

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

October 30, 2024

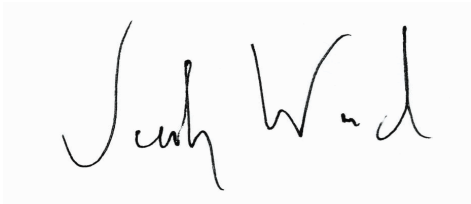
Daniel Simpson
Tasman Geosciences
6855 W. 119th Ave.
Broomfield, CO 80020

RE: Chevron - Roach Bass T5N-R67W-S14 L01

Work Order #2410358

Enclosed are the results of analyses for samples received by Summit Scientific on 10/21/24 18:17. 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



Tasman Geosciences
 6855 W. 119th Ave.
 Broomfield CO, 80020

Project: Chevron - Roach Bass T5N-R67W-S14 L01

Project Number: UWRWE-A4196-AES
 Project Manager: Daniel Simpson

Reported:
 10/30/24 12:28

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
AST01@0-6"	2410358-01	Soil	10/21/24 13:30	10/21/24 18:17
AST02@0-6"	2410358-02	Soil	10/21/24 13:35	10/21/24 18:17
AST03@0-6"	2410358-03	Soil	10/21/24 13:40	10/21/24 18:17
AST04@0-6"	2410358-04	Soil	10/21/24 13:45	10/21/24 18:17
AST05@0-6"	2410358-05	Soil	10/21/24 13:50	10/21/24 18:17
AST06@0-6"	2410358-06	Soil	10/21/24 13:55	10/21/24 18:17
PWV01-B@4'	2410358-07	Soil	10/21/24 12:30	10/21/24 18:17
PWV01-N@2'	2410358-08	Soil	10/21/24 12:31	10/21/24 18:17
PWV02-B@4'	2410358-10	Soil	10/21/24 12:45	10/21/24 18:17
PWV02-S@2'	2410358-12	Soil	10/21/24 12:47	10/21/24 18:17
PWV03-N@2'	2410358-13	Soil	10/21/24 13:01	10/21/24 18:17
PWV03-B@4'	2410358-14	Soil	10/21/24 13:00	10/21/24 18:17
PWV04-B@4'	2410358-16	Soil	10/21/24 13:10	10/21/24 18:17
PWV04-W@2'	2410358-17	Soil	10/21/24 13:11	10/21/24 18:17
PWV05-B@4'	2410358-18	Soil	10/21/24 13:20	10/21/24 18:17
PWV05-S@2'	2410358-19	Soil	10/21/24 13:21	10/21/24 18:17

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

Lab ID	Page 1 of 2
2410358.1	

Send Data To:		Send Invoice To:
Client: Tasman, Inc.	Project Manager: Daniel Simpson	Company: Chevron
Address: 6855 W. 119th Ave.	E-Mail: Tas-chevron-5@tasman-geo.com	Project Name/Location: Roach Bass TSN-R67W-514L01
City/State/Zip: Broomfield / CO/ 80020		AFE#: UNKINE-41190-AES
Phone: 303-487-1228	Project Name: Roach Bass TSN-R67W-514L01	PO/Billing Codes:
Sampler Name: Wattwadeish	Project Number:	Contact: Mike Montoya

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix			Analysis Requested						Special Instructions	
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	Metals - 915	VOC - 915	TPH - 915	PAH - 915	SAR, EC, pH		Boron - HWS
1	AST01@0-6"	10/21/24	13:30	3			X			X			X	X	X	X	X	X	SAR, EC, pH by saturated paste
2	AST02@0-6"		13:35																
3	AST03@0-6"		13:40																
4	AST04@0-6"		13:45																
5	AST05@0-6"		13:50																
6	AST06@0-6"	✓	13:55																
7	PWV01-B@4'		12:30																
8	PWV01-N@2'		12:31																
9	PWV01-E@2'		12:32																X
10	PWV02-B@4'		12:45										X	X	X	X	X	X	
11	PWV02-E@2'		12:46																X
12	PWV02-S@2'		12:47										X	X	X	X	X	X	
13	PWV03-N@2'		13:01																
14	PWV03-B@4'		13:00																
15	PWV03-W@2'	↓	13:02	↓															X

Relinquished by: <u>YTW</u>	Date/Time: 10/21/24	Received by: <u>TASMAN LOCKHORN</u>	Date/Time: 10/21/24	TAT Business Days	Field DO	Notes:
				Same Day	Field EC	
Relinquished by: <u>Tasman Lockhorn</u>	Date/Time: 10/21/24 1317	Received by: <u>[Signature]</u>	Date/Time: 10/21/24 1317	1 Day	Field ORP	
				2 Days	Field pH	
Relinquished by:	Date/Time:	Received by:	Date/Time:	3 Days	Field Temp.	
Temperature Upon Receipt: 11.1	Corrected Temperature: 0	IR gun #: 1	HNO3 lot #:	Standard	X Field Turb.	

S₂

2/2

Sample Receipt Checklist

S2 Work Order# 2410358

Client: Towman Client Project ID: Roach Bass 75N-R67W-314 L01

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

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

Temp (°C)

Thermometer #

	Yes	No	N/A	Comments (if any)
If samples require cooling, is the temperature < 6°C? ⁽¹⁾ NOTE: If samples are delivered the same day of sampling, this requirement is met if there is evidence that cooling has begun.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If custody seals are present, are they intact? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are samples due within 48 hours present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are water samples with short hold times present? Note the short hold analysis in the comments column - pH, Nitrate/Nitrite, Ferrous Iron (Fe ²⁺), Hexavalent Chromium (Cr ⁶⁺ , Cr VI), COD/BOD, Total Coliform, E. Coli, Total Residual Chlorine (TRC), Dissolved Oxygen	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out Completely? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received? ⁽¹⁾	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC? ⁽¹⁾	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<i>incomplete names, some sample times did not match</i>
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling)? ⁽¹⁾ Note the type of preservative in the comments column – HCl, H ₂ SO ₄ , NaOH, HNO ₃ , etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2? ⁽¹⁾ Record the pH in Comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Additional Comments (if any):				

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

AS
Custodian Printed Name

10/21/24
Date/Time



Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Chevron - Roach Bass T5N-R67W-S14 L01

Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

AST01@0-6"
2410358-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/21/24 13:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BHJ0897	10/22/24	10/23/24	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **10/21/24 13:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0428	107 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0394	98.6 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0408	102 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/21/24 13:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHJ0898	10/22/24	10/22/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **10/21/24 13:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	9.43	75.4 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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Reported:
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AST01@0-6"
2410358-01 (Soil)

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PAH by EPA Method 8270D SIM

Date Sampled: **10/21/24 13:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHJ0877	10/22/24	10/24/24	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **10/21/24 13:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0190	57.1 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0190	56.9 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/21/24 13:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHJ1179	10/28/24	10/28/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/21/24 13:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Project: Chevron - Roach Bass T5N-R67W-S14 L01
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AST01@0-6"
2410358-01 (Soil)

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Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	2.75	0.200	mg/kg dry	1	BHJ0987	10/23/24	10/29/24	EPA 6020B	
Barium	68.0	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	4.80	0.400	"	"	"	"	"	"	
Lead	5.79	0.200	"	"	"	"	"	"	
Nickel	5.11	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	17.9	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/21/24 13:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHJ1029	10/24/24	10/27/24	EPA 7196A	

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

Date Sampled: **10/21/24 13:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	29.3	0.0500	mg/L dry	1	BHJ1037	10/24/24	10/26/24	EPA 6020B	
Magnesium	3.60	0.0500	"	"	"	"	"	"	
Sodium	0.382	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **10/21/24 13:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0177	0.00100	units	1	BHJ1199	10/28/24	10/28/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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Project Number: UWRWE-A4196-AES
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AST01@0-6"
2410358-01 (Soil)

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Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/21/24 13:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	95.7		%	1	BHJ0915	10/22/24	10/23/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/21/24 13:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.0987	0.0100	mmhos/cm	1	BHJ1038	10/24/24	10/26/24	EPA 120.1	

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

Date Sampled: **10/21/24 13:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.97		pH Units	1	BHJ1039	10/24/24	10/26/24	EPA 9045D	

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Project: Chevron - Roach Bass T5N-R67W-S14 L01

Project Number: UWRWE-A4196-AES
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Reported:
10/30/24 12:28

AST02@0-6"
2410358-02 (Soil)

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Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/21/24 13:35**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BHJ0897	10/22/24	10/23/24	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **10/21/24 13:35**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0435	109 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0403	101 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0406	102 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/21/24 13:35**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHJ0898	10/22/24	10/22/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **10/21/24 13:35**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	6.27	50.2 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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PAH by EPA Method 8270D SIM

Date Sampled: **10/21/24 13:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHJ0877	10/22/24	10/24/24	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **10/21/24 13:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0171	51.3 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0169	50.8 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/21/24 13:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHJ1179	10/28/24	10/28/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/21/24 13:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Reported:
10/30/24 12:28

AST02@0-6"
2410358-02 (Soil)

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Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	4.03	0.200	mg/kg dry	1	BHJ0987	10/23/24	10/29/24	EPA 6020B
Barium	126	0.400	"	"	"	"	"	"
Cadmium	0.234	0.200	"	"	"	"	"	"
Copper	5.99	0.400	"	"	"	"	"	"
Lead	8.14	0.200	"	"	"	"	"	"
Nickel	6.73	0.400	"	"	"	"	"	"
Silver	0.0321	0.0200	"	"	"	"	"	"
Zinc	22.0	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/21/24 13:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHJ1029	10/24/24	10/27/24	EPA 7196A	

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

Date Sampled: **10/21/24 13:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	48.6	0.0500	mg/L dry	1	BHJ1037	10/24/24	10/26/24	EPA 6020B	
Magnesium	5.59	0.0500	"	"	"	"	"	"	
Sodium	0.298	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **10/21/24 13:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0108	0.00100	units	1	BHJ1199	10/28/24	10/28/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/21/24 13:35**

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

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Chevron - Roach Bass T5N-R67W-S14 L01

Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

AST02@0-6"
2410358-02 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	91.1	%	1	BHJ0915	10/22/24	10/23/24	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/21/24 13:35**


Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.0940	0.0100	mmhos/cm	1	BHJ1038	10/24/24	10/26/24	EPA 120.1	

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

Date Sampled: **10/21/24 13:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	9.11		pH Units	1	BHJ1039	10/24/24	10/26/24	EPA 9045D	

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Chevron - Roach Bass T5N-R67W-S14 L01

Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

AST03@0-6"
2410358-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/21/24 13:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BHJ0897	10/22/24	10/23/24	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **10/21/24 13:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0448	112 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0391	97.8 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0399	99.8 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/21/24 13:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHJ0898	10/22/24	10/22/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **10/21/24 13:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	9.68	77.4 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Chevron - Roach Bass T5N-R67W-S14 L01

Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

AST03@0-6"
2410358-03 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/21/24 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHJ0877	10/22/24	10/24/24	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **10/21/24 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0160	48.1 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0175	52.6 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/21/24 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHJ1179	10/28/24	10/29/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/21/24 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Chevron - Roach Bass T5N-R67W-S14 L01

Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

AST03@0-6"
2410358-03 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	5.33	0.200	mg/kg dry	1	BHJ0987	10/23/24	10/29/24	EPA 6020B
Barium	79.2	0.400	"	"	"	"	"	"
Cadmium	0.316	0.200	"	"	"	"	"	"
Copper	7.08	0.400	"	"	"	"	"	"
Lead	11.1	0.200	"	"	"	"	"	"
Nickel	18.9	0.400	"	"	"	"	"	"
Silver	0.0545	0.0200	"	"	"	"	"	"
Zinc	26.4	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/21/24 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHJ1029	10/24/24	10/27/24	EPA 7196A	

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

Date Sampled: **10/21/24 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	42.4	0.0500	mg/L dry	1	BHJ1037	10/24/24	10/26/24	EPA 6020B	
Magnesium	6.32	0.0500	"	"	"	"	"	"	
Sodium	7.68	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **10/21/24 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.291	0.00100	units	1	BHJ1199	10/28/24	10/28/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/21/24 13:40**

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

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Chevron - Roach Bass T5N-R67W-S14 L01
Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

AST03@0-6"
2410358-03 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	88.0	%	1	BHJ0915	10/22/24	10/23/24	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/21/24 13:40**

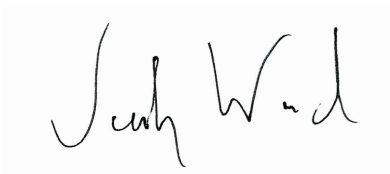
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.327	0.0100	mmhos/cm	1	BHJ1038	10/24/24	10/26/24	EPA 120.1	

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

Date Sampled: **10/21/24 13:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.78		pH Units	1	BHJ1039	10/24/24	10/26/24	EPA 9045D	

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Broomfield CO, 80020

Project: Chevron - Roach Bass T5N-R67W-S14 L01

Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

AST04@0-6"
2410358-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/21/24 13:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHJ0897	10/22/24	10/23/24	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.017	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	0.011	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	0.0056	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **10/21/24 13:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0428	107 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0396	99.1 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0406	102 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/21/24 13:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	260	50	mg/kg	1	BHJ0898	10/22/24	10/22/24	EPA 8015M	
C28-C36 (ORO)	150	50	"	"	"	"	"	"	

Date Sampled: **10/21/24 13:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	8.95	71.6 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Chevron - Roach Bass T5N-R67W-S14 L01
Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

AST04@0-6"
2410358-04 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/21/24 13:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHJ0877	10/22/24	10/24/24	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	0.00682	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	0.0121	0.00500	"	"	"	"	"	"	

Date Sampled: **10/21/24 13:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0178	53.3 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0137	41.0 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/21/24 13:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHJ1179	10/28/24	10/29/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/21/24 13:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Chevron - Roach Bass T5N-R67W-S14 L01

Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

AST04@0-6"
2410358-04 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	3.10	0.200	mg/kg dry	1	BHJ0987	10/23/24	10/29/24	EPA 6020B
Barium	176	0.400	"	"	"	"	"	"
Cadmium	0.242	0.200	"	"	"	"	"	"
Copper	5.85	0.400	"	"	"	"	"	"
Lead	7.11	0.200	"	"	"	"	"	"
Nickel	5.85	0.400	"	"	"	"	"	"
Silver	0.0262	0.0200	"	"	"	"	"	"
Zinc	20.8	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/21/24 13:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHJ1029	10/24/24	10/27/24	EPA 7196A	

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

Date Sampled: **10/21/24 13:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	39.5	0.0500	mg/L dry	1	BHJ1037	10/24/24	10/26/24	EPA 6020B	
Magnesium	3.91	0.0500	"	"	"	"	"	"	
Sodium	5.34	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **10/21/24 13:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.217	0.00100	units	1	BHJ1199	10/28/24	10/28/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/21/24 13:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Chevron - Roach Bass T5N-R67W-S14 L01
Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

AST04@0-6"
2410358-04 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	93.2	%	1	BHJ0915	10/22/24	10/23/24	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/21/24 13:45**


Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.175	0.0100	mmhos/cm	1	BHJ1038	10/24/24	10/26/24	EPA 120.1	

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

Date Sampled: **10/21/24 13:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.86		pH Units	1	BHJ1039	10/24/24	10/26/24	EPA 9045D	

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Chevron - Roach Bass T5N-R67W-S14 L01

Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

AST05@0-6"
2410358-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/21/24 13:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BHJ0897	10/22/24	10/23/24	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **10/21/24 13:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0414	104 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0405	101 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0409	102 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/21/24 13:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHJ0898	10/22/24	10/22/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **10/21/24 13:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	8.05	64.4 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Chevron - Roach Bass T5N-R67W-S14 L01

Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

AST05@0-6"
2410358-05 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/21/24 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHJ0877	10/22/24	10/24/24	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **10/21/24 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0144	43.2 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0134	40.2 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/21/24 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHJ1179	10/28/24	10/29/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/21/24 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Chevron - Roach Bass T5N-R67W-S14 L01

Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

AST05@0-6"
2410358-05 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	4.21	0.200	mg/kg dry	1	BHJ0987	10/23/24	10/29/24	EPA 6020B
Barium	127	0.400	"	"	"	"	"	"
Cadmium	0.242	0.200	"	"	"	"	"	"
Copper	6.71	0.400	"	"	"	"	"	"
Lead	9.21	0.200	"	"	"	"	"	"
Nickel	6.94	0.400	"	"	"	"	"	"
Silver	0.0348	0.0200	"	"	"	"	"	"
Zinc	24.1	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/21/24 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHJ1029	10/24/24	10/27/24	EPA 7196A	

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

Date Sampled: **10/21/24 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	34.8	0.0500	mg/L dry	1	BHJ1037	10/24/24	10/26/24	EPA 6020B	
Magnesium	5.67	0.0500	"	"	"	"	"	"	
Sodium	0.983	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **10/21/24 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0407	0.00100	units	1	BHJ1199	10/28/24	10/28/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/21/24 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Chevron - Roach Bass T5N-R67W-S14 L01

Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

AST05@0-6"
2410358-05 (Soil)

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Physical Parameters by APHA/ASTM/EPA Methods

% Solids	84.3	%	1	BHJ0915	10/22/24	10/23/24	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/21/24 13:50**


Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.180	0.0100	mmhos/cm	1	BHJ1038	10/24/24	10/26/24	EPA 120.1	

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

Date Sampled: **10/21/24 13:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.54		pH Units	1	BHJ1039	10/24/24	10/26/24	EPA 9045D	

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Chevron - Roach Bass T5N-R67W-S14 L01

Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

AST06@0-6"
2410358-06 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/21/24 13:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHJ0897	10/22/24	10/23/24	EPA 8260B	
Toluene	0.0092	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.0061	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.069	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	0.0055	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	0.037	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	1.5	0.50	"	"	"	"	"	"	

Date Sampled: **10/21/24 13:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0434	109 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0385	96.2 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0405	101 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/21/24 13:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	110	50	mg/kg	1	BHJ0898	10/22/24	10/22/24	EPA 8015M	
C28-C36 (ORO)	53	50	"	"	"	"	"	"	

Date Sampled: **10/21/24 13:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	7.11	56.9 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Chevron - Roach Bass T5N-R67W-S14 L01

Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

AST06@0-6"
2410358-06 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/21/24 13:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHJ0877	10/22/24	10/24/24	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	"
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	"
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	"
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	"
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	"
Chrysene	ND	0.00500	"	"	"	"	"	"	"
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	"
Fluoranthene	ND	0.00500	"	"	"	"	"	"	"
Fluorene	0.0103	0.00500	"	"	"	"	"	"	"
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	"
Pyrene	ND	0.00500	"	"	"	"	"	"	"
1-Methylnaphthalene	0.0662	0.00500	"	"	"	"	"	"	"
2-Methylnaphthalene	0.120	0.00500	"	"	"	"	"	"	"

Date Sampled: **10/21/24 13:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0134	40.2 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0150	45.1 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/21/24 13:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHJ1179	10/28/24	10/29/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/21/24 13:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Chevron - Roach Bass T5N-R67W-S14 L01

Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

AST06@0-6"
2410358-06 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	2.94	0.200	mg/kg dry	1	BHJ0987	10/23/24	10/29/24	EPA 6020B
Barium	72.5	0.400	"	"	"	"	"	"
Cadmium	0.284	0.200	"	"	"	"	"	"
Copper	6.11	0.400	"	"	"	"	"	"
Lead	5.88	0.200	"	"	"	"	"	"
Nickel	5.70	0.400	"	"	"	"	"	"
Silver	0.0230	0.0200	"	"	"	"	"	"
Zinc	21.2	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: 10/21/24 13:55

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHJ1029	10/24/24	10/27/24	EPA 7196A	

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

Date Sampled: 10/21/24 13:55

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	27.2	0.0500	mg/L dry	1	BHJ1037	10/24/24	10/26/24	EPA 6020B	
Magnesium	3.81	0.0500	"	"	"	"	"	"	
Sodium	9.47	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: 10/21/24 13:55

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.451	0.00100	units	1	BHJ1199	10/28/24	10/28/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: 10/21/24 13:55

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Chevron - Roach Bass T5N-R67W-S14 L01

Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

AST06@0-6"
2410358-06 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	88.2	%	1	BHJ0915	10/22/24	10/23/24	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/21/24 13:55**


Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.245	0.0100	mmhos/cm	1	BHJ1038	10/24/24	10/26/24	EPA 120.1	

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

Date Sampled: **10/21/24 13:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.47		pH Units	1	BHJ1039	10/24/24	10/26/24	EPA 9045D	

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Chevron - Roach Bass T5N-R67W-S14 L01

Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

PWV01-B@4'
2410358-07 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/21/24 12:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BHJ0897	10/22/24	10/23/24	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **10/21/24 12:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0431	108 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0392	98.0 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0413	103 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/21/24 12:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHJ0898	10/22/24	10/23/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **10/21/24 12:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	9.05	72.4 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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Broomfield CO, 80020

Project: Chevron - Roach Bass T5N-R67W-S14 L01

Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

PWV01-B@4'
2410358-07 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/21/24 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHJ0877	10/22/24	10/24/24	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **10/21/24 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0187	56.0 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0168	50.4 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/21/24 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHJ1179	10/28/24	10/29/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/21/24 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Chevron - Roach Bass T5N-R67W-S14 L01
Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

PWV01-B@4'
2410358-07 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.61	0.200	mg/kg dry	1	BHJ0987	10/23/24	10/29/24	EPA 6020B	
Barium	30.1	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	3.04	0.400	"	"	"	"	"	"	
Lead	3.30	0.200	"	"	"	"	"	"	
Nickel	3.62	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	12.4	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/21/24 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHJ1029	10/24/24	10/27/24	EPA 7196A	

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

Date Sampled: **10/21/24 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	29.0	0.0500	mg/L dry	1	BHJ1037	10/24/24	10/26/24	EPA 6020B	
Magnesium	5.53	0.0500	"	"	"	"	"	"	
Sodium	2.16	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **10/21/24 12:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0963	0.00100	units	1	BHJ1199	10/28/24	10/28/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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Tasman Geosciences
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Broomfield CO, 80020

Project: Chevron - Roach Bass T5N-R67W-S14 L01

Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

PWV01-B@4'
2410358-07 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/21/24 12:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	92.9			%	1	BHJ0915	10/22/24	10/23/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/21/24 12:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.137	0.0100		mmhos/cm	1	BHJ1038	10/24/24	10/26/24	EPA 120.1	

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

Date Sampled: **10/21/24 12:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	8.81			pH Units	1	BHJ1039	10/24/24	10/26/24	EPA 9045D	

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Chevron - Roach Bass T5N-R67W-S14 L01

Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

PWV01-N@2'
2410358-08 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/21/24 12:31**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BHJ0897	10/22/24	10/23/24	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **10/21/24 12:31**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0422	105 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0404	101 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0402	101 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/21/24 12:31**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHJ0898	10/22/24	10/23/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **10/21/24 12:31**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	8.64	69.1 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Chevron - Roach Bass T5N-R67W-S14 L01
Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

PWV01-N@2'
2410358-08 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/21/24 12:31**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHJ0877	10/22/24	10/24/24	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	0.00523	0.00500	"	"	"	"	"	"	

Date Sampled: **10/21/24 12:31**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0163	49.0 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0164	49.2 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/21/24 12:31**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHJ1179	10/28/24	10/29/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/21/24 12:31**

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

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Chevron - Roach Bass T5N-R67W-S14 L01

Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

PWV01-N@2'
2410358-08 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	1.88	0.200	mg/kg dry	1	BHJ0987	10/23/24	10/29/24	EPA 6020B	
Barium	41.2	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	3.54	0.400	"	"	"	"	"	"	
Lead	3.79	0.200	"	"	"	"	"	"	
Nickel	3.59	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	12.9	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/21/24 12:31**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHJ1029	10/24/24	10/27/24	EPA 7196A	

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

Date Sampled: **10/21/24 12:31**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	16.3	0.0500	mg/L dry	1	BHJ1037	10/24/24	10/26/24	EPA 6020B	
Magnesium	4.51	0.0500	"	"	"	"	"	"	
Sodium	3.13	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **10/21/24 12:31**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.177	0.00100	units	1	BHJ1199	10/28/24	10/28/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Chevron - Roach Bass T5N-R67W-S14 L01

Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

PWV01-N@2'
2410358-08 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/21/24 12:31**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	95.5			%	1	BHJ0915	10/22/24	10/23/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/21/24 12:31**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.119	0.0100		mmhos/cm	1	BHJ1038	10/24/24	10/26/24	EPA 120.1	

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

Date Sampled: **10/21/24 12:31**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	9.02			pH Units	1	BHJ1039	10/24/24	10/26/24	EPA 9045D	

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Chevron - Roach Bass T5N-R67W-S14 L01

Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

PWV02-B@4'
2410358-10 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/21/24 12:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BHJ0897	10/22/24	10/23/24	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **10/21/24 12:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0444	111 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0405	101 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0419	105 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/21/24 12:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHJ0898	10/22/24	10/23/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **10/21/24 12:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	7.30	58.4 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Chevron - Roach Bass T5N-R67W-S14 L01

Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

PWV02-B@4'
2410358-10 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/21/24 12:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHJ0877	10/22/24	10/24/24	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **10/21/24 12:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0155	46.4 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0178	53.5 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/21/24 12:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHJ1181	10/28/24	10/29/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/21/24 12:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Chevron - Roach Bass T5N-R67W-S14 L01

Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

PWV02-B@4'
2410358-10 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	5.29	0.200	mg/kg dry	1	BHJ0987	10/23/24	10/29/24	EPA 6020B
Barium	144	0.400	"	"	"	"	"	"
Cadmium	0.313	0.200	"	"	"	"	"	"
Copper	7.48	0.400	"	"	"	"	"	"
Lead	9.57	0.200	"	"	"	"	"	"
Nickel	8.35	0.400	"	"	"	"	"	"
Silver	0.0516	0.0200	"	"	"	"	"	"
Zinc	26.3	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: 10/21/24 12:45

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHJ1029	10/24/24	10/27/24	EPA 7196A	

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

Date Sampled: 10/21/24 12:45

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	79.1	0.0500	mg/L dry	1	BHJ1037	10/24/24	10/26/24	EPA 6020B	
Magnesium	3.08	0.0500	"	"	"	"	"	"	
Sodium	2.46	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: 10/21/24 12:45

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0738	0.00100	units	1	BHJ1199	10/28/24	10/28/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: 10/21/24 12:45

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

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Chevron - Roach Bass T5N-R67W-S14 L01
Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

PWV02-B@4'
2410358-10 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	84.9	%	1	BHJ0915	10/22/24	10/23/24	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/21/24 12:45**


Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.127	0.0100	mmhos/cm	1	BHJ1038	10/24/24	10/26/24	EPA 120.1	

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

Date Sampled: **10/21/24 12:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.72		pH Units	1	BHJ1039	10/24/24	10/26/24	EPA 9045D	

Summit Scientific



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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Chevron - Roach Bass T5N-R67W-S14 L01

Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

PWV02-S@2'
2410358-12 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/21/24 12:47**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BHJ0897	10/22/24	10/23/24	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **10/21/24 12:47**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0433	108 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0402	101 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0408	102 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/21/24 12:47**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHJ0898	10/22/24	10/23/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **10/21/24 12:47**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	8.81	70.5 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Chevron - Roach Bass T5N-R67W-S14 L01

Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

PWV02-S@2'
2410358-12 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/21/24 12:47**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHJ0877	10/22/24	10/24/24	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **10/21/24 12:47**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0153	45.9 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0176	52.7 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/21/24 12:47**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHJ1181	10/28/24	10/29/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/21/24 12:47**

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

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Chevron - Roach Bass T5N-R67W-S14 L01

Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

PWV02-S@2'
2410358-12 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	4.42	0.200	mg/kg dry	1	BHJ0987	10/23/24	10/29/24	EPA 6020B
Barium	101	0.400	"	"	"	"	"	"
Cadmium	0.221	0.200	"	"	"	"	"	"
Copper	6.65	0.400	"	"	"	"	"	"
Lead	8.85	0.200	"	"	"	"	"	"
Nickel	7.51	0.400	"	"	"	"	"	"
Silver	0.0364	0.0200	"	"	"	"	"	"
Zinc	24.5	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: 10/21/24 12:47

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHJ1029	10/24/24	10/27/24	EPA 7196A	

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

Date Sampled: 10/21/24 12:47

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	34.2	0.0500	mg/L dry	1	BHJ1037	10/24/24	10/26/24	EPA 6020B	
Magnesium	6.90	0.0500	"	"	"	"	"	"	
Sodium	3.09	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: 10/21/24 12:47

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.126	0.00100	units	1	BHJ1199	10/28/24	10/28/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: 10/21/24 12:47

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Chevron - Roach Bass T5N-R67W-S14 L01

Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

PWV02-S@2'
2410358-12 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	77.7	%	1	BHJ0915	10/22/24	10/23/24	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/21/24 12:47**


Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.258	0.0100	mmhos/cm	1	BHJ1038	10/24/24	10/26/24	EPA 120.1	

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

Date Sampled: **10/21/24 12:47**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.29		pH Units	1	BHJ1039	10/24/24	10/26/24	EPA 9045D	

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6855 W. 119th Ave.
Broomfield CO, 80020

Project: Chevron - Roach Bass T5N-R67W-S14 L01

Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

PWV03-N@2'
2410358-13 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/21/24 13:01**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BHJ0897	10/22/24	10/23/24	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **10/21/24 13:01**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0424	106 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0388	97.0 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0399	99.7 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/21/24 13:01**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHJ0898	10/22/24	10/23/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **10/21/24 13:01**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	8.56	68.5 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Tasman Geosciences
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Broomfield CO, 80020

Project: Chevron - Roach Bass T5N-R67W-S14 L01

Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

PWV03-N@2'
2410358-13 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/21/24 13:01**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHJ0877	10/22/24	10/24/24	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **10/21/24 13:01**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0158	47.5 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0188	56.5 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/21/24 13:01**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHJ1181	10/28/24	10/29/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/21/24 13:01**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Chevron - Roach Bass T5N-R67W-S14 L01

Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

PWV03-N@2'
2410358-13 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	4.95	0.200	mg/kg dry	1	BHJ0987	10/23/24	10/29/24	EPA 6020B	
Barium	148	0.400	"	"	"	"	"	"	
Cadmium	0.265	0.200	"	"	"	"	"	"	
Copper	6.94	0.400	"	"	"	"	"	"	
Lead	9.65	0.200	"	"	"	"	"	"	
Nickel	8.28	0.400	"	"	"	"	"	"	
Silver	0.0438	0.0200	"	"	"	"	"	"	
Zinc	26.1	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/21/24 13:01**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHJ1029	10/24/24	10/27/24	EPA 7196A	

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

Date Sampled: **10/21/24 13:01**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	28.0	0.0500	mg/L dry	1	BHJ1037	10/24/24	10/26/24	EPA 6020B	
Magnesium	7.02	0.0500	"	"	"	"	"	"	
Sodium	2.91	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **10/21/24 13:01**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.127	0.00100	units	1	BHJ1199	10/28/24	10/28/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/21/24 13:01**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Chevron - Roach Bass T5N-R67W-S14 L01
Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

PWV03-N@2'
2410358-13 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	83.4	%	1	BHJ0915	10/22/24	10/23/24	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/21/24 13:01**


Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.184	0.0100	mmhos/cm	1	BHJ1038	10/24/24	10/26/24	EPA 120.1	

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

Date Sampled: **10/21/24 13:01**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.56		pH Units	1	BHJ1039	10/24/24	10/26/24	EPA 9045D	

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Chevron - Roach Bass T5N-R67W-S14 L01

Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

PWV03-B@4'
2410358-14 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/21/24 13:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BHJ0897	10/22/24	10/24/24	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **10/21/24 13:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0403	101 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0405	101 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0404	101 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/21/24 13:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHJ0898	10/22/24	10/23/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **10/21/24 13:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	7.94	63.5 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Chevron - Roach Bass T5N-R67W-S14 L01

Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

PWV03-B@4'
2410358-14 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/21/24 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHJ0877	10/22/24	10/24/24	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **10/21/24 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0142	42.6 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0160	47.9 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/21/24 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHJ1181	10/28/24	10/29/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/21/24 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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6855 W. 119th Ave.
Broomfield CO, 80020

Project: Chevron - Roach Bass T5N-R67W-S14 L01

Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

PWV03-B@4'
2410358-14 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	4.28	0.200	mg/kg dry	1	BHJ0987	10/23/24	10/29/24	EPA 6020B
Barium	114	0.400	"	"	"	"	"	"
Cadmium	0.233	0.200	"	"	"	"	"	"
Copper	6.38	0.400	"	"	"	"	"	"
Lead	8.55	0.200	"	"	"	"	"	"
Nickel	7.47	0.400	"	"	"	"	"	"
Silver	0.0336	0.0200	"	"	"	"	"	"
Zinc	24.3	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: 10/21/24 13:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHJ1029	10/24/24	10/27/24	EPA 7196A	

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

Date Sampled: 10/21/24 13:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	27.7	0.0500	mg/L dry	1	BHJ1037	10/24/24	10/26/24	EPA 6020B	
Magnesium	5.79	0.0500	"	"	"	"	"	"	
Sodium	2.43	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: 10/21/24 13:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.110	0.00100	units	1	BHJ1199	10/28/24	10/28/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: 10/21/24 13:00

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Chevron - Roach Bass T5N-R67W-S14 L01

Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

PWV03-B@4'
2410358-14 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	85.0	%	1	BHJ0915	10/22/24	10/23/24	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/21/24 13:00**


Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.159	0.0100	mmhos/cm	1	BHJ1038	10/24/24	10/26/24	EPA 120.1	

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

Date Sampled: **10/21/24 13:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.65		pH Units	1	BHJ1039	10/24/24	10/26/24	EPA 9045D	

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Chevron - Roach Bass T5N-R67W-S14 L01

Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

PWV04-B@4'
2410358-16 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/21/24 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.026	0.0020	mg/kg	1	BHJ0897	10/22/24	10/24/24	EPA 8260B	
Toluene	0.19	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.032	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.42	0.010	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	0.12	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	0.056	0.0050	"	"	"	"	"	"	
Naphthalene	0.014	0.0038	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	3.5	0.50	"	"	"	"	"	"	

Date Sampled: **10/21/24 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0392	98.0 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0393	98.2 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0397	99.2 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/21/24 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	630	50	mg/kg	1	BHJ0898	10/22/24	10/23/24	EPA 8015M	
C28-C36 (ORO)	220	50	"	"	"	"	"	"	

Date Sampled: **10/21/24 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	9.36	74.8 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Chevron - Roach Bass T5N-R67W-S14 L01

Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

PWV04-B@4'
2410358-16 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/21/24 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHJ0877	10/22/24	10/24/24	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	0.0174	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	0.0340	0.00500	"	"	"	"	"	"	

Date Sampled: **10/21/24 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0159	47.6 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0185	55.6 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/21/24 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHJ1181	10/28/24	10/29/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/21/24 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Chevron - Roach Bass T5N-R67W-S14 L01

Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

PWV04-B@4'
2410358-16 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	3.54	0.200	mg/kg dry	1	BHJ0987	10/23/24	10/29/24	EPA 6020B	
Barium	90.2	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	5.53	0.400	"	"	"	"	"	"	
Lead	6.87	0.200	"	"	"	"	"	"	
Nickel	6.36	0.400	"	"	"	"	"	"	
Silver	0.0248	0.0200	"	"	"	"	"	"	
Zinc	20.8	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/21/24 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHJ1029	10/24/24	10/27/24	EPA 7196A	

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

Date Sampled: **10/21/24 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	27.7	0.0500	mg/L dry	1	BHJ1037	10/24/24	10/26/24	EPA 6020B	
Magnesium	5.05	0.0500	"	"	"	"	"	"	
Sodium	7.95	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **10/21/24 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.365	0.00100	units	1	BHJ1199	10/28/24	10/28/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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Project: Chevron - Roach Bass T5N-R67W-S14 L01

Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

PWV04-B@4'
2410358-16 (Soil)

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Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/21/24 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	87.7		%	1	BHJ0915	10/22/24	10/23/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/21/24 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.184	0.0100	mmhos/cm	1	BHJ1038	10/24/24	10/26/24	EPA 120.1	

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

Date Sampled: **10/21/24 13:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	9.19		pH Units	1	BHJ1039	10/24/24	10/26/24	EPA 9045D	

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Project: Chevron - Roach Bass T5N-R67W-S14 L01

Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

PWV04-W@2'
2410358-17 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/21/24 13:11**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BHJ0897	10/22/24	10/24/24	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **10/21/24 13:11**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0398	99.5 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0400	99.9 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0408	102 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/21/24 13:11**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHJ0898	10/22/24	10/23/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **10/21/24 13:11**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	8.47	67.8 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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Project: Chevron - Roach Bass T5N-R67W-S14 L01

Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

PWV04-W@2'
2410358-17 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/21/24 13:11**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHJ0877	10/22/24	10/24/24	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **10/21/24 13:11**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0148	44.5 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0153	46.0 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/21/24 13:11**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHJ1181	10/28/24	10/29/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/21/24 13:11**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Chevron - Roach Bass T5N-R67W-S14 L01

Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

PWV04-W@2'
2410358-17 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	3.18	0.200	mg/kg dry	1	BHJ0987	10/23/24	10/29/24	EPA 6020B	
Barium	81.3	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	5.37	0.400	"	"	"	"	"	"	
Lead	6.57	0.200	"	"	"	"	"	"	
Nickel	5.97	0.400	"	"	"	"	"	"	
Silver	0.0252	0.0200	"	"	"	"	"	"	
Zinc	20.2	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/21/24 13:11**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHJ1029	10/24/24	10/27/24	EPA 7196A	

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

Date Sampled: **10/21/24 13:11**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	31.6	0.0500	mg/L dry	1	BHJ1037	10/24/24	10/26/24	EPA 6020B	
Magnesium	8.52	0.0500	"	"	"	"	"	"	
Sodium	3.92	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **10/21/24 13:11**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.160	0.00100	units	1	BHJ1199	10/28/24	10/28/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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Project: Chevron - Roach Bass T5N-R67W-S14 L01

Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

PWV04-W@2'
2410358-17 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/21/24 13:11**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	82.3			%	1	BHJ0915	10/22/24	10/23/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/21/24 13:11**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.219	0.0100		mmhos/cm	1	BHJ1038	10/24/24	10/26/24	EPA 120.1	

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

Date Sampled: **10/21/24 13:11**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	8.43			pH Units	1	BHJ1039	10/24/24	10/26/24	EPA 9045D	

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Chevron - Roach Bass T5N-R67W-S14 L01

Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

PWV05-B@4'
2410358-18 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/21/24 13:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BHJ0897	10/22/24	10/24/24	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **10/21/24 13:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0386	96.4 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0409	102 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0392	97.9 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/21/24 13:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHJ0898	10/22/24	10/23/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **10/21/24 13:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	9.51	76.1 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

PWV05-B@4'
2410358-18 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/21/24 13:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHJ0877	10/22/24	10/24/24	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **10/21/24 13:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0142	42.7 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0151	45.2 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/21/24 13:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHJ1181	10/28/24	10/29/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/21/24 13:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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6855 W. 119th Ave.
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Project: Chevron - Roach Bass T5N-R67W-S14 L01

Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

PWV05-B@4'
2410358-18 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	5.54	0.200	mg/kg dry	1	BHJ0987	10/23/24	10/29/24	EPA 6020B
Barium	203	0.400	"	"	"	"	"	"
Cadmium	0.289	0.200	"	"	"	"	"	"
Copper	6.85	0.400	"	"	"	"	"	"
Lead	10.5	0.200	"	"	"	"	"	"
Nickel	8.59	0.400	"	"	"	"	"	"
Silver	0.0407	0.0200	"	"	"	"	"	"
Zinc	27.1	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: 10/21/24 13:20

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHJ1029	10/24/24	10/27/24	EPA 7196A	

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

Date Sampled: 10/21/24 13:20

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	18.3	0.0500	mg/L dry	1	BHJ1037	10/24/24	10/26/24	EPA 6020B	
Magnesium	15.4	0.0500	"	"	"	"	"	"	
Sodium	8.82	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: 10/21/24 13:20

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.367	0.00100	units	1	BHJ1199	10/28/24	10/28/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: 10/21/24 13:20

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Project: Chevron - Roach Bass T5N-R67W-S14 L01
Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

PWV05-B@4'
2410358-18 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	85.3	%	1	BHJ0915	10/22/24	10/23/24	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/21/24 13:20**


Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.240	0.0100	mmhos/cm	1	BHJ1038	10/24/24	10/26/24	EPA 120.1	

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

Date Sampled: **10/21/24 13:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.86		pH Units	1	BHJ1039	10/24/24	10/26/24	EPA 9045D	

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6855 W. 119th Ave.
Broomfield CO, 80020

Project: Chevron - Roach Bass T5N-R67W-S14 L01

Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

PWV05-S@2'
2410358-19 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/21/24 13:21**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BHJ0897	10/22/24	10/24/24	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050		"	"	"	"	"	"	
Naphthalene	ND	0.0038		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **10/21/24 13:21**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0380	94.9 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0395	98.8 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0408	102 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **10/21/24 13:21**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHJ0898	10/22/24	10/23/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **10/21/24 13:21**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	7.89	63.1 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Chevron - Roach Bass T5N-R67W-S14 L01

Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

PWV05-S@2'
2410358-19 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **10/21/24 13:21**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHJ0877	10/22/24	10/24/24	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	"
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	"
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	"
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	"
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	"
Chrysene	ND	0.00500	"	"	"	"	"	"	"
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	"
Fluoranthene	ND	0.00500	"	"	"	"	"	"	"
Fluorene	ND	0.00500	"	"	"	"	"	"	"
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	"
Pyrene	ND	0.00500	"	"	"	"	"	"	"
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	"
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	"

Date Sampled: **10/21/24 13:21**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0198	59.3 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0205	61.4 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **10/21/24 13:21**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHJ1181	10/28/24	10/29/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **10/21/24 13:21**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Chevron - Roach Bass T5N-R67W-S14 L01
Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

PWV05-S@2'
2410358-19 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	0.916	0.200	mg/kg dry	1	BHJ0987	10/23/24	10/29/24	EPA 6020B	
Barium	30.3	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	2.18	0.400	"	"	"	"	"	"	
Lead	3.26	0.200	"	"	"	"	"	"	
Nickel	1.94	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	8.90	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **10/21/24 13:21**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHJ1029	10/24/24	10/27/24	EPA 7196A	

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

Date Sampled: **10/21/24 13:21**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	30.6	0.0500	mg/L dry	1	BHJ1037	10/24/24	10/26/24	EPA 6020B	
Magnesium	5.70	0.0500	"	"	"	"	"	"	
Sodium	0.643	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **10/21/24 13:21**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.0280	0.00100	units	1	BHJ1199	10/28/24	10/28/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

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6855 W. 119th Ave.
Broomfield CO, 80020

Project: Chevron - Roach Bass T5N-R67W-S14 L01

Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

PWV05-S@2'
2410358-19 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **10/21/24 13:21**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	87.5			%	1	BHJ0915	10/22/24	10/23/24	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **10/21/24 13:21**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.211	0.0100		mmhos/cm	1	BHJ1038	10/24/24	10/26/24	EPA 120.1	

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

Date Sampled: **10/21/24 13:21**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	8.38			pH Units	1	BHJ1039	10/24/24	10/26/24	EPA 9045D	

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Project: Chevron - Roach Bass T5N-R67W-S14 L01

Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BHJ0897 - EPA 5030 Soil MS

Blank (BHJ0897-BLK1)

Prepared & Analyzed: 10/22/24

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
1,2,4-Trimethylbenzene	ND	0.0050	"							
1,3,5-Trimethylbenzene	ND	0.0050	"							
Naphthalene	ND	0.0038	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0425		"	0.0400		106	50-150			
<i>Surrogate: Toluene-d8</i>	0.0409		"	0.0400		102	50-150			
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0413		"	0.0400		103	50-150			

LCS (BHJ0897-BS1)

Prepared & Analyzed: 10/22/24

Benzene	0.109	0.0020	mg/kg	0.100		109	70-130			
Toluene	0.108	0.0050	"	0.100		108	70-130			
Ethylbenzene	0.110	0.0050	"	0.100		110	70-130			
m,p-Xylene	0.225	0.010	"	0.200		113	70-130			
o-Xylene	0.107	0.0050	"	0.100		107	70-130			
1,2,4-Trimethylbenzene	0.109	0.0050	"	0.100		109	70-130			
1,3,5-Trimethylbenzene	0.109	0.0050	"	0.100		109	70-130			
Naphthalene	0.102	0.0038	"	0.100		102	70-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0414		"	0.0400		103	50-150			
<i>Surrogate: Toluene-d8</i>	0.0401		"	0.0400		100	50-150			
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0385		"	0.0400		96.3	50-150			

Matrix Spike (BHJ0897-MS1)

Source: 2410219-09

Prepared & Analyzed: 10/22/24

Benzene	0.103	0.0020	mg/kg	0.100	ND	103	70-130			
Toluene	0.102	0.0050	"	0.100	ND	102	70-130			
Ethylbenzene	0.108	0.0050	"	0.100	ND	108	70-130			
m,p-Xylene	0.218	0.010	"	0.200	ND	109	70-130			
o-Xylene	0.105	0.0050	"	0.100	ND	105	70-130			
1,2,4-Trimethylbenzene	0.104	0.0050	"	0.100	ND	104	70-130			
1,3,5-Trimethylbenzene	0.103	0.0050	"	0.100	ND	103	70-130			
Naphthalene	0.0939	0.0038	"	0.100	ND	93.9	70-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0419		"	0.0400		105	50-150			
<i>Surrogate: Toluene-d8</i>	0.0393		"	0.0400		98.2	50-150			
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0389		"	0.0400		97.4	50-150			

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Project: Chevron - Roach Bass T5N-R67W-S14 L01

Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BHJ0897 - EPA 5030 Soil MS

Matrix Spike Dup (BHJ0897-MSD1)	Source: 2410219-09			Prepared & Analyzed: 10/22/24						
Benzene	0.102	0.0020	mg/kg	0.100	ND	102	70-130	0.733	30	
Toluene	0.107	0.0050	"	0.100	ND	107	70-130	4.58	30	
Ethylbenzene	0.106	0.0050	"	0.100	ND	106	70-130	2.41	30	
m,p-Xylene	0.212	0.010	"	0.200	ND	106	70-130	3.22	30	
o-Xylene	0.104	0.0050	"	0.100	ND	104	70-130	1.63	30	
1,2,4-Trimethylbenzene	0.101	0.0050	"	0.100	ND	101	70-130	2.55	30	
1,3,5-Trimethylbenzene	0.102	0.0050	"	0.100	ND	102	70-130	1.55	30	
Naphthalene	0.0965	0.0038	"	0.100	ND	96.5	70-130	2.80	30	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0436</i>		<i>"</i>	<i>0.0400</i>		<i>109</i>	<i>50-150</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0400</i>		<i>"</i>	<i>0.0400</i>		<i>100</i>	<i>50-150</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0393</i>		<i>"</i>	<i>0.0400</i>		<i>98.2</i>	<i>50-150</i>			

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Tasman Geosciences
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Broomfield CO, 80020

Project: Chevron - Roach Bass T5N-R67W-S14 L01

Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BHJ0898 - EPA 3550A

Blank (BHJ0898-BLK1)

Prepared & Analyzed: 10/22/24

C10-C28 (DRO)	ND	50	mg/kg								
C28-C36 (ORO)	ND	50	"								
Surrogate: <i>o</i> -Terphenyl	10.9		"	12.5		87.0	30-150				

LCS (BHJ0898-BS1)

Prepared & Analyzed: 10/22/24

C10-C28 (DRO)	481	50	mg/kg	500		96.2	70-130				
Surrogate: <i>o</i> -Terphenyl	10.5		"	12.5		83.6	30-150				

Matrix Spike (BHJ0898-MS1)

Source: 2410219-09

Prepared & Analyzed: 10/22/24

C10-C28 (DRO)	441	50	mg/kg	500	17.7	84.6	70-130				
Surrogate: <i>o</i> -Terphenyl	7.20		"	12.5		57.6	30-150				

Matrix Spike Dup (BHJ0898-MSD1)

Source: 2410219-09

Prepared & Analyzed: 10/22/24

C10-C28 (DRO)	435	50	mg/kg	500	17.7	83.5	70-130	1.26	20		
Surrogate: <i>o</i> -Terphenyl	6.46		"	12.5		51.6	30-150				

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Project: Chevron - Roach Bass T5N-R67W-S14 L01
Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BHJ0877 - EPA 5030 Soil MS

Blank (BHJ0877-BLK1)

Prepared: 10/22/24 Analyzed: 10/24/24

Acenaphthene	ND	0.00500	mg/kg							
Anthracene	ND	0.00500	"							
Benzo (a) anthracene	ND	0.00500	"							
Benzo (a) pyrene	ND	0.00500	"							
Benzo (b) fluoranthene	ND	0.00500	"							
Benzo (k) fluoranthene	ND	0.00500	"							
Chrysene	ND	0.00500	"							
Dibenz (a,h) anthracene	ND	0.00500	"							
Fluoranthene	ND	0.00500	"							
Fluorene	ND	0.00500	"							
Indeno (1,2,3-cd) pyrene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
1-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0183</i>		"	<i>0.0333</i>		<i>54.8</i>	<i>40-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0193</i>		"	<i>0.0333</i>		<i>57.9</i>	<i>40-150</i>			

LCS (BHJ0877-BS1)

Prepared: 10/22/24 Analyzed: 10/24/24

Acenaphthene	0.0217	0.00500	mg/kg	0.0333	65.2	31-137
Anthracene	0.0224	0.00500	"	0.0333	67.1	30-120
Benzo (a) anthracene	0.0221	0.00500	"	0.0333	66.2	30-120
Benzo (a) pyrene	0.0201	0.00500	"	0.0333	60.3	30-120
Benzo (b) fluoranthene	0.0205	0.00500	"	0.0333	61.6	30-120
Benzo (k) fluoranthene	0.0216	0.00500	"	0.0333	64.8	30-120
Chrysene	0.0224	0.00500	"	0.0333	67.2	30-120
Dibenz (a,h) anthracene	0.0224	0.00500	"	0.0333	67.3	30-120
Fluoranthene	0.0193	0.00500	"	0.0333	58.0	30-120
Fluorene	0.0217	0.00500	"	0.0333	65.2	30-120
Indeno (1,2,3-cd) pyrene	0.0227	0.00500	"	0.0333	68.0	30-120
Pyrene	0.0252	0.00500	"	0.0333	75.5	35-142
1-Methylnaphthalene	0.0202	0.00500	"	0.0333	60.7	35-142
2-Methylnaphthalene	0.0206	0.00500	"	0.0333	61.8	35-142
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0195</i>		"	<i>0.0333</i>	<i>58.5</i>	<i>40-150</i>
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0199</i>		"	<i>0.0333</i>	<i>59.6</i>	<i>40-150</i>

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Project: Chevron - Roach Bass T5N-R67W-S14 L01

Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BHJ0877 - EPA 5030 Soil MS

Matrix Spike (BHJ0877-MS1)	Source: 2410358-01			Prepared: 10/22/24 Analyzed: 10/24/24								
Acenaphthene	0.0203	0.00500	mg/kg	0.0333	ND	61.0	31-137					
Anthracene	0.0217	0.00500	"	0.0333	ND	65.0	30-120					
Benzo (a) anthracene	0.0239	0.00500	"	0.0333	ND	71.6	30-120					
Benzo (a) pyrene	0.0218	0.00500	"	0.0333	ND	65.3	30-120					
Benzo (b) fluoranthene	0.0219	0.00500	"	0.0333	ND	65.7	30-120					
Benzo (k) fluoranthene	0.0202	0.00500	"	0.0333	ND	60.6	30-120					
Chrysene	0.0243	0.00500	"	0.0333	ND	72.8	30-120					
Dibenz (a,h) anthracene	0.0221	0.00500	"	0.0333	ND	66.4	30-120					
Fluoranthene	0.0260	0.00500	"	0.0333	ND	77.9	30-120					
Fluorene	0.0208	0.00500	"	0.0333	ND	62.3	30-120					
Indeno (1,2,3-cd) pyrene	0.0307	0.00500	"	0.0333	ND	92.2	30-120					
Pyrene	0.0306	0.00500	"	0.0333	ND	91.9	35-142					
1-Methylnaphthalene	0.0190	0.00500	"	0.0333	ND	57.0	15-130					
2-Methylnaphthalene	0.0200	0.00500	"	0.0333	ND	60.0	15-130					
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0191</i>		<i>"</i>	<i>0.0333</i>		<i>57.3</i>	<i>40-150</i>					
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0191</i>		<i>"</i>	<i>0.0333</i>		<i>57.3</i>	<i>40-150</i>					

Matrix Spike Dup (BHJ0877-MSD1)	Source: 2410358-01			Prepared: 10/22/24 Analyzed: 10/24/24								
Acenaphthene	0.0169	0.00500	mg/kg	0.0333	ND	50.7	31-137	18.3	30			
Anthracene	0.0171	0.00500	"	0.0333	ND	51.4	30-120	23.3	30			
Benzo (a) anthracene	0.0182	0.00500	"	0.0333	ND	54.7	30-120	26.8	30			
Benzo (a) pyrene	0.0166	0.00500	"	0.0333	ND	49.8	30-120	26.9	30			
Benzo (b) fluoranthene	0.0181	0.00500	"	0.0333	ND	54.3	30-120	19.1	30			
Benzo (k) fluoranthene	0.0171	0.00500	"	0.0333	ND	51.4	30-120	16.3	30			
Chrysene	0.0188	0.00500	"	0.0333	ND	56.3	30-120	25.6	30			
Dibenz (a,h) anthracene	0.0163	0.00500	"	0.0333	ND	49.0	30-120	30.1	30			QR-02
Fluoranthene	0.0172	0.00500	"	0.0333	ND	51.7	30-120	40.4	30			QR-02
Fluorene	0.0169	0.00500	"	0.0333	ND	50.8	30-120	20.4	30			
Indeno (1,2,3-cd) pyrene	0.0186	0.00500	"	0.0333	ND	55.8	30-120	49.2	30			QR-02
Pyrene	0.0228	0.00500	"	0.0333	ND	68.4	35-142	29.3	30			
1-Methylnaphthalene	0.0167	0.00500	"	0.0333	ND	50.2	15-130	12.7	50			
2-Methylnaphthalene	0.0180	0.00500	"	0.0333	ND	54.1	15-130	10.3	50			
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0167</i>		<i>"</i>	<i>0.0333</i>		<i>50.1</i>	<i>40-150</i>					
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0146</i>		<i>"</i>	<i>0.0333</i>		<i>43.8</i>	<i>40-150</i>					

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Chevron - Roach Bass T5N-R67W-S14 L01

Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

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

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

Batch BHJ1179 - EPA 3050B

Blank (BHJ1179-BLK1)

Prepared & Analyzed: 10/28/24

Boron ND 2.00 mg/L

LCS (BHJ1179-BS1)

Prepared & Analyzed: 10/28/24

Boron 5.16 2.00 mg/L 5.00 103 80-120

Duplicate (BHJ1179-DUP1)

Source: 2410354-02

Prepared & Analyzed: 10/28/24

Boron 0.326 2.00 mg/L 0.359 9.64 20

Matrix Spike (BHJ1179-MS1)

Source: 2410354-02

Prepared & Analyzed: 10/28/24

Boron 5.24 2.00 mg/L 5.00 0.359 97.7 75-125

Matrix Spike Dup (BHJ1179-MSD1)

Source: 2410354-02

Prepared & Analyzed: 10/28/24

Boron 5.45 2.00 mg/L 5.00 0.359 102 75-125 3.85 25

Batch BHJ1181 - EPA 3050B

Blank (BHJ1181-BLK1)

Prepared: 10/28/24 Analyzed: 10/29/24

Boron ND 2.00 mg/L

LCS (BHJ1181-BS1)

Prepared: 10/28/24 Analyzed: 10/29/24

Boron 5.01 2.00 mg/L 5.00 100 80-120

Duplicate (BHJ1181-DUP1)

Source: 2410358-10

Prepared: 10/28/24 Analyzed: 10/29/24

Boron 0.337 2.00 mg/L 0.333 1.18 20

Matrix Spike (BHJ1181-MS1)

Source: 2410358-10

Prepared: 10/28/24 Analyzed: 10/29/24

Boron 5.27 2.00 mg/L 5.00 0.333 98.7 75-125

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Chevron - Roach Bass T5N-R67W-S14 L01

Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

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 BHJ1181 - EPA 3050B

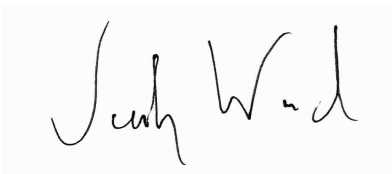
Matrix Spike Dup (BHJ1181-MSD1)

Source: 2410358-10

Prepared: 10/28/24 Analyzed: 10/29/24

Boron	5.23	2.00	mg/L	5.00	0.333	97.8	75-125	0.854	25	
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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Chevron - Roach Bass T5N-R67W-S14 L01

Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BHJ0987 - EPA 3050B

Blank (BHJ0987-BLK1)

Prepared: 10/23/24 Analyzed: 10/29/24

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

LCS (BHJ0987-BS1)

Prepared: 10/23/24 Analyzed: 10/29/24

Arsenic	39.7	0.200	mg/kg wet	38.8		103	80-120			
Barium	41.3	0.400	"	38.8		106	80-120			
Cadmium	2.02	0.200	"	1.94		104	80-120			
Copper	42.3	0.400	"	38.8		109	80-120			
Lead	21.1	0.200	"	19.4		109	80-120			
Nickel	42.4	0.400	"	38.8		109	80-120			
Silver	2.08	0.0200	"	1.94		107	80-120			
Zinc	42.2	0.400	"	38.8		109	80-120			
Selenium	3.82	0.260	"	3.88		98.6	80-120			

Duplicate (BHJ0987-DUP1)

Source: 2410355-01

Prepared: 10/23/24 Analyzed: 10/29/24

Arsenic	3.43	0.200	mg/kg dry	2.05		50.5	20		QR-03
Barium	81.3	0.400	"	156		62.9	20		QR-03
Cadmium	0.149	0.200	"	0.254		51.9	20		QR-01
Copper	5.14	0.400	"	9.49		59.5	20		QR-03
Lead	6.33	0.200	"	8.50		29.2	20		QR-03
Nickel	4.28	0.400	"	4.37		1.86	20		
Silver	0.0159	0.0200	"	0.0235		38.3	20		QR-01
Zinc	25.6	0.400	"	17.4		38.0	20		QR-03
Selenium	ND	0.260	"	ND			20		

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Chevron - Roach Bass T5N-R67W-S14 L01

Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BHJ0987 - EPA 3050B

Matrix Spike (BHJ0987-MS1)

Source: 2410355-01

Prepared: 10/23/24 Analyzed: 10/29/24

Arsenic	49.6	0.200	mg/kg dry	45.7	2.05	104	75-125			
Barium	165	0.400	"	45.7	156	20.5	75-125			QM-05
Cadmium	2.56	0.200	"	2.29	0.254	101	75-125			
Copper	37.4	0.400	"	45.7	9.49	61.2	75-125			QM-05
Lead	30.8	0.200	"	22.9	8.50	97.6	75-125			
Nickel	37.0	0.400	"	45.7	4.37	71.3	75-125			QM-05
Silver	2.42	0.0200	"	2.29	0.0235	105	75-125			
Zinc	58.7	0.400	"	45.7	17.4	90.5	75-125			
Selenium	3.99	0.260	"	4.57	ND	87.4	75-125			

Matrix Spike Dup (BHJ0987-MSD1)

Source: 2410355-01

Prepared: 10/23/24 Analyzed: 10/29/24

Arsenic	50.0	0.200	mg/kg dry	46.8	2.05	102	75-125	0.736	25	
Barium	121	0.400	"	46.8	156	NR	75-125	30.9	25	QM-05
Cadmium	2.55	0.200	"	2.34	0.254	98.2	75-125	0.266	25	
Copper	41.7	0.400	"	46.8	9.49	68.8	75-125	10.8	25	QM-05
Lead	30.5	0.200	"	23.4	8.50	93.9	75-125	1.03	25	
Nickel	41.2	0.400	"	46.8	4.37	78.6	75-125	10.8	25	
Silver	2.45	0.0200	"	2.34	0.0235	103	75-125	1.00	25	
Zinc	59.7	0.400	"	46.8	17.4	90.4	75-125	1.68	25	
Selenium	4.29	0.260	"	4.68	ND	91.7	75-125	7.26	25	

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Chevron - Roach Bass T5N-R67W-S14 L01

Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

Hexavalent Chromium by EPA Method 7196 - Quality Control
Summit Scientific

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

Batch BHJ1029 - 3060A Mod

Blank (BHJ1029-BLK1)

Prepared: 10/24/24 Analyzed: 10/27/24

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BHJ1029-BS1)

Prepared: 10/24/24 Analyzed: 10/27/24

Chromium, Hexavalent 26.4 0.30 mg/kg wet 25.0 105 80-120

Duplicate (BHJ1029-DUP1)

Source: 2410358-01

Prepared: 10/24/24 Analyzed: 10/27/24

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BHJ1029-MS1)

Source: 2410358-01

Prepared: 10/24/24 Analyzed: 10/27/24

Chromium, Hexavalent 27.5 0.30 mg/kg dry 26.1 ND 105 75-125

Matrix Spike Dup (BHJ1029-MSD1)

Source: 2410358-01

Prepared: 10/24/24 Analyzed: 10/27/24

Chromium, Hexavalent 28.1 0.30 mg/kg dry 26.1 ND 107 75-125 2.07 20

Summit Scientific

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Broomfield CO, 80020

Project: Chevron - Roach Bass T5N-R67W-S14 L01

Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

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

Summit Scientific

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

Batch BHJ1037 - General Preparation

Blank (BHJ1037-BLK1)

Prepared: 10/24/24 Analyzed: 10/26/24

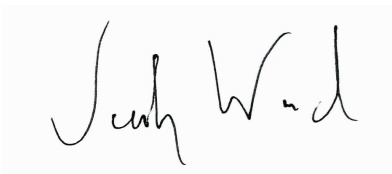
Calcium	ND	0.0500	mg/L wet							
Magnesium	ND	0.0500	"							
Sodium	ND	0.0500	"							

LCS (BHJ1037-BS1)

Prepared: 10/24/24 Analyzed: 10/26/24

Calcium	4.76	0.0500	mg/L wet	5.00	95.1	70-130
Magnesium	4.59	0.0500	"	5.00	91.9	70-130
Sodium	4.63	0.0500	"	5.00	92.5	70-130

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Chevron - Roach Bass T5N-R67W-S14 L01

Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

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

Summit Scientific

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

Batch BHJ0915 - General Preparation


Duplicate (BHJ0915-DUP1)

Source: 2410347-02

Prepared: 10/22/24 Analyzed: 10/23/24

% Solids	94.4		%		93.9			0.557		20	
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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Chevron - Roach Bass T5N-R67W-S14 L01

Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

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

Summit Scientific

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

Batch BHJ1038 - General Preparation

Blank (BHJ1038-BLK1)

Prepared: 10/24/24 Analyzed: 10/26/24

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BHJ1038-BS1)

Prepared: 10/24/24 Analyzed: 10/26/24

Specific Conductance (EC) 0.156 0.0100 mmhos/cm 0.150 104 95-105

Duplicate (BHJ1038-DUP1)

Source: 2410354-01

Prepared: 10/24/24 Analyzed: 10/26/24

Specific Conductance (EC) 0.536 0.0100 mmhos/cm 0.541 0.928 20

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Tasman Geosciences
6855 W. 119th Ave.
Broomfield CO, 80020

Project: Chevron - Roach Bass T5N-R67W-S14 L01

Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

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

Summit Scientific

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

Batch BHJ1039 - General Preparation

LCS (BHJ1039-BS1)

Prepared: 10/24/24 Analyzed: 10/26/24

pH	9.09	pH Units	9.18	99.0	95-105
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Duplicate (BHJ1039-DUP1)

Source: 2410354-01

Prepared: 10/24/24 Analyzed: 10/26/24

pH	8.27	pH Units	8.27	0.00	20
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Project: Chevron - Roach Bass T5N-R67W-S14 L01

Project Number: UWRWE-A4196-AES
Project Manager: Daniel Simpson

Reported:
10/30/24 12:28

Notes and Definitions

- QR-03 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. Sample results were accepted based on LCS and/or LCSD recoveries and/or RPD values.
- QR-02 The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
- QR-01 Analyses are not controlled on RPD values from sample concentrations below the reporting limit. Sample results were accepted based on LCS and/or LCSD recoveries and/or RPD values.
- QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. Sample results were accepted based on LCS and/or LCSD recoveries and/or RPD values.
- 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