



# McC Campbell Analytical, Inc.

"When Quality Counts"

## Analytical Report

**WorkOrder:** 2105A69

**Report Created for:** eAnalytics Laboratory

4130 Clydesdale Parkway  
Loveland, CO 80538

**Project Contact:** Morgen Ray

**Project P.O.:**

**Project:** Summit Midstream/A-18ESoil

**Project Received:** 05/20/2021

Analytical Report reviewed & approved for release on 05/21/2021 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/A-18ESoil  
**WorkOrder:** 2105A69

### 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:** 05/20/2021 9:20  
**Date Prepared:** 05/20/2021  
**Project:** Summit Midstream/A-18ESoil

**WorkOrder:** 2105A69  
**Extraction Method:** SW3050B  
**Analytical Method:** SW6020  
**Unit:** mg/Kg

### Arsenic

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
Sample #1 Background 2 feet (4116-1)	2105A69-001A	Soil	05/12/2021 16:00	ICP-MS4 230SMPL.d	221868

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Arsenic	14	0.50	1	05/21/2021 00:07

<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	
Terbium	101	70-130	05/21/2021 00:07

Analyst(s): WV

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
Sample #2 Background 8 feet (4116-2)	2105A69-002A	Soil	05/12/2021 16:00	ICP-MS4 231SMPL.d	221868

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Arsenic	8.6	0.50	1	05/21/2021 00:11

<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	
Terbium	96	70-130	05/21/2021 00:11

Analyst(s): WV

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
Sample #3 North Wall (4116-3)	2105A69-003A	Soil	05/12/2021 16:00	ICP-MS4 234SMPL.d	221868

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Arsenic	11	0.50	1	05/21/2021 00:22

<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	
Terbium	95	70-130	05/21/2021 00:22

Analyst(s): WV

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
Sample #4 South Wall (4116-4)	2105A69-004A	Soil	05/12/2021 16:00	ICP-MS4 235SMPL.d	221868

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Arsenic	22	0.50	1	05/21/2021 00:26

<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	
Terbium	89	70-130	05/21/2021 00:26

Analyst(s): WV

(Cont.)



## Analytical Report

**Client:** eAnalytics Laboratory  
**Date Received:** 05/20/2021 9:20  
**Date Prepared:** 05/20/2021  
**Project:** Summit Midstream/A-18ESoil

**WorkOrder:** 2105A69  
**Extraction Method:** SW3050B  
**Analytical Method:** SW6020  
**Unit:** mg/Kg

### Arsenic

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
Sample #5 East Wall (4116-5)	2105A69-005A	Soil	05/12/2021 16:00	ICP-MS4 236SMPL.d	221868

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Arsenic	10	0.50	1	05/21/2021 00:30

<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	
Terbium	99	70-130	05/21/2021 00:30

Analyst(s): WV

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
Sample #6 West Wall (4116-6)	2105A69-006A	Soil	05/12/2021 16:00	ICP-MS4 237SMPL.d	221868

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Arsenic	7.5	0.50	1	05/21/2021 00:34

<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	
Terbium	81	70-130	05/21/2021 00:34

Analyst(s): WV

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
Sample #7 Floor (4116-7)	2105A69-007A	Soil	05/12/2021 16:00	ICP-MS4 238SMPL.d	221868

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Arsenic	7.2	0.50	1	05/21/2021 00:37

<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	
Terbium	100	70-130	05/21/2021 00:37

Analyst(s): WV



## Quality Control Report

**Client:** eAnalytics Laboratory

**Date Prepared:** 05/20/2021

**Date Analyzed:** 05/20/2021

**Instrument:** ICP-MS4

**Matrix:** Soil

**Project:** Summit Midstream/A-18ESoil

**WorkOrder:** 2105A69

**BatchID:** 221868

**Extraction Method:** SW3050B

**Analytical Method:** SW6020

**Unit:** mg/kg

**Sample ID:** MB/LCS/LCSD-221868

### QC Summary Report for Metals

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Arsenic	ND	0.150	0.500	-	-	-

#### Surrogate Recovery

Terbium	418			500	84	70-130
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Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Arsenic	47.1	47.5	50	94	95	75-125	0.852	20

#### Surrogate Recovery

Terbium	475	481	500	95	96	70-130	1.13	20
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# McC Campbell Analytical, Inc.



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

☐ WaterTrax ☐ WriteOn ☐ EDF

# CHAIN-OF-CUSTODY RECORD

Page 1 of 1

WorkOrder: 2105A69

ClientCode: EACO

☐ 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@eanalyticlab.com  
cc/3rd Party:  
PO:  
Project: Summit Midstream/A-18ESoil

## Bill to:

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

Requested TAT: 1 day;

Date Received: 05/20/2021

Date Logged: 05/20/2021

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
2105A69-001	Sample #1 Background 2 feet (4116-1)	Soil	5/12/2021 16:00	<input type="checkbox"/>	A	A										
2105A69-002	Sample #2 Background 8 feet (4116-2)	Soil	5/12/2021 16:00	<input type="checkbox"/>	A	A										
2105A69-003	Sample #3 North Wall (4116-3)	Soil	5/12/2021 16:00	<input type="checkbox"/>	A	A										
2105A69-004	Sample #4 South Wall (4116-4)	Soil	5/12/2021 16:00	<input type="checkbox"/>	A	A										
2105A69-005	Sample #5 East Wall (4116-5)	Soil	5/12/2021 16:00	<input type="checkbox"/>	A	A										
2105A69-006	Sample #6 West Wall (4116-6)	Soil	5/12/2021 16:00	<input type="checkbox"/>	A	A										
2105A69-007	Sample #7 Floor (4116-7)	Soil	5/12/2021 16:00	<input type="checkbox"/>	A	A										

## Test Legend:

1	ASMS_6020_TTLC_S	2	PRDisposal Fee	3		4	
5		6		7		8	
9		10		11		12	

Project Manager: Rosa Venegas

Prepared by: Tina Perez

## 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.



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1534 Willow Pass Road, Pittsburg, CA 94565-1701  
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269  
http://www.mcccampbell.com / E-mail: main@mcccampbell.com

## WORK ORDER SUMMARY

**Client Name:** EANALYTICS LABORATORY

**Project:** Summit Midstream/A-18ESoil

**Work Order:** 2105A69

**Client Contact:** Morgen Ray

**QC Level:** LEVEL 2

**Contact's Email:** mray@eanalyticslab.com

**Comments**

**Date Logged:** 5/20/2021

☐ 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 2 feet (4116-1)	Soil	SW6020 (Arsenic)	1	4OZ GJ, Unpres	<input type="checkbox"/>	<input type="checkbox"/>	5/12/2021 16:00	1 day	5/21/2021		<input type="checkbox"/>	
002A	Sample #2 Background 8 feet (4116-2)	Soil	SW6020 (Arsenic)	1	4OZ GJ, Unpres	<input type="checkbox"/>	<input type="checkbox"/>	5/12/2021 16:00	1 day	5/21/2021		<input type="checkbox"/>	
003A	Sample #3 North Wall (4116-3)	Soil	SW6020 (Arsenic)	1	4OZ GJ, Unpres	<input type="checkbox"/>	<input type="checkbox"/>	5/12/2021 16:00	1 day	5/21/2021		<input type="checkbox"/>	
004A	Sample #4 South Wall (4116-4)	Soil	SW6020 (Arsenic)	1	4OZ GJ, Unpres	<input type="checkbox"/>	<input type="checkbox"/>	5/12/2021 16:00	1 day	5/21/2021		<input type="checkbox"/>	
005A	Sample #5 East Wall (4116-5)	Soil	SW6020 (Arsenic)	1	4OZ GJ, Unpres	<input type="checkbox"/>	<input type="checkbox"/>	5/12/2021 16:00	1 day	5/21/2021		<input type="checkbox"/>	
006A	Sample #6 West Wall (4116-6)	Soil	SW6020 (Arsenic)	1	4OZ GJ, Unpres	<input type="checkbox"/>	<input type="checkbox"/>	5/12/2021 16:00	1 day	5/21/2021		<input type="checkbox"/>	
007A	Sample #7 Floor (4116-7)	Soil	SW6020 (Arsenic)	1	4OZ GJ, Unpres	<input type="checkbox"/>	<input type="checkbox"/>	5/12/2021 16:00	1 day	5/21/2021		<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.





**McCAMPBELL ANALYTICAL, INC.**

1534 Willow Pass Rd. Pittsburg, Ca. 94565-1701

Telephone: (877) 252-9262 / Fax: (925) 252-9269

www.mccampbell.com

main@mccampbell.com

Report To: Morgen Ray

Bill To: [cdieken@eanalyticslab.com](mailto:cdieken@eanalyticslab.com)

Company: eAnalytics Lab

Email: mray@eanalyticslab.com

Alt Email:

Tele: 970-667-6975

Project Name: Spruce Nidstream / A-19E Soil Project #:

Project Location:	PO #
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**Sampler Signature:**

## CHAIN OF CUSTODY RECORD

Turn Around Time: 1 Day Rush

2 Day Rush

3 Day Rush

STD

Quote #

J-Flag / MDL

ESL

Cleanup Approved

Bottle Order #	
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Delivery Format:	PDF
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PDF

GeoTracker EDF

EDD

Write On (DW)

EQUIS

### Analysis Requested

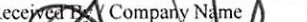
SAMPLE ID Location / Field Point	Sampling		#Containers	Matrix	Preservative
	Date	Time			
Sample #1 Background 2 feet (4116-1)	5/12/21	16:00	1	S	1
Sample #2 Background 8 feet (4116-2)	5/12/21	16:00	1	S	1
Sample #3 North Wall (4116-3)	5/12/21	16:00	1	S	1
Sample #4 South Wall (4116-4)	5/12/21	16:00	1	S	1
Sample #5 East Wall (4116-5)	5/12/21	16:00	1	S	1
Sample #6 West Wall (4116-6)	5/12/21	16:00	1	S	1
Sample #7 Floor (4116-7)	5/12/21	16:00	1	S	1

Total as	
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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
Miranda Noel / eAnalytics	5/17/21			5/20/21	

Comments / Instructions

\* per email.  
7 Day Rush

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=H<sub>2</sub>SO<sub>4</sub> 4=HNO<sub>3</sub> 5=NaOH 6=ZnOAc/NaOH 7=None

Temp

5.9°C

Initials

7p.

Page of





## Sample Receipt Checklist

Client Name: **eAnalytics Laboratory**  
Project: **Summit Midstream/A-18ESoil**

Date and Time Received: **5/20/2021 09:20**

Date Logged: **5/20/2021**

Received by: **Tina Perez**

Logged by: **Tina Perez**

WorkOrder No: **2105A69** Matrix: Soil

Carrier: FedEx

### Chain of Custody (COC) Information

Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample IDs noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Date and Time of collection noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sampler's name noted on COC?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
COC agrees with Quote?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>

### Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/>
Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper containers/bottles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

### Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/>
Samples Received on Ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
(Ice Type: OTHERS )			

Sample/Temp Blank temperature	Temp: 5.9°C	NA <input type="checkbox"/>
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ZHS conditional analyses: VOA meets zero headspace requirement (VOCs, TPHg/BTEX, RSK)?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
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Sample labels checked for correct preservation?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
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pH acceptable upon receipt (Metal: <2; Nitrate 353.2/4500NO3: <2; 522: <4; 218.7: >8)?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
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### UCMR Samples:

pH tested and acceptable upon receipt (200.8: ≤2; 525.3: ≤4; 530: ≤7; 541: <3; 544: <6.5 & 7.5)?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
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Free Chlorine tested and acceptable upon receipt (<0.1mg/L)?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
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Comments