

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

June 05, 2025

Andy Sagen

Tasman Geosciences

4725 Independence St.

Wheat Ridge, CO 80033

RE: PDC - Leffler 26Q, 26T-421 TB

Work Order #2505052

Enclosed are the results of analyses for samples received by Summit Scientific on 05/12/25 18:06. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Natalie Tessier". The signature is written in a cursive, flowing style.

Natalie Tessier For Paul Shrewsbury

President



Tasman Geosciences
4725 Independence St.
Wheat Ridge CO, 80033

Project: PDC - Leffler 26Q, 26T-421 TB

Project Number: [none]
Project Manager: Andy Sagen

Reported:
06/05/25 11:30

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FS01@5'	2505052-02	Soil	05/12/25 14:05	05/12/25 18:06

Summit Scientific

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

Lab ID	Page of
2505052	

Client: PDC/Tasman		Send Data To: Project Manager: Andy Sagen		Send Invoice To: Company: PDC Energy	
Address: 4725 Independence St.		E-Mail: tas-chevron-1@tasman-geo.com		Project Name/Location:	
City/State/Zip: Wheat Ridge/CO/80033		RBUEUF27@chevron.com		AFE#:	
Phone: 303-487-1228		Project Name: <i>Leffler 26Q-26T-421 TB</i>		PO/Billing Codes:	
Sampler Name: <i>Josh Adams Dylan Sardinia</i>		Project Number:		Contact: Karen Olson	

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		HOLD	
1	SEP01-DL@4'	5/12/25	1037	2			X			X			X	X	X	X	X	X	X	X	SAR, EC, pH by saturated paste
2	FS01@5'	↓	1405	2			X			X			X	X	X	X	X	X	X	X	
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					
13																					
14																					
15																					

Relinquished by: <i>Dylan Sardinia</i>	Date/Time: <i>5/12/25 1602</i>	Received by: Tasman Lock Box	Date/Time: <i>5/12/25 1602</i>	TAT Business Days	Field DO	Notes:
				Same Day <input checked="" type="checkbox"/>	Field EC	
Relinquished by: <i>Tasman Lock Box</i>	Date/Time: <i>5/22/25 1806</i>	Received by: <i>[Signature]</i>	Date/Time: <i>5/22/25 1800</i>	1 Day	Field ORP	
				2 Days	Field pH	
Relinquished by:	Date/Time:	Received by:	Date/Time:	3 Days	Field Temp.	
Temperature Upon Receipt: <i>3.8</i>	Corrected Temperature: <i>0</i>	IR gun #: <i>1</i>	HNO3 lot #:	Standard	Field Turb.	

S₂

S2 WORK Order# 2505052

Sample Receipt Checklist

Client: Doc Tisman Client Project ID: Jeffery 260-267-421 TBReceived Via: H.D./P.U./FedEx/UPS/USPS/Other Airbill #: _____Matrix (Circle all that apply) Air/Soil/Water/Other Temp (°C) 38 Thermometer # 1Bottle ware (Circle all that apply) Glass Jar/Voa/Amber/Poly/Other

	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.	-			on ice
If custody seals are present, are they intact? ⁽¹⁾	-			
Are samples due within 48 hours?	-			Sameday
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, Total Residual Chlorine (TRC)		-		
Is a chain-of-custody (COC) form present and filled out completely? ⁽¹⁾	-			
Is the COC properly relinquished by the client w/ date and time recorded? ⁽¹⁾	-			
Were all samples received intact? ⁽¹⁾	-			
Was adequate sample volume provided? ⁽¹⁾	-			
Were samples provided in appropriate bottle ware?	-			
Does the COC agree with the number and type of sample bottles received? ⁽¹⁾	-			
Do the sample IDs on the bottle labels match the COC? ⁽¹⁾	-			
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.			-	
Are any samples/bottles preserved (excluding cooling)? ⁽¹⁾ Note the type of preservative in the comments column – HCl, H ₂ SO ₄ , NaOH, HNO ₃ , etc.			-	
If samples are acid preserved for metals, is the pH ≤ 2? ⁽¹⁾ Record the pH in Comments.			-	
If dissolved metals are requested, were samples field filtered?			-	
Are there requested analysis that cannot be performed by S2? Note analysis in the comments column		-		
Additional Comments (if any):				

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

Control Form #: SRC-001

SN
Custodian Printed Name

5/12/25
Date/Time



Tasman Geosciences
4725 Independence St.
Wheat Ridge CO, 80033

Project: PDC - Leffler 26Q, 26T-421 TB

Project Number: [none]
Project Manager: Andy Sagen

Reported:
06/05/25 11:30

FS01@5'
2505052-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **05/12/25 14:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BIE0468	05/12/25	05/13/25	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: **05/12/25 14:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0394	98.6 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0392	98.0 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0426	106 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **05/12/25 14:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BIE0470	05/12/25	05/13/25	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **05/12/25 14:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	11.1	88.8 %		50-140		"	"	"	"	

PAH by EPA Method 8270D SIM

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Project Manager: Andy Sagen

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FS01@5'
2505052-02 (Soil)

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PAH by EPA Method 8270D SIM

Date Sampled: **05/12/25 14:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BIE0487	05/13/25	06/04/25	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	0.00658	0.00500	"	"	"	"	"	"	

Date Sampled: **05/12/25 14:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0232	69.6 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0252	75.5 %	40-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **05/12/25 14:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L dry	1	BIE0478	05/13/25	05/13/25	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **05/12/25 14:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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4725 Independence St.
Wheat Ridge CO, 80033

Project: PDC - Leffler 26Q, 26T-421 TB

Project Number: [none]
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06/05/25 11:30

FS01@5'
2505052-02 (Soil)

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Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	2.17	0.200	mg/kg dry	1	BIE0484	05/13/25	05/13/25	EPA 6020B
Barium	120	0.400	"	"	"	"	"	"
Cadmium	0.226	0.200	"	"	"	"	"	"
Copper	5.12	0.400	"	"	"	"	"	"
Lead	7.97	0.200	"	"	"	"	"	"
Nickel	4.21	0.400	"	"	"	"	"	"
Silver	0.0403	0.0200	"	"	"	"	"	"
Zinc	16.5	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by HACH M8023

Date Sampled: 05/12/25 14:05

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BIE0482	05/13/25	05/13/25	Hach 8000	

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

Date Sampled: 05/12/25 14:05

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	52.6	0.0500	mg/L dry	1	BIE0469	05/12/25	05/13/25	EPA 6020B	
Magnesium	11.8	0.0500	"	"	"	"	"	"	
Sodium	12.9	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: 05/12/25 14:05

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.418	0.00100	units	1	BIE0524	05/14/25	05/14/25	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: 05/12/25 14:05

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Project Number: [none]
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FS01@5'
2505052-02 (Soil)

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Physical Parameters by APHA/ASTM/EPA Methods

% Solids	87.0	%	1	BIE0480	05/13/25	05/13/25	Calculation
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Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **05/12/25 14:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.303	0.0100	mmhos/cm	1	BIE0473	05/12/25	05/13/25	EPA 120.1	

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

Date Sampled: **05/12/25 14:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.07		pH Units	1	BIE0472	05/12/25	05/13/25	EPA 9045D	

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Project Number: [none]
Project Manager: Andy Sagen

Reported:
06/05/25 11:30

Volatile Organic Compounds by EPA Method 8260B - Quality Control

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

Batch BIE0468 - EPA 5030 Soil MS

Blank (BIE0468-BLK1)

Prepared: 05/12/25 Analyzed: 05/13/25

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	"							
Surrogate: 1,2-Dichloroethane-d4	0.0378		"	0.0400		94.6	50-150			
Surrogate: Toluene-d8	0.0402		"	0.0400		100	50-150			
Surrogate: 4-Bromofluorobenzene	0.0401		"	0.0400		100	50-150			

LCS (BIE0468-BS1)

Prepared: 05/12/25 Analyzed: 05/13/25

Benzene	0.109	0.0020	mg/kg	0.100		109	70-130			
Toluene	0.109	0.0050	"	0.100		109	70-130			
Ethylbenzene	0.110	0.0050	"	0.100		110	70-130			
m,p-Xylene	0.219	0.010	"	0.200		110	70-130			
o-Xylene	0.103	0.0050	"	0.100		103	70-130			
1,2,4-Trimethylbenzene	0.111	0.0050	"	0.100		111	70-130			
1,3,5-Trimethylbenzene	0.110	0.0050	"	0.100		110	70-130			
Naphthalene	0.0969	0.0038	"	0.100		96.9	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0390		"	0.0400		97.4	50-150			
Surrogate: Toluene-d8	0.0413		"	0.0400		103	50-150			
Surrogate: 4-Bromofluorobenzene	0.0417		"	0.0400		104	50-150			

Matrix Spike (BIE0468-MS1)

Source: 2505047-01

Prepared: 05/12/25 Analyzed: 05/13/25

Benzene	0.0982	0.0020	mg/kg	0.100	ND	98.2	70-130			
Toluene	0.100	0.0050	"	0.100	ND	100	70-130			
Ethylbenzene	0.0998	0.0050	"	0.100	ND	99.8	70-130			
m,p-Xylene	0.198	0.010	"	0.200	ND	99.0	70-130			
o-Xylene	0.0896	0.0050	"	0.100	ND	89.6	70-130			
1,2,4-Trimethylbenzene	0.0969	0.0050	"	0.100	ND	96.9	70-130			
1,3,5-Trimethylbenzene	0.0981	0.0050	"	0.100	ND	98.1	70-130			
Naphthalene	0.0845	0.0038	"	0.100	ND	84.5	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0392		"	0.0400		98.1	50-150			
Surrogate: Toluene-d8	0.0413		"	0.0400		103	50-150			
Surrogate: 4-Bromofluorobenzene	0.0388		"	0.0400		97.0	50-150			

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Project: PDC - Leffler 26Q, 26T-421 TB

Project Number: [none]
Project Manager: Andy Sagen

Reported:
06/05/25 11:30

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 BIE0468 - EPA 5030 Soil MS

Matrix Spike Dup (BIE0468-MSD1)	Source: 2505047-01			Prepared: 05/12/25 Analyzed: 05/13/25						
Benzene	0.0964	0.0020	mg/kg	0.100	ND	96.4	70-130	1.85	30	
Toluene	0.0957	0.0050	"	0.100	ND	95.7	70-130	4.65	30	
Ethylbenzene	0.0973	0.0050	"	0.100	ND	97.3	70-130	2.56	30	
m,p-Xylene	0.195	0.010	"	0.200	ND	97.4	70-130	1.67	30	
o-Xylene	0.0895	0.0050	"	0.100	ND	89.5	70-130	0.0670	30	
1,2,4-Trimethylbenzene	0.0944	0.0050	"	0.100	ND	94.4	70-130	2.57	30	
1,3,5-Trimethylbenzene	0.0955	0.0050	"	0.100	ND	95.5	70-130	2.73	30	
Naphthalene	0.0871	0.0038	"	0.100	ND	87.1	70-130	3.04	30	
Surrogate: 1,2-Dichloroethane-d4	0.0410		"	0.0400		103	50-150			
Surrogate: Toluene-d8	0.0406		"	0.0400		101	50-150			
Surrogate: 4-Bromofluorobenzene	0.0405		"	0.0400		101	50-150			

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Project: PDC - Leffler 26Q, 26T-421 TB

Project Number: [none]
Project Manager: Andy Sagen

Reported:
06/05/25 11:30

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 BIE0470 - EPA 3550A

Blank (BIE0470-BLK1)

Prepared: 05/12/25 Analyzed: 05/13/25

C10-C28 (DRO)	ND	50	mg/kg								
C28-C36 (ORO)	ND	50	"								
Surrogate: <i>o</i> -Terphenyl	11.9		"	12.5		95.5	50-140				

LCS (BIE0470-BS1)

Prepared: 05/12/25 Analyzed: 05/13/25

C10-C28 (DRO)	533	50	mg/kg	500		107	50-140				
Surrogate: <i>o</i> -Terphenyl	12.2		"	12.5		97.5	50-140				

Matrix Spike (BIE0470-MS1)

Source: 2505047-01

Prepared: 05/12/25 Analyzed: 05/13/25

C10-C28 (DRO)	473	50	mg/kg	500	20.3	90.6	50-140				
Surrogate: <i>o</i> -Terphenyl	11.7		"	12.5		93.4	50-140				

Matrix Spike Dup (BIE0470-MSD1)

Source: 2505047-01

Prepared: 05/12/25 Analyzed: 05/13/25

C10-C28 (DRO)	525	50	mg/kg	500	20.3	101	50-140	10.3	20		
Surrogate: <i>o</i> -Terphenyl	13.9		"	12.5		111	50-140				

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Project: PDC - Leffler 26Q, 26T-421 TB

Project Number: [none]
Project Manager: Andy Sagen

Reported:
06/05/25 11:30

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 BIE0487 - EPA 5030 Soil MS

Blank (BIE0487-BLK1)

Prepared: 05/13/25 Analyzed: 06/04/25

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>	0.0293		"	0.0333		87.9	40-140			
<i>Surrogate: Fluoranthene-d10</i>	0.0295		"	0.0333		88.4	40-140			

LCS (BIE0487-BS1)

Prepared: 05/13/25 Analyzed: 06/04/25

Acenaphthene	0.0255	0.00500	mg/kg	0.0333		76.6	40-140			
Anthracene	0.0259	0.00500	"	0.0333		77.6	40-140			
Benzo (a) anthracene	0.0274	0.00500	"	0.0333		82.2	40-140			
Benzo (a) pyrene	0.0244	0.00500	"	0.0333		73.2	40-140			
Benzo (b) fluoranthene	0.0253	0.00500	"	0.0333		75.8	40-140			
Benzo (k) fluoranthene	0.0239	0.00500	"	0.0333		71.7	40-140			
Chrysene	0.0257	0.00500	"	0.0333		77.2	40-140			
Dibenz (a,h) anthracene	0.0226	0.00500	"	0.0333		67.8	40-140			
Fluoranthene	0.0255	0.00500	"	0.0333		76.4	40-140			
Fluorene	0.0275	0.00500	"	0.0333		82.5	40-140			
Indeno (1,2,3-cd) pyrene	0.0234	0.00500	"	0.0333		70.1	40-140			
Pyrene	0.0257	0.00500	"	0.0333		77.0	40-140			
1-Methylnaphthalene	0.0296	0.00500	"	0.0333		88.9	40-140			
2-Methylnaphthalene	0.0319	0.00500	"	0.0333		95.8	40-140			
<i>Surrogate: 2-Methylnaphthalene-d10</i>	0.0264		"	0.0333		79.1	40-140			
<i>Surrogate: Fluoranthene-d10</i>	0.0261		"	0.0333		78.2	40-140			

Summit Scientific

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Tasman Geosciences
4725 Independence St.
Wheat Ridge CO, 80033

Project: PDC - Leffler 26Q, 26T-421 TB

Project Number: [none]
Project Manager: Andy Sagen

Reported:
06/05/25 11:30

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 BIE0487 - EPA 5030 Soil MS

Matrix Spike (BIE0487-MS1)	Source: 2505049-01			Prepared: 05/13/25 Analyzed: 06/04/25								
Acenaphthene	0.0229	0.00500	mg/kg	0.0333	ND	68.8	40-140					
Anthracene	0.0233	0.00500	"	0.0333	ND	69.9	40-140					
Benzo (a) anthracene	0.0255	0.00500	"	0.0333	ND	76.4	40-140					
Benzo (a) pyrene	0.0224	0.00500	"	0.0333	ND	67.2	40-140					
Benzo (b) fluoranthene	0.0237	0.00500	"	0.0333	ND	71.1	40-140					
Benzo (k) fluoranthene	0.0227	0.00500	"	0.0333	ND	68.2	40-140					
Chrysene	0.0241	0.00500	"	0.0333	ND	72.2	40-140					
Dibenz (a,h) anthracene	0.0212	0.00500	"	0.0333	ND	63.6	40-140					
Fluoranthene	0.0243	0.00500	"	0.0333	ND	72.9	40-140					
Fluorene	0.0253	0.00500	"	0.0333	ND	75.9	40-140					
Indeno (1,2,3-cd) pyrene	0.0216	0.00500	"	0.0333	ND	64.9	40-140					
Pyrene	0.0246	0.00500	"	0.0333	ND	73.7	40-140					
1-Methylnaphthalene	0.0270	0.00500	"	0.0333	ND	81.1	40-140					
2-Methylnaphthalene	0.0290	0.00500	"	0.0333	ND	87.0	40-140					
Surrogate: 2-Methylnaphthalene-d10	0.0239		"	0.0333		71.8	40-140					
Surrogate: Fluoranthene-d10	0.0243		"	0.0333		72.8	40-140					

Matrix Spike Dup (BIE0487-MSD1)	Source: 2505049-01			Prepared: 05/13/25 Analyzed: 06/04/25								
Acenaphthene	0.0194	0.00500	mg/kg	0.0333	ND	58.3	40-140	16.5	30			
Anthracene	0.0198	0.00500	"	0.0333	ND	59.4	40-140	16.2	30			
Benzo (a) anthracene	0.0211	0.00500	"	0.0333	ND	63.4	40-140	18.7	30			
Benzo (a) pyrene	0.0185	0.00500	"	0.0333	ND	55.4	40-140	19.4	30			
Benzo (b) fluoranthene	0.0187	0.00500	"	0.0333	ND	56.2	40-140	23.5	30			
Benzo (k) fluoranthene	0.0180	0.00500	"	0.0333	ND	53.9	40-140	23.4	30			
Chrysene	0.0202	0.00500	"	0.0333	ND	60.7	40-140	17.2	30			
Dibenz (a,h) anthracene	0.0184	0.00500	"	0.0333	ND	55.3	40-140	13.9	30			
Fluoranthene	0.0196	0.00500	"	0.0333	ND	58.9	40-140	21.2	30			
Fluorene	0.0124	0.00500	"	0.0333	ND	37.3	40-140	68.1	30			QM-05, QR-03
Indeno (1,2,3-cd) pyrene	0.0189	0.00500	"	0.0333	ND	56.6	40-140	13.8	30			
Pyrene	0.0199	0.00500	"	0.0333	ND	59.8	40-140	20.8	30			
1-Methylnaphthalene	0.0220	0.00500	"	0.0333	ND	65.9	40-140	20.7	30			
2-Methylnaphthalene	0.00788	0.00500	"	0.0333	ND	23.6	40-140	115	30			QM-05, QR-03
Surrogate: 2-Methylnaphthalene-d10	0.0203		"	0.0333		60.9	40-140					
Surrogate: Fluoranthene-d10	0.0208		"	0.0333		62.5	40-140					

Summit Scientific

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Tasman Geosciences
 4725 Independence St.
 Wheat Ridge CO, 80033

Project: PDC - Leffler 26Q, 26T-421 TB

Project Number: [none]
 Project Manager: Andy Sagen

Reported:
 06/05/25 11:30

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

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

Batch BIE0478 - EPA 3050B

Blank (BIE0478-BLK1)

Prepared & Analyzed: 05/13/25

Boron ND 2.00 mg/L wet

LCS (BIE0478-BS1)

Prepared & Analyzed: 05/13/25

Boron 4.41 2.00 mg/L wet 5.02 87.9 80-120

Duplicate (BIE0478-DUP1)

Source: 2505044-02

Prepared & Analyzed: 05/13/25

Boron 0.737 2.00 mg/L dry 0.677 8.42 20

Matrix Spike (BIE0478-MS1)

Source: 2505044-02

Prepared & Analyzed: 05/13/25

Boron 7.47 2.00 mg/L dry 5.64 0.677 120 75-125

Matrix Spike Dup (BIE0478-MSD1)

Source: 2505044-02

Prepared & Analyzed: 05/13/25

Boron 7.18 2.00 mg/L dry 5.64 0.677 115 75-125 3.89 25

Summit Scientific

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Tasman Geosciences
4725 Independence St.
Wheat Ridge CO, 80033

Project: PDC - Leffler 26Q, 26T-421 TB

Project Number: [none]
Project Manager: Andy Sagen

Reported:
06/05/25 11:30

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BIE0484 - EPA 3050B

Blank (BIE0484-BLK1)

Prepared & Analyzed: 05/13/25

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 (BIE0484-BS1)

Prepared & Analyzed: 05/13/25

Arsenic	48.7	0.200	mg/kg wet	41.7	117	80-120
Barium	49.1	0.400	"	41.7	118	80-120
Cadmium	2.48	0.200	"	2.08	119	80-120
Copper	48.7	0.400	"	41.7	117	80-120
Lead	24.1	0.200	"	20.8	115	80-120
Nickel	47.5	0.400	"	41.7	114	80-120
Silver	2.46	0.0200	"	2.08	118	80-120
Zinc	46.3	0.400	"	41.7	111	80-120
Selenium	5.01	0.260	"	4.17	120	80-120

Duplicate (BIE0484-DUP1)

Source: 2505047-01

Prepared & Analyzed: 05/13/25

Arsenic	1.26	0.200	mg/kg dry	1.46	14.9	20
Barium	195	0.400	"	205	4.96	20
Cadmium	0.0751	0.200	"	0.0803	6.69	20
Copper	0.994	0.400	"	1.14	13.9	20
Lead	4.38	0.200	"	3.78	14.9	20
Nickel	1.85	0.400	"	1.94	4.65	20
Silver	0.0158	0.0200	"	0.0165	3.95	20
Zinc	5.22	0.400	"	5.44	4.23	20
Selenium	ND	0.260	"	ND		20

Summit Scientific

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Tasman Geosciences
4725 Independence St.
Wheat Ridge CO, 80033

Project: PDC - Leffler 26Q, 26T-421 TB

Project Number: [none]
Project Manager: Andy Sagen

Reported:
06/05/25 11:30

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 BIE0484 - EPA 3050B

Matrix Spike (BIE0484-MS1)

Source: 2505047-01

Prepared & Analyzed: 05/13/25

Arsenic	23.8	0.200	mg/kg dry	43.7	1.46	51.0	75-125				QM-05
Barium	242	0.400	"	43.7	205	85.1	75-125				
Cadmium	2.51	0.200	"	2.19	0.0803	111	75-125				
Copper	22.8	0.400	"	43.7	1.14	49.6	75-125				QM-05
Lead	25.3	0.200	"	21.9	3.78	98.5	75-125				
Nickel	23.9	0.400	"	43.7	1.94	50.2	75-125				QM-05
Silver	2.36	0.0200	"	2.19	0.0165	107	75-125				
Zinc	27.2	0.400	"	43.7	5.44	49.6	75-125				QM-05
Selenium	4.49	0.260	"	4.37	ND	103	75-125				

Matrix Spike Dup (BIE0484-MSD1)

Source: 2505047-01

Prepared & Analyzed: 05/13/25

Arsenic	21.7	0.200	mg/kg dry	42.0	1.46	48.1	75-125	9.17	25		QM-05
Barium	286	0.400	"	42.0	205	193	75-125	16.7	25		QM-05
Cadmium	2.35	0.200	"	2.10	0.0803	108	75-125	6.54	25		
Copper	21.2	0.400	"	42.0	1.14	47.8	75-125	7.26	25		QM-05
Lead	23.9	0.200	"	21.0	3.78	95.8	75-125	5.77	25		
Nickel	22.1	0.400	"	42.0	1.94	47.9	75-125	7.97	25		QM-05
Silver	2.24	0.0200	"	2.10	0.0165	106	75-125	5.18	25		
Zinc	25.7	0.400	"	42.0	5.44	48.1	75-125	5.67	25		QM-05
Selenium	4.39	0.260	"	4.20	ND	105	75-125	2.26	25		

Summit Scientific

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Tasman Geosciences
 4725 Independence St.
 Wheat Ridge CO, 80033

Project: PDC - Leffler 26Q, 26T-421 TB

Project Number: [none]
 Project Manager: Andy Sagen

Reported:
 06/05/25 11:30

Hexavalent Chromium by HACH M8023 - Quality Control
Summit Scientific

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

Batch BIE0482 - 3060A Mod

Blank (BIE0482-BLK1)

Prepared & Analyzed: 05/13/25

Chromium, Hexavalent ND 0.30 mg/kg wet

LCS (BIE0482-BS1)

Prepared & Analyzed: 05/13/25

Chromium, Hexavalent 24.1 0.30 mg/kg wet 24.8 97.2 80-120

Duplicate (BIE0482-DUP1)

Source: 2505044-02

Prepared & Analyzed: 05/13/25

Chromium, Hexavalent ND 0.30 mg/kg dry ND 20

Matrix Spike (BIE0482-MS1)

Source: 2505044-02

Prepared & Analyzed: 05/13/25

Chromium, Hexavalent 23.7 0.30 mg/kg dry 29.4 ND 80.8 75-125

Matrix Spike Dup (BIE0482-MSD1)

Source: 2505044-02

Prepared & Analyzed: 05/13/25

Chromium, Hexavalent 25.9 0.30 mg/kg dry 29.1 ND 89.0 75-125 8.62 20

Summit Scientific

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Tasman Geosciences
 4725 Independence St.
 Wheat Ridge CO, 80033

Project: PDC - Leffler 26Q, 26T-421 TB

Project Number: [none]
 Project Manager: Andy Sagen

Reported:
 06/05/25 11:30

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

Summit Scientific

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

Batch BIE0469 - General Preparation

Blank (BIE0469-BLK1)

Prepared: 05/12/25 Analyzed: 05/13/25

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

LCS (BIE0469-BS1)

Prepared: 05/12/25 Analyzed: 05/13/25

Calcium	5.72	0.0500	mg/L wet	5.00	114	70-130
Magnesium	4.45	0.0500	"	5.00	89.1	70-130
Sodium	4.25	0.0500	"	5.00	84.9	70-130

Summit Scientific

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Tasman Geosciences
 4725 Independence St.
 Wheat Ridge CO, 80033

Project: PDC - Leffler 26Q, 26T-421 TB

Project Number: [none]
 Project Manager: Andy Sagen

Reported:
 06/05/25 11:30

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 BIE0480 - General Preparation

Duplicate (BIE0480-DUP1)

Source: 2505044-02

Prepared & Analyzed: 05/13/25

% Solids	86.6		%		88.6			2.31	20	
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Summit Scientific

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Tasman Geosciences
 4725 Independence St.
 Wheat Ridge CO, 80033

Project: PDC - Leffler 26Q, 26T-421 TB

Project Number: [none]
 Project Manager: Andy Sagen

Reported:
 06/05/25 11:30

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

Summit Scientific

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

Batch BIE0473 - General Preparation

Blank (BIE0473-BLK1)

Prepared: 05/12/25 Analyzed: 05/13/25

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BIE0473-BS1)

Prepared: 05/12/25 Analyzed: 05/13/25

Specific Conductance (EC) 0.154 0.0100 mmhos/cm 0.150 103 95-105

Duplicate (BIE0473-DUP1)

Source: 2505047-01

Prepared: 05/12/25 Analyzed: 05/13/25

Specific Conductance (EC) 0.182 0.0100 mmhos/cm 0.183 0.932 20

Summit Scientific

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Tasman Geosciences
 4725 Independence St.
 Wheat Ridge CO, 80033

Project: PDC - Leffler 26Q, 26T-421 TB

Project Number: [none]
 Project Manager: Andy Sagen

Reported:
 06/05/25 11:30

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 BIE0472 - General Preparation

LCS (BIE0472-BS1)

Prepared: 05/12/25 Analyzed: 05/13/25

pH	9.17	pH Units	9.18	99.9	95-105
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Duplicate (BIE0472-DUP1)

Source: 2505047-01

Prepared: 05/12/25 Analyzed: 05/13/25

pH	9.09	pH Units	9.09	0.00	20
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Summit Scientific

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Tasman Geosciences
4725 Independence St.
Wheat Ridge CO, 80033

Project: PDC - Leffler 26Q, 26T-421 TB

Project Number: [none]
Project Manager: Andy Sagen

Reported:
06/05/25 11:30

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.
- 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