



November 18, 2022

Ms. Laura Spencer
 Summit Midstream Partners
 910 Louisiana Street, Suite 4200
 Houston, Texas 77002

**RE: Report of Work Completed
 P6 Gathering Line Release
 COGCC Spill ID: 480397
 Garfield County, Colorado**

Ms. Spencer,

Entrada Consulting Group (Entrada) has prepared report of work complete for the Summit Midstream Partners (Summit) P6 gathering line release location (Site) located in Garfield County, Colorado. The center location coordinates of the release area are approximately 39.469569 latitude, and -107.702210° longitude.

On August 25th, 2021, Summit collected confirmation soil samples from the excavation related to the release. The release was originally discovered on August 12th, 2021. This report was completed in accordance with the Colorado Oil and Gas Conservation Commission (COGCC) approved Form 19 (Document Number 402778246). Please see that document for additional details.

A search of the Colorado Division of Water Resources (DWR) database revealed numerous groundwater wells within 1.00 mile of the Site. Of these, the wells with recorded static water levels are shown below. Based on the calculated difference between the surface elevation at the Site and approximate groundwater elevations for the wells, a pathway to groundwater is not expected. Residential Soil Screening Levels (RSSLs) should be applied.

DWR Permit Number	Date Installed	Approximate Surface Elevation (ft-amsl)	Static Depth to Groundwater (ft-bgs)	Approximate Groundwater Elevation (ft-amsl)	Elevation Difference Between P6 Ground Surface and Static Groundwater Elevation (feet)
64199	7/6/1973	6033	138	5895	99
64198	6/29/1973	5977	120	5857	137
87658	9/13/1977	5940	68	5872	122
25471	10/1/1965	5955	20	5935	59
201226	6/16/1997	5731	21	5710	284
121362-A	5/31/1983	5778	12	5766	228
118167	2/7/1981	6008	103	5905	89
204434-A	9/8/1999	6088	135	5953	41

FIELD SCREENING AND SAMPLING ACTIVITIES

On August 25th, 2021 a Summit representative was onsite to field screen and collect soil samples from the excavation. Additionally, the Summit representative collected a background soil samples from a nearby unimpacted area.

Soil from each of the sample locations was visually examined for evidence of potential environmental impacts (e.g., petroleum staining and odor) and screened for volatile organic compounds. Screening was conducted by placing the soil into a re-sealable bag, allowing the soil to warm and volatilize any organic compounds, and monitoring the headspace in the bag with a photoionization detector equipped with a 10.6 eV lamp. The maximum PID reading observed on the final walls and base of the excavation was 78.95 parts per million (ppm) at the site of the Northeast Wall – 10' sample.

In total, seven (7) samples were collected and submitted for laboratory analysis. One soil sample (Floor-17') was collected from the excavation base at 17 feet below ground surface (ft-bgs). Four soil samples (Northeast Wall – 10', Southeast Wall – 16', Northwest Wall – 16', and Southwest Wall – 15') were collected from the excavation sidewalls.

In addition, one local background sample was collected in an unimpacted area at a depth of 10 ft-bgs. Groundwater was not observed at any point during field activities. The soil sample locations are presented on **Figure 1**.

SOIL ANALYSIS

Soil samples were collected in sample containers appropriate for the specified analyses, sealed, labeled, and placed into an ice filled cooler for preservation. Soil samples were submitted to eAnalytics in Loveland, Colorado following chain of custody procedures and analyzed for the analytes below. Arsenic was analyzed by McCampbell Analytical Inc. of Loveland, Colorado.

- Total petroleum hydrocarbons (TPH) as gasoline range organics (GRO), diesel range organics (DRO), and oil range organics (ORO) by United States Environmental Protection Agency (EPA) Method 8015;
- Benzene, toluene, ethylbenzene, total xylenes, naphthalene, 1,2,4-trimethylbenzene, and 1,3,5-trimethylbenzene by EPA Method 8260;
- Polycyclic aromatic hydrocarbons by EPA Method 8270(SIM);
- Metals (COGCC Table 915-1 list) by EPA Method 6010 except arsenic and hexavalent chromium, which were analyzed by EPA Method 6020 and Method SM 3500-Cr B respectively;
- Sodium adsorption ratio (SAR) by Method USDA 60 (20B)m;
- pH by EPA Method 9045D; and
- Specific Conductance by Method USDA 60 (3)m.

SOIL ANALYTICAL RESULTS

Analytical results are summarized in **Table 1** and are compared to COGCC Table 915-1 RSSLs.

Laboratory analysis reports and chain-of-custody documentation are included as an attachment. Soil analytical results were reported for seven (7) soil samples at depths ranging from 10 to 17 ft-bgs.

- Arsenic was identified in soil sampling results above the COGCC Table 915-1 RSSL's in all confirmation samples with results ranging from 7.1 mg/kg to 9.4 mg/kg. The COGCC Table 915-1 RSSL for arsenic is 0.68 mg/kg. However, in all samples Arsenic values were reported within a 1.25X concentration of the local background value of 8.8 mg/kg. Therefore, COGCC Table 915-1 footnote 11 is applicable to the Arsenic exceedances.

The soil analytical results are summarized in **Table 1** and laboratory analytical reports are included in the attachments.

CONCLUSIONS

Soil analytical results of the September 2021 soil sampling event identified subsurface concentrations of Arsenic above COGCC Table 915-1 RSSLs standards. However, COGCC Table 915-1 footnote 11 is applicable to all Arsenic exceedances.

Based upon field screening and soil sampling activities completed at the site and laboratory analytical data presented herein, Entrada recommends that Summit pursue closure of Form 19 (402778246).

We appreciate the opportunity to assist Summit Midstream Partners. Please contact me (720) 253-2940 if you have any questions.

Sincerely,

ENTRADA CONSULTING GROUP



Reed Johnson
Senior Project Geologist

Attachments:

Table 1 – Soil Data Summary
Figure 1 – Sample Location Map
Laboratory Analytical Reports

TABLES

Table 1
Analytical Soil Results Summary
P6 Lateral Spill
Summit Midstream

LABORATORY DATA SUMMARY										
Sample ID	Northeast Wall 10'	Southeast Wall 16'	Northwest Wall 16'	Southwest 15'	Floor 17'	Spoil After Mixing 8/25	Background 17'	COGCC TABLE 915-1 CONCENTRATION LEVELS		
Sample Depth	10'	16'	16'	15'	17'	-	17'			
Report Number	4654	4654	4654	4654	4654	4654	4654			
Sample Type	Grab	Grab	Grab	Grab	Grab	Grab	Grab			
Sample Description	Soil	Soil	Soil	Soil	Soil	Soil	Soil Background			
Sample Date	8/25/2021	8/25/2021	8/25/2021	8/25/2021	8/25/2021	8/25/2021	8/25/2021			
Analytical Parameters								Residential Soil Screening Level	Protection of Groundwater Screening Level	UNITS
TPH										
TPH Gasoline Range Organics	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	500		mg/kg
TPH Diesel Range Organics	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0			
TPH Oil Range Organics	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0			
TOTAL TPH	<150.0	<150.0	<150.0	<150.0	<150.0	<150.0	<150.0			
BTEX										
Benzene	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	1.2	0.0026	mg/kg
Toluene	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	490	0.69	mg/kg
Ethylbenzene	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	5.8	0.78	mg/kg
Total Xylenes	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	58	9.9	mg/kg
TMB										
1,2,4-Trimethylbenzene	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	30	0.0081	mg/kg
1,3,5-Trimethylbenzene	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	27	0.0087	mg/kg
Metals										
Arsenic	7.2	8.4	7.8	7.3	9.4	7.1	8.8	0.68	0.29	mg/kg
Barium	141	85.7	91.8	60.9	64.6	142	101	15,000	82	mg/kg
Cadmium	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	71	0.38	mg/kg
Chromium (Hexavalent)	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	0.3	0.00067	mg/kg
Copper	4.57	1.73	2.06	<1.0	<1.0	4.38	2.91	3,100	46	mg/kg
Lead	5.39	1.15	2.06	<1.0	<1.0	5.17	2.75	400	14	mg/kg
Nickel	5.71	1.54	1.91	1.07	1.33	5.2	2.96	1,500	26	mg/kg
Selenium	0.52	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	390	0.26	mg/kg
Silver	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	390	0.8	mg/kg
Zinc	12.5	3.48	7.44	<1.0	1.83	10.9	6.89	23,000	370	mg/kg
SAR Metals Analysis										
Sodium Adsorption Ratio	1.29	0.66	2.94	1.49	3.17	1.30	0.51	<6		ratio
Polynuclear Aromatic Hydrocarbons										
Acenaphthene	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	360	0.55	mg/kg
Anthracene	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	1,800	5.8	mg/kg
Benzo(a)anthracene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.1	0.011	mg/kg
Benzo(a)pyrene	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	0.11	0.24	mg/kg
Benzo(b)fluoranthene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.1	0.3	mg/kg
Benzo(k)fluoranthene	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	11	2.9	mg/kg
Chrysene	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	110	9	mg/kg
Dibenzo(a,h)anthracene	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.11	0.096	mg/kg
Fluoranthene	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	240	8.9	mg/kg
Fluorene	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	240	0.54	mg/kg
Indeno(1,2,3-cd)pyrene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.1	0.98	mg/kg
1-Methylnapthalene	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	18	0.006	mg/kg
2-Methylnapthalene	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	24	0.019	mg/kg
Napthalene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2	0.0038	mg/kg
Pyrene	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	180	1.3	mg/kg
General Chemistry										
Boron	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	2		mg/L
Specific Conductivity	0.808	0.376	0.496	0.452	0.864	0.852	0.528	<4		mmhos/cm
pH	7.8	7.8	8.0	8.2	7.6	7.7	7.8	6-8.3		su

mg/kg - milligrams per kilogram

mg/L - milligrams per liter

J - indicates an estimated value

mmhos/cm - millimhos per centimeter

mv - millivolts

su - standard units

NA - not applicable

NT - parameter was not tested

ND - not detected above method detection limit

T8 - Samples received past/ too close to holding time expiration

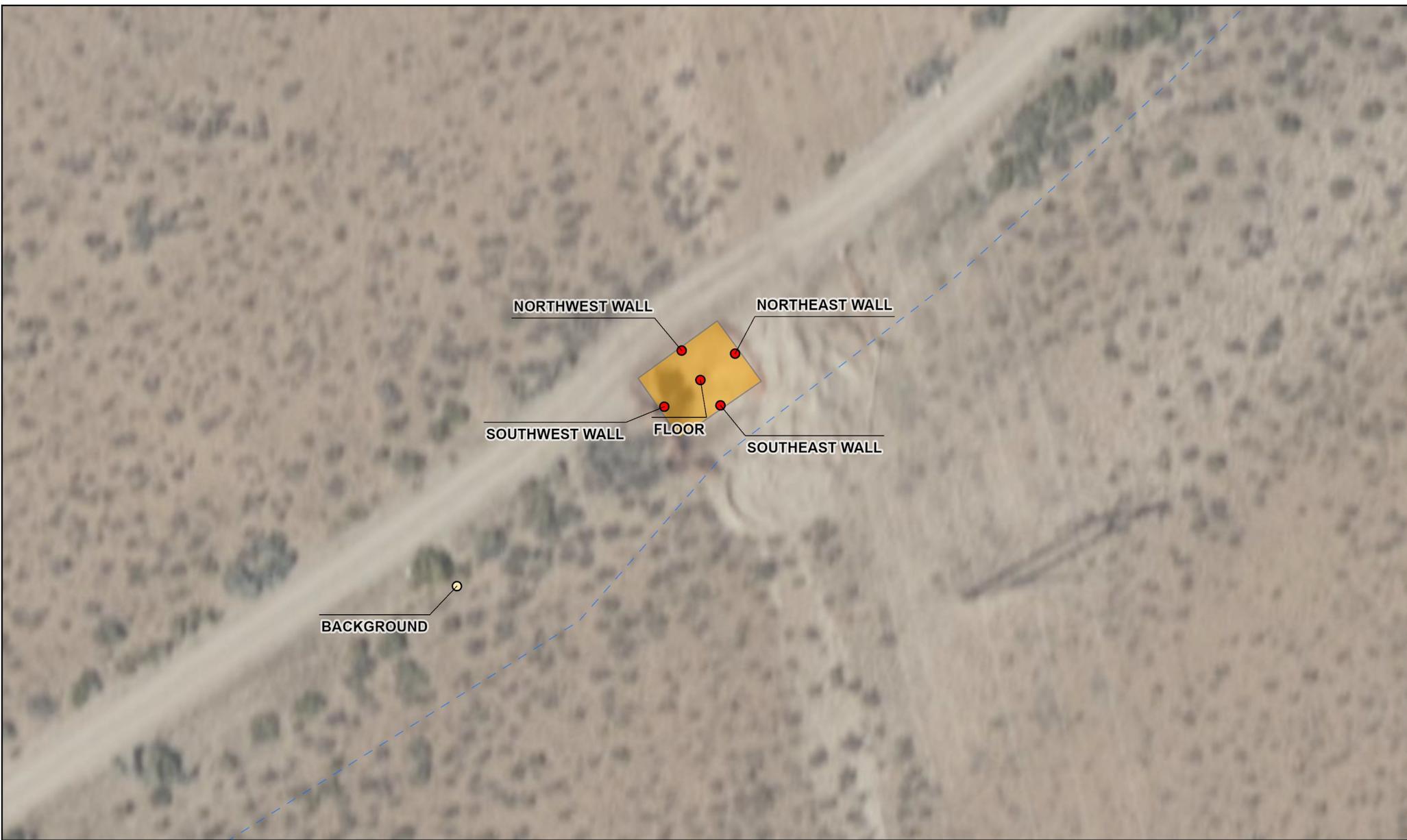
V - The sample volume is too high to evaluate accurate spike recoveries

Over COGCC Table 915-1 concentration levels but under BACKGROUND level.

Over COGCC Table 915-1 concentration levels and not within BACKGROUND level.

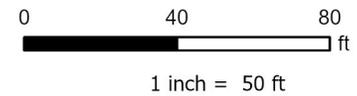
Over COGCC Table 915-1 concentration levels

FIGURES



LEGEND

- Background Sample
- Soil Sample Location
- Excavation
- Intermittent Stream



Project No: 022-068
Map By: NDB
Date: 11/18/2022

P6 Lateral Release Sampling Diagram
 Summit Midstream
 SESE, Section 6, T7S R92W, 6th PM
 Garfield County, Colorado



330 Grand Avenue, Unit C
 Grand Junction, CO 81501
 970-549-1015

Figure

1

SOIL ANALYTICAL REPORTS



McC Campbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 2109357

Report Created for: eAnalytics Laboratory

4130 Clydesdale Parkway
Loveland, CO 80538

Project Contact: Morgen Ray

Project P.O.:

Project: Summit Midstream/P6 Soil Samples

Project Received: 09/08/2021

Analytical Report reviewed & approved for release on 09/10/2021 by:

Yen Cao

Project Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in a case narrative.





Glossary of Terms & Qualifier Definitions

Client: eAnalytics Laboratory
Project: Summit Midstream/P6 Soil Samples
WorkOrder: 2109357

Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
CPT	Consumer Product Testing not NELAP Accredited
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
ERS	External reference sample. Second source calibration verification.
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
LQL	Lowest Quantitation Level
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
TZA	TimeZone Net Adjustment for sample collected outside of MAI's UTC.
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)



Analytical Report

Client: eAnalytics Laboratory
Date Received: 09/08/2021 14:34
Date Prepared: 09/09/2021
Project: Summit Midstream/P6 Soil Samples

WorkOrder: 2109357
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/kg

Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
Sample#1 Background-17 feet (4654.1)	2109357-001A	Soil	08/25/2021 16:00	ICP-MS5 174SMPL.d	229289

Analytes	Result	RL	DF	Date Analyzed
Arsenic	8.8	0.50	1	09/09/2021 16:04
Selenium	ND	0.50	1	09/09/2021 16:04

Surrogates	REC (%)	Limits	Date Analyzed
Terbium	112	70-130	09/09/2021 16:04

Analyst(s): AL

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
Sample#2 Northeast Wall-10 feet (4654.2)	2109357-002A	Soil	08/25/2021 16:00	ICP-MS5 177SMPL.d	229289

Analytes	Result	RL	DF	Date Analyzed
Arsenic	7.2	0.50	1	09/09/2021 16:14
Selenium	0.52	0.50	1	09/09/2021 16:14

Surrogates	REC (%)	Limits	Date Analyzed
Terbium	112	70-130	09/09/2021 16:14

Analyst(s): MIG

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
Sample#3 Southeast Wall-16 feet (4654.3)	2109357-003A	Soil	08/25/2021 16:00	ICP-MS5 178SMPL.d	229289

Analytes	Result	RL	DF	Date Analyzed
Arsenic	8.4	0.50	1	09/09/2021 16:18
Selenium	ND	0.50	1	09/09/2021 16:18

Surrogates	REC (%)	Limits	Date Analyzed
Terbium	109	70-130	09/09/2021 16:18

Analyst(s): MIG

(Cont.)



Analytical Report

Client: eAnalytics Laboratory
Date Received: 09/08/2021 14:34
Date Prepared: 09/09/2021
Project: Summit Midstream/P6 Soil Samples

WorkOrder: 2109357
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/kg

Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
Sample#4 Northwest Wall-16 feet (4654.4)	2109357-004A	Soil	08/25/2021 16:00	ICP-MS5 179SMPL.d	229289

Analytes	Result	RL	DF	Date Analyzed
Arsenic	7.8	0.50	1	09/09/2021 16:21
Selenium	ND	0.50	1	09/09/2021 16:21

Surrogates	REC (%)	Limits	Date Analyzed
Terbium	113	70-130	09/09/2021 16:21

Analyst(s): MIG

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
Sample#5 Southwest-15 feet (4654.5)	2109357-005A	Soil	08/25/2021 16:00	ICP-MS5 180SMPL.d	229289

Analytes	Result	RL	DF	Date Analyzed
Arsenic	7.3	0.50	1	09/09/2021 16:25
Selenium	ND	0.50	1	09/09/2021 16:25

Surrogates	REC (%)	Limits	Date Analyzed
Terbium	112	70-130	09/09/2021 16:25

Analyst(s): MIG

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
Sample#6 Floor-17 feet (4654.6)	2109357-006A	Soil	08/25/2021 16:00	ICP-MS5 181SMPL.d	229289

Analytes	Result	RL	DF	Date Analyzed
Arsenic	9.4	0.50	1	09/09/2021 16:28
Selenium	ND	0.50	1	09/09/2021 16:28

Surrogates	REC (%)	Limits	Date Analyzed
Terbium	110	70-130	09/09/2021 16:28

Analyst(s): MIG

(Cont.)



Analytical Report

Client: eAnalytics Laboratory
Date Received: 09/08/2021 14:34
Date Prepared: 09/09/2021
Project: Summit Midstream/P6 Soil Samples

WorkOrder: 2109357
Extraction Method: SW3050B
Analytical Method: SW6020
Unit: mg/kg

Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
Sample#8 Spoil After Mixing 8/25 (4654.7)	2109357-007A	Soil	08/25/2021 08:00	ICP-MS5 182SMPL.d	229289
<u>Analytes</u>	<u>Result</u>		<u>RL</u> <u>DF</u>		<u>Date Analyzed</u>
Arsenic	7.1		0.50 1		09/09/2021 16:32
Selenium	ND		0.50 1		09/09/2021 16:32
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Terbium	113		70-130		09/09/2021 16:32
<u>Analyst(s):</u> MIG					



Quality Control Report

Client:	eAnalytics Laboratory	WorkOrder:	2109357
Date Prepared:	09/09/2021	BatchID:	229289
Date Analyzed:	09/09/2021	Extraction Method:	SW3050B
Instrument:	ICP-MS5	Analytical Method:	SW6020
Matrix:	Soil	Unit:	mg/kg
Project:	Summit Midstream/P6 Soil Samples	Sample ID:	MB/LCS/LCSD-229289

QC Summary Report for Metals

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Arsenic	ND	0.140	0.500	-	-	-
Selenium	ND	0.320	0.500	-	-	-
Surrogate Recovery						
Terbium	546			500	109	70-130

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Arsenic	50.9	49.3	50	102	99	75-125	3.28	20
Selenium	48.5	46.1	50	97	92	75-125	4.96	20
Surrogate Recovery								
Terbium	550	548	500	110	110	70-130	0.364	20



1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 2109357

ClientCode: EACO

WaterTrax WriteOn EDF

EQUIS Dry-Weight Email HardCopy ThirdParty J-flag
 Detection Summary Excel

Report to:

Morgen Ray
eAnalytics Laboratory
4130 Clydesdale Parkway
Loveland, CO 80538
970-667-6975 FAX:

Email: mray@eanalyticslab.com
cc/3rd Party:
PO:
Project: Summit Midstream/P6 Soil Samples

Bill to:

Chris Dieken
eAnalytics Laboratory
4130 Clydesdale Parkway
Loveland, CO 80538
cdieken@eanalyticslab.com

Requested TAT: 2 days;

Date Received: 09/08/2021

Date Logged: 09/08/2021

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
2109357-001	Sample#1 Background-17 feet (4654.1)	Soil	8/25/2021 16:00	<input type="checkbox"/>	A	A											
2109357-002	Sample#2 Northeast Wall-10 feet (4654.2)	Soil	8/25/2021 16:00	<input type="checkbox"/>	A	A											
2109357-003	Sample#3 Southeast Wall-16 feet (4654.3)	Soil	8/25/2021 16:00	<input type="checkbox"/>	A	A											
2109357-004	Sample#4 Northwest Wall-16 feet (4654.4)	Soil	8/25/2021 16:00	<input type="checkbox"/>	A	A											
2109357-005	Sample#5 Southwest-15 feet (4654.5)	Soil	8/25/2021 16:00	<input type="checkbox"/>	A	A											
2109357-006	Sample#6 Floor-17 feet (4654.6)	Soil	8/25/2021 16:00	<input type="checkbox"/>	A	A											
2109357-007	Sample#8 Spoil After Mixing 8/25 (4654.7)	Soil	8/25/2021 08:00	<input type="checkbox"/>	A	A											

Test Legend:

1	METALSMS_TTLC_S
5	
9	

2	PRDisposal Fee
6	
10	

3	
7	
11	

4	
8	
12	

Project Manager: Rosa Venegas

Prepared by: Adrianna Cardoza

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days). Hazardous samples will be returned to client or disposed of at client expense.



WORK ORDER SUMMARY

Client Name: EANALYTICS LABORATORY

Project: Summit Midstream/P6 Soil Samples

Work Order: 2109357

Client Contact: Morgen Ray

QC Level: LEVEL 2

Contact's Email: mray@eanalyticlab.com

Comments:

Date Logged: 9/8/2021

WaterTrax WriteOn EDF Excel EQUIS Email HardCopy ThirdParty J-flag

LabID	ClientSampID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	Head Space	Dry-Weight	Collection Date & Time	TAT	Test Due Date	Sediment Content	Hold	SubOut
001A	Sample#1 Background-17 feet (4654.1)	Soil	SW6020 (Metals) <Arsenic, Selenium>	1	4OZ GJ, Unpres	<input type="checkbox"/>	<input type="checkbox"/>	8/25/2021 16:00	2 days	9/10/2021		<input type="checkbox"/>	
002A	Sample#2 Northeast Wall-10 feet (4654.2)	Soil	SW6020 (Metals) <Arsenic, Selenium>	1	4OZ GJ, Unpres	<input type="checkbox"/>	<input type="checkbox"/>	8/25/2021 16:00	2 days	9/10/2021		<input type="checkbox"/>	
003A	Sample#3 Southeast Wall-16 feet (4654.3)	Soil	SW6020 (Metals) <Arsenic, Selenium>	1	4OZ GJ, Unpres	<input type="checkbox"/>	<input type="checkbox"/>	8/25/2021 16:00	2 days	9/10/2021		<input type="checkbox"/>	
004A	Sample#4 Northwest Wall-16 feet (4654.4)	Soil	SW6020 (Metals) <Arsenic, Selenium>	1	4OZ GJ, Unpres	<input type="checkbox"/>	<input type="checkbox"/>	8/25/2021 16:00	2 days	9/10/2021		<input type="checkbox"/>	
005A	Sample#5 Southwest-15 feet (4654.5)	Soil	SW6020 (Metals) <Arsenic, Selenium>	1	4OZ GJ, Unpres	<input type="checkbox"/>	<input type="checkbox"/>	8/25/2021 16:00	2 days	9/10/2021		<input type="checkbox"/>	
006A	Sample#6 Floor-17 feet (4654.6)	Soil	SW6020 (Metals) <Arsenic, Selenium>	1	4OZ GJ, Unpres	<input type="checkbox"/>	<input type="checkbox"/>	8/25/2021 16:00	2 days	9/10/2021		<input type="checkbox"/>	
007A	Sample#8 Spoil After Mixing 8/25 (4654.7)	Soil	SW6020 (Metals) <Arsenic, Selenium>	1	4OZ GJ, Unpres	<input type="checkbox"/>	<input type="checkbox"/>	8/25/2021 8:00	2 days	9/10/2021		<input type="checkbox"/>	

NOTES: * STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

RUSH!

	McCAMPBELL ANALYTICAL, INC.		CHAIN OF CUSTODY RECORD									
	1534 Willow Pass Rd, Pittsburg, Ca. 94565-1701		Turn Around Time: 1 Day Rush		2 Day Rush		3 Day Rush		STD		Quote #	
	Telephone: (877) 252-9262 / Fax: (925) 252-9269		J-Flag / MDL		ESL		Cleanup Approved		Bottle Order #			
	www.mccampbell.com main@mccampbell.com		Delivery Format: PDF <input checked="" type="checkbox"/>		GeoTracker EDF <input checked="" type="checkbox"/>		EDD		Write On (DW)		EQuS	

Report To: Morgen Ray Bill To: cdieken@eanalyticlab.com

Company: eAnalytics Lab

Email: mray@eanalyticlab.com

Alt Email: _____ Tele: 970-667-6975

Project Name: Summit Midstream PG Soil Samples Project #:

Project Location: _____ PO # _____

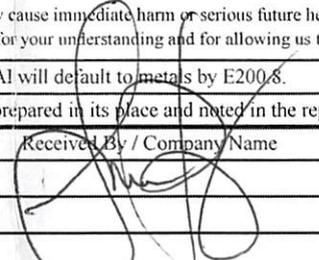
Sampler Signature: _____

SAMPLE ID Location / Field Point	Sampling		#Containers	Matrix	Preservative	Total As + Se	Analysis Requested													
	Date	Time																		
Sample #1 Background - 17 feet (4654.1)	8/25/21	1600	1	S	1	X														
Sample #2 Northeast Wall - 16 feet (4654.2)	8/25/21	1600	1	S	1	X														
Sample #3 Southeast Wall - 16 feet (4654.3)	8/25/21	1600	1	S	1	X														
Sample #4 Northwest Wall - 16 feet (4654.4)	8/25/21	1600	1	S	1	X														
Sample #5 Southwest - 15 feet (4654.5)	8/25/21	1600	1	S	1	X														
Sample #6 Floor - 17 feet (4654.6)	8/25/21	1600	1	S	1	X														
Sample #8 Spc. 10 After Mixing 2/25 (4654.7)	8/25/21	0800	1	S	1	X														

MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate \$250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.

* If metals are requested for water samples and the water type (Matrix) is not specified on the chain of custody, MAI will default to metals by E200.8.

Please provide an adequate volume of sample. If the volume is not sufficient for a MS/MSD a LCS/LCSD will be prepared in its place and noted in the report.

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
<u>Miranda Nood / eAnalytics Laboratory</u>	<u>9/7/21</u>	<u>3:15P</u>		<u>9/8/21</u>	<u>1434</u>

Comments / Instructions
Fedex:
283411511310

Matrix Code: DW=Drinking Water, GW=Ground Water, WW=Waste Water, SW=Seawater, S=Soil, SL=Sludge, A=Air, WP=Wipe, O=Other
 Preservative Code: 1=4°C 2=HCl 3=H₂SO₄ 4=HNO₃ 5=NaOH 6=ZnOAc/NaOH 7=None

Temp 0.8 °C Initials TP
WT
 Page ___ of ___



Sample Receipt Checklist

Client Name: eAnalytics Laboratory
Project: Summit Midstream/P6 Soil Samples

Date and Time Received: 9/8/2021 14:34
Date Logged: 9/8/2021
Received by: Tina Perez
Logged by: Adrianna Cardoza

WorkOrder No: 2109357 Matrix: Soil
Carrier: Client Drop-In

Chain of Custody (COC) Information

- Chain of custody present? Yes [checked] No []
Chain of custody signed when relinquished and received? Yes [checked] No []
Chain of custody agrees with sample labels? Yes [checked] No []
Sample IDs noted by Client on COC? Yes [checked] No []
Date and Time of collection noted by Client on COC? Yes [checked] No []
Sampler's name noted on COC? Yes [checked] No []
COC agrees with Quote? Yes [] No [] NA [checked]

Sample Receipt Information

- Custody seals intact on shipping container/cooler? Yes [] No [] NA [checked]
Custody seals intact on sample bottles? Yes [checked] No [] NA []
Shipping container/cooler in good condition? Yes [checked] No []
Samples in proper containers/bottles? Yes [checked] No []
Sample containers intact? Yes [checked] No []
Sufficient sample volume for indicated test? Yes [checked] No []

Sample Preservation and Hold Time (HT) Information

- All samples received within holding time? Yes [checked] No [] NA []
Samples Received on Ice? Yes [checked] No []

(Ice Type: WET ICE)

- Sample/Temp Blank temperature Temp: 0.8°C NA []
ZHS conditional analyses: VOA meets zero headspace requirement (VOCs, TPHg/BTEX, RSK)? Yes [] No [] NA [checked]
Sample labels checked for correct preservation? Yes [checked] No []
pH acceptable upon receipt (Metal: <2; Nitrate 353.2/4500NO3: <2; 522: <4; 218.7: >8)? Yes [] No [] NA [checked]

UCMR Samples:

- pH tested and acceptable upon receipt (200.8: ≤2; 525.3: ≤4; 530: ≤7; 541: <3; 544: <6.5 & 7.5)? Yes [] No [] NA [checked]
Free Chlorine tested and acceptable upon receipt (<0.1mg/L)? Yes [] No [] NA [checked]

Comments:

Test Report



September 8, 2021

Client: Aspen Environmental Field Services

Project: Summit Midstream / P6 Soil Samples

Lab ID: 4654

Date Samples Received: 9/2/2021

Sample Condition: The samples arrived intact and in appropriate sample containers. The samples were received within the temperature range specified in the test method(s) and/or with thermal preservation in process.

Comments: The test items listed immediately below were analyzed by another laboratory. A separate report with those results will follow upon completion.

Analysis of:
Total Arsenic
Total Selenium

Performed By:
McC Campbell Analytical, Inc-Pittsburg CA

Thank you for allowing eAnalytics Laboratory to provide laboratory services for you.

A handwritten signature in black ink, appearing to read "Chris Dieken".

Chris Dieken
QA Manager

A handwritten signature in black ink, appearing to read "Todd Rhea".

Todd Rhea
Lab Manager

eAnalytics Laboratory
4130 Clydesdale Parkway Loveland CO 80538

Chain of Custody

eANALYTICS

L A B O R A T O R Y

		4130 Clydesdale Pkwy, Loveland, CO 80538 Phone: (970) 667-6975 Fax: (970) 669-0941 www.eAnalyticsLab.com		
CLIENT INFORMATION <small>(*New Clients please fill out completely)</small>		ANALYSIS INFORMATION <small>(Select analysis by checking box on corresponding sample line)</small>		
Company: Aspen Environmental F.S.		Number of Containers Matrix: (S) Soil (W) Water (V) Vapor (O) Other	Table 915-1 (Highlighted Sections) Form Attached	Other Analysis
Project: Summit Midstream / P6 Soil Samples				
Project Manager: Criss Duncan ccduncan@aspenefs.com				
Sampler: Mark Carlson				
Phone/Email: (541) 891-2834 mcarlson@aspenefs.com				
Address: 1685 17 Rd Loma, CO. 81524				
Billing Contact: Lucy Baley Lcullen@aspenefs.com				
Lab ID	Sample Name	Sampling Date/Time		
1	Sample #1 Background - 17 Feet	8/25/21 1600 hrs	1	S <input checked="" type="checkbox"/>
2	Sample #2 Northeast Wall - 10 Feet	8/25/21 1600 hrs	1	S <input checked="" type="checkbox"/>
3	Sample #3 Southeast Wall - 16 Feet	8/25/21 1600 hrs	1	S <input checked="" type="checkbox"/>
4	Sample #4 Northwest Wall - 16 Feet	8/25/21 1600 hrs	1	S <input checked="" type="checkbox"/>
5	Sample #5 Southwest - 15 Feet	8/25/21 1600 hrs	1	S <input checked="" type="checkbox"/>
6	Sample #6 Floor - 17 Feet	8/25/21 1600 hrs	1	S <input checked="" type="checkbox"/>
	Sample #7 Spoil After Mixing 8/25	8/25/21 0800 hrs	1	S <input checked="" type="checkbox"/>
7	Sample #8 Spoil After Mixing 8/25	8/25/21 0800 hrs	1	S <input checked="" type="checkbox"/>
	Sample #9 Spoil not Mixed 8/25	8/25/21 1600 hrs	1	S <input checked="" type="checkbox"/>
Comments:				
Turnaround Time (Business Days) <small>TAT begins when sample is received by eANALYTICS</small> <input type="radio"/> Normal (5-10 Days) <input checked="" type="radio"/> 3 Day (1.25x) Rush analysis requires an extra charge. <input type="radio"/> 2 Day (1.5x) If possible please inform eANALYTICS in <input type="radio"/> 1 Day (2x) advance for rush analysis. <input type="radio"/> Same Day (3x)		Record of Custody		
For eANALYTICS Use		Relinquished by: Grayson Lewis Date: 8/25/2021		
Samples Received Intact Yes / No		Company: Summit Midstream Time: 6:00 PM		
Received Within Temperature Range (2-6°C) Yes / No		Received by: Austin Sparks Date: 9/1/2021		
Sample Preservative Ice Acid Other		Company: Aspen Environmental Field Services Time: 8:00 AM		
		Relinquished by: Austin Sparks Date: 9/1/2021		
		Company: Aspen Environmental Field Services Time: 10:00 AM		
		Received by: <i>Morgan Kay</i> Date: 9/1/21		
		Company: eANALYTICS Time: 2:02 PM		

WO # 4654

eANALYTICS: Environmental testing made Easy

Page 1 of 1

eANALYTICS
LABORATORY

Client:	Aspen Environmental Field Services	Sample Name:	Sample #1 Background - 17 Feet
Project:	Summit Midstream / P6 Soil Samples	Lab ID:	4654 1
		Date Sampled:	8/25/2021
		Date Extracted:	9/2/2021
Analysis:	PAHs (Polynuclear Aromatic Hydrocarbons)	Date Analyzed:	9/5/2021
		Method:	EPA8270 (SIM)

Surrogate Recoveries

Surrogate	% Recovery	Surrogate	% Recovery
Nitrobenzene-d5	86	2-Fluorobiphenyl	102
2,4,6 Tribromophenol	112	p-Terphenyl-d14	94

Compound	Result (mg/kg)
1-Methylnaphthalene	<1.5
2-Methylnaphthalene	<1.5
Acenaphthene	<1.5
Anthracene	<1.5
Benzo(a)-anthracene	<1.0
Benzo(a)-pyrene	<0.11
Benzo(b)-fluoranthene	<1.0
Benzo(k)-fluoranthene	<1.5
Chrysene	<1.5
Dibenzo(a,h)-anthracene	<0.10
Fluoranthene	<1.5
Fluorene	<1.5
Indeno(1,2,3-C,D)-pyrene	<1.0
Pyrene	<1.5
Naphthalene	<1.0

eANALYTICS

LABORATORY

Client:	Aspen Environmental Field Services	Sample Name:	Sample #2 Northeast Wall - 10 Feet
Project:	Summit Midstream / P6 Soil Samples	Lab ID:	4654 2
Analysis:	PAHs (Polynuclear Aromatic Hydrocarbons)	Date Sampled:	8/25/2021
		Date Extracted:	9/2/2021
		Date Analyzed:	9/5/2021
		Method:	EPA8270 (SIM)

Surrogate Recoveries

Surrogate	% Recovery	Surrogate	% Recovery
Nitrobenzene-d5	88	2-Fluorobiphenyl	106
2,4,6 Tribromophenol	161	p-Terphenyl-d14	99

Compound	Result (mg/kg)
1-Methylnaphthalene	<1.5
2-Methylnaphthalene	<1.5
Acenaphthene	<1.5
Anthracene	<1.5
Benzo(a)-anthracene	<1.0
Benzo(a)-pyrene	<0.11
Benzo(b)-fluoranthene	<1.0
Benzo(k)-fluoranthene	<1.5
Chrysene	<1.5
Dibenzo(a,h)-anthracene	<0.10
Fluoranthene	<1.5
Fluorene	<1.5
Indeno(1,2,3-C,D)-pyrene	<1.0
Pyrene	<1.5
Naphthalene	<1.0

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eANALYTICS
LABORATORY

Client:	Aspen Environmental Field Services	Sample Name:	Sample #3 Southeast Wall - 16 Feet
Project:	Summit Midstream / P6 Soil Samples	Lab ID:	4654 3
Analysis:	PAHs (Polynuclear Aromatic Hydrocarbons)	Date Sampled:	8/25/2021
		Date Extracted:	9/2/2021
		Date Analyzed:	9/6/2021
		Method:	EPA8270 (SIM)

Surrogate Recoveries

Surrogate	% Recovery	Surrogate	% Recovery
Nitrobenzene-d5	80	2-Fluorobiphenyl	96
2,4,6 Tribromophenol	62	p-Terphenyl-d14	90

Compound	Result (mg/kg)
1-Methylnaphthalene	<1.5
2-Methylnaphthalene	<1.5
Acenaphthene	<1.5
Anthracene	<1.5
Benzo(a)-anthracene	<1.0
Benzo(a)-pyrene	<0.11
Benzo(b)-fluoranthene	<1.0
Benzo(k)-fluoranthene	<1.5
Chrysene	<1.5
Dibenzo(a,h)-anthracene	<0.10
Fluoranthene	<1.5
Fluorene	<1.5
Indeno(1,2,3-C,D)-pyrene	<1.0
Pyrene	<1.5
Naphthalene	<1.0

eANALYTICS

LABORATORY

Client:	Aspen Environmental Field Services	Sample Name:	Sample #4 Northwest Wall - 16 Feet
Project:	Summit Midstream / P6 Soil Samples	Lab ID:	4654 4
Analysis:	PAHs (Polynuclear Aromatic Hydrocarbons)	Date Sampled:	8/25/2021
		Date Extracted:	9/2/2021
		Date Analyzed:	9/6/2021
		Method:	EPA8270 (SIM)

Surrogate Recoveries

Surrogate	% Recovery	Surrogate	% Recovery
Nitrobenzene-d5	83	2-Fluorobiphenyl	96
2,4,6 Tribromophenol	44	p-Terphenyl-d14	91

Compound	Result (mg/kg)
1-Methylnaphthalene	<1.5
2-Methylnaphthalene	<1.5
Acenaphthene	<1.5
Anthracene	<1.5
Benzo(a)-anthracene	<1.0
Benzo(a)-pyrene	<0.11
Benzo(b)-fluoranthene	<1.0
Benzo(k)-fluoranthene	<1.5
Chrysene	<1.5
Dibenzo(a,h)-anthracene	<0.10
Fluoranthene	<1.5
Fluorene	<1.5
Indeno(1,2,3-C,D)-pyrene	<1.0
Pyrene	<1.5
Naphthalene	<1.0

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eANALYTICS

LABORATORY

Client:	Aspen Environmental Field Services	Sample Name:	Sample #5 Southwest-15 Feet
Project:	Summit Midstream / P6 Soil Samples	Lab ID:	4654 5
Analysis:	PAHs (Polynuclear Aromatic Hydrocarbons)	Date Sampled:	8/25/2021
		Date Extracted:	9/2/2021
		Date Analyzed:	9/6/2021
		Method:	EPA8270 (SIM)

Surrogate Recoveries

Surrogate	% Recovery	Surrogate	% Recovery
Nitrobenzene-d5	92	2-Fluorobiphenyl	102
2,4,6 Tribromophenol	76	p-Terphenyl-d14	94

Compound	Result (mg/kg)
1-Methylnaphthalene	<1.5
2-Methylnaphthalene	<1.5
Acenaphthene	<1.5
Anthracene	<1.5
Benzo(a)-anthracene	<1.0
Benzo(a)-pyrene	<0.11
Benzo(b)-fluoranthene	<1.0
Benzo(k)-fluoranthene	<1.5
Chrysene	<1.5
Dibenzo(a,h)-anthracene	<0.10
Fluoranthene	<1.5
Fluorene	<1.5
Indeno(1,2,3-C,D)-pyrene	<1.0
Pyrene	<1.5
Naphthalene	<1.0

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LABORATORY

Client:	Aspen Environmental Field Services	Sample Name:	Sample #6 Floor - 17 Feet
Project:	Summit Midstream / P6 Soil Samples	Lab ID:	4654 6
		Date Sampled:	8/25/2021
		Date Extracted:	9/2/2021
Analysis:	PAHs (Polynuclear Aromatic Hydrocarbons)	Date Analyzed:	9/6/2021
		Method:	EPA8270 (SIM)

Surrogate Recoveries

Surrogate	% Recovery	Surrogate	% Recovery
Nitrobenzene-d5	86	2-Fluorobiphenyl	100
2,4,6 Tribromophenol	125	p-Terphenyl-d14	93

Compound	Result (mg/kg)
1-Methylnaphthalene	<1.5
2-Methylnaphthalene	<1.5
Acenaphthene	<1.5
Anthracene	<1.5
Benzo(a)-anthracene	<1.0
Benzo(a)-pyrene	<0.11
Benzo(b)-fluoranthene	<1.0
Benzo(k)-fluoranthene	<1.5
Chrysene	<1.5
Dibenzo(a,h)-anthracene	<0.10
Fluoranthene	<1.5
Fluorene	<1.5
Indeno(1,2,3-C,D)-pyrene	<1.0
Pyrene	<1.5
Naphthalene	<1.0

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eANALYTICS

LABORATORY

Client:	Aspen Environmental Field Services	Sample Name:	Sample #8 After Mixing 8/25
Project:	Summit Midstream / P6 Soil Samples	Lab ID:	4654 7
Analysis:	PAHs (Polynuclear Aromatic Hydrocarbons)	Date Sampled:	8/25/2021
		Date Extracted:	9/2/2021
		Date Analyzed:	9/6/2021
		Method:	EPA8270 (SIM)

Surrogate Recoveries

Surrogate	% Recovery	Surrogate	% Recovery
Nitrobenzene-d5	82	2-Fluorobiphenyl	93
2,4,6 Tribromophenol	162	p-Terphenyl-d14	85

Compound	Result (mg/kg)
1-Methylnaphthalene	<1.5
2-Methylnaphthalene	<1.5
Acenaphthene	<1.5
Anthracene	<1.5
Benzo(a)-anthracene	<1.0
Benzo(a)-pyrene	<0.11
Benzo(b)-fluoranthene	<1.0
Benzo(k)-fluoranthene	<1.5
Chrysene	<1.5
Dibenzo(a,h)-anthracene	<0.10
Fluoranthene	<1.5
Fluorene	<1.5
Indeno(1,2,3-C,D)-pyrene	<1.0
Pyrene	<1.5
Naphthalene	<1.0

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Quality Control - Surrogate Recoveries

eANALYTICS

LABORATORY

Client: Aspen Environmental Field Services Lab ID: 4654
 Project: Summit Midstream / P6 Soil Samples Method: EPA8260

Sample Name	Dibromo- fluoromethane % Recovery	1,2 Dichloro- ethane-D4 % Recovery	Toluene-D8 % Recovery	4-Bromo- fluorobenzene % Recovery	Date Sampled	Date Analyzed	Lab ID
Sample #1 Background - 17 Feet	98	98	97	90	08/25/21	09/02/21	4654 1
Sample #2 Northeast Wall - 10 Feet	106	103	100	95	08/25/21	09/02/21	4654 2
Sample #3 Southeast Wall - 16 Feet	102	106	99	93	08/25/21	09/02/21	4654 3
Sample #4 Northwest Wall - 16 Feet	99	105	95	93	08/25/21	09/02/21	4654 4
Sample #5 Southwest- 15 Feet	104	110	99	87	08/25/21	09/02/21	4654 5
Sample #6 Floor - 17 Feet	100	98	95	88	08/25/21	09/02/21	4654 6
Sample #8 After Mixing 8/25	104	106	98	93	08/25/21	09/02/21	4654 7

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eANALYTICS

LABORATORY

Client: Aspen Environmental Field Services

Lab ID: 4654

Project: Summit Midstream / P6 Soil Samples

Soil		Benzene	Toluene	Ethyl-Benzene	Total Xylenes	TPH-TVPH	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	QC Start Date
Method Blank		<0.050	<0.050	<0.050	<0.050	<50.0	<0.050	<0.050	
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
Lab Control Sample	70%-130%	107	108	106	100	111	92	93	09/02/21

Soil		TPH-TEPH	QC Start Date
Method Blank		<50.0	
		mg/kg	
Lab Control Sample	70%-130%	84	09/03/21

Soil		TPH-ORO	QC Start Date
Method Blank		<50.0	
		mg/kg	
Lab Control Sample	70%-130%	106	09/05/21