

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

September 23, 2022

Kevin Tautkus

K.P. Kauffman

1675 Broadway

Denver, CO 80202

RE: Rocky Mountain Fuel Consolidation Line

Work Order #2209230

Enclosed are the results of analyses for samples received by Summit Scientific on 09/12/22 13:30. 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: Rocky Mountain Fuel Consolidation Line

Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SW-7@6'	2209230-01	Soil	09/12/22 10:40	09/12/22 13:30
SW-8@6'	2209230-02	Soil	09/12/22 10:42	09/12/22 13:30
SW-9@6'	2209230-03	Soil	09/12/22 10:44	09/12/22 13:30
SW-10@6'	2209230-04	Soil	09/12/22 10:46	09/12/22 13:30
SW-11@6'	2209230-05	Soil	09/12/22 10:48	09/12/22 13:30
SW-12@6'	2209230-06	Soil	09/12/22 10:50	09/12/22 13:30
SW-13@6'	2209230-07	Soil	09/12/22 10:52	09/12/22 13:30
SW-14@6'	2209230-08	Soil	09/12/22 10:54	09/12/22 13:30
SW-15@6'	2209230-09	Soil	09/12/22 10:56	09/12/22 13:30
SW-16@6'	2209230-10	Soil	09/12/22 10:58	09/12/22 13:30
BH-4@12'	2209230-11	Soil	09/12/22 11:00	09/12/22 13:30
BH-5@12'	2209230-12	Soil	09/12/22 11:02	09/12/22 13:30
BH-6@12'	2209230-13	Soil	09/12/22 11:04	09/12/22 13:30
BH-7@12'	2209230-14	Soil	09/12/22 11:06	09/12/22 13:30
BH-8@12'	2209230-15	Soil	09/12/22 11:08	09/12/22 13:30

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S₂

2209230.1

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303-277-9310

Page 1 of 2

Client: K.P. Kauffman

Project Manager: Kevin Tauler

Address: 1811 East Mulberry

E-Mail: primarilyc@mac.com

City/State/Zip: Fort Collins, Colorado

Phone: 303.825.4922

Project Name: Rocky Mountain Fuel Consolidation Line

Sampler Name: Chris P. Harrison

Project Number: Rocky Mountain Fuel Consolidation Line

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested								Special Instructions
					HCl	HNO ₃	None	Other	Water	Soil	Air-Canister #	Other	Full Table 913								
1	SW-7 @ 6'	9.12.22	1040	3			X			X			X								
2	SW-8 @ 6'		1042																		
3	SW-9 @ 6'		1044																		
4	SW-10 @ 6'		1046																		
5	SW-11 @ 6'		1048																		
6	SW-12 @ 6'		1050																		
7	SW-13 @ 6'		1052																		
8	SW-14 @ 6'		1054																		
9	SW-15 @ 6'		1056																		
10	SW-16 @ 6'		1058																		

Relinquished by: <u>Chris P. Harrison</u>	Date/Time: <u>1330 9.12.22</u>	Received by: <u>[Signature]</u>	Date/Time: <u>91222 1330</u>	Turn Around Time (Check)	Notes:
Relinquished by:	Date/Time:	Received by:	Date/Time:	Same Day <input type="checkbox"/> 72 hours <input type="checkbox"/>	
				24 hours <input type="checkbox"/> Standard <input checked="" type="checkbox"/>	
				48 hours <input type="checkbox"/>	
Temperature Upon Receipt: <u>11.4</u>	Corrected Temperature: <u>[Signature]</u>	HNO ₃ lot #	Sample Integrity:	Samples Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
IR gun correction: <u>[Signature]</u>	IR gun #: <u>1</u>				

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2209230.2

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

Page 2 of 2

Client: K.P. Kauffman

Project Manager: Kevin Faulkens

Address: 1811 East Mulberry St.

E-Mail: primarycontactor@mtscinc.net

City/State/Zip: Fort Collins Colorado

Phone: 303.828.4822

Project Name: Rocky Mountain Fuel Consolidation Line

Sampler Name: Chris P. Harrison L.

Project Number: Rocky Mountain Fuel Consolidation Line

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested								Special Instructions
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	Full Table 915								
1	BH-4 @ 12'	9.12.22	1100	3			X			X				X							
2	BH-5 @ 12'		1102																		
3	BH-6 @ 12'		1104																		
4	BH-7 @ 12'		1106																		
5	BH-8 @ 12'		1108																		
6																					
7																					
8																					
9																					
10																					

Relinquished by: <u>Chris P. Harrison</u>	Date/Time: 1330 <u>9.12.22</u>	Received by: <u>[Signature]</u>	Date/Time: <u>9.12.22 1330</u>	Turn Around Time (Check)	Notes:
Relinquished by:	Date/Time:	Received by:	Date/Time:	Same Day <input type="checkbox"/> 72 hours <input type="checkbox"/>	
				24 hours <input type="checkbox"/> Standard <input checked="" type="checkbox"/>	
				48 hours <input type="checkbox"/>	
Temperature Upon Receipt: <u>11.4</u>	Corrected Temperature <u>[Signature]</u>	HNO3 lot #	Sample Integrity:	Samples Intact: <u>Yes</u> No	
IR gun correction: <u>[Signature]</u>	IR gun #: <u>1</u>				

S₂

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S2 Work Order#

2209230

Sample Receipt Checklist

Client: KPK

Client Project ID:

Rocky Mountain Fuel
Consolidation Line

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

Airbill #:

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Matrix (Check all that apply)

Air

☐

Soil

Solid☐

Water

☐

Other

☐

Temp (°C)

11.4

Thermometer #

1

	Yes	No	N/A	Comments (if any)
If samples require cooling, is the temperature < 6°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"/>	
If custody seals are present, are they intact? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are samples due within 48 hours present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are water samples with short hold times present? Note the short hold analysis in the comments column - pH, Nitrate/Nitrite, Ferrous Iron (Fe ²⁺), Hexavalent Chromium (Cr ⁶⁺ , Cr VI), COD/BOD, Total Coliform, E. Coli, Total Residual Chlorine (TRC), Dissolved Oxygen	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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"/>	
Is the COC properly relinquished by the client w/ date and time recorded? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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"/>	
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, H ₂ SO ₄ , NaOH, HNO ₃ , 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.				

Custodian Printed Name

Date/Time

9.12.2219:00



K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Rocky Mountain Fuel Consolidation Line

Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

SW-7@6'
2209230-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/12/22 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.0032	0.0020	mg/kg	1	BF10338	09/14/22	09/14/22	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	0.0080	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **09/12/22 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		112 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		103 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		103 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **09/12/22 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BF10342	09/14/22	09/15/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **09/12/22 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		84.6 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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1675 Broadway
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Project: Rocky Mountain Fuel Consolidation Line

Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

SW-7@6'
2209230-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **09/12/22 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BF10361	09/15/22	09/15/22	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: **09/12/22 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		47.5 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		55.3 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **09/12/22 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.887	0.0100	mg/L	1	BF10457	09/19/22	09/20/22	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **09/12/22 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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1675 Broadway
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Project: Rocky Mountain Fuel Consolidation Line

Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

SW-7@6'
2209230-01 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	6.87	0.241	mg/kg dry	1	BF10501	09/20/22	09/21/22	EPA 6020B
Barium	142	0.483	"	"	"	"	"	"
Cadmium	0.327	0.241	"	"	"	"	"	"
Copper	16.3	0.483	"	"	"	"	"	"
Lead	12.7	0.241	"	"	"	"	"	"
Nickel	16.5	0.483	"	"	"	"	"	"
Selenium	1.45	0.314	"	"	"	"	"	"
Silver	0.0713	0.0241	"	"	"	"	"	"
Zinc	56.6	0.483	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **09/12/22 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BF10544	09/21/22	09/21/22	EPA 7196A	

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

Date Sampled: **09/12/22 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	219	0.0603	mg/L dry	1	BF10456	09/19/22	09/21/22	EPA 6020B	
Magnesium	171	0.0603	"	"	"	"	"	"	
Sodium	1750	0.0603	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **09/12/22 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	21.5	0.00100	units	1	BF10556	09/21/22	09/21/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **09/12/22 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SW-7@6'
2209230-01 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	82.9	%	1	BFI0405	09/16/22	09/16/22	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **09/12/22 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	5.98	0.0100	mmhos/cm	1	BFI0505	09/20/22	09/22/22	EPA 120.1	

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

Date Sampled: **09/12/22 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.68		pH Units	1	BFI0506	09/20/22	09/21/22	EPA 9045D	

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1675 Broadway
Denver CO, 80202

Project: Rocky Mountain Fuel Consolidation Line

Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

SW-8@6'
2209230-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/12/22 10:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BF10338	09/14/22	09/14/22	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: **09/12/22 10:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		117 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		103 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		105 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **09/12/22 10:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BF10342	09/14/22	09/15/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **09/12/22 10:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		92.2 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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Project: Rocky Mountain Fuel Consolidation Line

Project Number: [none]
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SW-8@6'
2209230-02 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **09/12/22 10:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BF10361	09/15/22	09/15/22	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: **09/12/22 10:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		50.7 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		69.6 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **09/12/22 10:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.184	0.0100	mg/L	1	BF10457	09/19/22	09/20/22	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **09/12/22 10:42**

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

Project: Rocky Mountain Fuel Consolidation Line

Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

SW-8@6'
2209230-02 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	5.12	0.223	mg/kg dry	1	BF10501	09/20/22	09/21/22	EPA 6020B
Barium	135	0.446	"	"	"	"	"	"
Cadmium	0.337	0.223	"	"	"	"	"	"
Copper	20.2	0.446	"	"	"	"	"	"
Lead	16.0	0.223	"	"	"	"	"	"
Nickel	15.0	0.446	"	"	"	"	"	"
Selenium	0.943	0.290	"	"	"	"	"	"
Silver	0.130	0.0223	"	"	"	"	"	"
Zinc	61.5	0.446	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **09/12/22 10:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BF10544	09/21/22	09/21/22	EPA 7196A	

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

Date Sampled: **09/12/22 10:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	154	0.0558	mg/L dry	1	BF10456	09/19/22	09/21/22	EPA 6020B	
Magnesium	52.6	0.0558	"	"	"	"	"	"	
Sodium	483	0.0558	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **09/12/22 10:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	8.57	0.00100	units	1	BF10556	09/21/22	09/21/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **09/12/22 10:42**

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

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Rocky Mountain Fuel Consolidation Line

Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

SW-8@6'
2209230-02 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	89.6	%	1	BFI0405	09/16/22	09/16/22	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **09/12/22 10:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	3.15	0.0100	mmhos/cm	1	BFI0505	09/20/22	09/22/22	EPA 120.1	

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

Date Sampled: **09/12/22 10:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.61		pH Units	1	BFI0506	09/20/22	09/21/22	EPA 9045D	

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Rocky Mountain Fuel Consolidation Line

Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

SW-9@6'
2209230-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/12/22 10:44**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BF10338	09/14/22	09/14/22	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: **09/12/22 10:44**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		123 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		103 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		105 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **09/12/22 10:44**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BF10342	09/14/22	09/15/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **09/12/22 10:44**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		98.3 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Rocky Mountain Fuel Consolidation Line

Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

SW-9@6'
2209230-03 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **09/12/22 10:44**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BF10361	09/15/22	09/15/22	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: **09/12/22 10:44**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		45.2 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		60.0 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **09/12/22 10:44**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.257	0.0100	mg/L	1	BF10457	09/19/22	09/20/22	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **09/12/22 10:44**

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

Project: Rocky Mountain Fuel Consolidation Line

Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

SW-9@6'
2209230-03 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	5.20	0.222	mg/kg dry	1	BF10501	09/20/22	09/21/22	EPA 6020B
Barium	172	0.444	"	"	"	"	"	"
Cadmium	0.321	0.222	"	"	"	"	"	"
Copper	20.4	0.444	"	"	"	"	"	"
Lead	17.5	0.222	"	"	"	"	"	"
Nickel	15.2	0.444	"	"	"	"	"	"
Selenium	0.958	0.288	"	"	"	"	"	"
Silver	0.143	0.0222	"	"	"	"	"	"
Zinc	67.1	0.444	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **09/12/22 10:44**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BF10544	09/21/22	09/21/22	EPA 7196A	

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

Date Sampled: **09/12/22 10:44**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	45.4	0.0555	mg/L dry	1	BF10456	09/19/22	09/21/22	EPA 6020B	
Magnesium	17.3	0.0555	"	"	"	"	"	"	
Sodium	159	0.0555	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **09/12/22 10:44**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	5.09	0.00100	units	1	BF10556	09/21/22	09/21/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **09/12/22 10:44**

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

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Rocky Mountain Fuel Consolidation Line

Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

SW-9@6'
2209230-03 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	90.2	%	1	BFI0405	09/16/22	09/16/22	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **09/12/22 10:44**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.03	0.0100	mmhos/cm	1	BFI0505	09/20/22	09/22/22	EPA 120.1	

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

Date Sampled: **09/12/22 10:44**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.89		pH Units	1	BFI0506	09/20/22	09/21/22	EPA 9045D	

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Rocky Mountain Fuel Consolidation Line

Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

SW-10@6'
2209230-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/12/22 10:46**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.0034	0.0020	mg/kg	1	BF10338	09/14/22	09/15/22	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	0.0054	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **09/12/22 10:46**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		114 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		104 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **09/12/22 10:46**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BF10342	09/14/22	09/15/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **09/12/22 10:46**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		97.0 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Rocky Mountain Fuel Consolidation Line

Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

SW-10@6'
2209230-04 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **09/12/22 10:46**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BF10361	09/15/22	09/15/22	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: **09/12/22 10:46**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		44.7 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		48.3 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **09/12/22 10:46**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.448	0.0100	mg/L	1	BF10457	09/19/22	09/20/22	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **09/12/22 10:46**

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

Project: Rocky Mountain Fuel Consolidation Line

Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

SW-10@6'
2209230-04 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	6.63	0.227	mg/kg dry	1	BF10501	09/20/22	09/21/22	EPA 6020B
Barium	108	0.455	"	"	"	"	"	"
Cadmium	0.244	0.227	"	"	"	"	"	"
Copper	14.4	0.455	"	"	"	"	"	"
Lead	13.0	0.227	"	"	"	"	"	"
Nickel	16.5	0.455	"	"	"	"	"	"
Selenium	1.01	0.296	"	"	"	"	"	"
Silver	0.0350	0.0227	"	"	"	"	"	"
Zinc	58.0	0.455	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **09/12/22 10:46**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BF10544	09/21/22	09/21/22	EPA 7196A	

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

Date Sampled: **09/12/22 10:46**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	43.9	0.0569	mg/L dry	1	BF10456	09/19/22	09/21/22	EPA 6020B	
Magnesium	21.1	0.0569	"	"	"	"	"	"	
Sodium	392	0.0569	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **09/12/22 10:46**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	12.2	0.00100	units	1	BF10556	09/21/22	09/21/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **09/12/22 10:46**

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

Project: Rocky Mountain Fuel Consolidation Line

Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

SW-10@6'
2209230-04 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	87.9	%	1	BFI0405	09/16/22	09/16/22	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **09/12/22 10:46**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.88	0.0100	mmhos/cm	1	BFI0505	09/20/22	09/22/22	EPA 120.1	

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

Date Sampled: **09/12/22 10:46**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.96		pH Units	1	BFI0506	09/20/22	09/21/22	EPA 9045D	

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Rocky Mountain Fuel Consolidation Line

Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

SW-11@6'
2209230-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/12/22 10:48**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BF10338	09/14/22	09/15/22	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: **09/12/22 10:48**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		112 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		103 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **09/12/22 10:48**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BF10342	09/14/22	09/15/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **09/12/22 10:48**

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

PAH by EPA Method 8270D SIM

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Rocky Mountain Fuel Consolidation Line

Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

SW-11@6'
2209230-05 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **09/12/22 10:48**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Acenaphthene	ND	0.00500	mg/kg	1	BF10361	09/15/22	09/15/22	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: **09/12/22 10:48**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 2-Methylnaphthalene-d10		48.3 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		61.6 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **09/12/22 10:48**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Boron	0.690	0.0100	mg/L	1	BF10457	09/19/22	09/20/22	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **09/12/22 10:48**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Rocky Mountain Fuel Consolidation Line

Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

SW-11@6'
2209230-05 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	6.11	0.231	mg/kg dry	1	BF10501	09/20/22	09/21/22	EPA 6020B
Barium	133	0.463	"	"	"	"	"	"
Cadmium	0.296	0.231	"	"	"	"	"	"
Copper	17.2	0.463	"	"	"	"	"	"
Lead	15.2	0.231	"	"	"	"	"	"
Nickel	15.6	0.463	"	"	"	"	"	"
Selenium	0.989	0.301	"	"	"	"	"	"
Silver	0.0352	0.0231	"	"	"	"	"	"
Zinc	63.6	0.463	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **09/12/22 10:48**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BF10544	09/21/22	09/21/22	EPA 7196A	

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

Date Sampled: **09/12/22 10:48**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	190	0.0578	mg/L dry	1	BF10456	09/19/22	09/21/22	EPA 6020B	
Magnesium	91.0	0.0578	"	"	"	"	"	"	
Sodium	1100	0.0578	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **09/12/22 10:48**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	16.5	0.00100	units	1	BF10556	09/21/22	09/21/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **09/12/22 10:48**

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

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Rocky Mountain Fuel Consolidation Line
Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

SW-11@6'
2209230-05 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	86.5	%	1	BF10405	09/16/22	09/16/22	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **09/12/22 10:48**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	5.36	0.0100	mmhos/cm	1	BF10505	09/20/22	09/22/22	EPA 120.1	

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

Date Sampled: **09/12/22 10:48**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.98		pH Units	1	BF10506	09/20/22	09/21/22	EPA 9045D	

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Rocky Mountain Fuel Consolidation Line

Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

SW-12@6'
2209230-06 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/12/22 10:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BF10338	09/14/22	09/15/22	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: **09/12/22 10:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		116 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		104 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **09/12/22 10:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BF10342	09/14/22	09/15/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **09/12/22 10:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		90.0 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Rocky Mountain Fuel Consolidation Line
Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

SW-12@6'
2209230-06 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **09/12/22 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BF10361	09/15/22	09/15/22	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: **09/12/22 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		42.1 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		59.6 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **09/12/22 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	1.02	0.0100	mg/L	1	BF10457	09/19/22	09/20/22	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **09/12/22 10:50**

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

Project: Rocky Mountain Fuel Consolidation Line

Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

SW-12@6'
2209230-06 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	6.20	0.223	mg/kg dry	1	BF10501	09/20/22	09/21/22	EPA 6020B
Barium	123	0.447	"	"	"	"	"	"
Cadmium	ND	0.223	"	"	"	"	"	"
Copper	12.5	0.447	"	"	"	"	"	"
Lead	12.5	0.223	"	"	"	"	"	"
Nickel	15.0	0.447	"	"	"	"	"	"
Selenium	0.898	0.291	"	"	"	"	"	"
Silver	0.0346	0.0223	"	"	"	"	"	"
Zinc	59.1	0.447	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **09/12/22 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BF10544	09/21/22	09/21/22	EPA 7196A	

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

Date Sampled: **09/12/22 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	389	0.0559	mg/L dry	1	BF10456	09/19/22	09/21/22	EPA 6020B	
Magnesium	168	0.0559	"	"	"	"	"	"	
Sodium	1260	0.0559	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **09/12/22 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	13.4	0.00100	units	1	BF10556	09/21/22	09/21/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **09/12/22 10:50**

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

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Rocky Mountain Fuel Consolidation Line
Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

SW-12@6'
2209230-06 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	89.5	%	1	BF10405	09/16/22	09/16/22	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **09/12/22 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	6.81	0.0100	mmhos/cm	1	BF10505	09/20/22	09/22/22	EPA 120.1	

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

Date Sampled: **09/12/22 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.82		pH Units	1	BF10506	09/20/22	09/21/22	EPA 9045D	

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Rocky Mountain Fuel Consolidation Line

Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

SW-13@6'
2209230-07 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/12/22 10:52**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BF10338	09/14/22	09/15/22	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: **09/12/22 10:52**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		116 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		105 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **09/12/22 10:52**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BF10342	09/14/22	09/15/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **09/12/22 10:52**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		94.0 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Rocky Mountain Fuel Consolidation Line

Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

SW-13@6'
2209230-07 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **09/12/22 10:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BF10361	09/15/22	09/15/22	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: **09/12/22 10:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		47.0 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		62.5 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **09/12/22 10:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.292	0.0100	mg/L	1	BF10457	09/19/22	09/20/22	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **09/12/22 10:52**

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

Project: Rocky Mountain Fuel Consolidation Line

Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

SW-13@6'
2209230-07 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	8.67	0.224	mg/kg dry	1	BF10501	09/20/22	09/21/22	EPA 6020B
Barium	124	0.448	"	"	"	"	"	"
Cadmium	0.225	0.224	"	"	"	"	"	"
Copper	13.1	0.448	"	"	"	"	"	"
Lead	13.1	0.224	"	"	"	"	"	"
Nickel	21.7	0.448	"	"	"	"	"	"
Selenium	0.935	0.291	"	"	"	"	"	"
Silver	0.0396	0.0224	"	"	"	"	"	"
Zinc	70.0	0.448	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **09/12/22 10:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BF10544	09/21/22	09/21/22	EPA 7196A	

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

Date Sampled: **09/12/22 10:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	347	0.0559	mg/L dry	1	BF10456	09/19/22	09/21/22	EPA 6020B	
Magnesium	156	0.0559	"	"	"	"	"	"	
Sodium	1350	0.0559	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **09/12/22 10:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	15.1	0.00100	units	1	BF10556	09/21/22	09/21/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **09/12/22 10:52**

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

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Rocky Mountain Fuel Consolidation Line

Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

SW-13@6'
2209230-07 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	89.4	%	1	BFI0405	09/16/22	09/16/22	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **09/12/22 10:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	6.81	0.0100	mmhos/cm	1	BFI0505	09/20/22	09/22/22	EPA 120.1	

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

Date Sampled: **09/12/22 10:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.80		pH Units	1	BFI0506	09/20/22	09/21/22	EPA 9045D	

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Rocky Mountain Fuel Consolidation Line

Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

SW-14@6'
2209230-08 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/12/22 10:54**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BF10338	09/14/22	09/15/22	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: **09/12/22 10:54**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		115 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		104 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		105 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **09/12/22 10:54**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BF10342	09/14/22	09/15/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **09/12/22 10:54**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		93.4 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Rocky Mountain Fuel Consolidation Line
Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

SW-14@6'
2209230-08 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **09/12/22 10:54**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BF10361	09/15/22	09/15/22	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: **09/12/22 10:54**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		43.5 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		62.8 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **09/12/22 10:54**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.471	0.0100	mg/L	1	BF10457	09/19/22	09/20/22	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **09/12/22 10:54**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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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.



K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Rocky Mountain Fuel Consolidation Line

Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

SW-14@6'
2209230-08 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	5.64	0.228	mg/kg dry	1	BF10501	09/20/22	09/21/22	EPA 6020B
Barium	128	0.456	"	"	"	"	"	"
Cadmium	0.477	0.228	"	"	"	"	"	"
Copper	20.5	0.456	"	"	"	"	"	"
Lead	19.5	0.228	"	"	"	"	"	"
Nickel	14.5	0.456	"	"	"	"	"	"
Selenium	1.17	0.296	"	"	"	"	"	"
Silver	0.124	0.0228	"	"	"	"	"	"
Zinc	67.2	0.456	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **09/12/22 10:54**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BF10544	09/21/22	09/21/22	EPA 7196A	

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

Date Sampled: **09/12/22 10:54**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	359	0.0570	mg/L dry	1	BF10456	09/19/22	09/21/22	EPA 6020B	
Magnesium	191	0.0570	"	"	"	"	"	"	
Sodium	1980	0.0570	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **09/12/22 10:54**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	20.9	0.00100	units	1	BF10556	09/21/22	09/21/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **09/12/22 10:54**

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

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Rocky Mountain Fuel Consolidation Line

Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

SW-14@6'
2209230-08 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	87.8	%	1	BFI0405	09/16/22	09/16/22	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **09/12/22 10:54**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	9.14	0.0100	mmhos/cm	1	BFI0505	09/20/22	09/22/22	EPA 120.1	

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

Date Sampled: **09/12/22 10:54**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.50		pH Units	1	BFI0506	09/20/22	09/21/22	EPA 9045D	

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Rocky Mountain Fuel Consolidation Line

Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

SW-15@6'
2209230-09 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/12/22 10:56**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BF10338	09/14/22	09/15/22	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: **09/12/22 10:56**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		116 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		104 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		105 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **09/12/22 10:56**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BF10342	09/14/22	09/15/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **09/12/22 10:56**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		107 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Rocky Mountain Fuel Consolidation Line

Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

SW-15@6'
2209230-09 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **09/12/22 10:56**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BF10361	09/15/22	09/16/22	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: **09/12/22 10:56**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		43.9 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		56.4 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **09/12/22 10:56**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.779	0.0100	mg/L	1	BF10457	09/19/22	09/20/22	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **09/12/22 10:56**

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

Project: Rocky Mountain Fuel Consolidation Line
Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

SW-15@6'
2209230-09 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	5.02	0.245	mg/kg dry	1	BF10501	09/20/22	09/21/22	EPA 6020B
Barium	201	0.490	"	"	"	"	"	"
Cadmium	0.272	0.245	"	"	"	"	"	"
Copper	15.8	0.490	"	"	"	"	"	"
Lead	12.9	0.245	"	"	"	"	"	"
Nickel	18.5	0.490	"	"	"	"	"	"
Selenium	0.981	0.319	"	"	"	"	"	"
Silver	0.0537	0.0245	"	"	"	"	"	"
Zinc	62.3	0.490	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **09/12/22 10:56**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BF10544	09/21/22	09/21/22	EPA 7196A	

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

Date Sampled: **09/12/22 10:56**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	369	0.0613	mg/L dry	1	BF10456	09/19/22	09/21/22	EPA 6020B	
Magnesium	153	0.0613	"	"	"	"	"	"	
Sodium	2010	0.0613	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **09/12/22 10:56**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	22.2	0.00100	units	1	BF10556	09/21/22	09/21/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **09/12/22 10:56**

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

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Rocky Mountain Fuel Consolidation Line

Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

SW-15@6'
2209230-09 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	81.6	%	1	BFI0405	09/16/22	09/16/22	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **09/12/22 10:56**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	8.36	0.0100	mmhos/cm	1	BFI0505	09/20/22	09/22/22	EPA 120.1	

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

Date Sampled: **09/12/22 10:56**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.80		pH Units	1	BFI0506	09/20/22	09/21/22	EPA 9045D	

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Rocky Mountain Fuel Consolidation Line

Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

SW-16@6'
2209230-10 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/12/22 10:58**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BF10338	09/14/22	09/15/22	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: **09/12/22 10:58**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		113 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		104 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		106 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **09/12/22 10:58**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BF10342	09/14/22	09/15/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **09/12/22 10:58**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		107 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Rocky Mountain Fuel Consolidation Line
Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

SW-16@6'
2209230-10 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **09/12/22 10:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BF10361	09/15/22	09/16/22	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: **09/12/22 10:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		46.5 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		53.5 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **09/12/22 10:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.852	0.0100	mg/L	1	BF10457	09/19/22	09/20/22	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **09/12/22 10:58**

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

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Rocky Mountain Fuel Consolidation Line

Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

SW-16@6'
2209230-10 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	5.02	0.239	mg/kg dry	1	BF10501	09/20/22	09/21/22	EPA 6020B
Barium	182	0.478	"	"	"	"	"	"
Cadmium	0.322	0.239	"	"	"	"	"	"
Copper	15.6	0.478	"	"	"	"	"	"
Lead	12.4	0.239	"	"	"	"	"	"
Nickel	16.3	0.478	"	"	"	"	"	"
Selenium	0.981	0.311	"	"	"	"	"	"
Silver	0.0599	0.0239	"	"	"	"	"	"
Zinc	55.7	0.478	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **09/12/22 10:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BF10544	09/21/22	09/21/22	EPA 7196A	

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

Date Sampled: **09/12/22 10:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	389	0.0597	mg/L dry	1	BF10456	09/19/22	09/21/22	EPA 6020B	
Magnesium	173	0.0597	"	"	"	"	"	"	
Sodium	1940	0.0597	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **09/12/22 10:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	20.6	0.00100	units	1	BF10556	09/21/22	09/21/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **09/12/22 10:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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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.



K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Rocky Mountain Fuel Consolidation Line

Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

SW-16@6'
2209230-10 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	83.7	%	1	BFI0405	09/16/22	09/16/22	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **09/12/22 10:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	8.44	0.0100	mmhos/cm	1	BFI0505	09/20/22	09/22/22	EPA 120.1	

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

Date Sampled: **09/12/22 10:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.83		pH Units	1	BFI0506	09/20/22	09/21/22	EPA 9045D	

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Rocky Mountain Fuel Consolidation Line

Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

BH-4@12'
2209230-11 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/12/22 11:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BF10338	09/14/22	09/15/22	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: **09/12/22 11:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		107 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		103 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **09/12/22 11:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BF10342	09/14/22	09/15/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **09/12/22 11:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		74.5 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Rocky Mountain Fuel Consolidation Line

Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

BH-4@12'
2209230-11 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **09/12/22 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BF10361	09/15/22	09/16/22	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: **09/12/22 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		46.2 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		64.2 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **09/12/22 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.585	0.0100	mg/L	1	BF10457	09/19/22	09/20/22	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **09/12/22 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: Rocky Mountain Fuel Consolidation Line

Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

BH-4@12'
2209230-11 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	6.25	0.247	mg/kg dry	1	BF10501	09/20/22	09/21/22	EPA 6020B
Barium	204	0.493	"	"	"	"	"	"
Cadmium	0.371	0.247	"	"	"	"	"	"
Copper	19.8	0.493	"	"	"	"	"	"
Lead	14.8	0.247	"	"	"	"	"	"
Nickel	21.0	0.493	"	"	"	"	"	"
Selenium	1.14	0.321	"	"	"	"	"	"
Silver	0.0919	0.0247	"	"	"	"	"	"
Zinc	74.1	0.493	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **09/12/22 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BF10544	09/21/22	09/21/22	EPA 7196A	

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

Date Sampled: **09/12/22 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	408	0.0616	mg/L dry	1	BF10456	09/19/22	09/21/22	EPA 6020B	
Magnesium	239	0.0616	"	"	"	"	"	"	
Sodium	2550	0.0616	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **09/12/22 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	24.8	0.00100	units	1	BF10556	09/21/22	09/21/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **09/12/22 11:00**

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

Project: Rocky Mountain Fuel Consolidation Line

Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

BH-4@12'
2209230-11 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	81.1	%	1	BFI0405	09/16/22	09/16/22	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **09/12/22 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	10.6	0.0100	mmhos/cm	1	BFI0505	09/20/22	09/22/22	EPA 120.1	

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

Date Sampled: **09/12/22 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.79		pH Units	1	BFI0506	09/20/22	09/21/22	EPA 9045D	

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Rocky Mountain Fuel Consolidation Line

Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

BH-5@12'
2209230-12 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/12/22 11:02**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BF10338	09/14/22	09/15/22	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: **09/12/22 11:02**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		116 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		103 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		107 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **09/12/22 11:02**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BF10342	09/14/22	09/15/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **09/12/22 11:02**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		70.8 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Rocky Mountain Fuel Consolidation Line

Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

BH-5@12'
2209230-12 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **09/12/22 11:02**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BF10361	09/15/22	09/16/22	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: **09/12/22 11:02**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		53.4 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		62.3 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **09/12/22 11:02**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.478	0.0100	mg/L	1	BF10457	09/19/22	09/20/22	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **09/12/22 11:02**

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

Project: Rocky Mountain Fuel Consolidation Line

Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

BH-5@12'
2209230-12 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	5.70	0.235	mg/kg dry	1	BF10501	09/20/22	09/21/22	EPA 6020B
Barium	144	0.470	"	"	"	"	"	"
Cadmium	0.337	0.235	"	"	"	"	"	"
Copper	20.3	0.470	"	"	"	"	"	"
Lead	16.6	0.235	"	"	"	"	"	"
Nickel	16.2	0.470	"	"	"	"	"	"
Selenium	1.09	0.306	"	"	"	"	"	"
Silver	0.125	0.0235	"	"	"	"	"	"
Zinc	66.0	0.470	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **09/12/22 11:02**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BF10544	09/21/22	09/21/22	EPA 7196A	

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

Date Sampled: **09/12/22 11:02**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	393	0.0588	mg/L dry	1	BF10456	09/19/22	09/21/22	EPA 6020B	
Magnesium	158	0.0588	"	"	"	"	"	"	
Sodium	1450	0.0588	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **09/12/22 11:02**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	15.6	0.00100	units	1	BF10556	09/21/22	09/21/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **09/12/22 11:02**

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

Project: Rocky Mountain Fuel Consolidation Line

Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

BH-5@12'
2209230-12 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	85.1	%	1	BFI0405	09/16/22	09/16/22	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **09/12/22 11:02**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	6.95	0.0100	mmhos/cm	1	BFI0505	09/20/22	09/22/22	EPA 120.1	

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

Date Sampled: **09/12/22 11:02**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.67		pH Units	1	BFI0506	09/20/22	09/21/22	EPA 9045D	

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Rocky Mountain Fuel Consolidation Line

Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

BH-6@12'
2209230-13 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/12/22 11:04**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BF10338	09/14/22	09/15/22	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: **09/12/22 11:04**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		116 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		104 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		106 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **09/12/22 11:04**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BF10342	09/14/22	09/15/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **09/12/22 11:04**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		94.9 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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1675 Broadway
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Project: Rocky Mountain Fuel Consolidation Line

Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

BH-6@12'
2209230-13 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **09/12/22 11:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BF10361	09/15/22	09/16/22	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: **09/12/22 11:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		48.6 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		57.4 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **09/12/22 11:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.507	0.0100	mg/L	1	BF10457	09/19/22	09/20/22	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **09/12/22 11:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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1675 Broadway
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Project: Rocky Mountain Fuel Consolidation Line

Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

BH-6@12'
2209230-13 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	13.2	0.240	mg/kg dry	1	BF10501	09/20/22	09/21/22	EPA 6020B
Barium	50.8	0.480	"	"	"	"	"	"
Cadmium	0.408	0.240	"	"	"	"	"	"
Copper	23.0	0.480	"	"	"	"	"	"
Lead	18.2	0.240	"	"	"	"	"	"
Nickel	16.2	0.480	"	"	"	"	"	"
Selenium	1.64	0.312	"	"	"	"	"	"
Silver	0.0482	0.0240	"	"	"	"	"	"
Zinc	64.3	0.480	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **09/12/22 11:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BF10544	09/21/22	09/21/22	EPA 7196A	

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

Date Sampled: **09/12/22 11:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	359	0.0600	mg/L dry	1	BF10456	09/19/22	09/21/22	EPA 6020B	
Magnesium	140	0.0600	"	"	"	"	"	"	
Sodium	1410	0.0600	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **09/12/22 11:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	16.0	0.00100	units	1	BF10556	09/21/22	09/21/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **09/12/22 11:04**

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

Project: Rocky Mountain Fuel Consolidation Line

Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

BH-6@12'
2209230-13 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	83.4	%	1	BFI0405	09/16/22	09/16/22	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **09/12/22 11:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	6.64	0.0100	mmhos/cm	1	BFI0505	09/20/22	09/22/22	EPA 120.1	

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

Date Sampled: **09/12/22 11:04**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.83		pH Units	1	BFI0506	09/20/22	09/21/22	EPA 9045D	

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Rocky Mountain Fuel Consolidation Line

Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

BH-7@12'
2209230-14 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/12/22 11:06**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BF10338	09/14/22	09/15/22	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: **09/12/22 11:06**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		115 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		104 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		107 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **09/12/22 11:06**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BF10342	09/14/22	09/15/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **09/12/22 11:06**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		95.1 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Rocky Mountain Fuel Consolidation Line

Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

BH-7@12'
2209230-14 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **09/12/22 11:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BF10361	09/15/22	09/16/22	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: **09/12/22 11:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		42.6 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		46.6 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **09/12/22 11:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.680	0.0100	mg/L	1	BF10457	09/19/22	09/20/22	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **09/12/22 11:06**

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

Project: Rocky Mountain Fuel Consolidation Line

Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

BH-7@12'
2209230-14 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	11.0	0.252	mg/kg dry	1	BF10501	09/20/22	09/21/22	EPA 6020B
Barium	74.7	0.504	"	"	"	"	"	"
Cadmium	0.322	0.252	"	"	"	"	"	"
Copper	18.9	0.504	"	"	"	"	"	"
Lead	17.5	0.252	"	"	"	"	"	"
Nickel	17.4	0.504	"	"	"	"	"	"
Selenium	1.00	0.328	"	"	"	"	"	"
Silver	0.0518	0.0252	"	"	"	"	"	"
Zinc	71.4	0.504	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **09/12/22 11:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BF10544	09/21/22	09/21/22	EPA 7196A	

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

Date Sampled: **09/12/22 11:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	398	0.0630	mg/L dry	1	BF10456	09/19/22	09/21/22	EPA 6020B	
Magnesium	119	0.0630	"	"	"	"	"	"	
Sodium	899	0.0630	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **09/12/22 11:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	10.2	0.00100	units	1	BF10556	09/21/22	09/21/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **09/12/22 11:06**

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

Project: Rocky Mountain Fuel Consolidation Line

Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

BH-7@12'
2209230-14 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	79.3	%	1	BFI0405	09/16/22	09/16/22	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **09/12/22 11:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	4.70	0.0100	mmhos/cm	1	BFI0505	09/20/22	09/22/22	EPA 120.1	

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

Date Sampled: **09/12/22 11:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.65		pH Units	1	BFI0506	09/20/22	09/21/22	EPA 9045D	

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Rocky Mountain Fuel Consolidation Line

Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

BH-8@12'
2209230-15 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/12/22 11:08**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BF10338	09/14/22	09/15/22	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: **09/12/22 11:08**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		112 %	50-150		"	"	"	"	
Surrogate: Toluene-d8		104 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		105 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **09/12/22 11:08**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BF10342	09/14/22	09/15/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **09/12/22 11:08**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		105 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Rocky Mountain Fuel Consolidation Line

Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

BH-8@12'
2209230-15 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **09/12/22 11:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BF10361	09/15/22	09/16/22	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: **09/12/22 11:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		44.9 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		54.5 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **09/12/22 11:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.283	0.0100	mg/L	1	BF10457	09/19/22	09/20/22	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **09/12/22 11:08**

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

Project: Rocky Mountain Fuel Consolidation Line

Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

BH-8@12'
2209230-15 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Arsenic	9.30	0.238	mg/kg dry	1	BF10501	09/20/22	09/21/22	EPA 6020B
Barium	59.1	0.475	"	"	"	"	"	"
Cadmium	ND	0.238	"	"	"	"	"	"
Copper	24.8	0.475	"	"	"	"	"	"
Lead	18.1	0.238	"	"	"	"	"	"
Nickel	12.5	0.475	"	"	"	"	"	"
Selenium	0.960	0.309	"	"	"	"	"	"
Silver	0.0397	0.0238	"	"	"	"	"	"
Zinc	55.0	0.475	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **09/12/22 11:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BF10544	09/21/22	09/21/22	EPA 7196A	

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

Date Sampled: **09/12/22 11:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	390	0.0594	mg/L dry	1	BF10456	09/19/22	09/21/22	EPA 6020B	
Magnesium	79.7	0.0594	"	"	"	"	"	"	
Sodium	218	0.0594	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **09/12/22 11:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	2.63	0.00100	units	1	BF10556	09/21/22	09/21/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **09/12/22 11:08**

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

Project: Rocky Mountain Fuel Consolidation Line

Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

BH-8@12'
2209230-15 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	84.1	%	1	BFI0405	09/16/22	09/16/22	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **09/12/22 11:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	2.53	0.0100	mmhos/cm	1	BFI0505	09/20/22	09/22/22	EPA 120.1	

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

Date Sampled: **09/12/22 11:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.56		pH Units	1	BFI0506	09/20/22	09/21/22	EPA 9045D	

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Rocky Mountain Fuel Consolidation Line
Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BFI0338 - EPA 5030 Soil MS

Blank (BFI0338-BLK1)

Prepared & Analyzed: 09/14/22

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	"

Surrogate: 1,2-Dichloroethane-d4	0.0458	"	0.0400	114	50-150
Surrogate: Toluene-d8	0.0408	"	0.0400	102	50-150
Surrogate: 4-Bromofluorobenzene	0.0421	"	0.0400	105	50-150

LCS (BFI0338-BS1)

Prepared & Analyzed: 09/14/22

Benzene	0.157	0.0020	mg/kg	0.125	126	70-130
Toluene	0.150	0.0050	"	0.125	120	70-130
Ethylbenzene	0.145	0.0050	"	0.125	116	70-130
m,p-Xylene	0.281	0.010	"	0.250	113	70-130
o-Xylene	0.126	0.0050	"	0.125	101	70-130
1,2,4-Trimethylbenzene	0.137	0.0050	"	0.125	110	70-130
1,3,5-Trimethylbenzene	0.138	0.0050	"	0.125	110	70-130
Naphthalene	0.104	0.0038	"	0.125	83.4	70-130

Surrogate: 1,2-Dichloroethane-d4	0.0473	"	0.0400	118	50-150
Surrogate: Toluene-d8	0.0427	"	0.0400	107	50-150
Surrogate: 4-Bromofluorobenzene	0.0410	"	0.0400	102	50-150

Matrix Spike (BFI0338-MS1)

Source: 2209230-01

Prepared & Analyzed: 09/14/22

Benzene	0.161	0.0020	mg/kg	0.125	0.00321	126	70-130
Toluene	0.157	0.0050	"	0.125	ND	125	70-130
Ethylbenzene	0.152	0.0050	"	0.125	ND	122	70-130
m,p-Xylene	0.300	0.010	"	0.250	ND	120	70-130
o-Xylene	0.133	0.0050	"	0.125	ND	106	70-130
1,2,4-Trimethylbenzene	0.148	0.0050	"	0.125	ND	118	70-130
1,3,5-Trimethylbenzene	0.147	0.0050	"	0.125	ND	118	70-130
Naphthalene	0.130	0.0038	"	0.125	0.00795	97.9	70-130

Surrogate: 1,2-Dichloroethane-d4	0.0469	"	0.0400	117	50-150
Surrogate: Toluene-d8	0.0415	"	0.0400	104	50-150
Surrogate: 4-Bromofluorobenzene	0.0415	"	0.0400	104	50-150

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Rocky Mountain Fuel Consolidation Line

Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BFI0338 - EPA 5030 Soil MS

Matrix Spike Dup (BFI0338-MSD1)		Source: 2209230-01			Prepared & Analyzed: 09/14/22					
Benzene	0.156	0.0020	mg/kg	0.125	0.00321	122	70-130	2.82	30	
Toluene	0.151	0.0050	"	0.125	ND	121	70-130	3.49	30	
Ethylbenzene	0.147	0.0050	"	0.125	ND	118	70-130	3.37	30	
m,p-Xylene	0.289	0.010	"	0.250	ND	116	70-130	3.47	30	
o-Xylene	0.126	0.0050	"	0.125	ND	101	70-130	5.09	30	
1,2,4-Trimethylbenzene	0.140	0.0050	"	0.125	ND	112	70-130	5.06	30	
1,3,5-Trimethylbenzene	0.141	0.0050	"	0.125	ND	113	70-130	4.29	30	
Naphthalene	0.125	0.0038	"	0.125	0.00795	93.8	70-130	4.01	30	
Surrogate: 1,2-Dichloroethane-d4		0.0460	"	0.0400		115	50-150			
Surrogate: Toluene-d8		0.0424	"	0.0400		106	50-150			
Surrogate: 4-Bromofluorobenzene		0.0404	"	0.0400		101	50-150			

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Rocky Mountain Fuel Consolidation Line

Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BFI0342 - EPA 3550A

Blank (BFI0342-BLK1)

Prepared: 09/14/22 Analyzed: 09/15/22

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

LCS (BFI0342-BS1)

Prepared: 09/14/22 Analyzed: 09/15/22

C10-C28 (DRO)	534	50	mg/kg	500	107	70-130
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Matrix Spike (BFI0342-MS1)

Source: 2209230-01

Prepared: 09/14/22 Analyzed: 09/15/22

C10-C28 (DRO)	412	50	mg/kg	500	10.8	80.2	70-130
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Matrix Spike Dup (BFI0342-MSD1)

Source: 2209230-01

Prepared: 09/14/22 Analyzed: 09/15/22

C10-C28 (DRO)	392	50	mg/kg	500	10.8	76.2	70-130	4.97	20
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Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Rocky Mountain Fuel Consolidation Line
Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BFI0361 - EPA 5030 Soil MS

Blank (BFI0361-BLK1)

Prepared & Analyzed: 09/15/22

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	"							
Surrogate: 2-Methylnaphthalene-d10	0.0222		"	0.0333		66.7	40-150			
Surrogate: Fluoranthene-d10	0.0279		"	0.0333		83.8	40-150			

LCS (BFI0361-BS1)

Prepared & Analyzed: 09/15/22

Acenaphthene	0.0379	0.00500	mg/kg	0.0333		114	31-137			
Anthracene	0.0254	0.00500	"	0.0333		76.1	30-120			
Benzo (a) anthracene	0.0345	0.00500	"	0.0333		103	30-120			
Benzo (a) pyrene	0.0170	0.00500	"	0.0333		50.9	30-120			
Benzo (b) fluoranthene	0.0136	0.00500	"	0.0333		40.8	30-120			
Benzo (k) fluoranthene	0.0134	0.00500	"	0.0333		40.1	30-120			
Chrysene	0.0371	0.00500	"	0.0333		111	30-120			
Dibenz (a,h) anthracene	0.0143	0.00500	"	0.0333		43.0	30-120			
Fluoranthene	0.0238	0.00500	"	0.0333		71.3	30-120			
Fluorene	0.0325	0.00500	"	0.0333		97.5	30-120			
Indeno (1,2,3-cd) pyrene	0.0191	0.00500	"	0.0333		57.2	30-120			
Pyrene	0.0369	0.00500	"	0.0333		111	35-142			
1-Methylnaphthalene	0.0189	0.00500	"	0.0333		56.8	35-142			
2-Methylnaphthalene	0.0240	0.00500	"	0.0333		71.9	35-142			
Surrogate: 2-Methylnaphthalene-d10	0.0196		"	0.0333		58.9	40-150			
Surrogate: Fluoranthene-d10	0.0205		"	0.0333		61.5	40-150			

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Rocky Mountain Fuel Consolidation Line
Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BFI0361 - EPA 5030 Soil MS

Matrix Spike (BFI0361-MS1)			Source: 2209230-01			Prepared & Analyzed: 09/15/22					
Acenaphthene	0.0253	0.00500	mg/kg	0.0333	ND	75.8	31-137				
Anthracene	0.0150	0.00500	"	0.0333	ND	45.0	30-120				
Benzo (a) anthracene	0.0185	0.00500	"	0.0333	ND	55.4	30-120				
Benzo (a) pyrene	0.0201	0.00500	"	0.0333	ND	60.2	30-120				
Benzo (b) fluoranthene	0.0136	0.00500	"	0.0333	ND	40.8	30-120				
Benzo (k) fluoranthene	0.0165	0.00500	"	0.0333	ND	49.6	30-120				
Chrysene	0.0168	0.00500	"	0.0333	ND	50.5	30-120				
Dibenz (a,h) anthracene	0.0159	0.00500	"	0.0333	ND	47.6	30-120				
Fluoranthene	0.0145	0.00500	"	0.0333	ND	43.4	30-120				
Fluorene	0.0162	0.00500	"	0.0333	ND	48.5	30-120				
Indeno (1,2,3-cd) pyrene	0.0144	0.00500	"	0.0333	ND	43.1	30-120				
Pyrene	0.0156	0.00500	"	0.0333	ND	46.8	35-142				
1-Methylnaphthalene	0.0137	0.00500	"	0.0333	ND	41.2	15-130				
2-Methylnaphthalene	0.0206	0.00500	"	0.0333	ND	61.8	15-130				
Surrogate: 2-Methylnaphthalene-d10	0.0136		"	0.0333		40.7	40-150				
Surrogate: Fluoranthene-d10	0.0147		"	0.0333		44.0	40-150				

Matrix Spike Dup (BFI0361-MSD1)			Source: 2209230-01			Prepared & Analyzed: 09/15/22					
Acenaphthene	0.0226	0.00500	mg/kg	0.0333	ND	67.7	31-137	11.2	30		
Anthracene	0.0136	0.00500	"	0.0333	ND	40.9	30-120	9.47	30		
Benzo (a) anthracene	0.0156	0.00500	"	0.0333	ND	46.8	30-120	16.9	30		
Benzo (a) pyrene	0.0193	0.00500	"	0.0333	ND	57.8	30-120	4.01	30		
Benzo (b) fluoranthene	0.0137	0.00500	"	0.0333	ND	41.0	30-120	0.440	30		
Benzo (k) fluoranthene	0.0140	0.00500	"	0.0333	ND	41.9	30-120	16.8	30		
Chrysene	0.0144	0.00500	"	0.0333	ND	43.3	30-120	15.5	30		
Dibenz (a,h) anthracene	0.0134	0.00500	"	0.0333	ND	40.1	30-120	17.1	30		
Fluoranthene	0.0184	0.00500	"	0.0333	ND	55.3	30-120	24.1	30		
Fluorene	0.0149	0.00500	"	0.0333	ND	44.6	30-120	8.47	30		
Indeno (1,2,3-cd) pyrene	0.0163	0.00500	"	0.0333	ND	49.0	30-120	13.0	30		
Pyrene	0.0139	0.00500	"	0.0333	ND	41.8	35-142	11.2	30		
1-Methylnaphthalene	0.0146	0.00500	"	0.0333	ND	43.9	15-130	6.45	50		
2-Methylnaphthalene	0.0181	0.00500	"	0.0333	ND	54.3	15-130	13.0	50		
Surrogate: 2-Methylnaphthalene-d10	0.0135		"	0.0333		40.5	40-150				
Surrogate: Fluoranthene-d10	0.0142		"	0.0333		42.6	40-150				

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Rocky Mountain Fuel Consolidation Line
Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

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

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

Batch BFI0457 - EPA 3050B

Blank (BFI0457-BLK1)

Prepared: 09/19/22 Analyzed: 09/20/22

Boron ND 0.0100 mg/L

LCS (BFI0457-BS1)

Prepared: 09/19/22 Analyzed: 09/20/22

Boron 4.76 0.0100 mg/L 5.00 95.1 80-120

Duplicate (BFI0457-DUP1)

Source: 2209230-01

Prepared: 09/19/22 Analyzed: 09/20/22

Boron 0.875 0.0100 mg/L 0.887 1.31 20

Matrix Spike (BFI0457-MS1)

Source: 2209230-01

Prepared: 09/19/22 Analyzed: 09/20/22

Boron 4.96 0.0100 mg/L 5.00 0.887 81.5 75-125

Matrix Spike Dup (BFI0457-MSD1)

Source: 2209230-01

Prepared: 09/19/22 Analyzed: 09/20/22

Boron 4.95 0.0100 mg/L 5.00 0.887 81.3 75-125 0.217 25

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Rocky Mountain Fuel Consolidation Line

Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

Total Metals by EPA 6020B - Quality Control

Summit Scientific

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

Batch BFI0501 - EPA 3050B

Blank (BFI0501-BLK1)

Prepared: 09/20/22 Analyzed: 09/21/22

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 (BFI0501-BS1)

Prepared: 09/20/22 Analyzed: 09/21/22

Arsenic	44.3	0.200	mg/kg wet	40.0	111	80-120
Barium	44.9	0.400	"	40.0	112	80-120
Cadmium	2.19	0.200	"	2.00	109	80-120
Copper	41.9	0.400	"	40.0	105	80-120
Lead	21.6	0.200	"	20.0	108	80-120
Nickel	41.5	0.400	"	40.0	104	80-120
Selenium	4.23	0.260	"	4.00	106	80-120
Silver	2.21	0.0200	"	2.00	110	80-120
Zinc	43.5	0.400	"	40.0	109	80-120

Duplicate (BFI0501-DUP1)

Source: 2209102-01

Prepared: 09/20/22 Analyzed: 09/21/22

Arsenic	2.44	0.217	mg/kg dry	2.29	6.36	20
Barium	67.6	0.434	"	60.5	11.2	20
Cadmium	0.123	0.217	"	0.110	10.7	20
Copper	5.98	0.434	"	5.70	4.80	20
Lead	5.51	0.217	"	4.85	12.9	20
Nickel	6.57	0.434	"	6.17	6.28	20
Selenium	0.577	0.282	"	0.591	2.49	20
Silver	0.0302	0.0217	"	0.0272	10.3	20
Zinc	26.6	0.434	"	25.0	6.15	20

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Rocky Mountain Fuel Consolidation Line

Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

Total Metals by EPA 6020B - Quality Control

Summit Scientific

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

Batch BFI0501 - EPA 3050B

Matrix Spike (BFI0501-MS1)

Source: 2209102-01

Prepared: 09/20/22 Analyzed: 09/21/22

Arsenic	47.3	0.217	mg/kg dry	43.4	2.29	104	75-125
Barium	98.4	0.434	"	43.4	60.5	87.5	75-125
Cadmium	2.33	0.217	"	2.17	0.110	102	75-125
Copper	47.4	0.434	"	43.4	5.70	96.2	75-125
Lead	25.2	0.217	"	21.7	4.85	93.9	75-125
Nickel	47.9	0.434	"	43.4	6.17	96.3	75-125
Selenium	5.04	0.282	"	4.34	0.591	103	75-125
Silver	2.17	0.0217	"	2.17	0.0272	98.7	75-125
Zinc	68.4	0.434	"	43.4	25.0	100	75-125

Matrix Spike Dup (BFI0501-MSD1)

Source: 2209102-01

Prepared: 09/20/22 Analyzed: 09/21/22

Arsenic	50.9	0.217	mg/kg dry	43.4	2.29	112	75-125	7.35	25
Barium	107	0.434	"	43.4	60.5	106	75-125	8.00	25
Cadmium	2.50	0.217	"	2.17	0.110	110	75-125	7.13	25
Copper	51.3	0.434	"	43.4	5.70	105	75-125	7.76	25
Lead	27.3	0.217	"	21.7	4.85	103	75-125	7.86	25
Nickel	51.9	0.434	"	43.4	6.17	105	75-125	7.96	25
Selenium	5.09	0.282	"	4.34	0.591	104	75-125	0.924	25
Silver	2.37	0.0217	"	2.17	0.0272	108	75-125	8.99	25
Zinc	73.5	0.434	"	43.4	25.0	112	75-125	7.18	25

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Rocky Mountain Fuel Consolidation Line
Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

Hexavalent Chromium by EPA Method 7196 - Quality Control
Summit Scientific

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

Batch BFI0544 - 3060A Mod

Blank (BFI0544-BLK1)

Prepared & Analyzed: 09/21/22

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BFI0544-BS1)

Prepared & Analyzed: 09/21/22

Chromium, Hexavalent 28.1 0.30 mg/kg wet 25.0 112 80-120

Duplicate (BFI0544-DUP1)

Source: 2209230-01

Prepared & Analyzed: 09/21/22

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BFI0544-MS1)

Source: 2209230-01

Prepared & Analyzed: 09/21/22

Chromium, Hexavalent 37.0 0.30 mg/kg dry 30.2 ND 123 75-125

Matrix Spike Dup (BFI0544-MSD1)

Source: 2209230-01

Prepared & Analyzed: 09/21/22

Chromium, Hexavalent 35.4 0.30 mg/kg dry 30.2 ND 117 75-125 4.33 20

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Rocky Mountain Fuel Consolidation Line

Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

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

Summit Scientific

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

Batch BFI0456 - General Preparation

Blank (BFI0456-BLK1)

Prepared: 09/19/22 Analyzed: 09/21/22

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

LCS (BFI0456-BS1)

Prepared: 09/19/22 Analyzed: 09/21/22

Calcium	5.71	0.0500	mg/L wet	5.00	114	70-130
Magnesium	5.50	0.0500	"	5.00	110	70-130
Sodium	5.35	0.0500	"	5.00	107	70-130

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Rocky Mountain Fuel Consolidation Line

Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

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

Summit Scientific

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

Batch BFI0405 - General Preparation

Duplicate (BFI0405-DUP1)

Source: 2209230-01

Prepared & Analyzed: 09/16/22

% Solids	81.7	%		82.9		1.43	20
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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Rocky Mountain Fuel Consolidation Line

Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

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

Summit Scientific

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

Batch BF10505 - General Preparation

Blank (BF10505-BLK1)

Prepared: 09/20/22 Analyzed: 09/22/22

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BF10505-BS1)

Prepared: 09/20/22 Analyzed: 09/22/22

Specific Conductance (EC) 0.157 0.0100 mmhos/cm 0.150 105 95-105

Duplicate (BF10505-DUP1)

Source: 2209221-01

Prepared: 09/20/22 Analyzed: 09/22/22

Specific Conductance (EC) 0.274 0.0100 mmhos/cm 0.283 3.16 20

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Rocky Mountain Fuel Consolidation Line

Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

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

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

Batch BFI0506 - General Preparation

LCS (BFI0506-BS1)

Prepared: 09/20/22 Analyzed: 09/21/22

pH	9.09	pH Units	9.18	99.0	95-105
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Duplicate (BFI0506-DUP1)

Source: 2209221-01

Prepared: 09/20/22 Analyzed: 09/21/22

pH	7.62	pH Units	7.63	0.131	20
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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Rocky Mountain Fuel Consolidation Line

Project Number: [none]
Project Manager: Kevin Tautkus

Reported:
09/23/22 09:23

Notes and Definitions

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