

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

May 13, 2022

J Galles

K.P. Kauffman

1675 Broadway

Denver, CO 80202

RE: Facility #4 AE2

Work Order #2204436

Enclosed are the results of analyses for samples received by Summit Scientific on 04/28/22 15:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Paul Shrewsbury

President



K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SW-1@7'	2204436-01	Soil	04/28/22 10:25	04/28/22 15:00
SW-2@7'	2204436-02	Soil	04/28/22 10:30	04/28/22 15:00
SW-3@7'	2204436-03	Soil	04/28/22 10:35	04/28/22 15:00
SW-4@7'	2204436-04	Soil	04/28/22 10:40	04/28/22 15:00
SW-5@7'	2204436-05	Soil	04/28/22 10:45	04/28/22 15:00
SW-6@7'	2204436-06	Soil	04/28/22 10:50	04/28/22 15:00
BH-1@8'	2204436-07	Soil	04/28/22 10:55	04/28/22 15:00
BH-2@8'	2204436-08	Soil	04/28/22 11:00	04/28/22 15:00

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S₂

2204436.1

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

Page 1 of 2

Client: K.P. Kauffman/ Marcom

Project Manager: Jen Galles

Address: 1675 Broadway

E-Mail: primarycontractor@marcomllc.net

City/State/Zip: Denver, CO 80202

Phone: 303.825.4822

Project Name: KPK - Facility #4 AE2

Sampler Name: LK + BR + HC

Project Number: KPK - Facility #4 AE2

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested						Special Instructions														
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	Full Table 915																				
1	SW-1@7'	4-28-22	10:25	3			X			X				X																			
2	SW-2@7'		10:30																														
3	SW-3@7'		LK 10:40		10:35																												
4	SW-4@7'		LK 10:45		10:40																												
5	SW-4 SW-5@7'		LK 10:50		10:45																												
6	SW-6@7'		LK 10:55		10:50																												
7	BH-1@8'				10:55																												
8	BH-2@8'				11:00																												
9																																	
10																																	

Relinquished by: <u>Jim Kelly</u>	Date/Time: <u>4-28-22 12:40</u>	Received by: <u>[Signature]</u>	Date/Time: <u>4/28/22 1500</u>	Turn Around Time (Check) Same Day <input type="checkbox"/> 72 hours 24 hours <input type="checkbox"/> Standard <input checked="" type="checkbox"/> 48 hours <input type="checkbox"/> Sample Integrity: Temperature Upon Receipt: <u>5.9</u> Samples Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Notes:
Relinquished by:	Date/Time:	Received by:	Date/Time:		
Relinquished by:	Date/Time:	Received by:	Date/Time:		

S₂

2/2

2204436

Sample Receipt Checklist

S2 Work Order# _____

Client: Kp Kauffman Client Project ID: Kpk-Facility#4AEZ

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.	-			on ICE
Were all samples received intact ⁽¹⁾ ?	-			
Was adequate sample volume provided ⁽¹⁾ ?	-			
If custody seals are present, are they intact ⁽¹⁾ ?	-			
Are samples due within 48 hours present?	-			24 hrs
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⁾ ?	-			
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⁾ ?	-			
Is the COC properly relinquished by the client w/ date and time recorded ⁽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 pH in Comments.			-	
If dissolved metals are requested, were samples field filtered?			-	

Additional Comments (if any):

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


Custodian Printed Name

4-28-22
Date/Time



K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

SW-1@7'
2204436-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/28/22 10:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BFE0009	05/02/22	05/03/22	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **04/28/22 10:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0356	89.0 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0387	96.8 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0364	91.0 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/28/22 10:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BFE0010	05/02/22	05/03/22	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **04/28/22 10:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	10.3	82.7 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

SW-1@7'
2204436-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **04/28/22 10:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFD0641	04/29/22	05/03/22	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	"
Benzo (a) anthracene	0.00532	0.00500	"	"	"	"	"	"	"
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	"
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	"
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	"
Chrysene	0.00600	0.00500	"	"	"	"	"	"	"
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	"
Fluoranthene	0.0104	0.00500	"	"	"	"	"	"	"
Fluorene	ND	0.00500	"	"	"	"	"	"	"
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	"
Pyrene	0.0147	0.00500	"	"	"	"	"	"	"
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	"
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	"

Date Sampled: **04/28/22 10:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0197	59.0 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0163	48.9 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/28/22 10:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.325	0.0100	mg/L	1	BFE0052	05/03/22	05/12/22	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/28/22 10:25**

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

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

SW-1@7'
2204436-01 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	3.74	0.235	mg/kg dry	1	BFE0027	05/02/22	05/12/22	EPA 6020B	
Barium	127	0.471	"	"	"	"	"	"	
Cadmium	ND	0.235	"	"	"	"	"	"	
Copper	12.4	0.471	"	"	"	"	"	"	
Lead	8.93	0.235	"	"	"	"	"	"	
Nickel	13.6	0.471	"	"	"	"	"	"	
Selenium	0.789	0.306	"	"	"	"	"	"	
Silver	0.0450	0.0235	"	"	"	"	"	"	
Zinc	46.1	0.471	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/28/22 10:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BFE0201	05/10/22	05/10/22	EPA 7196A	

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

Date Sampled: **04/28/22 10:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	13.8	0.0589	mg/L dry	1	BFE0150	05/08/22	05/12/22	EPA 6020B	
Magnesium	2.91	0.0589	"	"	"	"	"	"	
Sodium	1.38	0.0589	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/28/22 10:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0881	0.00100	units	1	BFE0267	05/13/22	05/13/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/28/22 10:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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K.P. Kauffman
1675 Broadway
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Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

SW-1@7'
2204436-01 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	84.9	%	1	BFE0030	05/02/22	05/03/22	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/28/22 10:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.23	0.0100	mmhos/cm	1	BFE0153	05/08/22	05/09/22	EPA 120.1	

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

Date Sampled: **04/28/22 10:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.10		pH Units	1	BFE0154	05/08/22	05/09/22	EPA 9045D	

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1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

SW-2@7'
2204436-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/28/22 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFE0009	05/02/22	05/03/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **04/28/22 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0347	86.7 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0385	96.3 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0356	89.1 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/28/22 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BFE0010	05/02/22	05/03/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **04/28/22 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	12.3	98.6 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

SW-2@7'
2204436-02 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **04/28/22 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFD0641	04/29/22	05/03/22	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **04/28/22 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0239	71.6 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0208	62.5 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/28/22 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.418	0.0100	mg/L	1	BFE0052	05/03/22	05/12/22	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/28/22 10:30**

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

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

SW-2@7'
2204436-02 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	5.12	0.237	mg/kg dry	1	BFE0027	05/02/22	05/12/22	EPA 6020B	
Barium	70.7	0.474	"	"	"	"	"	"	
Cadmium	ND	0.237	"	"	"	"	"	"	
Copper	13.3	0.474	"	"	"	"	"	"	
Lead	10.6	0.237	"	"	"	"	"	"	
Nickel	13.9	0.474	"	"	"	"	"	"	
Selenium	0.738	0.308	"	"	"	"	"	"	
Silver	0.0504	0.0237	"	"	"	"	"	"	
Zinc	50.2	0.474	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/28/22 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BFE0201	05/10/22	05/10/22	EPA 7196A	

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

Date Sampled: **04/28/22 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	8.13	0.0592	mg/L dry	1	BFE0150	05/08/22	05/12/22	EPA 6020B	
Magnesium	2.06	0.0592	"	"	"	"	"	"	
Sodium	2.36	0.0592	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/28/22 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.191	0.00100	units	1	BFE0267	05/13/22	05/13/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/28/22 10:30**

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

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

SW-2@7'
2204436-02 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	84.4	%	1	BFE0030	05/02/22	05/03/22	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/28/22 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	2.23	0.0100	mmhos/cm	1	BFE0153	05/08/22	05/09/22	EPA 120.1	

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

Date Sampled: **04/28/22 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.93		pH Units	1	BFE0154	05/08/22	05/09/22	EPA 9045D	

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

SW-3@7'
2204436-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/28/22 10:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFE0009	05/02/22	05/03/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **04/28/22 10:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0358	89.4 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0388	97.0 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0364	91.0 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/28/22 10:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BFE0010	05/02/22	05/03/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **04/28/22 10:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	10.6	84.6 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

SW-3@7'
2204436-03 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **04/28/22 10:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFD0641	04/29/22	05/03/22	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **04/28/22 10:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0186	55.8 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0155	46.5 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/28/22 10:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.328	0.0100	mg/L	1	BFE0052	05/03/22	05/12/22	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/28/22 10:35**

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

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

SW-3@7'
2204436-03 (Soil)

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Total Metals by EPA 6020B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	4.19	0.225	mg/kg dry	1	BFE0027	05/02/22	05/12/22	EPA 6020B	
Barium	437	0.451	"	"	"	"	"	"	
Cadmium	0.258	0.225	"	"	"	"	"	"	
Copper	13.0	0.451	"	"	"	"	"	"	
Lead	9.86	0.225	"	"	"	"	"	"	
Nickel	13.1	0.451	"	"	"	"	"	"	
Selenium	0.818	0.293	"	"	"	"	"	"	
Silver	0.0400	0.0225	"	"	"	"	"	"	
Zinc	50.2	0.451	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/28/22 10:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BFE0201	05/10/22	05/10/22	EPA 7196A	

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

Date Sampled: **04/28/22 10:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	7.42	0.0563	mg/L dry	1	BFE0150	05/08/22	05/12/22	EPA 6020B	
Magnesium	1.83	0.0563	"	"	"	"	"	"	
Sodium	4.28	0.0563	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/28/22 10:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.365	0.00100	units	1	BFE0267	05/13/22	05/13/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/28/22 10:35**

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

Project: Facility #4 AE2

Project Number: [none]
 Project Manager: J Galles

Reported:
 05/13/22 09:25

SW-3@7'
2204436-03 (Soil)

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Physical Parameters by APHA/ASTM/EPA Methods

% Solids	88.8	%	1	BFE0030	05/02/22	05/03/22	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/28/22 10:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.44	0.0100	mmhos/cm	1	BFE0153	05/08/22	05/09/22	EPA 120.1	

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

Date Sampled: **04/28/22 10:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.32		pH Units	1	BFE0154	05/08/22	05/09/22	EPA 9045D	

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1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

SW-4@7'
2204436-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/28/22 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFE0009	05/02/22	05/03/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **04/28/22 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0349	87.2 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0385	96.3 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0362	90.4 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/28/22 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BFE0010	05/02/22	05/03/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **04/28/22 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	13.2	106 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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K.P. Kauffman
1675 Broadway
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Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

SW-4@7'
2204436-04 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **04/28/22 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFD0641	04/29/22	05/03/22	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	"
Benzo (a) anthracene	0.00594	0.00500	"	"	"	"	"	"	"
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	"
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	"
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	"
Chrysene	0.00546	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: **04/28/22 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0238	71.5 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0205	61.6 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/28/22 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.290	0.0100	mg/L	1	BFE0052	05/03/22	05/12/22	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/28/22 10:40**

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

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

SW-4@7'
2204436-04 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	4.65	0.229	mg/kg dry	1	BFE0027	05/02/22	05/12/22	EPA 6020B	
Barium	142	0.458	"	"	"	"	"	"	
Cadmium	ND	0.229	"	"	"	"	"	"	
Copper	14.0	0.458	"	"	"	"	"	"	
Lead	9.92	0.229	"	"	"	"	"	"	
Nickel	15.1	0.458	"	"	"	"	"	"	
Selenium	0.901	0.298	"	"	"	"	"	"	
Silver	0.0527	0.0229	"	"	"	"	"	"	
Zinc	51.3	0.458	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/28/22 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BFE0201	05/10/22	05/10/22	EPA 7196A	

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

Date Sampled: **04/28/22 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	14.7	0.0572	mg/L dry	1	BFE0150	05/08/22	05/12/22	EPA 6020B	
Magnesium	3.77	0.0572	"	"	"	"	"	"	
Sodium	9.31	0.0572	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/28/22 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.561	0.00100	units	1	BFE0267	05/13/22	05/13/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/28/22 10:40**

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

Project: Facility #4 AE2

Project Number: [none]
 Project Manager: J Galles

Reported:
 05/13/22 09:25

SW-4@7'
2204436-04 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	87.4	%	1	BFE0030	05/02/22	05/03/22	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/28/22 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	2.67	0.0100	mmhos/cm	1	BFE0153	05/08/22	05/09/22	EPA 120.1	

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

Date Sampled: **04/28/22 10:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.04		pH Units	1	BFE0154	05/08/22	05/09/22	EPA 9045D	

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1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

SW-5@7'
2204436-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/28/22 10:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFE0009	05/02/22	05/03/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **04/28/22 10:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0348	86.9 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0388	97.0 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0366	91.6 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/28/22 10:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BFE0010	05/02/22	05/03/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **04/28/22 10:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	12.4	98.9 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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1675 Broadway
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Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

SW-5@7'
2204436-05 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **04/28/22 10:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFD0641	04/29/22	05/03/22	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **04/28/22 10:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0209	62.6 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0192	57.5 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/28/22 10:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.320	0.0100	mg/L	1	BFE0052	05/03/22	05/12/22	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/28/22 10:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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1675 Broadway
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Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

SW-5@7'
2204436-05 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	3.09	0.233	mg/kg dry	1	BFE0027	05/02/22	05/12/22	EPA 6020B	
Barium	112	0.466	"	"	"	"	"	"	
Cadmium	16.5	0.233	"	"	"	"	"	"	
Copper	12.6	0.466	"	"	"	"	"	"	
Lead	12.3	0.233	"	"	"	"	"	"	
Nickel	13.6	0.466	"	"	"	"	"	"	
Selenium	0.765	0.303	"	"	"	"	"	"	
Silver	2.39	0.0233	"	"	"	"	"	"	
Zinc	50.2	0.466	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/28/22 10:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BFE0201	05/10/22	05/10/22	EPA 7196A	

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

Date Sampled: **04/28/22 10:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	9.59	0.0582	mg/L dry	1	BFE0150	05/08/22	05/12/22	EPA 6020B	
Magnesium	3.85	0.0582	"	"	"	"	"	"	
Sodium	9.77	0.0582	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/28/22 10:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.674	0.00100	units	1	BFE0267	05/13/22	05/13/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/28/22 10:45**

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

Project: Facility #4 AE2

Project Number: [none]
 Project Manager: J Galles

Reported:
 05/13/22 09:25

SW-5@7'
2204436-05 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	85.9	%	1	BFE0030	05/02/22	05/03/22	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/28/22 10:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	3.24	0.0100	mmhos/cm	1	BFE0153	05/08/22	05/09/22	EPA 120.1	

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

Date Sampled: **04/28/22 10:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.97		pH Units	1	BFE0154	05/08/22	05/09/22	EPA 9045D	

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

SW-6@7'
2204436-06 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/28/22 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFE0009	05/02/22	05/03/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **04/28/22 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0361	90.3 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0393	98.2 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0365	91.2 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/28/22 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BFE0010	05/02/22	05/03/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **04/28/22 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	13.4	107 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

SW-6@7'
2204436-06 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **04/28/22 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFD0641	04/29/22	05/03/22	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **04/28/22 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0201	60.4 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0166	49.8 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/28/22 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.647	0.0100	mg/L	1	BFE0052	05/03/22	05/12/22	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/28/22 10:50**

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

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

SW-6@7'
2204436-06 (Soil)

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Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	4.33	0.231	mg/kg dry	1	BFE0027	05/02/22	05/12/22	EPA 6020B
Barium	114	0.463	"	"	"	"	"	"
Cadmium	ND	0.231	"	"	"	"	"	"
Copper	13.8	0.463	"	"	"	"	"	"
Lead	9.69	0.231	"	"	"	"	"	"
Nickel	16.0	0.463	"	"	"	"	"	"
Selenium	0.787	0.301	"	"	"	"	"	"
Silver	0.0531	0.0231	"	"	"	"	"	"
Zinc	53.6	0.463	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/28/22 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BFE0201	05/10/22	05/10/22	EPA 7196A	

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

Date Sampled: **04/28/22 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	6.73	0.0578	mg/L dry	1	BFE0150	05/08/22	05/12/22	EPA 6020B	
Magnesium	1.77	0.0578	"	"	"	"	"	"	
Sodium	4.39	0.0578	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/28/22 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.389	0.00100	units	1	BFE0267	05/13/22	05/13/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/28/22 10:50**

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

Project: Facility #4 AE2

Project Number: [none]
 Project Manager: J Galles

Reported:
 05/13/22 09:25

SW-6@7'
2204436-06 (Soil)

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Physical Parameters by APHA/ASTM/EPA Methods

% Solids	86.5	%	1	BFE0030	05/02/22	05/03/22	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/28/22 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	2.77	0.0100	mmhos/cm	1	BFE0153	05/08/22	05/09/22	EPA 120.1	

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

Date Sampled: **04/28/22 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.95		pH Units	1	BFE0154	05/08/22	05/09/22	EPA 9045D	

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1675 Broadway
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Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

BH-1@8'
2204436-07 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/28/22 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFE0009	05/02/22	05/03/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	1.6	0.50	"	"	"	"	"	"	

Date Sampled: **04/28/22 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0377	94.3 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0404	101 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0426	107 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/28/22 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BFE0010	05/02/22	05/03/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **04/28/22 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	13.9	112 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

BH-1@8'
2204436-07 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **04/28/22 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	0.0537	0.00500	mg/kg	1	BFD0641	04/29/22	05/03/22	EPA 8270D SIM	
Anthracene	0.0912	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	0.205	0.0500	"	10	"	"	"	"	
Benzo (a) pyrene	0.159	0.00500	"	1	"	"	"	"	
Benzo (b) fluoranthene	0.190	0.0500	"	10	"	"	"	"	
Benzo (k) fluoranthene	0.0921	0.00500	"	1	"	"	"	"	
Chrysene	0.234	0.0500	"	10	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	1	"	"	"	"	
Fluoranthene	0.370	0.0500	"	10	"	"	"	"	
Fluorene	0.0812	0.00500	"	1	"	"	"	"	
Indeno (1,2,3-cd) pyrene	0.0499	0.00500	"	"	"	"	"	"	
Pyrene	0.335	0.0500	"	10	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	1	"	"	"	"	
2-Methylnaphthalene	0.321	0.0500	"	10	"	"	"	"	

Date Sampled: **04/28/22 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0283	85.0 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0251	75.3 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/28/22 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.382	0.0100	mg/L	1	BFE0052	05/03/22	05/12/22	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/28/22 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	4.65	0.267	mg/kg dry	1	BFE0027	05/02/22	05/12/22	EPA 6020B	

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

BH-1@8'
2204436-07 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Barium	141	0.535	mg/kg dry	1	BFE0027	05/02/22	05/12/22	EPA 6020B	
Cadmium	ND	0.267	"	"	"	"	"	"	
Copper	14.5	0.535	"	"	"	"	"	"	
Lead	9.83	0.267	"	"	"	"	"	"	
Nickel	15.4	0.535	"	"	"	"	"	"	
Selenium	0.915	0.348	"	"	"	"	"	"	
Silver	0.0551	0.0267	"	"	"	"	"	"	
Zinc	53.8	0.535	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/28/22 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BFE0201	05/10/22	05/10/22	EPA 7196A	

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

Date Sampled: **04/28/22 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	17.3	0.0669	mg/L dry	1	BFE0150	05/08/22	05/12/22	EPA 6020B	
Magnesium	3.82	0.0669	"	"	"	"	"	"	
Sodium	4.40	0.0669	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/28/22 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.250	0.00100	units	1	BFE0267	05/13/22	05/13/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/28/22 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	74.8		%	1	BFE0030	05/02/22	05/03/22	Calculation	

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1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

BH-1@8'
2204436-07 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/28/22 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	2.93	0.0100	mmhos/cm	1	BFE0153	05/08/22	05/09/22	EPA 120.1	

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

Date Sampled: **04/28/22 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.82		pH Units	1	BFE0154	05/08/22	05/09/22	EPA 9045D	

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

BH-2@8'
2204436-08 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/28/22 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFE0009	05/02/22	05/03/22	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **04/28/22 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0362	90.5 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0388	97.0 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0371	92.7 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/28/22 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BFE0010	05/02/22	05/04/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **04/28/22 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	13.8	110 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

BH-2@8'
2204436-08 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **04/28/22 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFD0641	04/29/22	05/03/22	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **04/28/22 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0204	61.2 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0208	62.4 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/28/22 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.297	0.0100	mg/L	1	BFE0052	05/03/22	05/12/22	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **04/28/22 11:00**

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

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

BH-2@8'
2204436-08 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	3.88	0.243	mg/kg dry	1	BFE0027	05/02/22	05/12/22	EPA 6020B
Barium	101	0.486	"	"	"	"	"	"
Cadmium	0.247	0.243	"	"	"	"	"	"
Copper	15.8	0.486	"	"	"	"	"	"
Lead	12.7	0.243	"	"	"	"	"	"
Nickel	15.8	0.486	"	"	"	"	"	"
Selenium	0.887	0.316	"	"	"	"	"	"
Silver	0.0659	0.0243	"	"	"	"	"	"
Zinc	57.0	0.486	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **04/28/22 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BFE0201	05/10/22	05/10/22	EPA 7196A	

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

Date Sampled: **04/28/22 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	11.9	0.0607	mg/L dry	1	BFE0150	05/08/22	05/12/22	EPA 6020B	
Magnesium	3.28	0.0607	"	"	"	"	"	"	
Sodium	5.60	0.0607	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/28/22 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.371	0.00100	units	1	BFE0267	05/13/22	05/13/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/28/22 11:00**

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

Project: Facility #4 AE2

Project Number: [none]
 Project Manager: J Galles

Reported:
 05/13/22 09:25

BH-2@8'
2204436-08 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	82.4	%	1	BFE0030	05/02/22	05/03/22	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/28/22 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	2.43	0.0100	mmhos/cm	1	BFE0153	05/08/22	05/09/22	EPA 120.1	

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

Date Sampled: **04/28/22 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.02		pH Units	1	BFE0154	05/08/22	05/09/22	EPA 9045D	

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

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 BFE0009 - EPA 5030 Soil MS

Blank (BFE0009-BLK1)

Prepared: 05/02/22 Analyzed: 05/03/22

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
1,2,4-Trimethylbenzene	ND	0.0050	"							
1,3,5-Trimethylbenzene	ND	0.0050	"							
Naphthalene	ND	0.0038	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0344		"	0.0400		86.0	50-150			
<i>Surrogate: Toluene-d8</i>	0.0395		"	0.0400		98.8	50-150			
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0350		"	0.0400		87.5	50-150			

LCS (BFE0009-BS1)

Prepared: 05/02/22 Analyzed: 05/03/22

Benzene	0.0666	0.0020	mg/kg	0.0750		88.8	70-130			
Toluene	0.0695	0.0050	"	0.0750		92.7	70-130			
Ethylbenzene	0.0664	0.0050	"	0.0750		88.6	70-130			
m,p-Xylene	0.164	0.010	"	0.150		109	70-130			
o-Xylene	0.0751	0.0050	"	0.0750		100	70-130			
1,2,4-Trimethylbenzene	0.0703	0.0050	"	0.0750		93.8	70-130			
1,3,5-Trimethylbenzene	0.0676	0.0050	"	0.0750		90.2	70-130			
Naphthalene	0.0574	0.0038	"	0.0750		76.5	70-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0338		"	0.0400		84.4	50-150			
<i>Surrogate: Toluene-d8</i>	0.0391		"	0.0400		97.7	50-150			
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0382		"	0.0400		95.4	50-150			

Matrix Spike (BFE0009-MS1)

Source: 2204436-01

Prepared: 05/02/22 Analyzed: 05/03/22

Benzene	0.0640	0.0020	mg/kg	0.0750	ND	85.4	70-130			
Toluene	0.0678	0.0050	"	0.0750	ND	90.4	70-130			
Ethylbenzene	0.0656	0.0050	"	0.0750	ND	87.4	70-130			
m,p-Xylene	0.158	0.010	"	0.150	ND	105	70-130			
o-Xylene	0.0734	0.0050	"	0.0750	ND	97.9	70-130			
1,2,4-Trimethylbenzene	0.0707	0.0050	"	0.0750	ND	94.3	70-130			
1,3,5-Trimethylbenzene	0.0672	0.0050	"	0.0750	ND	89.6	70-130			
Naphthalene	0.0754	0.0038	"	0.0750	ND	101	70-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0340		"	0.0400		85.0	50-150			
<i>Surrogate: Toluene-d8</i>	0.0391		"	0.0400		97.8	50-150			
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0376		"	0.0400		94.1	50-150			

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BFE0009 - EPA 5030 Soil MS

Matrix Spike Dup (BFE0009-MSD1)	Source: 2204436-01			Prepared: 05/02/22 Analyzed: 05/03/22					
Benzene	0.0653	0.0020	mg/kg	0.0750	ND	87.0	70-130	1.95	30
Toluene	0.0685	0.0050	"	0.0750	ND	91.3	70-130	1.01	30
Ethylbenzene	0.0660	0.0050	"	0.0750	ND	88.0	70-130	0.593	30
m,p-Xylene	0.160	0.010	"	0.150	ND	106	70-130	0.982	30
o-Xylene	0.0750	0.0050	"	0.0750	ND	100	70-130	2.06	30
1,2,4-Trimethylbenzene	0.0727	0.0050	"	0.0750	ND	96.9	70-130	2.72	30
1,3,5-Trimethylbenzene	0.0689	0.0050	"	0.0750	ND	91.8	70-130	2.42	30
Naphthalene	0.0827	0.0038	"	0.0750	ND	110	70-130	9.18	30
Surrogate: 1,2-Dichloroethane-d4	0.0352		"	0.0400		88.0	50-150		
Surrogate: Toluene-d8	0.0384		"	0.0400		95.9	50-150		
Surrogate: 4-Bromofluorobenzene	0.0387		"	0.0400		96.8	50-150		

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

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 BFE0010 - EPA 3550A

Blank (BFE0010-BLK1)

Prepared: 05/02/22 Analyzed: 05/03/22

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

LCS (BFE0010-BS1)

Prepared: 05/02/22 Analyzed: 05/03/22

C10-C28 (DRO)	481	50	mg/kg	500	96.2	70-130				
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Matrix Spike (BFE0010-MS1)

Source: 2204436-01

Prepared: 05/02/22 Analyzed: 05/03/22

C10-C28 (DRO)	449	50	mg/kg	500	7.98	88.2	70-130			
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Matrix Spike Dup (BFE0010-MSD1)

Source: 2204436-01

Prepared: 05/02/22 Analyzed: 05/03/22

C10-C28 (DRO)	407	50	mg/kg	500	7.98	79.7	70-130	9.92	20	
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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

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 BFD0641 - EPA 5030 Soil MS

Blank (BFD0641-BLK1)

Prepared: 04/29/22 Analyzed: 05/03/22

Acenaphthene	ND	0.00500	mg/kg								
Anthracene	ND	0.00500	"								
Benzo (a) anthracene	ND	0.00500	"								
Benzo (a) pyrene	ND	0.00500	"								
Benzo (b) fluoranthene	ND	0.00500	"								
Benzo (k) fluoranthene	ND	0.00500	"								
Chrysene	ND	0.00500	"								
Dibenz (a,h) anthracene	ND	0.00500	"								
Fluoranthene	ND	0.00500	"								
Fluorene	ND	0.00500	"								
Indeno (1,2,3-cd) pyrene	ND	0.00500	"								
Pyrene	ND	0.00500	"								
1-Methylnaphthalene	ND	0.00500	"								
2-Methylnaphthalene	ND	0.00500	"								
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0411</i>		"	<i>0.0333</i>		<i>123</i>		<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0305</i>		"	<i>0.0333</i>		<i>91.4</i>		<i>40-150</i>			

LCS (BFD0641-BS1)

Prepared: 04/29/22 Analyzed: 05/03/22

Acenaphthene	0.0312	0.00500	mg/kg	0.0333	93.5	31-137
Anthracene	0.0321	0.00500	"	0.0333	96.2	30-120
Benzo (a) anthracene	0.0335	0.00500	"	0.0333	100	30-120
Benzo (a) pyrene	0.0327	0.00500	"	0.0333	98.0	30-120
Benzo (b) fluoranthene	0.0367	0.00500	"	0.0333	110	30-120
Benzo (k) fluoranthene	0.0366	0.00500	"	0.0333	110	30-120
Chrysene	0.0341	0.00500	"	0.0333	102	30-120
Dibenz (a,h) anthracene	0.0209	0.00500	"	0.0333	62.8	30-120
Fluoranthene	0.0300	0.00500	"	0.0333	89.9	30-120
Fluorene	0.0313	0.00500	"	0.0333	93.8	30-120
Indeno (1,2,3-cd) pyrene	0.0265	0.00500	"	0.0333	79.5	30-120
Pyrene	0.0378	0.00500	"	0.0333	114	35-142
1-Methylnaphthalene	0.0368	0.00500	"	0.0333	110	35-142
2-Methylnaphthalene	0.0367	0.00500	"	0.0333	110	35-142
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0365</i>		"	<i>0.0333</i>	<i>110</i>	<i>40-150</i>
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0307</i>		"	<i>0.0333</i>	<i>92.2</i>	<i>40-150</i>

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

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 BFD0641 - EPA 5030 Soil MS

Matrix Spike (BFD0641-MS1)	Source: 2204427-01			Prepared: 04/29/22 Analyzed: 05/03/22						
Acenaphthene	0.0187	0.00500	mg/kg	0.0333	ND	56.1	31-137			
Anthracene	0.0196	0.00500	"	0.0333	ND	58.8	30-120			
Benzo (a) anthracene	0.0224	0.00500	"	0.0333	ND	67.1	30-120			
Benzo (a) pyrene	0.0206	0.00500	"	0.0333	ND	61.7	30-120			
Benzo (b) fluoranthene	0.0227	0.00500	"	0.0333	ND	68.0	30-120			
Benzo (k) fluoranthene	0.0223	0.00500	"	0.0333	ND	66.8	30-120			
Chrysene	0.0227	0.00500	"	0.0333	ND	68.2	30-120			
Dibenz (a,h) anthracene	0.0134	0.00500	"	0.0333	ND	40.2	30-120			
Fluoranthene	0.0186	0.00500	"	0.0333	ND	55.9	30-120			
Fluorene	0.0189	0.00500	"	0.0333	ND	56.6	30-120			
Indeno (1,2,3-cd) pyrene	0.0183	0.00500	"	0.0333	ND	54.8	30-120			
Pyrene	0.0275	0.00500	"	0.0333	ND	82.4	35-142			
1-Methylnaphthalene	0.0189	0.00500	"	0.0333	ND	56.7	15-130			
2-Methylnaphthalene	0.0183	0.00500	"	0.0333	ND	54.8	15-130			
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0192</i>		<i>"</i>	<i>0.0333</i>		<i>57.6</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0191</i>		<i>"</i>	<i>0.0333</i>		<i>57.3</i>	<i>40-150</i>			

Matrix Spike Dup (BFD0641-MSD1)	Source: 2204427-01			Prepared: 04/29/22 Analyzed: 05/03/22						
Acenaphthene	0.0167	0.00500	mg/kg	0.0333	ND	50.0	31-137	11.6	30	
Anthracene	0.0170	0.00500	"	0.0333	ND	51.1	30-120	14.1	30	
Benzo (a) anthracene	0.0190	0.00500	"	0.0333	ND	57.0	30-120	16.3	30	
Benzo (a) pyrene	0.0177	0.00500	"	0.0333	ND	53.1	30-120	15.0	30	
Benzo (b) fluoranthene	0.0201	0.00500	"	0.0333	ND	60.4	30-120	11.9	30	
Benzo (k) fluoranthene	0.0197	0.00500	"	0.0333	ND	59.2	30-120	12.1	30	
Chrysene	0.0196	0.00500	"	0.0333	ND	58.7	30-120	15.0	30	
Dibenz (a,h) anthracene	0.0105	0.00500	"	0.0333	ND	31.5	30-120	24.2	30	
Fluoranthene	0.0158	0.00500	"	0.0333	ND	47.5	30-120	16.4	30	
Fluorene	0.0170	0.00500	"	0.0333	ND	50.9	30-120	10.5	30	
Indeno (1,2,3-cd) pyrene	0.0208	0.00500	"	0.0333	ND	62.2	30-120	12.7	30	
Pyrene	0.0222	0.00500	"	0.0333	ND	66.6	35-142	21.2	30	
1-Methylnaphthalene	0.0176	0.00500	"	0.0333	ND	52.8	15-130	7.13	50	
2-Methylnaphthalene	0.0172	0.00500	"	0.0333	ND	51.5	15-130	6.16	50	
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0174</i>		<i>"</i>	<i>0.0333</i>		<i>52.1</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0162</i>		<i>"</i>	<i>0.0333</i>		<i>48.6</i>	<i>40-150</i>			

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

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 BFE0052 - EPA 3050B

Blank (BFE0052-BLK1)

Prepared: 05/03/22 Analyzed: 05/12/22

Boron ND 0.0100 mg/L

LCS (BFE0052-BS1)

Prepared: 05/03/22 Analyzed: 05/12/22

Boron 5.03 0.0100 mg/L 5.00 101 80-120

Duplicate (BFE0052-DUP1)

Source: 2204427-01

Prepared: 05/03/22 Analyzed: 05/12/22

Boron 0.0909 0.0100 mg/L 0.0913 0.374 20

Matrix Spike (BFE0052-MS1)

Source: 2204427-01

Prepared: 05/03/22 Analyzed: 05/12/22

Boron 5.00 0.0100 mg/L 5.00 0.0913 98.3 75-125

Matrix Spike Dup (BFE0052-MSD1)

Source: 2204427-01

Prepared: 05/03/22 Analyzed: 05/12/22

Boron 5.01 0.0100 mg/L 5.00 0.0913 98.4 75-125 0.179 25

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

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 BFE0027 - EPA 3050B

Blank (BFE0027-BLK1)

Prepared: 05/02/22 Analyzed: 05/11/22

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

LCS (BFE0027-BS1)

Prepared: 05/02/22 Analyzed: 05/11/22

Arsenic	33.1	0.200	mg/kg wet	40.0	82.8	80-120
Barium	35.6	0.400	"	40.0	89.0	80-120
Cadmium	1.67	0.200	"	2.00	83.4	80-120
Copper	32.1	0.400	"	40.0	80.3	80-120
Lead	19.5	0.200	"	20.0	97.7	80-120
Nickel	35.4	0.400	"	40.0	88.6	80-120
Selenium	3.56	0.260	"	4.00	89.0	80-120
Silver	1.99	0.0200	"	2.00	99.3	80-120
Zinc	34.5	0.400	"	40.0	86.2	80-120

Duplicate (BFE0027-DUP1)

Source: 2204427-01

Prepared: 05/02/22 Analyzed: 05/11/22

Arsenic	20.1	0.254	mg/kg dry	14.7	31.2	20	QR-03
Barium	24.2	0.507	"	23.8	1.76	20	
Cadmium	0.182	0.254	"	0.152	17.9	20	
Copper	33.9	0.507	"	30.8	9.40	20	
Lead	13.3	0.254	"	11.8	11.8	20	
Nickel	9.41	0.507	"	9.09	3.45	20	
Selenium	0.847	0.330	"	0.737	13.9	20	
Silver	0.0479	0.0254	"	0.0438	8.73	20	
Zinc	54.4	0.507	"	52.3	4.02	20	

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

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 BFE0027 - EPA 3050B

Matrix Spike (BFE0027-MS1)	Source: 2204427-01			Prepared: 05/02/22 Analyzed: 05/11/22								
Arsenic	55.5	0.254	mg/kg dry	50.7	14.7	80.5	75-125					
Barium	67.6	0.507	"	50.7	23.8	86.4	75-125					
Cadmium	2.16	0.254	"	2.54	0.152	79.2	75-125					
Copper	74.6	0.507	"	50.7	30.8	86.2	75-125					
Lead	34.3	0.254	"	25.4	11.8	88.5	75-125					
Nickel	50.0	0.507	"	50.7	9.09	80.6	75-125					
Selenium	4.02	0.330	"	5.07	0.737	64.7	75-125					QM-05
Silver	1.96	0.0254	"	2.54	0.0438	75.7	75-125					
Zinc	91.0	0.507	"	50.7	52.3	76.2	75-125					

Matrix Spike Dup (BFE0027-MSD1)	Source: 2204427-01			Prepared: 05/02/22 Analyzed: 05/11/22								
Arsenic	55.0	0.254	mg/kg dry	50.7	14.7	79.5	75-125	0.876	25			
Barium	72.6	0.507	"	50.7	23.8	96.3	75-125	7.15	25			
Cadmium	2.24	0.254	"	2.54	0.152	82.3	75-125	3.60	25			
Copper	72.2	0.507	"	50.7	30.8	81.5	75-125	3.27	25			
Lead	34.2	0.254	"	25.4	11.8	88.3	75-125	0.175	25			
Nickel	51.9	0.507	"	50.7	9.09	84.4	75-125	3.85	25			
Selenium	4.06	0.330	"	5.07	0.737	65.6	75-125	1.07	25			QM-05
Silver	2.07	0.0254	"	2.54	0.0438	79.9	75-125	5.24	25			
Zinc	92.8	0.507	"	50.7	52.3	79.9	75-125	2.01	25			

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

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 BFE0201 - 3060A Mod

Blank (BFE0201-BLK1)

Prepared & Analyzed: 05/10/22

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BFE0201-BS1)

Prepared & Analyzed: 05/10/22

Chromium, Hexavalent 24.9 0.30 mg/kg wet 25.0 99.6 80-120

Duplicate (BFE0201-DUP1)

Source: 2204412-01

Prepared & Analyzed: 05/10/22

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BFE0201-MS1)

Source: 2204412-01

Prepared & Analyzed: 05/10/22

Chromium, Hexavalent 25.4 0.30 mg/kg dry 26.2 ND 97.0 75-125

Matrix Spike Dup (BFE0201-MSD1)

Source: 2204412-01

Prepared & Analyzed: 05/10/22

Chromium, Hexavalent 24.4 0.30 mg/kg dry 26.2 ND 93.2 75-125 4.00 20

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

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 BFE0150 - General Preparation

Blank (BFE0150-BLK1)

Prepared: 05/08/22 Analyzed: 05/12/22

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

LCS (BFE0150-BS1)

Prepared: 05/08/22 Analyzed: 05/12/22

Calcium	5.00	0.0500	mg/L wet	5.00	100	70-130				
Magnesium	5.22	0.0500	"	5.00	104	70-130				
Sodium	4.99	0.0500	"	5.00	99.9	70-130				

Summit Scientific

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K.P. Kauffman
 1675 Broadway
 Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
 Project Manager: J Galles

Reported:
 05/13/22 09:25

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 BFE0030 - General Preparation

Duplicate (BFE0030-DUP1)	Source: 2204436-01		Prepared: 05/02/22 Analyzed: 05/03/22	
% Solids	84.9	%	84.9	0.0465 20

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

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 BFE0153 - General Preparation

Blank (BFE0153-BLK1)

Prepared: 05/08/22 Analyzed: 05/09/22

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BFE0153-BS1)

Prepared: 05/08/22 Analyzed: 05/09/22

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

Duplicate (BFE0153-DUP1)

Source: 2204436-01

Prepared: 05/08/22 Analyzed: 05/09/22

Specific Conductance (EC) 1.22 0.0100 mmhos/cm 1.23 0.735 20

Summit Scientific

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K.P. Kauffman
 1675 Broadway
 Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
 Project Manager: J Galles

Reported:
 05/13/22 09:25

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 BFE0154 - General Preparation

LCS (BFE0154-BS1)

Prepared: 05/08/22 Analyzed: 05/09/22

pH	9.19		pH Units	9.18		100	95-105			
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Duplicate (BFE0154-DUP1)

Source: 2204436-01

Prepared: 05/08/22 Analyzed: 05/09/22

pH	8.08		pH Units	8.10		0.247	20			
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Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: Facility #4 AE2

Project Number: [none]
Project Manager: J Galles

Reported:
05/13/22 09:25

Notes and Definitions

- QR-03 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
- QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The associated LCS and/or LCSD were within acceptance limits, therefore the data are considered valid.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference