

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

June 17, 2024

Chandler Cole

Phillips 66

6900 E Layton Ave/ Suite 900

Denver, CO 80237

RE: Four Parmlee (H-6-9) 3/2024

Work Order #2405191

Enclosed are the results of analyses for samples received by Summit Scientific on 05/13/24 17:56. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Natalie Tessier". The signature is written in a cursive, flowing style.

Natalie Tessier For Paul Shrewsbury

President



Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/17/24 10:40

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Source@7'	2405191-01	Soil	05/13/24 09:15	05/13/24 17:56



4653 Table Mountain Drive
 Golden, CO 80403
 303-277-9310

Lab ID	Page 1 of 1
2405191	

Client: <u>Tasman DCP/P66</u>		Project Manager: <u>Chandler Cole / Brian Humphrey</u>		Company: <u>P66</u>	
Address: <u>6855 W 119th Ave</u>		E-Mail: <u>chandler.e.cole@p66.com</u>		Project Name/Location: <u>Four Parmlee (H-6-9) 3/2024</u>	
City/State/Zip: <u>Broomfield/CO/80220</u>		E-Mail: <u>bhumphrey@tasman-geo.com</u>		AFE#:	
Phone: <u>303-487-1228</u>		Project Name: <u>Four Parmlee (H-6-9) 3/2024</u>		PO/Billing Codes:	
Sampler Name: <u>B. Ulrich</u>		Project Number:		Contact: <u>Chandler Cole</u>	

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix			Analysis Requested						Special Instructions	
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other							
1	Source # 7	5-13-24	0915	2			X			X									Standard TAT
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			
13																			
14																			
15																			

Relinquished by: <u>[Signature]</u>	Date/Time: <u>5-13-24 1714</u>	Received by: <u>[Signature]</u>	Date/Time: <u>5/13/24 1750</u>	TAT Business Days	Field DO	Notes:
Relinquished by: <u>Tasman [Signature]</u>	Date/Time: <u>5/13/24 1750</u>	Received by: <u>[Signature]</u>	Date/Time: <u>5/13/24 1750</u>	Same Day	Field EC	
				1 Day	Field ORP	
				2 Days	Field pH	
				3 Days	Field Temp.	
Temperature Upon Receipt: <u>75</u>	Corrected Temperature: <u>C</u>	IR gun #: <u>1</u>	HNO3 lot #: <u>X</u>	Standard	Field Turb.	

S2

Sample Receipt Checklist

S2 Work Order# 2405191

Client: DCP/REC

Client Project ID: Four Parmlee (H-6-9) 3/2024

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

Shipping method checkboxes: H.D. [], P.U. [x], FedEx [], UPS [], USPS [], Other []

Airbill #: _____

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

Temp (°C) 75

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.	-			
If custody seals are present, are they intact? (1)	-			ONCE
Are samples due within 48 hours present?		-		
Are water samples with short hold times present? Note the short hold analysis in the comments column - pH, Nitrate/Nitrite, Ferrous Iron (Fe ²⁺), Hexavalent Chromium (Cr ⁶⁺ , Cr VI), COD/BOD, Total Coliform, E. Coli, Total Residual Chlorine (TRC), Dissolved Oxygen		-		
Is a chain-of-custody (COC) form present and filled out Completely? (1)	-			
Is the COC properly relinquished by the client w/ date and time recorded? (1)	-			
Were all samples received intact? (1)	-			
Was adequate sample volume provided? (1)	-			
Does the COC agree with the number and type of sample bottles received? (1)	✓			
Do the sample IDs on the bottle labels match the COC? (1)	✓			
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.			-	
Are samples preserved that require preservation (excluding cooling)? (1) Note the type of preservative in the comments column – HCl, H ₂ SO ₄ , NaOH, HNO ₃ , etc.			-	
If samples are acid preserved for metals, is the pH ≤ 2? (1) Record the pfi in Comments.			✓	
If dissolved metals are requested, were samples field filtered?			✓	
Additional Comments (if any):				
(1) If NO, then contact the client before proceeding with analysis and note in case narrative.				

SU
Custodian Printed Name

5/13/24
Date/Time



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Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/17/24 10:40

Source@7'
2405191-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/13/24 09:15**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.20	mg/kg	100	BHE0431	05/14/24	05/14/24	EPA 8260B	R-05
Toluene	ND	0.50	"	"	"	"	"	"	R-05
Ethylbenzene	ND	0.50	"	"	"	"	"	"	R-05
Xylenes (total)	290	1.0	"	"	"	"	"	"	E
1,2,4-Trimethylbenzene	190	0.50	"	"	"	"	"	"	E
1,3,5-Trimethylbenzene	98	0.50	"	"	"	"	"	"	E
Naphthalene	14	0.38	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	5900	50	"	"	"	"	"	"	E

Date Sampled: **05/13/24 09:15**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4	0.0375	93.8 %	50-150	"	"	"	"	"	
Surrogate: Toluene-d8	0.0610	152 %	50-150	"	"	"	"	"	S-02
Surrogate: 4-Bromofluorobenzene	0.0797	199 %	50-150	"	"	"	"	"	S-02

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **05/13/24 09:15**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	5300	50	mg/kg	1	BHE0432	05/14/24	05/15/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **05/13/24 09:15**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl	9.52	76.2 %	30-150	"	"	"	"	"	

PAH by EPA Method 8270D SIM

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2405191-01 (Soil)

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PAH by EPA Method 8270D SIM

Date Sampled: **05/13/24 09:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	0.0576	0.0500	mg/kg	10	BHE0426	05/14/24	05/15/24	EPA 8270D SIM	
Anthracene	ND	0.0500	"	"	"	"	"	"	R-05
Benzo (a) anthracene	ND	0.0500	"	"	"	"	"	"	R-05
Benzo (a) pyrene	ND	0.0500	"	"	"	"	"	"	R-05
Benzo (b) fluoranthene	ND	0.0500	"	"	"	"	"	"	R-05
Benzo (k) fluoranthene	ND	0.0500	"	"	"	"	"	"	R-05
Chrysene	ND	0.0500	"	"	"	"	"	"	R-05
Dibenz (a,h) anthracene	ND	0.0500	"	"	"	"	"	"	R-05
Fluoranthene	ND	0.0500	"	"	"	"	"	"	R-05
Fluorene	0.222	0.0500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.0500	"	"	"	"	"	"	R-05
Pyrene	ND	0.0500	"	"	"	"	"	"	R-05
1-Methylnaphthalene	2.92	0.0500	"	"	"	"	"	"	E
2-Methylnaphthalene	8.94	1.00	"	200	"	"	05/15/24	"	

Date Sampled: **05/13/24 09:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0225	67.4 %	40-150		"	"	05/15/24	"	S-01
Surrogate: Fluoranthene-d10	0.0112	33.7 %	40-150		"	"	"	"	S-01

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **05/13/24 09:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHE0413	05/13/24	06/06/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **05/13/24 09:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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2405191-01 (Soil)

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Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	0.969	0.200	mg/kg dry	1	BHE0446	05/14/24	06/04/24	EPA 6020B
Barium	33.9	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	1.54	0.400	"	"	"	"	"	"
Lead	2.26	0.200	"	"	"	"	"	"
Nickel	1.51	0.400	"	"	"	"	"	"
Silver	ND	0.0200	"	"	"	"	"	"
Zinc	6.84	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **05/13/24 09:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHE0438	05/14/24	05/14/24	EPA 7196A	

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

Date Sampled: **05/13/24 09:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	15.8	0.0500	mg/L dry	1	BHE0451	05/14/24	06/12/24	EPA 6020B	
Magnesium	3.80	0.0500	"	"	"	"	"	"	
Sodium	33.3	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **05/13/24 09:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.95	0.00100	units	1	BHF0379	06/13/24	06/13/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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2405191-01 (Soil)

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Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **05/13/24 09:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	92.7		%	1	BHE0442	05/14/24	05/14/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **05/13/24 09:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.174	0.0100	mmhos/cm	1	BHE0456	05/14/24	05/15/24	EPA 120.1	

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

Date Sampled: **05/13/24 09:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	6.18		pH Units	1	BHE0455	05/14/24	05/15/24	EPA 9045D	

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Volatile Organic Compounds by EPA Method 8260B - Quality Control

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

Batch BHE0431 - EPA 5030 Soil MS

Blank (BHE0431-BLK1)

Prepared & Analyzed: 05/14/24

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	0.0328		"	0.0400		82.1	50-150				
Surrogate: Toluene-d8	0.0380		"	0.0400		94.9	50-150				
Surrogate: 4-Bromofluorobenzene	0.0394		"	0.0400		98.5	50-150				

LCS (BHE0431-BS1)

Prepared & Analyzed: 05/14/24

Benzene	0.0858	0.0020	mg/kg	0.100		85.8	70-130				
Toluene	0.104	0.0050	"	0.100		104	70-130				
Ethylbenzene	0.107	0.0050	"	0.100		107	70-130				
m,p-Xylene	0.209	0.010	"	0.200		105	70-130				
o-Xylene	0.102	0.0050	"	0.100		102	70-130				
1,2,4-Trimethylbenzene	0.0967	0.0050	"	0.100		96.7	70-130				
1,3,5-Trimethylbenzene	0.0988	0.0050	"	0.100		98.8	70-130				
Naphthalene	0.0833	0.0038	"	0.100		83.3	70-130				
Surrogate: 1,2-Dichloroethane-d4	0.0346		"	0.0400		86.6	50-150				
Surrogate: Toluene-d8	0.0415		"	0.0400		104	50-150				
Surrogate: 4-Bromofluorobenzene	0.0403		"	0.0400		101	50-150				

Matrix Spike (BHE0431-MS1)

Source: 2405186-01

Prepared & Analyzed: 05/14/24

Benzene	0.0830	0.0020	mg/kg	0.100	ND	83.0	70-130				
Toluene	0.103	0.0050	"	0.100	ND	103	70-130				
Ethylbenzene	0.103	0.0050	"	0.100	ND	103	70-130				
m,p-Xylene	0.202	0.010	"	0.200	ND	101	70-130				
o-Xylene	0.0980	0.0050	"	0.100	ND	98.0	70-130				
1,2,4-Trimethylbenzene	0.0923	0.0050	"	0.100	ND	92.3	70-130				
1,3,5-Trimethylbenzene	0.0946	0.0050	"	0.100	ND	94.6	70-130				
Naphthalene	0.0837	0.0038	"	0.100	ND	83.7	70-130				
Surrogate: 1,2-Dichloroethane-d4	0.0322		"	0.0400		80.4	50-150				
Surrogate: Toluene-d8	0.0412		"	0.0400		103	50-150				
Surrogate: 4-Bromofluorobenzene	0.0388		"	0.0400		96.9	50-150				

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/17/24 10:40

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BHE0431 - EPA 5030 Soil MS

Matrix Spike Dup (BHE0431-MSD1)	Source: 2405186-01			Prepared & Analyzed: 05/14/24						
Benzene	0.0947	0.0020	mg/kg	0.100	ND	94.7	70-130	13.1	30	
Toluene	0.114	0.0050	"	0.100	ND	114	70-130	10.5	30	
Ethylbenzene	0.120	0.0050	"	0.100	ND	120	70-130	15.2	30	
m,p-Xylene	0.232	0.010	"	0.200	ND	116	70-130	13.6	30	
o-Xylene	0.111	0.0050	"	0.100	ND	111	70-130	12.4	30	
1,2,4-Trimethylbenzene	0.104	0.0050	"	0.100	ND	104	70-130	11.9	30	
1,3,5-Trimethylbenzene	0.107	0.0050	"	0.100	ND	107	70-130	12.7	30	
Naphthalene	0.0908	0.0038	"	0.100	ND	90.8	70-130	8.22	30	
Surrogate: 1,2-Dichloroethane-d4	0.0317		"	0.0400		79.2	50-150			
Surrogate: Toluene-d8	0.0406		"	0.0400		102	50-150			
Surrogate: 4-Bromofluorobenzene	0.0406		"	0.0400		102	50-150			

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Project Number: [none]
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Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BHE0432 - EPA 3550A

Blank (BHE0432-BLK1)

Prepared: 05/14/24 Analyzed: 05/15/24

C10-C28 (DRO)	ND	50	mg/kg								
C28-C36 (ORO)	ND	50	"								
Surrogate: <i>o</i> -Terphenyl	13.5		"	12.5		108		30-150			

LCS (BHE0432-BS1)

Prepared: 05/14/24 Analyzed: 05/15/24

C10-C28 (DRO)	484	50	mg/kg	500		96.8		70-130			
Surrogate: <i>o</i> -Terphenyl	13.5		"	12.5		108		30-150			

Matrix Spike (BHE0432-MS1)

Source: 2405186-01

Prepared: 05/14/24 Analyzed: 05/15/24

C10-C28 (DRO)	438	50	mg/kg	500	43.1	78.9		70-130			
Surrogate: <i>o</i> -Terphenyl	9.76		"	12.5		78.1		30-150			

Matrix Spike Dup (BHE0432-MSD1)

Source: 2405186-01

Prepared: 05/14/24 Analyzed: 05/15/24

C10-C28 (DRO)	444	50	mg/kg	500	43.1	80.2		70-130	1.42	20	
Surrogate: <i>o</i> -Terphenyl	9.65		"	12.5		77.2		30-150			

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Project Number: [none]
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06/17/24 10:40

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BHE0426 - EPA 5030 Soil MS

Blank (BHE0426-BLK1)

Prepared & Analyzed: 05/14/24

Acenaphthene	ND	0.00500	mg/kg							
Anthracene	ND	0.00500	"							
Benzo (a) anthracene	ND	0.00500	"							
Benzo (a) pyrene	ND	0.00500	"							
Benzo (b) fluoranthene	ND	0.00500	"							
Benzo (k) fluoranthene	ND	0.00500	"							
Chrysene	ND	0.00500	"							
Dibenz (a,h) anthracene	ND	0.00500	"							
Fluoranthene	ND	0.00500	"							
Fluorene	ND	0.00500	"							
Indeno (1,2,3-cd) pyrene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
1-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0355</i>		"	<i>0.0333</i>		<i>106</i>		<i>40-150</i>		
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0403</i>		"	<i>0.0333</i>		<i>121</i>		<i>40-150</i>		

LCS (BHE0426-BS1)

Prepared & Analyzed: 05/14/24

Acenaphthene	0.0347	0.00500	mg/kg	0.0333	104	31-137
Anthracene	0.0332	0.00500	"	0.0333	99.7	30-120
Benzo (a) anthracene	0.0331	0.00500	"	0.0333	99.3	30-120
Benzo (a) pyrene	0.0309	0.00500	"	0.0333	92.6	30-120
Benzo (b) fluoranthene	0.0330	0.00500	"	0.0333	99.1	30-120
Benzo (k) fluoranthene	0.0351	0.00500	"	0.0333	105	30-120
Chrysene	0.0351	0.00500	"	0.0333	105	30-120
Dibenz (a,h) anthracene	0.0241	0.00500	"	0.0333	72.3	30-120
Fluoranthene	0.0343	0.00500	"	0.0333	103	30-120
Fluorene	0.0332	0.00500	"	0.0333	99.6	30-120
Indeno (1,2,3-cd) pyrene	0.0238	0.00500	"	0.0333	71.4	30-120
Pyrene	0.0376	0.00500	"	0.0333	113	35-142
1-Methylnaphthalene	0.0330	0.00500	"	0.0333	99.1	35-142
2-Methylnaphthalene	0.0305	0.00500	"	0.0333	91.6	35-142
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0360</i>		"	<i>0.0333</i>	<i>108</i>	<i>40-150</i>
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0373</i>		"	<i>0.0333</i>	<i>112</i>	<i>40-150</i>

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/17/24 10:40

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BHE0426 - EPA 5030 Soil MS

Matrix Spike (BHE0426-MS1)	Source: 2405181-01			Prepared & Analyzed: 05/14/24						
Acenaphthene	0.0205	0.00500	mg/kg	0.0333	ND	61.4	31-137			
Anthracene	0.0214	0.00500	"	0.0333	ND	64.2	30-120			
Benzo (a) anthracene	0.0216	0.00500	"	0.0333	ND	64.8	30-120			
Benzo (a) pyrene	0.0193	0.00500	"	0.0333	ND	58.0	30-120			
Benzo (b) fluoranthene	0.0203	0.00500	"	0.0333	ND	60.9	30-120			
Benzo (k) fluoranthene	0.0202	0.00500	"	0.0333	ND	60.5	30-120			
Chrysene	0.0211	0.00500	"	0.0333	ND	63.3	30-120			
Dibenz (a,h) anthracene	0.0143	0.00500	"	0.0333	ND	42.9	30-120			
Fluoranthene	0.0229	0.00500	"	0.0333	ND	68.7	30-120			
Fluorene	0.0244	0.00500	"	0.0333	ND	73.2	30-120			
Indeno (1,2,3-cd) pyrene	0.0155	0.00500	"	0.0333	ND	46.6	30-120			
Pyrene	0.0261	0.00500	"	0.0333	ND	78.3	35-142			
1-Methylnaphthalene	0.0213	0.00500	"	0.0333	ND	64.0	15-130			
2-Methylnaphthalene	0.0208	0.00500	"	0.0333	ND	62.4	15-130			
Surrogate: 2-Methylnaphthalene-d10	0.0219		"	0.0333		65.8	40-150			
Surrogate: Fluoranthene-d10	0.0243		"	0.0333		72.9	40-150			

Matrix Spike Dup (BHE0426-MSD1)	Source: 2405181-01			Prepared & Analyzed: 05/14/24						
Acenaphthene	0.0183	0.00500	mg/kg	0.0333	ND	54.8	31-137	11.4	30	
Anthracene	0.0181	0.00500	"	0.0333	ND	54.2	30-120	16.9	30	
Benzo (a) anthracene	0.0185	0.00500	"	0.0333	ND	55.4	30-120	15.6	30	
Benzo (a) pyrene	0.0180	0.00500	"	0.0333	ND	54.1	30-120	6.93	30	
Benzo (b) fluoranthene	0.0190	0.00500	"	0.0333	ND	57.1	30-120	6.33	30	
Benzo (k) fluoranthene	0.0189	0.00500	"	0.0333	ND	56.6	30-120	6.67	30	
Chrysene	0.0177	0.00500	"	0.0333	ND	53.0	30-120	17.8	30	
Dibenz (a,h) anthracene	0.0139	0.00500	"	0.0333	ND	41.6	30-120	3.05	30	
Fluoranthene	0.0195	0.00500	"	0.0333	ND	58.4	30-120	16.2	30	
Fluorene	0.0194	0.00500	"	0.0333	ND	58.1	30-120	23.1	30	
Indeno (1,2,3-cd) pyrene	0.0160	0.00500	"	0.0333	ND	47.9	30-120	2.69	30	
Pyrene	0.0217	0.00500	"	0.0333	ND	65.0	35-142	18.5	30	
1-Methylnaphthalene	0.0200	0.00500	"	0.0333	ND	59.9	15-130	6.61	50	
2-Methylnaphthalene	0.0200	0.00500	"	0.0333	ND	60.0	15-130	3.84	50	
Surrogate: 2-Methylnaphthalene-d10	0.0207		"	0.0333		62.0	40-150			
Surrogate: Fluoranthene-d10	0.0209		"	0.0333		62.6	40-150			

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/17/24 10:40

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

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

Batch BHE0413 - EPA 3050B

Blank (BHE0413-BLK1)

Prepared: 05/13/24 Analyzed: 06/06/24

Boron ND 2.00 mg/L

LCS (BHE0413-BS1)

Prepared: 05/13/24 Analyzed: 06/06/24

Boron 4.95 2.00 mg/L 5.00 99.0 80-120

Duplicate (BHE0413-DUP1)

Source: 2405167-01

Prepared: 05/13/24 Analyzed: 06/06/24

Boron 0.105 2.00 mg/L 0.122 14.8 20

Matrix Spike (BHE0413-MS1)

Source: 2405167-01

Prepared: 05/13/24 Analyzed: 06/06/24

Boron 4.76 2.00 mg/L 4.99 0.122 92.9 75-125

Matrix Spike Dup (BHE0413-MSD1)

Source: 2405167-01

Prepared: 05/13/24 Analyzed: 06/06/24

Boron 5.07 2.00 mg/L 4.99 0.122 99.2 75-125 6.48 25

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/17/24 10:40

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BHE0446 - EPA 3050B

Blank (BHE0446-BLK1)

Prepared: 05/14/24 Analyzed: 06/04/24

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	"							
Silver	ND	0.0200	"							
Zinc	ND	0.400	"							
Selenium	ND	0.260	"							

LCS (BHE0446-BS1)

Prepared: 05/14/24 Analyzed: 06/04/24

Arsenic	39.3	0.200	mg/kg wet	40.0	98.2	80-120
Barium	38.9	0.400	"	40.0	97.2	80-120
Cadmium	1.94	0.200	"	2.00	97.1	80-120
Copper	41.5	0.400	"	40.0	104	80-120
Lead	19.3	0.200	"	20.0	96.3	80-120
Nickel	41.4	0.400	"	40.0	104	80-120
Silver	1.94	0.0200	"	2.00	96.9	80-120
Zinc	40.9	0.400	"	40.0	102	80-120
Selenium	4.49	0.260	"	4.00	112	80-120

Duplicate (BHE0446-DUP1)

Source: 2405186-01

Prepared: 05/14/24 Analyzed: 06/04/24

Arsenic	1.68	0.200	mg/kg dry	1.15	37.7	20	QR-01
Barium	61.6	0.400	"	47.6	25.6	20	QR-04
Cadmium	0.147	0.200	"	0.108	30.3	20	QR-01
Copper	3.51	0.400	"	2.70	26.3	20	QR-01
Lead	5.70	0.200	"	4.27	28.7	20	QR-04
Nickel	3.61	0.400	"	2.69	29.1	20	QR-01
Silver	0.0198	0.0200	"	0.0181	9.09	20	
Zinc	15.3	0.400	"	12.1	23.0	20	QR-04
Selenium	ND	0.260	"	ND		20	

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/17/24 10:40

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BHE0446 - EPA 3050B

Matrix Spike (BHE0446-MS1)

Source: 2405186-01

Prepared: 05/14/24 Analyzed: 06/04/24

Arsenic	41.8	0.200	mg/kg dry	43.0	1.15	94.5	75-125			
Barium	115	0.400	"	43.0	47.6	156	75-125			QM-07
Cadmium	2.22	0.200	"	2.15	0.108	98.2	75-125			
Copper	28.8	0.400	"	43.0	2.70	60.8	75-125			QM-07
Lead	26.9	0.200	"	21.5	4.27	105	75-125			
Nickel	29.2	0.400	"	43.0	2.69	61.6	75-125			QM-07
Silver	2.01	0.0200	"	2.15	0.0181	92.7	75-125			
Zinc	42.9	0.400	"	43.0	12.1	71.7	75-125			QM-07
Selenium	4.15	0.260	"	4.30	ND	96.5	75-125			

Matrix Spike Dup (BHE0446-MSD1)

Source: 2405186-01

Prepared: 05/14/24 Analyzed: 06/04/24

Arsenic	41.5	0.200	mg/kg dry	43.0	1.15	93.8	75-125	0.715	25	
Barium	114	0.400	"	43.0	47.6	155	75-125	0.356	25	QM-07
Cadmium	2.22	0.200	"	2.15	0.108	98.1	75-125	0.0969	25	
Copper	29.0	0.400	"	43.0	2.70	61.1	75-125	0.534	25	QM-07
Lead	26.8	0.200	"	21.5	4.27	105	75-125	0.306	25	
Nickel	29.4	0.400	"	43.0	2.69	62.1	75-125	0.676	25	QM-07
Silver	2.01	0.0200	"	2.15	0.0181	92.9	75-125	0.214	25	
Zinc	42.9	0.400	"	43.0	12.1	71.7	75-125	0.00599	25	QM-07
Selenium	4.32	0.260	"	4.30	ND	100	75-125	3.97	25	

Post Spike (BHE0446-PS1)

Source: 2405186-01

Prepared: 05/14/24 Analyzed: 06/04/24

Arsenic	104		ug/l	100	2.67	102	75-125			
Barium	206		"	100	111	95.4	75-125			
Cadmium	5.34		"	5.00	0.252	102	75-125			
Copper	81.7		"	100	6.27	75.4	75-125			
Lead	59.8		"	50.0	9.94	99.8	75-125			
Nickel	82.3		"	100	6.25	76.0	75-125			
Silver	5.13		"	5.00	0.0420	102	75-125			
Zinc	105		"	100	28.2	76.7	75-125			
Selenium	10.6		"	10.0	0.120	105	75-125			

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/17/24 10:40

Hexavalent Chromium by EPA Method 7196 - Quality Control
Summit Scientific

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

Batch BHE0438 - 3060A Mod

Blank (BHE0438-BLK1)

Prepared & Analyzed: 05/14/24

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BHE0438-BS1)

Prepared & Analyzed: 05/14/24

Chromium, Hexavalent 23.6 0.30 mg/kg wet 25.0 94.2 80-120

Duplicate (BHE0438-DUP1)

Source: 2405167-01

Prepared & Analyzed: 05/14/24

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BHE0438-MS1)

Source: 2405167-01

Prepared & Analyzed: 05/14/24

Chromium, Hexavalent 28.2 0.30 mg/kg dry 28.6 ND 98.6 75-125

Matrix Spike Dup (BHE0438-MSD1)

Source: 2405167-01

Prepared & Analyzed: 05/14/24

Chromium, Hexavalent 28.3 0.30 mg/kg dry 28.6 ND 99.0 75-125 0.405 20

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/17/24 10:40

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

Summit Scientific

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

Batch BHE0451 - General Preparation

Blank (BHE0451-BLK1)

Prepared: 05/14/24 Analyzed: 06/12/24

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

LCS (BHE0451-BS1)

Prepared: 05/14/24 Analyzed: 06/12/24

Calcium	5.33	0.0500	mg/L wet	5.00	107	70-130				
Magnesium	5.20	0.0500	"	5.00	104	70-130				
Sodium	5.01	0.0500	"	5.00	100	70-130				

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/17/24 10:40

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

Summit Scientific

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

Batch BHE0442 - General Preparation

Duplicate (BHE0442-DUP1)	Source: 2405186-01			Prepared & Analyzed: 05/14/24								
% Solids	92.0		%		93.0				1.11		20	

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/17/24 10:40

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

Summit Scientific

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

Batch BHE0456 - General Preparation

Blank (BHE0456-BLK1)

Prepared: 05/14/24 Analyzed: 05/15/24

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BHE0456-BS1)

Prepared: 05/14/24 Analyzed: 05/15/24

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

Duplicate (BHE0456-DUP1)

Source: 2405191-01

Prepared: 05/14/24 Analyzed: 05/15/24

Specific Conductance (EC) 0.169 0.0100 mmhos/cm 0.174 2.74 20

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/17/24 10:40

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

Summit Scientific

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

Batch BHE0455 - General Preparation

LCS (BHE0455-BS1)

Prepared: 05/14/24 Analyzed: 05/15/24

pH	9.17	pH Units	9.18	99.9	95-105
----	------	----------	------	------	--------

Duplicate (BHE0455-DUP1)

Source: 2405191-01

Prepared: 05/14/24 Analyzed: 05/15/24

pH	8.98	pH Units	6.18	36.9	20
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Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/17/24 10:40

Notes and Definitions

- S-02 The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.
- S-01 The surrogate recovery for this sample is not available due to sample dilution required from high analyte concentration and/or matrix interference's.
- R-05 The sample was diluted due to the presence of high levels of non-target analytes resulting in elevated reporting limits.
- QR-04 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
- QR-01 Analyses are not controlled on RPD values from sample concentrations less than 10 times the reporting limit. QC batch accepted based on LCS and/or LCSD QC results.
- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.
- E The concentration indicated for this analyte is an estimated value above the calibration range of the instrument.
- 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

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

June 07, 2024

Chandler Cole

Phillips 66

6900 E Layton Ave/ Suite 900

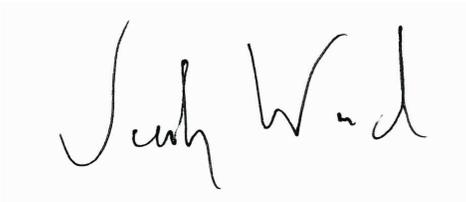
Denver, CO 80237

RE: Four Parmlee (H-6-9) 3/2024

Work Order #2405235

Enclosed are the results of analyses for samples received by Summit Scientific on 05/15/24 18:16. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Jacob Wood". The signature is written in a cursive style with a large initial "J" and a long, sweeping underline.

Jacob Wood For Paul Shrewsbury
President



Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/07/24 13:17

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Base01@55'	2405235-01	Soil	05/15/24 11:18	05/15/24 18:16
SWall01@20'	2405235-02	Soil	05/15/24 11:49	05/15/24 18:16

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.

Client: <u>Tasman DCP/P66</u>		Send Data To: Project Manager: <u>Chandler Cole / Brian Humphrey</u>		Send Invoice To: Company: <u>P66</u>	
Address: <u>6855 W 119th Ave</u>		E-Mail: <u>chandler.e.cole@p66.com</u>		Project Name/Location: <u>Four Parnice (H-6-9) 3/2024</u>	
City/State/Zip: <u>Broomfield CO / 80220</u>		<u>bhumphrey@tasman-geo.com</u>		AFE#:	
Phone: <u>303-487-1228</u>		Project Name: <u>Four Parnice (H-6-9) 3/2024</u>		PO/Billing Codes: <u>B-64</u>	
Sampler Name: <u>B. Ulrich</u>		Project Number:		Contact: <u>Chandler Cole</u>	

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix			Analysis Requested				Special Instructions	
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other					
1	Base @ 55'	5-15-24	1118	2			X										Same-day TAT
2	Swallo @ 20'	↓	1149	↓			↓										↓
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	
15																	

Relinquished by: <u>[Signature]</u>	Date/Time: <u>5-15-24 1708</u>	Received by: <u>[Signature]</u>	Date/Time: <u>5-15-24 1610</u>	TAT Business Days	Field DO	Notes:
				Same Day <input checked="" type="checkbox"/>	Field EC	
Relinquished by: <u>Tasman/DKX</u>	Date/Time: <u>5-15-24 1810</u>	Received by: <u>[Signature]</u>	Date/Time: <u>5-15-24 1610</u>	1 Day	Field ORP	
				2 Days	Field pH	
Relinquished by:	Date/Time:	Received by:	Date/Time:	3 Days	Field Temp.	
				Standard	Field Turb.	
Temperature Upon Receipt: <u>8.9</u>	Corrected Temperature: <u>8</u>	IR gun #: <u>1</u>	HNO3 lot #:			

S2

Sample Receipt Checklist

S2 Work Order# 2405235

Client: DCPP/ACE

Client Project ID: Four Parmlce (H-69)

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

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

Temp (°C) 8.9

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"/>	<u>ON ICE</u>
Are samples due within 48 hours present?	<input checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<u>Same day</u>
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"/>	
<u>Additional Comments (if any):</u>				
(1) If NO, then contact the client before proceeding with analysis and note in case narrative.				

AS
Custodian Printed Name

5/15/24
Date/Time



Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/07/24 13:17

Base01@55'
2405235-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/15/24 11:18**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	BHE0499	05/15/24	05/15/24	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: **05/15/24 11:18**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4	0.0460	115 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0415	104 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0376	93.9 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **05/15/24 11:18**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	BHE0501	05/15/24	05/15/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **05/15/24 11:18**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl	6.43	51.4 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/07/24 13:17

Base01@55'
2405235-01 (Soil)

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PAH by EPA Method 8270D SIM

Date Sampled: **05/15/24 11:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHE0507	05/16/24	05/17/24	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: **05/15/24 11:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0196	58.8 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0185	55.4 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **05/15/24 11:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHE0512	05/16/24	06/06/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **05/15/24 11:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/07/24 13:17

Base01@55'
2405235-01 (Soil)

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Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	5.43	0.200	mg/kg dry	1	BHE0533	05/16/24	05/17/24	EPA 6020B
Barium	105	0.400	"	"	"	"	"	"
Cadmium	0.451	0.200	"	"	"	"	"	"
Copper	9.74	0.400	"	"	"	"	"	"
Lead	17.1	0.200	"	"	"	"	"	"
Nickel	10.6	0.400	"	"	"	"	"	"
Silver	0.0414	0.0200	"	"	"	"	"	"
Zinc	28.8	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **05/15/24 11:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHE0537	05/16/24	05/16/24	EPA 7196A	

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

Date Sampled: **05/15/24 11:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	104	0.0500	mg/L dry	1	BHE0502	05/15/24	05/20/24	EPA 6020B	
Magnesium	25.8	0.0500	"	"	"	"	"	"	
Sodium	2.65	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **05/15/24 11:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0603	0.00100	units	1	BHE0637	05/21/24	05/21/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **05/15/24 11:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/07/24 13:17

Base01@55'
2405235-01 (Soil)

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Physical Parameters by APHA/ASTM/EPA Methods

% Solids	82.1	%	1	BHE0515	05/16/24	05/16/24	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **05/15/24 11:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.0575	0.0100	mmhos/cm	1	BHE0504	05/15/24	05/16/24	EPA 120.1	

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

Date Sampled: **05/15/24 11:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.89		pH Units	1	BHE0503	05/15/24	05/16/24	EPA 9045D	

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/07/24 13:17

SWall01@20'
2405235-02 (Soil)

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Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/15/24 11:49**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	BHE0499	05/15/24	05/15/24	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: **05/15/24 11:49**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4	0.0449	112 %	50-150	"	"	"	"	"	
Surrogate: Toluene-d8	0.0424	106 %	50-150	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0389	97.2 %	50-150	"	"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **05/15/24 11:49**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	BHE0501	05/15/24	05/15/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **05/15/24 11:49**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl	8.61	68.8 %	30-150	"	"	"	"	"	

PAH by EPA Method 8270D SIM

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/07/24 13:17

SWall01@20'
2405235-02 (Soil)

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PAH by EPA Method 8270D SIM

Date Sampled: **05/15/24 11:49**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHE0507	05/16/24	05/17/24	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: **05/15/24 11:49**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0199	59.7 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0190	57.0 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **05/15/24 11:49**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHE0512	05/16/24	06/06/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **05/15/24 11:49**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/07/24 13:17

SWall01@20'
2405235-02 (Soil)

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Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	0.941	0.200	mg/kg dry	1	BHE0533	05/16/24	05/17/24	EPA 6020B
Barium	32.4	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	1.81	0.400	"	"	"	"	"	"
Lead	2.06	0.200	"	"	"	"	"	"
Nickel	1.56	0.400	"	"	"	"	"	"
Silver	0.0229	0.0200	"	"	"	"	"	"
Zinc	7.20	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **05/15/24 11:49**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHE0537	05/16/24	05/16/24	EPA 7196A	

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

Date Sampled: **05/15/24 11:49**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	52.5	0.0500	mg/L dry	1	BHE0502	05/15/24	05/20/24	EPA 6020B	
Magnesium	13.5	0.0500	"	"	"	"	"	"	
Sodium	4.64	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **05/15/24 11:49**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.148	0.00100	units	1	BHE0637	05/21/24	05/21/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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Phillips 66
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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/07/24 13:17

SWall01@20'
2405235-02 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **05/15/24 11:49**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	95.9		%	1	BHE0515	05/16/24	05/16/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **05/15/24 11:49**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.23	0.0100	mmhos/cm	1	BHE0504	05/15/24	05/16/24	EPA 120.1	

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

Date Sampled: **05/15/24 11:49**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	6.67		pH Units	1	BHE0503	05/15/24	05/16/24	EPA 9045D	

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/07/24 13:17

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BHE0499 - EPA 5030 Soil MS

Blank (BHE0499-BLK1)

Prepared: 05/15/24 Analyzed: 05/16/24

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	0.0219		"	0.0400		54.8	50-150			
Surrogate: Toluene-d8	0.0394		"	0.0400		98.4	50-150			
Surrogate: 4-Bromofluorobenzene	0.0390		"	0.0400		97.4	50-150			

LCS (BHE0499-BS1)

Prepared: 05/15/24 Analyzed: 05/16/24

Benzene	0.0823	0.0020	mg/kg	0.100		82.3	70-130			
Toluene	0.112	0.0050	"	0.100		112	70-130			
Ethylbenzene	0.113	0.0050	"	0.100		113	70-130			
m,p-Xylene	0.221	0.010	"	0.200		111	70-130			
o-Xylene	0.110	0.0050	"	0.100		110	70-130			
1,2,4-Trimethylbenzene	0.0989	0.0050	"	0.100		98.9	70-130			
1,3,5-Trimethylbenzene	0.103	0.0050	"	0.100		103	70-130			
Naphthalene	0.0800	0.0038	"	0.100		80.0	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0231		"	0.0400		57.8	50-150			
Surrogate: Toluene-d8	0.0423		"	0.0400		106	50-150			
Surrogate: 4-Bromofluorobenzene	0.0390		"	0.0400		97.6	50-150			

Matrix Spike (BHE0499-MS1)

Source: 2405230-01

Prepared: 05/15/24 Analyzed: 05/16/24

Benzene	0.0718	0.0020	mg/kg	0.100	ND	71.8	70-130			
Toluene	0.102	0.0050	"	0.100	ND	102	70-130			
Ethylbenzene	0.0960	0.0050	"	0.100	ND	96.0	70-130			
m,p-Xylene	0.190	0.010	"	0.200	ND	95.0	70-130			
o-Xylene	0.0937	0.0050	"	0.100	ND	93.7	70-130			
1,2,4-Trimethylbenzene	0.0839	0.0050	"	0.100	ND	83.9	70-130			
1,3,5-Trimethylbenzene	0.0872	0.0050	"	0.100	ND	87.2	70-130			
Naphthalene	0.0706	0.0038	"	0.100	ND	70.6	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0208		"	0.0400		51.9	50-150			
Surrogate: Toluene-d8	0.0449		"	0.0400		112	50-150			
Surrogate: 4-Bromofluorobenzene	0.0398		"	0.0400		99.6	50-150			

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/07/24 13:17

Volatile Organic Compounds by EPA Method 8260B - Quality Control

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

Batch BHE0499 - EPA 5030 Soil MS

Matrix Spike Dup (BHE0499-MSD1)	Source: 2405230-01			Prepared: 05/15/24 Analyzed: 05/16/24						
Benzene	0.0693	0.0020	mg/kg	0.100	ND	69.3	70-130	3.53	30	QM-07
Toluene	0.101	0.0050	"	0.100	ND	101	70-130	0.914	30	
Ethylbenzene	0.0930	0.0050	"	0.100	ND	93.0	70-130	3.18	30	
m,p-Xylene	0.185	0.010	"	0.200	ND	92.3	70-130	2.87	30	
o-Xylene	0.0906	0.0050	"	0.100	ND	90.6	70-130	3.32	30	
1,2,4-Trimethylbenzene	0.0829	0.0050	"	0.100	ND	82.9	70-130	1.29	30	
1,3,5-Trimethylbenzene	0.0867	0.0050	"	0.100	ND	86.7	70-130	0.552	30	
Naphthalene	0.0669	0.0038	"	0.100	ND	66.9	70-130	5.33	30	QM-07
Surrogate: 1,2-Dichloroethane-d4	0.0244		"	0.0400		61.0	50-150			
Surrogate: Toluene-d8	0.0460		"	0.0400		115	50-150			
Surrogate: 4-Bromofluorobenzene	0.0405		"	0.0400		101	50-150			

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/07/24 13:17

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BHE0501 - EPA 3550A

Blank (BHE0501-BLK1)

Prepared: 05/15/24 Analyzed: 05/16/24

C10-C28 (DRO)	ND	50	mg/kg							
C28-C36 (ORO)	ND	50	"							
Surrogate: <i>o</i> -Terphenyl	12.9		"	12.5		103	30-150			

LCS (BHE0501-BS1)

Prepared: 05/15/24 Analyzed: 05/16/24

C10-C28 (DRO)	563	50	mg/kg	500		113	70-130			
Surrogate: <i>o</i> -Terphenyl	12.1		"	12.5		96.6	30-150			

Matrix Spike (BHE0501-MS1)

Source: 2405230-01

Prepared: 05/15/24 Analyzed: 05/16/24

C10-C28 (DRO)	526	50	mg/kg	500	ND	105	70-130			
Surrogate: <i>o</i> -Terphenyl	9.36		"	12.5		74.9	30-150			

Matrix Spike Dup (BHE0501-MSD1)

Source: 2405230-01

Prepared: 05/15/24 Analyzed: 05/16/24

C10-C28 (DRO)	505	50	mg/kg	500	ND	101	70-130	4.09	20	
Surrogate: <i>o</i> -Terphenyl	9.50		"	12.5		76.0	30-150			

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Phillips 66
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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/07/24 13:17

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BHE0507 - EPA 5030 Soil MS

Blank (BHE0507-BLK1)

Prepared: 05/16/24 Analyzed: 05/17/24

Acenaphthene	ND	0.00500	mg/kg								
Anthracene	ND	0.00500	"								
Benzo (a) anthracene	ND	0.00500	"								
Benzo (a) pyrene	ND	0.00500	"								
Benzo (b) fluoranthene	ND	0.00500	"								
Benzo (k) fluoranthene	ND	0.00500	"								
Chrysene	ND	0.00500	"								
Dibenz (a,h) anthracene	ND	0.00500	"								
Fluoranthene	ND	0.00500	"								
Fluorene	ND	0.00500	"								
Indeno (1,2,3-cd) pyrene	ND	0.00500	"								
Pyrene	ND	0.00500	"								
1-Methylnaphthalene	ND	0.00500	"								
2-Methylnaphthalene	ND	0.00500	"								
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0353</i>		"	<i>0.0333</i>		<i>106</i>		<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0392</i>		"	<i>0.0333</i>		<i>118</i>		<i>40-150</i>			

LCS (BHE0507-BS1)

Prepared: 05/16/24 Analyzed: 05/17/24

Acenaphthene	0.0345	0.00500	mg/kg	0.0333	104	31-137
Anthracene	0.0365	0.00500	"	0.0333	110	30-120
Benzo (a) anthracene	0.0334	0.00500	"	0.0333	100	30-120
Benzo (a) pyrene	0.0362	0.00500	"	0.0333	109	30-120
Benzo (b) fluoranthene	0.0380	0.00500	"	0.0333	114	30-120
Benzo (k) fluoranthene	0.0380	0.00500	"	0.0333	114	30-120
Chrysene	0.0374	0.00500	"	0.0333	112	30-120
Dibenz (a,h) anthracene	0.0274	0.00500	"	0.0333	82.1	30-120
Fluoranthene	0.0375	0.00500	"	0.0333	112	30-120
Fluorene	0.0380	0.00500	"	0.0333	114	30-120
Indeno (1,2,3-cd) pyrene	0.0205	0.00500	"	0.0333	61.5	30-120
Pyrene	0.0308	0.00500	"	0.0333	92.4	35-142
1-Methylnaphthalene	0.0371	0.00500	"	0.0333	111	35-142
2-Methylnaphthalene	0.0360	0.00500	"	0.0333	108	35-142
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0374</i>		"	<i>0.0333</i>	<i>112</i>	<i>40-150</i>
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0400</i>		"	<i>0.0333</i>	<i>120</i>	<i>40-150</i>

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Phillips 66
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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/07/24 13:17

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BHE0507 - EPA 5030 Soil MS

Matrix Spike (BHE0507-MS1)	Source: 2405227-01			Prepared: 05/16/24 Analyzed: 05/17/24								
Acenaphthene	0.0262	0.00500	mg/kg	0.0333	ND	78.5	31-137					
Anthracene	0.0297	0.00500	"	0.0333	ND	89.2	30-120					
Benzo (a) anthracene	0.0287	0.00500	"	0.0333	ND	86.2	30-120					
Benzo (a) pyrene	0.0268	0.00500	"	0.0333	ND	80.3	30-120					
Benzo (b) fluoranthene	0.0242	0.00500	"	0.0333	ND	72.7	30-120					
Benzo (k) fluoranthene	0.0211	0.00500	"	0.0333	ND	63.4	30-120					
Chrysene	0.0285	0.00500	"	0.0333	ND	85.6	30-120					
Dibenz (a,h) anthracene	0.0336	0.00500	"	0.0333	ND	101	30-120					
Fluoranthene	0.0279	0.00500	"	0.0333	ND	83.6	30-120					
Fluorene	0.0284	0.00500	"	0.0333	ND	85.1	30-120					
Indeno (1,2,3-cd) pyrene	0.0229	0.00500	"	0.0333	ND	68.7	30-120					
Pyrene	0.0296	0.00500	"	0.0333	ND	88.7	35-142					
1-Methylnaphthalene	0.0247	0.00500	"	0.0333	ND	74.2	15-130					
2-Methylnaphthalene	0.0265	0.00500	"	0.0333	ND	79.6	15-130					
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0253</i>		<i>"</i>	<i>0.0333</i>		<i>75.8</i>	<i>40-150</i>					
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0305</i>		<i>"</i>	<i>0.0333</i>		<i>91.5</i>	<i>40-150</i>					

Matrix Spike Dup (BHE0507-MSD1)	Source: 2405227-01			Prepared: 05/16/24 Analyzed: 05/17/24								
Acenaphthene	0.0246	0.00500	mg/kg	0.0333	ND	73.9	31-137	6.00	30			
Anthracene	0.0257	0.00500	"	0.0333	ND	77.1	30-120	14.6	30			
Benzo (a) anthracene	0.0262	0.00500	"	0.0333	ND	78.7	30-120	9.16	30			
Benzo (a) pyrene	0.0246	0.00500	"	0.0333	ND	73.9	30-120	8.32	30			
Benzo (b) fluoranthene	0.0270	0.00500	"	0.0333	ND	80.9	30-120	10.7	30			
Benzo (k) fluoranthene	0.0231	0.00500	"	0.0333	ND	69.3	30-120	8.91	30			
Chrysene	0.0253	0.00500	"	0.0333	ND	75.9	30-120	12.1	30			
Dibenz (a,h) anthracene	0.0315	0.00500	"	0.0333	ND	94.6	30-120	6.20	30			
Fluoranthene	0.0245	0.00500	"	0.0333	ND	73.4	30-120	13.0	30			
Fluorene	0.0272	0.00500	"	0.0333	ND	81.6	30-120	4.22	30			
Indeno (1,2,3-cd) pyrene	0.0394	0.00500	"	0.0333	ND	118	30-120	52.9	30			QR-02
Pyrene	0.0264	0.00500	"	0.0333	ND	79.1	35-142	11.4	30			
1-Methylnaphthalene	0.0289	0.00500	"	0.0333	ND	86.8	15-130	15.6	50			
2-Methylnaphthalene	0.0290	0.00500	"	0.0333	ND	86.9	15-130	8.77	50			
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0258</i>		<i>"</i>	<i>0.0333</i>		<i>77.3</i>	<i>40-150</i>					
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0271</i>		<i>"</i>	<i>0.0333</i>		<i>81.3</i>	<i>40-150</i>					

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/07/24 13:17

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

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

Batch BHE0512 - EPA 3050B

Blank (BHE0512-BLK1)

Prepared: 05/16/24 Analyzed: 06/06/24

Boron ND 2.00 mg/L

LCS (BHE0512-BS1)

Prepared: 05/16/24 Analyzed: 06/06/24

Boron 5.21 2.00 mg/L 5.00 104 80-120

Duplicate (BHE0512-DUP1)

Source: 2405226-01

Prepared: 05/16/24 Analyzed: 06/06/24

Boron 0.345 2.00 mg/L 0.431 22.1 20 QR-01

Matrix Spike (BHE0512-MS1)

Source: 2405226-01

Prepared: 05/16/24 Analyzed: 06/06/24

Boron 5.50 2.00 mg/L 5.02 0.431 101 75-125

Matrix Spike Dup (BHE0512-MSD1)

Source: 2405226-01

Prepared: 05/16/24 Analyzed: 06/06/24

Boron 5.51 2.00 mg/L 5.02 0.431 101 75-125 0.239 25

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Phillips 66
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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/07/24 13:17

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BHE0533 - EPA 3050B

Blank (BHE0533-BLK1)

Prepared: 05/16/24 Analyzed: 05/17/24

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	"							
Silver	ND	0.0200	"							
Zinc	ND	0.400	"							
Selenium	ND	0.260	"							

LCS (BHE0533-BS1)

Prepared: 05/16/24 Analyzed: 05/17/24

Arsenic	43.9	0.200	mg/kg wet	40.0	110	80-120
Barium	43.4	0.400	"	40.0	109	80-120
Cadmium	2.04	0.200	"	2.00	102	80-120
Copper	42.9	0.400	"	40.0	107	80-120
Lead	20.7	0.200	"	20.0	103	80-120
Nickel	42.3	0.400	"	40.0	106	80-120
Silver	2.05	0.0200	"	2.00	102	80-120
Zinc	43.1	0.400	"	40.0	108	80-120
Selenium	4.45	0.260	"	4.00	111	80-120

Duplicate (BHE0533-DUP1)

Source: 2405204-21

Prepared: 05/16/24 Analyzed: 05/17/24

Arsenic	2.62	0.200	mg/kg dry	2.95	11.8	20
Barium	88.3	0.400	"	92.7	4.82	20
Cadmium	0.307	0.200	"	0.288	6.48	20
Copper	39.5	0.400	"	40.7	3.18	20
Lead	14.1	0.200	"	13.9	2.03	20
Nickel	21.6	0.400	"	21.0	2.74	20
Silver	0.0933	0.0200	"	0.0921	1.34	20
Zinc	72.2	0.400	"	69.4	3.87	20
Selenium	ND	0.260	"	ND		20

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Phillips 66
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Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/07/24 13:17

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BHE0533 - EPA 3050B

Matrix Spike (BHE0533-MS1)

Source: 2405204-21

Prepared: 05/16/24 Analyzed: 05/17/24

Arsenic	60.3	0.200	mg/kg dry	62.2	2.95	92.2	75-125			
Barium	130	0.400	"	62.2	92.7	59.5	75-125			QM-07
Cadmium	2.99	0.200	"	3.11	0.288	86.9	75-125			
Copper	86.7	0.400	"	62.2	40.7	73.9	75-125			QM-07
Lead	38.9	0.200	"	31.1	13.9	80.5	75-125			
Nickel	72.0	0.400	"	62.2	21.0	81.9	75-125			
Silver	2.73	0.0200	"	3.11	0.0921	84.8	75-125			
Zinc	114	0.400	"	62.2	69.4	71.9	75-125			QM-07
Selenium	5.03	0.260	"	6.22	ND	80.8	75-125			

Matrix Spike Dup (BHE0533-MSD1)

Source: 2405204-21

Prepared: 05/16/24 Analyzed: 05/17/24

Arsenic	70.7	0.200	mg/kg dry	62.2	2.95	109	75-125	15.9	25
Barium	149	0.400	"	62.2	92.7	89.9	75-125	13.6	25
Cadmium	3.48	0.200	"	3.11	0.288	103	75-125	15.3	25
Copper	102	0.400	"	62.2	40.7	98.2	75-125	16.1	25
Lead	45.6	0.200	"	31.1	13.9	102	75-125	15.9	25
Nickel	84.4	0.400	"	62.2	21.0	102	75-125	15.9	25
Silver	3.25	0.0200	"	3.11	0.0921	101	75-125	17.3	25
Zinc	134	0.400	"	62.2	69.4	103	75-125	15.7	25
Selenium	5.76	0.260	"	6.22	ND	92.7	75-125	13.7	25

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Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/07/24 13:17

Hexavalent Chromium by EPA Method 7196 - Quality Control
Summit Scientific

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

Batch BHE0537 - 3060A Mod

Blank (BHE0537-BLK1)

Prepared & Analyzed: 05/16/24

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BHE0537-BS1)

Prepared & Analyzed: 05/16/24

Chromium, Hexavalent 25.3 0.30 mg/kg wet 25.0 101 80-120

Duplicate (BHE0537-DUP1)

Source: 2405218-01

Prepared & Analyzed: 05/16/24

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BHE0537-MS1)

Source: 2405218-01

Prepared & Analyzed: 05/16/24

Chromium, Hexavalent 25.9 0.30 mg/kg dry 26.3 ND 98.6 75-125

Matrix Spike Dup (BHE0537-MSD1)

Source: 2405218-01

Prepared & Analyzed: 05/16/24

Chromium, Hexavalent 25.9 0.30 mg/kg dry 26.3 ND 98.6 75-125 0.00 20

Summit Scientific

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Phillips 66
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Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/07/24 13:17

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

Summit Scientific

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

Batch BHE0502 - General Preparation

Blank (BHE0502-BLK1)

Prepared: 05/15/24 Analyzed: 05/20/24

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

LCS (BHE0502-BS1)

Prepared: 05/15/24 Analyzed: 05/20/24

Calcium	4.68	0.0500	mg/L wet	5.00	93.6	70-130				
Magnesium	5.32	0.0500	"	5.00	106	70-130				
Sodium	5.38	0.0500	"	5.00	108	70-130				

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/07/24 13:17

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

Summit Scientific

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

Batch BHE0515 - General Preparation

Duplicate (BHE0515-DUP1)	Source: 2405229-02			Prepared & Analyzed: 05/16/24					
% Solids	86.8	%		86.9			0.0533	20	

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Phillips 66
6900 E Layton Ave/ Suite 900
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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/07/24 13:17

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

Summit Scientific

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

Batch BHE0504 - General Preparation

Blank (BHE0504-BLK1)

Prepared: 05/15/24 Analyzed: 05/16/24

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BHE0504-BS1)

Prepared: 05/15/24 Analyzed: 05/16/24

Specific Conductance (EC) 0.153 0.0100 mmhos/cm 0.150 102 95-105

Duplicate (BHE0504-DUP1)

Source: 2405229-02

Prepared: 05/15/24 Analyzed: 05/16/24

Specific Conductance (EC) 0.612 0.0100 mmhos/cm 0.621 1.52 20

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/07/24 13:17

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

Summit Scientific

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

Batch BHE0503 - General Preparation

LCS (BHE0503-BS1)

Prepared: 05/15/24 Analyzed: 05/16/24

pH	9.17	pH Units	9.18	99.9	95-105
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Duplicate (BHE0503-DUP1)

Source: 2405229-02

Prepared: 05/15/24 Analyzed: 05/16/24

pH	8.33	pH Units	8.42	1.07	20
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Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/07/24 13:17

Notes and Definitions

- QR-02 The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
- QR-01 Analyses are not controlled on RPD values from sample concentrations less than 10 times the reporting limit. QC batch accepted based on LCS and/or LCSD QC results.
- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.
- 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

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

June 13, 2024

Chandler Cole

Phillips 66

6900 E Layton Ave/ Suite 900

Denver, CO 80237

RE: Four Parmlee (H-6-9) 3/2024

Work Order #2405241

Enclosed are the results of analyses for samples received by Summit Scientific on 05/15/24 18:16. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Natalie Tessier". The signature is written in a cursive, flowing style.

Natalie Tessier For Paul Shrewsbury

President



Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/13/24 12:57

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BG01@7'	2405241-01	Soil	05/15/24 12:48	05/15/24 18:16
BG02@7'	2405241-02	Soil	05/15/24 12:58	05/15/24 18:16
BG03@7'	2405241-03	Soil	05/15/24 13:10	05/15/24 18:16



4653 Table Mountain Drive
Golden, CO 80403
303-277-9310

Lab ID	Page 1 of 1
2405241	

Client: Tasman <i>PCP/P66</i>		Send Data To:		Send Invoice To:	
Address: 6855 W 119th Ave		Project Manager: <i>Chandler Cole / Brian Humphrey</i>		Company: <i>P66</i>	
City/State/Zip: Broomfield CO 80220		E-Mail: <i>chandler.e.cole@p66.com</i>		Project Name/Location: <i>Four Farms (H-6-a) 3/2024</i>	
Phone: 303-487-1228		<i>bhumphrey@tasman-geo.com</i>		AFE#:	
Sampler Name: <i>B. Ulrich</i>		Project Name: <i>Four Farms (H-6-a) 3/2024</i>		PO/Billing Codes:	
		Project Number:		Contact: <i>Chandler Cole</i>	

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested				Special Instructions
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other					
1	<i>B601e7'</i>	<i>5-15-24</i>	<i>1248</i>	<i>2</i>			<i>X</i>			<i>X</i>						<i>Standard TAT</i>	
2	<i>B602e7'</i>	<i>↓</i>	<i>1258</i>	<i>↓</i>			<i>↓</i>			<i>↓</i>						<i>↓</i>	
3	<i>B603e7'</i>	<i>↓</i>	<i>1310</i>	<i>↓</i>			<i>↓</i>			<i>↓</i>						<i>↓</i>	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	
15																	

Relinquished by: <i>[Signature]</i>	Date/Time: <i>5-15-24 1708</i>	Received by: <i>[Signature]</i>	Date/Time: <i>5-15-24 1810</i>	TAT Business Days	Field DO	Notes:
Relinquished by: <i>Tasman Lock Box</i>	Date/Time: <i>5/15/24 1810</i>	Received by: <i>[Signature]</i>	Date/Time: <i>5/15/24 1810</i>	Same Day	Field EC	
Relinquished by: <i>[Signature]</i>	Date/Time: <i>5/15/24 1810</i>	Received by: <i>[Signature]</i>	Date/Time: <i>5/15/24 1810</i>	1 Day	Field ORP	
Relinquished by: <i>[Signature]</i>	Date/Time: <i>5/15/24 1810</i>	Received by: <i>[Signature]</i>	Date/Time: <i>5/15/24 1810</i>	2 Days	Field pH	
Relinquished by: <i>[Signature]</i>	Date/Time: <i>5/15/24 1810</i>	Received by: <i>[Signature]</i>	Date/Time: <i>5/15/24 1810</i>	3 Days	Field Temp.	
Temperature Upon Receipt: <i>9.0 8.9</i>	Corrected Temperature: <i>0</i>	IR gun #: <i>1</i>	HNO3 lot #: <i>X</i>	Standard	Field Turb.	

S2

Sample Receipt Checklist

S2 Work Order# 2405241

Client: Orville

Client Project ID: Four Parmlee (H-6-9)

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

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

Temp (°C) 9.0

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"/>	<u>none</u>
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 checked="" type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out completely? (1)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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"/>	
<u>Additional Comments (if any):</u>				
(1) If NO, then contact the client before proceeding with analysis and note in case narrative.				

AS
Custodian Printed Name

5/15/24
Date/Time



Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/13/24 12:57

BG01@7'
2405241-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/15/24 12:48**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BHE0582	05/17/24	05/17/24	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: **05/15/24 12:48**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0320	79.9 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0387	96.7 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0399	99.7 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **05/15/24 12:48**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHE0585	05/17/24	05/18/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **05/15/24 12:48**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	10.3	82.2 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/13/24 12:57

BG01@7'
2405241-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **05/15/24 12:48**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHE0551	05/17/24	05/17/24	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: **05/15/24 12:48**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0211	63.3 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0225	67.6 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **05/15/24 12:48**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHE0512	05/16/24	06/07/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **05/15/24 12:48**

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

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/13/24 12:57

BG01@7'
2405241-01 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	0.807	0.200	mg/kg dry	1	BHE0535	05/16/24	05/21/24	EPA 6020B
Barium	31.7	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	1.73	0.400	"	"	"	"	"	"
Lead	2.29	0.200	"	"	"	"	"	"
Nickel	2.08	0.400	"	"	"	"	"	"
Silver	ND	0.0200	"	"	"	"	"	"
Zinc	8.60	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: 05/15/24 12:48

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHE0560	05/17/24	05/17/24	EPA 7196A	

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

Date Sampled: 05/15/24 12:48

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	16.0	0.0500	mg/L dry	1	BHE0538	05/16/24	06/12/24	EPA 6020B	
Magnesium	21.1	0.0500	"	"	"	"	"	"	
Sodium	0.0968	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: 05/15/24 12:48

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.00374	0.00100	units	1	BHF0371	06/13/24	06/13/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/13/24 12:57

BG01@7'
2405241-01 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **05/15/24 12:48**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	96.8		%	1	BHE0542	05/16/24	05/16/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **05/15/24 12:48**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.0152	0.0100	mmhos/cm	1	BHE0539	05/16/24	05/17/24	EPA 120.1	

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

Date Sampled: **05/15/24 12:48**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.71		pH Units	1	BHE0541	05/16/24	05/17/24	EPA 9045D	

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/13/24 12:57

BG02@7'
2405241-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/15/24 12:58**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BHE0582	05/17/24	05/17/24	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: **05/15/24 12:58**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0384	96.1 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0416	104 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0398	99.6 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **05/15/24 12:58**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHE0585	05/17/24	05/18/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **05/15/24 12:58**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	11.2	89.5 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/13/24 12:57

BG02@7'
2405241-02 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **05/15/24 12:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHE0551	05/17/24	05/18/24	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: **05/15/24 12:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0195	58.5 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0211	63.2 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **05/15/24 12:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHE0512	05/16/24	06/07/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **05/15/24 12:58**

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

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/13/24 12:57

BG02@7'
2405241-02 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	0.712	0.200	mg/kg dry	1	BHE0535	05/16/24	05/21/24	EPA 6020B
Barium	27.4	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	1.54	0.400	"	"	"	"	"	"
Lead	2.03	0.200	"	"	"	"	"	"
Nickel	1.62	0.400	"	"	"	"	"	"
Silver	ND	0.0200	"	"	"	"	"	"
Zinc	11.0	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **05/15/24 12:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHE0560	05/17/24	05/17/24	EPA 7196A	

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

Date Sampled: **05/15/24 12:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	16.2	0.0500	mg/L dry	1	BHE0538	05/16/24	06/12/24	EPA 6020B	
Magnesium	24.2	0.0500	"	"	"	"	"	"	
Sodium	0.108	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **05/15/24 12:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.00397	0.00100	units	1	BHF0371	06/13/24	06/13/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/13/24 12:57

BG02@7'
2405241-02 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **05/15/24 12:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	96.7		%	1	BHE0542	05/16/24	05/16/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **05/15/24 12:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.0223	0.0100	mmhos/cm	1	BHE0539	05/16/24	05/17/24	EPA 120.1	

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

Date Sampled: **05/15/24 12:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.76		pH Units	1	BHE0541	05/16/24	05/17/24	EPA 9045D	

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6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/13/24 12:57

BG03@7'
2405241-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/15/24 13:10**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	BHE0582	05/17/24	05/17/24	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: **05/15/24 13:10**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4	0.0273	68.2 %	50-150	"	"	"	"	"	
Surrogate: Toluene-d8	0.0367	91.7 %	50-150	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0388	97.1 %	50-150	"	"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **05/15/24 13:10**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	BHE0585	05/17/24	05/18/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **05/15/24 13:10**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl	9.45	75.6 %	30-150	"	"	"	"	"	

PAH by EPA Method 8270D SIM

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/13/24 12:57

BG03@7'
2405241-03 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **05/15/24 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHE0551	05/17/24	05/18/24	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: **05/15/24 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0237	71.1 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0239	71.6 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **05/15/24 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHE0512	05/16/24	06/07/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **05/15/24 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Phillips 66
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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/13/24 12:57

BG03@7'
2405241-03 (Soil)

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Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	0.665	0.200	mg/kg dry	1	BHE0535	05/16/24	05/21/24	EPA 6020B
Barium	30.7	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	5.64	0.400	"	"	"	"	"	"
Lead	1.99	0.200	"	"	"	"	"	"
Nickel	1.90	0.400	"	"	"	"	"	"
Silver	ND	0.0200	"	"	"	"	"	"
Zinc	6.81	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **05/15/24 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHE0560	05/17/24	05/17/24	EPA 7196A	

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

Date Sampled: **05/15/24 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	13.8	0.0500	mg/L dry	1	BHE0538	05/16/24	06/12/24	EPA 6020B	
Magnesium	17.2	0.0500	"	"	"	"	"	"	
Sodium	0.124	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **05/15/24 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.00526	0.00100	units	1	BHF0371	06/13/24	06/13/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/13/24 12:57

BG03@7'
2405241-03 (Soil)

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Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **05/15/24 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	97.3		%	1	BHE0542	05/16/24	05/16/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **05/15/24 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.0169	0.0100	mmhos/cm	1	BHE0539	05/16/24	05/17/24	EPA 120.1	

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

Date Sampled: **05/15/24 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.68		pH Units	1	BHE0541	05/16/24	05/17/24	EPA 9045D	

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/13/24 12:57

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BHE0582 - EPA 5030 Soil MS

Blank (BHE0582-BLK1)

Prepared & Analyzed: 05/17/24

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	0.0298		"	0.0400		74.4	50-150				
Surrogate: Toluene-d8	0.0370		"	0.0400		92.6	50-150				
Surrogate: 4-Bromofluorobenzene	0.0401		"	0.0400		100	50-150				

LCS (BHE0582-BS1)

Prepared & Analyzed: 05/17/24

Benzene	0.105	0.0020	mg/kg	0.100		105	70-130				
Toluene	0.125	0.0050	"	0.100		125	70-130				
Ethylbenzene	0.129	0.0050	"	0.100		129	70-130				
m,p-Xylene	0.252	0.010	"	0.200		126	70-130				
o-Xylene	0.124	0.0050	"	0.100		124	70-130				
1,2,4-Trimethylbenzene	0.114	0.0050	"	0.100		114	70-130				
1,3,5-Trimethylbenzene	0.118	0.0050	"	0.100		118	70-130				
Naphthalene	0.0948	0.0038	"	0.100		94.8	70-130				
Surrogate: 1,2-Dichloroethane-d4	0.0322		"	0.0400		80.6	50-150				
Surrogate: Toluene-d8	0.0407		"	0.0400		102	50-150				
Surrogate: 4-Bromofluorobenzene	0.0406		"	0.0400		101	50-150				

Matrix Spike (BHE0582-MS1)

Source: 2405236-01

Prepared & Analyzed: 05/17/24

Benzene	0.0961	0.0020	mg/kg	0.100	ND	96.1	70-130				
Toluene	0.113	0.0050	"	0.100	ND	113	70-130				
Ethylbenzene	0.113	0.0050	"	0.100	ND	113	70-130				
m,p-Xylene	0.223	0.010	"	0.200	ND	111	70-130				
o-Xylene	0.108	0.0050	"	0.100	ND	108	70-130				
1,2,4-Trimethylbenzene	0.0990	0.0050	"	0.100	ND	99.0	70-130				
1,3,5-Trimethylbenzene	0.102	0.0050	"	0.100	ND	102	70-130				
Naphthalene	0.0802	0.0038	"	0.100	ND	80.2	70-130				
Surrogate: 1,2-Dichloroethane-d4	0.0297		"	0.0400		74.2	50-150				
Surrogate: Toluene-d8	0.0408		"	0.0400		102	50-150				
Surrogate: 4-Bromofluorobenzene	0.0408		"	0.0400		102	50-150				

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/13/24 12:57

Volatile Organic Compounds by EPA Method 8260B - Quality Control

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

Batch BHE0582 - EPA 5030 Soil MS

Matrix Spike Dup (BHE0582-MSD1)	Source: 2405236-01			Prepared & Analyzed: 05/17/24						
Benzene	0.0854	0.0020	mg/kg	0.100	ND	85.4	70-130	11.7	30	
Toluene	0.0992	0.0050	"	0.100	ND	99.2	70-130	12.9	30	
Ethylbenzene	0.109	0.0050	"	0.100	ND	109	70-130	3.11	30	
m,p-Xylene	0.218	0.010	"	0.200	ND	109	70-130	2.26	30	
o-Xylene	0.102	0.0050	"	0.100	ND	102	70-130	5.61	30	
1,2,4-Trimethylbenzene	0.0918	0.0050	"	0.100	ND	91.8	70-130	7.55	30	
1,3,5-Trimethylbenzene	0.0965	0.0050	"	0.100	ND	96.5	70-130	5.15	30	
Naphthalene	0.0760	0.0038	"	0.100	ND	76.0	70-130	5.30	30	
Surrogate: 1,2-Dichloroethane-d4	0.0318		"	0.0400		79.4	50-150			
Surrogate: Toluene-d8	0.0368		"	0.0400		92.1	50-150			
Surrogate: 4-Bromofluorobenzene	0.0391		"	0.0400		97.7	50-150			

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/13/24 12:57

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BHE0585 - EPA 3550A

Blank (BHE0585-BLK1)

Prepared & Analyzed: 05/17/24

C10-C28 (DRO)	ND	50	mg/kg								
C28-C36 (ORO)	ND	50	"								
Surrogate: <i>o</i> -Terphenyl	10.7		"	12.5		85.3		30-150			

LCS (BHE0585-BS1)

Prepared & Analyzed: 05/17/24

C10-C28 (DRO)	429	50	mg/kg	500		85.8		70-130			
Surrogate: <i>o</i> -Terphenyl	10.1		"	12.5		81.0		30-150			

Matrix Spike (BHE0585-MS1)

Source: 2405236-01

Prepared: 05/17/24 Analyzed: 05/18/24

C10-C28 (DRO)	528	50	mg/kg	500	ND	106		70-130			
Surrogate: <i>o</i> -Terphenyl	8.96		"	12.5		71.7		30-150			

Matrix Spike Dup (BHE0585-MSD1)

Source: 2405236-01

Prepared: 05/17/24 Analyzed: 05/18/24

C10-C28 (DRO)	443	50	mg/kg	500	ND	88.6		70-130	17.5	20	
Surrogate: <i>o</i> -Terphenyl	8.82		"	12.5		70.6		30-150			

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/13/24 12:57

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BHE0551 - EPA 5030 Soil MS

Blank (BHE0551-BLK1)

Prepared & Analyzed: 05/17/24

Acenaphthene	ND	0.00500	mg/kg							
Anthracene	ND	0.00500	"							
Benzo (a) anthracene	ND	0.00500	"							
Benzo (a) pyrene	ND	0.00500	"							
Benzo (b) fluoranthene	ND	0.00500	"							
Benzo (k) fluoranthene	ND	0.00500	"							
Chrysene	ND	0.00500	"							
Dibenz (a,h) anthracene	ND	0.00500	"							
Fluoranthene	ND	0.00500	"							
Fluorene	ND	0.00500	"							
Indeno (1,2,3-cd) pyrene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
1-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0393</i>		<i>"</i>	<i>0.0333</i>		<i>118</i>		<i>40-150</i>		
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0371</i>		<i>"</i>	<i>0.0333</i>		<i>111</i>		<i>40-150</i>		

LCS (BHE0551-BS1)

Prepared & Analyzed: 05/17/24

Acenaphthene	0.0380	0.00500	mg/kg	0.0333		114		31-137		
Anthracene	0.0357	0.00500	"	0.0333		107		30-120		
Benzo (a) anthracene	0.0358	0.00500	"	0.0333		107		30-120		
Benzo (a) pyrene	0.0341	0.00500	"	0.0333		102		30-120		
Benzo (b) fluoranthene	0.0334	0.00500	"	0.0333		100		30-120		
Benzo (k) fluoranthene	0.0382	0.00500	"	0.0333		114		30-120		
Chrysene	0.0390	0.00500	"	0.0333		117		30-120		
Dibenz (a,h) anthracene	0.0329	0.00500	"	0.0333		98.8		30-120		
Fluoranthene	0.0350	0.00500	"	0.0333		105		30-120		
Fluorene	0.0379	0.00500	"	0.0333		114		30-120		
Indeno (1,2,3-cd) pyrene	0.0225	0.00500	"	0.0333		67.6		30-120		
Pyrene	0.0391	0.00500	"	0.0333		117		35-142		
1-Methylnaphthalene	0.0368	0.00500	"	0.0333		110		35-142		
2-Methylnaphthalene	0.0381	0.00500	"	0.0333		114		35-142		
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0395</i>		<i>"</i>	<i>0.0333</i>		<i>118</i>		<i>40-150</i>		
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0388</i>		<i>"</i>	<i>0.0333</i>		<i>116</i>		<i>40-150</i>		

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/13/24 12:57

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BHE0551 - EPA 5030 Soil MS

Matrix Spike (BHE0551-MS1)	Source: 2405237-01			Prepared & Analyzed: 05/17/24						
Acenaphthene	0.0144	0.00500	mg/kg	0.0333	ND	43.2	31-137			
Anthracene	0.0166	0.00500	"	0.0333	ND	49.8	30-120			
Benzo (a) anthracene	0.0167	0.00500	"	0.0333	ND	50.0	30-120			
Benzo (a) pyrene	0.0158	0.00500	"	0.0333	ND	47.3	30-120			
Benzo (b) fluoranthene	0.0147	0.00500	"	0.0333	ND	44.1	30-120			
Benzo (k) fluoranthene	0.0157	0.00500	"	0.0333	ND	47.0	30-120			
Chrysene	0.0163	0.00500	"	0.0333	ND	49.0	30-120			
Dibenz (a,h) anthracene	0.0142	0.00500	"	0.0333	ND	42.6	30-120			
Fluoranthene	0.0154	0.00500	"	0.0333	ND	46.2	30-120			
Fluorene	0.0155	0.00500	"	0.0333	ND	46.6	30-120			
Indeno (1,2,3-cd) pyrene	0.0152	0.00500	"	0.0333	ND	45.5	30-120			
Pyrene	0.0183	0.00500	"	0.0333	ND	54.8	35-142			
1-Methylnaphthalene	0.0166	0.00500	"	0.0333	ND	49.9	15-130			
2-Methylnaphthalene	0.0161	0.00500	"	0.0333	ND	48.2	15-130			
Surrogate: 2-Methylnaphthalene-d10	0.0165		"	0.0333		49.5	40-150			
Surrogate: Fluoranthene-d10	0.0170		"	0.0333		50.9	40-150			

Matrix Spike Dup (BHE0551-MSD1)	Source: 2405237-01			Prepared & Analyzed: 05/17/24						
Acenaphthene	0.0138	0.00500	mg/kg	0.0333	ND	41.5	31-137	4.01	30	
Anthracene	0.0139	0.00500	"	0.0333	ND	41.7	30-120	17.6	30	
Benzo (a) anthracene	0.0138	0.00500	"	0.0333	ND	41.3	30-120	19.2	30	
Benzo (a) pyrene	0.0134	0.00500	"	0.0333	ND	40.3	30-120	15.9	30	
Benzo (b) fluoranthene	0.0137	0.00500	"	0.0333	ND	41.1	30-120	6.93	30	
Benzo (k) fluoranthene	0.0134	0.00500	"	0.0333	ND	40.1	30-120	15.9	30	
Chrysene	0.0140	0.00500	"	0.0333	ND	42.1	30-120	15.2	30	
Dibenz (a,h) anthracene	0.0140	0.00500	"	0.0333	ND	42.1	30-120	1.14	30	
Fluoranthene	0.0138	0.00500	"	0.0333	ND	41.4	30-120	10.9	30	
Fluorene	0.0152	0.00500	"	0.0333	ND	45.6	30-120	2.30	30	
Indeno (1,2,3-cd) pyrene	0.0141	0.00500	"	0.0333	ND	42.3	30-120	7.42	30	
Pyrene	0.0155	0.00500	"	0.0333	ND	46.5	35-142	16.5	30	
1-Methylnaphthalene	0.0148	0.00500	"	0.0333	ND	44.3	15-130	11.8	50	
2-Methylnaphthalene	0.0137	0.00500	"	0.0333	ND	41.2	15-130	15.6	50	
Surrogate: 2-Methylnaphthalene-d10	0.0148		"	0.0333		44.3	40-150			
Surrogate: Fluoranthene-d10	0.0137		"	0.0333		41.1	40-150			

Summit Scientific

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



Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/13/24 12:57

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

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

Batch BHE0512 - EPA 3050B

Blank (BHE0512-BLK1)

Prepared: 05/16/24 Analyzed: 06/06/24

Boron ND 2.00 mg/L

LCS (BHE0512-BS1)

Prepared: 05/16/24 Analyzed: 06/06/24

Boron 5.21 2.00 mg/L 5.00 104 80-120

Duplicate (BHE0512-DUP1)

Source: 2405226-01

Prepared: 05/16/24 Analyzed: 06/06/24

Boron 0.345 2.00 mg/L 0.431 22.1 20 QR-01

Matrix Spike (BHE0512-MS1)

Source: 2405226-01

Prepared: 05/16/24 Analyzed: 06/06/24

Boron 5.50 2.00 mg/L 5.02 0.431 101 75-125

Matrix Spike Dup (BHE0512-MSD1)

Source: 2405226-01

Prepared: 05/16/24 Analyzed: 06/06/24

Boron 5.51 2.00 mg/L 5.02 0.431 101 75-125 0.239 25

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/13/24 12:57

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BHE0535 - EPA 3050B

Blank (BHE0535-BLK1)

Prepared: 05/16/24 Analyzed: 05/21/24

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	"							
Silver	ND	0.0200	"							
Zinc	ND	0.400	"							
Selenium	ND	0.260	"							

LCS (BHE0535-BS1)

Prepared: 05/16/24 Analyzed: 05/21/24

Arsenic	38.0	0.200	mg/kg wet	40.0	95.0	80-120		
Barium	35.2	0.400	"	40.0	88.1	80-120		
Cadmium	1.82	0.200	"	2.00	90.9	80-120		
Copper	39.9	0.400	"	40.0	99.8	80-120		
Lead	19.0	0.200	"	20.0	94.9	80-120		
Nickel	39.7	0.400	"	40.0	99.3	80-120		
Silver	1.85	0.0200	"	2.00	92.7	80-120		
Zinc	38.9	0.400	"	40.0	97.3	80-120		
Selenium	4.06	0.260	"	4.00	101	80-120		

Duplicate (BHE0535-DUP1)

Source: 2405218-01

Prepared: 05/16/24 Analyzed: 05/21/24

Arsenic	1.24	0.200	mg/kg dry	1.18	4.50	20		
Barium	58.5	0.400	"	46.5	22.8	20		QR-04
Cadmium	0.122	0.200	"	0.0898	30.0	20		QR-01
Copper	3.21	0.400	"	2.75	15.5	20		
Lead	4.80	0.200	"	3.80	23.3	20		QR-04
Nickel	3.89	0.400	"	3.68	5.60	20		
Silver	0.0151	0.0200	"	0.0125	18.4	20		
Zinc	16.9	0.400	"	13.4	23.1	20		QR-04
Selenium	ND	0.260	"	ND		20		

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/13/24 12:57

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BHE0535 - EPA 3050B

Matrix Spike (BHE0535-MS1)

Source: 2405218-01

Prepared: 05/16/24 Analyzed: 05/21/24

Arsenic	30.2	0.200	mg/kg dry	41.1	1.18	70.6	75-125				QM-07
Barium	103	0.400	"	41.1	46.5	136	75-125				QM-07
Cadmium	2.09	0.200	"	2.05	0.0898	97.6	75-125				
Copper	43.9	0.400	"	41.1	2.75	100	75-125				
Lead	24.2	0.200	"	20.5	3.80	99.3	75-125				
Nickel	44.7	0.400	"	41.1	3.68	99.9	75-125				
Silver	1.94	0.0200	"	2.05	0.0125	94.0	75-125				
Zinc	56.5	0.400	"	41.1	13.4	105	75-125				
Selenium	3.77	0.260	"	4.11	ND	91.8	75-125				

Matrix Spike Dup (BHE0535-MSD1)

Source: 2405218-01

Prepared: 05/16/24 Analyzed: 05/21/24

Arsenic	30.6	0.200	mg/kg dry	41.1	1.18	71.7	75-125	1.53	25		QM-07
Barium	104	0.400	"	41.1	46.5	139	75-125	1.10	25		QM-07
Cadmium	2.10	0.200	"	2.05	0.0898	97.6	75-125	0.0392	25		
Copper	44.1	0.400	"	41.1	2.75	101	75-125	0.546	25		
Lead	24.2	0.200	"	20.5	3.80	99.3	75-125	0.0459	25		
Nickel	44.6	0.400	"	41.1	3.68	99.7	75-125	0.188	25		
Silver	1.98	0.0200	"	2.05	0.0125	95.7	75-125	1.78	25		
Zinc	56.3	0.400	"	41.1	13.4	104	75-125	0.374	25		
Selenium	3.72	0.260	"	4.11	ND	90.5	75-125	1.40	25		

Post Spike (BHE0535-PS1)

Source: 2405218-01

Prepared: 05/16/24 Analyzed: 05/21/24

Arsenic	84.5		ug/l	100	2.92	81.5	75-125				
Barium	216		"	100	115	101	75-125				
Cadmium	5.46		"	5.00	0.222	105	75-125				
Copper	115		"	100	6.80	108	75-125				
Lead	61.1		"	50.0	9.39	104	75-125				
Nickel	118		"	100	9.09	109	75-125				
Silver	5.24		"	5.00	0.0310	104	75-125				
Zinc	141		"	100	33.1	108	75-125				
Selenium	10.3		"	10.0	0.0990	102	75-125				

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/13/24 12:57

Hexavalent Chromium by EPA Method 7196 - Quality Control
Summit Scientific

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

Batch BHE0560 - 3060A Mod

Blank (BHE0560-BLK1)		Prepared & Analyzed: 05/17/24									
Chromium, Hexavalent	ND	0.30	mg/kg wet								
LCS (BHE0560-BS1)		Prepared & Analyzed: 05/17/24									
Chromium, Hexavalent	25.2	0.30	mg/kg wet	25.0	101	80-120					
Duplicate (BHE0560-DUP1)		Source: 2405239-01		Prepared & Analyzed: 05/17/24							
Chromium, Hexavalent	ND	0.30	mg/kg dry		ND					20	
Matrix Spike (BHE0560-MS1)		Source: 2405239-01		Prepared & Analyzed: 05/17/24							
Chromium, Hexavalent	27.1	0.30	mg/kg dry	28.0	ND	96.8	75-125				
Matrix Spike Dup (BHE0560-MSD1)		Source: 2405239-01		Prepared & Analyzed: 05/17/24							
Chromium, Hexavalent	27.0	0.30	mg/kg dry	28.0	ND	96.4	75-125	0.414		20	

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/13/24 12:57

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

Summit Scientific

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

Batch BHE0538 - General Preparation

Blank (BHE0538-BLK1)

Prepared: 05/16/24 Analyzed: 06/12/24

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

LCS (BHE0538-BS1)

Prepared: 05/16/24 Analyzed: 06/12/24

Calcium	5.67	0.0500	mg/L wet	5.00	113	70-130				
Magnesium	5.22	0.0500	"	5.00	104	70-130				
Sodium	5.48	0.0500	"	5.00	110	70-130				

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/13/24 12:57

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

Summit Scientific

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

Batch BHE0542 - General Preparation

Duplicate (BHE0542-DUP1)		Source: 2405232-01			Prepared & Analyzed: 05/16/24					
% Solids	95.1		%		95.2		0.0931	20		

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/13/24 12:57

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

Summit Scientific

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

Batch BHE0539 - General Preparation

Blank (BHE0539-BLK1)

Prepared: 05/16/24 Analyzed: 05/17/24

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BHE0539-BS1)

Prepared: 05/16/24 Analyzed: 05/17/24

Specific Conductance (EC) 0.154 0.0100 mmhos/cm 0.150 103 95-105

Duplicate (BHE0539-DUP1)

Source: 2405233-01

Prepared: 05/16/24 Analyzed: 05/17/24

Specific Conductance (EC) 0.112 0.0100 mmhos/cm 0.114 1.69 20

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/13/24 12:57

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

Summit Scientific

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

Batch BHE0541 - General Preparation

LCS (BHE0541-BS1)

Prepared: 05/16/24 Analyzed: 05/17/24

pH	9.16	pH Units	9.18	99.8	95-105
----	------	----------	------	------	--------

Duplicate (BHE0541-DUP1)

Source: 2405233-01

Prepared: 05/16/24 Analyzed: 05/17/24

pH	8.56	pH Units	8.71	1.74	20
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Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/13/24 12:57

Notes and Definitions

- QR-04 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
- QR-01 Analyses are not controlled on RPD values from sample concentrations less than 10 times the reporting limit. QC batch accepted based on LCS and/or LCSD QC results.
- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.
- 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

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

June 03, 2024

Chandler Cole

Phillips 66

6900 E Layton Ave/ Suite 900

Denver, CO 80237

RE: Four Parmlee (H-6-9) 3/2024

Work Order #2405272

Enclosed are the results of analyses for samples received by Summit Scientific on 05/16/24 17:56. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Jacob Wood". The signature is written in a cursive style with a large initial "J" and a distinct "W".

Jacob Wood For Paul Shrewsbury

President



Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/03/24 15:56

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
ETP01@20'	2405272-01	Soil	05/16/24 09:51	05/16/24 17:56

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.



4653 Table Mountain Drive
Golden, CO 80403
303-277-9310

Lab ID: 2405272
Page 1 of 1

Client: <u>Tasman DCP/P66</u>		Send Data To: Project Manager: <u>Chandler Cole / Brian Humphrey</u>		Send Invoice To: Company: <u>P66</u>	
Address: <u>6855 W 119th Ave</u>		E-Mail: <u>chandler.c.cole@p66.com</u>		Project Name/Location: <u>Four Parmlee (H-6-9) 3/2024</u>	
City/State/Zip: <u>Broomfield / CO / 80220</u>		E-Mail: <u>bhumphrey@tasman-geo.com</u>		AFE#:	
Phone: <u>-303-487-1228</u>		Project Name: <u>Four Parmlee (H-6-9) 3/2024</u>		PO/Billing Codes:	
Sampler Name: <u>B. Ulrich</u>		Project Number:		Contact: <u>Chandler Cole</u>	

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix			Analysis Requested						Special Instructions		
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other								
1	ETP01e20'	5-16-24	0951	2			X			X										Standard TAT
2																				
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				
13																				
14																				
15																				

Relinquished by: <u>[Signature]</u>	Date/Time: <u>5-16-24 1736</u>	Received by: <u>[Signature]</u>	Date/Time: <u>5-16-24 1756</u>	TAT Business Days	Field DO	Notes:
Relinquished by: <u>Tasman/DCC/EX</u>	Date/Time: <u>5/16/24 1756</u>	Received by: <u>[Signature]</u>	Date/Time: <u>5/16/24 1756</u>	Same Day	Field EC	
Relinquished by:	Date/Time:	Received by:	Date/Time:	1 Day	Field ORP	
Relinquished by:	Date/Time:	Received by:	Date/Time:	2 Days	Field pH	
Relinquished by:	Date/Time:	Received by:	Date/Time:	3 Days	Field Temp.	
Temperature Upon Receipt: <u>0.4</u>	Corrected Temperature: <u>0</u>	IR gun #: <u>1</u>	HNO3 lot #:	Standard	<input checked="" type="checkbox"/> Field Turb.	

S₂

Sample Receipt Checklist

S2 Work Order# 2405272

Client: ODJPE

Client Project ID: Four Parmlee (H409)

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

Airbill #: _____

Matrix (Check all that apply)

Air

Soil/Solid

Water

Other

Temp (°C)

6.4

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"/>	<u>ODJPE</u>
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 checked="" type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out completely? (1)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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.				

AS

Custodian Printed Name

5/10/24

Date/Time



Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/03/24 15:56

ETP01@20'
2405272-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/16/24 09:51**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BHE0583	05/17/24	05/18/24	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: **05/16/24 09:51**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0289	72.2 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0392	98.0 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0398	99.4 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **05/16/24 09:51**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHE0586	05/17/24	05/18/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **05/16/24 09:51**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	5.56	44.5 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/03/24 15:56

ETP01@20'
2405272-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **05/16/24 09:51**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHE0601	05/20/24	05/20/24	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: **05/16/24 09:51**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0211	63.4 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0201	60.2 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **05/16/24 09:51**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHE0555	05/17/24	06/01/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **05/16/24 09:51**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/03/24 15:56

ETP01@20'
2405272-01 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	2.16	0.200	mg/kg dry	1	BHE0604	05/20/24	05/22/24	EPA 6020B	
Barium	201	0.400	"	"	"	"	"	"	
Cadmium	0.311	0.200	"	"	"	"	"	"	
Copper	10.1	0.400	"	"	"	"	"	"	
Lead	12.5	0.200	"	"	"	"	"	"	
Nickel	3.32	0.400	"	"	"	"	"	"	
Silver	0.122	0.0200	"	"	"	"	"	"	
Zinc	29.2	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **05/16/24 09:51**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHE0569	05/17/24	05/17/24	EPA 7196A	

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

Date Sampled: **05/16/24 09:51**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	19.0	0.0500	mg/L dry	1	BHE0566	05/17/24	05/26/24	EPA 6020B	
Magnesium	3.95	0.0500	"	"	"	"	"	"	
Sodium	4.00	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **05/16/24 09:51**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.218	0.00100	units	1	BHE0836	05/28/24	05/28/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **05/16/24 09:51**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Phillips 66
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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/03/24 15:56

ETP01@20'
2405272-01 (Soil)

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Physical Parameters by APHA/ASTM/EPA Methods

% Solids	82.2	%	1	BHE0609	05/20/24	05/20/24	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **05/16/24 09:51**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.102	0.0100	mmhos/cm	1	BHE0568	05/17/24	05/20/24	EPA 120.1	

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

Date Sampled: **05/16/24 09:51**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.32		pH Units	1	BHE0570	05/17/24	05/20/24	EPA 9045D	

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/03/24 15:56

Volatile Organic Compounds by EPA Method 8260B - Quality Control

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

Batch BHE0583 - EPA 5030 Soil MS

Blank (BHE0583-BLK1)

Prepared: 05/17/24 Analyzed: 05/18/24

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	0.0254		"	0.0400		63.4	50-150			
Surrogate: Toluene-d8	0.0423		"	0.0400		106	50-150			
Surrogate: 4-Bromofluorobenzene	0.0397		"	0.0400		99.2	50-150			

LCS (BHE0583-BS1)

Prepared: 05/17/24 Analyzed: 05/18/24

Benzene	0.0802	0.0020	mg/kg	0.100		80.2	70-130			
Toluene	0.111	0.0050	"	0.100		111	70-130			
Ethylbenzene	0.117	0.0050	"	0.100		117	70-130			
m,p-Xylene	0.244	0.010	"	0.200		122	70-130			
o-Xylene	0.113	0.0050	"	0.100		113	70-130			
1,2,4-Trimethylbenzene	0.111	0.0050	"	0.100		111	70-130			
1,3,5-Trimethylbenzene	0.109	0.0050	"	0.100		109	70-130			
Naphthalene	0.0934	0.0038	"	0.100		93.4	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0239		"	0.0400		59.8	50-150			
Surrogate: Toluene-d8	0.0409		"	0.0400		102	50-150			
Surrogate: 4-Bromofluorobenzene	0.0399		"	0.0400		99.8	50-150			

Matrix Spike (BHE0583-MS1)

Source: 2405254-02

Prepared: 05/17/24 Analyzed: 05/18/24

Benzene	0.0724	0.0020	mg/kg	0.100	ND	72.4	70-130			
Toluene	0.0991	0.0050	"	0.100	ND	99.1	70-130			
Ethylbenzene	0.0988	0.0050	"	0.100	ND	98.8	70-130			
m,p-Xylene	0.205	0.010	"	0.200	ND	102	70-130			
o-Xylene	0.0946	0.0050	"	0.100	ND	94.6	70-130			
1,2,4-Trimethylbenzene	0.0914	0.0050	"	0.100	ND	91.4	70-130			
1,3,5-Trimethylbenzene	0.0928	0.0050	"	0.100	ND	92.8	70-130			
Naphthalene	0.0788	0.0038	"	0.100	ND	78.8	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0211		"	0.0400		52.8	50-150			
Surrogate: Toluene-d8	0.0418		"	0.0400		105	50-150			
Surrogate: 4-Bromofluorobenzene	0.0416		"	0.0400		104	50-150			

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/03/24 15:56

Volatile Organic Compounds by EPA Method 8260B - Quality Control

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

Batch BHE0583 - EPA 5030 Soil MS

Matrix Spike Dup (BHE0583-MSD1)	Source: 2405254-02			Prepared: 05/17/24 Analyzed: 05/18/24						
Benzene	0.0741	0.0020	mg/kg	0.100	ND	74.1	70-130	2.38	30	
Toluene	0.101	0.0050	"	0.100	ND	101	70-130	2.01	30	
Ethylbenzene	0.101	0.0050	"	0.100	ND	101	70-130	2.19	30	
m,p-Xylene	0.207	0.010	"	0.200	ND	104	70-130	1.15	30	
o-Xylene	0.0962	0.0050	"	0.100	ND	96.2	70-130	1.63	30	
1,2,4-Trimethylbenzene	0.0938	0.0050	"	0.100	ND	93.8	70-130	2.63	30	
1,3,5-Trimethylbenzene	0.0960	0.0050	"	0.100	ND	96.0	70-130	3.40	30	
Naphthalene	0.0797	0.0038	"	0.100	ND	79.7	70-130	1.21	30	
Surrogate: 1,2-Dichloroethane-d4	0.0249		"	0.0400		62.2	50-150			
Surrogate: Toluene-d8	0.0417		"	0.0400		104	50-150			
Surrogate: 4-Bromofluorobenzene	0.0410		"	0.0400		103	50-150			

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/03/24 15:56

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BHE0586 - EPA 3550A

Blank (BHE0586-BLK1)

Prepared & Analyzed: 05/17/24

C10-C28 (DRO)	ND	50	mg/kg								
C28-C36 (ORO)	ND	50	"								
Surrogate: <i>o</i> -Terphenyl	13.1		"	12.5	105	30-150					

LCS (BHE0586-BS1)

Prepared & Analyzed: 05/17/24

C10-C28 (DRO)	399	50	mg/kg	500	79.9	70-130					
Surrogate: <i>o</i> -Terphenyl	10.3		"	12.5	82.2	30-150					

Matrix Spike (BHE0586-MS1)

Source: 2405254-02

Prepared & Analyzed: 05/17/24

C10-C28 (DRO)	498	50	mg/kg	500	12.6	97.1	70-130				
Surrogate: <i>o</i> -Terphenyl	16.8		"	12.5	134	30-150					

Matrix Spike Dup (BHE0586-MSD1)

Source: 2405254-02

Prepared & Analyzed: 05/17/24

C10-C28 (DRO)	476	50	mg/kg	500	12.6	92.6	70-130	4.66	20		
Surrogate: <i>o</i> -Terphenyl	15.6		"	12.5	125	30-150					

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/03/24 15:56

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BHE0601 - EPA 5030 Soil MS

Blank (BHE0601-BLK1)

Prepared & Analyzed: 05/20/24

Acenaphthene	ND	0.00500	mg/kg							
Anthracene	ND	0.00500	"							
Benzo (a) anthracene	ND	0.00500	"							
Benzo (a) pyrene	ND	0.00500	"							
Benzo (b) fluoranthene	ND	0.00500	"							
Benzo (k) fluoranthene	ND	0.00500	"							
Chrysene	ND	0.00500	"							
Dibenz (a,h) anthracene	ND	0.00500	"							
Fluoranthene	ND	0.00500	"							
Fluorene	ND	0.00500	"							
Indeno (1,2,3-cd) pyrene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
1-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0299</i>		"	<i>0.0333</i>		<i>89.8</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0355</i>		"	<i>0.0333</i>		<i>106</i>	<i>40-150</i>			

LCS (BHE0601-BS1)

Prepared & Analyzed: 05/20/24

Acenaphthene	0.0354	0.00500	mg/kg	0.0333	106	31-137
Anthracene	0.0371	0.00500	"	0.0333	111	30-120
Benzo (a) anthracene	0.0332	0.00500	"	0.0333	99.6	30-120
Benzo (a) pyrene	0.0295	0.00500	"	0.0333	88.4	30-120
Benzo (b) fluoranthene	0.0307	0.00500	"	0.0333	92.0	30-120
Benzo (k) fluoranthene	0.0345	0.00500	"	0.0333	104	30-120
Chrysene	0.0366	0.00500	"	0.0333	110	30-120
Dibenz (a,h) anthracene	0.0240	0.00500	"	0.0333	72.1	30-120
Fluoranthene	0.0356	0.00500	"	0.0333	107	30-120
Fluorene	0.0339	0.00500	"	0.0333	102	30-120
Indeno (1,2,3-cd) pyrene	0.0190	0.00500	"	0.0333	56.9	30-120
Pyrene	0.0398	0.00500	"	0.0333	119	35-142
1-Methylnaphthalene	0.0332	0.00500	"	0.0333	99.7	35-142
2-Methylnaphthalene	0.0343	0.00500	"	0.0333	103	35-142
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0331</i>		"	<i>0.0333</i>	<i>99.3</i>	<i>40-150</i>
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0360</i>		"	<i>0.0333</i>	<i>108</i>	<i>40-150</i>

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/03/24 15:56

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BHE0601 - EPA 5030 Soil MS

Matrix Spike (BHE0601-MS1)	Source: 2405268-04			Prepared & Analyzed: 05/20/24						
Acenaphthene	0.0251	0.00500	mg/kg	0.0333	ND	75.3	31-137			
Anthracene	0.0260	0.00500	"	0.0333	ND	78.0	30-120			
Benzo (a) anthracene	0.0286	0.00500	"	0.0333	ND	85.8	30-120			
Benzo (a) pyrene	0.0251	0.00500	"	0.0333	ND	75.4	30-120			
Benzo (b) fluoranthene	0.0260	0.00500	"	0.0333	ND	78.1	30-120			
Benzo (k) fluoranthene	0.0241	0.00500	"	0.0333	ND	72.4	30-120			
Chrysene	0.0296	0.00500	"	0.0333	ND	88.9	30-120			
Dibenz (a,h) anthracene	0.0258	0.00500	"	0.0333	ND	77.5	30-120			
Fluoranthene	0.0289	0.00500	"	0.0333	ND	86.8	30-120			
Fluorene	0.0254	0.00500	"	0.0333	ND	76.3	30-120			
Indeno (1,2,3-cd) pyrene	0.0201	0.00500	"	0.0333	ND	60.2	30-120			
Pyrene	0.0336	0.00500	"	0.0333	0.00734	78.7	35-142			
1-Methylnaphthalene	0.0269	0.00500	"	0.0333	ND	80.7	15-130			
2-Methylnaphthalene	0.0272	0.00500	"	0.0333	ND	81.5	15-130			
Surrogate: 2-Methylnaphthalene-d10	0.0265		"	0.0333		79.5	40-150			
Surrogate: Fluoranthene-d10	0.0270		"	0.0333		81.0	40-150			

Matrix Spike Dup (BHE0601-MSD1)	Source: 2405268-04			Prepared & Analyzed: 05/20/24						
Acenaphthene	0.0202	0.00500	mg/kg	0.0333	ND	60.5	31-137	21.7	30	
Anthracene	0.0213	0.00500	"	0.0333	ND	63.8	30-120	20.1	30	
Benzo (a) anthracene	0.0242	0.00500	"	0.0333	ND	72.7	30-120	16.5	30	
Benzo (a) pyrene	0.0214	0.00500	"	0.0333	ND	64.1	30-120	16.1	30	
Benzo (b) fluoranthene	0.0220	0.00500	"	0.0333	ND	65.9	30-120	16.9	30	
Benzo (k) fluoranthene	0.0190	0.00500	"	0.0333	ND	57.0	30-120	23.8	30	
Chrysene	0.0249	0.00500	"	0.0333	ND	74.7	30-120	17.4	30	
Dibenz (a,h) anthracene	0.0238	0.00500	"	0.0333	ND	71.5	30-120	8.03	30	
Fluoranthene	0.0245	0.00500	"	0.0333	ND	73.4	30-120	16.7	30	
Fluorene	0.0206	0.00500	"	0.0333	ND	61.9	30-120	20.7	30	
Indeno (1,2,3-cd) pyrene	0.0186	0.00500	"	0.0333	ND	55.9	30-120	7.29	30	
Pyrene	0.0296	0.00500	"	0.0333	0.00734	66.9	35-142	12.4	30	
1-Methylnaphthalene	0.0228	0.00500	"	0.0333	ND	68.4	15-130	16.5	50	
2-Methylnaphthalene	0.0231	0.00500	"	0.0333	ND	69.4	15-130	16.1	50	
Surrogate: 2-Methylnaphthalene-d10	0.0230		"	0.0333		68.9	40-150			
Surrogate: Fluoranthene-d10	0.0222		"	0.0333		66.7	40-150			

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/03/24 15:56

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

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

Batch BHE0555 - EPA 3050B

Blank (BHE0555-BLK1)

Prepared: 05/17/24 Analyzed: 06/01/24

Boron ND 2.00 mg/L

LCS (BHE0555-BS1)

Prepared: 05/17/24 Analyzed: 06/01/24

Boron 5.39 2.00 mg/L 5.00 108 80-120

Duplicate (BHE0555-DUP1)

Source: 2405255-01

Prepared: 05/17/24 Analyzed: 06/01/24

Boron 0.663 2.00 mg/L 0.693 4.45 20

Matrix Spike (BHE0555-MS1)

Source: 2405255-01

Prepared: 05/17/24 Analyzed: 06/01/24

Boron 5.10 2.00 mg/L 5.05 0.693 87.4 75-125

Matrix Spike Dup (BHE0555-MSD1)

Source: 2405255-01

Prepared: 05/17/24 Analyzed: 06/01/24

Boron 5.15 2.00 mg/L 5.05 0.693 88.3 75-125 0.876 25

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/03/24 15:56

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BHE0604 - EPA 3050B

Blank (BHE0604-BLK1)

Prepared: 05/20/24 Analyzed: 05/22/24

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	"							
Silver	ND	0.0200	"							
Zinc	ND	0.400	"							
Selenium	ND	0.260	"							

LCS (BHE0604-BS1)

Prepared: 05/20/24 Analyzed: 05/22/24

Arsenic	36.9	0.200	mg/kg wet	40.0	92.3	80-120				
Barium	38.4	0.400	"	40.0	96.0	80-120				
Cadmium	1.94	0.200	"	2.00	97.0	80-120				
Copper	40.3	0.400	"	40.0	101	80-120				
Lead	19.0	0.200	"	20.0	95.1	80-120				
Nickel	39.9	0.400	"	40.0	99.9	80-120				
Silver	1.97	0.0200	"	2.00	98.4	80-120				
Zinc	39.4	0.400	"	40.0	98.5	80-120				
Selenium	4.02	0.260	"	4.00	100	80-120				

Duplicate (BHE0604-DUP1)

Source: 2404145-01RE1

Prepared: 05/20/24 Analyzed: 05/22/24

Arsenic	4.99	0.200	mg/kg wet	5.88	16.5	20				
Barium	102	0.400	"	211	70.0	20				QR-04
Cadmium	0.232	0.200	"	0.246	6.02	20				
Copper	5.12	0.400	"	5.40	5.21	20				
Lead	9.92	0.200	"	14.3	36.4	20				QR-04
Nickel	3.53	0.400	"	3.27	7.88	20				
Silver	0.0405	0.0200	"	0.0562	32.5	20				QR-01
Zinc	23.4	0.400	"	21.7	7.82	20				
Selenium	ND	0.260	"	0.197	200	20				QR-01

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.



Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/03/24 15:56

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BHE0604 - EPA 3050B

Matrix Spike (BHE0604-MS1)

Source: 2404145-01RE1 Prepared: 05/20/24 Analyzed: 05/22/24

Arsenic	42.0	0.200	mg/kg wet	39.1	5.88	92.6	75-125			
Barium	143	0.400	"	39.1	211	NR	75-125			QM-07
Cadmium	2.21	0.200	"	1.95	0.246	100	75-125			
Copper	21.1	0.400	"	39.1	5.40	40.1	75-125			QM-07
Lead	32.9	0.200	"	19.5	14.3	95.0	75-125			
Nickel	18.6	0.400	"	39.1	3.27	39.2	75-125			QM-07
Silver	1.98	0.0200	"	1.95	0.0562	98.6	75-125			
Zinc	39.6	0.400	"	39.1	21.7	46.0	75-125			QM-07
Selenium	3.98	0.260	"	3.91	0.197	96.7	75-125			

Matrix Spike Dup (BHE0604-MSD1)

Source: 2404145-01RE1 Prepared: 05/20/24 Analyzed: 05/22/24

Arsenic	42.7	0.200	mg/kg wet	39.1	5.88	94.2	75-125	1.49	25	
Barium	146	0.400	"	39.1	211	NR	75-125	1.64	25	QM-07
Cadmium	2.26	0.200	"	1.95	0.246	103	75-125	2.59	25	
Copper	20.9	0.400	"	39.1	5.40	39.7	75-125	0.679	25	QM-07
Lead	33.3	0.200	"	19.5	14.3	97.3	75-125	1.34	25	
Nickel	18.6	0.400	"	39.1	3.27	39.1	75-125	0.208	25	QM-07
Silver	2.02	0.0200	"	1.95	0.0562	101	75-125	1.95	25	
Zinc	39.0	0.400	"	39.1	21.7	44.4	75-125	1.57	25	QM-07
Selenium	4.18	0.260	"	3.91	0.197	102	75-125	4.94	25	

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/03/24 15:56

Hexavalent Chromium by EPA Method 7196 - Quality Control
Summit Scientific

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

Batch BHE0569 - 3060A Mod

Blank (BHE0569-BLK1)

Prepared & Analyzed: 05/17/24

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BHE0569-BS1)

Prepared & Analyzed: 05/17/24

Chromium, Hexavalent 26.2 0.30 mg/kg wet 25.0 105 80-120

Duplicate (BHE0569-DUP1)

Source: 2405262-01

Prepared & Analyzed: 05/17/24

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BHE0569-MS1)

Source: 2405262-01

Prepared & Analyzed: 05/17/24

Chromium, Hexavalent 28.7 0.30 mg/kg dry 28.7 ND 100 75-125

Matrix Spike Dup (BHE0569-MSD1)

Source: 2405262-01

Prepared & Analyzed: 05/17/24

Chromium, Hexavalent 28.6 0.30 mg/kg dry 28.7 ND 99.8 75-125 0.200 20

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/03/24 15:56

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

Summit Scientific

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

Batch BHE0566 - General Preparation

Blank (BHE0566-BLK1)

Prepared: 05/17/24 Analyzed: 05/26/24

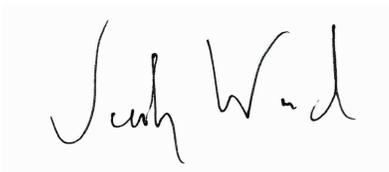
Calcium	ND	0.0500	mg/L wet							
Magnesium	ND	0.0500	"							
Sodium	ND	0.0500	"							

LCS (BHE0566-BS1)

Prepared: 05/17/24 Analyzed: 05/26/24

Calcium	5.42	0.0500	mg/L wet	5.00		108	70-130			
Magnesium	4.97	0.0500	"	5.00		99.4	70-130			
Sodium	5.02	0.0500	"	5.00		100	70-130			

Summit Scientific



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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/03/24 15:56

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

Summit Scientific

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

Batch BHE0609 - General Preparation

Duplicate (BHE0609-DUP1)	Source: 2405263-01	Prepared & Analyzed: 05/20/24		
% Solids	89.8	% 89.5	0.296	20

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/03/24 15:56

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

Summit Scientific

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

Batch BHE0568 - General Preparation

Blank (BHE0568-BLK1)

Prepared: 05/17/24 Analyzed: 05/20/24

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BHE0568-BS1)

Prepared: 05/17/24 Analyzed: 05/20/24

Specific Conductance (EC) 0.153 0.0100 mmhos/cm 0.150 102 95-105

Duplicate (BHE0568-DUP1)

Source: 2405255-01

Prepared: 05/17/24 Analyzed: 05/20/24

Specific Conductance (EC) 1.59 0.0100 mmhos/cm 1.63 2.30 20

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/03/24 15:56

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

Summit Scientific

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

Batch BHE0570 - General Preparation

LCS (BHE0570-BS1)

Prepared: 05/17/24 Analyzed: 05/20/24

pH	9.14	pH Units	9.18	99.6	95-105
----	------	----------	------	------	--------

Duplicate (BHE0570-DUP1)

Source: 2405255-01

Prepared: 05/17/24 Analyzed: 05/20/24

pH	11.0	pH Units	11.0	0.545	20
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Summit Scientific



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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/03/24 15:56

Notes and Definitions

- QR-04 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
- QR-01 Analyses are not controlled on RPD values from sample concentrations less than 10 times the reporting limit. QC batch accepted based on LCS and/or LCSD QC results.
- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.
- 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

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

June 03, 2024

Chandler Cole

Phillips 66

6900 E Layton Ave/ Suite 900

Denver, CO 80237

RE: Four Parmlee (H-6-9) 3/2024

Work Order #2405258

Enclosed are the results of analyses for samples received by Summit Scientific on 05/16/24 17:56. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Jacob Wood". The signature is written in a cursive style with a large initial "J" and a distinct "W".

Jacob Wood For Paul Shrewsbury

President



Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/03/24 15:51

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
ETP02@42'	2405258-01	Soil	05/16/24 14:39	05/16/24 17:56

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.



4653 Table Mountain Drive
Golden, CO 80403
303-277-9310

Lab ID	Page 1 of 1
2408258	

Send Data To:		Send Invoice To:	
Client: Fasman <i>DCP/R66</i>	Project Manager: <i>Chandler Cole / Brian Humphrey</i>	Company: <i>P66</i>	
Address: 6855 W 119th Ave	E-Mail: <i>chandler.e.cole@p66.com</i>	Project Name/Location: <i>Four Parmlee (H-69) 3/2024</i>	
City/State/Zip: Broomfield / CO / 80220	<i>bhumphrey@fasman-geo.com</i>	AFE#:	
Phone: 303-487-1228	Project Name: <i>Four Parmlee (H-69) 3/2024</i>	PO/Billing Codes:	
Sampler Name: <i>B. Ulrich</i>	Project Number:	Contact: <i>Chandler Cole</i>	

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested				Special Instructions
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other					
1	<i>ETP02 @ 42'</i>	<i>5-16-24</i>	<i>1439</i>	<i>2</i>			<i>X</i>				<i>X</i>						<i>2-Day TAT</i>
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	
15																	

Relinquished by: <i>[Signature]</i>	Date/Time: <i>5-16-24 1736</i>	Received by: <i>[Signature]</i>	Date/Time: <i>5/16/24 1754</i>	TAT Business Days	Field DO	Notes: <i>Results by Jan 5/21/24, Tuesday</i>
Relinquished by: <i>Tasman [Signature]</i>	Date/Time: <i>5/16/24 1750</i>	Received by: <i>[Signature]</i>	Date/Time: <i>5/16/24 1754</i>	Same Day	Field EC	
Relinquished by:	Date/Time:	Received by:	Date/Time:	1 Day	Field ORP	
Relinquished by:	Date/Time:	Received by:	Date/Time:	2 Days <i>X</i>	Field pH	
Relinquished by:	Date/Time:	Received by:	Date/Time:	3 Days	Field Temp.	
Temperature Upon Receipt: <i>0.4</i>	Corrected Temperature: <i>0</i>	IR gun #:	HNO3 lot #:	Standard	Field Turb.	

S₂

Sample Receipt Checklist

S2 Work Order# 2405258

Client: DCP/DCU

Client Project ID: Four Parmlee (H109)

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

Airbill #:

Matrix (Check all that apply)

Air

Soil/Solid

Water

Other

Temp (°C)

6.4

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"/>	<u>none</u>
Are samples due within 48 hours present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>2 Day</u>
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 checked="" type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out completely? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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.

AS
Custodian Printed Name

5/14/24
Date/Time



Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/03/24 15:51

ETP02@42'
2405258-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/16/24 14:39**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BHE0579	05/17/24	05/20/24	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: **05/16/24 14:39**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0386	96.4 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0352	87.9 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0393	98.3 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **05/16/24 14:39**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHE0580	05/17/24	05/18/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **05/16/24 14:39**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	6.41	51.3 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/03/24 15:51

ETP02@42'
2405258-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **05/16/24 14:39**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHE0551	05/17/24	05/18/24	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	0.00606	0.00500	"	"	"	"	"	"	

Date Sampled: **05/16/24 14:39**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0162	48.6 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0142	42.5 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **05/16/24 14:39**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHE0555	05/17/24	06/01/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **05/16/24 14:39**

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

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/03/24 15:51

ETP02@42'
2405258-01 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	6.00	0.200	mg/kg dry	1	BHE0563	05/17/24	05/20/24	EPA 6020B	
Barium	249	0.400	"	"	"	"	"	"	
Cadmium	0.711	0.200	"	"	"	"	"	"	
Copper	20.4	0.400	"	"	"	"	"	"	
Lead	13.5	0.200	"	"	"	"	"	"	
Nickel	37.0	0.400	"	"	"	"	"	"	
Silver	0.0836	0.0200	"	"	"	"	"	"	
Zinc	91.9	0.400	"	"	"	"	"	"	
Selenium	0.348	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: 05/16/24 14:39

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHE0560	05/17/24	05/17/24	EPA 7196A	

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

Date Sampled: 05/16/24 14:39

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	32.5	0.0500	mg/L dry	1	BHE0566	05/17/24	05/26/24	EPA 6020B	
Magnesium	5.69	0.0500	"	"	"	"	"	"	
Sodium	7.92	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: 05/16/24 14:39

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.337	0.00100	units	1	BHE0836	05/28/24	05/28/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: 05/16/24 14:39

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/03/24 15:51

ETP02@42'
2405258-01 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	75.4	%	1	BHE0558	05/17/24	05/17/24	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **05/16/24 14:39**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.191	0.0100	mmhos/cm	1	BHE0568	05/17/24	05/20/24	EPA 120.1	

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

Date Sampled: **05/16/24 14:39**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.35		pH Units	1	BHE0570	05/17/24	05/20/24	EPA 9045D	

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/03/24 15:51

Volatile Organic Compounds by EPA Method 8260B - Quality Control

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

Batch BHE0579 - EPA 5030 Soil MS

Blank (BHE0579-BLK1)

Prepared & Analyzed: 05/17/24

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	0.0406		"	0.0400		101	50-150			
Surrogate: Toluene-d8	0.0397		"	0.0400		99.2	50-150			
Surrogate: 4-Bromofluorobenzene	0.0393		"	0.0400		98.2	50-150			

LCS (BHE0579-BS1)

Prepared & Analyzed: 05/17/24

Benzene	0.149	0.0020	mg/kg	0.150		99.5	70-130			
Toluene	0.147	0.0050	"	0.150		98.1	70-130			
Ethylbenzene	0.147	0.0050	"	0.150		98.2	70-130			
m,p-Xylene	0.296	0.010	"	0.300		98.5	70-130			
o-Xylene	0.146	0.0050	"	0.150		97.5	70-130			
1,2,4-Trimethylbenzene	0.149	0.0050	"	0.150		99.1	70-130			
1,3,5-Trimethylbenzene	0.150	0.0050	"	0.150		99.9	70-130			
Naphthalene	0.150	0.0038	"	0.150		100	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0421		"	0.0400		105	50-150			
Surrogate: Toluene-d8	0.0407		"	0.0400		102	50-150			
Surrogate: 4-Bromofluorobenzene	0.0405		"	0.0400		101	50-150			

Matrix Spike (BHE0579-MS1)

Source: 2405206-01

Prepared: 05/17/24 Analyzed: 05/18/24

Benzene	0.142	0.0020	mg/kg	0.150	ND	94.5	70-130			
Toluene	0.143	0.0050	"	0.150	ND	95.6	70-130			
Ethylbenzene	0.144	0.0050	"	0.150	ND	96.0	70-130			
m,p-Xylene	0.287	0.010	"	0.300	ND	95.7	70-130			
o-Xylene	0.143	0.0050	"	0.150	ND	95.3	70-130			
1,2,4-Trimethylbenzene	0.141	0.0050	"	0.150	ND	93.7	70-130			
1,3,5-Trimethylbenzene	0.142	0.0050	"	0.150	ND	94.8	70-130			
Naphthalene	0.109	0.0038	"	0.150	ND	72.5	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0392		"	0.0400		98.1	50-150			
Surrogate: Toluene-d8	0.0402		"	0.0400		100	50-150			
Surrogate: 4-Bromofluorobenzene	0.0395		"	0.0400		98.8	50-150			

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
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Volatile Organic Compounds by EPA Method 8260B - Quality Control

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

Batch BHE0579 - EPA 5030 Soil MS

Matrix Spike Dup (BHE0579-MSD1)	Source: 2405206-01			Prepared: 05/17/24 Analyzed: 05/18/24					
Benzene	0.143	0.0020	mg/kg	0.150	ND	95.2	70-130	0.822	30
Toluene	0.143	0.0050	"	0.150	ND	95.5	70-130	0.0838	30
Ethylbenzene	0.144	0.0050	"	0.150	ND	95.9	70-130	0.125	30
m,p-Xylene	0.284	0.010	"	0.300	ND	94.8	70-130	0.903	30
o-Xylene	0.141	0.0050	"	0.150	ND	93.9	70-130	1.50	30
1,2,4-Trimethylbenzene	0.140	0.0050	"	0.150	ND	93.5	70-130	0.192	30
1,3,5-Trimethylbenzene	0.141	0.0050	"	0.150	ND	93.7	70-130	1.21	30
Naphthalene	0.108	0.0038	"	0.150	ND	71.7	70-130	1.11	30
Surrogate: 1,2-Dichloroethane-d4	0.0395		"	0.0400		98.8	50-150		
Surrogate: Toluene-d8	0.0402		"	0.0400		101	50-150		
Surrogate: 4-Bromofluorobenzene	0.0400		"	0.0400		100	50-150		

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/03/24 15:51

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BHE0580 - EPA 3550A

Blank (BHE0580-BLK1)

Prepared: 05/17/24 Analyzed: 05/18/24

C10-C28 (DRO)	ND	50	mg/kg								
C28-C36 (ORO)	ND	50	"								
Surrogate: <i>o</i> -Terphenyl	13.0		"	12.5	104	30-150					

LCS (BHE0580-BS1)

Prepared: 05/17/24 Analyzed: 05/18/24

C10-C28 (DRO)	501	50	mg/kg	500	100	70-130					
Surrogate: <i>o</i> -Terphenyl	10.3		"	12.5	82.0	30-150					

Matrix Spike (BHE0580-MS1)

Source: 2405228-01

Prepared: 05/17/24 Analyzed: 05/18/24

C10-C28 (DRO)	557	50	mg/kg	500	90.9	93.3	70-130				
Surrogate: <i>o</i> -Terphenyl	7.31		"	12.5	58.5	30-150					

Matrix Spike Dup (BHE0580-MSD1)

Source: 2405228-01

Prepared: 05/17/24 Analyzed: 05/18/24

C10-C28 (DRO)	478	50	mg/kg	500	90.9	77.4	70-130	15.3	20		
Surrogate: <i>o</i> -Terphenyl	7.38		"	12.5	59.0	30-150					

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/03/24 15:51

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BHE0551 - EPA 5030 Soil MS

Blank (BHE0551-BLK1)

Prepared & Analyzed: 05/17/24

Acenaphthene	ND	0.00500	mg/kg							
Anthracene	ND	0.00500	"							
Benzo (a) anthracene	ND	0.00500	"							
Benzo (a) pyrene	ND	0.00500	"							
Benzo (b) fluoranthene	ND	0.00500	"							
Benzo (k) fluoranthene	ND	0.00500	"							
Chrysene	ND	0.00500	"							
Dibenz (a,h) anthracene	ND	0.00500	"							
Fluoranthene	ND	0.00500	"							
Fluorene	ND	0.00500	"							
Indeno (1,2,3-cd) pyrene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
1-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0393</i>		<i>"</i>	<i>0.0333</i>	<i>118</i>	<i>40-150</i>				
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0371</i>		<i>"</i>	<i>0.0333</i>	<i>111</i>	<i>40-150</i>				

LCS (BHE0551-BS1)

Prepared & Analyzed: 05/17/24

Acenaphthene	0.0380	0.00500	mg/kg	0.0333	114	31-137				
Anthracene	0.0357	0.00500	"	0.0333	107	30-120				
Benzo (a) anthracene	0.0358	0.00500	"	0.0333	107	30-120				
Benzo (a) pyrene	0.0341	0.00500	"	0.0333	102	30-120				
Benzo (b) fluoranthene	0.0334	0.00500	"	0.0333	100	30-120				
Benzo (k) fluoranthene	0.0382	0.00500	"	0.0333	114	30-120				
Chrysene	0.0390	0.00500	"	0.0333	117	30-120				
Dibenz (a,h) anthracene	0.0329	0.00500	"	0.0333	98.8	30-120				
Fluoranthene	0.0350	0.00500	"	0.0333	105	30-120				
Fluorene	0.0379	0.00500	"	0.0333	114	30-120				
Indeno (1,2,3-cd) pyrene	0.0225	0.00500	"	0.0333	67.6	30-120				
Pyrene	0.0391	0.00500	"	0.0333	117	35-142				
1-Methylnaphthalene	0.0368	0.00500	"	0.0333	110	35-142				
2-Methylnaphthalene	0.0381	0.00500	"	0.0333	114	35-142				
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0395</i>		<i>"</i>	<i>0.0333</i>	<i>118</i>	<i>40-150</i>				
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0388</i>		<i>"</i>	<i>0.0333</i>	<i>116</i>	<i>40-150</i>				

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/03/24 15:51

PAH by EPA Method 8270D SIM - Quality Control

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

Batch BHE0551 - EPA 5030 Soil MS

Matrix Spike (BHE0551-MS1)	Source: 2405237-01			Prepared & Analyzed: 05/17/24						
Acenaphthene	0.0144	0.00500	mg/kg	0.0333	ND	43.2	31-137			
Anthracene	0.0166	0.00500	"	0.0333	ND	49.8	30-120			
Benzo (a) anthracene	0.0167	0.00500	"	0.0333	ND	50.0	30-120			
Benzo (a) pyrene	0.0158	0.00500	"	0.0333	ND	47.3	30-120			
Benzo (b) fluoranthene	0.0147	0.00500	"	0.0333	ND	44.1	30-120			
Benzo (k) fluoranthene	0.0157	0.00500	"	0.0333	ND	47.0	30-120			
Chrysene	0.0163	0.00500	"	0.0333	ND	49.0	30-120			
Dibenz (a,h) anthracene	0.0142	0.00500	"	0.0333	ND	42.6	30-120			
Fluoranthene	0.0154	0.00500	"	0.0333	ND	46.2	30-120			
Fluorene	0.0155	0.00500	"	0.0333	ND	46.6	30-120			
Indeno (1,2,3-cd) pyrene	0.0152	0.00500	"	0.0333	ND	45.5	30-120			
Pyrene	0.0183	0.00500	"	0.0333	ND	54.8	35-142			
1-Methylnaphthalene	0.0166	0.00500	"	0.0333	ND	49.9	15-130			
2-Methylnaphthalene	0.0161	0.00500	"	0.0333	ND	48.2	15-130			
Surrogate: 2-Methylnaphthalene-d10	0.0165		"	0.0333		49.5	40-150			
Surrogate: Fluoranthene-d10	0.0170		"	0.0333		50.9	40-150			

Matrix Spike Dup (BHE0551-MSD1)	Source: 2405237-01			Prepared & Analyzed: 05/17/24						
Acenaphthene	0.0138	0.00500	mg/kg	0.0333	ND	41.5	31-137	4.01	30	
Anthracene	0.0139	0.00500	"	0.0333	ND	41.7	30-120	17.6	30	
Benzo (a) anthracene	0.0138	0.00500	"	0.0333	ND	41.3	30-120	19.2	30	
Benzo (a) pyrene	0.0134	0.00500	"	0.0333	ND	40.3	30-120	15.9	30	
Benzo (b) fluoranthene	0.0137	0.00500	"	0.0333	ND	41.1	30-120	6.93	30	
Benzo (k) fluoranthene	0.0134	0.00500	"	0.0333	ND	40.1	30-120	15.9	30	
Chrysene	0.0140	0.00500	"	0.0333	ND	42.1	30-120	15.2	30	
Dibenz (a,h) anthracene	0.0140	0.00500	"	0.0333	ND	42.1	30-120	1.14	30	
Fluoranthene	0.0138	0.00500	"	0.0333	ND	41.4	30-120	10.9	30	
Fluorene	0.0152	0.00500	"	0.0333	ND	45.6	30-120	2.30	30	
Indeno (1,2,3-cd) pyrene	0.0141	0.00500	"	0.0333	ND	42.3	30-120	7.42	30	
Pyrene	0.0155	0.00500	"	0.0333	ND	46.5	35-142	16.5	30	
1-Methylnaphthalene	0.0148	0.00500	"	0.0333	ND	44.3	15-130	11.8	50	
2-Methylnaphthalene	0.0137	0.00500	"	0.0333	ND	41.2	15-130	15.6	50	
Surrogate: 2-Methylnaphthalene-d10	0.0148		"	0.0333		44.3	40-150			
Surrogate: Fluoranthene-d10	0.0137		"	0.0333		41.1	40-150			

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Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/03/24 15:51

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

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

Batch BHE0555 - EPA 3050B

Blank (BHE0555-BLK1)

Prepared: 05/17/24 Analyzed: 06/01/24

Boron ND 2.00 mg/L

LCS (BHE0555-BS1)

Prepared: 05/17/24 Analyzed: 06/01/24

Boron 5.39 2.00 mg/L 5.00 108 80-120

Duplicate (BHE0555-DUP1)

Source: 2405255-01

Prepared: 05/17/24 Analyzed: 06/01/24

Boron 0.663 2.00 mg/L 0.693 4.45 20

Matrix Spike (BHE0555-MS1)

Source: 2405255-01

Prepared: 05/17/24 Analyzed: 06/01/24

Boron 5.10 2.00 mg/L 5.05 0.693 87.4 75-125

Matrix Spike Dup (BHE0555-MSD1)

Source: 2405255-01

Prepared: 05/17/24 Analyzed: 06/01/24

Boron 5.15 2.00 mg/L 5.05 0.693 88.3 75-125 0.876 25

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/03/24 15:51

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BHE0563 - EPA 3050B

Blank (BHE0563-BLK1)

Prepared: 05/17/24 Analyzed: 05/20/24

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	"							
Silver	ND	0.0200	"							
Zinc	ND	0.400	"							
Selenium	ND	0.260	"							

LCS (BHE0563-BS1)

Prepared: 05/17/24 Analyzed: 05/20/24

Arsenic	39.4	0.200	mg/kg wet	40.0	98.6	80-120
Barium	37.2	0.400	"	40.0	93.1	80-120
Cadmium	1.94	0.200	"	2.00	97.1	80-120
Copper	41.6	0.400	"	40.0	104	80-120
Lead	19.7	0.200	"	20.0	98.7	80-120
Nickel	41.3	0.400	"	40.0	103	80-120
Silver	1.95	0.0200	"	2.00	97.4	80-120
Zinc	41.3	0.400	"	40.0	103	80-120
Selenium	4.15	0.260	"	4.00	104	80-120

Duplicate (BHE0563-DUP1)

Source: 2405084-03

Prepared: 05/17/24 Analyzed: 05/20/24

Arsenic	1.86	0.200	mg/kg dry	2.03	8.84	20	
Barium	85.2	0.400	"	108	23.3	20	QR-04
Cadmium	0.275	0.200	"	0.313	13.1	20	
Copper	14.5	0.400	"	15.6	7.42	20	
Lead	22.0	0.200	"	30.0	31.0	20	QR-04
Nickel	10.3	0.400	"	11.9	14.6	20	
Silver	0.0564	0.0200	"	0.0580	2.82	20	
Zinc	71.1	0.400	"	83.0	15.5	20	
Selenium	0.260	0.260	"	0.277	6.65	20	

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/03/24 15:51

Total Metals by EPA 6020B - Quality Control
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Analyte	Reporting			Spike	Source		%REC		RPD		Notes
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit		

Batch BHE0563 - EPA 3050B

Matrix Spike (BHE0563-MS1)

Source: 2405084-03

Prepared: 05/17/24 Analyzed: 05/20/24

Arsenic	21.0	0.181	mg/kg dry	45.6	2.03	41.7	75-125				QM-07
Barium	176	0.362	"	45.6	108	149	75-125				QM-07
Cadmium	2.55	0.181	"	2.28	0.313	98.1	75-125				
Copper	62.2	0.362	"	45.6	15.6	102	75-125				
Lead	46.2	0.181	"	22.8	30.0	70.8	75-125				QM-07
Nickel	58.3	0.362	"	45.6	11.9	102	75-125				
Silver	2.30	0.0181	"	2.28	0.0580	98.2	75-125				
Zinc	128	0.362	"	45.6	83.0	99.1	75-125				
Selenium	4.04	0.236	"	4.56	0.277	82.5	75-125				

Matrix Spike Dup (BHE0563-MSD1)

Source: 2405084-03

Prepared: 05/17/24 Analyzed: 05/20/24

Arsenic	21.1	0.181	mg/kg dry	45.6	2.03	41.7	75-125	0.143	25		QM-07
Barium	178	0.362	"	45.6	108	154	75-125	1.31	25		QM-07
Cadmium	2.60	0.181	"	2.28	0.313	100	75-125	1.95	25		
Copper	62.1	0.362	"	45.6	15.6	102	75-125	0.0418	25		
Lead	46.4	0.181	"	22.8	30.0	71.8	75-125	0.481	25		QM-07
Nickel	57.9	0.362	"	45.6	11.9	101	75-125	0.596	25		
Silver	2.30	0.0181	"	2.28	0.0580	98.2	75-125	0.0199	25		
Zinc	127	0.362	"	45.6	83.0	97.5	75-125	0.588	25		
Selenium	4.02	0.236	"	4.56	0.277	82.0	75-125	0.554	25		

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/03/24 15:51

Hexavalent Chromium by EPA Method 7196 - Quality Control
Summit Scientific

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

Batch BHE0560 - 3060A Mod

Blank (BHE0560-BLK1)

Prepared & Analyzed: 05/17/24

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BHE0560-BS1)

Prepared & Analyzed: 05/17/24

Chromium, Hexavalent 25.2 0.30 mg/kg wet 25.0 101 80-120

Duplicate (BHE0560-DUP1)

Source: 2405239-01

Prepared & Analyzed: 05/17/24

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BHE0560-MS1)

Source: 2405239-01

Prepared & Analyzed: 05/17/24

Chromium, Hexavalent 27.1 0.30 mg/kg dry 28.0 ND 96.8 75-125

Matrix Spike Dup (BHE0560-MSD1)

Source: 2405239-01

Prepared & Analyzed: 05/17/24

Chromium, Hexavalent 27.0 0.30 mg/kg dry 28.0 ND 96.4 75-125 0.414 20

Summit Scientific

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/03/24 15:51

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

Summit Scientific

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

Batch BHE0566 - General Preparation

Blank (BHE0566-BLK1)

Prepared: 05/17/24 Analyzed: 05/26/24

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

LCS (BHE0566-BS1)

Prepared: 05/17/24 Analyzed: 05/26/24

Calcium	5.42	0.0500	mg/L wet	5.00	108	70-130				
Magnesium	4.97	0.0500	"	5.00	99.4	70-130				
Sodium	5.02	0.0500	"	5.00	100	70-130				

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/03/24 15:51

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

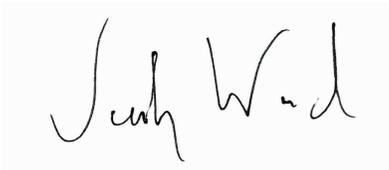
Summit Scientific

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

Batch BHE0558 - General Preparation

Duplicate (BHE0558-DUP1)		Source: 2405084-03			Prepared & Analyzed: 05/17/24					
% Solids	79.5		%		79.5		0.0161	20		

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/03/24 15:51

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

Summit Scientific

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

Batch BHE0568 - General Preparation

Blank (BHE0568-BLK1)

Prepared: 05/17/24 Analyzed: 05/20/24

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BHE0568-BS1)

Prepared: 05/17/24 Analyzed: 05/20/24

Specific Conductance (EC) 0.153 0.0100 mmhos/cm 0.150 102 95-105

Duplicate (BHE0568-DUP1)

Source: 2405255-01

Prepared: 05/17/24 Analyzed: 05/20/24

Specific Conductance (EC) 1.59 0.0100 mmhos/cm 1.63 2.30 20

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/03/24 15:51

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

Summit Scientific

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

Batch BHE0570 - General Preparation

LCS (BHE0570-BS1)

Prepared: 05/17/24 Analyzed: 05/20/24

pH	9.14	pH Units	9.18	99.6	95-105
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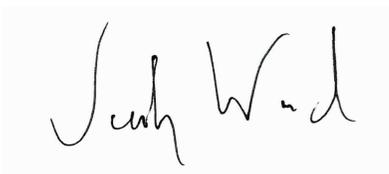
Duplicate (BHE0570-DUP1)

Source: 2405255-01

Prepared: 05/17/24 Analyzed: 05/20/24

pH	11.0	pH Units	11.0	0.545	20
----	------	----------	------	-------	----

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Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/03/24 15:51

Notes and Definitions

- QR-04 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.
- 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

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

June 12, 2024

Chandler Cole

Phillips 66

6900 E Layton Ave/ Suite 900

Denver, CO 80237

RE: Four Parmlee (H-6-9) 3/2024

Work Order #2405452

Enclosed are the results of analyses for samples received by Summit Scientific on 05/29/24 17:44. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Natalie Tessier". The signature is written in a cursive, flowing style.

Natalie Tessier For Paul Shrewsbury

President



Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/12/24 11:43

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
ETP05@49'	2405452-01	Soil	05/29/24 11:33	05/29/24 17:44



4653 Table Mountain Drive
Golden, CO 80403
303-277-9310

Lab ID	Page 1 of 1
2405452	

Client: Tasman DCP/P66		Send Data To: Project Manager: Chandler Cole / Brian Humphrey		Send Invoice To: Company: P66	
Address: 6855 W 119th Ave.		E-Mail: chandler.c.cole@p66.com		Project Name/Location: Four Parmice (H-6-9) 3/2024	
City/State/Zip: Broomfield / CO / 80220		bhumphrey@tasman-geo.com		AFE#:	
Phone: 303-487-1228		Project Name: Four Parmice (H-6-9) 3/2024		PO/Billing Codes: 466 - Bu	
Sampler Name: B. Ulrich		Project Number:		Contact: Chandler Cole	

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix			Analysis Requested						Special Instructions		
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other								
1	ETP05 E49	5-29-24	1133	2			X			X										Standard TAT
2																				
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				
13																				
14																				
15																				

Relinquished by: <i>[Signature]</i>	Date/Time: 5-29-24 1724	Received by: <i>[Signature]</i>	Date/Time: 5-29-24 1744	TAT Business Days	Field DO	Notes:
				Same Day	Field EC	
Relinquished by: <i>Tasman [Signature]</i>	Date/Time: 5/29/24 1744	Received by: <i>[Signature]</i>	Date/Time: 5/29/24 1744	1 Day	Field ORP	
				2 Days	Field pH	
Relinquished by:	Date/Time:	Received by:	Date/Time:	3 Days	Field Temp.	
				Standard	Field Turb. <input checked="" type="checkbox"/>	
Temperature Upon Receipt: 9.3	Corrected Temperature: 9	IR gun #:	/	HNO3 lot #:		

S₂

Sample Receipt Checklist

S2 Work Order# 2405452

Client: DP/Rece Client Project ID: Four Parmlee (H-6-9) 3/2024

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

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

Temp (°C)

Thermometer #

	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"/>	an zce
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 checked="" type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out Completely? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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.

AS
Custodian Printed Name

5/29/24
Date/Time



Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/12/24 11:43

ETP05@49'
2405452-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/29/24 11:33**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BHE0933	05/30/24	06/01/24	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: **05/29/24 11:33**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0434	108 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0404	101 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0408	102 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **05/29/24 11:33**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHE0932	05/30/24	06/01/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **05/29/24 11:33**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	11.2	89.6 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/12/24 11:43

ETP05@49'
2405452-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **05/29/24 11:33**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHE0953	05/31/24	05/31/24	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: **05/29/24 11:33**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0178	53.5 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0166	49.9 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **05/29/24 11:33**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHE0921	05/30/24	06/11/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **05/29/24 11:33**

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

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/12/24 11:43

ETP05@49'
2405452-01 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	0.824	0.200	mg/kg dry	1	BHE0977	05/31/24	06/04/24	EPA 6020B
Barium	49.2	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	1.17	0.400	"	"	"	"	"	"
Lead	4.24	0.200	"	"	"	"	"	"
Nickel	1.59	0.400	"	"	"	"	"	"
Silver	ND	0.0200	"	"	"	"	"	"
Zinc	11.5	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: 05/29/24 11:33

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHE0915	05/30/24	05/30/24	EPA 7196A	

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

Date Sampled: 05/29/24 11:33

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	13.7	0.0500	mg/L dry	1	BHE0980	05/31/24	06/04/24	EPA 6020B	
Magnesium	2.20	0.0500	"	"	"	"	"	"	
Sodium	2.42	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: 05/29/24 11:33

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.160	0.00100	units	1	BHF0109	06/05/24	06/05/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/12/24 11:43

ETP05@49'
2405452-01 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **05/29/24 11:33**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	88.4		%	1	BHF0027	06/03/24	06/03/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **05/29/24 11:33**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.0650	0.0100	mmhos/cm	1	BHE0984	05/31/24	06/04/24	EPA 120.1	

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

Date Sampled: **05/29/24 11:33**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.47		pH Units	1	BHE0983	05/31/24	06/04/24	EPA 9045D	

Summit Scientific

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Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/12/24 11:43

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BHE0933 - EPA 5030 Soil MS

Blank (BHE0933-BLK1)

Prepared: 05/30/24 Analyzed: 05/31/24

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	0.0414		"	0.0400		104	50-150				
Surrogate: Toluene-d8	0.0395		"	0.0400		98.8	50-150				
Surrogate: 4-Bromofluorobenzene	0.0393		"	0.0400		98.2	50-150				

LCS (BHE0933-BS1)

Prepared: 05/30/24 Analyzed: 05/31/24

Benzene	0.113	0.0020	mg/kg	0.100		113	70-130				
Toluene	0.112	0.0050	"	0.100		112	70-130				
Ethylbenzene	0.111	0.0050	"	0.100		111	70-130				
m,p-Xylene	0.226	0.010	"	0.200		113	70-130				
o-Xylene	0.112	0.0050	"	0.100		112	70-130				
1,2,4-Trimethylbenzene	0.109	0.0050	"	0.100		109	70-130				
1,3,5-Trimethylbenzene	0.109	0.0050	"	0.100		109	70-130				
Naphthalene	0.100	0.0038	"	0.100		100	70-130				
Surrogate: 1,2-Dichloroethane-d4	0.0412		"	0.0400		103	50-150				
Surrogate: Toluene-d8	0.0390		"	0.0400		97.6	50-150				
Surrogate: 4-Bromofluorobenzene	0.0394		"	0.0400		98.5	50-150				

Matrix Spike (BHE0933-MS1)

Source: 2405416-01

Prepared: 05/30/24 Analyzed: 05/31/24

Benzene	0.0618	0.0020	mg/kg	0.100	ND	61.8	70-130				QM-07
Toluene	0.0646	0.0050	"	0.100	ND	64.6	70-130				QM-07
Ethylbenzene	0.0827	0.0050	"	0.100	ND	82.7	70-130				
m,p-Xylene	0.163	0.010	"	0.200	ND	81.5	70-130				
o-Xylene	0.0824	0.0050	"	0.100	ND	82.4	70-130				
1,2,4-Trimethylbenzene	0.0698	0.0050	"	0.100	ND	69.8	70-130				QM-07
1,3,5-Trimethylbenzene	0.0789	0.0050	"	0.100	ND	78.9	70-130				
Naphthalene	0.0466	0.0038	"	0.100	ND	46.6	70-130				QM-07
Surrogate: 1,2-Dichloroethane-d4	0.0420		"	0.0400		105	50-150				
Surrogate: Toluene-d8	0.0389		"	0.0400		97.2	50-150				
Surrogate: 4-Bromofluorobenzene	0.0396		"	0.0400		99.0	50-150				

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/12/24 11:43

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BHE0933 - EPA 5030 Soil MS

Matrix Spike Dup (BHE0933-MSD1)	Source: 2405416-01			Prepared: 05/30/24 Analyzed: 05/31/24						
Benzene	0.0640	0.0020	mg/kg	0.100	ND	64.0	70-130	3.53	30	QM-07
Toluene	0.0650	0.0050	"	0.100	ND	65.0	70-130	0.556	30	QM-07
Ethylbenzene	0.0868	0.0050	"	0.100	ND	86.8	70-130	4.85	30	
m,p-Xylene	0.171	0.010	"	0.200	ND	85.4	70-130	4.60	30	
o-Xylene	0.0862	0.0050	"	0.100	ND	86.2	70-130	4.45	30	
1,2,4-Trimethylbenzene	0.0752	0.0050	"	0.100	ND	75.2	70-130	7.36	30	
1,3,5-Trimethylbenzene	0.0835	0.0050	"	0.100	ND	83.5	70-130	5.62	30	
Naphthalene	0.0485	0.0038	"	0.100	ND	48.5	70-130	3.91	30	QM-07
Surrogate: 1,2-Dichloroethane-d4	0.0423		"	0.0400		106	50-150			
Surrogate: Toluene-d8	0.0395		"	0.0400		98.8	50-150			
Surrogate: 4-Bromofluorobenzene	0.0396		"	0.0400		98.9	50-150			

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/12/24 11:43

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BHE0932 - EPA 3550A

Blank (BHE0932-BLK1)

Prepared & Analyzed: 05/30/24

C10-C28 (DRO)	ND	50	mg/kg								
C28-C36 (ORO)	ND	50	"								
Surrogate: <i>o</i> -Terphenyl	15.9		"	12.5		127		30-150			

LCS (BHE0932-BS1)

Prepared & Analyzed: 05/30/24

C10-C28 (DRO)	379	50	mg/kg	500		75.8		70-130			
Surrogate: <i>o</i> -Terphenyl	11.2		"	12.5		89.8		30-150			

Matrix Spike (BHE0932-MS1)

Source: 2405416-01

Prepared: 05/30/24 Analyzed: 05/31/24

C10-C28 (DRO)	417	50	mg/kg	500	18.1	79.8		70-130			
Surrogate: <i>o</i> -Terphenyl	9.65		"	12.5		77.2		30-150			

Matrix Spike Dup (BHE0932-MSD1)

Source: 2405416-01

Prepared: 05/30/24 Analyzed: 05/31/24

C10-C28 (DRO)	361	50	mg/kg	500	18.1	68.6		70-130	14.5	20	QM-07
Surrogate: <i>o</i> -Terphenyl	8.66		"	12.5		69.2		30-150			

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/12/24 11:43

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BHE0953 - EPA 5030 Soil MS

Blank (BHE0953-BLK1)

Prepared & Analyzed: 05/31/24

Acenaphthene	ND	0.00500	mg/kg							
Anthracene	ND	0.00500	"							
Benzo (a) anthracene	ND	0.00500	"							
Benzo (a) pyrene	ND	0.00500	"							
Benzo (b) fluoranthene	ND	0.00500	"							
Benzo (k) fluoranthene	ND	0.00500	"							
Chrysene	ND	0.00500	"							
Dibenz (a,h) anthracene	ND	0.00500	"							
Fluoranthene	ND	0.00500	"							
Fluorene	ND	0.00500	"							
Indeno (1,2,3-cd) pyrene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
1-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
<i>Surrogate: 2-Methylnaphthalene-d10</i>	0.0269		"	0.0333		80.6	40-150			
<i>Surrogate: Fluoranthene-d10</i>	0.0247		"	0.0333		74.2	40-150			

LCS (BHE0953-BS1)

Prepared & Analyzed: 05/31/24

Acenaphthene	0.0266	0.00500	mg/kg	0.0333		79.8	31-137			
Anthracene	0.0270	0.00500	"	0.0333		81.0	30-120			
Benzo (a) anthracene	0.0270	0.00500	"	0.0333		80.9	30-120			
Benzo (a) pyrene	0.0246	0.00500	"	0.0333		73.7	30-120			
Benzo (b) fluoranthene	0.0274	0.00500	"	0.0333		82.3	30-120			
Benzo (k) fluoranthene	0.0314	0.00500	"	0.0333		94.1	30-120			
Chrysene	0.0288	0.00500	"	0.0333		86.3	30-120			
Dibenz (a,h) anthracene	0.0221	0.00500	"	0.0333		66.2	30-120			
Fluoranthene	0.0270	0.00500	"	0.0333		81.1	30-120			
Fluorene	0.0272	0.00500	"	0.0333		81.7	30-120			
Indeno (1,2,3-cd) pyrene	0.0241	0.00500	"	0.0333		72.2	30-120			
Pyrene	0.0340	0.00500	"	0.0333		102	35-142			
1-Methylnaphthalene	0.0261	0.00500	"	0.0333		78.2	35-142			
2-Methylnaphthalene	0.0263	0.00500	"	0.0333		78.8	35-142			
<i>Surrogate: 2-Methylnaphthalene-d10</i>	0.0244		"	0.0333		73.2	40-150			
<i>Surrogate: Fluoranthene-d10</i>	0.0253		"	0.0333		76.0	40-150			

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/12/24 11:43

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BHE0953 - EPA 5030 Soil MS

Matrix Spike (BHE0953-MS1)	Source: 2405452-01			Prepared & Analyzed: 05/31/24						
Acenaphthene	0.0209	0.00500	mg/kg	0.0333	ND	62.7	31-137			
Anthracene	0.0212	0.00500	"	0.0333	ND	63.5	30-120			
Benzo (a) anthracene	0.0213	0.00500	"	0.0333	ND	63.9	30-120			
Benzo (a) pyrene	0.0191	0.00500	"	0.0333	ND	57.4	30-120			
Benzo (b) fluoranthene	0.0199	0.00500	"	0.0333	ND	59.8	30-120			
Benzo (k) fluoranthene	0.0232	0.00500	"	0.0333	ND	69.5	30-120			
Chrysene	0.0222	0.00500	"	0.0333	ND	66.7	30-120			
Dibenz (a,h) anthracene	0.0167	0.00500	"	0.0333	ND	50.2	30-120			
Fluoranthene	0.0209	0.00500	"	0.0333	ND	62.6	30-120			
Fluorene	0.0218	0.00500	"	0.0333	ND	65.3	30-120			
Indeno (1,2,3-cd) pyrene	0.0198	0.00500	"	0.0333	ND	59.3	30-120			
Pyrene	0.0263	0.00500	"	0.0333	ND	78.9	35-142			
1-Methylnaphthalene	0.0217	0.00500	"	0.0333	ND	65.1	15-130			
2-Methylnaphthalene	0.0205	0.00500	"	0.0333	ND	61.5	15-130			
Surrogate: 2-Methylnaphthalene-d10	0.0195		"	0.0333		58.4	40-150			
Surrogate: Fluoranthene-d10	0.0196		"	0.0333		58.8	40-150			

Matrix Spike Dup (BHE0953-MSD1)	Source: 2405452-01			Prepared & Analyzed: 05/31/24						
Acenaphthene	0.0193	0.00500	mg/kg	0.0333	ND	57.8	31-137	8.13	30	
Anthracene	0.0189	0.00500	"	0.0333	ND	56.8	30-120	11.0	30	
Benzo (a) anthracene	0.0188	0.00500	"	0.0333	ND	56.3	30-120	12.6	30	
Benzo (a) pyrene	0.0170	0.00500	"	0.0333	ND	50.9	30-120	12.0	30	
Benzo (b) fluoranthene	0.0180	0.00500	"	0.0333	ND	53.9	30-120	10.4	30	
Benzo (k) fluoranthene	0.0210	0.00500	"	0.0333	ND	63.1	30-120	9.57	30	
Chrysene	0.0197	0.00500	"	0.0333	ND	59.2	30-120	11.8	30	
Dibenz (a,h) anthracene	0.0145	0.00500	"	0.0333	ND	43.4	30-120	14.7	30	
Fluoranthene	0.0183	0.00500	"	0.0333	ND	54.9	30-120	13.0	30	
Fluorene	0.0193	0.00500	"	0.0333	ND	58.0	30-120	11.9	30	
Indeno (1,2,3-cd) pyrene	0.0184	0.00500	"	0.0333	ND	55.1	30-120	7.24	30	
Pyrene	0.0235	0.00500	"	0.0333	ND	70.5	35-142	11.2	30	
1-Methylnaphthalene	0.0194	0.00500	"	0.0333	ND	58.3	15-130	11.0	50	
2-Methylnaphthalene	0.0194	0.00500	"	0.0333	ND	58.3	15-130	5.33	50	
Surrogate: 2-Methylnaphthalene-d10	0.0180		"	0.0333		53.9	40-150			
Surrogate: Fluoranthene-d10	0.0175		"	0.0333		52.4	40-150			

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Phillips 66
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Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/12/24 11:43

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

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

Batch BHE0921 - EPA 3050B

Blank (BHE0921-BLK1)

Prepared: 05/30/24 Analyzed: 06/11/24

Boron ND 2.00 mg/L

LCS (BHE0921-BS1)

Prepared: 05/30/24 Analyzed: 06/11/24

Boron 4.67 2.00 mg/L 5.00 93.4 80-120

Duplicate (BHE0921-DUP1)

Source: 2405423-01

Prepared: 05/30/24 Analyzed: 06/11/24

Boron 0.180 2.00 mg/L 0.193 7.31 20

Matrix Spike (BHE0921-MS1)

Source: 2405423-01

Prepared: 05/30/24 Analyzed: 06/11/24

Boron 5.19 2.00 mg/L 4.98 0.193 100 75-125

Matrix Spike Dup (BHE0921-MSD1)

Source: 2405423-01

Prepared: 05/30/24 Analyzed: 06/11/24

Boron 5.05 2.00 mg/L 4.98 0.193 97.5 75-125 2.79 25

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/12/24 11:43

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BHE0977 - EPA 3050B

Blank (BHE0977-BLK1)

Prepared: 05/31/24 Analyzed: 06/04/24

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	"							
Silver	ND	0.0200	"							
Zinc	ND	0.400	"							
Selenium	ND	0.260	"							

LCS (BHE0977-BS1)

Prepared: 05/31/24 Analyzed: 06/04/24

Arsenic	38.2	0.200	mg/kg wet	38.8	98.7	80-120
Barium	38.9	0.400	"	38.8	100	80-120
Cadmium	1.92	0.200	"	1.94	99.0	80-120
Copper	38.1	0.400	"	38.8	98.2	80-120
Lead	19.0	0.200	"	19.4	97.9	80-120
Nickel	38.1	0.400	"	38.8	98.2	80-120
Silver	1.91	0.0200	"	1.94	98.8	80-120
Zinc	37.1	0.400	"	38.8	95.8	80-120
Selenium	3.69	0.260	"	3.88	95.1	80-120

Duplicate (BHE0977-DUP1)

Source: 2405452-01

Prepared: 05/31/24 Analyzed: 06/04/24

Arsenic	0.890	0.200	mg/kg dry	0.824	7.77	20	
Barium	46.8	0.400	"	49.2	5.03	20	
Cadmium	0.0174	0.200	"	0.0112	43.0	20	QR-01
Copper	1.11	0.400	"	1.17	5.82	20	
Lead	4.46	0.200	"	4.24	5.08	20	
Nickel	1.60	0.400	"	1.59	1.06	20	
Silver	ND	0.0200	"	ND		20	
Zinc	11.5	0.400	"	11.5	0.200	20	
Selenium	ND	0.260	"	ND		20	

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/12/24 11:43

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BHE0977 - EPA 3050B

Matrix Spike (BHE0977-MS1)

Source: 2405452-01

Prepared: 05/31/24 Analyzed: 06/04/24

Arsenic	43.6	0.200	mg/kg dry	43.9	0.824	97.5	75-125			
Barium	89.9	0.400	"	43.9	49.2	92.7	75-125			
Cadmium	2.21	0.200	"	2.19	0.0112	100	75-125			
Copper	43.6	0.400	"	43.9	1.17	96.8	75-125			
Lead	25.7	0.200	"	21.9	4.24	97.9	75-125			
Nickel	44.1	0.400	"	43.9	1.59	97.0	75-125			
Silver	2.08	0.0200	"	2.19	ND	94.8	75-125			
Zinc	53.2	0.400	"	43.9	11.5	95.0	75-125			
Selenium	3.81	0.260	"	4.39	ND	86.9	75-125			

Matrix Spike Dup (BHE0977-MSD1)

Source: 2405452-01

Prepared: 05/31/24 Analyzed: 06/04/24

Arsenic	44.4	0.200	mg/kg dry	43.9	0.824	99.4	75-125	1.89	25
Barium	92.2	0.400	"	43.9	49.2	98.0	75-125	2.59	25
Cadmium	2.24	0.200	"	2.19	0.0112	101	75-125	1.40	25
Copper	44.3	0.400	"	43.9	1.17	98.3	75-125	1.55	25
Lead	26.6	0.200	"	21.9	4.24	102	75-125	3.38	25
Nickel	44.9	0.400	"	43.9	1.59	98.7	75-125	1.64	25
Silver	2.13	0.0200	"	2.19	ND	97.1	75-125	2.33	25
Zinc	54.2	0.400	"	43.9	11.5	97.2	75-125	1.83	25
Selenium	3.92	0.260	"	4.39	ND	89.3	75-125	2.82	25

Post Spike (BHE0977-PS1)

Source: 2405452-01

Prepared: 05/31/24 Analyzed: 06/04/24

Arsenic	110		ug/l	100	1.83	108	75-125		
Barium	217		"	100	110	107	75-125		
Cadmium	5.38		"	5.00	0.0250	107	75-125		
Copper	106		"	100	2.61	104	75-125		
Lead	61.8		"	50.0	9.43	105	75-125		
Nickel	107		"	100	3.53	104	75-125		
Silver	5.22		"	5.00	-0.0130	104	75-125		
Zinc	128		"	100	25.6	102	75-125		
Selenium	9.76		"	10.0	0.0150	97.5	75-125		

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/12/24 11:43

Hexavalent Chromium by EPA Method 7196 - Quality Control
Summit Scientific

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

Batch BHE0915 - 3060A Mod

Blank (BHE0915-BLK1)

Prepared & Analyzed: 05/30/24

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BHE0915-BS1)

Prepared & Analyzed: 05/30/24

Chromium, Hexavalent 25.6 0.30 mg/kg wet 25.0 102 80-120

Duplicate (BHE0915-DUP1)

Source: 2405439-01

Prepared & Analyzed: 05/30/24

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BHE0915-MS1)

Source: 2405439-01

Prepared & Analyzed: 05/30/24

Chromium, Hexavalent 26.3 0.30 mg/kg dry 25.6 ND 103 75-125

Matrix Spike Dup (BHE0915-MSD1)

Source: 2405439-01

Prepared & Analyzed: 05/30/24

Chromium, Hexavalent 26.0 0.30 mg/kg dry 25.6 ND 101 75-125 1.37 20

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/12/24 11:43

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

Summit Scientific

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

Batch BHE0980 - General Preparation

Blank (BHE0980-BLK1)

Prepared: 05/31/24 Analyzed: 06/04/24

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

LCS (BHE0980-BS1)

Prepared: 05/31/24 Analyzed: 06/04/24

Calcium	5.44	0.0500	mg/L wet	5.00	109	70-130				
Magnesium	5.18	0.0500	"	5.00	104	70-130				
Sodium	5.19	0.0500	"	5.00	104	70-130				

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/12/24 11:43

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

Summit Scientific

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

Batch BHF0027 - General Preparation

Duplicate (BHF0027-DUP1)	Source: 2405449-49			Prepared & Analyzed: 06/03/24							
% Solids	96.6		%		96.7				0.0608	20	

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/12/24 11:43

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

Summit Scientific

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

Batch BHE0984 - General Preparation

Blank (BHE0984-BLK1)

Prepared: 05/31/24 Analyzed: 06/04/24

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BHE0984-BS1)

Prepared: 05/31/24 Analyzed: 06/04/24

Specific Conductance (EC) 0.156 0.0100 mmhos/cm 0.150 104 95-105

Duplicate (BHE0984-DUP1)

Source: 2405421-01

Prepared: 05/31/24 Analyzed: 06/04/24

Specific Conductance (EC) 0.0906 0.0100 mmhos/cm 0.0913 0.748 20

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6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/12/24 11:43

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

Summit Scientific

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

Batch BHE0983 - General Preparation

LCS (BHE0983-BS1)

Prepared: 05/31/24 Analyzed: 06/04/24

pH	9.13	pH Units	9.18	99.5	95-105
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Duplicate (BHE0983-DUP1)

Source: 2405421-01

Prepared: 05/31/24 Analyzed: 06/04/24

pH	8.99	pH Units	9.09	1.11	20
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Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/12/24 11:43

Notes and Definitions

- QR-01 Analyses are not controlled on RPD values from sample concentrations less than 10 times the reporting limit. QC batch accepted based on LCS and/or LCSD QC results.
- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.
- 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

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

June 17, 2024

Chandler Cole

Phillips 66

6900 E Layton Ave/ Suite 900

Denver, CO 80237

RE: Four Parmlee (H-6-9) 3/2024

Work Order #2406081

Enclosed are the results of analyses for samples received by Summit Scientific on 06/06/24 17:53. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Natalie Tessier". The signature is written in a cursive, flowing style.

Natalie Tessier For Paul Shrewsbury

President



Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/17/24 12:28

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
STP05@35'	2406081-01	Soil	06/06/24 09:39	06/06/24 17:53

S₂

Sample Receipt Checklist

S2 Work Order# 2406081

Client: DP/Rele Client Project ID: Four Parmlee (H-6-9) 3/2024

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

-

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

Temp (°C)

Thermometer #

	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"/>	ONZGE
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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2 Day
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 checked="" type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out Completely? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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.

AS

Custodian Printed Name

6/6/24
Date/Time



Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/17/24 12:28

STP05@35'
2406081-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/06/24 09:39**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	0.036	0.0020		mg/kg	1	BHF0168	06/07/24	06/08/24	EPA 8260B	
Toluene	0.022	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: **06/06/24 09:39**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0368	92.1 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0430	108 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0402	100 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/06/24 09:39**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHF0172	06/07/24	06/08/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **06/06/24 09:39**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	11.2	89.8 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/17/24 12:28

STP05@35'
2406081-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **06/06/24 09:39**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHF0169	06/07/24	06/08/24	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: **06/06/24 09:39**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0261	78.4 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0237	71.2 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **06/06/24 09:39**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHF0176	06/07/24	06/11/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **06/06/24 09:39**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/17/24 12:28

STP05@35'
2406081-01 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	83.5	0.179	mg/kg dry	1	BHF0197	06/07/24	06/13/24	EPA 6020B	
Barium	240	0.357	"	"	"	"	"	"	
Cadmium	1.41	0.179	"	"	"	"	"	"	
Copper	25.2	0.357	"	"	"	"	"	"	
Lead	9.80	0.179	"	"	"	"	"	"	
Nickel	34.7	0.357	"	"	"	"	"	"	
Silver	0.206	0.0179	"	"	"	"	"	"	
Zinc	86.2	0.357	"	"	"	"	"	"	
Selenium	1.63	0.232	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **06/06/24 09:39**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHF0184	06/07/24	06/07/24	EPA 7196A	

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

Date Sampled: **06/06/24 09:39**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	280	0.0500	mg/L dry	1	BHF0268	06/10/24	06/14/24	EPA 6020B	
Magnesium	41.2	0.0500	"	"	"	"	"	"	
Sodium	3.50	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **06/06/24 09:39**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0517	0.00100	units	1	BHF0429	06/14/24	06/14/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/06/24 09:39**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/17/24 12:28

STP05@35'
2406081-01 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	71.8	%	1	BHF0190	06/07/24	06/07/24	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **06/06/24 09:39**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.0708	0.0100	mmhos/cm	1	BHF0269	06/10/24	06/11/24	EPA 120.1	

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

Date Sampled: **06/06/24 09:39**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.18		pH Units	1	BHF0270	06/10/24	06/11/24	EPA 9045D	

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Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/17/24 12:28

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BHF0168 - EPA 5030 Soil MS

Blank (BHF0168-BLK1)

Prepared: 06/07/24 Analyzed: 06/08/24

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	0.0380		"	0.0400		95.0	50-150				
Surrogate: Toluene-d8	0.0412		"	0.0400		103	50-150				
Surrogate: 4-Bromofluorobenzene	0.0394		"	0.0400		98.6	50-150				

LCS (BHF0168-BS1)

Prepared: 06/07/24 Analyzed: 06/08/24

Benzene	0.0866	0.0020	mg/kg	0.100		86.6	70-130				
Toluene	0.0960	0.0050	"	0.100		96.0	70-130				
Ethylbenzene	0.0971	0.0050	"	0.100		97.1	70-130				
m,p-Xylene	0.191	0.010	"	0.200		95.5	70-130				
o-Xylene	0.0973	0.0050	"	0.100		97.3	70-130				
1,2,4-Trimethylbenzene	0.0928	0.0050	"	0.100		92.8	70-130				
1,3,5-Trimethylbenzene	0.0939	0.0050	"	0.100		93.9	70-130				
Naphthalene	0.0721	0.0038	"	0.100		72.1	70-130				
Surrogate: 1,2-Dichloroethane-d4	0.0325		"	0.0400		81.2	50-150				
Surrogate: Toluene-d8	0.0400		"	0.0400		100	50-150				
Surrogate: 4-Bromofluorobenzene	0.0393		"	0.0400		98.2	50-150				

Matrix Spike (BHF0168-MS1)

Source: 2406061-01

Prepared: 06/07/24 Analyzed: 06/08/24

Benzene	0.0380	0.0020	mg/kg	0.100	ND	38.0	70-130				QM-07
Toluene	0.0493	0.0050	"	0.100	ND	49.3	70-130				QM-07
Ethylbenzene	0.0610	0.0050	"	0.100	ND	61.0	70-130				QM-07
m,p-Xylene	0.146	0.010	"	0.200	ND	73.0	70-130				
o-Xylene	0.0734	0.0050	"	0.100	ND	73.4	70-130				
1,2,4-Trimethylbenzene	0.0580	0.0050	"	0.100	ND	58.0	70-130				QM-07
1,3,5-Trimethylbenzene	0.0718	0.0050	"	0.100	ND	71.8	70-130				QM-07
Naphthalene	0.0268	0.0038	"	0.100	ND	26.8	70-130				QM-07
Surrogate: 1,2-Dichloroethane-d4	0.0345		"	0.0400		86.2	50-150				
Surrogate: Toluene-d8	0.0416		"	0.0400		104	50-150				
Surrogate: 4-Bromofluorobenzene	0.0401		"	0.0400		100	50-150				

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/17/24 12:28

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BHF0168 - EPA 5030 Soil MS

Matrix Spike Dup (BHF0168-MSD1)	Source: 2406061-01			Prepared: 06/07/24 Analyzed: 06/08/24						
Benzene	0.0464	0.0020	mg/kg	0.100	ND	46.4	70-130	19.9	30	QM-07
Toluene	0.0606	0.0050	"	0.100	ND	60.6	70-130	20.6	30	QM-07
Ethylbenzene	0.0731	0.0050	"	0.100	ND	73.1	70-130	18.1	30	
m,p-Xylene	0.173	0.010	"	0.200	ND	86.5	70-130	16.9	30	
o-Xylene	0.0847	0.0050	"	0.100	ND	84.7	70-130	14.4	30	
1,2,4-Trimethylbenzene	0.0719	0.0050	"	0.100	ND	71.9	70-130	21.4	30	QM-07
1,3,5-Trimethylbenzene	0.0816	0.0050	"	0.100	ND	81.6	70-130	12.8	30	
Naphthalene	0.0377	0.0038	"	0.100	ND	37.7	70-130	33.9	30	QM-07
Surrogate: 1,2-Dichloroethane-d4	0.0329		"	0.0400		82.2	50-150			
Surrogate: Toluene-d8	0.0417		"	0.0400		104	50-150			
Surrogate: 4-Bromofluorobenzene	0.0389		"	0.0400		97.2	50-150			

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/17/24 12:28

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BHF0172 - EPA 3550A

Blank (BHF0172-BLK1)

Prepared & Analyzed: 06/07/24

C10-C28 (DRO)	ND	50	mg/kg								
C28-C36 (ORO)	ND	50	"								
Surrogate: <i>o</i> -Terphenyl	16.1		"	12.5		129		30-150			

LCS (BHF0172-BS1)

Prepared & Analyzed: 06/07/24

C10-C28 (DRO)	435	50	mg/kg	500		87.1		70-130			
Surrogate: <i>o</i> -Terphenyl	13.1		"	12.5		105		30-150			

Matrix Spike (BHF0172-MS1)

Source: 2406061-01

Prepared & Analyzed: 06/07/24

C10-C28 (DRO)	370	50	mg/kg	500	33.4	67.3		70-130			QM-07
Surrogate: <i>o</i> -Terphenyl	11.3		"	12.5		90.7		30-150			

Matrix Spike Dup (BHF0172-MSD1)

Source: 2406061-01

Prepared & Analyzed: 06/07/24

C10-C28 (DRO)	389	50	mg/kg	500	33.4	71.2		70-130	5.14	20	
Surrogate: <i>o</i> -Terphenyl	11.9		"	12.5		94.8		30-150			

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/17/24 12:28

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BHF0169 - EPA 5030 Soil MS

Blank (BHF0169-BLK1)

Prepared & Analyzed: 06/07/24

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	0.0305		"	0.0333	91.5	40-150				
Surrogate: Fluoranthene-d10	0.0260		"	0.0333	77.9	40-150				

LCS (BHF0169-BS1)

Prepared & Analyzed: 06/07/24

Acenaphthene	0.0280	0.00500	mg/kg	0.0333	84.0	31-137				
Anthracene	0.0283	0.00500	"	0.0333	84.8	30-120				
Benzo (a) anthracene	0.0277	0.00500	"	0.0333	83.2	30-120				
Benzo (a) pyrene	0.0241	0.00500	"	0.0333	72.2	30-120				
Benzo (b) fluoranthene	0.0240	0.00500	"	0.0333	72.0	30-120				
Benzo (k) fluoranthene	0.0248	0.00500	"	0.0333	74.3	30-120				
Chrysene	0.0284	0.00500	"	0.0333	85.2	30-120				
Dibenz (a,h) anthracene	0.0305	0.00500	"	0.0333	91.4	30-120				
Fluoranthene	0.0261	0.00500	"	0.0333	78.3	30-120				
Fluorene	0.0276	0.00500	"	0.0333	82.7	30-120				
Indeno (1,2,3-cd) pyrene	0.0402	0.00500	"	0.0333	120	30-120				
Pyrene	0.0330	0.00500	"	0.0333	98.9	35-142				
1-Methylnaphthalene	0.0322	0.00500	"	0.0333	96.5	35-142				
2-Methylnaphthalene	0.0311	0.00500	"	0.0333	93.4	35-142				
Surrogate: 2-Methylnaphthalene-d10	0.0319		"	0.0333	95.7	40-150				
Surrogate: Fluoranthene-d10	0.0273		"	0.0333	82.0	40-150				

Summit Scientific

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



Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/17/24 12:28

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BHF0169 - EPA 5030 Soil MS

Matrix Spike (BHF0169-MS1)	Source: 2406053-01			Prepared & Analyzed: 06/07/24						
Acenaphthene	0.0216	0.00500	mg/kg	0.0333	ND	64.9	31-137			
Anthracene	0.0200	0.00500	"	0.0333	ND	60.1	30-120			
Benzo (a) anthracene	0.0211	0.00500	"	0.0333	ND	63.2	30-120			
Benzo (a) pyrene	0.0174	0.00500	"	0.0333	ND	52.3	30-120			
Benzo (b) fluoranthene	0.0176	0.00500	"	0.0333	ND	52.9	30-120			
Benzo (k) fluoranthene	0.0181	0.00500	"	0.0333	ND	54.2	30-120			
Chrysene	0.0212	0.00500	"	0.0333	ND	63.6	30-120			
Dibenz (a,h) anthracene	0.0232	0.00500	"	0.0333	ND	69.7	30-120			
Fluoranthene	0.0197	0.00500	"	0.0333	ND	59.0	30-120			
Fluorene	0.0207	0.00500	"	0.0333	ND	62.2	30-120			
Indeno (1,2,3-cd) pyrene	0.0230	0.00500	"	0.0333	ND	68.9	30-120			
Pyrene	0.0245	0.00500	"	0.0333	ND	73.6	35-142			
1-Methylnaphthalene	0.0251	0.00500	"	0.0333	ND	75.4	15-130			
2-Methylnaphthalene	0.0248	0.00500	"	0.0333	ND	74.5	15-130			
Surrogate: 2-Methylnaphthalene-d10	0.0246		"	0.0333		73.7	40-150			
Surrogate: Fluoranthene-d10	0.0206		"	0.0333		61.8	40-150			

Matrix Spike Dup (BHF0169-MSD1)	Source: 2406053-01			Prepared & Analyzed: 06/07/24						
Acenaphthene	0.0187	0.00500	mg/kg	0.0333	ND	56.0	31-137	14.6	30	
Anthracene	0.0138	0.00500	"	0.0333	ND	41.3	30-120	37.1	30	QR-02
Benzo (a) anthracene	0.0213	0.00500	"	0.0333	ND	63.8	30-120	0.954	30	
Benzo (a) pyrene	0.0159	0.00500	"	0.0333	ND	47.8	30-120	9.01	30	
Benzo (b) fluoranthene	0.0146	0.00500	"	0.0333	ND	43.7	30-120	19.0	30	
Benzo (k) fluoranthene	0.0141	0.00500	"	0.0333	ND	42.4	30-120	24.4	30	
Chrysene	0.0147	0.00500	"	0.0333	ND	44.0	30-120	36.4	30	QR-02
Dibenz (a,h) anthracene	0.0134	0.00500	"	0.0333	ND	40.1	30-120	53.9	30	QR-02
Fluoranthene	0.0134	0.00500	"	0.0333	ND	40.2	30-120	37.9	30	QR-02
Fluorene	0.0181	0.00500	"	0.0333	ND	54.3	30-120	13.6	30	
Indeno (1,2,3-cd) pyrene	0.0158	0.00500	"	0.0333	ND	47.3	30-120	37.1	30	QR-02
Pyrene	0.0161	0.00500	"	0.0333	ND	48.4	35-142	41.3	30	QR-02
1-Methylnaphthalene	0.0139	0.00500	"	0.0333	ND	41.7	15-130	57.5	50	QR-02
2-Methylnaphthalene	0.0139	0.00500	"	0.0333	ND	41.6	15-130	56.6	50	QR-02
Surrogate: 2-Methylnaphthalene-d10	0.0145		"	0.0333		43.5	40-150			
Surrogate: Fluoranthene-d10	0.0134		"	0.0333		40.1	40-150			

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/17/24 12:28

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

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

Batch BHF0176 - EPA 3050B

Blank (BHF0176-BLK1)

Prepared: 06/07/24 Analyzed: 06/11/24

Boron ND 2.00 mg/L

LCS (BHF0176-BS1)

Prepared: 06/07/24 Analyzed: 06/11/24

Boron 5.25 2.00 mg/L 5.00 105 80-120

Duplicate (BHF0176-DUP1)

Source: 2406061-01

Prepared: 06/07/24 Analyzed: 06/11/24

Boron 0.203 2.00 mg/L 0.226 10.5 20

Matrix Spike (BHF0176-MS1)

Source: 2406061-01

Prepared: 06/07/24 Analyzed: 06/11/24

Boron 5.13 2.00 mg/L 5.03 0.226 97.5 75-125

Matrix Spike Dup (BHF0176-MSD1)

Source: 2406061-01

Prepared: 06/07/24 Analyzed: 06/11/24

Boron 5.32 2.00 mg/L 5.03 0.226 101 75-125 3.59 25

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/17/24 12:28

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BHF0197 - EPA 3050B

Blank (BHF0197-BLK1)

Prepared: 06/07/24 Analyzed: 06/13/24

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	"							
Silver	ND	0.0200	"							
Zinc	ND	0.400	"							
Selenium	ND	0.260	"							

LCS (BHF0197-BS1)

Prepared: 06/07/24 Analyzed: 06/13/24

Arsenic	36.6	0.200	mg/kg wet	40.0	91.4	80-120		
Barium	37.7	0.400	"	40.0	94.3	80-120		
Cadmium	1.90	0.200	"	2.00	95.1	80-120		
Copper	38.0	0.400	"	40.0	94.9	80-120		
Lead	19.2	0.200	"	20.0	95.8	80-120		
Nickel	36.7	0.400	"	40.0	91.8	80-120		
Silver	1.90	0.0200	"	2.00	95.0	80-120		
Zinc	36.4	0.400	"	40.0	91.1	80-120		
Selenium	3.66	0.260	"	4.00	91.5	80-120		

Duplicate (BHF0197-DUP1)

Source: 2406053-01

Prepared: 06/07/24 Analyzed: 06/13/24

Arsenic	1.32	0.200	mg/kg dry	1.53	15.3	20		
Barium	36.3	0.400	"	50.9	33.5	20		QM-05
Cadmium	0.107	0.200	"	0.146	30.8	20		QR-01
Copper	3.44	0.400	"	3.85	11.2	20		
Lead	3.55	0.200	"	4.13	15.1	20		
Nickel	3.17	0.400	"	3.79	17.7	20		
Silver	0.0144	0.0200	"	0.0147	2.47	20		
Zinc	14.9	0.400	"	15.6	4.26	20		
Selenium	ND	0.260	"	ND		20		

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/17/24 12:28

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BHF0197 - EPA 3050B

Matrix Spike (BHF0197-MS1)	Source: 2406053-01			Prepared: 06/07/24		Analyzed: 06/13/24					
Arsenic	38.5	0.180	mg/kg dry	39.6	1.53	93.5	75-125				
Barium	74.9	0.360	"	39.6	50.9	60.8	75-125				QM-01
Cadmium	2.00	0.180	"	1.98	0.146	93.7	75-125				
Copper	42.2	0.360	"	39.6	3.85	96.8	75-125				
Lead	21.0	0.180	"	19.8	4.13	85.4	75-125				
Nickel	40.7	0.360	"	39.6	3.79	93.3	75-125				
Silver	1.83	0.0180	"	1.98	0.0147	91.8	75-125				
Zinc	52.6	0.360	"	39.6	15.6	93.4	75-125				
Selenium	3.36	0.234	"	3.96	ND	84.9	75-125				

Matrix Spike Dup (BHF0197-MSD1)	Source: 2406053-01			Prepared: 06/07/24		Analyzed: 06/13/24					
Arsenic	38.7	0.179	mg/kg dry	39.3	1.53	94.5	75-125	0.356	25		
Barium	71.4	0.357	"	39.3	50.9	52.4	75-125	4.76	25		QM-01
Cadmium	2.02	0.179	"	1.97	0.146	95.2	75-125	0.855	25		
Copper	41.6	0.357	"	39.3	3.85	96.1	75-125	1.33	25		
Lead	21.2	0.179	"	19.7	4.13	87.1	75-125	1.01	25		
Nickel	40.7	0.357	"	39.3	3.79	94.0	75-125	0.0290	25		
Silver	1.85	0.0179	"	1.97	0.0147	93.6	75-125	1.15	25		
Zinc	51.9	0.357	"	39.3	15.6	92.4	75-125	1.28	25		
Selenium	3.29	0.232	"	3.93	ND	83.8	75-125	2.00	25		

Post Spike (BHF0197-PS1)	Source: 2406053-01			Prepared: 06/07/24		Analyzed: 06/13/24					
Arsenic	101		ug/l	100	3.49	97.9	75-125				
Barium	212		"	100	116	96.7	75-125				
Cadmium	5.47		"	5.00	0.331	103	75-125				
Copper	108		"	100	8.74	99.2	75-125				
Lead	58.7		"	50.0	9.38	98.7	75-125				
Nickel	106		"	100	8.61	97.1	75-125				
Silver	5.15		"	5.00	0.0335	102	75-125				
Zinc	132		"	100	35.4	96.6	75-125				
Selenium	9.26		"	10.0	0.124	91.3	75-125				

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/17/24 12:28

Hexavalent Chromium by EPA Method 7196 - Quality Control
Summit Scientific

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

Batch BHF0184 - 3060A Mod

Blank (BHF0184-BLK1)

Prepared & Analyzed: 06/07/24

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BHF0184-BS1)

Prepared & Analyzed: 06/07/24

Chromium, Hexavalent 25.2 0.30 mg/kg wet 25.0 101 80-120

Duplicate (BHF0184-DUP1)

Source: 2406052-01

Prepared & Analyzed: 06/07/24

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BHF0184-MS1)

Source: 2406052-01

Prepared & Analyzed: 06/07/24

Chromium, Hexavalent 25.8 0.30 mg/kg dry 25.9 ND 99.6 75-125

Matrix Spike Dup (BHF0184-MSD1)

Source: 2406052-01

Prepared & Analyzed: 06/07/24

Chromium, Hexavalent 27.6 0.30 mg/kg dry 25.4 ND 109 75-125 6.69 20

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/17/24 12:28

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

Summit Scientific

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

Batch BHF0268 - General Preparation

Blank (BHF0268-BLK1)

Prepared: 06/10/24 Analyzed: 06/14/24

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

LCS (BHF0268-BS1)

Prepared: 06/10/24 Analyzed: 06/14/24

Calcium	5.56	0.0500	mg/L wet	5.00		111	70-130			
Magnesium	5.45	0.0500	"	5.00		109	70-130			
Sodium	5.28	0.0500	"	5.00		106	70-130			

Summit Scientific

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Phillips 66
 6900 E Layton Ave/ Suite 900
 Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
 Project Manager: Chandler Cole

Reported:
 06/17/24 12:28

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

Summit Scientific

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

Batch BHF0190 - General Preparation

Duplicate (BHF0190-DUP1)	Source: 2404081-01	Prepared & Analyzed: 06/07/24
% Solids	82.5	% 82.3 0.152 20

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/17/24 12:28

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

Summit Scientific

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

Batch BHF0269 - General Preparation

Blank (BHF0269-BLK1)

Prepared: 06/10/24 Analyzed: 06/11/24

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BHF0269-BS1)

Prepared: 06/10/24 Analyzed: 06/11/24

Specific Conductance (EC) 0.157 0.0100 mmhos/cm 0.150 104 95-105

Duplicate (BHF0269-DUP1)

Source: 2406081-01

Prepared: 06/10/24 Analyzed: 06/11/24

Specific Conductance (EC) 0.0702 0.0100 mmhos/cm 0.0708 0.780 20

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/17/24 12:28

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

Summit Scientific

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

Batch BHF0270 - General Preparation

LCS (BHF0270-BS1)

Prepared: 06/10/24 Analyzed: 06/11/24

pH	9.19	pH Units	9.18	100	95-105
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Duplicate (BHF0270-DUP1)

Source: 2406081-01

Prepared: 06/10/24 Analyzed: 06/11/24

pH	8.12	pH Units	8.18	0.736	20
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Summit Scientific

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



Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/17/24 12:28

Notes and Definitions

- QR-02 The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
- QR-01 Analyses are not controlled on RPD values from sample concentrations less than 10 times the reporting limit. QC batch accepted based on LCS and/or LCSD QC results.
- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.
- QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The associated LCS and/or LCSD were within acceptance limits, therefore the data are considered valid.
- QM-01 The spike recovery for this QC sample is outside of established control limits due to sample matrix interference.
- 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

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

June 26, 2024

Chandler Cole

Phillips 66

6900 E Layton Ave/ Suite 900

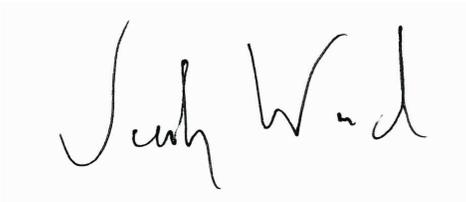
Denver, CO 80237

RE: Four Parmlee (H-6-9) 3/2024

Work Order #2406185

Enclosed are the results of analyses for samples received by Summit Scientific on 06/13/24 17:43. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Jacob Wood". The signature is written in a cursive style with a large initial "J" and a distinct "W".

Jacob Wood For Paul Shrewsbury

President



Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/26/24 16:24

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
NEOB-01@20'	2406185-01	Soil	06/13/24 07:55	06/13/24 17:43

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.

Client: <u>Tasman DCP/P66</u>		Send Data To:		Send Invoice To:	
Address: <u>6855 W 119th Ave</u>		Project Manager: <u>Chandler Cole / Brian Humphrey</u>		Company: <u>P66</u>	
City/State/Zip: <u>Broomfield / CO / 80220</u>		E-Mail: <u>chandler.c.cole@p66.com</u> <u>bhumphrey@tasman-geo.com</u>		Project Name/Location: <u>Four Formlee (H-6-9) 3/2024</u>	
Phone: <u>303-487-1228</u>		Project Name: <u>Four Formlee (H-6-9) 3/2024</u>		AFE#:	
Sampler Name: <u>B. Ulrich</u>		Project Number:		PO/Billing Codes:	
				Contact: <u>Chandler Cole</u>	

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix			Analysis Requested						Special Instructions	
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other							
1	<u>NE05-01e20'</u>	<u>6-13-24</u>	<u>0755</u>	<u>2</u>			<u>X</u>			<u>X</u>									<u>Standard TAT</u>
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			
13																			
14																			
15																			

Relinquished by: <u>[Signature]</u>	Date/Time: <u>6-13-24 1736</u>	Received by: <u>[Signature]</u>	Date/Time: <u>6-13-24 1743</u>	TAT Business Days	Field DO	Notes:
Relinquished by: <u>Tasman [Signature]</u>	Date/Time: <u>6/13/24 1743</u>	Received by: <u>[Signature]</u>	Date/Time: <u>6/13/24 1743</u>	Same Day	Field EC	
Relinquished by:	Date/Time:	Received by:	Date/Time:	1 Day	Field ORP	
Relinquished by:	Date/Time:	Received by:	Date/Time:	2 Days	Field pH	
Relinquished by:	Date/Time:	Received by:	Date/Time:	3 Days	Field Temp.	
Temperature Upon Receipt: <u>9.3</u>	Corrected Temperature: <u>9</u>	IR gun #:		Standard	<u>X</u> Field Turb.	
				HNO3 lot #:		

S₂

Sample Receipt Checklist

S2 Work Order# 2406185

Client: Doppelco Client Project ID: Four Parmlee (H-69) 3/2024

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

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

Temp (°C) Thermometer #

	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"/>	CWJAE
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 checked="" type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out Completely? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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.

AS 6/13/24
Custodian Printed Name Date/Time



Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/26/24 16:24

NEOB-01@20'
2406185-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/13/24 07:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BHF0407	06/14/24	06/15/24	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: **06/13/24 07:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0435	109 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0401	100 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0406	102 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/13/24 07:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHF0409	06/14/24	06/15/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **06/13/24 07:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	18.9	151 %		30-150		"	"	"	"	S-07

PAH by EPA Method 8270D SIM

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/26/24 16:24

NEOB-01@20'
2406185-01 (Soil)

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PAH by EPA Method 8270D SIM

Date Sampled: **06/13/24 07:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHF0405	06/14/24	06/15/24	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: **06/13/24 07:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0158	47.3 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0179	53.8 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **06/13/24 07:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHF0419	06/14/24	06/18/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **06/13/24 07:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/26/24 16:24

NEOB-01@20'
2406185-01 (Soil)

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Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	0.822	0.200	mg/kg dry	1	BHF0416	06/14/24	06/17/24	EPA 6020B	
Barium	25.3	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	1.11	0.400	"	"	"	"	"	"	
Lead	2.72	0.200	"	"	"	"	"	"	
Nickel	1.02	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	4.84	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **06/13/24 07:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHF0426	06/14/24	06/25/24	EPA 7196A	

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

Date Sampled: **06/13/24 07:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	12.2	0.0500	mg/L dry	1	BHF0506	06/18/24	06/20/24	EPA 6020B	
Magnesium	3.65	0.0500	"	"	"	"	"	"	
Sodium	0.696	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **06/13/24 07:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0449	0.00100	units	1	BHF0662	06/21/24	06/21/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/26/24 16:24

NEOB-01@20'
2406185-01 (Soil)

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Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/13/24 07:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	93.5			%	1	BHF0418	06/14/24	06/14/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **06/13/24 07:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.0911	0.0100		mmhos/cm	1	BHF0512	06/18/24	06/19/24	EPA 120.1	

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

Date Sampled: **06/13/24 07:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	7.13			pH Units	1	BHF0511	06/18/24	06/19/24	EPA 9045D	

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/26/24 16:24

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BHF0407 - EPA 5030 Soil MS

Blank (BHF0407-BLK1)

Prepared & Analyzed: 06/14/24

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
1,2,4-Trimethylbenzene	ND	0.0050	"							
1,3,5-Trimethylbenzene	ND	0.0050	"							
Naphthalene	ND	0.0038	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0417		"	0.0400		104	50-150			
<i>Surrogate: Toluene-d8</i>	0.0394		"	0.0400		98.6	50-150			
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0416		"	0.0400		104	50-150			

LCS (BHF0407-BS1)

Prepared & Analyzed: 06/14/24

Benzene	0.101	0.0020	mg/kg	0.100		101	70-130			
Toluene	0.112	0.0050	"	0.100		112	70-130			
Ethylbenzene	0.108	0.0050	"	0.100		108	70-130			
m,p-Xylene	0.213	0.010	"	0.200		107	70-130			
o-Xylene	0.104	0.0050	"	0.100		104	70-130			
1,2,4-Trimethylbenzene	0.105	0.0050	"	0.100		105	70-130			
1,3,5-Trimethylbenzene	0.104	0.0050	"	0.100		104	70-130			
Naphthalene	0.0924	0.0038	"	0.100		92.4	70-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0410		"	0.0400		103	50-150			
<i>Surrogate: Toluene-d8</i>	0.0413		"	0.0400		103	50-150			
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0398		"	0.0400		99.4	50-150			

Matrix Spike (BHF0407-MS1)

Source: 2406163-03

Prepared & Analyzed: 06/14/24

Benzene	0.0952	0.0020	mg/kg	0.100	ND	95.2	70-130			
Toluene	0.107	0.0050	"	0.100	ND	107	70-130			
Ethylbenzene	0.0999	0.0050	"	0.100	ND	99.9	70-130			
m,p-Xylene	0.193	0.010	"	0.200	ND	96.6	70-130			
o-Xylene	0.0966	0.0050	"	0.100	ND	96.6	70-130			
1,2,4-Trimethylbenzene	0.0958	0.0050	"	0.100	ND	95.8	70-130			
1,3,5-Trimethylbenzene	0.0960	0.0050	"	0.100	ND	96.0	70-130			
Naphthalene	0.0872	0.0038	"	0.100	ND	87.2	70-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0448		"	0.0400		112	50-150			
<i>Surrogate: Toluene-d8</i>	0.0423		"	0.0400		106	50-150			
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0401		"	0.0400		100	50-150			

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/26/24 16:24

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BHF0407 - EPA 5030 Soil MS

Matrix Spike Dup (BHF0407-MSD1)	Source: 2406163-03			Prepared & Analyzed: 06/14/24						
Benzene	0.0981	0.0020	mg/kg	0.100	ND	98.1	70-130	2.98	30	
Toluene	0.109	0.0050	"	0.100	ND	109	70-130	1.81	30	
Ethylbenzene	0.111	0.0050	"	0.100	ND	111	70-130	10.2	30	
m,p-Xylene	0.216	0.010	"	0.200	ND	108	70-130	10.9	30	
o-Xylene	0.105	0.0050	"	0.100	ND	105	70-130	8.16	30	
1,2,4-Trimethylbenzene	0.104	0.0050	"	0.100	ND	104	70-130	8.69	30	
1,3,5-Trimethylbenzene	0.106	0.0050	"	0.100	ND	106	70-130	10.1	30	
Naphthalene	0.0914	0.0038	"	0.100	ND	91.4	70-130	4.70	30	
Surrogate: 1,2-Dichloroethane-d4	0.0407		"	0.0400		102	50-150			
Surrogate: Toluene-d8	0.0406		"	0.0400		101	50-150			
Surrogate: 4-Bromofluorobenzene	0.0394		"	0.0400		98.5	50-150			

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/26/24 16:24

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BHF0409 - EPA 3550A

Blank (BHF0409-BLK1)

Prepared & Analyzed: 06/14/24

C10-C28 (DRO)	ND	50	mg/kg								
C28-C36 (ORO)	ND	50	"								
Surrogate: <i>o</i> -Terphenyl	15.5		"	12.5	124	30-150					

LCS (BHF0409-BS1)

Prepared & Analyzed: 06/14/24

C10-C28 (DRO)	548	50	mg/kg	500	110	70-130					
Surrogate: <i>o</i> -Terphenyl	14.1		"	12.5	113	30-150					

Matrix Spike (BHF0409-MS1)

Source: 2406163-03

Prepared & Analyzed: 06/14/24

C10-C28 (DRO)	624	50	mg/kg	500	24.2	120	70-130				
Surrogate: <i>o</i> -Terphenyl	10.1		"	12.5	80.6	30-150					

Matrix Spike Dup (BHF0409-MSD1)

Source: 2406163-03

Prepared & Analyzed: 06/14/24

C10-C28 (DRO)	534	50	mg/kg	500	24.2	102	70-130	15.4	20		
Surrogate: <i>o</i> -Terphenyl	10.4		"	12.5	83.4	30-150					

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/26/24 16:24

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BHF0405 - EPA 5030 Soil MS

Blank (BHF0405-BLK1)

Prepared & Analyzed: 06/14/24

Acenaphthene	ND	0.00500	mg/kg							
Anthracene	ND	0.00500	"							
Benzo (a) anthracene	ND	0.00500	"							
Benzo (a) pyrene	ND	0.00500	"							
Benzo (b) fluoranthene	ND	0.00500	"							
Benzo (k) fluoranthene	ND	0.00500	"							
Chrysene	ND	0.00500	"							
Dibenz (a,h) anthracene	ND	0.00500	"							
Fluoranthene	ND	0.00500	"							
Fluorene	ND	0.00500	"							
Indeno (1,2,3-cd) pyrene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
1-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0201</i>		"	<i>0.0333</i>		<i>60.4</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0298</i>		"	<i>0.0333</i>		<i>89.4</i>	<i>40-150</i>			

LCS (BHF0405-BS1)

Prepared & Analyzed: 06/14/24

Acenaphthene	0.0255	0.00500	mg/kg	0.0333		76.5	31-137			
Anthracene	0.0277	0.00500	"	0.0333		83.0	30-120			
Benzo (a) anthracene	0.0275	0.00500	"	0.0333		82.4	30-120			
Benzo (a) pyrene	0.0237	0.00500	"	0.0333		71.2	30-120			
Benzo (b) fluoranthene	0.0235	0.00500	"	0.0333		70.5	30-120			
Benzo (k) fluoranthene	0.0241	0.00500	"	0.0333		72.2	30-120			
Chrysene	0.0272	0.00500	"	0.0333		81.5	30-120			
Dibenz (a,h) anthracene	0.0236	0.00500	"	0.0333		70.8	30-120			
Fluoranthene	0.0271	0.00500	"	0.0333		81.4	30-120			
Fluorene	0.0265	0.00500	"	0.0333		79.6	30-120			
Indeno (1,2,3-cd) pyrene	0.0164	0.00500	"	0.0333		49.1	30-120			
Pyrene	0.0307	0.00500	"	0.0333		92.2	35-142			
1-Methylnaphthalene	0.0260	0.00500	"	0.0333		78.0	35-142			
2-Methylnaphthalene	0.0250	0.00500	"	0.0333		75.1	35-142			
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0263</i>		"	<i>0.0333</i>		<i>78.9</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0290</i>		"	<i>0.0333</i>		<i>87.0</i>	<i>40-150</i>			

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/26/24 16:24

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BHF0405 - EPA 5030 Soil MS

Matrix Spike (BHF0405-MS1)	Source: 2406178-01			Prepared & Analyzed: 06/14/24						
Acenaphthene	0.0151	0.00500	mg/kg	0.0333	ND	45.3	31-137			
Anthracene	0.0173	0.00500	"	0.0333	ND	52.0	30-120			
Benzo (a) anthracene	0.0169	0.00500	"	0.0333	ND	50.7	30-120			
Benzo (a) pyrene	0.0141	0.00500	"	0.0333	ND	42.3	30-120			
Benzo (b) fluoranthene	0.0161	0.00500	"	0.0333	ND	48.2	30-120			
Benzo (k) fluoranthene	0.0135	0.00500	"	0.0333	ND	40.4	30-120			
Chrysene	0.0167	0.00500	"	0.0333	ND	50.1	30-120			
Dibenz (a,h) anthracene	0.0135	0.00500	"	0.0333	ND	40.6	30-120			
Fluoranthene	0.0165	0.00500	"	0.0333	ND	49.4	30-120			
Fluorene	0.0165	0.00500	"	0.0333	ND	49.5	30-120			
Indeno (1,2,3-cd) pyrene	0.0165	0.00500	"	0.0333	ND	49.5	30-120			
Pyrene	0.0189	0.00500	"	0.0333	ND	56.7	35-142			
1-Methylnaphthalene	0.0151	0.00500	"	0.0333	ND	45.4	15-130			
2-Methylnaphthalene	0.0137	0.00500	"	0.0333	ND	41.0	15-130			
Surrogate: 2-Methylnaphthalene-d10	0.0152		"	0.0333		45.6	40-150			
Surrogate: Fluoranthene-d10	0.0178		"	0.0333		53.3	40-150			

Matrix Spike Dup (BHF0405-MSD1)	Source: 2406178-01			Prepared & Analyzed: 06/14/24						
Acenaphthene	0.0158	0.00500	mg/kg	0.0333	ND	47.5	31-137	4.66	30	
Anthracene	0.0171	0.00500	"	0.0333	ND	51.3	30-120	1.36	30	
Benzo (a) anthracene	0.0173	0.00500	"	0.0333	ND	51.9	30-120	2.31	30	
Benzo (a) pyrene	0.0146	0.00500	"	0.0333	ND	43.7	30-120	3.25	30	
Benzo (b) fluoranthene	0.0139	0.00500	"	0.0333	ND	41.8	30-120	14.4	30	
Benzo (k) fluoranthene	0.0141	0.00500	"	0.0333	ND	42.2	30-120	4.24	30	
Chrysene	0.0169	0.00500	"	0.0333	ND	50.6	30-120	1.02	30	
Dibenz (a,h) anthracene	0.0135	0.00500	"	0.0333	ND	40.4	30-120	0.543	30	
Fluoranthene	0.0167	0.00500	"	0.0333	ND	50.0	30-120	1.19	30	
Fluorene	0.0168	0.00500	"	0.0333	ND	50.4	30-120	1.90	30	
Indeno (1,2,3-cd) pyrene	0.0141	0.00500	"	0.0333	ND	42.4	30-120	15.5	30	
Pyrene	0.0193	0.00500	"	0.0333	ND	57.8	35-142	1.81	30	
1-Methylnaphthalene	0.0152	0.00500	"	0.0333	ND	45.5	15-130	0.304	50	
2-Methylnaphthalene	0.0146	0.00500	"	0.0333	ND	43.9	15-130	6.82	50	
Surrogate: 2-Methylnaphthalene-d10	0.0154		"	0.0333		46.1	40-150			
Surrogate: Fluoranthene-d10	0.0180		"	0.0333		54.0	40-150			

Summit Scientific

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



Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/26/24 16:24

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

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

Batch BHF0419 - EPA 3050B

Blank (BHF0419-BLK1)

Prepared: 06/14/24 Analyzed: 06/17/24

Boron ND 2.00 mg/L

LCS (BHF0419-BS1)

Prepared: 06/14/24 Analyzed: 06/17/24

Boron 4.24 2.00 mg/L 5.00 84.8 80-120

Duplicate (BHF0419-DUP1)

Source: 2406182-01

Prepared: 06/14/24 Analyzed: 06/17/24

Boron 0.591 2.00 mg/L 0.500 16.8 20

Matrix Spike (BHF0419-MS1)

Source: 2406182-01

Prepared: 06/14/24 Analyzed: 06/17/24

Boron 5.20 2.00 mg/L 4.97 0.500 94.7 75-125

Matrix Spike Dup (BHF0419-MSD1)

Source: 2406182-01

Prepared: 06/14/24 Analyzed: 06/17/24

Boron 5.59 2.00 mg/L 4.97 0.500 102 75-125 7.13 25

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.



Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/26/24 16:24

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BHF0416 - EPA 3050B

Blank (BHF0416-BLK1)

Prepared: 06/14/24 Analyzed: 06/17/24

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	"							
Silver	ND	0.0200	"							
Zinc	ND	0.400	"							
Selenium	ND	0.260	"							

LCS (BHF0416-BS1)

Prepared: 06/14/24 Analyzed: 06/17/24

Arsenic	40.9	0.200	mg/kg wet	40.0	102	80-120
Barium	37.1	0.400	"	40.0	92.9	80-120
Cadmium	1.96	0.200	"	2.00	97.8	80-120
Copper	38.0	0.400	"	40.0	94.9	80-120
Lead	18.6	0.200	"	20.0	93.2	80-120
Nickel	38.0	0.400	"	40.0	94.9	80-120
Silver	1.93	0.0200	"	2.00	96.4	80-120
Zinc	37.3	0.400	"	40.0	93.3	80-120
Selenium	3.78	0.260	"	4.00	94.5	80-120

Duplicate (BHF0416-DUP1)

Source: 2406181-01

Prepared: 06/14/24 Analyzed: 06/17/24

Arsenic	4.31	0.200	mg/kg dry	3.85	11.1	20
Barium	87.9	0.400	"	81.0	8.18	20
Cadmium	0.283	0.200	"	0.267	6.05	20
Copper	5.13	0.400	"	5.20	1.36	20
Lead	7.23	0.200	"	8.12	11.6	20
Nickel	5.29	0.400	"	5.38	1.68	20
Silver	0.0202	0.0200	"	0.0196	3.02	20
Zinc	20.9	0.400	"	21.6	3.39	20
Selenium	ND	0.260	"	ND		20

Summit Scientific

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



Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/26/24 16:24

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BHF0416 - EPA 3050B

Matrix Spike (BHF0416-MS1)

Source: 2406181-01

Prepared: 06/14/24 Analyzed: 06/17/24

Arsenic	46.9	0.200	mg/kg dry	44.0	3.85	98.0	75-125				
Barium	120	0.400	"	44.0	81.0	88.4	75-125				
Cadmium	2.38	0.200	"	2.20	0.267	96.2	75-125				
Copper	25.8	0.400	"	44.0	5.20	46.8	75-125				QM-05
Lead	25.1	0.200	"	22.0	8.12	77.1	75-125				
Nickel	26.3	0.400	"	44.0	5.38	47.7	75-125				QM-05
Silver	2.07	0.0200	"	2.20	0.0196	93.1	75-125				
Zinc	42.2	0.400	"	44.0	21.6	46.8	75-125				QM-05
Selenium	3.36	0.260	"	4.40	ND	76.4	75-125				

Matrix Spike Dup (BHF0416-MSD1)

Source: 2406181-01

Prepared: 06/14/24 Analyzed: 06/17/24

Arsenic	48.6	0.200	mg/kg dry	45.0	3.85	99.4	75-125	3.44	25		
Barium	128	0.400	"	45.0	81.0	105	75-125	6.67	25		
Cadmium	2.58	0.200	"	2.25	0.267	103	75-125	8.17	25		
Copper	27.0	0.400	"	45.0	5.20	48.4	75-125	4.52	25		QM-05
Lead	24.9	0.200	"	22.5	8.12	74.4	75-125	0.842	25		QM-07
Nickel	27.6	0.400	"	45.0	5.38	49.4	75-125	4.63	25		QM-05
Silver	2.14	0.0200	"	2.25	0.0196	94.2	75-125	3.39	25		
Zinc	43.3	0.400	"	45.0	21.6	48.1	75-125	2.53	25		QM-05
Selenium	3.40	0.260	"	4.50	ND	75.7	75-125	1.39	25		

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.



Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/26/24 16:24

Hexavalent Chromium by EPA Method 7196 - Quality Control
Summit Scientific

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

Batch BHF0426 - 3060A Mod

Blank (BHF0426-BLK1)

Prepared: 06/14/24 Analyzed: 06/25/24

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BHF0426-BS1)

Prepared: 06/14/24 Analyzed: 06/25/24

Chromium, Hexavalent 25.4 0.30 mg/kg wet 25.0 101 80-120

Duplicate (BHF0426-DUP1)

Source: 2404268-05

Prepared: 06/14/24 Analyzed: 06/25/24

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BHF0426-MS1)

Source: 2404268-05

Prepared: 06/14/24 Analyzed: 06/25/24

Chromium, Hexavalent 30.3 0.30 mg/kg dry 28.7 ND 106 75-125

Matrix Spike Dup (BHF0426-MSD1)

Source: 2404268-05

Prepared: 06/14/24 Analyzed: 06/25/24

Chromium, Hexavalent 28.4 0.30 mg/kg dry 29.6 ND 96.0 75-125 6.54 20

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/26/24 16:24

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

Summit Scientific

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

Batch BHF0506 - General Preparation

Blank (BHF0506-BLK1)

Prepared: 06/18/24 Analyzed: 06/20/24

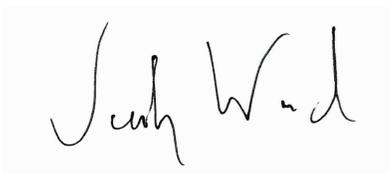
Calcium	ND	0.0500	mg/L wet							
Magnesium	ND	0.0500	"							
Sodium	ND	0.0500	"							

LCS (BHF0506-BS1)

Prepared: 06/18/24 Analyzed: 06/20/24

Calcium	4.96	0.0500	mg/L wet	5.00	99.3	70-130				
Magnesium	4.86	0.0500	"	5.00	97.2	70-130				
Sodium	4.83	0.0500	"	5.00	96.7	70-130				

Summit Scientific



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



Phillips 66
 6900 E Layton Ave/ Suite 900
 Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
 Project Manager: Chandler Cole

Reported:
 06/26/24 16:24

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

Summit Scientific

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

Batch BHF0418 - General Preparation

Duplicate (BHF0418-DUP1)

Source: 2404268-05

Prepared & Analyzed: 06/14/24

% Solids	85.9		%		85.4			0.576	20	
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Summit Scientific



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



Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/26/24 16:24

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

Summit Scientific

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

Batch BHF0512 - General Preparation

Blank (BHF0512-BLK1)

Prepared: 06/18/24 Analyzed: 06/19/24

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BHF0512-BS1)

Prepared: 06/18/24 Analyzed: 06/19/24

Specific Conductance (EC) 0.152 0.0100 mmhos/cm 0.150 102 95-105

Duplicate (BHF0512-DUP1)

Source: 2406185-01

Prepared: 06/18/24 Analyzed: 06/19/24

Specific Conductance (EC) 0.0898 0.0100 mmhos/cm 0.0911 1.39 20

Summit Scientific

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



Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/26/24 16:24

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

Summit Scientific

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

Batch BHF0511 - General Preparation

LCS (BHF0511-BS1)

Prepared: 06/18/24 Analyzed: 06/19/24

pH	9.15	pH Units	9.18	99.7	95-105
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Duplicate (BHF0511-DUP1)

Source: 2406185-01

Prepared: 06/18/24 Analyzed: 06/19/24

pH	7.06	pH Units	7.13	0.987	20
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Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
06/26/24 16:24

Notes and Definitions

- S-07 The surrogate recovery was outside acceptance limits indicating a potential high bias. The sample did not exhibit concentrations above reporting level for analytes represented by this surrogate. Data quality is not affected.
- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.
- QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The associated LCS and/or LCSD were within acceptance limits, therefore the data are considered valid.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

July 08, 2024

Chandler Cole

Phillips 66

6900 E Layton Ave/ Suite 900

Denver, CO 80237

RE: Four Parmlee (H-6-9) 3/2024

Work Order #2406421

Enclosed are the results of analyses for samples received by Summit Scientific on 06/26/24 18:03. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Natalie Tessier". The signature is written in a cursive, flowing style.

Natalie Tessier For Paul Shrewsbury

President



Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/08/24 09:44

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
H-15@48'	2406421-01	Soil	06/25/24 09:41	06/26/24 18:03
G-16@36'	2406421-02	Soil	06/25/24 11:08	06/26/24 18:03



4653 Table Mountain Drive
Golden, CO 80403
303-277-9310

Lab ID	Page 1 of 1
2406421	

Client: Tasman - DCP/P66	Project Manager: Chandler Cole / Brian Humphrey	Send Invoice To:
Address: 6855 W 119th Ave	E-Mail: chandler.c.cole@p66.com	Company: P66
City/State/Zip: Broomfield/CO/80220	bhumphrey@tasman-9co.com	Project Name/Location: Four Farmslee (H-6-9) 3/2024
Phone: 303-487-1228	Project Name: Four Farmslee (H-6-9) 3/2024	AFE#:
Sampler Name: B. Ulrich	Project Number:	PO/Billing Codes:
		Contact: Chandler Cole

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix			Analysis Requested				Special Instructions	
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other					
1	H-15@48'	6-25-24	0941	2			X			X							Standard TAT
2	G-16@36'	↓	1108	↓			↓			↓							Standard TAT
3	H-15@50'	↓	0940	↓			↓			↓							Standard TAT
4																	ON-HOLD
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	
15																	

Relinquished by: <i>[Signature]</i>	Date/Time: 1929	Received by: <i>[Signature]</i>	Date/Time: 6-25-24	TAT Business Days	Field DO	Notes: Please, Hold H-15@50'
Relinquished by: <i>[Signature]</i>	Date/Time: 6-25-24	Received by: <i>[Signature]</i>	Date/Time: 6-25-24	Same Day	Field EC	
Relinquished by: <i>[Signature]</i>	Date/Time: 6-25-24	Received by: <i>[Signature]</i>	Date/Time: 6-25-24	1 Day	Field ORP	
Relinquished by: <i>[Signature]</i>	Date/Time: 6-25-24	Received by: <i>[Signature]</i>	Date/Time: 6-25-24	2 Days	Field pH	
Relinquished by: <i>[Signature]</i>	Date/Time: 6-25-24	Received by: <i>[Signature]</i>	Date/Time: 6-25-24	3 Days	Field Temp.	
Temperature Upon Receipt: 8.1	Corrected Temperature: 8	IR gun #: 1	HNO3 lot #:	Standard	X	Field Turb.

S₂

Sample Receipt Checklist

S2 Work Order# 2406421

Client: DCP/PLCC Client Project ID: Four Parmlee (H-69) 3/2024

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

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

Temp (°C) Thermometer #

	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"/>	<u>CRUCE</u>
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 type="checkbox"/>	<input checked="" type="checkbox"/>	<u>No Answer</u>
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 checked="" type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out Completely? ⁽¹⁾	<input checked="" type="checkbox"/>	<input checked="" 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.

SU
Custodian Printed Name

6/26/24
Date/Time



Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/08/24 09:44

H-15@48'
2406421-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/25/24 09:41**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BHF0968	06/28/24	06/29/24	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: **06/25/24 09:41**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0429	107 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0408	102 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0409	102 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/25/24 09:41**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHF0971	06/28/24	06/28/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **06/25/24 09:41**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	4.92	39.4 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/08/24 09:44

H-15@48'
2406421-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **06/25/24 09:41**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHF0900	06/27/24	06/28/24	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: **06/25/24 09:41**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0169	50.8 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0161	48.2 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **06/25/24 09:41**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHF0906	06/27/24	06/29/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **06/25/24 09:41**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/08/24 09:44

H-15@48'
2406421-01 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.29	0.200	mg/kg dry	1	BHF0918	06/27/24	07/02/24	EPA 6020B	
Barium	51.8	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	0.908	0.400	"	"	"	"	"	"	
Lead	4.58	0.200	"	"	"	"	"	"	
Nickel	1.13	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	7.77	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **06/25/24 09:41**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHF0902	06/27/24	06/27/24	EPA 7196A	

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

Date Sampled: **06/25/24 09:41**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	44.5	0.0500	mg/L dry	1	BHG0046	07/01/24	07/02/24	EPA 6020B	
Magnesium	7.44	0.0500	"	"	"	"	"	"	
Sodium	9.60	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **06/25/24 09:41**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.351	0.00100	units	1	BHG0106	07/03/24	07/03/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/08/24 09:44

H-15@48'
2406421-01 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/25/24 09:41**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	74.3			%	1	BHF0920	06/27/24	06/28/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **06/25/24 09:41**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.283	0.0100		mmhos/cm	1	BHG0047	07/01/24	07/02/24	EPA 120.1	

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

Date Sampled: **06/25/24 09:41**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	8.14			pH Units	1	BHG0048	07/01/24	07/02/24	EPA 9045D	

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/08/24 09:44

G-16@36'
2406421-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/25/24 11:08**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	BHF0968	06/28/24	06/29/24	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: **06/25/24 11:08**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4	0.0415	104 %	50-150	"	"	"	"	"	
Surrogate: Toluene-d8	0.0395	98.8 %	50-150	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0393	98.2 %	50-150	"	"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/25/24 11:08**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	BHF0971	06/28/24	06/29/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/25/24 11:08**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl	17.3	138 %	30-150	"	"	"	"	"	

PAH by EPA Method 8270D SIM

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/08/24 09:44

G-16@36'
2406421-02 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **06/25/24 11:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHF0900	06/27/24	06/28/24	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: **06/25/24 11:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0157	47.1 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0145	43.5 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **06/25/24 11:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHF0906	06/27/24	06/29/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **06/25/24 11:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/08/24 09:44

G-16@36'
2406421-02 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	2.04	0.200	mg/kg dry	1	BHF0918	06/27/24	07/02/24	EPA 6020B	
Barium	25.0	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	0.717	0.400	"	"	"	"	"	"	
Lead	3.72	0.200	"	"	"	"	"	"	
Nickel	1.24	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	8.17	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **06/25/24 11:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHF0902	06/27/24	06/27/24	EPA 7196A	

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

Date Sampled: **06/25/24 11:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	40.9	0.0500	mg/L dry	1	BHG0046	07/01/24	07/02/24	EPA 6020B	
Magnesium	6.41	0.0500	"	"	"	"	"	"	
Sodium	13.6	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **06/25/24 11:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.522	0.00100	units	1	BHG0106	07/03/24	07/03/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/08/24 09:44

G-16@36'
2406421-02 (Soil)

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Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/25/24 11:08**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	83.9			%	1	BHF0920	06/27/24	06/28/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **06/25/24 11:08**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.337	0.0100		mmhos/cm	1	BHG0047	07/01/24	07/02/24	EPA 120.1	

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

Date Sampled: **06/25/24 11:08**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	7.53			pH Units	1	BHG0048	07/01/24	07/02/24	EPA 9045D	

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Phillips 66
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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/08/24 09:44

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BHF0968 - EPA 5030 Soil MS

Blank (BHF0968-BLK1)

Prepared: 06/28/24 Analyzed: 06/29/24

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	0.0403		"	0.0400		101	50-150			
Surrogate: Toluene-d8	0.0404		"	0.0400		101	50-150			
Surrogate: 4-Bromofluorobenzene	0.0407		"	0.0400		102	50-150			

LCS (BHF0968-BS1)

Prepared: 06/28/24 Analyzed: 06/29/24

Benzene	0.108	0.0020	mg/kg	0.100		108	70-130			
Toluene	0.106	0.0050	"	0.100		106	70-130			
Ethylbenzene	0.117	0.0050	"	0.100		117	70-130			
m,p-Xylene	0.216	0.010	"	0.200		108	70-130			
o-Xylene	0.107	0.0050	"	0.100		107	70-130			
1,2,4-Trimethylbenzene	0.106	0.0050	"	0.100		106	70-130			
1,3,5-Trimethylbenzene	0.106	0.0050	"	0.100		106	70-130			
Naphthalene	0.0907	0.0038	"	0.100		90.7	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0407		"	0.0400		102	50-150			
Surrogate: Toluene-d8	0.0400		"	0.0400		100	50-150			
Surrogate: 4-Bromofluorobenzene	0.0396		"	0.0400		99.0	50-150			

Matrix Spike (BHF0968-MS1)

Source: 2406239-19

Prepared: 06/28/24 Analyzed: 07/01/24

Benzene	0.121	0.0020	mg/kg	0.100	ND	121	70-130			
Toluene	0.121	0.0050	"	0.100	ND	121	70-130			
Ethylbenzene	0.135	0.0050	"	0.100	ND	135	70-130			QM-07
m,p-Xylene	0.244	0.010	"	0.200	ND	122	70-130			
o-Xylene	0.113	0.0050	"	0.100	ND	113	70-130			
1,2,4-Trimethylbenzene	0.115	0.0050	"	0.100	ND	115	70-130			
1,3,5-Trimethylbenzene	0.123	0.0050	"	0.100	ND	123	70-130			
Naphthalene	0.0937	0.0038	"	0.100	ND	93.7	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0440		"	0.0400		110	50-150			
Surrogate: Toluene-d8	0.0404		"	0.0400		101	50-150			
Surrogate: 4-Bromofluorobenzene	0.0400		"	0.0400		100	50-150			

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Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/08/24 09:44

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BHF0968 - EPA 5030 Soil MS

Matrix Spike Dup (BHF0968-MSD1)	Source: 2406239-19			Prepared: 06/28/24 Analyzed: 07/01/24						
Benzene	0.108	0.0020	mg/kg	0.100	ND	108	70-130	11.3	30	
Toluene	0.106	0.0050	"	0.100	ND	106	70-130	13.1	30	
Ethylbenzene	0.122	0.0050	"	0.100	ND	122	70-130	10.3	30	
m,p-Xylene	0.219	0.010	"	0.200	ND	110	70-130	10.5	30	
o-Xylene	0.104	0.0050	"	0.100	ND	104	70-130	8.52	30	
1,2,4-Trimethylbenzene	0.102	0.0050	"	0.100	ND	102	70-130	12.6	30	
1,3,5-Trimethylbenzene	0.108	0.0050	"	0.100	ND	108	70-130	12.5	30	
Naphthalene	0.0869	0.0038	"	0.100	ND	86.9	70-130	7.54	30	
Surrogate: 1,2-Dichloroethane-d4	0.0423		"	0.0400		106	50-150			
Surrogate: Toluene-d8	0.0400		"	0.0400		100	50-150			
Surrogate: 4-Bromofluorobenzene	0.0391		"	0.0400		97.7	50-150			

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/08/24 09:44

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BHF0971 - EPA 3550A

Blank (BHF0971-BLK1)

Prepared & Analyzed: 06/28/24

C10-C28 (DRO)	ND	50	mg/kg								
C28-C36 (ORO)	ND	50	"								
Surrogate: <i>o</i> -Terphenyl	13.5		"	12.5	108	30-150					

LCS (BHF0971-BS1)

Prepared & Analyzed: 06/28/24

C10-C28 (DRO)	570	50	mg/kg	500	114	70-130					
Surrogate: <i>o</i> -Terphenyl	13.4		"	12.5	108	30-150					

Matrix Spike (BHF0971-MS1)

Source: 2406239-19

Prepared & Analyzed: 06/28/24

C10-C28 (DRO)	523	50	mg/kg	500	19.3	101	70-130				
Surrogate: <i>o</i> -Terphenyl	11.2		"	12.5	89.4	30-150					

Matrix Spike Dup (BHF0971-MSD1)

Source: 2406239-19

Prepared & Analyzed: 06/28/24

C10-C28 (DRO)	487	50	mg/kg	500	19.3	93.6	70-130	7.07	20		
Surrogate: <i>o</i> -Terphenyl	11.3		"	12.5	90.8	30-150					

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/08/24 09:44

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BHF0900 - EPA 5030 Soil MS

Blank (BHF0900-BLK1)

Prepared: 06/27/24 Analyzed: 06/28/24

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	0.0251		"	0.0333		75.4	40-150			
Surrogate: Fluoranthene-d10	0.0233		"	0.0333		69.9	40-150			

LCS (BHF0900-BS1)

Prepared: 06/27/24 Analyzed: 06/28/24

Acenaphthene	0.0222	0.00500	mg/kg	0.0333		66.7	31-137			
Anthracene	0.0219	0.00500	"	0.0333		65.8	30-120			
Benzo (a) anthracene	0.0240	0.00500	"	0.0333		72.1	30-120			
Benzo (a) pyrene	0.0209	0.00500	"	0.0333		62.7	30-120			
Benzo (b) fluoranthene	0.0207	0.00500	"	0.0333		62.0	30-120			
Benzo (k) fluoranthene	0.0194	0.00500	"	0.0333		58.1	30-120			
Chrysene	0.0220	0.00500	"	0.0333		66.0	30-120			
Dibenz (a,h) anthracene	0.0201	0.00500	"	0.0333		60.2	30-120			
Fluoranthene	0.0221	0.00500	"	0.0333		66.3	30-120			
Fluorene	0.0218	0.00500	"	0.0333		65.5	30-120			
Indeno (1,2,3-cd) pyrene	0.0218	0.00500	"	0.0333		65.4	30-120			
Pyrene	0.0245	0.00500	"	0.0333		73.6	35-142			
1-Methylnaphthalene	0.0249	0.00500	"	0.0333		74.7	35-142			
2-Methylnaphthalene	0.0250	0.00500	"	0.0333		74.9	35-142			
Surrogate: 2-Methylnaphthalene-d10	0.0271		"	0.0333		81.3	40-150			
Surrogate: Fluoranthene-d10	0.0228		"	0.0333		68.3	40-150			

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/08/24 09:44

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BHF0900 - EPA 5030 Soil MS

Matrix Spike (BHF0900-MS1)	Source: 2406413-01			Prepared: 06/27/24 Analyzed: 06/28/24						
Acenaphthene	0.0202	0.00500	mg/kg	0.0333	ND	60.7	31-137			
Anthracene	0.0199	0.00500	"	0.0333	ND	59.8	30-120			
Benzo (a) anthracene	0.0215	0.00500	"	0.0333	ND	64.5	30-120			
Benzo (a) pyrene	0.0190	0.00500	"	0.0333	ND	57.0	30-120			
Benzo (b) fluoranthene	0.0184	0.00500	"	0.0333	ND	55.3	30-120			
Benzo (k) fluoranthene	0.0174	0.00500	"	0.0333	ND	52.2	30-120			
Chrysene	0.0194	0.00500	"	0.0333	ND	58.1	30-120			
Dibenz (a,h) anthracene	0.0207	0.00500	"	0.0333	ND	62.0	30-120			
Fluoranthene	0.0199	0.00500	"	0.0333	ND	59.7	30-120			
Fluorene	0.0204	0.00500	"	0.0333	ND	61.2	30-120			
Indeno (1,2,3-cd) pyrene	0.0244	0.00500	"	0.0333	ND	73.2	30-120			
Pyrene	0.0245	0.00500	"	0.0333	ND	73.6	35-142			
1-Methylnaphthalene	0.0223	0.00500	"	0.0333	ND	66.9	15-130			
2-Methylnaphthalene	0.0217	0.00500	"	0.0333	ND	65.2	15-130			
Surrogate: 2-Methylnaphthalene-d10	0.0231		"	0.0333		69.4	40-150			
Surrogate: Fluoranthene-d10	0.0208		"	0.0333		62.5	40-150			

Matrix Spike Dup (BHF0900-MSD1)	Source: 2406413-01			Prepared: 06/27/24 Analyzed: 06/28/24						
Acenaphthene	0.0194	0.00500	mg/kg	0.0333	ND	58.3	31-137	4.06	30	
Anthracene	0.0195	0.00500	"	0.0333	ND	58.4	30-120	2.33	30	
Benzo (a) anthracene	0.0209	0.00500	"	0.0333	ND	62.7	30-120	2.84	30	
Benzo (a) pyrene	0.0179	0.00500	"	0.0333	ND	53.8	30-120	5.63	30	
Benzo (b) fluoranthene	0.0179	0.00500	"	0.0333	ND	53.6	30-120	3.18	30	
Benzo (k) fluoranthene	0.0176	0.00500	"	0.0333	ND	52.9	30-120	1.33	30	
Chrysene	0.0190	0.00500	"	0.0333	ND	57.0	30-120	1.95	30	
Dibenz (a,h) anthracene	0.0210	0.00500	"	0.0333	ND	62.9	30-120	1.45	30	
Fluoranthene	0.0191	0.00500	"	0.0333	ND	57.3	30-120	3.99	30	
Fluorene	0.0196	0.00500	"	0.0333	ND	58.7	30-120	4.20	30	
Indeno (1,2,3-cd) pyrene	0.0235	0.00500	"	0.0333	ND	70.4	30-120	3.97	30	
Pyrene	0.0239	0.00500	"	0.0333	ND	71.6	35-142	2.77	30	
1-Methylnaphthalene	0.0237	0.00500	"	0.0333	ND	71.1	15-130	5.99	50	
2-Methylnaphthalene	0.0246	0.00500	"	0.0333	ND	73.8	15-130	12.3	50	
Surrogate: 2-Methylnaphthalene-d10	0.0243		"	0.0333		72.9	40-150			
Surrogate: Fluoranthene-d10	0.0201		"	0.0333		60.2	40-150			

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/08/24 09:44

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

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

Batch BHF0906 - EPA 3050B

Blank (BHF0906-BLK1)		Prepared: 06/27/24 Analyzed: 06/28/24								
Boron	ND	2.00	mg/L							
LCS (BHF0906-BS1)		Prepared: 06/27/24 Analyzed: 06/28/24								
Boron	5.15	2.00	mg/L	5.00		103	80-120			
Duplicate (BHF0906-DUP1)		Source: 2406402-01		Prepared: 06/27/24 Analyzed: 06/28/24						
Boron	1.78	2.00	mg/L		1.71			3.74	20	
Matrix Spike (BHF0906-MS1)		Source: 2406402-01		Prepared: 06/27/24 Analyzed: 06/28/24						
Boron	7.77	2.00	mg/L	4.98	1.71	122	75-125			
Matrix Spike Dup (BHF0906-MSD1)		Source: 2406402-01		Prepared: 06/27/24 Analyzed: 07/01/24						
Boron	8.83	2.00	mg/L	4.98	1.71	143	75-125	12.7	25	QM-01

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/08/24 09:44

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BHF0918 - EPA 3050B

Blank (BHF0918-BLK1)

Prepared: 06/27/24 Analyzed: 07/02/24

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	"							
Silver	ND	0.0200	"							
Zinc	ND	0.400	"							
Selenium	ND	0.260	"							

LCS (BHF0918-BS1)

Prepared: 06/27/24 Analyzed: 07/02/24

Arsenic	36.5	0.200	mg/kg wet	40.0	91.3	80-120		
Barium	38.1	0.400	"	40.0	95.2	80-120		
Cadmium	1.91	0.200	"	2.00	95.6	80-120		
Copper	41.2	0.400	"	40.0	103	80-120		
Lead	19.2	0.200	"	20.0	96.0	80-120		
Nickel	40.8	0.400	"	40.0	102	80-120		
Silver	1.93	0.0200	"	2.00	96.3	80-120		
Zinc	39.8	0.400	"	40.0	99.6	80-120		
Selenium	3.64	0.260	"	4.00	91.0	80-120		

Duplicate (BHF0918-DUP1)

Source: 2406418-01

Prepared: 06/27/24 Analyzed: 07/02/24

Arsenic	2.39	0.179	mg/kg dry	2.77	15.0	20		
Barium	74.2	0.357	"	58.1	24.3	20		QR-04
Cadmium	0.192	0.179	"	0.144	28.3	20		QR-01
Copper	5.06	0.357	"	4.75	6.44	20		
Lead	8.65	0.179	"	8.17	5.71	20		
Nickel	4.05	0.357	"	3.86	4.68	20		
Silver	0.0364	0.0179	"	0.0233	43.7	20		QR-01
Zinc	17.9	0.357	"	16.4	9.12	20		
Selenium	0.243	0.232	"	0.286	16.1	20		

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/08/24 09:44

Total Metals by EPA 6020B - Quality Control

Summit Scientific

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

Batch BHF0918 - EPA 3050B

Matrix Spike (BHF0918-MS1)

Source: 2406418-01

Prepared: 06/27/24 Analyzed: 07/02/24

Arsenic	47.1	0.200	mg/kg dry	45.1	2.77	98.5	75-125				
Barium	95.1	0.400	"	45.1	58.1	82.0	75-125				
Cadmium	2.57	0.200	"	2.25	0.144	108	75-125				
Copper	35.6	0.400	"	45.1	4.75	68.5	75-125				QM-05
Lead	29.0	0.200	"	22.5	8.17	92.3	75-125				
Nickel	34.4	0.400	"	45.1	3.86	67.8	75-125				QM-05
Silver	2.39	0.0200	"	2.25	0.0233	105	75-125				
Zinc	48.3	0.400	"	45.1	16.4	70.8	75-125				QM-05
Selenium	4.14	0.260	"	4.51	0.286	85.6	75-125				

Matrix Spike Dup (BHF0918-MSD1)

Source: 2406418-01

Prepared: 06/27/24 Analyzed: 07/02/24

Arsenic	47.1	0.200	mg/kg dry	44.7	2.77	99.2	75-125	0.0310	25		
Barium	113	0.400	"	44.7	58.1	123	75-125	17.3	25		
Cadmium	2.49	0.200	"	2.24	0.144	105	75-125	3.48	25		
Copper	33.2	0.400	"	44.7	4.75	63.6	75-125	7.03	25		QM-05
Lead	30.6	0.200	"	22.4	8.17	100	75-125	5.51	25		
Nickel	32.5	0.400	"	44.7	3.86	64.0	75-125	5.71	25		QM-05
Silver	2.29	0.0200	"	2.24	0.0233	101	75-125	4.41	25		
Zinc	47.0	0.400	"	44.7	16.4	68.5	75-125	2.73	25		QM-05
Selenium	4.06	0.260	"	4.47	0.286	84.4	75-125	2.09	25		

Post Spike (BHF0918-PS1)

Source: 2406418-01

Prepared: 06/27/24 Analyzed: 07/02/24

Arsenic	108		ug/l	100	5.92	102	75-125				
Barium	221		"	100	124	96.5	75-125				
Cadmium	5.44		"	5.00	0.308	103	75-125				
Copper	76.7		"	100	10.1	66.6	75-125				QM-01
Lead	66.6		"	50.0	17.4	98.4	75-125				
Nickel	74.9		"	100	8.24	66.6	75-125				QM-01
Silver	5.09		"	5.00	0.0498	101	75-125				
Zinc	105		"	100	34.9	69.7	75-125				QM-01
Selenium	9.31		"	10.0	0.609	87.0	75-125				

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/08/24 09:44

Hexavalent Chromium by EPA Method 7196 - Quality Control
Summit Scientific

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

Batch BHF0902 - 3060A Mod

Blank (BHF0902-BLK1)

Prepared & Analyzed: 06/27/24

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BHF0902-BS1)

Prepared & Analyzed: 06/27/24

Chromium, Hexavalent 21.2 0.30 mg/kg wet 25.0 85.0 80-120

Duplicate (BHF0902-DUP1)

Source: 2406379-01

Prepared & Analyzed: 06/27/24

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BHF0902-MS1)

Source: 2406379-01

Prepared & Analyzed: 06/27/24

Chromium, Hexavalent 30.9 0.30 mg/kg dry 30.6 ND 101 75-125

Matrix Spike Dup (BHF0902-MSD1)

Source: 2406379-01

Prepared & Analyzed: 06/27/24

Chromium, Hexavalent 29.8 0.30 mg/kg dry 30.6 ND 97.4 75-125 3.83 20

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/08/24 09:44

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

Summit Scientific

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

Batch BHG0046 - General Preparation

Blank (BHG0046-BLK1)

Prepared: 07/01/24 Analyzed: 07/02/24

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

LCS (BHG0046-BS1)

Prepared: 07/01/24 Analyzed: 07/02/24

Calcium	5.27	0.0500	mg/L wet	5.00		105	70-130			
Magnesium	4.86	0.0500	"	5.00		97.2	70-130			
Sodium	4.94	0.0500	"	5.00		98.8	70-130			

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/08/24 09:44

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

Summit Scientific

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

Batch BHF0920 - General Preparation

Duplicate (BHF0920-DUP1)	Source: 2404449-21		Prepared: 06/27/24 Analyzed: 06/28/24		
% Solids	77.9	%	79.6	2.22	20

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/08/24 09:44

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

Summit Scientific

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

Batch BHG0047 - General Preparation

Blank (BHG0047-BLK1)

Prepared: 07/01/24 Analyzed: 07/02/24

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BHG0047-BS1)

Prepared: 07/01/24 Analyzed: 07/02/24

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

Duplicate (BHG0047-DUP1)

Source: 2406419-01

Prepared: 07/01/24 Analyzed: 07/02/24

Specific Conductance (EC) 0.0118 0.0100 mmhos/cm 0.0118 0.169 20

Summit Scientific

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



Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/08/24 09:44

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

Summit Scientific

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

Batch BHG0048 - General Preparation

LCS (BHG0048-BS1)

Prepared: 07/01/24 Analyzed: 07/02/24

pH	9.15	pH Units	9.18	99.7	95-105
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Duplicate (BHG0048-DUP1)

Source: 2406419-01

Prepared: 07/01/24 Analyzed: 07/02/24

pH	8.25	pH Units	8.25	0.00	20
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Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/08/24 09:44

Notes and Definitions

- QR-04 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
- QR-01 Analyses are not controlled on RPD values from sample concentrations less than 10 times the reporting limit. QC batch accepted based on LCS and/or LCSD QC results.
- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.
- QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The associated LCS and/or LCSD were within acceptance limits, therefore the data are considered valid.
- QM-01 The spike recovery for this QC sample is outside of established control limits due to sample matrix interference.
- 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

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

July 12, 2024

Chandler Cole

Phillips 66

6900 E Layton Ave/ Suite 900

Denver, CO 80237

RE: Four Parmlee (H-6-9) 3/2024

Work Order #2406449

Enclosed are the results of analyses for samples received by Summit Scientific on 06/27/24 18:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Natalie Tessier". The signature is written in a cursive, flowing style.

Natalie Tessier For Paul Shrewsbury

President



Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/12/24 09:39

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
E-14@52'	2406449-01	Soil	06/27/24 11:50	06/27/24 18:00
E-14@30'	2406449-02	Soil	06/27/24 12:07	06/27/24 18:00
F-13@36'	2406449-03	Soil	06/27/24 13:50	06/27/24 18:00
F-13@55'	2406449-04	Soil	06/27/24 14:08	06/27/24 18:00

Case Narrative

Blake Ulrich requested all analyses be canceled for sample 5 on 6/28/24.

Client: <u>Tasman DCP/ P66</u>		Send Data To:		Send Invoice To:	
Address: <u>6855 W 119th Ave</u>		Project Manager: <u>Chandler Cole / Brion Humphrey</u>		Company: <u>P66</u>	
City/State/Zip: <u>Broomfield / CO / 80220</u>		E-Mail: <u>chandler.e.cole@p66.com</u>		Project Name/Location: <u>Four Parmlee (H-6-9) 3/2024</u>	
Phone: <u>303-487-1228</u>		bhumphrey@tasman-geo.com		AFE#:	
Sampler Name: <u>B. Ulrich</u>		Project Name: <u>Four Parmlee (H-6-9) 3/2024</u>		PO/Billing Codes:	
		Project Number:		Contact: <u>Chandler Cole</u>	

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix			Analysis Requested	Special Instructions
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #		
1	E-14e52'	6-27-24	1150	2			X			X			Standard TAT
2	E-14e30'	↓	1207	↓			↓			↓			Standard TAT
3	F-13e36'	↓	1350	↓			↓			↓			Standard TAT
4	F-13e55'	↓	1408	↓			↓			↓			Standard TAT
5	G-15e35'	6-24-24	0835	2			X			X			Standard TAT
6													
7													
8													
9													
10													
11													
12													
13													
14													
15													

Relinquished by: <u>[Signature]</u>	Date/Time: <u>6-27-24 1750</u>	Received by: <u>[Signature]</u>	Date/Time: <u>6-27-24 1800</u>	TAT Business Days	Field DO	Notes:
Relinquished by: <u>Tasman Ulrich</u>	Date/Time: <u>6-27-24 1800</u>	Received by: <u>[Signature]</u>	Date/Time: <u>6-27-24 1800</u>	Same Day	Field EC	
Relinquished by:	Date/Time:	Received by:	Date/Time:	1 Day	Field ORP	
				2 Days	Field pH	
				3 Days	Field Temp.	
Temperature Upon Receipt: <u>84</u>	Corrected Temperature: <u>8</u>	IR gun #:		Standard	<input checked="" type="checkbox"/> Field Turb.	
					HNO3 lot #:	

S₂

Sample Receipt Checklist

S2 Work Order# 2406449

Client: DCP/PLC Client Project ID: Four Parmlee (H-6-9) 3/2024

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

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

Temp (°C)

Thermometer #

	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"/>	<u>on ice</u>
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 checked="" type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out Completely? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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.

AS

Custodian Printed Name

4/27/24
Date/Time



Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/12/24 09:39

E-14@52'
2406449-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/27/24 11:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BHF0970	06/28/24	07/02/24	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: **06/27/24 11:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0382	95.5 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0416	104 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0417	104 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/27/24 11:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHF0973	06/28/24	07/03/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **06/27/24 11:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	9.53	76.3 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/12/24 09:39

E-14@52'
2406449-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **06/27/24 11:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHF0938	06/28/24	06/29/24	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: **06/27/24 11:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0173	52.0 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0193	57.8 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **06/27/24 11:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHF0943	06/28/24	07/02/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **06/27/24 11:50**

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

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/12/24 09:39

E-14@52'
2406449-01 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	3.66	0.200	mg/kg dry	1	BHF0956	06/28/24	07/04/24	EPA 6020B	
Barium	61.0	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	7.26	0.400	"	"	"	"	"	"	
Lead	5.77	0.200	"	"	"	"	"	"	
Nickel	5.41	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	33.8	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **06/27/24 11:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHG0060	07/02/24	07/02/24	EPA 7196A	

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

Date Sampled: **06/27/24 11:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	19.7	0.0500	mg/L dry	1	BHG0084	07/02/24	07/08/24	EPA 6020B	
Magnesium	4.53	0.0500	"	"	"	"	"	"	
Sodium	3.76	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **06/27/24 11:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.199	0.00100	units	1	BHG0206	07/09/24	07/09/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/12/24 09:39

E-14@52'
2406449-01 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/27/24 11:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	83.3		%	1	BHF0960	06/28/24	06/28/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **06/27/24 11:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.0840	0.0100	mmhos/cm	1	BHG0086	07/02/24	07/08/24	EPA 120.1	

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

Date Sampled: **06/27/24 11:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.07		pH Units	1	BHG0085	07/02/24	07/08/24	EPA 9045D	

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/12/24 09:39

E-14@30'
2406449-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/27/24 12:07**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BHF0970	06/28/24	07/02/24	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: **06/27/24 12:07**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0358	89.4 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0417	104 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0418	105 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/27/24 12:07**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHF0973	06/28/24	07/04/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **06/27/24 12:07**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	12.5	100 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/12/24 09:39

E-14@30'
2406449-02 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **06/27/24 12:07**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHF0938	06/28/24	06/29/24	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: **06/27/24 12:07**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0191	57.4 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0218	65.3 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **06/27/24 12:07**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHF0943	06/28/24	07/02/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **06/27/24 12:07**

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

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/12/24 09:39

E-14@30'
2406449-02 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	67.9	0.200	mg/kg dry	1	BHF0956	06/28/24	07/04/24	EPA 6020B	
Barium	196	0.400	"	"	"	"	"	"	
Cadmium	1.93	0.200	"	"	"	"	"	"	
Copper	39.9	0.400	"	"	"	"	"	"	
Lead	14.9	0.200	"	"	"	"	"	"	
Nickel	52.4	0.400	"	"	"	"	"	"	
Silver	0.305	0.0200	"	"	"	"	"	"	
Zinc	69.6	0.400	"	"	"	"	"	"	
Selenium	1.28	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **06/27/24 12:07**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHG0060	07/02/24	07/02/24	EPA 7196A	

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

Date Sampled: **06/27/24 12:07**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	330	0.0500	mg/L dry	1	BHG0084	07/02/24	07/08/24	EPA 6020B	
Magnesium	69.0	0.0500	"	"	"	"	"	"	
Sodium	118	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **06/27/24 12:07**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.54	0.00100	units	1	BHG0206	07/09/24	07/09/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/27/24 12:07**

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

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/12/24 09:39

E-14@30'
2406449-02 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	75.1	%	1	BHF0960	06/28/24	06/28/24	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **06/27/24 12:07**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	2.29	0.0100	mmhos/cm	1	BHG0086	07/02/24	07/08/24	EPA 120.1	

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

Date Sampled: **06/27/24 12:07**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	5.04		pH Units	1	BHG0085	07/02/24	07/08/24	EPA 9045D	

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/12/24 09:39

F-13@36'
2406449-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/27/24 13:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BHF0970	06/28/24	07/02/24	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: **06/27/24 13:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0408	102 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0423	106 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0400	100 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/27/24 13:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHF0973	06/28/24	07/04/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **06/27/24 13:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	15.9	127 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/12/24 09:39

F-13@36'
2406449-03 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **06/27/24 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHF0938	06/28/24	06/29/24	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: **06/27/24 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0175	52.5 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0177	53.0 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **06/27/24 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHF0943	06/28/24	07/02/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **06/27/24 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/12/24 09:39

F-13@36'
2406449-03 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	2.88	0.200	mg/kg dry	1	BHF0956	06/28/24	07/04/24	EPA 6020B	
Barium	29.5	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	0.902	0.400	"	"	"	"	"	"	
Lead	3.13	0.200	"	"	"	"	"	"	
Nickel	1.17	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	6.66	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **06/27/24 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHG0060	07/02/24	07/02/24	EPA 7196A	

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

Date Sampled: **06/27/24 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	9.29	0.0500	mg/L dry	1	BHG0084	07/02/24	07/08/24	EPA 6020B	
Magnesium	2.03	0.0500	"	"	"	"	"	"	
Sodium	2.30	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **06/27/24 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.178	0.00100	units	1	BHG0206	07/09/24	07/09/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/12/24 09:39

F-13@36'
2406449-03 (Soil)

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Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/27/24 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	95.3		%	1	BHF0960	06/28/24	06/28/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **06/27/24 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.0843	0.0100	mmhos/cm	1	BHG0086	07/02/24	07/08/24	EPA 120.1	

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

Date Sampled: **06/27/24 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.71		pH Units	1	BHG0085	07/02/24	07/08/24	EPA 9045D	

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/12/24 09:39

F-13@55'
2406449-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/27/24 14:08**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BHF0970	06/28/24	07/02/24	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: **06/27/24 14:08**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0328	82.1 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0412	103 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0395	98.8 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/27/24 14:08**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHF0973	06/28/24	07/04/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **06/27/24 14:08**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	10.7	85.5 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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Phillips 66
6900 E Layton Ave/ Suite 900
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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/12/24 09:39

F-13@55'
2406449-04 (Soil)

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PAH by EPA Method 8270D SIM

Date Sampled: **06/27/24 14:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHF0938	06/28/24	06/29/24	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: **06/27/24 14:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0167	50.2 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0169	50.7 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **06/27/24 14:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHF0943	06/28/24	07/02/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **06/27/24 14:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/12/24 09:39

F-13@55'
2406449-04 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	7.77	0.200	mg/kg dry	1	BHF0956	06/28/24	07/04/24	EPA 6020B	
Barium	124	0.400	"	"	"	"	"	"	
Cadmium	0.721	0.200	"	"	"	"	"	"	
Copper	15.8	0.400	"	"	"	"	"	"	
Lead	16.5	0.200	"	"	"	"	"	"	
Nickel	38.2	0.400	"	"	"	"	"	"	
Silver	0.0952	0.0200	"	"	"	"	"	"	
Zinc	130	0.400	"	"	"	"	"	"	
Selenium	0.991	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **06/27/24 14:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHG0060	07/02/24	07/02/24	EPA 7196A	

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

Date Sampled: **06/27/24 14:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	331	0.0500	mg/L dry	1	BHG0084	07/02/24	07/08/24	EPA 6020B	
Magnesium	29.1	0.0500	"	"	"	"	"	"	
Sodium	3.45	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **06/27/24 14:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0488	0.00100	units	1	BHG0206	07/09/24	07/09/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/27/24 14:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/12/24 09:39

F-13@55'
2406449-04 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	81.0	%	1	BHF0960	06/28/24	06/28/24	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **06/27/24 14:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.0612	0.0100	mmhos/cm	1	BHG0086	07/02/24	07/08/24	EPA 120.1	

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

Date Sampled: **06/27/24 14:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.09		pH Units	1	BHG0085	07/02/24	07/08/24	EPA 9045D	

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/12/24 09:39

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BHF0970 - EPA 5030 Soil MS

Blank (BHF0970-BLK1)

Prepared: 06/28/24 Analyzed: 07/01/24

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	0.0396		"	0.0400		99.1	50-150				
Surrogate: Toluene-d8	0.0389		"	0.0400		97.2	50-150				
Surrogate: 4-Bromofluorobenzene	0.0415		"	0.0400		104	50-150				

LCS (BHF0970-BS1)

Prepared: 06/28/24 Analyzed: 07/01/24

Benzene	0.0936	0.0020	mg/kg	0.100		93.6	70-130				
Toluene	0.105	0.0050	"	0.100		105	70-130				
Ethylbenzene	0.0984	0.0050	"	0.100		98.4	70-130				
m,p-Xylene	0.195	0.010	"	0.200		97.6	70-130				
o-Xylene	0.0974	0.0050	"	0.100		97.4	70-130				
1,2,4-Trimethylbenzene	0.0918	0.0050	"	0.100		91.8	70-130				
1,3,5-Trimethylbenzene	0.0913	0.0050	"	0.100		91.3	70-130				
Naphthalene	0.0953	0.0038	"	0.100		95.3	70-130				
Surrogate: 1,2-Dichloroethane-d4	0.0435		"	0.0400		109	50-150				
Surrogate: Toluene-d8	0.0413		"	0.0400		103	50-150				
Surrogate: 4-Bromofluorobenzene	0.0393		"	0.0400		98.2	50-150				

Matrix Spike (BHF0970-MS1)

Source: 2406445-01

Prepared: 06/28/24 Analyzed: 07/01/24

Benzene	0.0884	0.0020	mg/kg	0.100	ND	88.4	70-130				
Toluene	0.101	0.0050	"	0.100	ND	101	70-130				
Ethylbenzene	0.0951	0.0050	"	0.100	ND	95.1	70-130				
m,p-Xylene	0.188	0.010	"	0.200	ND	94.0	70-130				
o-Xylene	0.0942	0.0050	"	0.100	ND	94.2	70-130				
1,2,4-Trimethylbenzene	0.0873	0.0050	"	0.100	ND	87.3	70-130				
1,3,5-Trimethylbenzene	0.0877	0.0050	"	0.100	ND	87.7	70-130				
Naphthalene	0.0913	0.0038	"	0.100	ND	91.3	70-130				
Surrogate: 1,2-Dichloroethane-d4	0.0421		"	0.0400		105	50-150				
Surrogate: Toluene-d8	0.0404		"	0.0400		101	50-150				
Surrogate: 4-Bromofluorobenzene	0.0395		"	0.0400		98.8	50-150				

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Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/12/24 09:39

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BHF0970 - EPA 5030 Soil MS

Matrix Spike Dup (BHF0970-MSD1)	Source: 2406445-01			Prepared: 06/28/24 Analyzed: 07/01/24						
Benzene	0.0948	0.0020	mg/kg	0.100	ND	94.8	70-130	6.98	30	
Toluene	0.107	0.0050	"	0.100	ND	107	70-130	5.19	30	
Ethylbenzene	0.0952	0.0050	"	0.100	ND	95.2	70-130	0.0946	30	
m,p-Xylene	0.188	0.010	"	0.200	ND	93.8	70-130	0.256	30	
o-Xylene	0.0922	0.0050	"	0.100	ND	92.2	70-130	2.12	30	
1,2,4-Trimethylbenzene	0.0842	0.0050	"	0.100	ND	84.2	70-130	3.60	30	
1,3,5-Trimethylbenzene	0.0844	0.0050	"	0.100	ND	84.4	70-130	3.91	30	
Naphthalene	0.0869	0.0038	"	0.100	ND	86.9	70-130	4.88	30	
Surrogate: 1,2-Dichloroethane-d4	0.0420		"	0.0400		105	50-150			
Surrogate: Toluene-d8	0.0420		"	0.0400		105	50-150			
Surrogate: 4-Bromofluorobenzene	0.0388		"	0.0400		97.0	50-150			

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Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/12/24 09:39

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BHF0973 - EPA 3550A

Blank (BHF0973-BLK1)

Prepared: 06/28/24 Analyzed: 07/03/24

C10-C28 (DRO)	ND	50	mg/kg								
C28-C36 (ORO)	ND	50	"								
Surrogate: <i>o</i> -Terphenyl	11.6		"	12.5		92.9	30-150				

LCS (BHF0973-BS1)

Prepared: 06/28/24 Analyzed: 07/03/24

C10-C28 (DRO)	491	50	mg/kg	500		98.2	70-130				
Surrogate: <i>o</i> -Terphenyl	11.2		"	12.5		89.7	30-150				

Matrix Spike (BHF0973-MS1)

Source: 2406445-01

Prepared: 06/28/24 Analyzed: 07/03/24

C10-C28 (DRO)	472	50	mg/kg	500	29.1	88.5	70-130				
Surrogate: <i>o</i> -Terphenyl	7.96		"	12.5		63.7	30-150				

Matrix Spike Dup (BHF0973-MSD1)

Source: 2406445-01

Prepared: 06/28/24 Analyzed: 07/03/24

C10-C28 (DRO)	487	50	mg/kg	500	29.1	91.5	70-130	3.11	20		
Surrogate: <i>o</i> -Terphenyl	8.27		"	12.5		66.2	30-150				

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/12/24 09:39

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BHF0938 - EPA 5030 Soil MS

Blank (BHF0938-BLK1)

Prepared & Analyzed: 06/28/24

Acenaphthene	ND	0.00500	mg/kg							
Anthracene	ND	0.00500	"							
Benzo (a) anthracene	ND	0.00500	"							
Benzo (a) pyrene	ND	0.00500	"							
Benzo (b) fluoranthene	ND	0.00500	"							
Benzo (k) fluoranthene	ND	0.00500	"							
Chrysene	ND	0.00500	"							
Dibenz (a,h) anthracene	ND	0.00500	"							
Fluoranthene	ND	0.00500	"							
Fluorene	ND	0.00500	"							
Indeno (1,2,3-cd) pyrene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
1-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0135</i>		"	<i>0.0333</i>		<i>40.4</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0144</i>		"	<i>0.0333</i>		<i>43.2</i>	<i>40-150</i>			

LCS (BHF0938-BS1)

Prepared & Analyzed: 06/28/24

Acenaphthene	0.0276	0.00500	mg/kg	0.0333		82.7	31-137			
Anthracene	0.0243	0.00500	"	0.0333		73.0	30-120			
Benzo (a) anthracene	0.0218	0.00500	"	0.0333		65.5	30-120			
Benzo (a) pyrene	0.0141	0.00500	"	0.0333		42.2	30-120			
Benzo (b) fluoranthene	0.0137	0.00500	"	0.0333		41.0	30-120			
Benzo (k) fluoranthene	0.0139	0.00500	"	0.0333		41.8	30-120			
Chrysene	0.0197	0.00500	"	0.0333		59.2	30-120			
Dibenz (a,h) anthracene	0.0175	0.00500	"	0.0333		52.5	30-120			
Fluoranthene	0.0262	0.00500	"	0.0333		78.5	30-120			
Fluorene	0.0209	0.00500	"	0.0333		62.6	30-120			
Indeno (1,2,3-cd) pyrene	0.0191	0.00500	"	0.0333		57.4	30-120			
Pyrene	0.0179	0.00500	"	0.0333		53.8	35-142			
1-Methylnaphthalene	0.0186	0.00500	"	0.0333		55.8	35-142			
2-Methylnaphthalene	0.0190	0.00500	"	0.0333		57.1	35-142			
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0183</i>		"	<i>0.0333</i>		<i>54.8</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0276</i>		"	<i>0.0333</i>		<i>82.8</i>	<i>40-150</i>			

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/12/24 09:39

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BHF0938 - EPA 5030 Soil MS

Matrix Spike (BHF0938-MS1)	Source: 2406444-02			Prepared & Analyzed: 06/28/24						
Acenaphthene	0.0145	0.00500	mg/kg	0.0333	ND	43.4	31-137			
Anthracene	0.0182	0.00500	"	0.0333	ND	54.6	30-120			
Benzo (a) anthracene	0.0166	0.00500	"	0.0333	ND	49.9	30-120			
Benzo (a) pyrene	0.0157	0.00500	"	0.0333	ND	47.2	30-120			
Benzo (b) fluoranthene	0.0137	0.00500	"	0.0333	ND	41.1	30-120			
Benzo (k) fluoranthene	0.0155	0.00500	"	0.0333	ND	46.4	30-120			
Chrysene	0.0146	0.00500	"	0.0333	ND	43.9	30-120			
Dibenz (a,h) anthracene	0.0142	0.00500	"	0.0333	ND	42.5	30-120			
Fluoranthene	0.0151	0.00500	"	0.0333	ND	45.2	30-120			
Fluorene	0.0161	0.00500	"	0.0333	ND	48.2	30-120			
Indeno (1,2,3-cd) pyrene	0.0182	0.00500	"	0.0333	ND	54.7	30-120			
Pyrene	0.0178	0.00500	"	0.0333	ND	53.4	35-142			
1-Methylnaphthalene	0.0138	0.00500	"	0.0333	ND	41.4	15-130			
2-Methylnaphthalene	0.0137	0.00500	"	0.0333	ND	41.1	15-130			
Surrogate: 2-Methylnaphthalene-d10	0.0138		"	0.0333		41.5	40-150			
Surrogate: Fluoranthene-d10	0.0165		"	0.0333		49.4	40-150			

Matrix Spike Dup (BHF0938-MSD1)	Source: 2406444-02			Prepared & Analyzed: 06/28/24						
Acenaphthene	0.0141	0.00500	mg/kg	0.0333	ND	42.2	31-137	2.84	30	
Anthracene	0.0193	0.00500	"	0.0333	ND	57.9	30-120	5.85	30	
Benzo (a) anthracene	0.0212	0.00500	"	0.0333	ND	63.6	30-120	24.1	30	
Benzo (a) pyrene	0.0135	0.00500	"	0.0333	ND	40.4	30-120	15.5	30	
Benzo (b) fluoranthene	0.0155	0.00500	"	0.0333	ND	46.6	30-120	12.7	30	
Benzo (k) fluoranthene	0.0146	0.00500	"	0.0333	ND	43.7	30-120	5.86	30	
Chrysene	0.0161	0.00500	"	0.0333	ND	48.3	30-120	9.47	30	
Dibenz (a,h) anthracene	0.0185	0.00500	"	0.0333	ND	55.6	30-120	26.7	30	
Fluoranthene	0.0196	0.00500	"	0.0333	ND	58.9	30-120	26.2	30	
Fluorene	0.0145	0.00500	"	0.0333	ND	43.4	30-120	10.4	30	
Indeno (1,2,3-cd) pyrene	0.0200	0.00500	"	0.0333	ND	59.9	30-120	9.17	30	
Pyrene	0.0154	0.00500	"	0.0333	ND	46.1	35-142	14.7	30	
1-Methylnaphthalene	0.0168	0.00500	"	0.0333	ND	50.4	15-130	19.6	50	
2-Methylnaphthalene	0.0166	0.00500	"	0.0333	ND	49.9	15-130	19.5	50	
Surrogate: 2-Methylnaphthalene-d10	0.0167		"	0.0333		50.2	40-150			
Surrogate: Fluoranthene-d10	0.0205		"	0.0333		61.5	40-150			

Summit Scientific

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



Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/12/24 09:39

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

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

Batch BHF0943 - EPA 3050B

Blank (BHF0943-BLK1)

Prepared: 06/28/24 Analyzed: 07/02/24

Boron ND 2.00 mg/L

LCS (BHF0943-BS1)

Prepared: 06/28/24 Analyzed: 07/02/24

Boron 5.21 2.00 mg/L 5.00 104 80-120

Duplicate (BHF0943-DUP1)

Source: 2406443-01

Prepared: 06/28/24 Analyzed: 07/02/24

Boron 0.419 2.00 mg/L 0.440 4.90 20

Matrix Spike (BHF0943-MS1)

Source: 2406443-01

Prepared: 06/28/24 Analyzed: 07/02/24

Boron 5.49 2.00 mg/L 5.02 0.440 101 75-125

Matrix Spike Dup (BHF0943-MSD1)

Source: 2406443-01

Prepared: 06/28/24 Analyzed: 07/02/24

Boron 5.91 2.00 mg/L 5.02 0.440 109 75-125 7.50 25

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/12/24 09:39

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BHF0956 - EPA 3050B

Blank (BHF0956-BLK1)

Prepared: 06/28/24 Analyzed: 07/04/24

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	"							
Silver	ND	0.0200	"							
Zinc	ND	0.400	"							
Selenium	ND	0.260	"							

LCS (BHF0956-BS1)

Prepared: 06/28/24 Analyzed: 07/04/24

Arsenic	41.7	0.200	mg/kg wet	40.0		104	80-120			
Barium	40.8	0.400	"	40.0		102	80-120			
Cadmium	1.97	0.200	"	2.00		98.3	80-120			
Copper	41.9	0.400	"	40.0		105	80-120			
Lead	19.6	0.200	"	20.0		98.0	80-120			
Nickel	41.4	0.400	"	40.0		103	80-120			
Silver	1.98	0.0200	"	2.00		98.8	80-120			
Zinc	40.9	0.400	"	40.0		102	80-120			
Selenium	4.51	0.260	"	4.00		113	80-120			

Duplicate (BHF0956-DUP1)

Source: 2404170-01RE1

Prepared: 06/28/24 Analyzed: 07/04/24

Arsenic	5.75	0.200	mg/kg wet	7.21		22.5	20		QR-04
Barium	68.6	0.400	"	51.0		29.4	20		QR-04
Cadmium	0.289	0.200	"	0.269		7.18	20		
Copper	12.4	0.400	"	14.5		16.1	20		
Lead	10.5	0.200	"	11.7		10.8	20		
Nickel	9.31	0.400	"	11.0		16.8	20		
Silver	0.0377	0.0200	"	0.0350		7.50	20		
Zinc	44.4	0.400	"	51.9		15.6	20		
Selenium	0.224	0.260	"	0.209		6.88	20		

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/12/24 09:39

Total Metals by EPA 6020B - Quality Control

Summit Scientific

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

Batch BHF0956 - EPA 3050B

Matrix Spike (BHF0956-MS1)

Source: 2404170-01RE1 Prepared: 06/28/24 Analyzed: 07/04/24

Arsenic	45.0	0.200	mg/kg wet	39.4	7.21	96.0	75-125				
Barium	536	0.400	"	39.4	51.0	NR	75-125				QM-07
Cadmium	2.20	0.200	"	1.97	0.269	98.1	75-125				
Copper	50.9	0.400	"	39.4	14.5	92.2	75-125				
Lead	29.2	0.200	"	19.7	11.7	88.7	75-125				
Nickel	47.7	0.400	"	39.4	11.0	93.1	75-125				
Silver	1.94	0.0200	"	1.97	0.0350	96.7	75-125				
Zinc	85.0	0.400	"	39.4	51.9	83.9	75-125				
Selenium	4.22	0.260	"	3.94	0.209	102	75-125				

Matrix Spike Dup (BHF0956-MSD1)

Source: 2404170-01RE1 Prepared: 06/28/24 Analyzed: 07/04/24

Arsenic	42.8	0.200	mg/kg wet	38.2	7.21	93.3	75-125	4.95	25		
Barium	341	0.400	"	38.2	51.0	760	75-125	44.5	25		QM-07
Cadmium	2.17	0.200	"	1.91	0.269	99.4	75-125	1.52	25		
Copper	50.8	0.400	"	38.2	14.5	95.0	75-125	0.0681	25		
Lead	28.9	0.200	"	19.1	11.7	89.7	75-125	1.16	25		
Nickel	48.2	0.400	"	38.2	11.0	97.3	75-125	1.04	25		
Silver	1.91	0.0200	"	1.91	0.0350	98.1	75-125	1.69	25		
Zinc	87.1	0.400	"	38.2	51.9	92.2	75-125	2.51	25		
Selenium	4.26	0.260	"	3.82	0.209	106	75-125	0.939	25		

Post Spike (BHF0956-PS1)

Source: 2404170-01RE1 Prepared: 06/28/24 Analyzed: 07/04/24

Arsenic	128		ug/l	100	18.0	110	75-125				
Barium	229		"	100	128	101	75-125				
Cadmium	5.83		"	5.00	0.672	103	75-125				
Copper	142		"	100	36.4	105	75-125				
Lead	78.8		"	50.0	29.3	99.0	75-125				
Nickel	132		"	100	27.5	105	75-125				
Silver	5.16		"	5.00	0.0874	101	75-125				
Zinc	241		"	100	130	111	75-125				
Selenium	12.0		"	10.0	0.522	115	75-125				

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/12/24 09:39

Hexavalent Chromium by EPA Method 7196 - Quality Control
Summit Scientific

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

Batch BHG0060 - 3060A Mod

Blank (BHG0060-BLK1)

Prepared & Analyzed: 07/02/24

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BHG0060-BS1)

Prepared & Analyzed: 07/02/24

Chromium, Hexavalent 24.1 0.30 mg/kg wet 25.0 96.4 80-120

Duplicate (BHG0060-DUP1)

Source: 2406447-01

Prepared & Analyzed: 07/02/24

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BHG0060-MS1)

Source: 2406447-01

Prepared & Analyzed: 07/02/24

Chromium, Hexavalent 27.5 0.30 mg/kg dry 27.3 ND 101 75-125

Matrix Spike Dup (BHG0060-MSD1)

Source: 2406447-01

Prepared & Analyzed: 07/02/24

Chromium, Hexavalent 26.3 0.30 mg/kg dry 27.3 ND 96.2 75-125 4.47 20

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/12/24 09:39

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

Summit Scientific

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

Batch BHG0084 - General Preparation

Blank (BHG0084-BLK1)

Prepared: 07/02/24 Analyzed: 07/08/24

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

LCS (BHG0084-BS1)

Prepared: 07/02/24 Analyzed: 07/08/24

Calcium	5.13	0.0500	mg/L wet	5.00		103	70-130			
Magnesium	4.93	0.0500	"	5.00		98.7	70-130			
Sodium	4.82	0.0500	"	5.00		96.4	70-130			

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/12/24 09:39

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

Summit Scientific

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

Batch BHF0960 - General Preparation

Duplicate (BHF0960-DUP2)		Source: 2406445-30			Prepared & Analyzed: 06/28/24						
% Solids	97.6		%		98.3			0.670		20	

Summit Scientific

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



Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/12/24 09:39

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

Summit Scientific

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

Batch BHG0086 - General Preparation

Blank (BHG0086-BLK1)

Prepared: 07/02/24 Analyzed: 07/08/24

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BHG0086-BS1)

Prepared: 07/02/24 Analyzed: 07/08/24

Specific Conductance (EC) 0.154 0.0100 mmhos/cm 0.150 103 95-105

Duplicate (BHG0086-DUP1)

Source: 2406443-01

Prepared: 07/02/24 Analyzed: 07/08/24

Specific Conductance (EC) 0.707 0.0100 mmhos/cm 0.718 1.45 20

Summit Scientific

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



Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/12/24 09:39

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

Summit Scientific

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

Batch BHG0085 - General Preparation

LCS (BHG0085-BS1)

Prepared: 07/02/24 Analyzed: 07/08/24

pH	9.16	pH Units	9.18	99.8	95-105
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Duplicate (BHG0085-DUP1)

Source: 2406443-01

Prepared: 07/02/24 Analyzed: 07/08/24

pH	8.15	pH Units	8.18	0.367	20
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Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/12/24 09:39

Notes and Definitions

- QR-04 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.
- 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

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

July 10, 2024

Chandler Cole

Phillips 66

6900 E Layton Ave/ Suite 900

Denver, CO 80237

RE: Four Parmlee (H-6-9) 3/2024

Work Order #2407018

Enclosed are the results of analyses for samples received by Summit Scientific on 07/01/24 17:36. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Natalie Tessier". The signature is written in a cursive, flowing style.

Natalie Tessier For Paul Shrewsbury

President



Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/10/24 09:54

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
G-13@50'	2407018-01	Soil	07/01/24 08:46	07/01/24 17:36
H-13@55'	2407018-02	Soil	07/01/24 09:41	07/01/24 17:36
G-15@55'	2407018-03	Soil	07/01/24 10:42	07/01/24 17:36
H-12@54'	2407018-04	Soil	07/01/24 14:52	07/01/24 17:36



4653 Table Mountain Drive
Golden, CO 80403
303-277-9310

Lab ID	Page 1 of 1
24107018	

Client: <u>Tasman DCP/P66</u>	Project Manager: <u>Chandler Cole / Brian Humphrey</u>	Send Invoice To:
Address: <u>6855 W 119th Ave</u>	E-Mail: <u>chandler.e.cole@p66.com</u>	Company: <u>P66</u>
City/State/Zip: <u>Broomfield / CO / 80220</u>	<u>bhumphrey@tasman-geo.com</u>	Project Name/Location: <u>Four Parmlee (H-6-9) 3/2024</u>
Phone: <u>303-487-1228</u>	Project Name: <u>Four Parmlee (H-6-9) 3/2024</u>	AFE#:
Sampler Name: <u>B. Ulrich</u>	Project Number:	PO/Billing Codes:
		Contact: <u>Chandler Cole</u>

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix			Analysis Requested				Special Instructions			
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other							
1	<u>G-13e 50'</u>	<u>7-1-24</u>	<u>0846</u>	<u>2</u>			<u>X</u>												
2	<u>H-13e 55'</u>		<u>0941</u>																<u>Standard TAT</u>
3	<u>G-15e 55'</u>		<u>1042</u>																<u>Standard TAT</u>
4	<u>H-12e 54'</u>		<u>1452</u>																<u>Standard TAT</u>
5	<u>G-13e 52'</u>		<u>0847</u>																<u>Standard TAT</u>
6																			<u>DAV HOLD</u>
7																			
8																			
9																			
10																			
11																			
12																			
13																			
14																			
15																			

Relinquished by: <u>[Signature]</u>	Date/Time: <u>7-1-24 1730</u>	Received by: <u>Tasman Lockrey</u>	Date/Time: <u>7-1-24 1730</u>	TAT Business Days	Field DO	Notes: <u>Please, HOLD G-13e 52'</u>
Relinquished by: <u>Tasman Lockrey</u>	Date/Time: <u>7-1-24 1730</u>	Received by: <u>[Signature]</u>	Date/Time: <u>7-1-24 1730</u>	Same Day	Field EC	
Relinquished by:	Date/Time:	Received by:	Date/Time:	1 Day	Field ORP	
Relinquished by:	Date/Time:	Received by:	Date/Time:	2 Days	Field pH	
Relinquished by:	Date/Time:	Received by:	Date/Time:	3 Days	Field Temp.	
Temperature Upon Receipt: <u>(3.)</u>	Corrected Temperature: <u>8</u>	IR gun #:	HNO3 lot #:	Standard	<u>X</u>	Field Turb.

S₂

Sample Receipt Checklist

S2 Work Order# 2407018

Client: DCP/Rece Client Project ID: Four Pannlee (H-6-9) 3/2024

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

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

Temp (°C) Thermometer #

	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"/>	<u>MOCE</u>
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 checked="" type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out Completely? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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.

AS 7/1/24
Custodian Printed Name Date/Time



Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/10/24 09:54

G-13@50'
2407018-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/01/24 08:46**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHG0100	07/03/24	07/03/24	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: **07/01/24 08:46**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0416	104 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0405	101 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0381	95.3 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/01/24 08:46**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BHG0101	07/03/24	07/04/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **07/01/24 08:46**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	9.05	72.4 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/10/24 09:54

G-13@50'
2407018-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **07/01/24 08:46**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHG0097	07/03/24	07/03/24	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: **07/01/24 08:46**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0186	55.7 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0198	59.3 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **07/01/24 08:46**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHG0065	07/02/24	07/03/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **07/01/24 08:46**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/10/24 09:54

G-13@50'
2407018-01 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	1.02	0.200	mg/kg dry	1	BHG0095	07/03/24	07/04/24	EPA 6020B
Barium	82.5	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	1.03	0.400	"	"	"	"	"	"
Lead	6.10	0.200	"	"	"	"	"	"
Nickel	1.15	0.400	"	"	"	"	"	"
Silver	0.0277	0.0200	"	"	"	"	"	"
Zinc	9.01	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **07/01/24 08:46**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHG0063	07/02/24	07/02/24	EPA 7196A	

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

Date Sampled: **07/01/24 08:46**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	11.7	0.0500	mg/L dry	1	BHG0122	07/03/24	07/09/24	EPA 6020B	
Magnesium	2.33	0.0500	"	"	"	"	"	"	
Sodium	2.90	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **07/01/24 08:46**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.203	0.00100	units	1	BHG0209	07/09/24	07/09/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/10/24 09:54

G-13@50'
2407018-01 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **07/01/24 08:46**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	81.2		%	1	BHG0059	07/02/24	07/02/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **07/01/24 08:46**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.0674	0.0100	mmhos/cm	1	BHG0132	07/03/24	07/08/24	EPA 120.1	

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

Date Sampled: **07/01/24 08:46**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.59		pH Units	1	BHG0131	07/03/24	07/08/24	EPA 9045D	

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/10/24 09:54

H-13@55'
2407018-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/01/24 09:41**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHG0100	07/03/24	07/03/24	EPA 8260B	
Toluene	0.024	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.059	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	0.034	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	2.0	0.50	"	"	"	"	"	"	

Date Sampled: **07/01/24 09:41**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0427	107 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0403	101 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0429	107 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/01/24 09:41**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BHG0101	07/03/24	07/04/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **07/01/24 09:41**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	8.86	70.9 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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Reported:
07/10/24 09:54

H-13@55'
2407018-02 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **07/01/24 09:41**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHG0097	07/03/24	07/03/24	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: **07/01/24 09:41**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0182	54.7 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0200	60.1 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **07/01/24 09:41**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHG0065	07/02/24	07/03/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **07/01/24 09:41**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/10/24 09:54

H-13@55'
2407018-02 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	2.06	0.200	mg/kg dry	1	BHG0095	07/03/24	07/04/24	EPA 6020B
Barium	60.3	0.400	"	"	"	"	"	"
Cadmium	0.424	0.200	"	"	"	"	"	"
Copper	8.27	0.400	"	"	"	"	"	"
Lead	15.0	0.200	"	"	"	"	"	"
Nickel	9.05	0.400	"	"	"	"	"	"
Silver	0.0753	0.0200	"	"	"	"	"	"
Zinc	43.0	0.400	"	"	"	"	"	"
Selenium	0.360	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **07/01/24 09:41**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHG0063	07/02/24	07/02/24	EPA 7196A	

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

Date Sampled: **07/01/24 09:41**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	12.2	0.0500	mg/L dry	1	BHG0122	07/03/24	07/09/24	EPA 6020B	
Magnesium	3.31	0.0500	"	"	"	"	"	"	
Sodium	4.06	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **07/01/24 09:41**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.266	0.00100	units	1	BHG0209	07/09/24	07/09/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **07/01/24 09:41**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/10/24 09:54

H-13@55'
2407018-02 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	74.7	%	1	BHG0059	07/02/24	07/02/24	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **07/01/24 09:41**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.0501	0.0100	mmhos/cm	1	BHG0132	07/03/24	07/08/24	EPA 120.1	

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

Date Sampled: **07/01/24 09:41**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.67		pH Units	1	BHG0131	07/03/24	07/08/24	EPA 9045D	

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Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/10/24 09:54

G-15@55'
2407018-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/01/24 10:42**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BHG0100	07/03/24	07/03/24	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: **07/01/24 10:42**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0461	115 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0409	102 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0405	101 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/01/24 10:42**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHG0101	07/03/24	07/04/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **07/01/24 10:42**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	8.21	65.7 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/10/24 09:54

G-15@55'
2407018-03 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **07/01/24 10:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHG0097	07/03/24	07/03/24	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: **07/01/24 10:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0168	50.5 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0191	57.2 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **07/01/24 10:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHG0065	07/02/24	07/03/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **07/01/24 10:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/10/24 09:54

G-15@55'
2407018-03 (Soil)

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Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	2.80	0.200	mg/kg dry	1	BHG0095	07/03/24	07/04/24	EPA 6020B
Barium	73.4	0.400	"	"	"	"	"	"
Cadmium	0.292	0.200	"	"	"	"	"	"
Copper	7.46	0.400	"	"	"	"	"	"
Lead	15.4	0.200	"	"	"	"	"	"
Nickel	6.15	0.400	"	"	"	"	"	"
Silver	0.0876	0.0200	"	"	"	"	"	"
Zinc	37.6	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **07/01/24 10:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHG0063	07/02/24	07/02/24	EPA 7196A	

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

Date Sampled: **07/01/24 10:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	32.6	0.0500	mg/L dry	1	BHG0122	07/03/24	07/09/24	EPA 6020B	
Magnesium	7.16	0.0500	"	"	"	"	"	"	
Sodium	2.28	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **07/01/24 10:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0942	0.00100	units	1	BHG0209	07/09/24	07/09/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **07/01/24 10:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Phillips 66
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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/10/24 09:54

G-15@55'
2407018-03 (Soil)

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Physical Parameters by APHA/ASTM/EPA Methods

% Solids	75.4	%	1	BHG0059	07/02/24	07/02/24	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **07/01/24 10:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.0222	0.0100	mmhos/cm	1	BHG0132	07/03/24	07/08/24	EPA 120.1	

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

Date Sampled: **07/01/24 10:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.00		pH Units	1	BHG0131	07/03/24	07/08/24	EPA 9045D	

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/10/24 09:54

H-12@54'
2407018-04 (Soil)

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Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/01/24 14:52**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BHG0100	07/03/24	07/04/24	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: **07/01/24 14:52**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0401	100 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0400	100 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0381	95.2 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/01/24 14:52**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHG0101	07/03/24	07/04/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **07/01/24 14:52**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	9.36	74.8 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/10/24 09:54

H-12@54'
2407018-04 (Soil)

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PAH by EPA Method 8270D SIM

Date Sampled: **07/01/24 14:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHG0097	07/03/24	07/03/24	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: **07/01/24 14:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0174	52.3 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0207	62.2 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **07/01/24 14:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHG0065	07/02/24	07/03/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **07/01/24 14:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Phillips 66
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Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/10/24 09:54

H-12@54'
2407018-04 (Soil)

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Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	2.27	0.200	mg/kg dry	1	BHG0095	07/03/24	07/04/24	EPA 6020B
Barium	52.9	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	6.86	0.400	"	"	"	"	"	"
Lead	10.4	0.200	"	"	"	"	"	"
Nickel	4.64	0.400	"	"	"	"	"	"
Silver	0.0659	0.0200	"	"	"	"	"	"
Zinc	35.7	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **07/01/24 14:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHG0063	07/02/24	07/02/24	EPA 7196A	

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

Date Sampled: **07/01/24 14:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	3.91	0.0500	mg/L dry	1	BHG0122	07/03/24	07/09/24	EPA 6020B	
Magnesium	1.49	0.0500	"	"	"	"	"	"	
Sodium	2.20	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **07/01/24 14:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.240	0.00100	units	1	BHG0209	07/09/24	07/09/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/10/24 09:54

H-12@54'
2407018-04 (Soil)

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Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **07/01/24 14:52**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	79.9			%	1	BHG0059	07/02/24	07/02/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **07/01/24 14:52**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.0240	0.0100		mmhos/cm	1	BHG0132	07/03/24	07/08/24	EPA 120.1	

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

Date Sampled: **07/01/24 14:52**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	7.28			pH Units	1	BHG0131	07/03/24	07/08/24	EPA 9045D	

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/10/24 09:54

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BHG0100 - EPA 5030 Soil MS

Blank (BHG0100-BLK1)

Prepared & Analyzed: 07/03/24

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	0.0421		"	0.0400		105	50-150				
Surrogate: Toluene-d8	0.0405		"	0.0400		101	50-150				
Surrogate: 4-Bromofluorobenzene	0.0398		"	0.0400		99.4	50-150				

LCS (BHG0100-BS1)

Prepared & Analyzed: 07/03/24

Benzene	0.113	0.0020	mg/kg	0.100		113	70-130				
Toluene	0.111	0.0050	"	0.100		111	70-130				
Ethylbenzene	0.112	0.0050	"	0.100		112	70-130				
m,p-Xylene	0.225	0.010	"	0.200		113	70-130				
o-Xylene	0.105	0.0050	"	0.100		105	70-130				
1,2,4-Trimethylbenzene	0.111	0.0050	"	0.100		111	70-130				
1,3,5-Trimethylbenzene	0.110	0.0050	"	0.100		110	70-130				
Naphthalene	0.113	0.0038	"	0.100		113	70-130				
Surrogate: 1,2-Dichloroethane-d4	0.0394		"	0.0400		98.5	50-150				
Surrogate: Toluene-d8	0.0400		"	0.0400		100	50-150				
Surrogate: 4-Bromofluorobenzene	0.0376		"	0.0400		93.9	50-150				

Matrix Spike (BHG0100-MS1)

Source: 2406467-01

Prepared & Analyzed: 07/03/24

Benzene	0.109	0.0020	mg/kg	0.100	ND	109	70-130				
Toluene	0.107	0.0050	"	0.100	ND	107	70-130				
Ethylbenzene	0.110	0.0050	"	0.100	ND	110	70-130				
m,p-Xylene	0.222	0.010	"	0.200	ND	111	70-130				
o-Xylene	0.102	0.0050	"	0.100	ND	102	70-130				
1,2,4-Trimethylbenzene	0.108	0.0050	"	0.100	ND	108	70-130				
1,3,5-Trimethylbenzene	0.108	0.0050	"	0.100	ND	108	70-130				
Naphthalene	0.109	0.0038	"	0.100	ND	109	70-130				
Surrogate: 1,2-Dichloroethane-d4	0.0396		"	0.0400		99.1	50-150				
Surrogate: Toluene-d8	0.0400		"	0.0400		100	50-150				
Surrogate: 4-Bromofluorobenzene	0.0389		"	0.0400		97.3	50-150				

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/10/24 09:54

Volatile Organic Compounds by EPA Method 8260B - Quality Control

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

Batch BHG0100 - EPA 5030 Soil MS

Matrix Spike Dup (BHG0100-MSD1)	Source: 2406467-01			Prepared & Analyzed: 07/03/24						
Benzene	0.122	0.0020	mg/kg	0.100	ND	122	70-130	11.5	30	
Toluene	0.121	0.0050	"	0.100	ND	121	70-130	12.6	30	
Ethylbenzene	0.116	0.0050	"	0.100	ND	116	70-130	5.86	30	
m,p-Xylene	0.233	0.010	"	0.200	ND	116	70-130	4.79	30	
o-Xylene	0.107	0.0050	"	0.100	ND	107	70-130	4.16	30	
1,2,4-Trimethylbenzene	0.113	0.0050	"	0.100	ND	113	70-130	4.16	30	
1,3,5-Trimethylbenzene	0.113	0.0050	"	0.100	ND	113	70-130	4.50	30	
Naphthalene	0.109	0.0038	"	0.100	ND	109	70-130	0.0276	30	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0430</i>		<i>"</i>	<i>0.0400</i>		<i>108</i>	<i>50-150</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0412</i>		<i>"</i>	<i>0.0400</i>		<i>103</i>	<i>50-150</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0388</i>		<i>"</i>	<i>0.0400</i>		<i>97.1</i>	<i>50-150</i>			

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Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/10/24 09:54

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BHG0101 - EPA 3550A

Blank (BHG0101-BLK1)

Prepared & Analyzed: 07/03/24

C10-C28 (DRO)	ND	50	mg/kg								
C28-C36 (ORO)	ND	50	"								
Surrogate: <i>o</i> -Terphenyl	12.5		"	12.5	99.9	30-150					

LCS (BHG0101-BS1)

Prepared & Analyzed: 07/03/24

C10-C28 (DRO)	475	50	mg/kg	500	94.9	70-130					
Surrogate: <i>o</i> -Terphenyl	12.1		"	12.5	97.1	30-150					

Matrix Spike (BHG0101-MS1)

Source: 2406467-01

Prepared & Analyzed: 07/03/24

C10-C28 (DRO)	442	50	mg/kg	500	4.99	87.4	70-130				
Surrogate: <i>o</i> -Terphenyl	11.0		"	12.5	88.3	30-150					

Matrix Spike Dup (BHG0101-MSD1)

Source: 2406467-01

Prepared & Analyzed: 07/03/24

C10-C28 (DRO)	473	50	mg/kg	500	4.99	93.6	70-130	6.74	20		
Surrogate: <i>o</i> -Terphenyl	11.6		"	12.5	92.8	30-150					

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/10/24 09:54

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BHG0097 - EPA 5030 Soil MS

Blank (BHG0097-BLK1)

Prepared & Analyzed: 07/03/24

Acenaphthene	ND	0.00500	mg/kg							
Anthracene	ND	0.00500	"							
Benzo (a) anthracene	ND	0.00500	"							
Benzo (a) pyrene	ND	0.00500	"							
Benzo (b) fluoranthene	ND	0.00500	"							
Benzo (k) fluoranthene	ND	0.00500	"							
Chrysene	ND	0.00500	"							
Dibenz (a,h) anthracene	ND	0.00500	"							
Fluoranthene	ND	0.00500	"							
Fluorene	ND	0.00500	"							
Indeno (1,2,3-cd) pyrene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
1-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0234</i>		<i>"</i>	<i>0.0333</i>		<i>70.2</i>		<i>40-150</i>		
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0241</i>		<i>"</i>	<i>0.0333</i>		<i>72.3</i>		<i>40-150</i>		

LCS (BHG0097-BS1)

Prepared & Analyzed: 07/03/24

Acenaphthene	0.0257	0.00500	mg/kg	0.0333		77.1		31-137		
Anthracene	0.0256	0.00500	"	0.0333		76.7		30-120		
Benzo (a) anthracene	0.0259	0.00500	"	0.0333		77.6		30-120		
Benzo (a) pyrene	0.0231	0.00500	"	0.0333		69.3		30-120		
Benzo (b) fluoranthene	0.0251	0.00500	"	0.0333		75.4		30-120		
Benzo (k) fluoranthene	0.0261	0.00500	"	0.0333		78.4		30-120		
Chrysene	0.0259	0.00500	"	0.0333		77.8		30-120		
Dibenz (a,h) anthracene	0.0196	0.00500	"	0.0333		58.9		30-120		
Fluoranthene	0.0258	0.00500	"	0.0333		77.4		30-120		
Fluorene	0.0252	0.00500	"	0.0333		75.6		30-120		
Indeno (1,2,3-cd) pyrene	0.0199	0.00500	"	0.0333		59.8		30-120		
Pyrene	0.0287	0.00500	"	0.0333		86.1		35-142		
1-Methylnaphthalene	0.0241	0.00500	"	0.0333		72.3		35-142		
2-Methylnaphthalene	0.0241	0.00500	"	0.0333		72.3		35-142		
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0254</i>		<i>"</i>	<i>0.0333</i>		<i>76.2</i>		<i>40-150</i>		
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0273</i>		<i>"</i>	<i>0.0333</i>		<i>81.8</i>		<i>40-150</i>		

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/10/24 09:54

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BHG0097 - EPA 5030 Soil MS

Matrix Spike (BHG0097-MS1)	Source: 2407018-01			Prepared & Analyzed: 07/03/24						
Acenaphthene	0.0186	0.00500	mg/kg	0.0333	ND	55.7	31-137			
Anthracene	0.0181	0.00500	"	0.0333	ND	54.2	30-120			
Benzo (a) anthracene	0.0186	0.00500	"	0.0333	ND	55.8	30-120			
Benzo (a) pyrene	0.0163	0.00500	"	0.0333	ND	49.0	30-120			
Benzo (b) fluoranthene	0.0176	0.00500	"	0.0333	ND	52.9	30-120			
Benzo (k) fluoranthene	0.0183	0.00500	"	0.0333	ND	54.9	30-120			
Chrysene	0.0183	0.00500	"	0.0333	ND	54.9	30-120			
Dibenz (a,h) anthracene	0.0137	0.00500	"	0.0333	ND	41.1	30-120			
Fluoranthene	0.0182	0.00500	"	0.0333	ND	54.7	30-120			
Fluorene	0.0183	0.00500	"	0.0333	ND	54.9	30-120			
Indeno (1,2,3-cd) pyrene	0.0143	0.00500	"	0.0333	ND	42.9	30-120			
Pyrene	0.0195	0.00500	"	0.0333	ND	58.5	35-142			
1-Methylnaphthalene	0.0171	0.00500	"	0.0333	ND	51.4	15-130			
2-Methylnaphthalene	0.0159	0.00500	"	0.0333	ND	47.7	15-130			
Surrogate: 2-Methylnaphthalene-d10	0.0179		"	0.0333		53.7	40-150			
Surrogate: Fluoranthene-d10	0.0191		"	0.0333		57.2	40-150			

Matrix Spike Dup (BHG0097-MSD1)	Source: 2407018-01			Prepared & Analyzed: 07/03/24						
Acenaphthene	0.0197	0.00500	mg/kg	0.0333	ND	59.0	31-137	5.78	30	
Anthracene	0.0192	0.00500	"	0.0333	ND	57.7	30-120	6.32	30	
Benzo (a) anthracene	0.0198	0.00500	"	0.0333	ND	59.3	30-120	5.95	30	
Benzo (a) pyrene	0.0177	0.00500	"	0.0333	ND	53.0	30-120	7.78	30	
Benzo (b) fluoranthene	0.0184	0.00500	"	0.0333	ND	55.1	30-120	4.06	30	
Benzo (k) fluoranthene	0.0192	0.00500	"	0.0333	ND	57.6	30-120	4.66	30	
Chrysene	0.0194	0.00500	"	0.0333	ND	58.3	30-120	6.02	30	
Dibenz (a,h) anthracene	0.0149	0.00500	"	0.0333	ND	44.8	30-120	8.71	30	
Fluoranthene	0.0195	0.00500	"	0.0333	ND	58.5	30-120	6.75	30	
Fluorene	0.0194	0.00500	"	0.0333	ND	58.3	30-120	5.97	30	
Indeno (1,2,3-cd) pyrene	0.0147	0.00500	"	0.0333	ND	44.2	30-120	3.10	30	
Pyrene	0.0210	0.00500	"	0.0333	ND	63.1	35-142	7.58	30	
1-Methylnaphthalene	0.0177	0.00500	"	0.0333	ND	53.1	15-130	3.18	50	
2-Methylnaphthalene	0.0168	0.00500	"	0.0333	ND	50.5	15-130	5.78	50	
Surrogate: 2-Methylnaphthalene-d10	0.0177		"	0.0333		53.2	40-150			
Surrogate: Fluoranthene-d10	0.0205		"	0.0333		61.6	40-150			

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/10/24 09:54

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

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

Batch BHG0065 - EPA 3050B

Blank (BHG0065-BLK1)

Prepared & Analyzed: 07/02/24

Boron ND 2.00 mg/L

LCS (BHG0065-BS1)

Prepared & Analyzed: 07/02/24

Boron 5.43 2.00 mg/L 5.00 109 80-120

Duplicate (BHG0065-DUP1)

Source: 2406450-01

Prepared & Analyzed: 07/02/24

Boron 0.643 2.00 mg/L 0.577 10.9 20

Matrix Spike (BHG0065-MS1)

Source: 2406450-01

Prepared & Analyzed: 07/02/24

Boron 6.10 2.00 mg/L 5.04 0.577 110 75-125

Matrix Spike Dup (BHG0065-MSD1)

Source: 2406450-01

Prepared & Analyzed: 07/02/24

Boron 6.53 2.00 mg/L 5.04 0.577 118 75-125 6.70 25

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/10/24 09:54

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BHG0095 - EPA 3050B

Blank (BHG0095-BLK1)

Prepared: 07/03/24 Analyzed: 07/04/24

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	"							
Silver	ND	0.0200	"							
Zinc	ND	0.400	"							
Selenium	ND	0.260	"							

LCS (BHG0095-BS1)

Prepared: 07/03/24 Analyzed: 07/04/24

Arsenic	39.1	0.200	mg/kg wet	40.0	97.7	80-120
Barium	40.3	0.400	"	40.0	101	80-120
Cadmium	2.02	0.200	"	2.00	101	80-120
Copper	40.4	0.400	"	40.0	101	80-120
Lead	20.3	0.200	"	20.0	101	80-120
Nickel	39.6	0.400	"	40.0	99.0	80-120
Silver	1.99	0.0200	"	2.00	99.4	80-120
Zinc	39.3	0.400	"	40.0	98.3	80-120
Selenium	3.81	0.260	"	4.00	95.2	80-120

Duplicate (BHG0095-DUP1)

Source: 2407018-01

Prepared: 07/03/24 Analyzed: 07/04/24

Arsenic	1.14	0.200	mg/kg dry	1.02	10.8	20
Barium	79.3	0.400	"	82.5	3.90	20
Cadmium	0.0384	0.200	"	0.0320	18.3	20
Copper	1.10	0.400	"	1.03	6.78	20
Lead	6.13	0.200	"	6.10	0.509	20
Nickel	1.21	0.400	"	1.15	5.11	20
Silver	0.0507	0.0200	"	0.0277	58.8	20
Zinc	9.37	0.400	"	9.01	3.92	20
Selenium	ND	0.260	"	ND		20

QR-01

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/10/24 09:54

Total Metals by EPA 6020B - Quality Control

Summit Scientific

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

Batch BHG0095 - EPA 3050B

Matrix Spike (BHG0095-MS1)

Source: 2407018-01

Prepared: 07/03/24 Analyzed: 07/04/24

Arsenic	37.8	0.200	mg/kg dry	49.2	1.02	74.7	75-125				QM-07
Barium	120	0.400	"	49.2	82.5	76.0	75-125				
Cadmium	2.67	0.200	"	2.46	0.0320	107	75-125				
Copper	38.3	0.400	"	49.2	1.03	75.7	75-125				
Lead	30.9	0.200	"	24.6	6.10	101	75-125				
Nickel	38.4	0.400	"	49.2	1.15	75.7	75-125				
Silver	2.55	0.0200	"	2.46	0.0277	102	75-125				
Zinc	46.4	0.400	"	49.2	9.01	75.8	75-125				
Selenium	4.56	0.260	"	4.92	ND	92.7	75-125				

Matrix Spike Dup (BHG0095-MSD1)

Source: 2407018-01

Prepared: 07/03/24 Analyzed: 07/04/24

Arsenic	44.8	0.200	mg/kg dry	49.2	1.02	88.9	75-125	17.0	25		
Barium	154	0.400	"	49.2	82.5	146	75-125	25.1	25		QM-07
Cadmium	3.43	0.200	"	2.46	0.0320	138	75-125	25.1	25		QM-07
Copper	46.0	0.400	"	49.2	1.03	91.3	75-125	18.3	25		
Lead	39.9	0.200	"	24.6	6.10	137	75-125	25.3	25		QM-07
Nickel	45.8	0.400	"	49.2	1.15	90.6	75-125	17.4	25		
Silver	3.20	0.0200	"	2.46	0.0277	129	75-125	22.7	25		QM-07
Zinc	55.7	0.400	"	49.2	9.01	94.8	75-125	18.3	25		
Selenium	5.73	0.260	"	4.92	ND	116	75-125	22.6	25		

Post Spike (BHG0095-PS1)

Source: 2407018-01

Prepared: 07/03/24 Analyzed: 07/04/24

Arsenic	67.1		ug/l	100	2.07	65.0	75-125				QM-01
Barium	254		"	100	167	87.0	75-125				
Cadmium	4.53		"	5.00	0.0649	89.4	75-125				
Copper	66.6		"	100	2.10	64.5	75-125				QM-01
Lead	56.5		"	50.0	12.4	88.1	75-125				
Nickel	66.0		"	100	2.34	63.6	75-125				QM-01
Silver	4.54		"	5.00	0.0562	89.8	75-125				
Zinc	83.4		"	100	18.3	65.1	75-125				QM-01
Selenium	8.67		"	10.0	0.0436	86.2	75-125				

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/10/24 09:54

Hexavalent Chromium by EPA Method 7196 - Quality Control
Summit Scientific

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

Batch BHG0063 - 3060A Mod

Blank (BHG0063-BLK1)

Prepared & Analyzed: 07/02/24

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BHG0063-BS1)

Prepared & Analyzed: 07/02/24

Chromium, Hexavalent 25.1 0.30 mg/kg wet 25.0 100 80-120

Duplicate (BHG0063-DUP1)

Source: 2406465-01

Prepared & Analyzed: 07/02/24

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BHG0063-MS1)

Source: 2406465-01

Prepared & Analyzed: 07/02/24

Chromium, Hexavalent 26.1 0.30 mg/kg dry 26.6 ND 98.2 75-125

Matrix Spike Dup (BHG0063-MSD1)

Source: 2406465-01

Prepared & Analyzed: 07/02/24

Chromium, Hexavalent 25.9 0.30 mg/kg dry 26.6 ND 97.6 75-125 0.613 20

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/10/24 09:54

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

Summit Scientific

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

Batch BHG0122 - General Preparation

Blank (BHG0122-BLK1)

Prepared: 07/03/24 Analyzed: 07/08/24

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

LCS (BHG0122-BS1)

Prepared: 07/03/24 Analyzed: 07/08/24

Calcium	5.15	0.0500	mg/L wet	5.00		103	70-130			
Magnesium	5.29	0.0500	"	5.00		106	70-130			
Sodium	5.29	0.0500	"	5.00		106	70-130			

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/10/24 09:54

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

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

Batch BHG0059 - General Preparation

Duplicate (BHG0059-DUP1)	Source: 2407010-01			Prepared & Analyzed: 07/02/24								
% Solids	85.4		%		84.3				1.29		20	

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/10/24 09:54

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

Summit Scientific

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

Batch BHG0132 - General Preparation

Blank (BHG0132-BLK1)

Prepared: 07/03/24 Analyzed: 07/08/24

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BHG0132-BS1)

Prepared: 07/03/24 Analyzed: 07/08/24

Specific Conductance (EC) 0.156 0.0100 mmhos/cm 0.150 104 95-105

Duplicate (BHG0132-DUP1)

Source: 2406239-19

Prepared: 07/03/24 Analyzed: 07/08/24

Specific Conductance (EC) 0.0288 0.0100 mmhos/cm 0.0290 0.588 20

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/10/24 09:54

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

Summit Scientific

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

Batch BHG0131 - General Preparation

LCS (BHG0131-BS1)

Prepared: 07/03/24 Analyzed: 07/08/24

pH	9.22	pH Units	9.18	100	95-105
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Duplicate (BHG0131-DUP1)

Source: 2406239-19

Prepared: 07/03/24 Analyzed: 07/08/24

pH	7.43	pH Units	7.55	1.60	20
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Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/10/24 09:54

Notes and Definitions

- QR-01 Analyses are not controlled on RPD values from sample concentrations less than 10 times the reporting limit. QC batch accepted based on LCS and/or LCSD QC results.
- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.
- QM-01 The spike recovery for this QC sample is outside of established control limits due to sample matrix interference.
- 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

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

July 18, 2024

Chandler Cole

Phillips 66

6900 E Layton Ave/ Suite 900

Denver, CO 80237

RE: Four Parmlee (H-6-9) 3/2024

Work Order #2407044

Enclosed are the results of analyses for samples received by Summit Scientific on 07/02/24 17:48. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Natalie Tessier". The signature is written in a cursive, flowing style.

Natalie Tessier For Paul Shrewsbury

President



Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/18/24 13:02

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
H-11@53'	2407044-01	Soil	07/02/24 09:29	07/02/24 17:48
G-12@55'	2407044-02	Soil	07/02/24 11:44	07/02/24 17:48

Client: <u>Tasman</u> <u>DCP/P66</u>	Project Manager: <u>Chandler Cole / Brian Humphrey</u>	Send Invoice To:
Address: <u>6855 W 119th Ave</u>	E-Mail: <u>chandler.e.cole@p66.com</u>	Company: <u>P66</u>
City/State/Zip: <u>Broomfield / CO / 80220</u>	<u>bhumphrey@tasman-geo.com</u>	Project Name/Location: <u>Four Palmlee (H-6-9) 3/2024</u>
Phone: <u>303-487-1228</u>	Project Name: <u>Four Palmlee (H-6-9) 3/2024</u>	AFE#:
Sampler Name: <u>B. Ulrich</u>	Project Number:	PO/Billing Codes:
		Contact: <u>Chandler Cole</u>

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested				Special Instructions	
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other						
1	H-11e 53'	7-2-24	0929	2			X											
2	G-12e 55'	↓	1144	↓			↓											Standard TAT
3																		Standard TAT
4																		
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		
13																		
14																		
15																		

Relinquished by: <u>[Signature]</u>	Date/Time: <u>7-2-24 1559</u>	Received by: <u>Tasman Lockbox</u>	Date/Time: <u>7-2-24</u>	TAT Business Days	Field DO	Notes:
Relinquished by: <u>Tasman Lockbox</u>	Date/Time: <u>7/2/24</u>	Received by: <u>[Signature]</u>	Date/Time: <u>7/2/24</u>	Same Day	Field EC	
	Date/Time: <u>1748</u>		Date/Time: <u>1748</u>	1 Day	Field ORP	
				2 Days	Field pH	
				3 Days	Field Temp.	
Temperature Upon Receipt: <u>8.0</u>	Corrected Temperature: <u>8</u>	IR gun #: <u>1</u>	HNO3 lot #:	Standard	<input checked="" type="checkbox"/> Field Turb.	

S₂

Sample Receipt Checklist

S2 Work Order# 2407044

Client: DGP/PLC

Client Project ID: Four Parmlee (H-6-9) 3/2024

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

-

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

Temp (°C)

Thermometer #

	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"/>	<u>on ice</u>
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 checked="" type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out Completely? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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.

AS
Custodian Printed Name

7/2/24
Date/Time



Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/18/24 13:02

H-11@53'
2407044-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/02/24 09:29**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BHG0102	07/03/24	07/04/24	EPA 8260B	
Toluene	0.0086	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: **07/02/24 09:29**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0458	115 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0410	102 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0410	102 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/02/24 09:29**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHG0103	07/03/24	07/09/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **07/02/24 09:29**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	10.9	87.4 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/18/24 13:02

H-11@53'
2407044-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **07/02/24 09:29**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHG0098	07/03/24	07/04/24	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: **07/02/24 09:29**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0141	42.4 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0180	53.9 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **07/02/24 09:29**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHG0112	07/03/24	07/09/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **07/02/24 09:29**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/18/24 13:02

H-11@53'
2407044-01 (Soil)

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Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	3.38	0.200	mg/kg dry	1	BHG0095	07/03/24	07/04/24	EPA 6020B
Barium	48.5	0.400	"	"	"	"	"	"
Cadmium	0.333	0.200	"	"	"	"	"	"
Copper	7.31	0.400	"	"	"	"	"	"
Lead	16.0	0.200	"	"	"	"	"	"
Nickel	8.98	0.400	"	"	"	"	"	"
Silver	0.173	0.0200	"	"	"	"	"	"
Zinc	37.4	0.400	"	"	"	"	"	"
Selenium	0.362	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **07/02/24 09:29**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHG0108	07/03/24	07/03/24	EPA 7196A	

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

Date Sampled: **07/02/24 09:29**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	27.2	0.0500	mg/L dry	1	BHG0165	07/08/24	07/10/24	EPA 6020B	
Magnesium	8.23	0.0500	"	"	"	"	"	"	
Sodium	8.38	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **07/02/24 09:29**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.361	0.00100	units	1	BHG0295	07/11/24	07/11/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **07/02/24 09:29**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Phillips 66
6900 E Layton Ave/ Suite 900
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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/18/24 13:02

H-11@53'
2407044-01 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	84.6	%	1	BHG0146	07/08/24	07/08/24	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **07/02/24 09:29**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.168	0.0100	mmhos/cm	1	BHG0222	07/09/24	07/09/24	EPA 120.1	

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

Date Sampled: **07/02/24 09:29**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	9.05		pH Units	1	BHG0223	07/09/24	07/09/24	EPA 9045D	

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/18/24 13:02

G-12@55'
2407044-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/02/24 11:44**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BHG0102	07/03/24	07/04/24	EPA 8260B	
Toluene	0.010	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: **07/02/24 11:44**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0484	121 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0424	106 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0400	100 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/02/24 11:44**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHG0103	07/03/24	07/09/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **07/02/24 11:44**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	11.2	89.6 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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Phillips 66
6900 E Layton Ave/ Suite 900
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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/18/24 13:02

G-12@55'
2407044-02 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **07/02/24 11:44**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHG0098	07/03/24	07/04/24	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: **07/02/24 11:44**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0155	46.5 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0219	65.8 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **07/02/24 11:44**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHG0112	07/03/24	07/09/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **07/02/24 11:44**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/18/24 13:02

G-12@55'
2407044-02 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	2.43	0.180	mg/kg dry	1	BHG0095	07/03/24	07/04/24	EPA 6020B	
Barium	39.0	0.360	"	"	"	"	"	"	
Cadmium	0.330	0.180	"	"	"	"	"	"	
Copper	6.66	0.360	"	"	"	"	"	"	
Lead	16.7	0.180	"	"	"	"	"	"	
Nickel	8.05	0.360	"	"	"	"	"	"	
Silver	0.144	0.0180	"	"	"	"	"	"	
Zinc	48.6	0.360	"	"	"	"	"	"	
Selenium	0.494	0.234	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **07/02/24 11:44**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHG0108	07/03/24	07/03/24	EPA 7196A	

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

Date Sampled: **07/02/24 11:44**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	42.5	0.0500	mg/L dry	1	BHG0165	07/08/24	07/10/24	EPA 6020B	
Magnesium	10.6	0.0500	"	"	"	"	"	"	
Sodium	8.52	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **07/02/24 11:44**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.303	0.00100	units	1	BHG0295	07/11/24	07/11/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **07/02/24 11:44**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/18/24 13:02

G-12@55'
2407044-02 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	83.7	%	1	BHG0146	07/08/24	07/08/24	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **07/02/24 11:44**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.158	0.0100	mmhos/cm	1	BHG0222	07/09/24	07/09/24	EPA 120.1	

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

Date Sampled: **07/02/24 11:44**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	9.06		pH Units	1	BHG0223	07/09/24	07/09/24	EPA 9045D	

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/18/24 13:02

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BHG0102 - EPA 5030 Soil MS

Blank (BHG0102-BLK1)

Prepared: 07/03/24 Analyzed: 07/04/24

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	0.0407		"	0.0400		102	50-150				
Surrogate: Toluene-d8	0.0408		"	0.0400		102	50-150				
Surrogate: 4-Bromofluorobenzene	0.0391		"	0.0400		97.6	50-150				

LCS (BHG0102-BS1)

Prepared: 07/03/24 Analyzed: 07/04/24

Benzene	0.106	0.0020	mg/kg	0.100		106	70-130				
Toluene	0.103	0.0050	"	0.100		103	70-130				
Ethylbenzene	0.104	0.0050	"	0.100		104	70-130				
m,p-Xylene	0.213	0.010	"	0.200		106	70-130				
o-Xylene	0.0993	0.0050	"	0.100		99.3	70-130				
1,2,4-Trimethylbenzene	0.100	0.0050	"	0.100		100	70-130				
1,3,5-Trimethylbenzene	0.101	0.0050	"	0.100		101	70-130				
Naphthalene	0.0850	0.0038	"	0.100		85.0	70-130				
Surrogate: 1,2-Dichloroethane-d4	0.0395		"	0.0400		98.8	50-150				
Surrogate: Toluene-d8	0.0402		"	0.0400		101	50-150				
Surrogate: 4-Bromofluorobenzene	0.0376		"	0.0400		94.0	50-150				

Matrix Spike (BHG0102-MS1)

Source: 2407035-01

Prepared: 07/03/24 Analyzed: 07/04/24

Benzene	0.0882	0.0020	mg/kg	0.100	ND	88.2	70-130				
Toluene	0.0862	0.0050	"	0.100	ND	86.2	70-130				
Ethylbenzene	0.0866	0.0050	"	0.100	ND	86.6	70-130				
m,p-Xylene	0.177	0.010	"	0.200	ND	88.3	70-130				
o-Xylene	0.0819	0.0050	"	0.100	ND	81.9	70-130				
1,2,4-Trimethylbenzene	0.0778	0.0050	"	0.100	ND	77.8	70-130				
1,3,5-Trimethylbenzene	0.0794	0.0050	"	0.100	ND	79.4	70-130				
Naphthalene	0.0563	0.0038	"	0.100	ND	56.3	70-130				QM-07
Surrogate: 1,2-Dichloroethane-d4	0.0398		"	0.0400		99.6	50-150				
Surrogate: Toluene-d8	0.0407		"	0.0400		102	50-150				
Surrogate: 4-Bromofluorobenzene	0.0379		"	0.0400		94.8	50-150				

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/18/24 13:02

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BHG0102 - EPA 5030 Soil MS

Matrix Spike Dup (BHG0102-MSD1)	Source: 2407035-01			Prepared: 07/03/24 Analyzed: 07/04/24						
Benzene	0.0850	0.0020	mg/kg	0.100	ND	85.0	70-130	3.64	30	
Toluene	0.0831	0.0050	"	0.100	ND	83.1	70-130	3.76	30	
Ethylbenzene	0.0849	0.0050	"	0.100	ND	84.9	70-130	1.96	30	
m,p-Xylene	0.174	0.010	"	0.200	ND	87.1	70-130	1.32	30	
o-Xylene	0.0803	0.0050	"	0.100	ND	80.3	70-130	1.96	30	
1,2,4-Trimethylbenzene	0.0776	0.0050	"	0.100	ND	77.6	70-130	0.270	30	
1,3,5-Trimethylbenzene	0.0793	0.0050	"	0.100	ND	79.3	70-130	0.113	30	
Naphthalene	0.0612	0.0038	"	0.100	ND	61.2	70-130	8.27	30	QM-07
Surrogate: 1,2-Dichloroethane-d4	0.0411		"	0.0400		103	50-150			
Surrogate: Toluene-d8	0.0407		"	0.0400		102	50-150			
Surrogate: 4-Bromofluorobenzene	0.0382		"	0.0400		95.6	50-150			

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/18/24 13:02

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BHG0103 - EPA 3550A

Blank (BHG0103-BLK1)

Prepared: 07/03/24 Analyzed: 07/10/24

C10-C28 (DRO)	ND	50	mg/kg								
C28-C36 (ORO)	ND	50	"								
Surrogate: <i>o</i> -Terphenyl	13.1		"	12.5		105		30-150			

LCS (BHG0103-BS1)

Prepared: 07/03/24 Analyzed: 07/10/24

C10-C28 (DRO)	523	50	mg/kg	500		105		70-130			
Surrogate: <i>o</i> -Terphenyl	13.7		"	12.5		110		30-150			

Matrix Spike (BHG0103-MS1)

Source: 2407035-01

Prepared: 07/03/24 Analyzed: 07/10/24

C10-C28 (DRO)	470	50	mg/kg	500	32.7	87.5		70-130			
Surrogate: <i>o</i> -Terphenyl	10.8		"	12.5		86.6		30-150			

Matrix Spike Dup (BHG0103-MSD1)

Source: 2407035-01

Prepared: 07/03/24 Analyzed: 07/10/24

C10-C28 (DRO)	575	50	mg/kg	500	32.7	108		70-130	19.9	20	
Surrogate: <i>o</i> -Terphenyl	11.5		"	12.5		91.8		30-150			

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Phillips 66
6900 E Layton Ave/ Suite 900
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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/18/24 13:02

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BHG0098 - EPA 5030 Soil MS

Blank (BHG0098-BLK1)

Prepared & Analyzed: 07/03/24

Acenaphthene	ND	0.00500	mg/kg							
Anthracene	ND	0.00500	"							
Benzo (a) anthracene	ND	0.00500	"							
Benzo (a) pyrene	ND	0.00500	"							
Benzo (b) fluoranthene	ND	0.00500	"							
Benzo (k) fluoranthene	ND	0.00500	"							
Chrysene	ND	0.00500	"							
Dibenz (a,h) anthracene	ND	0.00500	"							
Fluoranthene	ND	0.00500	"							
Fluorene	ND	0.00500	"							
Indeno (1,2,3-cd) pyrene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
1-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0147</i>		<i>"</i>	<i>0.0333</i>		<i>44.2</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0195</i>		<i>"</i>	<i>0.0333</i>		<i>58.5</i>	<i>40-150</i>			

LCS (BHG0098-BS1)

Prepared & Analyzed: 07/03/24

Acenaphthene	0.0219	0.00500	mg/kg	0.0333	65.8	31-137
Anthracene	0.0229	0.00500	"	0.0333	68.6	30-120
Benzo (a) anthracene	0.0236	0.00500	"	0.0333	70.7	30-120
Benzo (a) pyrene	0.0234	0.00500	"	0.0333	70.3	30-120
Benzo (b) fluoranthene	0.0243	0.00500	"	0.0333	72.9	30-120
Benzo (k) fluoranthene	0.0238	0.00500	"	0.0333	71.5	30-120
Chrysene	0.0227	0.00500	"	0.0333	68.1	30-120
Dibenz (a,h) anthracene	0.0185	0.00500	"	0.0333	55.4	30-120
Fluoranthene	0.0238	0.00500	"	0.0333	71.5	30-120
Fluorene	0.0243	0.00500	"	0.0333	73.0	30-120
Indeno (1,2,3-cd) pyrene	0.0190	0.00500	"	0.0333	56.9	30-120
Pyrene	0.0230	0.00500	"	0.0333	68.8	35-142
1-Methylnaphthalene	0.0241	0.00500	"	0.0333	72.4	35-142
2-Methylnaphthalene	0.0243	0.00500	"	0.0333	72.9	35-142
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0256</i>		<i>"</i>	<i>0.0333</i>	<i>76.9</i>	<i>40-150</i>
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0245</i>		<i>"</i>	<i>0.0333</i>	<i>73.5</i>	<i>40-150</i>

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Phillips 66
6900 E Layton Ave/ Suite 900
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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/18/24 13:02

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BHG0098 - EPA 5030 Soil MS

Matrix Spike (BHG0098-MS1)	Source: 2407033-01			Prepared & Analyzed: 07/03/24						
Acenaphthene	0.0167	0.00500	mg/kg	0.0333	ND	50.1	31-137			
Anthracene	0.0185	0.00500	"	0.0333	ND	55.5	30-120			
Benzo (a) anthracene	0.0187	0.00500	"	0.0333	ND	56.1	30-120			
Benzo (a) pyrene	0.0177	0.00500	"	0.0333	ND	53.0	30-120			
Benzo (b) fluoranthene	0.0173	0.00500	"	0.0333	ND	51.8	30-120			
Benzo (k) fluoranthene	0.0161	0.00500	"	0.0333	ND	48.3	30-120			
Chrysene	0.0176	0.00500	"	0.0333	ND	52.8	30-120			
Dibenz (a,h) anthracene	0.0171	0.00500	"	0.0333	ND	51.3	30-120			
Fluoranthene	0.0198	0.00500	"	0.0333	ND	59.5	30-120			
Fluorene	0.0198	0.00500	"	0.0333	ND	59.3	30-120			
Indeno (1,2,3-cd) pyrene	0.0176	0.00500	"	0.0333	ND	52.8	30-120			
Pyrene	0.0190	0.00500	"	0.0333	ND	57.1	35-142			
1-Methylnaphthalene	0.0174	0.00500	"	0.0333	ND	52.3	15-130			
2-Methylnaphthalene	0.0176	0.00500	"	0.0333	ND	52.9	15-130			
Surrogate: 2-Methylnaphthalene-d10	0.0162		"	0.0333		48.7	40-150			
Surrogate: Fluoranthene-d10	0.0199		"	0.0333		59.8	40-150			

Matrix Spike Dup (BHG0098-MSD1)	Source: 2407033-01			Prepared & Analyzed: 07/03/24						
Acenaphthene	0.0162	0.00500	mg/kg	0.0333	ND	48.6	31-137	3.12	30	
Anthracene	0.0169	0.00500	"	0.0333	ND	50.7	30-120	9.17	30	
Benzo (a) anthracene	0.0176	0.00500	"	0.0333	ND	52.9	30-120	5.91	30	
Benzo (a) pyrene	0.0171	0.00500	"	0.0333	ND	51.2	30-120	3.61	30	
Benzo (b) fluoranthene	0.0172	0.00500	"	0.0333	ND	51.5	30-120	0.708	30	
Benzo (k) fluoranthene	0.0156	0.00500	"	0.0333	ND	46.8	30-120	3.22	30	
Chrysene	0.0166	0.00500	"	0.0333	ND	49.9	30-120	5.70	30	
Dibenz (a,h) anthracene	0.0156	0.00500	"	0.0333	ND	46.8	30-120	9.16	30	
Fluoranthene	0.0197	0.00500	"	0.0333	ND	59.1	30-120	0.656	30	
Fluorene	0.0190	0.00500	"	0.0333	ND	57.1	30-120	3.73	30	
Indeno (1,2,3-cd) pyrene	0.0169	0.00500	"	0.0333	ND	50.6	30-120	4.21	30	
Pyrene	0.0182	0.00500	"	0.0333	ND	54.6	35-142	4.47	30	
1-Methylnaphthalene	0.0166	0.00500	"	0.0333	ND	49.9	15-130	4.55	50	
2-Methylnaphthalene	0.0181	0.00500	"	0.0333	ND	54.3	15-130	2.64	50	
Surrogate: 2-Methylnaphthalene-d10	0.0156		"	0.0333		46.7	40-150			
Surrogate: Fluoranthene-d10	0.0191		"	0.0333		57.2	40-150			

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/18/24 13:02

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

Summit Scientific

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

Batch BHG0112 - EPA 3050B

Blank (BHG0112-BLK1)				Prepared: 07/03/24 Analyzed: 07/09/24						
Boron	ND	2.00	mg/L							
LCS (BHG0112-BS1)				Prepared: 07/03/24 Analyzed: 07/09/24						
Boron	4.95	2.00	mg/L	5.00		99.0	80-120			
Duplicate (BHG0112-DUP1)				Source: 2407031-01		Prepared: 07/03/24 Analyzed: 07/09/24				
Boron	0.282	2.00	mg/L		0.337			18.0	20	
Matrix Spike (BHG0112-MS1)				Source: 2407031-01		Prepared: 07/03/24 Analyzed: 07/09/24				
Boron	6.28	2.00	mg/L	5.04	0.337	118	75-125			
Matrix Spike Dup (BHG0112-MSD1)				Source: 2407031-01		Prepared: 07/03/24 Analyzed: 07/09/24				
Boron	6.12	2.00	mg/L	5.04	0.337	115	75-125	2.64	25	

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Phillips 66
6900 E Layton Ave/ Suite 900
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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/18/24 13:02

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BHG0095 - EPA 3050B

Blank (BHG0095-BLK1)

Prepared: 07/03/24 Analyzed: 07/04/24

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	"							
Silver	ND	0.0200	"							
Zinc	ND	0.400	"							
Selenium	ND	0.260	"							

LCS (BHG0095-BS1)

Prepared: 07/03/24 Analyzed: 07/04/24

Arsenic	39.1	0.200	mg/kg wet	40.0		97.7	80-120			
Barium	40.3	0.400	"	40.0		101	80-120			
Cadmium	2.02	0.200	"	2.00		101	80-120			
Copper	40.4	0.400	"	40.0		101	80-120			
Lead	20.3	0.200	"	20.0		101	80-120			
Nickel	39.6	0.400	"	40.0		99.0	80-120			
Silver	1.99	0.0200	"	2.00		99.4	80-120			
Zinc	39.3	0.400	"	40.0		98.3	80-120			
Selenium	3.81	0.260	"	4.00		95.2	80-120			

Duplicate (BHG0095-DUP1)

Source: 2407018-01

Prepared: 07/03/24 Analyzed: 07/04/24

Arsenic	1.14	0.200	mg/kg dry		1.02			10.8	20	
Barium	79.3	0.400	"		82.5			3.90	20	
Cadmium	0.0384	0.200	"		0.0320			18.3	20	
Copper	1.10	0.400	"		1.03			6.78	20	
Lead	6.13	0.200	"		6.10			0.509	20	
Nickel	1.21	0.400	"		1.15			5.11	20	
Silver	0.0507	0.0200	"		0.0277			58.8	20	QR-01
Zinc	9.37	0.400	"		9.01			3.92	20	
Selenium	ND	0.260	"		ND				20	

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/18/24 13:02

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BHG0095 - EPA 3050B

Matrix Spike (BHG0095-MS1)

Source: 2407018-01

Prepared: 07/03/24 Analyzed: 07/04/24

Arsenic	37.8	0.200	mg/kg dry	49.2	1.02	74.7	75-125				QM-07
Barium	120	0.400	"	49.2	82.5	76.0	75-125				
Cadmium	2.67	0.200	"	2.46	0.0320	107	75-125				
Copper	38.3	0.400	"	49.2	1.03	75.7	75-125				
Lead	30.9	0.200	"	24.6	6.10	101	75-125				
Nickel	38.4	0.400	"	49.2	1.15	75.7	75-125				
Silver	2.55	0.0200	"	2.46	0.0277	102	75-125				
Zinc	46.4	0.400	"	49.2	9.01	75.8	75-125				
Selenium	4.56	0.260	"	4.92	ND	92.7	75-125				

Matrix Spike Dup (BHG0095-MSD1)

Source: 2407018-01

Prepared: 07/03/24 Analyzed: 07/04/24

Arsenic	44.8	0.200	mg/kg dry	49.2	1.02	88.9	75-125	17.0	25		
Barium	154	0.400	"	49.2	82.5	146	75-125	25.1	25		QM-07
Cadmium	3.43	0.200	"	2.46	0.0320	138	75-125	25.1	25		QM-07
Copper	46.0	0.400	"	49.2	1.03	91.3	75-125	18.3	25		
Lead	39.9	0.200	"	24.6	6.10	137	75-125	25.3	25		QM-07
Nickel	45.8	0.400	"	49.2	1.15	90.6	75-125	17.4	25		
Silver	3.20	0.0200	"	2.46	0.0277	129	75-125	22.7	25		QM-07
Zinc	55.7	0.400	"	49.2	9.01	94.8	75-125	18.3	25		
Selenium	5.73	0.260	"	4.92	ND	116	75-125	22.6	25		

Post Spike (BHG0095-PS1)

Source: 2407018-01

Prepared: 07/03/24 Analyzed: 07/04/24

Arsenic	67.1		ug/l	100	2.07	65.0	75-125				QM-01
Barium	254		"	100	167	87.0	75-125				
Cadmium	4.53		"	5.00	0.0649	89.4	75-125				
Copper	66.6		"	100	2.10	64.5	75-125				QM-01
Lead	56.5		"	50.0	12.4	88.1	75-125				
Nickel	66.0		"	100	2.34	63.6	75-125				QM-01
Silver	4.54		"	5.00	0.0562	89.8	75-125				
Zinc	83.4		"	100	18.3	65.1	75-125				QM-01
Selenium	8.67		"	10.0	0.0436	86.2	75-125				

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/18/24 13:02

Hexavalent Chromium by EPA Method 7196 - Quality Control
Summit Scientific

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

Batch BHG0108 - 3060A Mod

Blank (BHG0108-BLK1)

Prepared & Analyzed: 07/03/24

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BHG0108-BS1)

Prepared & Analyzed: 07/03/24

Chromium, Hexavalent 26.0 0.30 mg/kg wet 25.0 104 80-120

Duplicate (BHG0108-DUP1)

Source: 2407034-01

Prepared & Analyzed: 07/03/24

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BHG0108-MS1)

Source: 2407034-01

Prepared & Analyzed: 07/03/24

Chromium, Hexavalent 26.7 0.30 mg/kg dry 27.2 ND 98.2 75-125

Matrix Spike Dup (BHG0108-MSD1)

Source: 2407034-01

Prepared & Analyzed: 07/03/24

Chromium, Hexavalent 26.8 0.30 mg/kg dry 27.2 ND 98.4 75-125 0.203 20

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/18/24 13:02

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

Summit Scientific

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

Batch BHG0165 - General Preparation

Blank (BHG0165-BLK1)

Prepared: 07/08/24 Analyzed: 07/10/24

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

LCS (BHG0165-BS1)

Prepared: 07/08/24 Analyzed: 07/10/24

Calcium	4.91	0.0500	mg/L wet	5.00	98.3	70-130				
Magnesium	5.21	0.0500	"	5.00	104	70-130				
Sodium	5.20	0.0500	"	5.00	104	70-130				

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/18/24 13:02

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

Summit Scientific

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

Batch BHG0146 - General Preparation

Duplicate (BHG0146-DUP1)

Source: 2407024-31

Prepared & Analyzed: 07/08/24

% Solids	97.7		%		97.4			0.267		20	
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Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/18/24 13:02

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

Summit Scientific

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

Batch BHG0222 - General Preparation

Blank (BHG0222-BLK1)

Prepared & Analyzed: 07/09/24

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BHG0222-BS1)

Prepared & Analyzed: 07/09/24

Specific Conductance (EC) 0.153 0.0100 mmhos/cm 0.150 102 95-105

Duplicate (BHG0222-DUP1)

Source: 2407043-01

Prepared & Analyzed: 07/09/24

Specific Conductance (EC) 0.256 0.0100 mmhos/cm 0.259 1.44 20

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/18/24 13:02

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

Summit Scientific

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

Batch BHG0223 - General Preparation

LCS (BHG0223-BS1)

Prepared & Analyzed: 07/09/24

pH 9.19 pH Units 9.18 100 95-105

Duplicate (BHG0223-DUP1)

Source: 2407043-01

Prepared & Analyzed: 07/09/24

pH 9.55 pH Units 9.52 0.315 20

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Chandler Cole

Reported:
07/18/24 13:02

Notes and Definitions

- QR-01 Analyses are not controlled on RPD values from sample concentrations less than 10 times the reporting limit. QC batch accepted based on LCS and/or LCSD QC results.
- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.
- QM-01 The spike recovery for this QC sample is outside of established control limits due to sample matrix interference.
- 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

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

July 12, 2024

Brian Humphrey
Phillips 66
6900 E Layton Ave/ Suite 900
Denver, CO 80237

RE: Four Parmlee (H-6-9) 3/2024

Work Order #2407067

Enclosed are the results of analyses for samples received by Summit Scientific on 07/03/24 17:58. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Natalie Tessier For Paul Shrewsbury
President



Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Brian Humphrey

Reported:
07/12/24 08:14

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
F-11@52'	2407067-01	Soil	07/03/24 09:36	07/03/24 17:58
F-12@50'	2407067-02	Soil	07/03/24 10:42	07/03/24 17:58

Client: <u>Tasman</u> <u>Rel/P66</u>		Project Manager: <u>Chandler Cole / Brian Humphrey</u>		Company: <u>P66</u>	
Address: <u>6855 W 119th Ave</u>		E-Mail: <u>chandler.e.cole@p66.com</u>		Project Name/Location: <u>Four Parmlee (H-6-9) 3/2024</u>	
City/State/Zip: <u>Broomfield / CO / 80220</u>		E-Mail: <u>bhumphrey@tasman-geo.com</u>		AFE#:	
Phone: <u>303-487-1228</u>		Project Name: <u>Four Parmlee (H-6-9) 3/2024</u>		PO/Billing Codes:	
Sampler Name: <u>B. Ulrich</u>		Project Number:		Contact: <u>Chandler Cole</u>	

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix			Analysis Requested				Special Instructions
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other				
1	F-11e52'	7-3-24	0936	2			X			X						Standard TAT
2	F-12e50'	↓	1042	↓			↓			↓						Standard TAT
3	F-12e53'	↓	1044	↓			↓			↓				X		ON-HOLD
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																

Relinquished by: <u>[Signature]</u>	Date/Time: <u>7-3-24 1601</u>	Received by: <u>Tasman Lookboy</u>	Date/Time: <u>7-3-24 1601</u>	TAT Business Days	Field DO	Notes: <u>Please, HOLD F-12e53'</u>
Relinquished by: <u>Tasman Lookboy</u>	Date/Time: <u>7324</u>	Received by: <u>[Signature]</u>	Date/Time: <u>7324</u>	Same Day	Field EC	
Relinquished by:	Date/Time: <u>1758</u>	Received by:	Date/Time: <u>1758</u>	1 Day	Field ORP	
Relinquished by:	Date/Time:	Received by:	Date/Time:	2 Days	Field pH	
Relinquished by:	Date/Time:	Received by:	Date/Time:	3 Days	Field Temp.	
Temperature Upon Receipt: <u>10.7</u>	Corrected Temperature: <u>6</u>	IR gun #:		Standard	X Field Turb.	
				HNO3 lot #:		

S₂

Sample Receipt Checklist

S2 Work Order# 2407067

Client: DEP/PLC6

Client Project ID: Four Parmlee (H6-9) 3/2024

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

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

Temp (°C) 10.7

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"/>	once
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 checked="" type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out Completely? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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.

AS
Custodian Printed Name

7/3/24
Date/Time



Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Brian Humphrey

Reported:
07/12/24 08:14

F-11@52'
2407067-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/03/24 09:36**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BHG0181	07/08/24	07/09/24	EPA 8260B	
Toluene	0.0050	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: **07/03/24 09:36**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0327	81.7 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0407	102 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0418	104 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/03/24 09:36**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHG0183	07/08/24	07/11/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **07/03/24 09:36**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	6.60	52.8 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Brian Humphrey

Reported:
07/12/24 08:14

F-11@52'
2407067-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **07/03/24 09:36**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHG0204	07/09/24	07/09/24	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: **07/03/24 09:36**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0205	61.6 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0234	70.2 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **07/03/24 09:36**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHG0166	07/08/24	07/09/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **07/03/24 09:36**

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

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Brian Humphrey

Reported:
07/12/24 08:14

F-11@52'
2407067-01 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	2.48	0.200	mg/kg dry	1	BHG0158	07/08/24	07/09/24	EPA 6020B
Barium	122	0.400	"	"	"	"	"	"
Cadmium	0.991	0.200	"	"	"	"	"	"
Copper	21.8	0.400	"	"	"	"	"	"
Lead	22.9	0.200	"	"	"	"	"	"
Nickel	19.3	0.400	"	"	"	"	"	"
Silver	0.0606	0.0200	"	"	"	"	"	"
Zinc	95.3	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **07/03/24 09:36**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHG0152	07/08/24	07/08/24	EPA 7196A	

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

Date Sampled: **07/03/24 09:36**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	174	0.0500	mg/L dry	1	BHG0169	07/08/24	07/10/24	EPA 6020B	
Magnesium	25.5	0.0500	"	"	"	"	"	"	
Sodium	3.70	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **07/03/24 09:36**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0693	0.00100	units	1	BHG0296	07/11/24	07/11/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **07/03/24 09:36**

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

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Brian Humphrey

Reported:
07/12/24 08:14

F-11@52'
2407067-01 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	79.4	%	1	BHG0146	07/08/24	07/08/24	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **07/03/24 09:36**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.0344	0.0100	mmhos/cm	1	BHG0176	07/08/24	07/09/24	EPA 120.1	

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

Date Sampled: **07/03/24 09:36**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.08		pH Units	1	BHG0175	07/08/24	07/09/24	EPA 9045D	

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Brian Humphrey

Reported:
07/12/24 08:14

F-12@50'
2407067-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/03/24 10:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHG0181	07/08/24	07/09/24	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: **07/03/24 10:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0305	76.2 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0398	99.4 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0421	105 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/03/24 10:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BHG0183	07/08/24	07/11/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **07/03/24 10:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	11.1	88.4 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Brian Humphrey

Reported:
07/12/24 08:14

F-12@50'
2407067-02 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **07/03/24 10:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHG0204	07/09/24	07/09/24	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: **07/03/24 10:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0184	55.1 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0215	64.5 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **07/03/24 10:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHG0166	07/08/24	07/09/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **07/03/24 10:42**

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.



Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Brian Humphrey

Reported:
07/12/24 08:14

F-12@50'
2407067-02 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	4.23	0.200	mg/kg dry	1	BHG0158	07/08/24	07/09/24	EPA 6020B
Barium	133	0.400	"	"	"	"	"	"
Cadmium	ND	0.200	"	"	"	"	"	"
Copper	6.22	0.400	"	"	"	"	"	"
Lead	10.5	0.200	"	"	"	"	"	"
Nickel	3.15	0.400	"	"	"	"	"	"
Silver	0.0238	0.0200	"	"	"	"	"	"
Zinc	37.8	0.400	"	"	"	"	"	"
Selenium	0.327	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **07/03/24 10:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHG0152	07/08/24	07/08/24	EPA 7196A	

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

Date Sampled: **07/03/24 10:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	168	0.0500	mg/L dry	1	BHG0169	07/08/24	07/10/24	EPA 6020B	
Magnesium	36.6	0.0500	"	"	"	"	"	"	
Sodium	3.55	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **07/03/24 10:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0647	0.00100	units	1	BHG0296	07/11/24	07/11/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **07/03/24 10:42**

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

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Brian Humphrey

Reported:
07/12/24 08:14

F-12@50'
2407067-02 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	80.5	%	1	BHG0146	07/08/24	07/08/24	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **07/03/24 10:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.0485	0.0100	mmhos/cm	1	BHG0176	07/08/24	07/09/24	EPA 120.1	

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

Date Sampled: **07/03/24 10:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.14		pH Units	1	BHG0175	07/08/24	07/09/24	EPA 9045D	

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Brian Humphrey

Reported:
07/12/24 08:14

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BHG0181 - EPA 5030 Soil MS

Blank (BHG0181-BLK1)

Prepared & Analyzed: 07/08/24

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	0.0280		"	0.0400		70.0	50-150				
Surrogate: Toluene-d8	0.0392		"	0.0400		98.1	50-150				
Surrogate: 4-Bromofluorobenzene	0.0424		"	0.0400		106	50-150				

LCS (BHG0181-BS1)

Prepared & Analyzed: 07/08/24

Benzene	0.0916	0.0020	mg/kg	0.100		91.6	70-130				
Toluene	0.106	0.0050	"	0.100		106	70-130				
Ethylbenzene	0.108	0.0050	"	0.100		108	70-130				
m,p-Xylene	0.207	0.010	"	0.200		103	70-130				
o-Xylene	0.103	0.0050	"	0.100		103	70-130				
1,2,4-Trimethylbenzene	0.103	0.0050	"	0.100		103	70-130				
1,3,5-Trimethylbenzene	0.105	0.0050	"	0.100		105	70-130				
Naphthalene	0.0781	0.0038	"	0.100		78.1	70-130				
Surrogate: 1,2-Dichloroethane-d4	0.0331		"	0.0400		82.7	50-150				
Surrogate: Toluene-d8	0.0417		"	0.0400		104	50-150				
Surrogate: 4-Bromofluorobenzene	0.0387		"	0.0400		96.8	50-150				

Matrix Spike (BHG0181-MS1)

Source: 2407061-01

Prepared & Analyzed: 07/08/24

Benzene	0.0931	0.0020	mg/kg	0.100	ND	93.1	70-130				
Toluene	0.109	0.0050	"	0.100	ND	109	70-130				
Ethylbenzene	0.106	0.0050	"	0.100	ND	106	70-130				
m,p-Xylene	0.207	0.010	"	0.200	ND	104	70-130				
o-Xylene	0.103	0.0050	"	0.100	ND	103	70-130				
1,2,4-Trimethylbenzene	0.101	0.0050	"	0.100	ND	101	70-130				
1,3,5-Trimethylbenzene	0.102	0.0050	"	0.100	ND	102	70-130				
Naphthalene	0.0834	0.0038	"	0.100	ND	83.4	70-130				
Surrogate: 1,2-Dichloroethane-d4	0.0362		"	0.0400		90.5	50-150				
Surrogate: Toluene-d8	0.0416		"	0.0400		104	50-150				
Surrogate: 4-Bromofluorobenzene	0.0400		"	0.0400		100	50-150				

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Brian Humphrey

Reported:
07/12/24 08:14

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BHG0181 - EPA 5030 Soil MS

Matrix Spike Dup (BHG0181-MSD1)	Source: 2407061-01			Prepared & Analyzed: 07/08/24						
Benzene	0.100	0.0020	mg/kg	0.100	ND	100	70-130	7.63	30	
Toluene	0.117	0.0050	"	0.100	ND	117	70-130	7.16	30	
Ethylbenzene	0.112	0.0050	"	0.100	ND	112	70-130	5.19	30	
m,p-Xylene	0.218	0.010	"	0.200	ND	109	70-130	5.04	30	
o-Xylene	0.108	0.0050	"	0.100	ND	108	70-130	4.40	30	
1,2,4-Trimethylbenzene	0.102	0.0050	"	0.100	ND	102	70-130	1.36	30	
1,3,5-Trimethylbenzene	0.104	0.0050	"	0.100	ND	104	70-130	2.45	30	
Naphthalene	0.0826	0.0038	"	0.100	ND	82.6	70-130	0.976	30	
Surrogate: 1,2-Dichloroethane-d4	0.0336		"	0.0400		84.0	50-150			
Surrogate: Toluene-d8	0.0417		"	0.0400		104	50-150			
Surrogate: 4-Bromofluorobenzene	0.0390		"	0.0400		97.6	50-150			

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Project Number: [none]
Project Manager: Brian Humphrey

Reported:
07/12/24 08:14

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BHG0183 - EPA 3550A

Blank (BHG0183-BLK1)

Prepared: 07/08/24 Analyzed: 07/09/24

C10-C28 (DRO)	ND	50	mg/kg								
C28-C36 (ORO)	ND	50	"								
Surrogate: <i>o</i> -Terphenyl	10.7		"	12.5		85.6	30-150				

LCS (BHG0183-BS1)

Prepared: 07/08/24 Analyzed: 07/10/24

C10-C28 (DRO)	465	50	mg/kg	500		93.1	70-130				
Surrogate: <i>o</i> -Terphenyl	10.2		"	12.5		81.9	30-150				

Matrix Spike (BHG0183-MS1)

Source: 2407061-01

Prepared: 07/08/24 Analyzed: 07/10/24

C10-C28 (DRO)	421	50	mg/kg	500	4.40	83.3	70-130				
Surrogate: <i>o</i> -Terphenyl	7.54		"	12.5		60.4	30-150				

Matrix Spike Dup (BHG0183-MSD1)

Source: 2407061-01

Prepared: 07/08/24 Analyzed: 07/10/24

C10-C28 (DRO)	437	50	mg/kg	500	4.40	86.6	70-130	3.77	20		
Surrogate: <i>o</i> -Terphenyl	7.18		"	12.5		57.4	30-150				

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Project Number: [none]
Project Manager: Brian Humphrey

Reported:
07/12/24 08:14

PAH by EPA Method 8270D SIM - Quality Control

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

Batch BHG0204 - EPA 5030 Soil MS

Blank (BHG0204-BLK1)

Prepared & Analyzed: 07/09/24

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	0.0301		"	0.0333	90.3	40-150				
Surrogate: Fluoranthene-d10	0.0339		"	0.0333	102	40-150				

LCS (BHG0204-BS1)

Prepared & Analyzed: 07/09/24

Acenaphthene	0.0282	0.00500	mg/kg	0.0333	84.7	31-137				
Anthracene	0.0287	0.00500	"	0.0333	86.1	30-120				
Benzo (a) anthracene	0.0303	0.00500	"	0.0333	91.0	30-120				
Benzo (a) pyrene	0.0271	0.00500	"	0.0333	81.2	30-120				
Benzo (b) fluoranthene	0.0276	0.00500	"	0.0333	82.8	30-120				
Benzo (k) fluoranthene	0.0283	0.00500	"	0.0333	85.0	30-120				
Chrysene	0.0298	0.00500	"	0.0333	89.3	30-120				
Dibenz (a,h) anthracene	0.0258	0.00500	"	0.0333	77.5	30-120				
Fluoranthene	0.0297	0.00500	"	0.0333	89.2	30-120				
Fluorene	0.0287	0.00500	"	0.0333	86.0	30-120				
Indeno (1,2,3-cd) pyrene	0.0166	0.00500	"	0.0333	49.9	30-120				
Pyrene	0.0330	0.00500	"	0.0333	98.9	35-142				
1-Methylnaphthalene	0.0287	0.00500	"	0.0333	86.2	35-142				
2-Methylnaphthalene	0.0263	0.00500	"	0.0333	79.0	35-142				
Surrogate: 2-Methylnaphthalene-d10	0.0268		"	0.0333	80.4	40-150				
Surrogate: Fluoranthene-d10	0.0316		"	0.0333	94.7	40-150				

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Brian Humphrey

Reported:
07/12/24 08:14

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BHG0204 - EPA 5030 Soil MS

Matrix Spike (BHG0204-MS1)	Source: 2407067-01			Prepared & Analyzed: 07/09/24						
Acenaphthene	0.0260	0.00500	mg/kg	0.0333	ND	77.9	31-137			
Anthracene	0.0267	0.00500	"	0.0333	ND	80.0	30-120			
Benzo (a) anthracene	0.0290	0.00500	"	0.0333	ND	86.9	30-120			
Benzo (a) pyrene	0.0251	0.00500	"	0.0333	ND	75.3	30-120			
Benzo (b) fluoranthene	0.0254	0.00500	"	0.0333	ND	76.2	30-120			
Benzo (k) fluoranthene	0.0242	0.00500	"	0.0333	ND	72.5	30-120			
Chrysene	0.0272	0.00500	"	0.0333	ND	81.7	30-120			
Dibenz (a,h) anthracene	0.0231	0.00500	"	0.0333	ND	69.2	30-120			
Fluoranthene	0.0325	0.00500	"	0.0333	ND	97.5	30-120			
Fluorene	0.0263	0.00500	"	0.0333	ND	78.9	30-120			
Indeno (1,2,3-cd) pyrene	0.0164	0.00500	"	0.0333	ND	49.2	30-120			
Pyrene	0.0325	0.00500	"	0.0333	ND	97.6	35-142			
1-Methylnaphthalene	0.0271	0.00500	"	0.0333	ND	81.2	15-130			
2-Methylnaphthalene	0.0246	0.00500	"	0.0333	ND	73.8	15-130			
Surrogate: 2-Methylnaphthalene-d10	0.0266		"	0.0333		79.7	40-150			
Surrogate: Fluoranthene-d10	0.0272		"	0.0333		81.6	40-150			

Matrix Spike Dup (BHG0204-MSD1)	Source: 2407067-01			Prepared & Analyzed: 07/09/24						
Acenaphthene	0.0249	0.00500	mg/kg	0.0333	ND	74.8	31-137	4.14	30	
Anthracene	0.0258	0.00500	"	0.0333	ND	77.4	30-120	3.27	30	
Benzo (a) anthracene	0.0282	0.00500	"	0.0333	ND	84.7	30-120	2.54	30	
Benzo (a) pyrene	0.0247	0.00500	"	0.0333	ND	74.1	30-120	1.59	30	
Benzo (b) fluoranthene	0.0252	0.00500	"	0.0333	ND	75.6	30-120	0.737	30	
Benzo (k) fluoranthene	0.0228	0.00500	"	0.0333	ND	68.5	30-120	5.61	30	
Chrysene	0.0265	0.00500	"	0.0333	ND	79.4	30-120	2.81	30	
Dibenz (a,h) anthracene	0.0217	0.00500	"	0.0333	ND	65.1	30-120	6.08	30	
Fluoranthene	0.0336	0.00500	"	0.0333	ND	101	30-120	3.46	30	
Fluorene	0.0256	0.00500	"	0.0333	ND	76.8	30-120	2.79	30	
Indeno (1,2,3-cd) pyrene	0.0156	0.00500	"	0.0333	ND	46.7	30-120	5.15	30	
Pyrene	0.0325	0.00500	"	0.0333	ND	97.6	35-142	0.0717	30	
1-Methylnaphthalene	0.0259	0.00500	"	0.0333	ND	77.8	15-130	4.31	50	
2-Methylnaphthalene	0.0247	0.00500	"	0.0333	ND	74.2	15-130	0.590	50	
Surrogate: 2-Methylnaphthalene-d10	0.0250		"	0.0333		75.1	40-150			
Surrogate: Fluoranthene-d10	0.0270		"	0.0333		80.9	40-150			

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Brian Humphrey

Reported:
07/12/24 08:14

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

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

Batch BHG0166 - EPA 3050B

Blank (BHG0166-BLK1)				Prepared: 07/08/24 Analyzed: 07/09/24						
Boron	ND	2.00	mg/L							
LCS (BHG0166-BS1)				Prepared: 07/08/24 Analyzed: 07/09/24						
Boron	4.95	2.00	mg/L	5.00	0.357	99.1	80-120			
Duplicate (BHG0166-DUP1)				Source: 2407016-01 Prepared: 07/08/24 Analyzed: 07/09/24						
Boron	0.520	2.00	mg/L		0.357			37.2	20	QR-02
Matrix Spike (BHG0166-MS1)				Source: 2407016-01 Prepared: 07/08/24 Analyzed: 07/09/24						
Boron	6.40	2.00	mg/L	5.05	0.357	120	75-125			
Matrix Spike Dup (BHG0166-MSD1)				Source: 2407016-01 Prepared: 07/08/24 Analyzed: 07/09/24						
Boron	6.10	2.00	mg/L	5.05	0.357	114	75-125	4.69	25	

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Brian Humphrey

Reported:
07/12/24 08:14

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BHG0158 - EPA 3050B

Blank (BHG0158-BLK1)

Prepared: 07/08/24 Analyzed: 07/09/24

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	"							
Silver	ND	0.0200	"							
Zinc	ND	0.400	"							
Selenium	ND	0.260	"							

LCS (BHG0158-BS1)

Prepared: 07/08/24 Analyzed: 07/09/24

Arsenic	37.3	0.200	mg/kg wet	40.0		93.2	80-120
Barium	35.9	0.400	"	40.0		89.6	80-120
Cadmium	1.77	0.200	"	2.00		88.5	80-120
Copper	33.5	0.400	"	40.0		83.7	80-120
Lead	17.7	0.200	"	20.0		88.6	80-120
Nickel	33.3	0.400	"	40.0		83.3	80-120
Silver	1.76	0.0200	"	2.00		88.1	80-120
Zinc	33.7	0.400	"	40.0		84.3	80-120
Selenium	3.52	0.260	"	4.00		87.9	80-120

Duplicate (BHG0158-DUP1)

Source: 2407025-01

Prepared: 07/08/24 Analyzed: 07/09/24

Arsenic	1.05	0.200	mg/kg dry	1.07		2.17	20
Barium	34.8	0.400	"	33.2		4.92	20
Cadmium	0.0907	0.200	"	0.0816		10.6	20
Copper	3.09	0.400	"	3.01		2.68	20
Lead	3.67	0.200	"	3.28		11.2	20
Nickel	2.44	0.400	"	2.41		0.898	20
Silver	0.0105	0.0200	"	0.0113		7.88	20
Zinc	11.3	0.400	"	10.8		4.59	20
Selenium	ND	0.260	"	ND			20

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Brian Humphrey

Reported:
07/12/24 08:14

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BHG0158 - EPA 3050B

Matrix Spike (BHG0158-MS1)

Source: 2407025-01

Prepared: 07/08/24 Analyzed: 07/09/24

Arsenic	31.3	0.200	mg/kg dry	38.5	1.07	78.6	75-125			
Barium	84.3	0.400	"	38.5	33.2	133	75-125			QM-07
Cadmium	2.11	0.200	"	1.92	0.0816	106	75-125			
Copper	40.4	0.400	"	38.5	3.01	97.2	75-125			
Lead	23.2	0.200	"	19.2	3.28	103	75-125			
Nickel	40.2	0.400	"	38.5	2.41	98.1	75-125			
Silver	1.91	0.0200	"	1.92	0.0113	98.7	75-125			
Zinc	49.9	0.400	"	38.5	10.8	102	75-125			
Selenium	3.40	0.260	"	3.85	ND	88.4	75-125			

Matrix Spike Dup (BHG0158-MSD1)

Source: 2407025-01

Prepared: 07/08/24 Analyzed: 07/09/24

Arsenic	32.4	0.200	mg/kg dry	39.0	1.07	80.3	75-125	3.44	25	
Barium	85.5	0.400	"	39.0	33.2	134	75-125	1.38	25	QM-07
Cadmium	2.16	0.200	"	1.95	0.0816	107	75-125	2.45	25	
Copper	40.4	0.400	"	39.0	3.01	95.7	75-125	0.0187	25	
Lead	23.9	0.200	"	19.5	3.28	105	75-125	2.97	25	
Nickel	40.2	0.400	"	39.0	2.41	96.9	75-125	0.200	25	
Silver	2.15	0.0200	"	1.95	0.0113	109	75-125	11.8	25	
Zinc	49.6	0.400	"	39.0	10.8	99.5	75-125	0.591	25	
Selenium	3.52	0.260	"	3.90	ND	90.2	75-125	3.49	25	

Post Spike (BHG0158-PS1)

Source: 2407025-01

Prepared: 07/08/24 Analyzed: 07/09/24

Arsenic	86.4		ug/l	100	2.54	83.9	75-125			
Barium	196		"	100	78.7	117	75-125			
Cadmium	5.26		"	5.00	0.194	101	75-125			
Copper	104		"	100	7.14	96.7	75-125			
Lead	57.6		"	50.0	7.79	99.7	75-125			
Nickel	103		"	100	5.73	96.8	75-125			
Silver	4.96		"	5.00	0.0269	98.6	75-125			
Zinc	126		"	100	25.6	101	75-125			
Selenium	8.66		"	10.0	0.104	85.6	75-125			

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Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Brian Humphrey

Reported:
07/12/24 08:14

Hexavalent Chromium by EPA Method 7196 - Quality Control
Summit Scientific

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

Batch BHG0152 - 3060A Mod

Blank (BHG0152-BLK1)

Prepared & Analyzed: 07/08/24

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BHG0152-BS1)

Prepared & Analyzed: 07/08/24

Chromium, Hexavalent 25.6 0.30 mg/kg wet 25.0 103 80-120

Duplicate (BHG0152-DUP1)

Source: 2407016-01

Prepared & Analyzed: 07/08/24

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BHG0152-MS1)

Source: 2407016-01

Prepared & Analyzed: 07/08/24

Chromium, Hexavalent 27.2 0.30 mg/kg dry 26.8 ND 101 75-125

Matrix Spike Dup (BHG0152-MSD1)

Source: 2407016-01

Prepared & Analyzed: 07/08/24

Chromium, Hexavalent 27.4 0.30 mg/kg dry 26.8 ND 102 75-125 0.590 20

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Brian Humphrey

Reported:
07/12/24 08:14

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

Summit Scientific

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

Batch BHG0169 - General Preparation

Blank (BHG0169-BLK1)

Prepared: 07/08/24 Analyzed: 07/10/24

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

LCS (BHG0169-BS1)

Prepared: 07/08/24 Analyzed: 07/10/24

Calcium	6.07	0.0500	mg/L wet	5.00	121	70-130				
Magnesium	5.35	0.0500	"	5.00	107	70-130				
Sodium	5.56	0.0500	"	5.00	111	70-130				

Summit Scientific

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6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Brian Humphrey

Reported:
07/12/24 08:14

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

Summit Scientific

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

Batch BHG0146 - General Preparation

Duplicate (BHG0146-DUP1)

Source: 2407024-31

Prepared & Analyzed: 07/08/24

% Solids	97.7		%		97.4			0.267		20	
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Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Brian Humphrey

Reported:
07/12/24 08:14

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

Summit Scientific

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

Batch BHG0176 - General Preparation

Blank (BHG0176-BLK1)

Prepared: 07/08/24 Analyzed: 07/09/24

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BHG0176-BS1)

Prepared: 07/08/24 Analyzed: 07/09/24

Specific Conductance (EC) 0.150 0.0100 mmhos/cm 0.150 100 95-105

Duplicate (BHG0176-DUP1)

Source: 2407061-01

Prepared: 07/08/24 Analyzed: 07/09/24

Specific Conductance (EC) 0.179 0.0100 mmhos/cm 0.181 1.33 20

Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Brian Humphrey

Reported:
07/12/24 08:14

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

Summit Scientific

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

Batch BHG0175 - General Preparation

LCS (BHG0175-BS1)

Prepared: 07/08/24 Analyzed: 07/09/24

pH	9.18	pH Units	9.18	100	95-105
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Duplicate (BHG0175-DUP1)

Source: 2407061-01

Prepared: 07/08/24 Analyzed: 07/09/24

pH	9.10	pH Units	9.17	0.766	20
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Summit Scientific

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Phillips 66
6900 E Layton Ave/ Suite 900
Denver CO, 80237

Project: Four Parmlee (H-6-9) 3/2024

Project Number: [none]
Project Manager: Brian Humphrey

Reported:
07/12/24 08:14

Notes and Definitions

- QR-02 The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.
- 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