF10177	09/08/22	09/08/22	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **09/01/22 09:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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K.P. Kauffman  
 1675 Broadway  
 Denver CO, 80202

Project: Rodgers #1 Flowline

Project Number: [none]  
 Project Manager: Levi Kirk

**Reported:**  
 09/14/22 11:47

**SB-3@15'**  
**2209028-06 (Soil)**

**Summit Scientific**

**Physical Parameters by APHA/ASTM/EPA Methods**

<b>% Solids</b>	<b>88.7</b>	%	1	BFI0136	09/07/22	09/07/22	Calculation
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**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **09/01/22 09:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Specific Conductance (EC)</b>	<b>4.54</b>	0.0100	mmhos/cm	1	BFI0109	09/06/22	09/06/22	EPA 120.1	

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

Date Sampled: **09/01/22 09:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>pH</b>	<b>7.75</b>		pH Units	1	BFI0106	09/06/22	09/06/22	EPA 9045D	

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K.P. Kauffman  
1675 Broadway  
Denver CO, 80202

Project: Rodgers #1 Flowline

Project Number: [none]  
Project Manager: Levi Kirk

**Reported:**  
09/14/22 11:47

**SB-5@7.5'**  
**2209028-07 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **09/01/22 09:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFI0097	09/06/22	09/06/22	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: **09/01/22 09:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		133 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		104 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.9 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **09/01/22 09:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BFI0099	09/06/22	09/07/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **09/01/22 09:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		144 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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K.P. Kauffman  
1675 Broadway  
Denver CO, 80202

Project: Rodgers #1 Flowline

Project Number: [none]  
Project Manager: Levi Kirk

**Reported:**  
09/14/22 11:47

**SB-5@7.5'**  
**2209028-07 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **09/01/22 09:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BF10126	09/07/22	09/09/22	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: **09/01/22 09:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		52.3 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		69.1 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **09/01/22 09:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.164</b>	0.0100	mg/L	1	BF10160	09/07/22	09/09/22	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **09/01/22 09:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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K.P. Kauffman  
1675 Broadway  
Denver CO, 80202

Project: Rodgers #1 Flowline

Project Number: [none]  
Project Manager: Levi Kirk

**Reported:**  
09/14/22 11:47

**SB-5@7.5'**  
**2209028-07 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	2.27	0.211	mg/kg dry	1	BF10213	09/09/22	09/09/22	EPA 6020B	
Barium	73.0	0.422	"	"	"	"	"	"	
Cadmium	ND	0.211	"	"	"	"	"	"	
Copper	7.38	0.422	"	"	"	"	"	"	
Lead	5.29	0.211	"	"	"	"	"	"	
Nickel	7.91	0.422	"	"	"	"	"	"	
Selenium	0.499	0.274	"	"	"	"	"	"	
Silver	0.0307	0.0211	"	"	"	"	"	"	
Zinc	27.8	0.422	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **09/01/22 09:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BF10211	09/09/22	09/09/22	EPA 7196A	

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

Date Sampled: **09/01/22 09:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	46.7	0.0527	mg/L dry	1	BF10079	09/05/22	09/07/22	EPA 6020B	
Magnesium	20.9	0.0527	"	"	"	"	"	"	
Sodium	26.1	0.0527	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **09/01/22 09:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.798	0.00100	units	1	BF10177	09/08/22	09/08/22	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **09/01/22 09:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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K.P. Kauffman  
 1675 Broadway  
 Denver CO, 80202

Project: Rodgers #1 Flowline

Project Number: [none]  
 Project Manager: Levi Kirk

**Reported:**  
 09/14/22 11:47

**SB-5@7.5'**  
**2209028-07 (Soil)**

**Summit Scientific**

**Physical Parameters by APHA/ASTM/EPA Methods**

<b>% Solids</b>	<b>94.8</b>	%	1	BFI0136	09/07/22	09/07/22	Calculation
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**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **09/01/22 09:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Specific Conductance (EC)</b>	<b>0.549</b>	0.0100	mmhos/cm	1	BFI0109	09/06/22	09/06/22	EPA 120.1	

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

Date Sampled: **09/01/22 09:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>pH</b>	<b>7.84</b>		pH Units	1	BFI0106	09/06/22	09/06/22	EPA 9045D	

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K.P. Kauffman  
1675 Broadway  
Denver CO, 80202

Project: Rodgers #1 Flowline

Project Number: [none]  
Project Manager: Levi Kirk

**Reported:**  
09/14/22 11:47

**SB-5@15'**  
**2209028-08 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **09/01/22 09:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFI0097	09/06/22	09/06/22	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: **09/01/22 09:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		124 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		103 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.3 %	50-150		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **09/01/22 09:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BFI0099	09/06/22	09/07/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **09/01/22 09:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		136 %	30-150		"	"	"	"	

**PAH by EPA Method 8270D SIM**

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K.P. Kauffman  
1675 Broadway  
Denver CO, 80202

Project: Rodgers #1 Flowline

Project Number: [none]  
Project Manager: Levi Kirk

**Reported:**  
09/14/22 11:47

**SB-5@15'**  
**2209028-08 (Soil)**

**Summit Scientific**

**PAH by EPA Method 8270D SIM**

Date Sampled: **09/01/22 09:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BF10126	09/07/22	09/09/22	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: **09/01/22 09:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		53.2 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		103 %	40-150		"	"	"	"	

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **09/01/22 09:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.682</b>	0.0100	mg/L	1	BF10160	09/07/22	09/09/22	EPA 6020B	

**Total Metals by EPA 6020B**

Date Sampled: **09/01/22 09:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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K.P. Kauffman  
1675 Broadway  
Denver CO, 80202

Project: Rodgers #1 Flowline

Project Number: [none]  
Project Manager: Levi Kirk

**Reported:**  
09/14/22 11:47

**SB-5@15'**  
**2209028-08 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	3.09	0.224	mg/kg dry	1	BFI0213	09/09/22	09/09/22	EPA 6020B	
Barium	33.1	0.449	"	"	"	"	"	"	
Cadmium	ND	0.224	"	"	"	"	"	"	
Copper	5.97	0.449	"	"	"	"	"	"	
Lead	5.20	0.224	"	"	"	"	"	"	
Nickel	6.79	0.449	"	"	"	"	"	"	
Selenium	0.511	0.292	"	"	"	"	"	"	
Silver	ND	0.0224	"	"	"	"	"	"	
Zinc	35.1	0.449	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **09/01/22 09:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BFI0211	09/09/22	09/09/22	EPA 7196A	

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

Date Sampled: **09/01/22 09:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	409	0.0561	mg/L dry	1	BFI0079	09/05/22	09/07/22	EPA 6020B	
Magnesium	149	0.0561	"	"	"	"	"	"	
Sodium	233	0.0561	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **09/01/22 09:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	2.51	0.00100	units	1	BFI0177	09/08/22	09/08/22	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

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K.P. Kauffman  
1675 Broadway  
Denver CO, 80202

Project: Rodgers #1 Flowline

Project Number: [none]  
Project Manager: Levi Kirk

**Reported:**  
09/14/22 11:47

**SB-5@15'**  
**2209028-08 (Soil)**

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**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **09/01/22 09:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	89.1			%	1	BFI0136	09/07/22	09/07/22	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **09/01/22 09:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	4.36	0.0100		mmhos/cm	1	BFI0109	09/06/22	09/06/22	EPA 120.1	

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

Date Sampled: **09/01/22 09:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	7.61			pH Units	1	BFI0106	09/06/22	09/06/22	EPA 9045D	

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K.P. Kauffman  
1675 Broadway  
Denver CO, 80202

Project: Rodgers #1 Flowline

Project Number: [none]  
Project Manager: Levi Kirk

**Reported:**  
09/14/22 11:47

### Volatile Organic Compounds by EPA Method 8260B - Quality Control

#### Summit Scientific

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

#### Batch BFI0097 - EPA 5030 Soil MS

##### Blank (BFI0097-BLK1)

Prepared & Analyzed: 09/06/22

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>	<i>0.0458</i>		<i>"</i>	<i>0.0400</i>		<i>114</i>		<i>50-150</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0391</i>		<i>"</i>	<i>0.0400</i>		<i>97.7</i>		<i>50-150</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0376</i>		<i>"</i>	<i>0.0400</i>		<i>94.0</i>		<i>50-150</i>			

##### LCS (BFI0097-BS1)

Prepared & Analyzed: 09/06/22

Benzene	0.0544	0.0020	mg/kg	0.0750		72.6		70-130			
Toluene	0.0530	0.0050	"	0.0750		70.6		70-130			
Ethylbenzene	0.0573	0.0050	"	0.0750		76.4		70-130			
m,p-Xylene	0.113	0.010	"	0.150		75.6		70-130			
o-Xylene	0.0544	0.0050	"	0.0750		72.5		70-130			
1,2,4-Trimethylbenzene	0.0566	0.0050	"	0.0750		75.4		70-130			
1,3,5-Trimethylbenzene	0.0533	0.0050	"	0.0750		71.1		70-130			
Naphthalene	0.0582	0.0038	"	0.0750		77.6		70-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0455</i>		<i>"</i>	<i>0.0400</i>		<i>114</i>		<i>50-150</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0407</i>		<i>"</i>	<i>0.0400</i>		<i>102</i>		<i>50-150</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0400</i>		<i>"</i>	<i>0.0400</i>		<i>100</i>		<i>50-150</i>			

##### Matrix Spike (BFI0097-MS1)

Source: 2209028-01

Prepared & Analyzed: 09/06/22

Benzene	0.0568	0.0020	mg/kg	0.0750	ND	75.8		70-130			
Toluene	0.0534	0.0050	"	0.0750	ND	71.2		70-130			
Ethylbenzene	0.0570	0.0050	"	0.0750	ND	76.0		70-130			
m,p-Xylene	0.113	0.010	"	0.150	ND	75.0		70-130			
o-Xylene	0.0543	0.0050	"	0.0750	ND	72.4		70-130			
1,2,4-Trimethylbenzene	0.0539	0.0050	"	0.0750	ND	71.9		70-130			
1,3,5-Trimethylbenzene	0.0539	0.0050	"	0.0750	ND	71.8		70-130			
Naphthalene	0.0664	0.0038	"	0.0750	ND	88.5		70-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0485</i>		<i>"</i>	<i>0.0400</i>		<i>121</i>		<i>50-150</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0414</i>		<i>"</i>	<i>0.0400</i>		<i>103</i>		<i>50-150</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0393</i>		<i>"</i>	<i>0.0400</i>		<i>98.2</i>		<i>50-150</i>			

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1675 Broadway  
Denver CO, 80202

Project: Rodgers #1 Flowline

Project Number: [none]  
Project Manager: Levi Kirk

**Reported:**  
09/14/22 11:47

**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 BFI0097 - EPA 5030 Soil MS**

<b>Matrix Spike Dup (BFI0097-MSD1)</b>	<b>Source: 2209028-01</b>			<b>Prepared &amp; Analyzed: 09/06/22</b>						
Benzene	0.0564	0.0020	mg/kg	0.0750	ND	75.2	70-130	0.742	30	
Toluene	0.0566	0.0050	"	0.0750	ND	75.4	70-130	5.79	30	
Ethylbenzene	0.0587	0.0050	"	0.0750	ND	78.3	70-130	3.01	30	
m,p-Xylene	0.113	0.010	"	0.150	ND	75.1	70-130	0.0799	30	
o-Xylene	0.0567	0.0050	"	0.0750	ND	75.6	70-130	4.27	30	
1,2,4-Trimethylbenzene	0.0532	0.0050	"	0.0750	ND	71.0	70-130	1.34	30	
1,3,5-Trimethylbenzene	0.0554	0.0050	"	0.0750	ND	73.9	70-130	2.85	30	
Naphthalene	0.0701	0.0038	"	0.0750	ND	93.5	70-130	5.49	30	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0516</i>		<i>"</i>	<i>0.0400</i>		<i>129</i>	<i>50-150</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0411</i>		<i>"</i>	<i>0.0400</i>		<i>103</i>	<i>50-150</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0398</i>		<i>"</i>	<i>0.0400</i>		<i>99.4</i>	<i>50-150</i>			

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K.P. Kauffman  
1675 Broadway  
Denver CO, 80202

Project: Rodgers #1 Flowline

Project Number: [none]  
Project Manager: Levi Kirk

**Reported:**  
09/14/22 11:47

**Extractable Petroleum Hydrocarbons by 8015 - Quality Control**  
**Summit Scientific**

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

**Batch BFI0099 - EPA 3550A**

**Blank (BFI0099-BLK1)**

Prepared & Analyzed: 09/06/22

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

**LCS (BFI0099-BS1)**

Prepared & Analyzed: 09/06/22

C10-C28 (DRO)	527	50	mg/kg	500	105	70-130				
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**Matrix Spike (BFI0099-MS1)**

Source: 2209028-01

Prepared: 09/06/22 Analyzed: 09/07/22

C10-C28 (DRO)	535	50	mg/kg	500	16.8	104	70-130			
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**Matrix Spike Dup (BFI0099-MSD1)**

Source: 2209028-01

Prepared: 09/06/22 Analyzed: 09/07/22

C10-C28 (DRO)	551	50	mg/kg	500	16.8	107	70-130	2.87	20	
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K.P. Kauffman  
1675 Broadway  
Denver CO, 80202

Project: Rodgers #1 Flowline

Project Number: [none]  
Project Manager: Levi Kirk

**Reported:**  
09/14/22 11:47

**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 BFI0126 - EPA 5030 Soil MS**

**Blank (BFI0126-BLK1)**

Prepared: 09/07/22 Analyzed: 09/08/22

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>	0.0263		"	0.0333		78.8	40-150			
<i>Surrogate: Fluoranthene-d10</i>	0.0368		"	0.0333		110	40-150			

**LCS (BFI0126-BS1)**

Prepared: 09/07/22 Analyzed: 09/08/22

Acenaphthene	0.0325	0.00500	mg/kg	0.0333		97.4	31-137			
Anthracene	0.0254	0.00500	"	0.0333		76.3	30-120			
Benzo (a) anthracene	0.0302	0.00500	"	0.0333		90.5	30-120			
Benzo (a) pyrene	0.0199	0.00500	"	0.0333		59.8	30-120			
Benzo (b) fluoranthene	0.0152	0.00500	"	0.0333		45.7	30-120			
Benzo (k) fluoranthene	0.0148	0.00500	"	0.0333		44.3	30-120			
Chrysene	0.0327	0.00500	"	0.0333		98.2	30-120			
Dibenz (a,h) anthracene	0.0153	0.00500	"	0.0333		45.8	30-120			
Fluoranthene	0.0321	0.00500	"	0.0333		96.2	30-120			
Fluorene	0.0318	0.00500	"	0.0333		95.3	30-120			
Indeno (1,2,3-cd) pyrene	0.0234	0.00500	"	0.0333		70.3	30-120			
Pyrene	0.0363	0.00500	"	0.0333		109	35-142			
1-Methylnaphthalene	0.0226	0.00500	"	0.0333		67.7	35-142			
2-Methylnaphthalene	0.0375	0.00500	"	0.0333		112	35-142			
<i>Surrogate: 2-Methylnaphthalene-d10</i>	0.0222		"	0.0333		66.5	40-150			
<i>Surrogate: Fluoranthene-d10</i>	0.0313		"	0.0333		94.0	40-150			

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K.P. Kauffman  
1675 Broadway  
Denver CO, 80202

Project: Rodgers #1 Flowline

Project Number: [none]  
Project Manager: Levi Kirk

Reported:  
09/14/22 11:47

PAH by EPA Method 8270D SIM - Quality Control

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

Batch BFI0126 - EPA 5030 Soil MS

Matrix Spike (BFI0126-MS1)	Source: 2209028-01			Prepared: 09/07/22 Analyzed: 09/08/22						
Acenaphthene	0.0182	0.00500	mg/kg	0.0333	ND	54.5	31-137			
Anthracene	0.0170	0.00500	"	0.0333	ND	51.0	30-120			
Benzo (a) anthracene	0.0181	0.00500	"	0.0333	ND	54.2	30-120			
Benzo (a) pyrene	0.0206	0.00500	"	0.0333	ND	61.7	30-120			
Benzo (b) fluoranthene	0.0170	0.00500	"	0.0333	ND	51.0	30-120			
Benzo (k) fluoranthene	0.0142	0.00500	"	0.0333	ND	42.6	30-120			
Chrysene	0.0162	0.00500	"	0.0333	ND	48.5	30-120			
Dibenz (a,h) anthracene	0.0138	0.00500	"	0.0333	ND	41.3	30-120			
Fluoranthene	0.0174	0.00500	"	0.0333	ND	52.1	30-120			
Fluorene	0.0153	0.00500	"	0.0333	ND	45.9	30-120			
Indeno (1,2,3-cd) pyrene	0.0136	0.00500	"	0.0333	ND	40.9	30-120			
Pyrene	0.0145	0.00500	"	0.0333	ND	43.6	35-142			
1-Methylnaphthalene	0.0157	0.00500	"	0.0333	ND	47.0	15-130			
2-Methylnaphthalene	0.0200	0.00500	"	0.0333	ND	60.1	15-130			
Surrogate: 2-Methylnaphthalene-d10	0.0158		"	0.0333		47.5	40-150			
Surrogate: Fluoranthene-d10	0.0183		"	0.0333		54.8	40-150			

Matrix Spike Dup (BFI0126-MSD1)	Source: 2209028-01			Prepared: 09/07/22 Analyzed: 09/08/22						
Acenaphthene	0.0186	0.00500	mg/kg	0.0333	ND	55.6	31-137	2.06	30	
Anthracene	0.0175	0.00500	"	0.0333	ND	52.4	30-120	2.68	30	
Benzo (a) anthracene	0.0191	0.00500	"	0.0333	ND	57.4	30-120	5.70	30	
Benzo (a) pyrene	0.0231	0.00500	"	0.0333	ND	69.2	30-120	11.5	30	
Benzo (b) fluoranthene	0.0198	0.00500	"	0.0333	ND	59.5	30-120	15.3	30	
Benzo (k) fluoranthene	0.0171	0.00500	"	0.0333	ND	51.2	30-120	18.4	30	
Chrysene	0.0170	0.00500	"	0.0333	ND	51.0	30-120	5.04	30	
Dibenz (a,h) anthracene	0.0149	0.00500	"	0.0333	ND	44.7	30-120	7.90	30	
Fluoranthene	0.0185	0.00500	"	0.0333	ND	55.6	30-120	6.43	30	
Fluorene	0.0160	0.00500	"	0.0333	ND	48.1	30-120	4.51	30	
Indeno (1,2,3-cd) pyrene	0.0142	0.00500	"	0.0333	ND	42.6	30-120	4.13	30	
Pyrene	0.0135	0.00500	"	0.0333	ND	40.6	35-142	7.09	30	
1-Methylnaphthalene	0.0159	0.00500	"	0.0333	ND	47.6	15-130	1.15	50	
2-Methylnaphthalene	0.0205	0.00500	"	0.0333	ND	61.5	15-130	2.32	50	
Surrogate: 2-Methylnaphthalene-d10	0.0166		"	0.0333		49.9	40-150			
Surrogate: Fluoranthene-d10	0.0194		"	0.0333		58.1	40-150			

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K.P. Kauffman  
1675 Broadway  
Denver CO, 80202

Project: Rodgers #1 Flowline

Project Number: [none]  
Project Manager: Levi Kirk

**Reported:**  
09/14/22 11:47

**Total Metals by EPA 6020B Hot Water Soluble Extraction - Quality Control**  
**Summit Scientific**

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

**Batch BFI0160 - EPA 3050B**

**Blank (BFI0160-BLK1)**

Prepared: 09/07/22 Analyzed: 09/09/22

Boron ND 0.0100 mg/L

**LCS (BFI0160-BS1)**

Prepared: 09/07/22 Analyzed: 09/09/22

Boron 5.26 0.0100 mg/L 5.00 105 80-120

**Duplicate (BFI0160-DUP1)**

Source: 2209027-01

Prepared: 09/07/22 Analyzed: 09/09/22

Boron 0.180 0.0100 mg/L 0.175 2.57 20

**Matrix Spike (BFI0160-MS1)**

Source: 2209027-01

Prepared: 09/07/22 Analyzed: 09/09/22

Boron 5.59 0.0100 mg/L 5.00 0.175 108 75-125

**Matrix Spike Dup (BFI0160-MSD1)**

Source: 2209027-01

Prepared: 09/07/22 Analyzed: 09/09/22

Boron 5.23 0.0100 mg/L 5.00 0.175 101 75-125 6.74 25

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K.P. Kauffman  
1675 Broadway  
Denver CO, 80202

Project: Rodgers #1 Flowline

Project Number: [none]  
Project Manager: Levi Kirk

**Reported:**  
09/14/22 11:47

**Total Metals by EPA 6020B - Quality Control**  
**Summit Scientific**

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

**Batch BFI0213 - EPA 3050B**

**Blank (BFI0213-BLK1)**

Prepared & Analyzed: 09/09/22

Arsenic	ND	0.200	mg/kg wet							
Barium	ND	0.400	"							
Cadmium	ND	0.200	"							
Copper	ND	0.400	"							
Lead	ND	0.200	"							
Nickel	ND	0.400	"							
Selenium	ND	0.260	"							
Silver	ND	0.0200	"							
Zinc	ND	0.400	"							

**LCS (BFI0213-BS1)**

Prepared & Analyzed: 09/09/22

Arsenic	35.5	0.200	mg/kg wet	40.0	88.8	80-120
Barium	34.0	0.400	"	40.0	85.1	80-120
Cadmium	1.87	0.200	"	2.00	93.3	80-120
Copper	34.4	0.400	"	40.0	86.1	80-120
Lead	16.3	0.200	"	20.0	81.5	80-120
Nickel	33.6	0.400	"	40.0	83.9	80-120
Selenium	3.36	0.260	"	4.00	84.1	80-120
Silver	1.84	0.0200	"	2.00	91.9	80-120
Zinc	32.3	0.400	"	40.0	80.7	80-120

**Duplicate (BFI0213-DUP1)**

Source: 2209028-01

Prepared & Analyzed: 09/09/22

Arsenic	4.14	0.223	mg/kg dry	3.42	19.1	20	
Barium	33.4	0.446	"	30.6	8.70	20	
Cadmium	0.0685	0.223	"	0.0427	46.5	20	QR-03
Copper	7.97	0.446	"	4.92	47.2	20	QR-03
Lead	5.55	0.223	"	4.82	14.0	20	
Nickel	12.9	0.446	"	7.73	50.1	20	QR-03
Selenium	0.660	0.290	"	0.557	17.0	20	
Silver	0.0338	0.0223	"	0.0195	53.5	20	QR-03
Zinc	51.1	0.446	"	32.6	44.2	20	QR-03

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K.P. Kauffman  
1675 Broadway  
Denver CO, 80202

Project: Rodgers #1 Flowline

Project Number: [none]  
Project Manager: Levi Kirk

**Reported:**  
09/14/22 11:47

**Total Metals by EPA 6020B - Quality Control**  
**Summit Scientific**

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

**Batch BFI0213 - EPA 3050B**

<b>Matrix Spike (BFI0213-MS1)</b>	<b>Source: 2209028-01</b>			<b>Prepared &amp; Analyzed: 09/09/22</b>								
Arsenic	43.6	0.223	mg/kg dry	44.6	3.42	90.1	75-125					
Barium	65.2	0.446	"	44.6	30.6	77.6	75-125					
Cadmium	2.18	0.223	"	2.23	0.0427	95.8	75-125					
Copper	39.8	0.446	"	44.6	4.92	78.3	75-125					
Lead	24.0	0.223	"	22.3	4.82	85.9	75-125					
Nickel	42.4	0.446	"	44.6	7.73	77.6	75-125					
Selenium	2.76	0.290	"	4.46	0.557	49.5	75-125					QM-05
Silver	2.05	0.0223	"	2.23	0.0195	91.1	75-125					
Zinc	69.6	0.446	"	44.6	32.6	83.0	75-125					

<b>Matrix Spike Dup (BFI0213-MSD1)</b>	<b>Source: 2209028-01</b>			<b>Prepared &amp; Analyzed: 09/09/22</b>								
Arsenic	36.1	0.223	mg/kg dry	44.6	3.42	73.1	75-125	19.0	25			QM-05
Barium	66.4	0.446	"	44.6	30.6	80.2	75-125	1.75	25			
Cadmium	1.79	0.223	"	2.23	0.0427	78.1	75-125	19.9	25			
Copper	41.0	0.446	"	44.6	4.92	80.9	75-125	2.88	25			
Lead	24.4	0.223	"	22.3	4.82	87.6	75-125	1.65	25			
Nickel	43.5	0.446	"	44.6	7.73	80.2	75-125	2.75	25			
Selenium	2.99	0.290	"	4.46	0.557	54.6	75-125	7.87	25			QM-05
Silver	2.12	0.0223	"	2.23	0.0195	94.2	75-125	3.32	25			
Zinc	71.7	0.446	"	44.6	32.6	87.6	75-125	2.93	25			

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Project Manager: Levi Kirk

**Reported:**  
09/14/22 11:47

**Hexavalent Chromium by EPA Method 7196 - Quality Control**  
**Summit Scientific**

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

**Batch BFI0211 - 3060A Mod**

**Blank (BFI0211-BLK1)**

Prepared & Analyzed: 09/09/22

Chromium, Hexavalent      ND      0.30    mg/kg wet

**LCS (BFI0211-BS1)**

Prepared & Analyzed: 09/09/22

Chromium, Hexavalent      25.8      0.30    mg/kg wet      25.0      103      80-120

**Duplicate (BFI0211-DUP1)**

**Source: 2209027-01**

Prepared & Analyzed: 09/09/22

Chromium, Hexavalent      ND      0.30    mg/kg dry      ND      20

**Matrix Spike (BFI0211-MS1)**

**Source: 2209027-01**

Prepared & Analyzed: 09/09/22

Chromium, Hexavalent      32.8      0.30    mg/kg dry      28.9      ND      114      75-125

**Matrix Spike Dup (BFI0211-MSD1)**

**Source: 2209027-01**

Prepared & Analyzed: 09/09/22

Chromium, Hexavalent      35.4      0.30    mg/kg dry      28.9      ND      123      75-125      7.61      20

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Project: Rodgers #1 Flowline

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 Project Manager: Levi Kirk

**Reported:**  
 09/14/22 11:47

**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 BFI0079 - General Preparation**

**Blank (BFI0079-BLK1)**

Prepared: 09/05/22 Analyzed: 09/07/22

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

**LCS (BFI0079-BS1)**

Prepared: 09/05/22 Analyzed: 09/07/22

Calcium	6.32	0.0500	mg/L wet	5.00		126	70-130			
Magnesium	5.28	0.0500	"	5.00		106	70-130			
Sodium	5.17	0.0500	"	5.00		103	70-130			

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Project: Rodgers #1 Flowline

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 Project Manager: Levi Kirk

**Reported:**  
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**Physical Parameters by APHA/ASTM/EPA Methods - Quality Control**

**Summit Scientific**

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

**Batch BFI0136 - General Preparation**

**Duplicate (BFI0136-DUP1)**

**Source: 2208347-01**

**Prepared & Analyzed: 09/07/22**

% Solids	96.6		%		96.1			0.538		20	
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K.P. Kauffman  
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Project: Rodgers #1 Flowline

Project Number: [none]  
 Project Manager: Levi Kirk

**Reported:**  
 09/14/22 11:47

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

**Summit Scientific**

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

**Batch BFI0109 - General Preparation**

**Blank (BFI0109-BLK1)**

Prepared & Analyzed: 09/06/22

Specific Conductance (EC) ND 0.0100 mmhos/cm

**LCS (BFI0109-BS1)**

Prepared & Analyzed: 09/06/22

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

**Duplicate (BFI0109-DUP1)**

Source: 2209028-01

Prepared & Analyzed: 09/06/22

Specific Conductance (EC) 0.243 0.0100 mmhos/cm 0.261 7.30 20

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K.P. Kauffman  
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Project: Rodgers #1 Flowline

Project Number: [none]  
 Project Manager: Levi Kirk

**Reported:**  
 09/14/22 11:47

**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 BFI0106 - General Preparation**

**LCS (BFI0106-BS1)**

Prepared & Analyzed: 09/06/22

pH	9.12		pH Units	9.18	99.3	95-105
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**Duplicate (BFI0106-DUP1)**

Source: 2209028-01

Prepared & Analyzed: 09/06/22

pH	8.11		pH Units	7.98	1.62	20
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K.P. Kauffman  
1675 Broadway  
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Project: Rodgers #1 Flowline

Project Number: [none]  
Project Manager: Levi Kirk

**Reported:**  
09/14/22 11:47

### Notes and Definitions

- QR-03 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
- QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The associated LCS and/or LCSD were within acceptance limits, therefore the data are considered valid.
- 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