

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

October 08, 2024

Karen Olson

Tasman Geosciences

6855 W. 119th Ave.

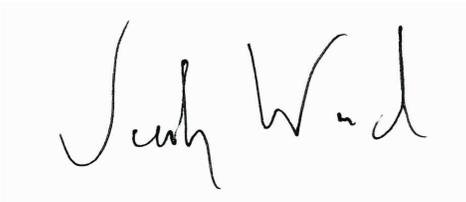
Broomfield, CO 80020

RE: PDC - Stephens 7-11,12

Work Order #2410020

Enclosed are the results of analyses for samples received by Summit Scientific on 10/01/24 17:36. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black 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: PDC - Stephens 7-11,12

Project Number: [none]
Project Manager: Karen Olson

Reported:
10/08/24 15:25

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH21R	2410020-01	Water	10/01/24 11:45	10/01/24 17:36
BH23	2410020-02	Water	10/01/24 12:43	10/01/24 17:36
BH24	2410020-03	Water	10/01/24 13:05	10/01/24 17:36
BH25	2410020-04	Water	10/01/24 11:53	10/01/24 17:36
BH26	2410020-05	Water	10/01/24 12:11	10/01/24 17:36
BH27	2410020-06	Water	10/01/24 12:21	10/01/24 17:36
BH28	2410020-07	Water	10/01/24 12:55	10/01/24 17:36
BH29	2410020-08	Water	10/01/24 13:07	10/01/24 17:36
BH30	2410020-09	Water	10/01/24 13:25	10/01/24 17:36
BH31	2410020-10	Water	10/01/24 13:24	10/01/24 17:36
BH32	2410020-11	Water	10/01/24 12:52	10/01/24 17:36
BH33	2410020-12	Water	10/01/24 12:33	10/01/24 17:36
BH34	2410020-13	Water	10/01/24 12:22	10/01/24 17:36
BH35	2410020-14	Water	10/01/24 13:36	10/01/24 17:36

Summit Scientific

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

Lab ID	Page 1 of 1
2410020	

Client: PDC PDC / Tasman		Project Manager: Karen Olson		Company: PDC Energy	
Address: 6855 W 119th Ave		E-Mail: karen.olson@chevron.com		Project Name/Location: Stephens 7-11, 12	
City/State/Zip: Broomfield / CO / 80220				AFE#:	
Phone: 303-487-1228		Project Name: Stephens 7-11, 12		PO/Billing Codes:	
Sampler Name: Jordan Hestmark		Project Number:		Contact: Karen Olson	

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix		Air-Canister #	Other	Analysis Requested							Special Instructions	
					HCl	HNO3	None	Other	Water	Soil			BTEXN - 8260B	TPH - (C6 - C36)	1,2,4 & 1,3,5 - TMB	Boron - HWS	pH, EC, SAR	PAHs - 915	Metals - 915		TDS, SO4, Cl
1	BH 21 R	10/11/24	11:45	4	3								X	X						X	
2	BH 23		12:48																		
3	BH 24		13:05																		
4	BH 25		11:53																		
5	BH 20		12:11																		
6	BH 27		12:21																		
7	BH 28		12:55																		
8	BH 29		13:07																		
9	BH 30		13:25																		
10	BH 31		13:24																		
11	BH 32		12:52																		
12	BH 33		12:33																		
13	BH 34		12:22																		
14	BH 35	✓	13:36	✓	✓	✓	✓	✓					✓	✓							✓
15																					

Relinquished by: Jordan Hestmark	Date/Time: 10/11/24 1600	Received by: Tasman Lockbox	Date/Time: 10/11/24 1600	TAT Business Days	Field DO	Notes:
				Same Day	Field EC	
Relinquished by: Tasman Lockbox	Date/Time: 10/24 1734	Received by: [Signature]	Date/Time: 10/24 1734	1 Day	Field ORP	
				2 Days	Field pH	
Relinquished by:	Date/Time:	Received by:	Date/Time:	3 Days	Field Temp.	
				Standard	X Field Turb.	
Temperature Upon Receipt: 0.3	Corrected Temperature: 0	IR gun #: 1	HNO3 lot #:			

S₂

Sample Receipt Checklist

S2 Work Order# 2410020

Client: Procterman Client Project ID: Stephens 7-11,12

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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	HCl
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

10/1/24
Date/Time



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

Project: PDC - Stephens 7-11,12

Project Number: [none]
Project Manager: Karen Olson

Reported:
10/08/24 15:25

BH21R
2410020-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/01/24 11:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	BHJ0110	10/02/24	10/04/24	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	2.0		"	"	"	"	"	"	
Naphthalene	ND	1.0		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0		"	"	"	"	"	"	

Date Sampled: **10/01/24 11:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	10.8	81.2 %		23-173		"	"	"	"	
Surrogate: Toluene-d8	22.7	170 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	12.2	91.7 %		21-167		"	"	"	"	

Anions by EPA Method 300.0

Date Sampled: **10/01/24 11:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chloride	19.6	0.0600		mg/L	50	BHJ0274	10/07/24	10/07/24	EPA 300.0	
Sulfate	168	0.300		"	"	"	"	"	"	

Total Dissolved Solids by SM2540C

Date Sampled: **10/01/24 11:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Total Dissolved Solids	647	10.0		mg/L	1	BHJ0126	10/03/24	10/07/24	SM2540C	

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6855 W. 119th Ave.
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Project: PDC - Stephens 7-11,12

Project Number: [none]
Project Manager: Karen Olson

Reported:
10/08/24 15:25

BH23
2410020-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/01/24 12:43**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	BHJ0110	10/02/24	10/04/24	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	2.0		"	"	"	"	"	"	
Naphthalene	ND	1.0		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0		"	"	"	"	"	"	

Date Sampled: **10/01/24 12:43**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	10.9	81.7 %		23-173		"	"	"	"	
Surrogate: Toluene-d8	22.5	169 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	12.1	90.5 %		21-167		"	"	"	"	

Anions by EPA Method 300.0

Date Sampled: **10/01/24 12:43**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chloride	89.3	0.0600		mg/L	50	BHJ0274	10/07/24	10/07/24	EPA 300.0	
Sulfate	796	0.300		"	"	"	"	"	"	

Total Dissolved Solids by SM2540C

Date Sampled: **10/01/24 12:43**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Total Dissolved Solids	1930	10.0		mg/L	1	BHJ0126	10/03/24	10/07/24	SM2540C	

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Project: PDC - Stephens 7-11,12

Project Number: [none]
Project Manager: Karen Olson

Reported:
10/08/24 15:25

BH24
2410020-03 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/01/24 13:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	BHJ0110	10/02/24	10/04/24	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	2.0		"	"	"	"	"	"	
Naphthalene	ND	1.0		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0		"	"	"	"	"	"	

Date Sampled: **10/01/24 13:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	10.4	77.6 %		23-173		"	"	"	"	
Surrogate: Toluene-d8	21.4	160 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	12.0	89.7 %		21-167		"	"	"	"	

Anions by EPA Method 300.0

Date Sampled: **10/01/24 13:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chloride	61.3	0.0600		mg/L	50	BHJ0274	10/07/24	10/07/24	EPA 300.0	
Sulfate	541	0.300		"	"	"	"	"	"	

Total Dissolved Solids by SM2540C

Date Sampled: **10/01/24 13:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Total Dissolved Solids	1830	10.0		mg/L	1	BHJ0126	10/03/24	10/07/24	SM2540C	

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Tasman Geosciences
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Broomfield CO, 80020

Project: PDC - Stephens 7-11,12

Project Number: [none]
Project Manager: Karen Olson

Reported:
10/08/24 15:25

BH25
2410020-04 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/01/24 11:53**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	BHJ0110	10/02/24	10/04/24	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	2.0		"	"	"	"	"	"	
Naphthalene	ND	1.0		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0		"	"	"	"	"	"	

Date Sampled: **10/01/24 11:53**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	9.90	74.3 %		23-173		"	"	"	"	
Surrogate: Toluene-d8	21.5	161 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	12.0	90.1 %		21-167		"	"	"	"	

Anions by EPA Method 300.0

Date Sampled: **10/01/24 11:53**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chloride	81.7	0.0600		mg/L	50	BHJ0274	10/07/24	10/07/24	EPA 300.0	
Sulfate	646	0.300		"	"	"	"	"	"	

Total Dissolved Solids by SM2540C

Date Sampled: **10/01/24 11:53**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Total Dissolved Solids	1800	10.0		mg/L	1	BHJ0126	10/03/24	10/07/24	SM2540C	

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Project: PDC - Stephens 7-11,12

Project Number: [none]
Project Manager: Karen Olson

Reported:
10/08/24 15:25

BH26
2410020-05 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/01/24 12:11**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	BHJ0110	10/02/24	10/04/24	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	2.0		"	"	"	"	"	"	
Naphthalene	ND	1.0		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0		"	"	"	"	"	"	

Date Sampled: **10/01/24 12:11**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	10.2	76.5 %		23-173		"	"	"	"	
Surrogate: Toluene-d8	21.5	161 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	12.3	92.2 %		21-167		"	"	"	"	

Anions by EPA Method 300.0

Date Sampled: **10/01/24 12:11**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chloride	27.4	0.0600		mg/L	50	BHJ0274	10/07/24	10/07/24	EPA 300.0	
Sulfate	304	0.300		"	"	"	"	"	"	

Total Dissolved Solids by SM2540C

Date Sampled: **10/01/24 12:11**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Total Dissolved Solids	1120	10.0		mg/L	1	BHJ0126	10/03/24	10/07/24	SM2540C	

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6855 W. 119th Ave.
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Project: PDC - Stephens 7-11,12

Project Number: [none]
Project Manager: Karen Olson

Reported:
10/08/24 15:25

BH27
2410020-06 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/01/24 12:21**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	BHJ0110	10/02/24	10/04/24	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	2.0		"	"	"	"	"	"	
Naphthalene	ND	1.0		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0		"	"	"	"	"	"	

Date Sampled: **10/01/24 12:21**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	9.24	69.3 %		23-173		"	"	"	"	
Surrogate: Toluene-d8	18.7	140 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	12.3	92.0 %		21-167		"	"	"	"	

Anions by EPA Method 300.0

Date Sampled: **10/01/24 12:21**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chloride	23.9	0.0600		mg/L	50	BHJ0274	10/07/24	10/07/24	EPA 300.0	
Sulfate	181	0.300		"	"	"	"	"	"	

Total Dissolved Solids by SM2540C

Date Sampled: **10/01/24 12:21**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Total Dissolved Solids	686	10.0		mg/L	1	BHJ0126	10/03/24	10/07/24	SM2540C	

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6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Stephens 7-11,12

Project Number: [none]
Project Manager: Karen Olson

Reported:
10/08/24 15:25

BH28
2410020-07 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/01/24 12:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	BHJ0110	10/02/24	10/04/24	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	2.0		"	"	"	"	"	"	
Naphthalene	ND	1.0		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0		"	"	"	"	"	"	

Date Sampled: **10/01/24 12:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	8.79	65.9 %		23-173		"	"	"	"	
Surrogate: Toluene-d8	15.0	112 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	12.0	90.2 %		21-167		"	"	"	"	

Anions by EPA Method 300.0

Date Sampled: **10/01/24 12:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chloride	53.7	0.0600		mg/L	50	BHJ0274	10/07/24	10/07/24	EPA 300.0	
Sulfate	467	0.300		"	"	"	"	"	"	

Total Dissolved Solids by SM2540C

Date Sampled: **10/01/24 12:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Total Dissolved Solids	1310	10.0		mg/L	1	BHJ0126	10/03/24	10/07/24	SM2540C	

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

Project: PDC - Stephens 7-11,12

Project Number: [none]
Project Manager: Karen Olson

Reported:
10/08/24 15:25

BH29
2410020-08 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/01/24 13:07**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	BHJ0110	10/02/24	10/04/24	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	2.0		"	"	"	"	"	"	
Naphthalene	ND	1.0		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0		"	"	"	"	"	"	

Date Sampled: **10/01/24 13:07**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	8.91	66.8 %		23-173		"	"	"	"	
Surrogate: Toluene-d8	15.6	117 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	11.9	89.1 %		21-167		"	"	"	"	

Anions by EPA Method 300.0

Date Sampled: **10/01/24 13:07**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chloride	59.7	0.0600		mg/L	50	BHJ0274	10/07/24	10/07/24	EPA 300.0	
Sulfate	777	0.300		"	"	"	"	"	"	

Total Dissolved Solids by SM2540C

Date Sampled: **10/01/24 13:07**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Total Dissolved Solids	1720	10.0		mg/L	1	BHJ0126	10/03/24	10/07/24	SM2540C	

Summit Scientific

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

Project: PDC - Stephens 7-11,12

Project Number: [none]
Project Manager: Karen Olson

Reported:
10/08/24 15:25

BH30
2410020-09 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/01/24 13:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	BHJ0110	10/02/24	10/04/24	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	2.0		"	"	"	"	"	"	
Naphthalene	ND	1.0		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0		"	"	"	"	"	"	

Date Sampled: **10/01/24 13:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	10.5	78.8 %		23-173		"	"	"	"	
Surrogate: Toluene-d8	20.5	154 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	12.3	92.2 %		21-167		"	"	"	"	

Anions by EPA Method 300.0

Date Sampled: **10/01/24 13:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chloride	94.3	0.0600		mg/L	50	BHJ0274	10/07/24	10/07/24	EPA 300.0	
Sulfate	707	0.300		"	"	"	"	"	"	

Total Dissolved Solids by SM2540C

Date Sampled: **10/01/24 13:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Total Dissolved Solids	1590	10.0		mg/L	1	BHJ0126	10/03/24	10/07/24	SM2540C	

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6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Stephens 7-11,12

Project Number: [none]
Project Manager: Karen Olson

Reported:
10/08/24 15:25

BH31
2410020-10 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

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

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	BHJ0110	10/02/24	10/04/24	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	2.0		"	"	"	"	"	"	
Naphthalene	ND	1.0		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0		"	"	"	"	"	"	

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

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	8.92	66.9 %		23-173		"	"	"	"	
Surrogate: Toluene-d8	13.8	104 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	12.2	91.6 %		21-167		"	"	"	"	

Anions by EPA Method 300.0

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

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chloride	50.8	0.0600		mg/L	50	BHJ0274	10/07/24	10/07/24	EPA 300.0	
Sulfate	643	0.300		"	"	"	"	"	"	

Total Dissolved Solids by SM2540C

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

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Total Dissolved Solids	1760	10.0		mg/L	1	BHJ0126	10/03/24	10/07/24	SM2540C	

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6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Stephens 7-11,12

Project Number: [none]
Project Manager: Karen Olson

Reported:
10/08/24 15:25

BH32
2410020-11 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/01/24 12:52**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	BHJ0110	10/02/24	10/04/24	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	2.0		"	"	"	"	"	"	
Naphthalene	ND	1.0		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0		"	"	"	"	"	"	

Date Sampled: **10/01/24 12:52**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	10.2	76.3 %		23-173		"	"	"	"	
Surrogate: Toluene-d8	13.5	101 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	12.2	91.9 %		21-167		"	"	"	"	

Anions by EPA Method 300.0

Date Sampled: **10/01/24 12:52**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chloride	34.4	0.0600		mg/L	50	BHJ0274	10/07/24	10/07/24	EPA 300.0	
Sulfate	270	0.300		"	"	"	"	"	"	

Total Dissolved Solids by SM2540C

Date Sampled: **10/01/24 12:52**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Total Dissolved Solids	929	10.0		mg/L	1	BHJ0126	10/03/24	10/07/24	SM2540C	

Summit Scientific

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

Project: PDC - Stephens 7-11,12

Project Number: [none]
Project Manager: Karen Olson

Reported:
10/08/24 15:25

BH33
2410020-12 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/01/24 12:33**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	BHJ0110	10/02/24	10/04/24	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	2.0		"	"	"	"	"	"	
Naphthalene	ND	1.0		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0		"	"	"	"	"	"	

Date Sampled: **10/01/24 12:33**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	9.58	71.9 %		23-173		"	"	"	"	
Surrogate: Toluene-d8	14.0	105 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	12.5	94.1 %		21-167		"	"	"	"	

Anions by EPA Method 300.0

Date Sampled: **10/01/24 12:33**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chloride	17.1	0.0600		mg/L	50	BHJ0274	10/07/24	10/07/24	EPA 300.0	
Sulfate	97.1	0.300		"	"	"	"	"	"	

Total Dissolved Solids by SM2540C

Date Sampled: **10/01/24 12:33**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Total Dissolved Solids	345	10.0		mg/L	1	BHJ0126	10/03/24	10/07/24	SM2540C	

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6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Stephens 7-11,12

Project Number: [none]
Project Manager: Karen Olson

Reported:
10/08/24 15:25

BH34
2410020-13 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/01/24 12:22**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	BHJ0110	10/02/24	10/04/24	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	2.0		"	"	"	"	"	"	
Naphthalene	ND	1.0		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0		"	"	"	"	"	"	

Date Sampled: **10/01/24 12:22**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	9.11	68.3 %		23-173		"	"	"	"	
Surrogate: Toluene-d8	13.9	104 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	12.4	92.7 %		21-167		"	"	"	"	

Anions by EPA Method 300.0

Date Sampled: **10/01/24 12:22**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chloride	17.3	0.0600		mg/L	50	BHJ0274	10/07/24	10/07/24	EPA 300.0	
Sulfate	91.1	0.300		"	"	"	"	"	"	

Total Dissolved Solids by SM2540C

Date Sampled: **10/01/24 12:22**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Total Dissolved Solids	338	10.0		mg/L	1	BHJ0126	10/03/24	10/07/24	SM2540C	

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6855 W. 119th Ave.
Broomfield CO, 80020

Project: PDC - Stephens 7-11,12

Project Number: [none]
Project Manager: Karen Olson

Reported:
10/08/24 15:25

BH35
2410020-14 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/01/24 13:36**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	BHJ0110	10/02/24	10/04/24	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	2.0		"	"	"	"	"	"	
Naphthalene	ND	1.0		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0		"	"	"	"	"	"	

Date Sampled: **10/01/24 13:36**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	13.8	103 %		23-173		"	"	"	"	
Surrogate: Toluene-d8	13.3	99.8 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	12.2	91.5 %		21-167		"	"	"	"	

Anions by EPA Method 300.0

Date Sampled: **10/01/24 13:36**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Chloride	31.4	0.0600		mg/L	50	BHJ0274	10/07/24	10/07/24	EPA 300.0	
Sulfate	259	0.300		"	"	"	"	"	"	

Total Dissolved Solids by SM2540C

Date Sampled: **10/01/24 13:36**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Total Dissolved Solids	1270	10.0		mg/L	1	BHJ0126	10/03/24	10/07/24	SM2540C	

Summit Scientific

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

Project: PDC - Stephens 7-11,12

Project Number: [none]
Project Manager: Karen Olson

Reported:
10/08/24 15:25

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch BHJ0110 - EPA 5030 Water MS

Blank (BHJ0110-BLK1)

Prepared: 10/02/24 Analyzed: 10/04/24

Benzene	ND	1.0	ug/l								
Toluene	ND	1.0	"								
Ethylbenzene	ND	1.0	"								
Xylenes (total)	ND	2.0	"								
Naphthalene	ND	1.0	"								
1,2,4-Trimethylbenzene	ND	1.0	"								
1,3,5-Trimethylbenzene	ND	1.0	"								
<i>Surrogate: 1,2-Dichloroethane-d4</i>	9.29		"	13.3		69.7		23-173			
<i>Surrogate: Toluene-d8</i>	19.8		"	13.3		149		20-170			
<i>Surrogate: 4-Bromofluorobenzene</i>	12.3		"	13.3		92.2		21-167			

LCS (BHJ0110-BS1)

Prepared: 10/02/24 Analyzed: 10/04/24

Benzene	21.9	1.0	ug/l	33.3		65.8		51-132			
Toluene	50.5	1.0	"	33.3		151		51-138			QLCS-01
Ethylbenzene	36.3	1.0	"	33.3		109		58-146			
m,p-Xylene	71.1	2.0	"	66.7		107		57-144			
o-Xylene	37.8	1.0	"	33.3		113		53-146			
Naphthalene	28.6	1.0	"	33.3		85.9		70-130			
1,2,4-Trimethylbenzene	35.2	1.0	"	33.3		106		70-130			
1,3,5-Trimethylbenzene	34.9	1.0	"	33.3		105		70-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	9.34		"	13.3		70.1		23-173			
<i>Surrogate: Toluene-d8</i>	17.0		"	13.3		127		20-170			
<i>Surrogate: 4-Bromofluorobenzene</i>	13.0		"	13.3		97.4		21-167			

LCS Dup (BHJ0110-BSD1)

Prepared: 10/02/24 Analyzed: 10/04/24

Benzene	21.3	1.0	ug/l	33.3		63.8		51-132	3.10	20	
Toluene	51.6	1.0	"	33.3		155		51-138	2.14	20	QLCS-01
Ethylbenzene	35.1	1.0	"	33.3		105		58-146	3.28	20	
m,p-Xylene	69.3	2.0	"	66.7		104		57-144	2.54	20	
o-Xylene	36.3	1.0	"	33.3		109		53-146	4.05	20	
Naphthalene	28.3	1.0	"	33.3		84.8		70-130	1.20	20	
1,2,4-Trimethylbenzene	34.5	1.0	"	33.3		103		70-130	2.10	20	
1,3,5-Trimethylbenzene	34.2	1.0	"	33.3		103		70-130	2.11	20	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	9.36		"	13.3		70.2		23-173			
<i>Surrogate: Toluene-d8</i>	17.4		"	13.3		130		20-170			
<i>Surrogate: 4-Bromofluorobenzene</i>	12.6		"	13.3		94.5		21-167			

Summit Scientific

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

Project: PDC - Stephens 7-11,12

Project Number: [none]
Project Manager: Karen Olson

Reported:
10/08/24 15:25

Anions by EPA Method 300.0 - Quality Control
Summit Scientific

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

Batch BHJ0274 - General Preparation

Blank (BHJ0274-BLK1)

Prepared & Analyzed: 10/07/24

Chloride	ND	0.0600	mg/L						
Sulfate	ND	0.300	"						

LCS (BHJ0274-BS1)

Prepared & Analyzed: 10/07/24

Chloride	2.90	0.0600	mg/L	3.00	96.7	90-110
Sulfate	14.3	0.300	"	15.0	95.3	90-110

Duplicate (BHJ0274-DUP1)

Source: 2410013-11

Prepared & Analyzed: 10/07/24

Chloride	45.7	0.0600	mg/L	47.6	3.92	20
Sulfate	314	0.300	"	327	4.07	20

Matrix Spike (BHJ0274-MS1)

Source: 2410013-11

Prepared & Analyzed: 10/07/24

Chloride	194	0.0600	mg/L	150	47.6	97.7	80-120
Sulfate	1040	0.300	"	750	327	94.7	80-120

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

Project: PDC - Stephens 7-11,12

Project Number: [none]
Project Manager: Karen Olson

Reported:
10/08/24 15:25

Total Dissolved Solids by SM2540C - Quality Control
Summit Scientific

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

Batch BHJ0126 - General Preparation

Blank (BHJ0126-BLK1)

Prepared: 10/03/24 Analyzed: 10/07/24

Total Dissolved Solids ND 10.0 mg/L

Duplicate (BHJ0126-DUP1)

Source: 2410020-01

Prepared: 10/03/24 Analyzed: 10/07/24

Total Dissolved Solids 637 10.0 mg/L 647 1.56 20

Summit Scientific



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

Project: PDC - Stephens 7-11,12

Project Number: [none]
Project Manager: Karen Olson

Reported:
10/08/24 15:25

Notes and Definitions

- QLCS-01 The spike recovery was outside acceptance limits for this analyte indicating a potential high bias. The corresponding samples did not exhibit concentrations above reporting level for this analyte. Data quality is not affected.
- 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