

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

December 04, 2024

Karen Olson

Tasman Geosciences

6855 W. 119th Ave.

Broomfield, CO 80020

RE: PDC - Dunham 41-5 Tank Battery

Work Order #2411533

Enclosed are the results of analyses for samples received by Summit Scientific on 11/27/24 17:30. 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 - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SEP01-DL-BR@3-4'	2411533-01	Soil	11/27/24 12:02	11/27/24 17:30
SEP01-DL-BR@4-5'	2411533-02	Soil	11/27/24 12:06	11/27/24 17:30
SEP01-DL-NR@3-4'	2411533-03	Soil	11/27/24 09:51	11/27/24 17:30
SEP01-DL-NR@4-5'	2411533-04	Soil	11/27/24 09:54	11/27/24 17:30
SEP01-DL-ER@3-4'	2411533-05	Soil	11/27/24 11:22	11/27/24 17:30
SEP01-DL-ER@4-5'	2411533-06	Soil	11/27/24 11:25	11/27/24 17:30
SEP01-DL-SR@3-4'	2411533-07	Soil	11/27/24 11:51	11/27/24 17:30
SEP01-DL-SR@4-5'	2411533-08	Soil	11/27/24 11:55	11/27/24 17:30
SEP01-DL-WR@3-4'	2411533-09	Soil	11/27/24 11:24	11/27/24 17:30
SEP01-DL-WR@4-5'	2411533-10	Soil	11/27/24 11:26	11/27/24 17:30
BKG02@0-1'	2411533-11	Soil	11/27/24 11:02	11/27/24 17:30
BKG02@2-3'	2411533-12	Soil	11/27/24 11:06	11/27/24 17:30
BKG02@3-4'	2411533-13	Soil	11/27/24 11:08	11/27/24 17:30
BKG02@4-5'	2411533-14	Soil	11/27/24 11:11	11/27/24 17:30
BKG03@0-1'	2411533-15	Soil	11/27/24 09:35	11/27/24 17:30
BKG03@2-3'	2411533-16	Soil	11/27/24 09:42	11/27/24 17:30
BKG03@3-4'	2411533-17	Soil	11/27/24 09:44	11/27/24 17:30
BKG03@4-5'	2411533-18	Soil	11/27/24 09:46	11/27/24 17:30
BKG04@0-1'	2411533-19	Soil	11/27/24 10:19	11/27/24 17:30
BKG04@2-3'	2411533-20	Soil	11/27/24 10:21	11/27/24 17:30
BKG04@3-4'	2411533-21	Soil	11/27/24 10:23	11/27/24 17:30
BKG04@4-5'	2411533-22	Soil	11/27/24 10:25	11/27/24 17:30
BKG05@0-1'	2411533-23	Soil	11/27/24 09:55	11/27/24 17:30
BKG05@2-3'	2411533-24	Soil	11/27/24 09:56	11/27/24 17:30
BKG05@3-4'	2411533-25	Soil	11/27/24 09:58	11/27/24 17:30
BKG05@4-5'	2411533-26	Soil	11/27/24 10:01	11/27/24 17:30
BKG06@0-1'	2411533-27	Soil	11/27/24 10:43	11/27/24 17:30

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BKG06@2-3'	2411533-28	Soil	11/27/24 10:49	11/27/24 17:30
BKG06@3-4'	2411533-29	Soil	11/27/24 10:51	11/27/24 17:30
BKG06@4-5'	2411533-30	Soil	11/27/24 10:54	11/27/24 17:30

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Send Data To:		Send Invoice To:	
Client: Tasman, Inc.	Project Manager: Daniel Simpson	Company: Noble Energy, Inc. ^{NR} PDC Energy, F.L.C.	
Address: 6855 W. 119th Ave.	E-Mail: tas-chevron-5@tasman-geo.com,	Project Name/Location: Dunham 41-5 Tank Battery	
City/State/Zip: Broomfield / CO / 80020	RBUEUF27@chevron.com, Karen.olson@chevron.com	AFE#:	
Phone: 303-487-1228	Project Name: Dunham 41-5 Tank Battery	PO/Billing Codes:	
Sampler Name: McKenzie Reynolds	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			Metals - 915	VOC - 915	TPH - 915	PAH - 915	SAR, EC, pH	Boron - HWS	HOLD	
1	SEP01-DL-BR03-4'	11/27/24	1202	2			X			X		X	X	X	X	X	X		SAR, EC, pH by saturated paste	
2	SEP01-DL-BR04-5'		1206																	
3	SEP01-DL-NR03-4'		0951																	
4	SEP01-DL-NR04-5'		0954																	
5	SEP01-DL-ER03-4'		1122																	
6	SEP01-DL-ER04-5'		1125																	
7	SEP01-DL-SR03-4'		1151																	
8	SEP01-DL-SR04-5'		1155																	
9	SEP01-DL-WR03-4'		1124																	
10	SEP01-DL-WR04-5'		1126																	
11	BK0200-1'		1102	1																
12	BK0202-3'		1106																	
13	BK0203-4'		1108																	
14	BK0204-5'		1111																	
15	BK0300-1'		0935																	

Relinquished by: <i>Mckenzie Reynolds</i>	Date/Time: 11/27/2024 1500	Received by: <i>Tasman Volkbox</i>	Date/Time: 11/27/2024 1500	TAT Business Days	Field DO	Notes: TAT-Rush same day
Relinquished by: <i>Tasman Volkbox</i>	Date/Time: 11/27/2024 1730	Received by: <i>[Signature]</i>	Date/Time: 11/27/2024 1730	Same Day <input checked="" type="checkbox"/>	Field EC	
Relinquished by:	Date/Time:	Received by:	Date/Time:	1 Day	Field ORP	
				2 Days	Field pH	
				3 Days	Field Temp.	
Temperature Upon Receipt: 4.9	Corrected Temperature: 6	IR gun #: 1	HNO3 lot #:	Standard	Field Turb.	

Send Data To:		Send Invoice To:	
Client: Tasman, Inc.	Project Manager: Daniel Simpson	Company: Noble Energy, Inc. ^{TR} PDC Energy, Inc.	
Address: 6855 W. 119th Ave.	E-Mail: tas-chevron-5@tasman-geo.com,	Project Name/Location: Dunham 41-5 Tank Battery	
City/State/Zip: Broomfield / CO / 80020	RBUEUF27@chevron.com, Karen.olson@chevron.com	AFE#:	
Phone: 303-487-1228	Project Name: Dunham 41-5 Tank Battery	PO/Billing Codes:	
Sampler Name: McKenzie Reynolds	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	
1	BK603@2-3'	11/27/24	0942	1			X			X						X	X		SAR, EC, pH by saturated paste
2	BK603@3-4'		0944																
3	BK603@4-5'		0946																
4	BK604@0-1'		1019																
5	BK604@2-3'		1021																
6	BK604@3-4'		1023																
7	BK604@4-5'		1025																
8	BK605@0-1'		0955																
9	BK605@2-3'		0956																
10	BK605@3-4'		0958																
11	BK605@4-5'		1001																
12	BK606@0-1'		1043																
13	BK606@2-3'		1049																
14	BK606@3-4'		1051																
15	BK606@4-5'		1054																

Relinquished by: <i>[Signature]</i>	Date/Time: 11/27/2024 1600	Received by: TASMAR LOCKBOX	Date/Time: 11/27/2024 1500	TAT Business Days	Field DO	Notes: TAT - Rush same day
Relinquished by: Tasmara Lockbox	Date/Time: 11/27/24 1730	Received by: <i>[Signature]</i>	Date/Time: 11/27/24 1730	Same Day <input checked="" type="checkbox"/>	Field EC	
Relinquished by:	Date/Time:	Received by:	Date/Time:	1 Day	Field ORP	
				2 Days	Field pH	
				3 Days	Field Temp.	
Temperature Upon Receipt: 49	Corrected Temperature: E	IR gun #:)	HNO3 lot #:	Standard	Field Turb.	

S₂

4/2

Sample Receipt Checklist

S2 Work Order# 2411533

Client: Tasman Client Project ID: Dunham 41-5 Tank Battery

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"/>	on site
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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Same day
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 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

11/27/24
Date/Time



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

SEP01-DL-BR@3-4'
2411533-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **11/27/24 12:02**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BHK1383	11/27/24	11/27/24	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: **11/27/24 12:02**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0446	111 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0404	101 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0400	100 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **11/27/24 12:02**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHK1384	11/27/24	11/27/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **11/27/24 12:02**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	8.87	70.9 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

SEP01-DL-BR@3-4'
2411533-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **11/27/24 12:02**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHL0012	12/02/24	12/03/24	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: **11/27/24 12:02**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0184	55.1 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0174	52.3 %	40-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **11/27/24 12:02**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHL0036	12/02/24	12/03/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **11/27/24 12:02**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	--------	-------

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

SEP01-DL-BR@3-4'
2411533-01 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	4.50	0.200	mg/kg dry	1	BHL0024	12/02/24	12/02/24	EPA 6020B
Barium	171	0.400	"	"	"	"	"	"
Cadmium	0.345	0.200	"	"	"	"	"	"
Copper	6.39	0.400	"	"	"	"	"	"
Lead	11.1	0.200	"	"	"	"	"	"
Nickel	6.59	0.400	"	"	"	"	"	"
Silver	0.0643	0.0200	"	"	"	"	"	"
Zinc	24.0	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: 11/27/24 12:02

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHL0005	12/01/24	12/01/24	EPA 7196A	

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

Date Sampled: 11/27/24 12:02

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	31.4	0.0500	mg/L dry	1	BHK1385	11/27/24	12/03/24	EPA 6020B	
Magnesium	11.0	0.0500	"	"	"	"	"	"	
Sodium	37.0	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: 11/27/24 12:02

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.45	0.00100	units	1	BHL0092	12/03/24	12/03/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: 11/27/24 12:02

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	--------	-------

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
 Project Manager: Karen Olson

Reported:
 12/04/24 12:53

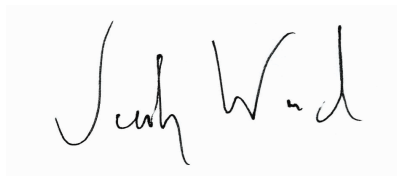
SEP01-DL-BR@3-4'
2411533-01 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	79.6	%	1	BHL0025	12/02/24	12/02/24	Calculation
----------	------	---	---	---------	----------	----------	-------------

Summit Scientific



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

SEP01-DL-BR@4-5'
2411533-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **11/27/24 12:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHK1383	11/27/24	11/27/24	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: **11/27/24 12:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0424	106 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0410	102 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0390	97.5 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **11/27/24 12:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BHK1384	11/27/24	11/27/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **11/27/24 12:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	8.46	67.7 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

SEP01-DL-BR@4-5'
2411533-02 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **11/27/24 12:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHL0012	12/02/24	12/03/24	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: **11/27/24 12:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0214	64.1 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0234	70.2 %	40-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **11/27/24 12:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHL0036	12/02/24	12/03/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **11/27/24 12:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	--------	-------

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

SEP01-DL-BR@4-5'
2411533-02 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	3.92	0.200	mg/kg dry	1	BHL0024	12/02/24	12/02/24	EPA 6020B
Barium	133	0.400	"	"	"	"	"	"
Cadmium	0.308	0.200	"	"	"	"	"	"
Copper	6.13	0.400	"	"	"	"	"	"
Lead	9.86	0.200	"	"	"	"	"	"
Nickel	6.33	0.400	"	"	"	"	"	"
Silver	0.0588	0.0200	"	"	"	"	"	"
Zinc	22.3	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: 11/27/24 12:06

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHL0005	12/01/24	12/01/24	EPA 7196A	

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

Date Sampled: 11/27/24 12:06

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	29.4	0.0500	mg/L dry	1	BHK1385	11/27/24	12/03/24	EPA 6020B	
Magnesium	8.24	0.0500	"	"	"	"	"	"	
Sodium	32.0	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: 11/27/24 12:06

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.34	0.00100	units	1	BHL0092	12/03/24	12/03/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: 11/27/24 12:06

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	--------	-------

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

SEP01-DL-BR@4-5'
2411533-02 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	80.9	%	1	BHL0025	12/02/24	12/02/24	Calculation
----------	------	---	---	---------	----------	----------	-------------

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

SEP01-DL-NR@3-4'
2411533-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **11/27/24 09:51**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BHK1383	11/27/24	11/27/24	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: **11/27/24 09:51**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0435	109 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0406	101 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0384	95.9 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **11/27/24 09:51**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHK1384	11/27/24	11/27/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **11/27/24 09:51**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	8.36	66.9 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

SEP01-DL-NR@3-4'
2411533-03 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **11/27/24 09:51**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHL0012	12/02/24	12/03/24	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: **11/27/24 09:51**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0164	49.1 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0168	50.5 %	40-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **11/27/24 09:51**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHL0036	12/02/24	12/03/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **11/27/24 09:51**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	--------	-------

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

SEP01-DL-NR@3-4'
2411533-03 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	4.72	0.200	mg/kg dry	1	BHL0024	12/02/24	12/02/24	EPA 6020B	
Barium	92.2	0.400	"	"	"	"	"	"	
Cadmium	0.342	0.200	"	"	"	"	"	"	
Copper	6.76	0.400	"	"	"	"	"	"	
Lead	11.3	0.200	"	"	"	"	"	"	
Nickel	6.89	0.400	"	"	"	"	"	"	
Silver	0.0618	0.0200	"	"	"	"	"	"	
Zinc	24.4	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: 11/27/24 09:51

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHL0005	12/01/24	12/01/24	EPA 7196A	

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

Date Sampled: 11/27/24 09:51

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	25.2	0.0500	mg/L dry	1	BHK1385	11/27/24	12/03/24	EPA 6020B	
Magnesium	8.43	0.0500	"	"	"	"	"	"	
Sodium	23.9	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: 11/27/24 09:51

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.05	0.00100	units	1	BHL0092	12/03/24	12/03/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: 11/27/24 09:51

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	--------	-------

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

SEP01-DL-NR@3-4'
2411533-03 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	80.3	%	1	BHL0025	12/02/24	12/02/24	Calculation
----------	------	---	---	---------	----------	----------	-------------

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

SEP01-DL-NR@4-5'
2411533-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **11/27/24 09:54**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BHK1383	11/27/24	11/27/24	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: **11/27/24 09:54**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0418	104 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0388	97.1 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0392	98.0 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **11/27/24 09:54**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHK1384	11/27/24	11/27/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **11/27/24 09:54**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	7.84	62.7 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

SEP01-DL-NR@4-5'
2411533-04 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **11/27/24 09:54**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHL0012	12/02/24	12/03/24	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: **11/27/24 09:54**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0217	65.2 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0227	68.1 %	40-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **11/27/24 09:54**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHL0036	12/02/24	12/03/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **11/27/24 09:54**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	--------	-------

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

SEP01-DL-NR@4-5'
2411533-04 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	4.40	0.200	mg/kg dry	1	BHL0024	12/02/24	12/02/24	EPA 6020B	
Barium	116	0.400	"	"	"	"	"	"	
Cadmium	0.332	0.200	"	"	"	"	"	"	
Copper	6.45	0.400	"	"	"	"	"	"	
Lead	10.5	0.200	"	"	"	"	"	"	
Nickel	6.89	0.400	"	"	"	"	"	"	
Silver	0.0563	0.0200	"	"	"	"	"	"	
Zinc	24.4	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: 11/27/24 09:54

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHL0005	12/01/24	12/01/24	EPA 7196A	

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

Date Sampled: 11/27/24 09:54

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	27.2	0.0500	mg/L dry	1	BHK1385	11/27/24	12/03/24	EPA 6020B	
Magnesium	5.92	0.0500	"	"	"	"	"	"	
Sodium	17.7	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: 11/27/24 09:54

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.802	0.00100	units	1	BHL0092	12/03/24	12/03/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: 11/27/24 09:54

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	--------	-------

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
 Project Manager: Karen Olson

Reported:
 12/04/24 12:53


SEP01-DL-NR@4-5'
2411533-04 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	80.7	%	1	BHL0025	12/02/24	12/02/24	Calculation
----------	------	---	---	---------	----------	----------	-------------

Summit Scientific



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

SEP01-DL-ER@3-4'
2411533-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **11/27/24 11:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHK1383	11/27/24	11/27/24	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: **11/27/24 11:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0413	103 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0398	99.4 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0389	97.2 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **11/27/24 11:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BHK1384	11/27/24	11/27/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **11/27/24 11:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	8.54	68.3 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

SEP01-DL-ER@3-4'
2411533-05 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **11/27/24 11:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHL0012	12/02/24	12/03/24	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: **11/27/24 11:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0185	55.4 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0188	56.3 %	40-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **11/27/24 11:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHL0036	12/02/24	12/03/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **11/27/24 11:22**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	--------	-------

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

SEP01-DL-ER@3-4'
2411533-05 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	5.05	0.200	mg/kg dry	1	BHL0024	12/02/24	12/02/24	EPA 6020B
Barium	300	0.400	"	"	"	"	"	"
Cadmium	0.406	0.200	"	"	"	"	"	"
Copper	6.61	0.400	"	"	"	"	"	"
Lead	11.4	0.200	"	"	"	"	"	"
Nickel	7.25	0.400	"	"	"	"	"	"
Silver	0.0602	0.0200	"	"	"	"	"	"
Zinc	24.3	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: 11/27/24 11:22

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHL0005	12/01/24	12/01/24	EPA 7196A	

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

Date Sampled: 11/27/24 11:22

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	27.3	0.0500	mg/L dry	1	BHK1385	11/27/24	12/03/24	EPA 6020B	
Magnesium	7.53	0.0500	"	"	"	"	"	"	
Sodium	32.5	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: 11/27/24 11:22

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.42	0.00100	units	1	BHL0092	12/03/24	12/03/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: 11/27/24 11:22

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	--------	-------

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
 Project Manager: Karen Olson

Reported:
 12/04/24 12:53

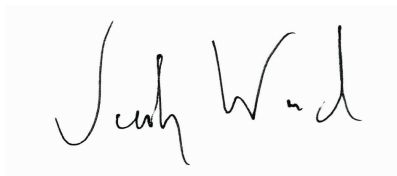
SEP01-DL-ER@3-4'
2411533-05 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	85.9	%	1	BHL0025	12/02/24	12/02/24	Calculation
----------	------	---	---	---------	----------	----------	-------------

Summit Scientific



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

SEP01-DL-ER@4-5'
2411533-06 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **11/27/24 11:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BHK1383	11/27/24	11/27/24	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: **11/27/24 11:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0422	105 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0398	99.4 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0384	96.1 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **11/27/24 11:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHK1384	11/27/24	11/27/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **11/27/24 11:25**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	7.78	62.2 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

SEP01-DL-ER@4-5'
2411533-06 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **11/27/24 11:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHL0012	12/02/24	12/03/24	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: **11/27/24 11:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0222	66.6 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0238	71.4 %	40-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **11/27/24 11:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHL0036	12/02/24	12/03/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **11/27/24 11:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	--------	-------

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

SEP01-DL-ER@4-5'
2411533-06 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	3.59	0.200	mg/kg dry	1	BHL0024	12/02/24	12/02/24	EPA 6020B
Barium	132	0.400	"	"	"	"	"	"
Cadmium	0.265	0.200	"	"	"	"	"	"
Copper	5.91	0.400	"	"	"	"	"	"
Lead	8.30	0.200	"	"	"	"	"	"
Nickel	5.96	0.400	"	"	"	"	"	"
Silver	0.0427	0.0200	"	"	"	"	"	"
Zinc	21.1	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: 11/27/24 11:25

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHL0005	12/01/24	12/01/24	EPA 7196A	

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

Date Sampled: 11/27/24 11:25

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	34.3	0.0500	mg/L dry	1	BHK1385	11/27/24	12/03/24	EPA 6020B	
Magnesium	6.93	0.0500	"	"	"	"	"	"	
Sodium	32.1	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: 11/27/24 11:25

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.31	0.00100	units	1	BHL0092	12/03/24	12/03/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: 11/27/24 11:25

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	--------	-------

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
 Project Manager: Karen Olson

Reported:
 12/04/24 12:53

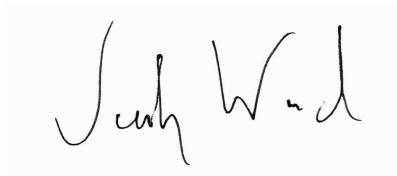
SEP01-DL-ER@4-5'
2411533-06 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	77.4	%	1	BHL0025	12/02/24	12/02/24	Calculation
----------	------	---	---	---------	----------	----------	-------------

Summit Scientific



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

SEP01-DL-SR@3-4'
2411533-07 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **11/27/24 11:51**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHK1383	11/27/24	11/28/24	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: **11/27/24 11:51**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0418	105 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0394	98.5 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0388	96.9 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **11/27/24 11:51**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BHK1384	11/27/24	11/27/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **11/27/24 11:51**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	7.16	57.3 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

SEP01-DL-SR@3-4'
2411533-07 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **11/27/24 11:51**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHL0012	12/02/24	12/03/24	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: **11/27/24 11:51**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0202	60.5 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0214	64.3 %	40-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **11/27/24 11:51**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHL0036	12/02/24	12/03/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **11/27/24 11:51**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	--------	-------

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

SEP01-DL-SR@3-4'
2411533-07 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	3.63	0.200	mg/kg dry	1	BHL0024	12/02/24	12/02/24	EPA 6020B	
Barium	96.9	0.400	"	"	"	"	"	"	
Cadmium	0.269	0.200	"	"	"	"	"	"	
Copper	5.36	0.400	"	"	"	"	"	"	
Lead	8.51	0.200	"	"	"	"	"	"	
Nickel	5.64	0.400	"	"	"	"	"	"	
Silver	0.0438	0.0200	"	"	"	"	"	"	
Zinc	20.3	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: 11/27/24 11:51

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHL0005	12/01/24	12/01/24	EPA 7196A	

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

Date Sampled: 11/27/24 11:51

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	41.8	0.0500	mg/L dry	1	BHK1385	11/27/24	12/03/24	EPA 6020B	
Magnesium	11.2	0.0500	"	"	"	"	"	"	
Sodium	32.2	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: 11/27/24 11:51

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.14	0.00100	units	1	BHL0092	12/03/24	12/03/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: 11/27/24 11:51

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	--------	-------

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

SEP01-DL-SR@3-4'
2411533-07 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	85.8	%	1	BHL0025	12/02/24	12/02/24	Calculation
----------	------	---	---	---------	----------	----------	-------------

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

SEP01-DL-SR@4-5'
2411533-08 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **11/27/24 11:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BHK1383	11/27/24	11/28/24	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: **11/27/24 11:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0423	106 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0401	100 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0388	97.0 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **11/27/24 11:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHK1384	11/27/24	11/27/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **11/27/24 11:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	8.79	70.3 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

SEP01-DL-SR@4-5'
2411533-08 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **11/27/24 11:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHL0012	12/02/24	12/03/24	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: **11/27/24 11:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0213	64.0 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0221	66.4 %	40-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **11/27/24 11:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHL0036	12/02/24	12/03/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **11/27/24 11:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	--------	-------

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

SEP01-DL-SR@4-5'
2411533-08 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	4.96	0.200	mg/kg dry	1	BHL0024	12/02/24	12/02/24	EPA 6020B	
Barium	189	0.400	"	"	"	"	"	"	
Cadmium	0.387	0.200	"	"	"	"	"	"	
Copper	7.29	0.400	"	"	"	"	"	"	
Lead	12.0	0.200	"	"	"	"	"	"	
Nickel	7.56	0.400	"	"	"	"	"	"	
Silver	0.0694	0.0200	"	"	"	"	"	"	
Zinc	26.7	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: 11/27/24 11:55

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHL0005	12/01/24	12/01/24	EPA 7196A	

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

Date Sampled: 11/27/24 11:55

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	106	0.0500	mg/L dry	1	BHK1385	11/27/24	12/03/24	EPA 6020B	
Magnesium	12.6	0.0500	"	"	"	"	"	"	
Sodium	73.5	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: 11/27/24 11:55

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.80	0.00100	units	1	BHL0092	12/03/24	12/03/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: 11/27/24 11:55

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	--------	-------

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

SEP01-DL-SR@4-5'
2411533-08 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	78.6	%	1	BHL0025	12/02/24	12/02/24	Calculation
----------	------	---	---	---------	----------	----------	-------------

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

SEP01-DL-WR@3-4'
2411533-09 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **11/27/24 11:24**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	BHK1383	11/27/24	11/28/24	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: **11/27/24 11:24**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4	0.0416	104 %		50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0398	99.5 %		50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0380	94.9 %		50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **11/27/24 11:24**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	BHK1384	11/27/24	11/27/24	EPA 8015M	
C28-C36 (ORO)	ND	50		"	"	"	"	"	"	

Date Sampled: **11/27/24 11:24**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl	7.25	58.0 %		30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

SEP01-DL-WR@3-4'
2411533-09 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **11/27/24 11:24**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHL0012	12/02/24	12/03/24	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: **11/27/24 11:24**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0185	55.6 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0214	64.1 %	40-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **11/27/24 11:24**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHL0036	12/02/24	12/03/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **11/27/24 11:24**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	--------	-------

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

SEP01-DL-WR@3-4'
2411533-09 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	2.34	0.200	mg/kg dry	1	BHL0024	12/02/24	12/02/24	EPA 6020B	
Barium	42.7	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	4.42	0.400	"	"	"	"	"	"	
Lead	4.56	0.200	"	"	"	"	"	"	
Nickel	3.65	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	14.9	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: 11/27/24 11:24

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHL0005	12/01/24	12/01/24	EPA 7196A	

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

Date Sampled: 11/27/24 11:24

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	37.5	0.0500	mg/L dry	1	BHK1385	11/27/24	12/03/24	EPA 6020B	
Magnesium	8.22	0.0500	"	"	"	"	"	"	
Sodium	8.09	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: 11/27/24 11:24

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.312	0.00100	units	1	BHL0092	12/03/24	12/03/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
 Project Manager: Karen Olson

Reported:
 12/04/24 12:53

SEP01-DL-WR@3-4'
2411533-09 (Soil)

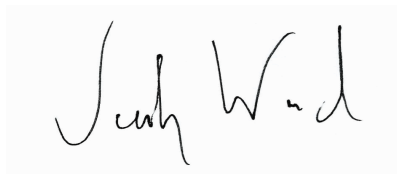
Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **11/27/24 11:24**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	94.4		%	1	BHL0025	12/02/24	12/02/24	Calculation	

Summit Scientific



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

SEP01-DL-WR@4-5'
2411533-10 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **11/27/24 11:26**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BHK1383	11/27/24	11/28/24	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: **11/27/24 11:26**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0398	99.4 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0397	99.2 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0382	95.5 %	50-150		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **11/27/24 11:26**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BHK1384	11/27/24	11/28/24	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **11/27/24 11:26**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	7.51	60.1 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

SEP01-DL-WR@4-5'
2411533-10 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **11/27/24 11:26**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BHL0012	12/02/24	12/03/24	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: **11/27/24 11:26**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10	0.0192	57.6 %	40-140		"	"	"	"	
Surrogate: Fluoranthene-d10	0.0210	63.0 %	40-140		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **11/27/24 11:26**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	ND	2.00	mg/L	1	BHL0036	12/02/24	12/03/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **11/27/24 11:26**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	--------	-------

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

SEP01-DL-WR@4-5'
2411533-10 (Soil)

Summit Scientific

Total Metals by EPA 6020B

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Arsenic	3.19	0.200	mg/kg dry	1	BHL0024	12/02/24	12/02/24	EPA 6020B
Barium	100	0.400	"	"	"	"	"	"
Cadmium	0.228	0.200	"	"	"	"	"	"
Copper	5.12	0.400	"	"	"	"	"	"
Lead	8.28	0.200	"	"	"	"	"	"
Nickel	4.74	0.400	"	"	"	"	"	"
Silver	0.0498	0.0200	"	"	"	"	"	"
Zinc	20.2	0.400	"	"	"	"	"	"
Selenium	ND	0.260	"	"	"	"	"	"

Hexavalent Chromium by EPA Method 7196

Date Sampled: 11/27/24 11:26

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHL0005	12/01/24	12/01/24	EPA 7196A	

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

Date Sampled: 11/27/24 11:26

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	56.5	0.0500	mg/L dry	1	BHK1385	11/27/24	12/03/24	EPA 6020B	
Magnesium	13.5	0.0500	"	"	"	"	"	"	
Sodium	4.00	0.0500	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: 11/27/24 11:26

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.124	0.00100	units	1	BHL0092	12/03/24	12/03/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: 11/27/24 11:26

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	--------	-------

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

SEP01-DL-WR@4-5'
2411533-10 (Soil)

Summit Scientific

Physical Parameters by APHA/ASTM/EPA Methods

% Solids	84.3	%	1	BHL0025	12/02/24	12/02/24	Calculation
----------	------	---	---	---------	----------	----------	-------------

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

BKG02@0-1'
2411533-11 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **11/27/24 11:02**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BHL0036	12/02/24	12/03/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **11/27/24 11:02**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	2.77	0.200	mg/kg dry	1	BHL0024	12/02/24	12/02/24	EPA 6020B	
Barium	86.0	0.400	"	"	"	"	"	"	
Cadmium	0.276	0.200	"	"	"	"	"	"	
Copper	4.86	0.400	"	"	"	"	"	"	
Lead	8.48	0.200	"	"	"	"	"	"	
Nickel	4.99	0.400	"	"	"	"	"	"	
Silver	0.0294	0.0200	"	"	"	"	"	"	
Zinc	18.1	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **11/27/24 11:02**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHL0005	12/01/24	12/01/24	EPA 7196A	

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

Date Sampled: **11/27/24 11:02**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	834	0.0500	mg/L dry	1	BHK1385	11/27/24	12/03/24	EPA 6020B	
Magnesium	150	0.0500	"	"	"	"	"	"	
Sodium	44.4	0.0500	"	"	"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

BKG02@0-1'
2411533-11 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **11/27/24 11:02**

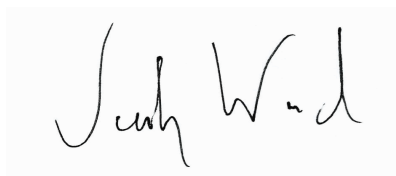
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.372	0.00100	units	1	BHL0092	12/03/24	12/03/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **11/27/24 11:02**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	87.7		%	1	BHL0025	12/02/24	12/02/24	Calculation	

Summit Scientific



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

BKG02@2-3'
2411533-12 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **11/27/24 11:06**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BHL0036	12/02/24	12/03/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **11/27/24 11:06**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	3.35	0.200	mg/kg dry	1	BHL0024	12/02/24	12/02/24	EPA 6020B	
Barium	93.8	0.400	"	"	"	"	"	"	
Cadmium	0.283	0.200	"	"	"	"	"	"	
Copper	5.04	0.400	"	"	"	"	"	"	
Lead	7.92	0.200	"	"	"	"	"	"	
Nickel	5.30	0.400	"	"	"	"	"	"	
Silver	0.0350	0.0200	"	"	"	"	"	"	
Zinc	18.0	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **11/27/24 11:06**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHL0005	12/01/24	12/01/24	EPA 7196A	

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

Date Sampled: **11/27/24 11:06**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	306	0.0500	mg/L dry	1	BHK1385	11/27/24	12/03/24	EPA 6020B	
Magnesium	60.2	0.0500	"	"	"	"	"	"	
Sodium	674	0.0500	"	"	"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

BKG02@2-3'
2411533-12 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **11/27/24 11:06**

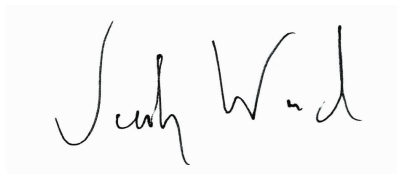
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	9.22	0.00100	units	1	BHL0092	12/03/24	12/03/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **11/27/24 11:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	92.1		%	1	BHL0025	12/02/24	12/02/24	Calculation	

Summit Scientific



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

BKG02@3-4'
2411533-13 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **11/27/24 11:08**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BHL0036	12/02/24	12/03/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **11/27/24 11:08**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	5.77	0.200	mg/kg dry	1	BHL0024	12/02/24	12/02/24	EPA 6020B	
Barium	187	0.400	"	"	"	"	"	"	
Cadmium	0.416	0.200	"	"	"	"	"	"	
Copper	7.50	0.400	"	"	"	"	"	"	
Lead	11.5	0.200	"	"	"	"	"	"	
Nickel	6.93	0.400	"	"	"	"	"	"	
Silver	0.157	0.0200	"	"	"	"	"	"	
Zinc	25.5	0.400	"	"	"	"	"	"	
Selenium	0.263	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **11/27/24 11:08**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHL0005	12/01/24	12/01/24	EPA 7196A	

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

Date Sampled: **11/27/24 11:08**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	108	0.0500	mg/L dry	1	BHK1385	11/27/24	12/03/24	EPA 6020B	
Magnesium	45.7	0.0500	"	"	"	"	"	"	
Sodium	1060	0.0500	"	"	"	"	"	"	

Calculated Analysis

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

BKG02@3-4'
2411533-13 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **11/27/24 11:08**

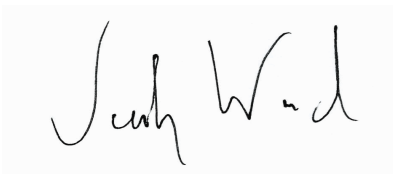
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	21.6	0.00100	units	1	BHL0092	12/03/24	12/03/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **11/27/24 11:08**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	80.9		%	1	BHL0025	12/02/24	12/02/24	Calculation	

Summit Scientific



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

BKG02@4-5'
2411533-14 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **11/27/24 11:11**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BHL0036	12/02/24	12/03/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **11/27/24 11:11**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	5.03	0.200	mg/kg dry	1	BHL0024	12/02/24	12/03/24	EPA 6020B	
Barium	214	0.400	"	"	"	"	"	"	
Cadmium	0.358	0.200	"	"	"	"	"	"	
Copper	7.11	0.400	"	"	"	"	"	"	
Lead	10.8	0.200	"	"	"	"	"	"	
Nickel	7.19	0.400	"	"	"	"	"	"	
Silver	0.0630	0.0200	"	"	"	"	"	"	
Zinc	24.1	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **11/27/24 11:11**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHL0005	12/01/24	12/01/24	EPA 7196A	

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

Date Sampled: **11/27/24 11:11**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	271	0.0500	mg/L dry	1	BHK1385	11/27/24	12/03/24	EPA 6020B	
Magnesium	79.2	0.0500	"	"	"	"	"	"	
Sodium	821	0.0500	"	"	"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

BKG02@4-5'
2411533-14 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **11/27/24 11:11**

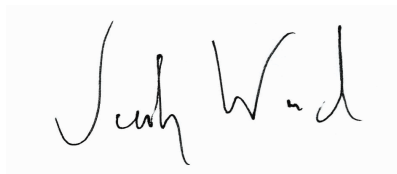
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	11.3	0.00100	units	1	BHL0092	12/03/24	12/03/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **11/27/24 11:11**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	79.3		%	1	BHL0025	12/02/24	12/02/24	Calculation	

Summit Scientific



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

BKG03@0-1'
2411533-15 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **11/27/24 09:35**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BHL0036	12/02/24	12/03/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **11/27/24 09:35**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	3.05	0.200	mg/kg dry	1	BHL0024	12/02/24	12/03/24	EPA 6020B	
Barium	96.3	0.400	"	"	"	"	"	"	
Cadmium	0.294	0.200	"	"	"	"	"	"	
Copper	5.27	0.400	"	"	"	"	"	"	
Lead	9.44	0.200	"	"	"	"	"	"	
Nickel	25.3	0.400	"	"	"	"	"	"	
Silver	0.0236	0.0200	"	"	"	"	"	"	
Zinc	19.7	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **11/27/24 09:35**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHL0005	12/01/24	12/01/24	EPA 7196A	

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

Date Sampled: **11/27/24 09:35**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	95.9	0.0500	mg/L dry	1	BHK1385	11/27/24	12/03/24	EPA 6020B	
Magnesium	11.5	0.0500	"	"	"	"	"	"	
Sodium	7.06	0.0500	"	"	"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

BKG03@0-1'
2411533-15 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **11/27/24 09:35**


Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.181	0.00100	units	1	BHL0092	12/03/24	12/03/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **11/27/24 09:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	86.8		%	1	BHL0025	12/02/24	12/02/24	Calculation	

Summit Scientific



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

BKG03@2-3'
2411533-16 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **11/27/24 09:42**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BHL0036	12/02/24	12/03/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **11/27/24 09:42**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	3.22	0.200	mg/kg dry	1	BHL0024	12/02/24	12/03/24	EPA 6020B	
Barium	78.8	0.400	"	"	"	"	"	"	
Cadmium	0.212	0.200	"	"	"	"	"	"	
Copper	4.76	0.400	"	"	"	"	"	"	
Lead	7.71	0.200	"	"	"	"	"	"	
Nickel	5.42	0.400	"	"	"	"	"	"	
Silver	0.0418	0.0200	"	"	"	"	"	"	
Zinc	18.7	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **11/27/24 09:42**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHL0005	12/01/24	12/01/24	EPA 7196A	

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

Date Sampled: **11/27/24 09:42**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	651	0.0500	mg/L dry	1	BHK1385	11/27/24	12/03/24	EPA 6020B	
Magnesium	255	0.0500	"	"	"	"	"	"	
Sodium	1030	0.0500	"	"	"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

BKG03@2-3'
2411533-16 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **11/27/24 09:42**

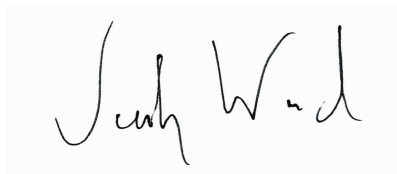
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	8.67	0.00100	units	1	BHL0092	12/03/24	12/03/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **11/27/24 09:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	89.6		%	1	BHL0025	12/02/24	12/02/24	Calculation	

Summit Scientific



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

BKG03@3-4'
2411533-17 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **11/27/24 09:44**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BHL0036	12/02/24	12/03/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **11/27/24 09:44**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	5.47	0.200	mg/kg dry	1	BHL0024	12/02/24	12/03/24	EPA 6020B	
Barium	184	0.400	"	"	"	"	"	"	
Cadmium	0.310	0.200	"	"	"	"	"	"	
Copper	5.58	0.400	"	"	"	"	"	"	
Lead	9.33	0.200	"	"	"	"	"	"	
Nickel	6.66	0.400	"	"	"	"	"	"	
Silver	0.0514	0.0200	"	"	"	"	"	"	
Zinc	21.4	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **11/27/24 09:44**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHL0005	12/01/24	12/01/24	EPA 7196A	

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

Date Sampled: **11/27/24 09:44**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	113	0.0500	mg/L dry	1	BHK1385	11/27/24	12/03/24	EPA 6020B	
Magnesium	64.1	0.0500	"	"	"	"	"	"	
Sodium	696	0.0500	"	"	"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

BKG03@3-4'
2411533-17 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **11/27/24 09:44**

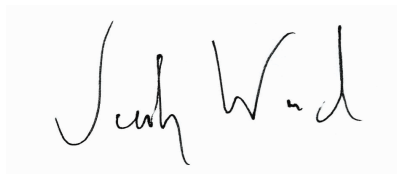
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	13.0	0.00100	units	1	BHL0092	12/03/24	12/03/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **11/27/24 09:44**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	83.5		%	1	BHL0025	12/02/24	12/02/24	Calculation	

Summit Scientific



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

BKG03@4-5'
2411533-18 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **11/27/24 09:46**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BHL0036	12/02/24	12/03/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **11/27/24 09:46**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	1.45	0.200	mg/kg dry	1	BHL0024	12/02/24	12/03/24	EPA 6020B	
Barium	39.7	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	1.98	0.400	"	"	"	"	"	"	
Lead	2.88	0.200	"	"	"	"	"	"	
Nickel	2.28	0.400	"	"	"	"	"	"	
Silver	ND	0.0200	"	"	"	"	"	"	
Zinc	7.54	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **11/27/24 09:46**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHL0005	12/01/24	12/01/24	EPA 7196A	

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

Date Sampled: **11/27/24 09:46**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	394	0.0500	mg/L dry	1	BHK1385	11/27/24	12/03/24	EPA 6020B	
Magnesium	42.9	0.0500	"	"	"	"	"	"	
Sodium	65.8	0.0500	"	"	"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

BKG03@4-5'
2411533-18 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **11/27/24 09:46**

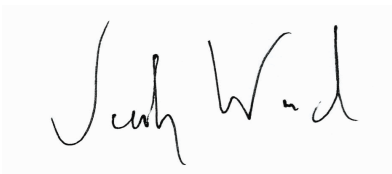
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.840	0.00100	units	1	BHL0092	12/03/24	12/03/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **11/27/24 09:46**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	96.7		%	1	BHL0025	12/02/24	12/02/24	Calculation	

Summit Scientific



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

BKG04@0-1'
2411533-19 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **11/27/24 10:19**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BHL0036	12/02/24	12/03/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **11/27/24 10:19**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	2.88	0.200	mg/kg dry	1	BHL0024	12/02/24	12/03/24	EPA 6020B	
Barium	103	0.400	"	"	"	"	"	"	
Cadmium	0.259	0.200	"	"	"	"	"	"	
Copper	5.74	0.400	"	"	"	"	"	"	
Lead	8.86	0.200	"	"	"	"	"	"	
Nickel	5.72	0.400	"	"	"	"	"	"	
Silver	0.0407	0.0200	"	"	"	"	"	"	
Zinc	18.9	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **11/27/24 10:19**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHL0005	12/01/24	12/01/24	EPA 7196A	

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

Date Sampled: **11/27/24 10:19**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	485	0.0500	mg/L dry	1	BHK1385	11/27/24	12/03/24	EPA 6020B	
Magnesium	115	0.0500	"	"	"	"	"	"	
Sodium	36.5	0.0500	"	"	"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

BKG04@0-1'
2411533-19 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **11/27/24 10:19**


Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.387	0.00100	units	1	BHL0092	12/03/24	12/03/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **11/27/24 10:19**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	86.3		%	1	BHL0025	12/02/24	12/02/24	Calculation	

Summit Scientific



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

BKG04@2-3'
2411533-20 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **11/27/24 10:21**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BHL0036	12/02/24	12/03/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **11/27/24 10:21**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	4.03	0.200	mg/kg dry	1	BHL0026	12/02/24	12/02/24	EPA 6020B	
Barium	101	0.400	"	"	"	"	"	"	
Cadmium	0.271	0.200	"	"	"	"	"	"	
Copper	5.33	0.400	"	"	"	"	"	"	
Lead	8.49	0.200	"	"	"	"	"	"	
Nickel	6.37	0.400	"	"	"	"	"	"	
Silver	0.0486	0.0200	"	"	"	"	"	"	
Zinc	19.8	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **11/27/24 10:21**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHL0005	12/01/24	12/01/24	EPA 7196A	

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

Date Sampled: **11/27/24 10:21**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	64.1	0.0500	mg/L dry	1	BHK1385	11/27/24	12/03/24	EPA 6020B	
Magnesium	87.4	0.0500	"	"	"	"	"	"	
Sodium	1310	0.0500	"	"	"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

BKG04@2-3'
2411533-20 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **11/27/24 10:21**

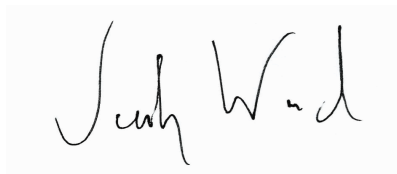
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	25.0	0.00100	units	1	BHL0092	12/03/24	12/03/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **11/27/24 10:21**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	86.4		%	1	BHL0025	12/02/24	12/02/24	Calculation	

Summit Scientific



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

BKG04@3-4'
2411533-21 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **11/27/24 10:23**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BHL0037	12/02/24	12/03/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **11/27/24 10:23**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	3.62	0.200	mg/kg dry	1	BHL0026	12/02/24	12/02/24	EPA 6020B	
Barium	173	0.400	"	"	"	"	"	"	
Cadmium	0.256	0.200	"	"	"	"	"	"	
Copper	5.18	0.400	"	"	"	"	"	"	
Lead	8.21	0.200	"	"	"	"	"	"	
Nickel	5.83	0.400	"	"	"	"	"	"	
Silver	0.0408	0.0200	"	"	"	"	"	"	
Zinc	20.2	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **11/27/24 10:23**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHL0006	12/01/24	12/01/24	EPA 7196A	

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

Date Sampled: **11/27/24 10:23**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	180	0.0500	mg/L dry	1	BHK1385	11/27/24	12/03/24	EPA 6020B	
Magnesium	146	0.0500	"	"	"	"	"	"	
Sodium	1110	0.0500	"	"	"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

BKG04@3-4'
2411533-21 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **11/27/24 10:23**

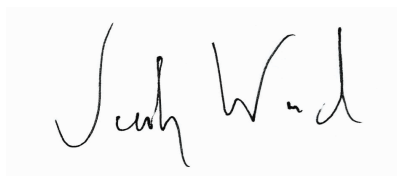
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	14.9	0.00100	units	1	BHL0092	12/03/24	12/03/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **11/27/24 10:23**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	85.5		%	1	BHL0025	12/02/24	12/02/24	Calculation	

Summit Scientific



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

BKG04@4-5'
2411533-22 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **11/27/24 10:25**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BHL0037	12/02/24	12/03/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **11/27/24 10:25**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	2.40	0.200	mg/kg dry	1	BHL0026	12/02/24	12/02/24	EPA 6020B	
Barium	102	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	3.51	0.400	"	"	"	"	"	"	
Lead	5.49	0.200	"	"	"	"	"	"	
Nickel	3.63	0.400	"	"	"	"	"	"	
Silver	0.0230	0.0200	"	"	"	"	"	"	
Zinc	14.0	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **11/27/24 10:25**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHL0006	12/01/24	12/01/24	EPA 7196A	

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

Date Sampled: **11/27/24 10:25**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	200	0.0500	mg/L dry	1	BHK1385	11/27/24	12/03/24	EPA 6020B	
Magnesium	68.6	0.0500	"	"	"	"	"	"	
Sodium	513	0.0500	"	"	"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

BKG04@4-5'
2411533-22 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **11/27/24 10:25**

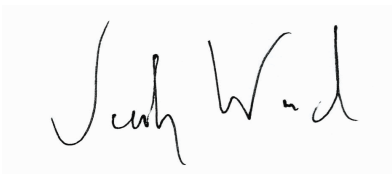
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	7.98	0.00100	units	1	BHL0092	12/03/24	12/03/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **11/27/24 10:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	89.3		%	1	BHL0025	12/02/24	12/02/24	Calculation	

Summit Scientific



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

BKG05@0-1'
2411533-23 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **11/27/24 09:55**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BHL0037	12/02/24	12/03/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **11/27/24 09:55**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	3.05	0.200	mg/kg dry	1	BHL0026	12/02/24	12/02/24	EPA 6020B	
Barium	96.3	0.400	"	"	"	"	"	"	
Cadmium	0.311	0.200	"	"	"	"	"	"	
Copper	5.38	0.400	"	"	"	"	"	"	
Lead	9.39	0.200	"	"	"	"	"	"	
Nickel	5.14	0.400	"	"	"	"	"	"	
Silver	0.0370	0.0200	"	"	"	"	"	"	
Zinc	19.8	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **11/27/24 09:55**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHL0006	12/01/24	12/01/24	EPA 7196A	

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

Date Sampled: **11/27/24 09:55**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	78.0	0.0500	mg/L dry	1	BHK1385	11/27/24	12/03/24	EPA 6020B	
Magnesium	17.0	0.0500	"	"	"	"	"	"	
Sodium	50.4	0.0500	"	"	"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

BKG05@0-1'
2411533-23 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **11/27/24 09:55**

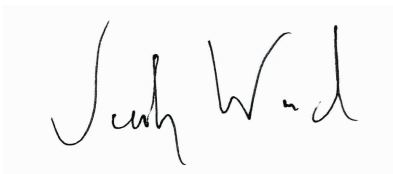
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.35	0.00100	units	1	BHL0092	12/03/24	12/03/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **11/27/24 09:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	87.1		%	1	BHL0025	12/02/24	12/02/24	Calculation	

Summit Scientific



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

BKG05@2-3'
2411533-24 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **11/27/24 09:56**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BHL0037	12/02/24	12/03/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **11/27/24 09:56**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	4.15	0.200	mg/kg dry	1	BHL0026	12/02/24	12/02/24	EPA 6020B	
Barium	92.9	0.400	"	"	"	"	"	"	
Cadmium	0.244	0.200	"	"	"	"	"	"	
Copper	5.52	0.400	"	"	"	"	"	"	
Lead	8.84	0.200	"	"	"	"	"	"	
Nickel	5.77	0.400	"	"	"	"	"	"	
Silver	0.0517	0.0200	"	"	"	"	"	"	
Zinc	21.1	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **11/27/24 09:56**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHL0006	12/01/24	12/01/24	EPA 7196A	

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

Date Sampled: **11/27/24 09:56**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	445	0.0500	mg/L dry	1	BHK1385	11/27/24	12/03/24	EPA 6020B	
Magnesium	291	0.0500	"	"	"	"	"	"	
Sodium	2000	0.0500	"	"	"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

BKG05@2-3'
2411533-24 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **11/27/24 09:56**

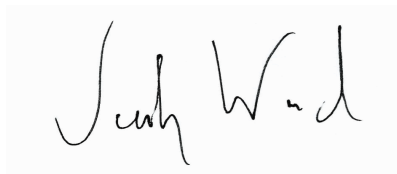
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	18.1	0.00100	units	1	BHL0092	12/03/24	12/03/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **11/27/24 09:56**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	84.1		%	1	BHL0025	12/02/24	12/02/24	Calculation	

Summit Scientific



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

BKG05@3-4'
2411533-25 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **11/27/24 09:58**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BHL0037	12/02/24	12/03/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **11/27/24 09:58**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	3.38	0.200	mg/kg dry	1	BHL0026	12/02/24	12/02/24	EPA 6020B	
Barium	79.9	0.400	"	"	"	"	"	"	
Cadmium	ND	0.200	"	"	"	"	"	"	
Copper	4.26	0.400	"	"	"	"	"	"	
Lead	6.42	0.200	"	"	"	"	"	"	
Nickel	4.83	0.400	"	"	"	"	"	"	
Silver	0.0286	0.0200	"	"	"	"	"	"	
Zinc	15.9	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **11/27/24 09:58**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHL0006	12/01/24	12/01/24	EPA 7196A	

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

Date Sampled: **11/27/24 09:58**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	277	0.0500	mg/L dry	1	BHK1385	11/27/24	12/03/24	EPA 6020B	
Magnesium	234	0.0500	"	"	"	"	"	"	
Sodium	1400	0.0500	"	"	"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

BKG05@3-4'
2411533-25 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **11/27/24 09:58**


Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	15.0	0.00100	units	1	BHL0092	12/03/24	12/03/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **11/27/24 09:58**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	89.7		%	1	BHL0025	12/02/24	12/02/24	Calculation	

Summit Scientific



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

BKG05@4-5'
2411533-26 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **11/27/24 10:01**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BHL0037	12/02/24	12/03/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **11/27/24 10:01**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	3.42	0.200	mg/kg dry	1	BHL0026	12/02/24	12/02/24	EPA 6020B	
Barium	124	0.400	"	"	"	"	"	"	
Cadmium	0.331	0.200	"	"	"	"	"	"	
Copper	5.90	0.400	"	"	"	"	"	"	
Lead	9.89	0.200	"	"	"	"	"	"	
Nickel	6.05	0.400	"	"	"	"	"	"	
Silver	0.0847	0.0200	"	"	"	"	"	"	
Zinc	22.4	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **11/27/24 10:01**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHL0006	12/01/24	12/01/24	EPA 7196A	

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

Date Sampled: **11/27/24 10:01**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	297	0.0500	mg/L dry	1	BHK1385	11/27/24	12/03/24	EPA 6020B	
Magnesium	127	0.0500	"	"	"	"	"	"	
Sodium	631	0.0500	"	"	"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

BKG05@4-5'
2411533-26 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **11/27/24 10:01**

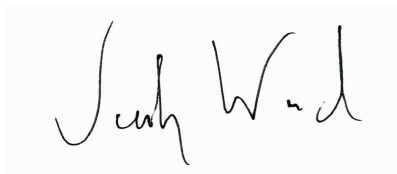
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	7.72	0.00100	units	1	BHL0092	12/03/24	12/03/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **11/27/24 10:01**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	81.9		%	1	BHL0025	12/02/24	12/02/24	Calculation	

Summit Scientific



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

BKG06@0-1'
2411533-27 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **11/27/24 10:43**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BHL0037	12/02/24	12/03/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **11/27/24 10:43**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	3.49	0.200	mg/kg dry	1	BHL0026	12/02/24	12/02/24	EPA 6020B	
Barium	108	0.400	"	"	"	"	"	"	
Cadmium	0.343	0.200	"	"	"	"	"	"	
Copper	5.88	0.400	"	"	"	"	"	"	
Lead	11.4	0.200	"	"	"	"	"	"	
Nickel	5.76	0.400	"	"	"	"	"	"	
Silver	0.0443	0.0200	"	"	"	"	"	"	
Zinc	21.9	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **11/27/24 10:43**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHL0006	12/01/24	12/01/24	EPA 7196A	

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

Date Sampled: **11/27/24 10:43**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	434	0.0500	mg/L dry	1	BHK1385	11/27/24	12/03/24	EPA 6020B	
Magnesium	54.7	0.0500	"	"	"	"	"	"	
Sodium	12.6	0.0500	"	"	"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
 Project Manager: Karen Olson

Reported:
 12/04/24 12:53

BKG06@0-1'
2411533-27 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **11/27/24 10:43**

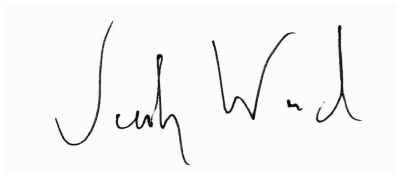
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.152	0.00100	units	1	BHL0092	12/03/24	12/03/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **11/27/24 10:43**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	85.9		%	1	BHL0025	12/02/24	12/02/24	Calculation	

Summit Scientific



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

BKG06@2-3'
2411533-28 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **11/27/24 10:49**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BHL0037	12/02/24	12/03/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **11/27/24 10:49**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	3.16	0.200	mg/kg dry	1	BHL0026	12/02/24	12/02/24	EPA 6020B	
Barium	87.6	0.400	"	"	"	"	"	"	
Cadmium	0.271	0.200	"	"	"	"	"	"	
Copper	4.94	0.400	"	"	"	"	"	"	
Lead	8.66	0.200	"	"	"	"	"	"	
Nickel	5.89	0.400	"	"	"	"	"	"	
Silver	0.0494	0.0200	"	"	"	"	"	"	
Zinc	18.9	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **11/27/24 10:49**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHL0006	12/01/24	12/01/24	EPA 7196A	

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

Date Sampled: **11/27/24 10:49**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	1250	0.0500	mg/L dry	1	BHK1385	11/27/24	12/03/24	EPA 6020B	
Magnesium	282	0.0500	"	"	"	"	"	"	
Sodium	145	0.0500	"	"	"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

BKG06@2-3'
2411533-28 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **11/27/24 10:49**


Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.964	0.00100	units	1	BHL0092	12/03/24	12/03/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **11/27/24 10:49**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	90.9		%	1	BHL0025	12/02/24	12/02/24	Calculation	

Summit Scientific



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

BKG06@3-4'
2411533-29 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **11/27/24 10:51**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BHL0037	12/02/24	12/03/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **11/27/24 10:51**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	4.47	0.200	mg/kg dry	1	BHL0026	12/02/24	12/02/24	EPA 6020B	
Barium	108	0.400	"	"	"	"	"	"	
Cadmium	0.254	0.200	"	"	"	"	"	"	
Copper	5.77	0.400	"	"	"	"	"	"	
Lead	9.55	0.200	"	"	"	"	"	"	
Nickel	6.59	0.400	"	"	"	"	"	"	
Silver	0.0452	0.0200	"	"	"	"	"	"	
Zinc	21.5	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **11/27/24 10:51**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHL0006	12/01/24	12/01/24	EPA 7196A	

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

Date Sampled: **11/27/24 10:51**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	902	0.0500	mg/L dry	1	BHK1385	11/27/24	12/03/24	EPA 6020B	
Magnesium	222	0.0500	"	"	"	"	"	"	
Sodium	600	0.0500	"	"	"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

BKG06@3-4'
2411533-29 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **11/27/24 10:51**


Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	4.64	0.00100	units	1	BHL0092	12/03/24	12/03/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **11/27/24 10:51**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	85.8		%	1	BHL0025	12/02/24	12/02/24	Calculation	

Summit Scientific



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

BKG06@4-5'
2411533-30 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **11/27/24 10:54**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Boron	ND	2.00	mg/L	1	BHL0037	12/02/24	12/03/24	EPA 6020B	

Total Metals by EPA 6020B

Date Sampled: **11/27/24 10:54**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Arsenic	3.63	0.200	mg/kg dry	1	BHL0026	12/02/24	12/02/24	EPA 6020B	
Barium	221	0.400	"	"	"	"	"	"	
Cadmium	0.307	0.200	"	"	"	"	"	"	
Copper	5.56	0.400	"	"	"	"	"	"	
Lead	9.25	0.200	"	"	"	"	"	"	
Nickel	6.13	0.400	"	"	"	"	"	"	
Silver	0.0452	0.0200	"	"	"	"	"	"	
Zinc	21.0	0.400	"	"	"	"	"	"	
Selenium	ND	0.260	"	"	"	"	"	"	

Hexavalent Chromium by EPA Method 7196

Date Sampled: **11/27/24 10:54**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Chromium, Hexavalent	ND	0.30	mg/kg dry	1	BHL0006	12/01/24	12/01/24	EPA 7196A	

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

Date Sampled: **11/27/24 10:54**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	92.6	0.0500	mg/L dry	1	BHK1385	11/27/24	12/03/24	EPA 6020B	
Magnesium	24.8	0.0500	"	"	"	"	"	"	
Sodium	242	0.0500	"	"	"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

BKG06@4-5'
2411533-30 (Soil)

Summit Scientific

Calculated Analysis

Date Sampled: **11/27/24 10:54**


Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	5.77	0.00100	units	1	BHL0092	12/03/24	12/03/24	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **11/27/24 10:54**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	84.2		%	1	BHL0025	12/02/24	12/02/24	Calculation	

Summit Scientific



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

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 BHK1383 - EPA 5030 Soil MS

Blank (BHK1383-BLK1)

Prepared & Analyzed: 11/27/24

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>	0.0406		"	0.0400		101	50-150			
<i>Surrogate: Toluene-d8</i>	0.0406		"	0.0400		102	50-150			
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0401		"	0.0400		100	50-150			

LCS (BHK1383-BS1)

Prepared & Analyzed: 11/27/24

Benzene	0.107	0.0020	mg/kg	0.100		107	70-130			
Toluene	0.108	0.0050	"	0.100		108	70-130			
Ethylbenzene	0.108	0.0050	"	0.100		108	70-130			
m,p-Xylene	0.216	0.010	"	0.200		108	70-130			
o-Xylene	0.107	0.0050	"	0.100		107	70-130			
1,2,4-Trimethylbenzene	0.103	0.0050	"	0.100		103	70-130			
1,3,5-Trimethylbenzene	0.106	0.0050	"	0.100		106	70-130			
Naphthalene	0.0943	0.0038	"	0.100		94.3	70-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0398		"	0.0400		99.5	50-150			
<i>Surrogate: Toluene-d8</i>	0.0398		"	0.0400		99.4	50-150			
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0391		"	0.0400		97.6	50-150			

Matrix Spike (BHK1383-MS1)

Source: 2411498-18

Prepared & Analyzed: 11/27/24

Benzene	0.102	0.0020	mg/kg	0.100	ND	102	70-130			
Toluene	0.103	0.0050	"	0.100	ND	103	70-130			
Ethylbenzene	0.101	0.0050	"	0.100	ND	101	70-130			
m,p-Xylene	0.204	0.010	"	0.200	ND	102	70-130			
o-Xylene	0.102	0.0050	"	0.100	ND	102	70-130			
1,2,4-Trimethylbenzene	0.0998	0.0050	"	0.100	ND	99.8	70-130			
1,3,5-Trimethylbenzene	0.101	0.0050	"	0.100	ND	101	70-130			
Naphthalene	0.0967	0.0038	"	0.100	ND	96.7	70-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	0.0411		"	0.0400		103	50-150			
<i>Surrogate: Toluene-d8</i>	0.0389		"	0.0400		97.4	50-150			
<i>Surrogate: 4-Bromofluorobenzene</i>	0.0393		"	0.0400		98.2	50-150			

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

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 BHK1383 - EPA 5030 Soil MS

Matrix Spike Dup (BHK1383-MSD1)	Source: 2411498-18			Prepared & Analyzed: 11/27/24						
Benzene	0.0939	0.0020	mg/kg	0.100	ND	93.9	70-130	8.68	30	
Toluene	0.0947	0.0050	"	0.100	ND	94.7	70-130	8.37	30	
Ethylbenzene	0.0968	0.0050	"	0.100	ND	96.8	70-130	4.33	30	
m,p-Xylene	0.194	0.010	"	0.200	ND	97.1	70-130	4.75	30	
o-Xylene	0.0968	0.0050	"	0.100	ND	96.8	70-130	4.81	30	
1,2,4-Trimethylbenzene	0.0939	0.0050	"	0.100	ND	93.9	70-130	6.16	30	
1,3,5-Trimethylbenzene	0.0955	0.0050	"	0.100	ND	95.5	70-130	5.71	30	
Naphthalene	0.0944	0.0038	"	0.100	ND	94.4	70-130	2.42	30	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0410</i>		<i>"</i>	<i>0.0400</i>		<i>103</i>	<i>50-150</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0387</i>		<i>"</i>	<i>0.0400</i>		<i>96.8</i>	<i>50-150</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0392</i>		<i>"</i>	<i>0.0400</i>		<i>98.0</i>	<i>50-150</i>			

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BHK1384 - EPA 3550A

Blank (BHK1384-BLK1)

Prepared: 11/27/24 Analyzed: 11/28/24

C10-C28 (DRO)	ND	50	mg/kg							
C28-C36 (ORO)	ND	50	"							
Surrogate: <i>o</i> -Terphenyl	12.3		"	12.5		98.2		30-150		

LCS (BHK1384-BS1)

Prepared: 11/27/24 Analyzed: 11/28/24

C10-C28 (DRO)	541	50	mg/kg	500		108		70-130		
Surrogate: <i>o</i> -Terphenyl	12.1		"	12.5		96.4		30-150		

Matrix Spike (BHK1384-MS1)

Source: 2411498-18

Prepared: 11/27/24 Analyzed: 11/28/24

C10-C28 (DRO)	536	50	mg/kg	500	22.5	103		70-130		
Surrogate: <i>o</i> -Terphenyl	9.91		"	12.5		79.3		30-150		

Matrix Spike Dup (BHK1384-MSD1)

Source: 2411498-18

Prepared: 11/27/24 Analyzed: 11/28/24

C10-C28 (DRO)	490	50	mg/kg	500	22.5	93.5		70-130	8.83	20
Surrogate: <i>o</i> -Terphenyl	10.2		"	12.5		81.6		30-150		

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

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 BHL0012 - EPA 5030 Soil MS

Blank (BHL0012-BLK1)

Prepared & Analyzed: 12/02/24

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>	0.0222		"	0.0333		66.5	40-140			
<i>Surrogate: Fluoranthene-d10</i>	0.0243		"	0.0333		73.0	40-140			

LCS (BHL0012-BS1)

Prepared & Analyzed: 12/02/24

Acenaphthene	0.0241	0.00500	mg/kg	0.0333		72.2	40-140			
Anthracene	0.0255	0.00500	"	0.0333		76.6	40-140			
Benzo (a) anthracene	0.0266	0.00500	"	0.0333		79.7	40-140			
Benzo (a) pyrene	0.0234	0.00500	"	0.0333		70.3	40-140			
Benzo (b) fluoranthene	0.0224	0.00500	"	0.0333		67.3	40-140			
Benzo (k) fluoranthene	0.0224	0.00500	"	0.0333		67.2	40-140			
Chrysene	0.0255	0.00500	"	0.0333		76.4	40-140			
Dibenz (a,h) anthracene	0.0203	0.00500	"	0.0333		60.9	40-140			
Fluoranthene	0.0250	0.00500	"	0.0333		75.0	40-140			
Fluorene	0.0245	0.00500	"	0.0333		73.5	40-140			
Indeno (1,2,3-cd) pyrene	0.0210	0.00500	"	0.0333		63.1	40-140			
Pyrene	0.0434	0.00500	"	0.0333		130	40-140			
1-Methylnaphthalene	0.0223	0.00500	"	0.0333		67.0	40-140			
2-Methylnaphthalene	0.0224	0.00500	"	0.0333		67.1	40-140			
<i>Surrogate: 2-Methylnaphthalene-d10</i>	0.0225		"	0.0333		67.5	40-140			
<i>Surrogate: Fluoranthene-d10</i>	0.0263		"	0.0333		78.9	40-140			

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

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 BHL0012 - EPA 5030 Soil MS

Matrix Spike (BHL0012-MS1)	Source: 2411413-06			Prepared & Analyzed: 12/02/24				QM-01
Acenaphthene	0.0138	0.00500	mg/kg	0.0333	41.5	40-140		
Anthracene	0.0168	0.00500	"	0.0333	50.5	40-140		
Benzo (a) anthracene	0.0237	0.00500	"	0.0333	71.1	40-140		
Benzo (a) pyrene	0.0150	0.00500	"	0.0333	45.0	40-140		
Benzo (b) fluoranthene	0.0101	0.00500	"	0.0333	30.2	40-140		
Benzo (k) fluoranthene	0.00812	0.00500	"	0.0333	24.4	40-140		
Chrysene	0.0213	0.00500	"	0.0333	63.9	40-140		
Dibenz (a,h) anthracene	0.00680	0.00500	"	0.0333	20.4	40-140		
Fluoranthene	0.0202	0.00500	"	0.0333	60.5	40-140		
Fluorene	0.0157	0.00500	"	0.0333	47.0	40-140		
Indeno (1,2,3-cd) pyrene	0.0103	0.00500	"	0.0333	30.9	40-140		
Pyrene	0.0347	0.00500	"	0.0333	104	40-140		
1-Methylnaphthalene	0.0143	0.00500	"	0.0333	42.8	40-140		
2-Methylnaphthalene	0.0141	0.00500	"	0.0333	42.2	40-140		
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0137</i>		"	<i>0.0333</i>	<i>41.2</i>	<i>40-140</i>		
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0175</i>		"	<i>0.0333</i>	<i>52.5</i>	<i>40-140</i>		

Matrix Spike Dup (BHL0012-MSD1)	Source: 2411413-06			Prepared & Analyzed: 12/02/24				QM-01
Acenaphthene	0.0181	0.00500	mg/kg	0.0333	54.3	40-140	26.8	30
Anthracene	0.0207	0.00500	"	0.0333	62.0	40-140	20.3	30
Benzo (a) anthracene	0.0258	0.00500	"	0.0333	77.5	40-140	8.54	30
Benzo (a) pyrene	0.0203	0.00500	"	0.0333	60.9	40-140	30.0	30
Benzo (b) fluoranthene	0.0195	0.00500	"	0.0333	58.4	40-140	63.6	30
Benzo (k) fluoranthene	0.0209	0.00500	"	0.0333	62.7	40-140	88.1	30
Chrysene	0.0220	0.00500	"	0.0333	65.9	40-140	3.15	30
Dibenz (a,h) anthracene	0.0133	0.00500	"	0.0333	39.9	40-140	64.7	30
Fluoranthene	0.0232	0.00500	"	0.0333	69.6	40-140	13.9	30
Fluorene	0.0198	0.00500	"	0.0333	59.5	40-140	23.4	30
Indeno (1,2,3-cd) pyrene	0.0162	0.00500	"	0.0333	48.6	40-140	44.7	30
Pyrene	0.0341	0.00500	"	0.0333	102	40-140	1.61	30
1-Methylnaphthalene	0.0175	0.00500	"	0.0333	52.5	40-140	20.4	30
2-Methylnaphthalene	0.0174	0.00500	"	0.0333	52.1	40-140	21.0	30
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0172</i>		"	<i>0.0333</i>	<i>51.6</i>	<i>40-140</i>		
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0220</i>		"	<i>0.0333</i>	<i>65.9</i>	<i>40-140</i>		

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

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 BHL0036 - EPA 3050B

Blank (BHL0036-BLK1)

Prepared: 12/02/24 Analyzed: 12/03/24

Boron ND 2.00 mg/L

LCS (BHL0036-BS1)

Prepared: 12/02/24 Analyzed: 12/03/24

Boron 4.96 2.00 mg/L 5.00 99.2 80-120

Duplicate (BHL0036-DUP1)

Source: 2411533-01

Prepared: 12/02/24 Analyzed: 12/03/24

Boron 0.306 2.00 mg/L 0.383 22.3 20 QR-01

Matrix Spike (BHL0036-MS1)

Source: 2411533-01

Prepared: 12/02/24 Analyzed: 12/03/24

Boron 5.22 2.00 mg/L 5.00 0.383 96.7 75-125

Matrix Spike Dup (BHL0036-MSD1)

Source: 2411533-01

Prepared: 12/02/24 Analyzed: 12/03/24

Boron 5.39 2.00 mg/L 5.00 0.383 100 75-125 3.25 25

Batch BHL0037 - EPA 3050B

Blank (BHL0037-BLK1)

Prepared: 12/02/24 Analyzed: 12/03/24

Boron ND 2.00 mg/L

LCS (BHL0037-BS1)

Prepared: 12/02/24 Analyzed: 12/03/24

Boron 5.01 2.00 mg/L 5.00 100 80-120

Duplicate (BHL0037-DUP1)

Source: 2411533-21

Prepared: 12/02/24 Analyzed: 12/03/24

Boron 0.577 2.00 mg/L 0.483 17.7 20

Matrix Spike (BHL0037-MS1)

Source: 2411533-21

Prepared: 12/02/24 Analyzed: 12/03/24

Boron 5.50 2.00 mg/L 5.00 0.483 100 75-125

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

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

Summit Scientific

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

Batch BHL0037 - EPA 3050B


Matrix Spike Dup (BHL0037-MSD1)

Source: 2411533-21

Prepared: 12/02/24 Analyzed: 12/03/24

Boron	5.61	2.00	mg/L	5.00	0.483	102	75-125	1.82	25	
-------	------	------	------	------	-------	-----	--------	------	----	--

Summit Scientific



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

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 BHL0024 - EPA 3050B

Blank (BHL0024-BLK1)

Prepared & Analyzed: 12/02/24

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 (BHL0024-BS1)

Prepared & Analyzed: 12/02/24

Arsenic	38.8	0.200	mg/kg wet	40.0	97.0	80-120
Barium	39.5	0.400	"	40.0	98.6	80-120
Cadmium	1.92	0.200	"	2.00	95.9	80-120
Copper	38.5	0.400	"	40.0	96.2	80-120
Lead	18.9	0.200	"	20.0	94.5	80-120
Nickel	38.2	0.400	"	40.0	95.5	80-120
Silver	1.81	0.0200	"	2.00	90.6	80-120
Zinc	38.3	0.400	"	40.0	95.6	80-120
Selenium	4.24	0.260	"	4.00	106	80-120

Duplicate (BHL0024-DUP1)

Source: 2411533-01

Prepared & Analyzed: 12/02/24

Arsenic	4.92	0.200	mg/kg dry	4.50	8.99	20
Barium	185	0.400	"	171	8.10	20
Cadmium	0.373	0.200	"	0.345	7.67	20
Copper	6.81	0.400	"	6.39	6.38	20
Lead	11.5	0.200	"	11.1	3.99	20
Nickel	6.73	0.400	"	6.59	2.07	20
Silver	0.0777	0.0200	"	0.0643	18.9	20
Zinc	25.1	0.400	"	24.0	4.59	20
Selenium	ND	0.260	"	ND		20

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

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 BHL0024 - EPA 3050B

Matrix Spike (BHL0024-MS1)

Source: 2411533-01

Prepared & Analyzed: 12/02/24

Arsenic	48.8	0.200	mg/kg dry	50.6	4.50	87.4	75-125				
Barium	171	0.400	"	50.6	171	NR	75-125				QM-05
Cadmium	2.56	0.200	"	2.53	0.345	87.4	75-125				
Copper	31.5	0.400	"	50.6	6.39	49.6	75-125				QM-05
Lead	31.3	0.200	"	25.3	11.1	79.9	75-125				
Nickel	32.1	0.400	"	50.6	6.59	50.4	75-125				QM-05
Silver	3.67	0.0200	"	2.53	0.0643	142	75-125				QM-05
Zinc	48.3	0.400	"	50.6	24.0	48.0	75-125				QM-05
Selenium	5.09	0.260	"	5.06	ND	100	75-125				

Matrix Spike Dup (BHL0024-MSD1)

Source: 2411533-01

Prepared & Analyzed: 12/02/24

Arsenic	51.5	0.200	mg/kg dry	52.3	4.50	89.8	75-125	5.46	25		
Barium	150	0.400	"	52.3	171	NR	75-125	12.9	25		QM-05
Cadmium	2.69	0.200	"	2.62	0.345	89.7	75-125	5.08	25		
Copper	36.3	0.400	"	52.3	6.39	57.2	75-125	14.1	25		QM-05
Lead	32.2	0.200	"	26.2	11.1	80.9	75-125	2.89	25		
Nickel	36.4	0.400	"	52.3	6.59	57.0	75-125	12.7	25		QM-05
Silver	3.98	0.0200	"	2.62	0.0643	150	75-125	8.12	25		QM-05
Zinc	51.5	0.400	"	52.3	24.0	52.5	75-125	6.36	25		QM-05
Selenium	5.55	0.260	"	5.23	ND	106	75-125	8.75	25		

Batch BHL0026 - EPA 3050B

Blank (BHL0026-BLK1)

Prepared & Analyzed: 12/02/24

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	"								

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

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 BHL0026 - EPA 3050B

LCS (BHL0026-BS1)

Prepared & Analyzed: 12/02/24

Arsenic	37.5	0.200	mg/kg wet	40.7		92.4	80-120			
Barium	38.4	0.400	"	40.7		94.3	80-120			
Cadmium	1.90	0.200	"	2.03		93.7	80-120			
Copper	37.4	0.400	"	40.7		91.9	80-120			
Lead	18.7	0.200	"	20.3		92.0	80-120			
Nickel	37.3	0.400	"	40.7		91.8	80-120			
Silver	1.86	0.0200	"	2.03		91.5	80-120			
Zinc	37.2	0.400	"	40.7		91.5	80-120			
Selenium	4.24	0.260	"	4.07		104	80-120			

Duplicate (BHL0026-DUP1)

Source: 2411145-01

Prepared & Analyzed: 12/02/24

Arsenic	1.25	0.200	mg/kg dry		3.80			101	20	QR-01
Barium	29.0	0.400	"		31.0			6.63	20	
Cadmium	0.0779	0.200	"		0.201			88.2	20	QR-01
Copper	3.51	0.400	"		2.34			40.0	20	QR-01
Lead	3.28	0.200	"		14.1			124	20	QR-04
Nickel	2.45	0.400	"		2.02			19.5	20	
Silver	0.00936	0.0200	"		0.0143			41.6	20	QR-01
Zinc	10.7	0.400	"		8.36			24.7	20	QR-04
Selenium	ND	0.260	"		ND				20	

Matrix Spike (BHL0026-MS1)

Source: 2411145-01

Prepared & Analyzed: 12/02/24

Arsenic	42.3	0.200	mg/kg dry	42.9	3.80	89.8	75-125			
Barium	70.2	0.400	"	42.9	31.0	91.4	75-125			
Cadmium	2.09	0.200	"	2.15	0.201	88.1	75-125			
Copper	35.1	0.400	"	42.9	2.34	76.4	75-125			
Lead	25.2	0.200	"	21.5	14.1	52.1	75-125			QM-05
Nickel	35.0	0.400	"	42.9	2.02	76.8	75-125			
Silver	3.12	0.0200	"	2.15	0.0143	145	75-125			QM-05
Zinc	42.2	0.400	"	42.9	8.36	78.9	75-125			
Selenium	4.60	0.260	"	4.29	ND	107	75-125			

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

Total Metals by EPA 6020B - Quality Control
Summit Scientific

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

Batch BHL0026 - EPA 3050B

Matrix Spike Dup (BHL0026-MSD1)	Source: 2411145-01			Prepared & Analyzed: 12/02/24							
Arsenic	40.6	0.200	mg/kg dry	41.9	3.80	87.9	75-125	4.12	25		
Barium	72.1	0.400	"	41.9	31.0	98.2	75-125	2.68	25		
Cadmium	2.06	0.200	"	2.09	0.201	88.8	75-125	1.45	25		
Copper	33.1	0.400	"	41.9	2.34	73.4	75-125	5.95	25		QM-05
Lead	24.2	0.200	"	20.9	14.1	48.3	75-125	4.33	25		QM-05
Nickel	32.6	0.400	"	41.9	2.02	73.1	75-125	6.90	25		QM-05
Silver	3.10	0.0200	"	2.09	0.0143	147	75-125	0.721	25		QM-05
Zinc	42.5	0.400	"	41.9	8.36	81.5	75-125	0.637	25		
Selenium	4.31	0.260	"	4.19	ND	103	75-125	6.56	25		

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

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 BHL0005 - 3060A Mod

Blank (BHL0005-BLK1)											Prepared & Analyzed: 12/01/24
Chromium, Hexavalent	ND	0.30	mg/kg wet								
LCS (BHL0005-BS1)											Prepared & Analyzed: 12/01/24
Chromium, Hexavalent	25.6	0.30	mg/kg wet	25.0		103	80-120				
Duplicate (BHL0005-DUP1)											Source: 2411533-01 Prepared & Analyzed: 12/01/24
Chromium, Hexavalent	ND	0.30	mg/kg dry		ND					20	
Matrix Spike (BHL0005-MS1)											Source: 2411533-01 Prepared & Analyzed: 12/01/24
Chromium, Hexavalent	32.5	0.30	mg/kg dry	31.4	ND	103	75-125				
Matrix Spike Dup (BHL0005-MSD1)											Source: 2411533-01 Prepared & Analyzed: 12/01/24
Chromium, Hexavalent	34.7	0.30	mg/kg dry	31.4	ND	111	75-125	6.73		20	

Batch BHL0006 - 3060A Mod

Blank (BHL0006-BLK1)											Prepared & Analyzed: 12/01/24
Chromium, Hexavalent	ND	0.30	mg/kg wet								
LCS (BHL0006-BS1)											Prepared & Analyzed: 12/01/24
Chromium, Hexavalent	25.8	0.30	mg/kg wet	25.0		103	80-120				
Duplicate (BHL0006-DUP1)											Source: 2411244-01 Prepared & Analyzed: 12/01/24
Chromium, Hexavalent	ND	0.30	mg/kg dry		ND					20	
Matrix Spike (BHL0006-MS1)											Source: 2411244-01 Prepared & Analyzed: 12/01/24
Chromium, Hexavalent	33.0	0.30	mg/kg dry	29.2	ND	113	75-125				

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
 Project Manager: Karen Olson

Reported:
 12/04/24 12:53

Hexavalent Chromium by EPA Method 7196 - Quality Control

Summit Scientific

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

Batch BHL0006 - 3060A Mod

Matrix Spike Dup (BHL0006-MSD1)

Source: 2411244-01

Prepared & Analyzed: 12/01/24

Chromium, Hexavalent	30.5	0.30	mg/kg dry	29.2	ND	104	75-125	7.91	20	
----------------------	------	------	-----------	------	----	-----	--------	------	----	--

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

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 BHK1385 - General Preparation

Blank (BHK1385-BLK1)

Prepared: 11/27/24 Analyzed: 12/03/24

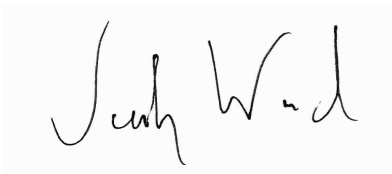
Calcium	ND	0.0500	mg/L wet							
Magnesium	ND	0.0500	"							
Sodium	ND	0.0500	"							

LCS (BHK1385-BS1)

Prepared: 11/27/24 Analyzed: 12/03/24

Calcium	4.80	0.0500	mg/L wet	5.00	96.1	70-130				
Magnesium	5.06	0.0500	"	5.00	101	70-130				
Sodium	5.09	0.0500	"	5.00	102	70-130				

Summit Scientific



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

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

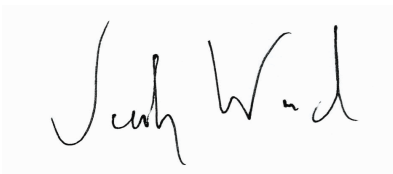
Summit Scientific

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

Batch BHL0025 - General Preparation

Duplicate (BHL0025-DUP1)	Source: 2411533-01	Prepared & Analyzed: 12/02/24
% Solids	79.6 %	79.6 0.0214 20

Summit Scientific



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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

Project: PDC - Dunham 41-5 Tank Battery

Project Number: [none]
Project Manager: Karen Olson

Reported:
12/04/24 12:53

Notes and Definitions

- QR-04 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits. Sample results were accepted based on LCS and/or LCSD recoveries and/or RPD values.
- 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.
- QM-01 The spike recovery for this QC sample is outside of established control limits due to sample 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