

# Summit Scientific

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4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

August 10, 2023

Carter Peace

GIS Peace

2951 Niagara St

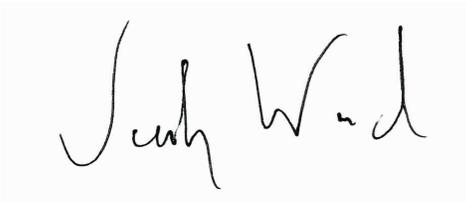
Denver, CO 80207

RE: CO State 1 and 2

Work Order #2308027

Enclosed are the results of analyses for samples received by Summit Scientific on 08/01/23 14:09. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

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

Jacob Wood For Paul Shrewsbury

President



GIS Peace  
2951 Niagara St  
Denver CO, 80207

Project: CO State 1 and 2

Project Number: [none]  
Project Manager: Carter Peace

**Reported:**  
08/10/23 12:19

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
WPWS	2308027-01	Soil	08/01/23 00:00	08/01/23 14:09
WPSS	2308027-02	Soil	08/01/23 00:00	08/01/23 14:09
EPES	2308027-03	Soil	08/01/23 00:00	08/01/23 14:09
EPNS	2308027-04	Soil	08/01/23 00:00	08/01/23 14:09
EPSS	2308027-05	Soil	08/01/23 00:00	08/01/23 14:09
EPWS	2308027-06	Soil	08/01/23 00:00	08/01/23 14:09
SPILL 1	2308027-07	Soil	08/01/23 00:00	08/01/23 14:09
SPILL 2	2308027-08	Soil	08/01/23 00:00	08/01/23 14:09
SPILL 3	2308027-09	Soil	08/01/23 00:00	08/01/23 14:09
SPILL 4	2308027-10	Soil	08/01/23 00:00	08/01/23 14:09
BM1	2308027-11	Soil	08/01/23 00:00	08/01/23 14:09
BM2	2308027-12	Soil	08/01/23 00:00	08/01/23 14:09
BM3	2308027-13	Soil	08/01/23 00:00	08/01/23 14:09
BM4	2308027-14	Soil	08/01/23 00:00	08/01/23 14:09
BM5	2308027-15	Soil	08/01/23 00:00	08/01/23 14:09
WPB	2308027-16	Soil	08/01/23 00:00	08/01/23 14:09
EPB	2308027-17	Soil	08/01/23 00:00	08/01/23 14:09

Summit Scientific

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# Summit Scientific

S<sub>2</sub>

2308027-1

4653 Table Mountain Drive ♦ Golden, Colorado 80403

303-277-9310

Page 1 of 2

Client: GIS PEACE

Project Manager:

Address:

E-Mail:

City/State/Zip:

Phone:

Project Name: CO STATE 1 AND 2

Sampler Name:

Project Number:

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested				Special Instructions	
					HCl	HNO <sub>3</sub>	None	Other	Water	Soil	Air-Canister #	Other						
1	WPWS	8/1/23																
2	WPSS																	
3	EP ES																	
4	EP NS																	
5	EP SS																	
6	EP WS																	
7	SPILL 1																	
8	SPILL 2																	
9	SPILL 3																	
10	SPILL 4																	
Relinquished by: <u>[Signature]</u>		Date/Time: <u>8/1/23 16:00</u>		Received by: <u>[Signature]</u>		Date/Time: <u>8/1/23 14:00</u>		Turn Around Time (Check)				Notes:						
Relinquished by:		Date/Time:		Received by:		Date/Time:		Same Day <input type="checkbox"/> 72 hours <input type="checkbox"/>				<u>915 SS =</u> <u>EC, SAR</u> <u>pH SATURATED PASTE</u> <u>BORON HOT WATER</u>						
								24 hours <input type="checkbox"/> Standard <input checked="" type="checkbox"/>										
Temperature Upon Receipt: <u>28.4</u>		Corrected Temperature _____				HNO <sub>3</sub> lot # _____				Sample Integrity:								
IR gun correction: _____		IR gun #: <u>2</u>								Samples Intact: <input checked="" type="radio"/> Yes <input type="radio"/> No								

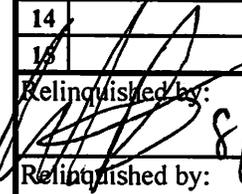
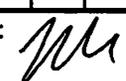
# SUMMIT SCIENTIFIC

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

Lab ID  
**2308027-2**  
Page **2** of **2**

Client: <b>GIS PEACE</b>	Send Data To: Project Manager: <b>CARTER PEACE</b>	Send Invoice To: Company: <b>GIS PEACE</b>
Address:	E-Mail:	Project Name/Location:
City/State/Zip:		AFE#:
Phone:	Project Name: <b>CO STATE 1 AND 2</b>	PO/Billing Codes:
Sampler Name: <b>CJP</b>	Project Number:	Contact:

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix			Air-Canister #	Other	Analysis Requested	Special Instructions
					HCl	HNO3	None	Other	Water	Soil	Other				
1	B M 1	8/1/23					X			X					
2	B M 2						X			X					
3	B M 3						X			X					
4	B M 4						X			X					
5	B M 5						X			X					
6	<del>SPILL 1</del>														
7	<del>SPILL 2</del>														
8	<del>SPILL 3</del>														
9	<del>SPILL 4</del>														
10	WPB														
11	<del>WPB</del> EPTB														
12															
13															
14															

Relinquished by: 	Date/Time: <b>8/1/23 1400</b>	Received by: 	Date/Time: <b>8/1/23 14:09</b>	TAT Business Days	Field DO	Notes:
Relinquished by:	Date/Time:	Received by:	Date/Time:	Same Day	Field EC	
				1 Day	Field ORP	
				2 Days	Field pH	
				3 Days	Field Temp.	
Temperature Upon Receipt: <b>28.4</b>	Corrected Temperature	IR gun #: <b>2</b>	HNO3 lot #:	Standard	<input checked="" type="checkbox"/> Field Turb.	

S<sub>2</sub>

2/a  
Sample Receipt Checklist

S2 Work Order# 2308027

Client: GIS Pearce Client Project ID: CO State

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

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

*M*

Custodian Printed Name

8/1/23

Date/Time

14:09



GIS Peace  
2951 Niagara St  
Denver CO, 80207

Project: CO State 1 and 2

Project Number: [none]  
Project Manager: Carter Peace

**Reported:**  
08/10/23 12:19

**WPWS**  
**2308027-01 (Soil)**

Summit Scientific

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	0.0100	mg/L	1	BGH0088	08/02/23	08/08/23	EPA 6020B	

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

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	105	0.0578	mg/L dry	1	BGH0083	08/02/23	08/07/23	EPA 6020B	
Magnesium	40.4	0.0578	"	"	"	"	"	"	
Sodium	73.1	0.0578	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.54	0.00100	units	1	BGH0292	08/08/23	08/08/23	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	86.5		%	1	BGH0110	08/02/23	08/03/23	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	1.05	0.0100	mmhos/cm	1	BGH0156	08/03/23	08/03/23	EPA 120.1	

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

Summit Scientific

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GIS Peace  
 2951 Niagara St  
 Denver CO, 80207

Project: CO State 1 and 2

Project Number: [none]  
 Project Manager: Carter Peace

**Reported:**  
 08/10/23 12:19

**WPWS**  
**2308027-01 (Soil)**

**Summit Scientific**

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

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<b>pH</b>	<b>7.59</b>		pH Units	1	BGH0157	08/03/23	08/03/23	EPA 9045D	

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GIS Peace  
2951 Niagara St  
Denver CO, 80207

Project: CO State 1 and 2

Project Number: [none]  
Project Manager: Carter Peace

**Reported:**  
08/10/23 12:19

**WPSS**  
**2308027-02 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.0958</b>	0.0100	mg/L	1	BGH0088	08/02/23	08/08/23	EPA 6020B	

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

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Calcium</b>	<b>937</b>	0.0630	mg/L dry	1	BGH0083	08/02/23	08/07/23	EPA 6020B	
<b>Magnesium</b>	<b>148</b>	0.0630	"	"	"	"	"	"	
<b>Sodium</b>	<b>205</b>	0.0630	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Sodium Adsorption Ratio</b>	<b>1.64</b>	0.00100	units	1	BGH0292	08/08/23	08/08/23	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>% Solids</b>	<b>79.3</b>		%	1	BGH0110	08/02/23	08/03/23	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Specific Conductance (EC)</b>	<b>0.575</b>	0.0100	mmhos/cm	1	BGH0156	08/03/23	08/03/23	EPA 120.1	

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

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GIS Peace  
 2951 Niagara St  
 Denver CO, 80207

Project: CO State 1 and 2

Project Number: [none]  
 Project Manager: Carter Peace

**Reported:**  
 08/10/23 12:19

**WPSS**  
**2308027-02 (Soil)**

**Summit Scientific**

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

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<b>pH</b>	<b>8.09</b>		pH Units	1	BGH0157	08/03/23	08/03/23	EPA 9045D	

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GIS Peace  
2951 Niagara St  
Denver CO, 80207

Project: CO State 1 and 2

Project Number: [none]  
Project Manager: Carter Peace

**Reported:**  
08/10/23 12:19

**EPES**  
**2308027-03 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.0122</b>	0.0100	mg/L	1	BGH0088	08/02/23	08/08/23	EPA 6020B	

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

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Calcium</b>	<b>93.7</b>	0.0587	mg/L dry	1	BGH0083	08/02/23	08/07/23	EPA 6020B	
<b>Magnesium</b>	<b>8.98</b>	0.0587	"	"	"	"	"	"	
<b>Sodium</b>	<b>18.5</b>	0.0587	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Sodium Adsorption Ratio</b>	<b>0.489</b>	0.00100	units	1	BGH0292	08/08/23	08/08/23	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>% Solids</b>	<b>85.1</b>		%	1	BGH0110	08/02/23	08/03/23	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Specific Conductance (EC)</b>	<b>0.325</b>	0.0100	mmhos/cm	1	BGH0156	08/03/23	08/03/23	EPA 120.1	

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

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GIS Peace  
 2951 Niagara St  
 Denver CO, 80207

Project: CO State 1 and 2

Project Number: [none]  
 Project Manager: Carter Peace

**Reported:**  
 08/10/23 12:19

**EPES**  
**2308027-03 (Soil)**

**Summit Scientific**

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

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<b>pH</b>	<b>7.70</b>		pH Units	1	BGH0157	08/03/23	08/03/23	EPA 9045D	

Summit Scientific



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GIS Peace  
2951 Niagara St  
Denver CO, 80207

Project: CO State 1 and 2

Project Number: [none]  
Project Manager: Carter Peace

**Reported:**  
08/10/23 12:19

**EPNS**  
**2308027-04 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	0.0100	mg/L	1	BGH0088	08/02/23	08/08/23	EPA 6020B	

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

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	<b>81.0</b>	0.0595	mg/L dry	1	BGH0083	08/02/23	08/07/23	EPA 6020B	
Magnesium	<b>10.4</b>	0.0595	"	"	"	"	"	"	
Sodium	<b>8.67</b>	0.0595	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	<b>0.241</b>	0.00100	units	1	BGH0292	08/08/23	08/08/23	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	<b>84.1</b>		%	1	BGH0110	08/02/23	08/03/23	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	<b>0.257</b>	0.0100	mmhos/cm	1	BGH0156	08/03/23	08/03/23	EPA 120.1	

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

Summit Scientific

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GIS Peace  
 2951 Niagara St  
 Denver CO, 80207

Project: CO State 1 and 2

Project Number: [none]  
 Project Manager: Carter Peace

**Reported:**  
 08/10/23 12:19

**EPNS**

**2308027-04 (Soil)**

**Summit Scientific**

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

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
<b>pH</b>	<b>7.77</b>			pH Units	1	BGH0157	08/03/23	08/03/23	EPA 9045D	

Summit Scientific



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GIS Peace  
2951 Niagara St  
Denver CO, 80207

Project: CO State 1 and 2

Project Number: [none]  
Project Manager: Carter Peace

**Reported:**  
08/10/23 12:19

**EPSS**  
**2308027-05 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	0.0100	mg/L	1	BGH0088	08/02/23	08/08/23	EPA 6020B	

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

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	<b>54.3</b>	0.0601	mg/L dry	1	BGH0083	08/02/23	08/07/23	EPA 6020B	
Magnesium	<b>11.6</b>	0.0601	"	"	"	"	"	"	
Sodium	<b>8.48</b>	0.0601	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	<b>0.273</b>	0.00100	units	1	BGH0292	08/08/23	08/08/23	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	<b>83.2</b>		%	1	BGH0110	08/02/23	08/03/23	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	<b>0.320</b>	0.0100	mmhos/cm	1	BGH0156	08/03/23	08/03/23	EPA 120.1	

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

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GIS Peace  
 2951 Niagara St  
 Denver CO, 80207

Project: CO State 1 and 2

Project Number: [none]  
 Project Manager: Carter Peace

**Reported:**  
 08/10/23 12:19

**EPSS**  
**2308027-05 (Soil)**

**Summit Scientific**

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

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<b>pH</b>	<b>7.32</b>		pH Units	1	BGH0157	08/03/23	08/03/23	EPA 9045D	

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GIS Peace  
2951 Niagara St  
Denver CO, 80207

Project: CO State 1 and 2

Project Number: [none]  
Project Manager: Carter Peace

**Reported:**  
08/10/23 12:19

**EPWS**  
**2308027-06 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	0.0100	mg/L	1	BGH0088	08/02/23	08/08/23	EPA 6020B	

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

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	72.4	0.0571	mg/L dry	1	BGH0083	08/02/23	08/07/23	EPA 6020B	
Magnesium	13.2	0.0571	"	"	"	"	"	"	
Sodium	62.7	0.0571	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.78	0.00100	units	1	BGH0292	08/08/23	08/08/23	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	87.5		%	1	BGH0110	08/02/23	08/03/23	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.447	0.0100	mmhos/cm	1	BGH0156	08/03/23	08/03/23	EPA 120.1	

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

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GIS Peace  
 2951 Niagara St  
 Denver CO, 80207

Project: CO State 1 and 2

Project Number: [none]  
 Project Manager: Carter Peace

**Reported:**  
 08/10/23 12:19

**EPWS**  
**2308027-06 (Soil)**

**Summit Scientific**

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

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<b>pH</b>	<b>7.55</b>		pH Units	1	BGH0157	08/03/23	08/03/23	EPA 9045D	

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GIS Peace  
2951 Niagara St  
Denver CO, 80207

Project: CO State 1 and 2

Project Number: [none]  
Project Manager: Carter Peace

**Reported:**  
08/10/23 12:19

**SPILL 1**  
**2308027-07 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.0572</b>	0.0100	mg/L	1	BGH0088	08/02/23	08/08/23	EPA 6020B	

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

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Calcium</b>	<b>223</b>	0.0565	mg/L dry	1	BGH0083	08/02/23	08/07/23	EPA 6020B	
<b>Magnesium</b>	<b>69.4</b>	0.0565	"	"	"	"	"	"	
<b>Sodium</b>	<b>273</b>	0.0565	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Sodium Adsorption Ratio</b>	<b>4.09</b>	0.00100	units	1	BGH0292	08/08/23	08/08/23	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>% Solids</b>	<b>88.4</b>		%	1	BGH0110	08/02/23	08/03/23	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Specific Conductance (EC)</b>	<b>0.680</b>	0.0100	mmhos/cm	1	BGH0156	08/03/23	08/03/23	EPA 120.1	

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

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GIS Peace  
 2951 Niagara St  
 Denver CO, 80207

Project: CO State 1 and 2

Project Number: [none]  
 Project Manager: Carter Peace

**Reported:**  
 08/10/23 12:19

**SPILL 1**  
**2308027-07 (Soil)**

**Summit Scientific**

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

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<b>pH</b>	<b>8.24</b>		pH Units	1	BGH0157	08/03/23	08/03/23	EPA 9045D	

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2951 Niagara St  
Denver CO, 80207

Project: CO State 1 and 2

Project Number: [none]  
Project Manager: Carter Peace

**Reported:**  
08/10/23 12:19

**SPILL 2**  
**2308027-08 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.0608</b>	0.0100	mg/L	1	BGH0088	08/02/23	08/08/23	EPA 6020B	

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

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Calcium</b>	<b>159</b>	0.0561	mg/L dry	1	BGH0083	08/02/23	08/07/23	EPA 6020B	
<b>Magnesium</b>	<b>29.2</b>	0.0561	"	"	"	"	"	"	
<b>Sodium</b>	<b>395</b>	0.0561	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Sodium Adsorption Ratio</b>	<b>7.56</b>	0.00100	units	1	BGH0292	08/08/23	08/08/23	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>% Solids</b>	<b>89.2</b>		%	1	BGH0110	08/02/23	08/03/23	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Specific Conductance (EC)</b>	<b>1.51</b>	0.0100	mmhos/cm	1	BGH0156	08/03/23	08/03/23	EPA 120.1	

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

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GIS Peace  
 2951 Niagara St  
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Project: CO State 1 and 2

Project Number: [none]  
 Project Manager: Carter Peace

**Reported:**  
 08/10/23 12:19

**SPILL 2**  
**2308027-08 (Soil)**

**Summit Scientific**

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

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
<b>pH</b>	<b>8.02</b>			pH Units	1	BGH0157	08/03/23	08/03/23	EPA 9045D	

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GIS Peace  
2951 Niagara St  
Denver CO, 80207

Project: CO State 1 and 2

Project Number: [none]  
Project Manager: Carter Peace

**Reported:**  
08/10/23 12:19

**SPILL 3**  
**2308027-09 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.101</b>	0.0100	mg/L	1	BGH0088	08/02/23	08/08/23	EPA 6020B	

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

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Calcium</b>	<b>178</b>	0.0645	mg/L dry	1	BGH0083	08/02/23	08/07/23	EPA 6020B	
<b>Magnesium</b>	<b>40.7</b>	0.0645	"	"	"	"	"	"	
<b>Sodium</b>	<b>187</b>	0.0645	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Sodium Adsorption Ratio</b>	<b>3.29</b>	0.00100	units	1	BGH0292	08/08/23	08/08/23	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>% Solids</b>	<b>77.6</b>		%	1	BGH0110	08/02/23	08/03/23	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Specific Conductance (EC)</b>	<b>0.576</b>	0.0100	mmhos/cm	1	BGH0156	08/03/23	08/03/23	EPA 120.1	

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

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GIS Peace  
 2951 Niagara St  
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Project: CO State 1 and 2

Project Number: [none]  
 Project Manager: Carter Peace

**Reported:**  
 08/10/23 12:19

**SPILL 3**  
**2308027-09 (Soil)**

**Summit Scientific**

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

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<b>pH</b>	<b>7.76</b>		pH Units	1	BGH0157	08/03/23	08/03/23	EPA 9045D	

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GIS Peace  
2951 Niagara St  
Denver CO, 80207

Project: CO State 1 and 2

Project Number: [none]  
Project Manager: Carter Peace

**Reported:**  
08/10/23 12:19

**SPILL 4**  
**2308027-10 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B Hot Water Soluble Extraction**

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Boron</b>	<b>0.0543</b>	0.0100	mg/L	1	BGH0088	08/02/23	08/08/23	EPA 6020B	

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

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Calcium</b>	<b>246</b>	0.0642	mg/L dry	1	BGH0083	08/02/23	08/07/23	EPA 6020B	
<b>Magnesium</b>	<b>61.4</b>	0.0642	"	"	"	"	"	"	
<b>Sodium</b>	<b>182</b>	0.0642	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Sodium Adsorption Ratio</b>	<b>2.69</b>	0.00100	units	1	BGH0292	08/08/23	08/08/23	Calculation	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>% Solids</b>	<b>77.9</b>		%	1	BGH0110	08/02/23	08/03/23	Calculation	

**Specific Conductance by EPA Method 120.1, Saturated Paste Extraction**

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Specific Conductance (EC)</b>	<b>0.558</b>	0.0100	mmhos/cm	1	BGH0156	08/03/23	08/03/23	EPA 120.1	

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

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GIS Peace  
 2951 Niagara St  
 Denver CO, 80207

Project: CO State 1 and 2

Project Number: [none]  
 Project Manager: Carter Peace

**Reported:**  
 08/10/23 12:19

**SPILL 4**  
**2308027-10 (Soil)**

**Summit Scientific**

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

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<b>pH</b>	<b>7.52</b>		pH Units	1	BGH0157	08/03/23	08/03/23	EPA 9045D	

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GIS Peace  
2951 Niagara St  
Denver CO, 80207

Project: CO State 1 and 2

Project Number: [none]  
Project Manager: Carter Peace

**Reported:**  
08/10/23 12:19

**BM1**  
**2308027-11 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	0.721	0.200	mg/kg dry	1	BGH0100	08/02/23	08/03/23	EPA 6020B	
Barium	60.5	0.400	"	"	"	"	"	"	"
Cadmium	0.266	0.200	"	"	"	"	"	"	"
Copper	1.69	0.400	"	"	"	"	"	"	"
Lead	6.50	0.200	"	"	"	"	"	"	"
Nickel	1.78	0.400	"	"	"	"	"	"	"
Selenium	ND	0.292	"	"	"	"	"	"	"
Silver	0.0252	0.0200	"	"	"	"	"	"	"
Zinc	7.07	0.400	"	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGH0102	08/02/23	08/02/23	EPA 7196A	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
% Solids	89.0		%	1	BGH0110	08/02/23	08/03/23	Calculation	

Summit Scientific

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GIS Peace  
2951 Niagara St  
Denver CO, 80207

Project: CO State 1 and 2

Project Number: [none]  
Project Manager: Carter Peace

**Reported:**  
08/10/23 12:19

**BM2**  
**2308027-12 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	<b>0.800</b>	0.200	mg/kg dry	1	BGH0100	08/02/23	08/03/23	EPA 6020B	
Barium	<b>104</b>	0.400	"	"	"	"	"	"	
Cadmium	<b>0.256</b>	0.200	"	"	"	"	"	"	
Copper	<b>1.97</b>	0.400	"	"	"	"	"	"	
Lead	<b>7.10</b>	0.200	"	"	"	"	"	"	
Nickel	<b>2.48</b>	0.400	"	"	"	"	"	"	
Selenium	ND	0.288	"	"	"	"	"	"	
Silver	<b>0.0563</b>	0.0200	"	"	"	"	"	"	
Zinc	<b>7.07</b>	0.400	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGH0102	08/02/23	08/02/23	EPA 7196A	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
% Solids	<b>90.3</b>		%	1	BGH0110	08/02/23	08/03/23	Calculation	

Summit Scientific

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GIS Peace  
2951 Niagara St  
Denver CO, 80207

Project: CO State 1 and 2

Project Number: [none]  
Project Manager: Carter Peace

**Reported:**  
08/10/23 12:19

**BM3**  
**2308027-13 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	1.30	0.200	mg/kg dry	1	BGH0100	08/02/23	08/03/23	EPA 6020B	
Barium	133	0.400	"	"	"	"	"	"	"
Cadmium	0.251	0.200	"	"	"	"	"	"	"
Copper	2.28	0.400	"	"	"	"	"	"	"
Lead	6.18	0.200	"	"	"	"	"	"	"
Nickel	2.56	0.400	"	"	"	"	"	"	"
Selenium	ND	0.293	"	"	"	"	"	"	"
Silver	0.0496	0.0200	"	"	"	"	"	"	"
Zinc	6.93	0.400	"	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGH0102	08/02/23	08/02/23	EPA 7196A	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
% Solids	88.8		%	1	BGH0110	08/02/23	08/03/23	Calculation	

Summit Scientific

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GIS Peace  
2951 Niagara St  
Denver CO, 80207

Project: CO State 1 and 2

Project Number: [none]  
Project Manager: Carter Peace

**Reported:**  
08/10/23 12:19

**BM4**  
**2308027-14 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	0.741	0.200	mg/kg dry	1	BGH0100	08/02/23	08/03/23	EPA 6020B	
Barium	85.6	0.400	"	"	"	"	"	"	"
Cadmium	0.312	0.200	"	"	"	"	"	"	"
Copper	1.91	0.400	"	"	"	"	"	"	"
Lead	8.27	0.200	"	"	"	"	"	"	"
Nickel	1.81	0.400	"	"	"	"	"	"	"
Selenium	ND	0.286	"	"	"	"	"	"	"
Silver	0.0317	0.0200	"	"	"	"	"	"	"
Zinc	8.44	0.400	"	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGH0102	08/02/23	08/02/23	EPA 7196A	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
% Solids	90.8		%	1	BGH0110	08/02/23	08/03/23	Calculation	

Summit Scientific

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GIS Peace  
2951 Niagara St  
Denver CO, 80207

Project: CO State 1 and 2

Project Number: [none]  
Project Manager: Carter Peace

**Reported:**  
08/10/23 12:19

**BM5**  
**2308027-15 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	<b>0.746</b>	0.200	mg/kg dry	1	BGH0100	08/02/23	08/03/23	EPA 6020B	
Barium	<b>77.3</b>	0.400	"	"	"	"	"	"	
Cadmium	<b>0.253</b>	0.200	"	"	"	"	"	"	
Copper	<b>1.66</b>	0.400	"	"	"	"	"	"	
Lead	<b>6.77</b>	0.200	"	"	"	"	"	"	
Nickel	<b>1.94</b>	0.400	"	"	"	"	"	"	
Selenium	ND	0.279	"	"	"	"	"	"	
Silver	<b>0.0300</b>	0.0200	"	"	"	"	"	"	
Zinc	<b>7.25</b>	0.400	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGH0102	08/02/23	08/02/23	EPA 7196A	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
% Solids	<b>93.2</b>		%	1	BGH0110	08/02/23	08/03/23	Calculation	

Summit Scientific

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GIS Peace  
2951 Niagara St  
Denver CO, 80207

Project: CO State 1 and 2

Project Number: [none]  
Project Manager: Carter Peace

**Reported:**  
08/10/23 12:19

**WPB**  
**2308027-16 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	0.775	0.200	mg/kg dry	1	BGH0100	08/02/23	08/03/23	EPA 6020B	
Barium	209	0.400	"	"	"	"	"	"	"
Cadmium	0.232	0.200	"	"	"	"	"	"	"
Copper	2.43	0.400	"	"	"	"	"	"	"
Lead	5.77	0.200	"	"	"	"	"	"	"
Nickel	2.63	0.400	"	"	"	"	"	"	"
Selenium	ND	0.331	"	"	"	"	"	"	"
Silver	0.0305	0.0200	"	"	"	"	"	"	"
Zinc	8.57	0.400	"	"	"	"	"	"	"

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGH0102	08/02/23	08/02/23	EPA 7196A	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
% Solids	78.7		%	1	BGH0110	08/02/23	08/03/23	Calculation	

Summit Scientific

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GIS Peace  
2951 Niagara St  
Denver CO, 80207

Project: CO State 1 and 2

Project Number: [none]  
Project Manager: Carter Peace

**Reported:**  
08/10/23 12:19

**EPB**  
**2308027-17 (Soil)**

**Summit Scientific**

**Total Metals by EPA 6020B**

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	<b>0.457</b>	0.200	mg/kg dry	1	BGH0100	08/02/23	08/03/23	EPA 6020B	
Barium	<b>387</b>	0.400	"	"	"	"	"	"	
Cadmium	<b>0.208</b>	0.200	"	"	"	"	"	"	
Copper	<b>1.88</b>	0.400	"	"	"	"	"	"	
Lead	<b>5.56</b>	0.200	"	"	"	"	"	"	
Nickel	<b>2.27</b>	0.400	"	"	"	"	"	"	
Selenium	ND	0.316	"	"	"	"	"	"	
Silver	<b>0.0321</b>	0.0200	"	"	"	"	"	"	
Zinc	<b>8.19</b>	0.400	"	"	"	"	"	"	

**Hexavalent Chromium by EPA Method 7196**

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BGH0102	08/02/23	08/02/23	EPA 7196A	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **08/01/23 00:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
% Solids	<b>82.3</b>		%	1	BGH0110	08/02/23	08/03/23	Calculation	

Summit Scientific

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GIS Peace  
2951 Niagara St  
Denver CO, 80207

Project: CO State 1 and 2

Project Number: [none]  
Project Manager: Carter Peace

**Reported:**  
08/10/23 12:19

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

**Summit Scientific**

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

**Batch BGH0088 - EPA 3050B**

**Blank (BGH0088-BLK1)**

Prepared: 08/02/23 Analyzed: 08/08/23

Boron ND 0.0100 mg/L

**LCS (BGH0088-BS1)**

Prepared: 08/02/23 Analyzed: 08/08/23

Boron 4.25 0.0100 mg/L 5.00 85.0 80-120

**Duplicate (BGH0088-DUP1)**

**Source: 2308017-01**

Prepared: 08/02/23 Analyzed: 08/08/23

Boron 0.224 0.0100 mg/L 0.253 12.1 20

**Matrix Spike (BGH0088-MS1)**

**Source: 2308017-01**

Prepared: 08/02/23 Analyzed: 08/08/23

Boron 5.47 0.0100 mg/L 5.00 0.253 104 75-125

**Matrix Spike Dup (BGH0088-MSD1)**

**Source: 2308017-01**

Prepared: 08/02/23 Analyzed: 08/08/23

Boron 5.09 0.0100 mg/L 5.00 0.253 96.8 75-125 7.17 25

Summit Scientific

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GIS Peace  
2951 Niagara St  
Denver CO, 80207

Project: CO State 1 and 2

Project Number: [none]  
Project Manager: Carter Peace

**Reported:**  
08/10/23 12:19

**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 BGH0100 - EPA 3050B**

**Blank (BGH0100-BLK1)**

Prepared: 08/02/23 Analyzed: 08/03/23

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 (BGH0100-BS1)**

Prepared: 08/02/23 Analyzed: 08/03/23

Arsenic	36.9	0.200	mg/kg wet	40.0	92.2	80-120
Barium	32.0	0.400	"	40.0	80.1	80-120
Cadmium	1.64	0.200	"	2.00	81.9	80-120
Copper	35.8	0.400	"	40.0	89.5	80-120
Lead	16.0	0.200	"	20.0	80.2	80-120
Nickel	35.8	0.400	"	40.0	89.4	80-120
Selenium	3.81	0.260	"	4.00	95.1	80-120
Silver	1.62	0.0200	"	2.00	81.2	80-120
Zinc	37.1	0.400	"	40.0	92.6	80-120

**Duplicate (BGH0100-DUP1)**

Source: 2308022-01

Prepared: 08/02/23 Analyzed: 08/03/23

Arsenic	1.17	0.200	mg/kg dry	1.21	3.63	20	
Barium	93.1	0.400	"	101	7.82	20	
Cadmium	0.533	0.200	"	0.872	48.1	20	QR-01
Copper	5.34	0.400	"	6.02	12.0	20	
Lead	43.6	0.200	"	62.0	34.9	20	QR-04
Nickel	3.15	0.400	"	3.35	6.08	20	
Selenium	ND	0.311	"	ND		20	
Silver	0.0306	0.0200	"	0.0316	3.08	20	
Zinc	20.4	0.400	"	23.5	14.4	20	

Summit Scientific

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GIS Peace  
2951 Niagara St  
Denver CO, 80207

Project: CO State 1 and 2

Project Number: [none]  
Project Manager: Carter Peace

**Reported:**  
08/10/23 12:19

**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 BGH0100 - EPA 3050B**

**Matrix Spike (BGH0100-MS1)**

Source: 2308022-01

Prepared: 08/02/23 Analyzed: 08/03/23

Arsenic	14.4	0.200	mg/kg dry	47.8	1.21	27.6	75-125				QM-07
Barium	128	0.400	"	47.8	101	56.5	75-125				QM-07
Cadmium	1.67	0.200	"	2.39	0.872	33.4	75-125				QM-07
Copper	16.7	0.400	"	47.8	6.02	22.3	75-125				QM-07
Lead	32.7	0.200	"	23.9	62.0	NR	75-125				QM-07
Nickel	16.8	0.400	"	47.8	3.35	28.1	75-125				QM-07
Selenium	3.04	0.311	"	4.78	ND	63.5	75-125				QM-07
Silver	1.30	0.0200	"	2.39	0.0316	53.1	75-125				QM-07
Zinc	29.8	0.400	"	47.8	23.5	13.1	75-125				QM-07

**Matrix Spike Dup (BGH0100-MSD1)**

Source: 2308022-01

Prepared: 08/02/23 Analyzed: 08/03/23

Arsenic	14.1	0.200	mg/kg dry	47.8	1.21	27.0	75-125	1.88	25		QM-07
Barium	120	0.400	"	47.8	101	40.2	75-125	6.29	25		QM-07
Cadmium	1.82	0.200	"	2.39	0.872	39.8	75-125	8.82	25		QM-07
Copper	19.1	0.400	"	47.8	6.02	27.4	75-125	13.9	25		QM-07
Lead	60.0	0.200	"	23.9	62.0	NR	75-125	58.9	25		QM-07
Nickel	16.4	0.400	"	47.8	3.35	27.4	75-125	2.07	25		QM-07
Selenium	3.39	0.311	"	4.78	ND	71.0	75-125	11.2	25		QM-07
Silver	1.34	0.0200	"	2.39	0.0316	54.8	75-125	3.04	25		QM-07
Zinc	37.7	0.400	"	47.8	23.5	29.6	75-125	23.3	25		QM-07

Summit Scientific

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GIS Peace  
2951 Niagara St  
Denver CO, 80207

Project: CO State 1 and 2

Project Number: [none]  
Project Manager: Carter Peace

**Reported:**  
08/10/23 12:19

**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 BGH0102 - 3060A Mod**

**Blank (BGH0102-BLK1)**

Prepared & Analyzed: 08/02/23

Chromium, Hexavalent      ND      0.30 mg/kg wet

**LCS (BGH0102-BS1)**

Prepared & Analyzed: 08/02/23

Chromium, Hexavalent      20.4      0.30 mg/kg wet      25.0      81.4      80-120

**Duplicate (BGH0102-DUP1)**

**Source: 2307592-01**

Prepared & Analyzed: 08/02/23

Chromium, Hexavalent      ND      0.30 mg/kg dry      ND      20

**Matrix Spike (BGH0102-MS1)**

**Source: 2307592-01**

Prepared & Analyzed: 08/02/23

Chromium, Hexavalent      23.7      0.30 mg/kg dry      27.1      ND      87.6      75-125

**Matrix Spike Dup (BGH0102-MSD1)**

**Source: 2307592-01**

Prepared & Analyzed: 08/02/23

Chromium, Hexavalent      24.5      0.30 mg/kg dry      27.1      ND      90.2      75-125      2.92      20

Summit Scientific

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GIS Peace  
2951 Niagara St  
Denver CO, 80207

Project: CO State 1 and 2

Project Number: [none]  
Project Manager: Carter Peace

**Reported:**  
08/10/23 12:19

**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 BGH0083 - General Preparation**

**Blank (BGH0083-BLK1)**

Prepared: 08/02/23 Analyzed: 08/07/23

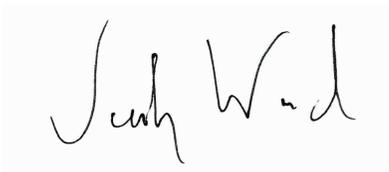
Calcium	ND	0.0500	mg/L wet							
Magnesium	ND	0.0500	"							
Sodium	ND	0.0500	"							

**LCS (BGH0083-BS1)**

Prepared: 08/02/23 Analyzed: 08/07/23

Calcium	5.08	0.0500	mg/L wet	5.00	102	70-130				
Magnesium	5.76	0.0500	"	5.00	115	70-130				
Sodium	5.61	0.0500	"	5.00	112	70-130				

Summit Scientific



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GIS Peace  
 2951 Niagara St  
 Denver CO, 80207

Project: CO State 1 and 2

Project Number: [none]  
 Project Manager: Carter Peace

**Reported:**  
 08/10/23 12:19

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

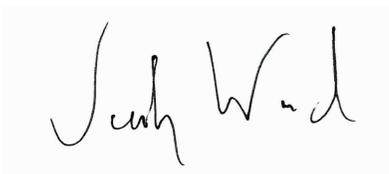
**Summit Scientific**

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

**Batch BGH0110 - General Preparation**

Duplicate (BGH0110-DUP1)	Source: 2308027-01	Prepared: 08/02/23	Analyzed: 08/03/23
% Solids	86.5	%	86.5
			0.0132
			20

Summit Scientific



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GIS Peace  
2951 Niagara St  
Denver CO, 80207

Project: CO State 1 and 2

Project Number: [none]  
Project Manager: Carter Peace

**Reported:**  
08/10/23 12:19

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

**Summit Scientific**

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

**Batch BGH0156 - General Preparation**

**Blank (BGH0156-BLK1)**

Prepared & Analyzed: 08/03/23

Specific Conductance (EC) ND 0.0100 mmhos/cm

**LCS (BGH0156-BS1)**

Prepared & Analyzed: 08/03/23

Specific Conductance (EC) 0.149 0.0100 mmhos/cm 0.150 99.3 95-105

**Duplicate (BGH0156-DUP1)**

Source: 2307599-01

Prepared & Analyzed: 08/03/23

Specific Conductance (EC) 0.527 0.0100 mmhos/cm 0.541 2.66 20

Summit Scientific



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GIS Peace  
2951 Niagara St  
Denver CO, 80207

Project: CO State 1 and 2

Project Number: [none]  
Project Manager: Carter Peace

**Reported:**  
08/10/23 12:19

**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 BGH0157 - General Preparation**

**LCS (BGH0157-BS1)**

Prepared & Analyzed: 08/03/23

pH	9.16	pH Units	9.18	99.8	95-105
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**Duplicate (BGH0157-DUP1)**

Source: 2307599-01

Prepared & Analyzed: 08/03/23

pH	7.66	pH Units	7.66	0.00	20
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Summit Scientific

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GIS Peace  
2951 Niagara St  
Denver CO, 80207

Project: CO State 1 and 2

Project Number: [none]  
Project Manager: Carter Peace

**Reported:**  
08/10/23 12:19

### Notes and Definitions

- QR-04 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
- QR-01 Analyses are not controlled on RPD values from sample concentrations less than 10 times the reporting limit. QC batch accepted based on LCS and/or LCSD QC results.
- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference