

**TABLE 1**  
**FORMER TOEDTLI 1-10 PIT**  
**SOIL ANALYTICAL RESULTS SUMMARY TABLE**  
**CONTAMINANTS OF CONCERN**

Sample ID	Date Sampled	Depth	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	1, 2, 4-TMB (mg/kg)	1, 3, 5-TMB (mg/kg)	Naphthalene (mg/kg)	TPH <sup>(4)</sup> (mg/kg)
<b>Residential SSL <sup>(1,2)</sup></b>			<b>1.2</b>	<b>490</b>	<b>5.8</b>	<b>58</b>	<b>30</b>	<b>27</b>	<b>2</b>	<b>500</b>
<b>Protection of Groundwater SSL <sup>(1,2,3)</sup></b>			<b>0.0026</b>	<b>0.69</b>	<b>0.78</b>	<b>9.9</b>	<b>0.0081</b>	<b>0.0087</b>	<b>0.0038</b>	<b>500</b>
BH04 @ 7'	9/14/2021	7 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50
BH04 @ 8'	9/14/2021	8 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	126
BH04 @ 9'	9/14/2021	9 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	114
BH05 @ 7'	9/14/2021	7 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	67
BH05 @ 8'	9/14/2021	8 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	60
BH05 @ 9'	9/14/2021	9 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	197

**Notes:**

1. Compounds referenced from the COGCC 2 CCR 404-1, Table 915-1, effective January 15, 2021.
2. Soil Screening Levels (SSL) referenced from EPA Regional Screening Levels (EPA RSLs) for Chemical Contaminants at Superfund Sites, effective November 2020.
3. SSLs are applicable if a pathway for communication with groundwater is present.
4. Value calculated by adding TVPH-GRO, TEPH-DRO, and TEPH-ORO concentrations.

COGCC = Colorado Oil and Gas Conservation Commission

(<) = Analytical result is less than the indicated laboratory reporting limit.

TVPH-GRO = Total volatile petroleum hydrocarbons - gasoline range organics

TEPH-DRO = Total extractable petroleum hydrocarbons - diesel range organics

TEPH-ORO = Total extactable petroleum hydrocarbons - oil range organics

mg/kg = Milligrams per kilogram

TMB = Trimethylbenzene

ft. = Feet

**TABLE 2**  
**FORMER TOEDTLI 1-10 PIT**  
**SOIL ANALYTICAL RESULTS SUMMARY**  
**TABLE INORGANIC COMPOUNDS**

Sample ID	Date Sampled	Depth	pH (units)	EC (mmhos/cm)	SAR (units)	Boron (mg/L)
<b>Soil Suitability for Reclamation Standard <sup>(1)</sup></b>			<b>6-8.3</b>	<b>&lt;4</b>	<b>&lt;6</b>	<b>2</b>
BH01 @ 1'	9/14/2021	1 ft. bgs	7.35	3.61	0.157	NA
BH01 @ 3'	9/14/2021	3 ft. bgs	8.11	2.34	1.52	NA
BH02 @ 1'	9/14/2021	1 ft. bgs	7.83	<b>7.21</b>	1.32	NA
BH02 @ 3'	9/14/2021	3 ft. bgs	<b>8.55</b>	3.72	4.98	NA
BH03 @ 1'	9/14/2021	1 ft. bgs	7.76	<b>7.12</b>	0.857	NA
BH03 @ 3'	9/14/2021	3 ft. bgs	7.73	<b>10.4</b>	2.19	NA
BH07 @ 1'	9/14/2021	1 ft. bgs	7.63	3.52	0.302	NA
BH07 @ 3'	9/14/2021	3 ft. bgs	7.79	<b>4.37</b>	0.565	NA
BH08 @ 1'	9/14/2021	1 ft. bgs	<b>8.34</b>	<b>4.73</b>	3.44	NA
BH08 @ 3'	9/14/2021	3 ft. bgs	8.16	<b>7.02</b>	3.73	NA
BH09 @ 1'	9/14/2021	1 ft. bgs	7.98	<b>5.52</b>	2.25	NA
BH09 @ 3'	9/14/2021	3 ft. bgs	8.14	<b>5.78</b>	3.63	NA
BH10 @ 1'	9/14/2021	1 ft. bgs	7.72	<b>4.82</b>	0.701	NA
BH10 @ 3'	9/14/2021	3 ft. bgs	7.65	<b>5.24</b>	0.766	NA
BH11 @ 1'	9/14/2021	1 ft. bgs	<b>8.74</b>	<b>4.55</b>	2.13	NA
BH11 @ 3'	9/14/2021	3 ft. bgs	<b>8.85</b>	<b>4.90</b>	2.34	NA
BH12 @ 1'	9/14/2021	1 ft. bgs	7.71	<b>5.65</b>	0.798	NA
BH12 @ 3'	9/14/2021	3 ft. bgs	<b>8.34</b>	<b>5.14</b>	2.05	NA
BH13 @ 1'	9/14/2021	1 ft. bgs	7.70	3.23	0.768	NA
BH13 @ 3'	9/14/2021	3 ft. bgs	7.62	3.69	0.573	NA
BH14 @ 1'	9/14/2021	1 ft. bgs	7.86	<b>5.84</b>	0.905	NA
BH14 @ 3'	9/14/2021	3 ft. bgs	8.17	2.30	0.738	NA
BH15 @ 1'	9/14/2021	1 ft. bgs	<b>8.43</b>	0.385	0.355	NA
BH15 @ 3'	9/14/2021	3 ft. bgs	<b>8.39</b>	1.59	0.560	NA
BH16 @ 1'	9/14/2021	1 ft. bgs	<b>8.96</b>	0.585	0.853	NA
BH16 @ 3'	9/14/2021	3 ft. bgs	7.88	2.58	0.815	NA
BKG01 @ 1'	9/14/2021	1 ft. bgs	<b>8.67</b>	0.343	0.107	NA
BKG01 @ 3'	9/14/2021	3 ft. bgs	<b>8.48</b>	0.557	0.191	NA

**Notes:**

1. Compounds referenced from the COGCC 2 CCR 404-1, Table 915-1, effective January 15, 2021.

COGCC = Colorado Oil and Gas Conservation Commission

EC = Electrical conductivity

SAR = Sodium adsorption ratio

mmhos/cm = millimhos per centimeter

mg/L = milligram per liter

ft. = Feet

in. = Inches

bgs = Below ground surface

**BOLD** = Analytical result is in exceedance of applicable standard.

**BOLD** = Analytical result is in exceedance of applicable standard, but below background concentration.

NA = Constituent not analyzed

**TABLE 3**  
**FORMER TOEDTLI 1-10 PIT**  
**FIELD DATA SUMMARY TABLE**

Sample ID	Date Sampled	Depth	GPS Data <sup>(1)</sup> Latitude / Longitude		PDOP Value	VOC Concentration <sup>(2)</sup> (ppm)
BH01 @ 1'	9/14/2021	1 ft. bgs	40.851683	-103.739802	NC	0.0
BH01 @ 3'	9/14/2021	3 ft. bgs	40.851683	-103.739802	NC	0.0
BH02 @ 1'	9/14/2021	1 ft. bgs	40.851534	-103.740146	NC	0.0
BH02 @ 3'	9/14/2021	3 ft. bgs	40.851534	-103.740146	NC	0.0
BH03 @ 1'	9/14/2021	1 ft. bgs	40.851474	-103.739915	NC	0.0
BH03 @ 3'	9/14/2021	3 ft. bgs	40.851474	-103.739915	NC	0.0
BH04 @ 7'	9/14/2021	7 ft. bgs	40.851248	-103.740023	NC	0.0
BH04 @ 8'	9/14/2021	8 ft. bgs	40.851248	-103.740023	NC	0.1
BH04 @ 9'	9/14/2021	9 ft. bgs	40.851248	-103.740023	NC	0.1
BH05 @ 7'	9/14/2021	7 ft. bgs	40.851242	-103.740060	NC	0.0
BH05 @ 8'	9/14/2021	8 ft. bgs	40.851242	-103.740060	NC	0.0
BH05 @ 9'	9/14/2021	9 ft. bgs	40.851242	-103.740060	NC	0.0
BH07 @ 1'	9/14/2021	1 ft. bgs	40.851040	-103.740132	NC	0.0
BH07 @ 3'	9/14/2021	3 ft. bgs	40.851040	-103.740132	NC	0.0
BH08 @ 1'	9/14/2021	1 ft. bgs	40.851183	-103.739860	NC	0.2
BH08 @ 3'	9/14/2021	3 ft. bgs	40.851183	-103.739860	NC	0.0
BH09 @ 1'	9/14/2021	1 ft. bgs	40.851403	-103.739613	NC	0.0
BH09 @ 3'	9/14/2021	3 ft. bgs	40.851403	-103.739613	NC	0.0
BH10 @ 1'	9/14/2021	1 ft. bgs	40.851166	-103.739527	NC	0.0
BH10 @ 3'	9/14/2021	3 ft. bgs	40.851166	-103.739527	NC	0.0
BH11 @ 1'	9/14/2021	1 ft. bgs	40.850971	-103.739676	NC	1.5
BH11 @ 3'	9/14/2021	3 ft. bgs	40.850971	-103.739676	NC	2.3
BH12 @ 1'	9/14/2021	1 ft. bgs	40.850959	-103.739923	NC	0.1
BH12 @ 3'	9/14/2021	3 ft. bgs	40.850959	-103.739923	NC	0.4
BH13 @ 1'	9/14/2021	1 ft. bgs	40.850971	-103.739407	NC	0.0
BH13 @ 3'	9/14/2021	3 ft. bgs	40.850971	-103.739407	NC	0.0
BH14 @ 1'	9/14/2021	1 ft. bgs	40.850754	-103.739279	NC	1.4
BH14 @ 3'	9/14/2021	3 ft. bgs	40.850754	-103.739279	NC	1.3
BH15 @ 1'	9/14/2021	1 ft. bgs	40.850619	-103.739199	NC	0.0
BH15 @ 3'	9/14/2021	3 ft. bgs	40.850619	-103.739199	NC	0.0
BH16 @ 1'	9/14/2021	1 ft. bgs	40.850458	-103.739280	NC	0.4
BH16 @ 3'	9/14/2021	3 ft. bgs	40.850458	-103.739280	NC	0.0
BKG01 @ 1'	9/14/2021	1 ft. bgs	40.850977	-103.740483	NC	0.0
BKG01 @ 3'	9/14/2021	3 ft. bgs	40.850977	-103.740483	NC	0.0

**Notes:**

1. Global Positioning System (GPS) data is provided in decimal degrees using World Geodetic System (WGS) 84 UTM Zone 13 North.

2. Volatile organic compound (VOC) concentrations are measured in the field using a photoionization detector (PID).

PDOP = Position Dilution of Precision

ppm = Parts per million

ft. = Feet

bgs = Below ground surface

NC = Data not collected

## Attachment A

# Summit Scientific

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4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

September 23, 2021

Mark Longhurst  
PDC Energy  
1775 Sherman St. STE. 3000  
Denver, CO 80203  
RE: Toedtli 1-10  
Work Order #2109214

Enclosed are the results of analyses for samples received by Summit Scientific on 09/14/21 16:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'P. Shrewsbury', with a stylized, cursive script.

Paul Shrewsbury  
President



PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Toedtli 1-10  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
09/23/21 12:11

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH01@1'	2109214-01	Soil	09/14/21 10:12	09/14/21 16:30
BH01@3'	2109214-02	Soil	09/14/21 10:13	09/14/21 16:30
BH02@1'	2109214-03	Soil	09/14/21 10:15	09/14/21 16:30
BH02@3'	2109214-04	Soil	09/14/21 10:16	09/14/21 16:30
BH03@1'	2109214-05	Soil	09/14/21 10:40	09/14/21 16:30
BH03@3'	2109214-06	Soil	09/14/21 10:43	09/14/21 16:30
BH04@7'	2109214-07	Soil	09/14/21 11:15	09/14/21 16:30
BH04@8'	2109214-08	Soil	09/14/21 11:16	09/14/21 16:30
BH04@9'	2109214-09	Soil	09/14/21 11:18	09/14/21 16:30
BH05@7'	2109214-10	Soil	09/14/21 11:35	09/14/21 16:30
BH05@8'	2109214-11	Soil	09/14/21 11:36	09/14/21 16:30
BH05@9'	2109214-12	Soil	09/14/21 11:37	09/14/21 16:30
BKG01@1'	2109214-13	Soil	09/14/21 11:33	09/14/21 16:30
BKG01@3'	2109214-14	Soil	09/14/21 11:37	09/14/21 16:30
BH07@1'	2109214-15	Soil	09/14/21 12:20	09/14/21 16:30
BH07@3'	2109214-16	Soil	09/14/21 12:25	09/14/21 16:30
BH08@1'	2109214-17	Soil	09/14/21 12:14	09/14/21 16:30
BH08@3'	2109214-18	Soil	09/14/21 12:15	09/14/21 16:30
BH09@1'	2109214-19	Soil	09/14/21 11:05	09/14/21 16:30
BH09@3'	2109214-20	Soil	09/14/21 11:10	09/14/21 16:30
BH10@1'	2109214-21	Soil	09/14/21 12:32	09/14/21 16:30
BH10@3'	2109214-22	Soil	09/14/21 12:33	09/14/21 16:30
BH11@1'	2109214-23	Soil	09/14/21 12:35	09/14/21 16:30
BH11@3'	2109214-24	Soil	09/14/21 12:39	09/14/21 16:30
BH12@1'	2109214-25	Soil	09/14/21 12:11	09/14/21 16:30
BH12@3'	2109214-26	Soil	09/14/21 12:13	09/14/21 16:30
BH13@1'	2109214-27	Soil	09/14/21 12:33	09/14/21 16:30

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.*



PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Toedtli 1-10  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
09/23/21 12:11

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH13@3'	2109214-28	Soil	09/14/21 12:38	09/14/21 16:30
BH14@1'	2109214-29	Soil	09/14/21 12:55	09/14/21 16:30
BH14@3'	2109214-30	Soil	09/14/21 12:59	09/14/21 16:30
BH15@1'	2109214-31	Soil	09/14/21 12:45	09/14/21 16:30
BH15@3'	2109214-32	Soil	09/14/21 12:50	09/14/21 16:30
BH16@1'	2109214-33	Soil	09/14/21 12:48	09/14/21 16:30
BH16@3'	2109214-34	Soil	09/14/21 12:49	09/14/21 16:30

Summit Scientific

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# Summit Scientific

303-277-9310

Project Number:

					Preservative				Matrix				Analysis Requested								Special Instructions					
ID	Sample Description	Date Sampled	Time Sampled	# of containers	HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	BTEXN - 8260B	TPH - (C6 - C36)	1,2,4 & 1,3,5-TMB	Boron - HWS	pH, EC, SAR									pH, EC, SAR by saturated paste
1	BH01 @ 1'	9/14/21	1012	1			X			X								X								
2	BH01 @ 3'		1013	1			X			X								X								
3	BH02 @ 1'		1015	1			X			X								X								
4	BH02 @ 3'		1016	1			X			X								X								
5	BH03 @ 1'		1040	1			X			X								X								
6	BH03 @ 3'		1043	1			X			X								X								
7	BH04 @ 7'		1115	2			X			X			X	X	X											
8	BH04 @ 8'		1116	2			X			X			X	X	X											
9	BH04 @ 9'		1118	2			X			X			X	X	X											
10																										
Relinquished by:		Date/Time:	Received by:		Date/Time:		Turn Around Time		(Check)		Notes:															
David Vign		9/14/21 1630	<del>Tasman's Lock Box</del>		9-14-21 16:30		Same Day		72 hours																	
Tasman's Lock Box							24 hours		Standard																	
Relinquished by:		Date/Time:	Received by:		Date/Time:		48 hours		Sample Integrity:																	
									Temperature Upon Receipt:		57															
Relinquished by:		Date/Time:	Received by:		Date/Time:		Samples Intact:		Yes		No															



# Summit Scientific

303-277-9310

Client:	PDC / Tasman
Address:	6855 W 119th Ave
City/State/Zip:	Broomfield/ CO/ 80020
Phone:	303-487-1228
Sampler Name:	David Vail

Project Manager: Mark Longhurst  
E-Mail: mark.longhurst@PDCE.com

Project Name Toed + 1: 1-10  
Project Number:

Sampler Name: David Vigil					Preservative				Matrix				Analysis Requested								Special Instructions		
ID	Sample Description	Date Sampled	Time Sampled	# of containers	HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	BTEXN - 8260B	TPH - (C6 - C36)	1,2,4 & 1,3,5-TMIB	Boron - HWS	pH, EC, SAR						pH, EC, SAR by saturated paste
1	BHO5 @ 7'	9/14/21	1135	2			X			X			X	X	X								
2	BHO5 @ 8'		1136	2			X			X			X	X	X								
3	BHO5 @ 9'		1137	2			X			X			X	X	X								
4	BKGO1 @ 1'		1133	1			X			X								X					
5	BKGO1 @ 3'		1137	1			X			X								X					
6	BHO7 @ 1'		1220	1			X			X								X					
7	BHO7 @ 3'		1225	1			X			X							X						
8	BHO8 @ 1'		1214	1			X			X							X						
9	BHO8 @ 3'	✓	1215	1			X			X							X						
10																							
Relinquished by:		Date/Time:		Received by:		Date/Time:		Turn Around Time		(Check)		Notes:											
David Vigil		9/14/21 1630		Tasman's Lock Box		9-14-21 16:30		Same Day		72 hours													
Relinquished by:		Date/Time:		Received by:		Date/Time:		24 hours		Standard													
Tasman's Lock Box								48 hours															
Relinquished by:		Date/Time:		Received by:		Date/Time:		Sample Integrity:		Temperature Upon Receipt:													
								Samples Intact:		5.7													
								Yes		No													

# Summit Scientific

303-277-9310

Client: PDC / Tasman

**Project Manager:** Mark Longhurst

Address: 6855 W 119th Ave

E-Mail: [mark.longhurst@PDCB.com](mailto:mark.longhurst@PDCB.com)

City/State/Zip: Broomfield/ CO/ 80020

Phone: 303-487-1228

Project Name Toed #1: 1-10

Sampler Name: David Vigil

Project Number:

Sampler Name: David Vigil					Preservative				Matrix				Analysis Requested							Special Instructions			
ID	Sample Description	Date Sampled	Time Sampled	# of containers	HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	BTEXN - 8260B	TPH - (C6 - C36)	1,2,4 & 1,3,5-TMB	Boron - HWS	pH, EC, SAR						pH, EC, SAR by saturated paste
1	BH09 @ 1'	9/14/21	1105	1			X			X								X					
2	BH09 @ 3'		1110	1			X			X								X					
3	BH10 @ 1'		1232	1			X			X								X					
4	BH10 @ 3'		1233	1			X			X								X					
5	BH11 @ 1'		1235	1			X			X								X					
6	BH11 @ 3'		1239	1			X			X								X					
7	BH12 @ 1'		1211	1			X			X								X					
8	BH12 @ 3'		1213	1			X			X								X					
9	BH13 @ 1'		1233	1			X			X								X					
10	BH13 @ 3'		1238	1			X			X								X					
Relinquished by: David Vigil		Date/Time: 9/14/21 1630		Received by: Tasman's Lock Box		Date/Time: 9-14-21 1630		Turn Around Time		(Check)		Same Day		72 hours		Standard		Notes:					
Relinquished by: Tasman's Lock Box		Date/Time:		Received by:		Date/Time:		48 hours		Sample Integrity:		Temperature Upon Receipt: 57		Samples Intact: Yes		No							
Relinquished by:		Date/Time:		Received by:		Date/Time:																	

# Summit Scientific

2109214.4

4653 Table Mountain Drive ♦ Golden, Colorado 80403


303-277-9310

Page 4 of 4

Client: PDC / Tasman Project Manager: Mark Longhurst  
 Address: 6855 W 119th Ave E-Mail: mark.longhurst@PDCI.com  
 City/State/Zip: Broomfield/ CO/ 80020  
 Phone: 303-487-1228 Project Name: Toedli 1-10  
 Sampler Name: David virgil Project Number:

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested						Special Instructions
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	BTEXN - 8260B	TPH - (C6 - C36)	1,2,4 & 1,3,5-TMB	Boron - HWS	pH, EC, SAR		
1	BH 14 @ 1'	9/14/21	1255	1			X			X							X	pH, EC, SAR by saturated paste	
2	BH 14 @ 3'		1259	1			X			X							X		
3	BH 15 @ 1'		1245	1			X			X							X		
4	BH 15 @ 3'		1250	1			X			X							X		
5	BH 16 @ 1'		1248	1			X			X							X		
6	BH 16 @ 3'		1249	1			X			X							X		
7																			
8																			
9																			
10																			

Relinquished by: David virgil	Date/Time: 9/14/21 1630	Received by: Tasman's Lock Box 	Date/Time: 9-14-21 16:30	Turn Around Time (Check) Same Day _____ 72 hours _____ 24 hours _____ Standard <u>X</u> 48 hours _____	Notes:  ON ICE
Relinquished by: Tasman's Lock Box	Date/Time:	Received by:	Date/Time:	Sample Integrity: Temperature Upon Receipt: <u>5.7</u> Samples Intact: <u>yes</u> No	
Relinquished by:	Date/Time:	Received by:	Date/Time:		

# Sample Receipt Checklist

2109214

S2 Work Order \_\_\_\_\_

Client: POC/TASMAN Client Project ID TOEDTLI 1-10

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

☒ ☐ ☐ ☐ ☐

Matrix (check all that apply): ☐ Air ☐ Soil/Solid ☐ Water ☐ Other: \_\_\_\_\_  
(Describe)

Temp (°C)	5.7
-----------	-----

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C <sup>(1)</sup> ? NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ON ICE
Were all samples received intact <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If custody seals are present, are they intact <sup>(1)</sup> ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples with holding times due within 48 hours sample due within 48 hours present?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out completely <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling) <sup>(1)</sup> ? Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2 <sup>(1)</sup> ? Record the pH in Comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Additional Comments (if any):

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

Nuri P.  
Custodian Printed Name or Initials

[Signature]  
Signature of Custodian

9-14-21  
Date/Time



PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Toedtli 1-10  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
09/23/21 12:11

**BH01@1'**  
**2109214-01 (Soil)**

**Summit Scientific**

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

Date Sampled: **09/14/21 10:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	130	0.0568	mg/L dry	1	BEI0430	09/21/21	09/22/21	EPA 6020B	
Magnesium	4.19	0.0568	"	"	"	"	"	"	
Sodium	6.68	0.0568	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **09/14/21 10:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.157	0.00100	units	1	BEI0495	09/23/21	09/23/21	Calculation	

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

Date Sampled: **09/14/21 10:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	88.1		%	1	BEI0372	09/16/21	09/17/21	Calculation	

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

Date Sampled: **09/14/21 10:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	3.61	0.0100	mmhos/cm	1	BEI0432	09/21/21	09/21/21	EPA 120.1	

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

Date Sampled: **09/14/21 10:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.35		pH Units	1	BEI0431	09/21/21	09/21/21	EPA 9045D	

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Toedtli 1-10  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
09/23/21 12:11

**BH01@3'**  
**2109214-02 (Soil)**

**Summit Scientific**

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

Date Sampled: **09/14/21 10:13**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Calcium	<b>9.08</b>	0.0642		mg/L dry	1	BEI0430	09/21/21	09/22/21	EPA 6020B	
Magnesium	<b>1.19</b>	0.0642		"	"	"	"	"	"	
Sodium	<b>18.4</b>	0.0642		"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **09/14/21 10:13**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Sodium Adsorption Ratio	<b>1.52</b>	0.00100		units	1	BEI0495	09/23/21	09/23/21	Calculation	

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

Date Sampled: **09/14/21 10:13**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	<b>77.9</b>			%	1	BEI0372	09/16/21	09/17/21	Calculation	

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

Date Sampled: **09/14/21 10:13**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	<b>2.34</b>	0.0100		mmhos/cm	1	BEI0432	09/21/21	09/21/21	EPA 120.1	

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

Date Sampled: **09/14/21 10:13**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	<b>8.11</b>			pH Units	1	BEI0431	09/21/21	09/21/21	EPA 9045D	

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Toedtli 1-10  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
09/23/21 12:11

**BH02@1'**  
**2109214-03 (Soil)**

**Summit Scientific**

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

Date Sampled: **09/14/21 10:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	27.2	0.0562	mg/L dry	1	BEI0430	09/21/21	09/22/21	EPA 6020B	
Magnesium	3.31	0.0562	"	"	"	"	"	"	
Sodium	27.3	0.0562	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **09/14/21 10:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	1.32	0.00100	units	1	BEI0495	09/23/21	09/23/21	Calculation	

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

Date Sampled: **09/14/21 10:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	89.0		%	1	BEI0372	09/16/21	09/17/21	Calculation	

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

Date Sampled: **09/14/21 10:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	7.21	0.0100	mmhos/cm	1	BEI0432	09/21/21	09/21/21	EPA 120.1	

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

Date Sampled: **09/14/21 10:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.83		pH Units	1	BEI0431	09/21/21	09/21/21	EPA 9045D	

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Toedtli 1-10  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
09/23/21 12:11

**BH02@3'**  
**2109214-04 (Soil)**

**Summit Scientific**

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

Date Sampled: **09/14/21 10:16**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	<b>6.33</b>	0.0645	mg/L dry	1	BEI0430	09/21/21	09/22/21	EPA 6020B	
Magnesium	<b>0.954</b>	0.0645	"	"	"	"	"	"	
Sodium	<b>50.9</b>	0.0645	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **09/14/21 10:16**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Sodium Adsorption Ratio	<b>4.98</b>	0.00100	units	1	BEI0495	09/23/21	09/23/21	Calculation	

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

Date Sampled: **09/14/21 10:16**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
% Solids	<b>77.5</b>		%	1	BEI0372	09/16/21	09/17/21	Calculation	

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

Date Sampled: **09/14/21 10:16**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Specific Conductance (EC)	<b>3.72</b>	0.0100	mmhos/cm	1	BEI0432	09/21/21	09/21/21	EPA 120.1	

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

Date Sampled: **09/14/21 10:16**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
pH	<b>8.55</b>		pH Units	1	BEI0431	09/21/21	09/21/21	EPA 9045D	

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Toedtli 1-10  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
09/23/21 12:11

**BH03@1'**  
**2109214-05 (Soil)**

**Summit Scientific**

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

Date Sampled: **09/14/21 10:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Calcium	24.6	0.0557		mg/L dry	1	BEI0430	09/21/21	09/22/21	EPA 6020B	
Magnesium	3.76	0.0557		"	"	"	"	"	"	
Sodium	17.3	0.0557		"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **09/14/21 10:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Sodium Adsorption Ratio	0.857	0.00100		units	1	BEI0495	09/23/21	09/23/21	Calculation	

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

Date Sampled: **09/14/21 10:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	89.8			%	1	BEI0372	09/16/21	09/17/21	Calculation	

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

Date Sampled: **09/14/21 10:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	7.12	0.0100		mmhos/cm	1	BEI0432	09/21/21	09/21/21	EPA 120.1	

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

Date Sampled: **09/14/21 10:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	7.76			pH Units	1	BEI0431	09/21/21	09/21/21	EPA 9045D	

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Toedtli 1-10  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
09/23/21 12:11

**BH03@3'**  
**2109214-06 (Soil)**

**Summit Scientific**

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

Date Sampled: **09/14/21 10:43**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Calcium	18.4	0.0589		mg/L dry	1	BEI0430	09/21/21	09/22/21	EPA 6020B	
Magnesium	3.60	0.0589		"	"	"	"	"	"	
Sodium	39.3	0.0589		"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **09/14/21 10:43**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Sodium Adsorption Ratio	2.19	0.00100		units	1	BEI0495	09/23/21	09/23/21	Calculation	

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

Date Sampled: **09/14/21 10:43**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	84.9			%	1	BEI0372	09/16/21	09/17/21	Calculation	

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

Date Sampled: **09/14/21 10:43**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	10.4	0.0100		mmhos/cm	1	BEI0432	09/21/21	09/21/21	EPA 120.1	

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

Date Sampled: **09/14/21 10:43**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	7.73			pH Units	1	BEI0431	09/21/21	09/21/21	EPA 9045D	

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Toedtli 1-10  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
09/23/21 12:11

**BH04@7'**  
**2109214-07 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **09/14/21 11:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEI0333	09/15/21	09/16/21	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: **09/14/21 11:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		107 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		99.1 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %	21-167		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **09/14/21 11:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEI0334	09/15/21	09/16/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **09/14/21 11:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		123 %	30-150		"	"	"	"	

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Toedtli 1-10  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
09/23/21 12:11

**BH04@8'**  
**2109214-08 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **09/14/21 11:16**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEI0333	09/15/21	09/16/21	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: **09/14/21 11:16**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		98.2 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		104 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		100 %	21-167		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **09/14/21 11:16**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	59	50	mg/kg	1	BEI0334	09/15/21	09/16/21	EPA 8015M	
C28-C36 (ORO)	67	50	"	"	"	"	"	"	

Date Sampled: **09/14/21 11:16**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		120 %	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.



PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Toedtli 1-10  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
09/23/21 12:11

**BH04@9'**  
**2109214-09 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **09/14/21 11:18**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEI0333	09/15/21	09/16/21	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: **09/14/21 11:18**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		99.2 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		104 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.8 %	21-167		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **09/14/21 11:18**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	58	50	mg/kg	1	BEI0334	09/15/21	09/16/21	EPA 8015M	
C28-C36 (ORO)	56	50	"	"	"	"	"	"	

Date Sampled: **09/14/21 11:18**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		126 %	30-150		"	"	"	"	

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Toedtli 1-10  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
09/23/21 12:11

**BH05@7'**  
**2109214-10 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **09/14/21 11:35**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEI0333	09/15/21	09/16/21	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: **09/14/21 11:35**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		118 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		105 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.7 %	21-167		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **09/14/21 11:35**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	67	50	mg/kg	1	BEI0334	09/15/21	09/16/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **09/14/21 11:35**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		125 %	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.



PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Toedtli 1-10  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
09/23/21 12:11

**BH05@8'**  
**2109214-11 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **09/14/21 11:36**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEI0333	09/15/21	09/16/21	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: **09/14/21 11:36**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		104 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		94.4 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.0 %	21-167		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **09/14/21 11:36**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	60	50	mg/kg	1	BEI0334	09/15/21	09/16/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **09/14/21 11:36**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		124 %	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.



PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Toedtli 1-10  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
09/23/21 12:11

**BH05@9'**  
**2109214-12 (Soil)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **09/14/21 11:37**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEI0333	09/15/21	09/16/21	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: **09/14/21 11:37**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		100 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		92.1 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.6 %	21-167		"	"	"	"	

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **09/14/21 11:37**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	97	50	mg/kg	1	BEI0334	09/15/21	09/16/21	EPA 8015M	
C28-C36 (ORO)	100	50	"	"	"	"	"	"	

Date Sampled: **09/14/21 11:37**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		120 %	30-150		"	"	"	"	

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Toedtli 1-10  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
09/23/21 12:11

**BKG01@1'**  
**2109214-13 (Soil)**

**Summit Scientific**

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

Date Sampled: **09/14/21 11:33**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Calcium	48.4	0.0562		mg/L dry	1	BEI0430	09/21/21	09/22/21	EPA 6020B	
Magnesium	2.27	0.0562		"	"	"	"	"	"	
Sodium	2.81	0.0562		"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **09/14/21 11:33**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Sodium Adsorption Ratio	0.107	0.00100		units	1	BEI0495	09/23/21	09/23/21	Calculation	

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

Date Sampled: **09/14/21 11:33**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	88.9			%	1	BEI0372	09/16/21	09/17/21	Calculation	

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

Date Sampled: **09/14/21 11:33**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	0.343	0.0100		mmhos/cm	1	BEI0432	09/21/21	09/21/21	EPA 120.1	

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

Date Sampled: **09/14/21 11:33**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	8.67			pH Units	1	BEI0431	09/21/21	09/21/21	EPA 9045D	

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Toedtli 1-10  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
09/23/21 12:11

**BKG01@3'**  
**2109214-14 (Soil)**

**Summit Scientific**

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

Date Sampled: **09/14/21 11:37**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	22.8	0.0568	mg/L dry	1	BEI0430	09/21/21	09/22/21	EPA 6020B	
Magnesium	1.81	0.0568	"	"	"	"	"	"	
Sodium	3.53	0.0568	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **09/14/21 11:37**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Sodium Adsorption Ratio	0.191	0.00100	units	1	BEI0495	09/23/21	09/23/21	Calculation	

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

Date Sampled: **09/14/21 11:37**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
% Solids	88.0		%	1	BEI0372	09/16/21	09/17/21	Calculation	

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

Date Sampled: **09/14/21 11:37**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Specific Conductance (EC)	0.557	0.0100	mmhos/cm	1	BEI0432	09/21/21	09/21/21	EPA 120.1	

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

Date Sampled: **09/14/21 11:37**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
pH	8.48		pH Units	1	BEI0431	09/21/21	09/21/21	EPA 9045D	

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Toedtli 1-10  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
09/23/21 12:11

**BH07@1'**  
**2109214-15 (Soil)**

**Summit Scientific**

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

Date Sampled: **09/14/21 12:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Calcium	53.0	0.0561		mg/L dry	1	BEI0430	09/21/21	09/22/21	EPA 6020B	
Magnesium	4.20	0.0561		"	"	"	"	"	"	
Sodium	8.49	0.0561		"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **09/14/21 12:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Sodium Adsorption Ratio	0.302	0.00100		units	1	BEI0495	09/23/21	09/23/21	Calculation	

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

Date Sampled: **09/14/21 12:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	89.1			%	1	BEI0372	09/16/21	09/17/21	Calculation	

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

Date Sampled: **09/14/21 12:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	3.52	0.0100		mmhos/cm	1	BEI0432	09/21/21	09/21/21	EPA 120.1	

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

Date Sampled: **09/14/21 12:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	7.63			pH Units	1	BEI0431	09/21/21	09/21/21	EPA 9045D	

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Toedtli 1-10  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
09/23/21 12:11

**BH07@3'**  
**2109214-16 (Soil)**

**Summit Scientific**

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

Date Sampled: **09/14/21 12:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	26.8	0.0571	mg/L dry	1	BEI0430	09/21/21	09/22/21	EPA 6020B	
Magnesium	3.45	0.0571	"	"	"	"	"	"	
Sodium	11.7	0.0571	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **09/14/21 12:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.565	0.00100	units	1	BEI0495	09/23/21	09/23/21	Calculation	

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

Date Sampled: **09/14/21 12:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	87.6		%	1	BEI0372	09/16/21	09/17/21	Calculation	

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

Date Sampled: **09/14/21 12:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	4.37	0.0100	mmhos/cm	1	BEI0432	09/21/21	09/21/21	EPA 120.1	

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

Date Sampled: **09/14/21 12:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.79		pH Units	1	BEI0431	09/21/21	09/21/21	EPA 9045D	

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Toedtli 1-10  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
09/23/21 12:11

**BH08@1'**  
**2109214-17 (Soil)**

**Summit Scientific**

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

Date Sampled: **09/14/21 12:14**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Calcium	<b>6.29</b>	0.0625		mg/L dry	1	BEI0430	09/21/21	09/22/21	EPA 6020B	
Magnesium	<b>0.863</b>	0.0625		"	"	"	"	"	"	
Sodium	<b>34.7</b>	0.0625		"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **09/14/21 12:14**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Sodium Adsorption Ratio	<b>3.44</b>	0.00100		units	1	BEI0495	09/23/21	09/23/21	Calculation	

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

Date Sampled: **09/14/21 12:14**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	<b>80.0</b>			%	1	BEI0433	09/21/21	09/21/21	Calculation	

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

Date Sampled: **09/14/21 12:14**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	<b>4.73</b>	0.0100		mmhos/cm	1	BEI0432	09/21/21	09/21/21	EPA 120.1	

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

Date Sampled: **09/14/21 12:14**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	<b>8.34</b>			pH Units	1	BEI0431	09/21/21	09/21/21	EPA 9045D	

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Toedtli 1-10  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
09/23/21 12:11

**BH08@3'**  
**2109214-18 (Soil)**

**Summit Scientific**

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

Date Sampled: **09/14/21 12:15**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Calcium	11.2	0.0629		mg/L dry	1	BEI0430	09/21/21	09/22/21	EPA 6020B	
Magnesium	2.50	0.0629		"	"	"	"	"	"	
Sodium	53.0	0.0629		"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **09/14/21 12:15**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Sodium Adsorption Ratio	3.73	0.00100		units	1	BEI0495	09/23/21	09/23/21	Calculation	

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

Date Sampled: **09/14/21 12:15**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	79.5			%	1	BEI0433	09/21/21	09/21/21	Calculation	

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

Date Sampled: **09/14/21 12:15**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	7.02	0.0100		mmhos/cm	1	BEI0432	09/21/21	09/21/21	EPA 120.1	

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

Date Sampled: **09/14/21 12:15**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	8.16			pH Units	1	BEI0431	09/21/21	09/21/21	EPA 9045D	

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Toedtli 1-10  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
09/23/21 12:11

**BH09@1'**  
**2109214-19 (Soil)**

**Summit Scientific**

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

Date Sampled: **09/14/21 11:05**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	17.9	0.0569	mg/L dry	1	BEI0430	09/21/21	09/22/21	EPA 6020B	
Magnesium	1.77	0.0569	"	"	"	"	"	"	
Sodium	37.2	0.0569	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **09/14/21 11:05**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Sodium Adsorption Ratio	2.25	0.00100	units	1	BEI0495	09/23/21	09/23/21	Calculation	

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

Date Sampled: **09/14/21 11:05**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
% Solids	87.9		%	1	BEI0433	09/21/21	09/21/21	Calculation	

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

Date Sampled: **09/14/21 11:05**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Specific Conductance (EC)	5.52	0.0100	mmhos/cm	1	BEI0432	09/21/21	09/21/21	EPA 120.1	

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

Date Sampled: **09/14/21 11:05**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
pH	7.98		pH Units	1	BEI0431	09/21/21	09/21/21	EPA 9045D	

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Toedtli 1-10  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
09/23/21 12:11

**BH09@3'**  
**2109214-20 (Soil)**

**Summit Scientific**

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

Date Sampled: **09/14/21 11:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	<b>8.05</b>	0.0572	mg/L dry	1	BEI0430	09/21/21	09/22/21	EPA 6020B	
Magnesium	<b>0.954</b>	0.0572	"	"	"	"	"	"	
Sodium	<b>40.9</b>	0.0572	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **09/14/21 11:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	<b>3.63</b>	0.00100	units	1	BEI0495	09/23/21	09/23/21	Calculation	

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

Date Sampled: **09/14/21 11:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	<b>87.5</b>		%	1	BEI0433	09/21/21	09/21/21	Calculation	

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

Date Sampled: **09/14/21 11:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	<b>5.78</b>	0.0100	mmhos/cm	1	BEI0432	09/21/21	09/21/21	EPA 120.1	

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

Date Sampled: **09/14/21 11:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	<b>8.14</b>		pH Units	1	BEI0431	09/21/21	09/21/21	EPA 9045D	

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Toedtli 1-10  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
09/23/21 12:11

**BH10@1'**  
**2109214-21 (Soil)**

**Summit Scientific**

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

Date Sampled: **09/14/21 12:32**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	27.8	0.0574	mg/L dry	1	BEI0441	09/21/21	09/23/21	EPA 6020B	
Magnesium	3.34	0.0574	"	"	"	"	"	"	
Sodium	14.7	0.0574	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **09/14/21 12:32**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.701	0.00100	units	1	BEI0496	09/23/21	09/23/21	Calculation	

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

Date Sampled: **09/14/21 12:32**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	87.1		%	1	BEI0433	09/21/21	09/21/21	Calculation	

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

Date Sampled: **09/14/21 12:32**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	4.82	0.0100	mmhos/cm	1	BEI0443	09/21/21	09/21/21	EPA 120.1	

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

Date Sampled: **09/14/21 12:32**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	7.72		pH Units	1	BEI0442	09/21/21	09/21/21	EPA 9045D	

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Toedtli 1-10  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
09/23/21 12:11

**BH10@3'**  
**2109214-22 (Soil)**

**Summit Scientific**

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

Date Sampled: **09/14/21 12:33**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	22.1	0.0601	mg/L dry	1	BEI0441	09/21/21	09/23/21	EPA 6020B	
Magnesium	2.39	0.0601	"	"	"	"	"	"	
Sodium	14.2	0.0601	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **09/14/21 12:33**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Sodium Adsorption Ratio	0.766	0.00100	units	1	BEI0496	09/23/21	09/23/21	Calculation	

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

Date Sampled: **09/14/21 12:33**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
% Solids	83.3		%	1	BEI0433	09/21/21	09/21/21	Calculation	

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

Date Sampled: **09/14/21 12:33**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Specific Conductance (EC)	5.24	0.0100	mmhos/cm	1	BEI0443	09/21/21	09/21/21	EPA 120.1	

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

Date Sampled: **09/14/21 12:33**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
pH	7.65		pH Units	1	BEI0442	09/21/21	09/21/21	EPA 9045D	

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Toedtli 1-10  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
09/23/21 12:11

**BH11@1'**  
**2109214-23 (Soil)**

**Summit Scientific**

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

Date Sampled: **09/14/21 12:35**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Calcium	24.6	0.0607		mg/L dry	1	BEI0441	09/21/21	09/23/21	EPA 6020B	
Magnesium	2.92	0.0607		"	"	"	"	"	"	
Sodium	42.0	0.0607		"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **09/14/21 12:35**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Sodium Adsorption Ratio	2.13	0.00100		units	1	BEI0496	09/23/21	09/23/21	Calculation	

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

Date Sampled: **09/14/21 12:35**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	82.4			%	1	BEI0433	09/21/21	09/21/21	Calculation	

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

Date Sampled: **09/14/21 12:35**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	4.55	0.0100		mmhos/cm	1	BEI0443	09/21/21	09/21/21	EPA 120.1	

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

Date Sampled: **09/14/21 12:35**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	8.74			pH Units	1	BEI0442	09/21/21	09/21/21	EPA 9045D	

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Toedtli 1-10  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
09/23/21 12:11

**BH11@3'**  
**2109214-24 (Soil)**

**Summit Scientific**

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

Date Sampled: **09/14/21 12:39**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Calcium	17.7	0.0619		mg/L dry	1	BEI0441	09/21/21	09/23/21	EPA 6020B	
Magnesium	1.89	0.0619		"	"	"	"	"	"	
Sodium	38.7	0.0619		"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **09/14/21 12:39**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Sodium Adsorption Ratio	2.34	0.00100		units	1	BEI0496	09/23/21	09/23/21	Calculation	

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

Date Sampled: **09/14/21 12:39**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	80.8			%	1	BEI0433	09/21/21	09/21/21	Calculation	

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

Date Sampled: **09/14/21 12:39**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	4.90	0.0100		mmhos/cm	1	BEI0443	09/21/21	09/21/21	EPA 120.1	

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

Date Sampled: **09/14/21 12:39**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	8.85			pH Units	1	BEI0442	09/21/21	09/21/21	EPA 9045D	

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Toedtli 1-10  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
09/23/21 12:11

**BH12@1'**  
**2109214-25 (Soil)**

**Summit Scientific**

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

Date Sampled: **09/14/21 12:11**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Calcium	19.5	0.0577		mg/L dry	1	BEI0441	09/21/21	09/23/21	EPA 6020B	
Magnesium	2.11	0.0577		"	"	"	"	"	"	
Sodium	13.9	0.0577		"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **09/14/21 12:11**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Sodium Adsorption Ratio	0.798	0.00100		units	1	BEI0496	09/23/21	09/23/21	Calculation	

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

Date Sampled: **09/14/21 12:11**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	86.7			%	1	BEI0433	09/21/21	09/21/21	Calculation	

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

Date Sampled: **09/14/21 12:11**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	5.65	0.0100		mmhos/cm	1	BEI0443	09/21/21	09/21/21	EPA 120.1	

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

Date Sampled: **09/14/21 12:11**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	7.71			pH Units	1	BEI0442	09/21/21	09/21/21	EPA 9045D	

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Toedtli 1-10  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
09/23/21 12:11

**BH12@3'**  
**2109214-26 (Soil)**

**Summit Scientific**

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

Date Sampled: **09/14/21 12:13**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	21.0	0.0615	mg/L dry	1	BEI0441	09/21/21	09/23/21	EPA 6020B	
Magnesium	2.13	0.0615	"	"	"	"	"	"	
Sodium	36.8	0.0615	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **09/14/21 12:13**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	2.05	0.00100	units	1	BEI0496	09/23/21	09/23/21	Calculation	

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

Date Sampled: **09/14/21 12:13**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	81.3		%	1	BEI0433	09/21/21	09/21/21	Calculation	

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

Date Sampled: **09/14/21 12:13**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	5.14	0.0100	mmhos/cm	1	BEI0443	09/21/21	09/21/21	EPA 120.1	

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

Date Sampled: **09/14/21 12:13**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.34		pH Units	1	BEI0442	09/21/21	09/21/21	EPA 9045D	

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Toedtli 1-10  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
09/23/21 12:11

**BH13@1'**  
**2109214-27 (Soil)**

**Summit Scientific**

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

Date Sampled: **09/14/21 12:33**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	<b>10.5</b>	0.0593	mg/L dry	1	BEI0441	09/21/21	09/23/21	EPA 6020B	
Magnesium	<b>1.28</b>	0.0593	"	"	"	"	"	"	
Sodium	<b>9.90</b>	0.0593	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **09/14/21 12:33**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Sodium Adsorption Ratio	<b>0.768</b>	0.00100	units	1	BEI0496	09/23/21	09/23/21	Calculation	

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

Date Sampled: **09/14/21 12:33**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
% Solids	<b>84.3</b>		%	1	BEI0433	09/21/21	09/21/21	Calculation	

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

Date Sampled: **09/14/21 12:33**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Specific Conductance (EC)	<b>3.23</b>	0.0100	mmhos/cm	1	BEI0443	09/21/21	09/21/21	EPA 120.1	

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

Date Sampled: **09/14/21 12:33**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
pH	<b>7.70</b>		pH Units	1	BEI0442	09/21/21	09/21/21	EPA 9045D	

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Toedtli 1-10  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
09/23/21 12:11

**BH13@3'**  
**2109214-28 (Soil)**

**Summit Scientific**

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

Date Sampled: **09/14/21 12:38**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	18.1	0.0601	mg/L dry	1	BEI0441	09/21/21	09/23/21	EPA 6020B	
Magnesium	1.88	0.0601	"	"	"	"	"	"	
Sodium	9.58	0.0601	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **09/14/21 12:38**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Sodium Adsorption Ratio	0.573	0.00100	units	1	BEI0496	09/23/21	09/23/21	Calculation	

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

Date Sampled: **09/14/21 12:38**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
% Solids	83.2		%	1	BEI0433	09/21/21	09/21/21	Calculation	

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

Date Sampled: **09/14/21 12:38**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Specific Conductance (EC)	3.69	0.0100	mmhos/cm	1	BEI0443	09/21/21	09/21/21	EPA 120.1	

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

Date Sampled: **09/14/21 12:38**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
pH	7.62		pH Units	1	BEI0442	09/21/21	09/21/21	EPA 9045D	

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Toedtli 1-10  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
09/23/21 12:11

**BH14@1'**  
**2109214-29 (Soil)**

**Summit Scientific**

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

Date Sampled: **09/14/21 12:55**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	26.1	0.0571	mg/L dry	1	BEI0441	09/21/21	09/23/21	EPA 6020B	
Magnesium	2.56	0.0571	"	"	"	"	"	"	
Sodium	18.1	0.0571	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **09/14/21 12:55**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Sodium Adsorption Ratio	0.905	0.00100	units	1	BEI0496	09/23/21	09/23/21	Calculation	

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

Date Sampled: **09/14/21 12:55**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
% Solids	87.6		%	1	BEI0433	09/21/21	09/21/21	Calculation	

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

Date Sampled: **09/14/21 12:55**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Specific Conductance (EC)	5.84	0.0100	mmhos/cm	1	BEI0443	09/21/21	09/21/21	EPA 120.1	

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

Date Sampled: **09/14/21 12:55**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
pH	7.86		pH Units	1	BEI0442	09/21/21	09/21/21	EPA 9045D	

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Toedtli 1-10  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
09/23/21 12:11

**BH14@3'**  
**2109214-30 (Soil)**

**Summit Scientific**

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

Date Sampled: **09/14/21 12:59**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Calcium	18.9	0.0559		mg/L dry	1	BEI0441	09/21/21	09/23/21	EPA 6020B	
Magnesium	1.93	0.0559		"	"	"	"	"	"	
Sodium	12.6	0.0559		"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **09/14/21 12:59**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Sodium Adsorption Ratio	0.738	0.00100		units	1	BEI0496	09/23/21	09/23/21	Calculation	

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

Date Sampled: **09/14/21 12:59**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	89.5			%	1	BEI0433	09/21/21	09/21/21	Calculation	

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

Date Sampled: **09/14/21 12:59**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	2.30	0.0100		mmhos/cm	1	BEI0443	09/21/21	09/21/21	EPA 120.1	

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

Date Sampled: **09/14/21 12:59**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	8.17			pH Units	1	BEI0442	09/21/21	09/21/21	EPA 9045D	

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.



PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Toedtli 1-10  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
09/23/21 12:11

**BH15@1'**  
**2109214-31 (Soil)**

**Summit Scientific**

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

Date Sampled: **09/14/21 12:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	14.4	0.0555	mg/L dry	1	BEI0441	09/21/21	09/23/21	EPA 6020B	
Magnesium	1.58	0.0555	"	"	"	"	"	"	
Sodium	5.32	0.0555	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **09/14/21 12:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.355	0.00100	units	1	BEI0496	09/23/21	09/23/21	Calculation	

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

Date Sampled: **09/14/21 12:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	90.1		%	1	BEI0433	09/21/21	09/21/21	Calculation	

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

Date Sampled: **09/14/21 12:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.385	0.0100	mmhos/cm	1	BEI0443	09/21/21	09/21/21	EPA 120.1	

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

Date Sampled: **09/14/21 12:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.43		pH Units	1	BEI0442	09/21/21	09/21/21	EPA 9045D	

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Toedtli 1-10  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
09/23/21 12:11

**BH15@3'**  
**2109214-32 (Soil)**

**Summit Scientific**

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

Date Sampled: **09/14/21 12:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Calcium	27.5	0.0567		mg/L dry	1	BEI0441	09/21/21	09/23/21	EPA 6020B	
Magnesium	2.39	0.0567		"	"	"	"	"	"	
Sodium	11.4	0.0567		"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **09/14/21 12:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Sodium Adsorption Ratio	0.560	0.00100		units	1	BEI0496	09/23/21	09/23/21	Calculation	

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

Date Sampled: **09/14/21 12:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
% Solids	88.1			%	1	BEI0433	09/21/21	09/21/21	Calculation	

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

Date Sampled: **09/14/21 12:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Specific Conductance (EC)	1.59	0.0100		mmhos/cm	1	BEI0443	09/21/21	09/21/21	EPA 120.1	

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

Date Sampled: **09/14/21 12:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
pH	8.39			pH Units	1	BEI0442	09/21/21	09/21/21	EPA 9045D	

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Toedtli 1-10  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
09/23/21 12:11

**BH16@1'**  
**2109214-33 (Soil)**

**Summit Scientific**

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

Date Sampled: **09/14/21 12:48**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	9.71	0.0562	mg/L dry	1	BEI0441	09/21/21	09/23/21	EPA 6020B	
Magnesium	1.22	0.0562	"	"	"	"	"	"	
Sodium	10.6	0.0562	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **09/14/21 12:48**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Sodium Adsorption Ratio	0.853	0.00100	units	1	BEI0496	09/23/21	09/23/21	Calculation	

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

Date Sampled: **09/14/21 12:48**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
% Solids	89.0		%	1	BEI0433	09/21/21	09/21/21	Calculation	

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

Date Sampled: **09/14/21 12:48**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Specific Conductance (EC)	0.585	0.0100	mmhos/cm	1	BEI0443	09/21/21	09/21/21	EPA 120.1	

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

Date Sampled: **09/14/21 12:48**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
pH	8.96		pH Units	1	BEI0442	09/21/21	09/21/21	EPA 9045D	

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Toedtli 1-10  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
09/23/21 12:11

**BH16@3'**  
**2109214-34 (Soil)**

**Summit Scientific**

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

Date Sampled: **09/14/21 12:49**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	<b>9.19</b>	0.0596	mg/L dry	1	BEI0441	09/21/21	09/23/21	EPA 6020B	
Magnesium	<b>1.10</b>	0.0596	"	"	"	"	"	"	
Sodium	<b>9.82</b>	0.0596	"	"	"	"	"	"	

**Calculated Analysis**

Date Sampled: **09/14/21 12:49**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	<b>0.815</b>	0.00100	units	1	BEI0496	09/23/21	09/23/21	Calculation	

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

Date Sampled: **09/14/21 12:49**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	<b>83.9</b>		%	1	BEI0433	09/21/21	09/21/21	Calculation	

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

Date Sampled: **09/14/21 12:49**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	<b>2.58</b>	0.0100	mmhos/cm	1	BEI0443	09/21/21	09/21/21	EPA 120.1	

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

Date Sampled: **09/14/21 12:49**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	<b>7.88</b>		pH Units	1	BEI0442	09/21/21	09/21/21	EPA 9045D	

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Toedtli 1-10  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
09/23/21 12:11

## Volatile Organic Compounds by EPA Method 8260B - Quality Control

### Summit Scientific

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

#### Batch BEI0333 - EPA 5030 Soil MS

##### Blank (BEI0333-BLK1)

Prepared: 09/15/21 Analyzed: 09/16/21

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.010	"							
1,2,4-Trimethylbenzene	ND	0.0050	"							
1,3,5-Trimethylbenzene	ND	0.0050	"							
Naphthalene	ND	0.0038	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	0.0405		"	0.0400		101	23-173			
Surrogate: Toluene-d8	0.0391		"	0.0400		97.8	20-170			
Surrogate: 4-Bromofluorobenzene	0.0398		"	0.0400		99.4	21-167			

##### LCS (BEI0333-BS1)

Prepared: 09/15/21 Analyzed: 09/16/21

Benzene	0.118	0.0020	mg/kg	0.100		118	70-130			
Toluene	0.104	0.0050	"	0.100		104	70-130			
Ethylbenzene	0.0900	0.0050	"	0.100		90.0	70-130			
m,p-Xylene	0.171	0.010	"	0.200		85.7	70-130			
o-Xylene	0.0898	0.0050	"	0.100		89.8	70-130			
1,2,4-Trimethylbenzene	0.0861	0.0050	"	0.100		86.1	70-130			
1,3,5-Trimethylbenzene	0.0835	0.0050	"	0.100		83.5	70-130			
Naphthalene	0.0892	0.0038	"	0.100		89.2	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0463		"	0.0400		116	23-173			
Surrogate: Toluene-d8	0.0437		"	0.0400		109	20-170			
Surrogate: 4-Bromofluorobenzene	0.0398		"	0.0400		99.4	21-167			

##### Matrix Spike (BEI0333-MS1)

Source: 2109182-01

Prepared: 09/15/21 Analyzed: 09/16/21

Benzene	0.0811	0.0020	mg/kg	0.100	ND	81.1	70-130			
Toluene	0.0579	0.0050	"	0.100	ND	57.9	70-130			QM-07
Ethylbenzene	0.0368	0.0050	"	0.100	ND	36.8	70-130			QM-07
m,p-Xylene	0.152	0.010	"	0.200	ND	75.9	70-130			
o-Xylene	0.0834	0.0050	"	0.100	ND	83.4	70-130			
1,2,4-Trimethylbenzene	0.0949	0.0050	"	0.100	ND	94.9	70-130			
1,3,5-Trimethylbenzene	0.146	0.0050	"	0.100	0.0374	108	70-130			
Naphthalene	0.0680	0.0038	"	0.100	ND	68.0	70-130			QM-07
Surrogate: 1,2-Dichloroethane-d4	0.0408		"	0.0400		102	23-173			
Surrogate: Toluene-d8	0.0393		"	0.0400		98.2	20-170			
Surrogate: 4-Bromofluorobenzene	0.0450		"	0.0400		112	21-167			

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Toedtli 1-10  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
09/23/21 12:11

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**  
**Summit Scientific**

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

**Batch BEI0333 - EPA 5030 Soil MS**

Matrix Spike Dup (BEI0333-MSD1)		Source: 2109182-01			Prepared: 09/15/21 Analyzed: 09/16/21					
Benzene	0.0663	0.0020	mg/kg	0.100	ND	66.3	70-130	20.0	30	QM-07
Toluene	0.0461	0.0050	"	0.100	ND	46.1	70-130	22.7	30	QM-07
Ethylbenzene	0.0257	0.0050	"	0.100	ND	25.7	70-130	35.5	30	QM-07
m,p-Xylene	0.114	0.010	"	0.200	ND	56.9	70-130	28.6	30	QM-07
o-Xylene	0.0799	0.0050	"	0.100	ND	79.9	70-130	4.26	30	
1,2,4-Trimethylbenzene	0.0659	0.0050	"	0.100	ND	65.9	70-130	36.0	30	QM-07
1,3,5-Trimethylbenzene	0.164	0.0050	"	0.100	0.0374	127	70-130	11.9	30	
Naphthalene	0.0480	0.0038	"	0.100	ND	48.0	70-130	34.5	30	QM-07
Surrogate: 1,2-Dichloroethane-d4		0.0395	"	0.0400		98.7	23-173			
Surrogate: Toluene-d8		0.0429	"	0.0400		107	20-170			
Surrogate: 4-Bromofluorobenzene		0.0487	"	0.0400		122	21-167			

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Toedtli 1-10  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
09/23/21 12:11

**Extractable Petroleum Hydrocarbons by 8015 - Quality Control**  
**Summit Scientific**

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

**Batch BEI0334 - EPA 3550A**

**Blank (BEI0334-BLK1)**

Prepared & Analyzed: 09/15/21

C10-C28 (DRO)	ND	50	mg/kg
C28-C36 (ORO)	ND	50	"

**LCS (BEI0334-BS1)**

Prepared & Analyzed: 09/15/21

C10-C28 (DRO)	595	50	mg/kg	500	119	70-130
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**Matrix Spike (BEI0334-MS1)**

**Source: 2109182-02**

Prepared & Analyzed: 09/15/21

C10-C28 (DRO)	696	50	mg/kg	500	117	116	70-130
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**Matrix Spike Dup (BEI0334-MSD1)**

**Source: 2109182-02**

Prepared & Analyzed: 09/15/21

C10-C28 (DRO)	694	50	mg/kg	500	117	115	70-130	0.330	20
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Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Toedtli 1-10  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
09/23/21 12:11

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

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

**Batch BEI0430 - General Preparation**

**Blank (BEI0430-BLK1)**

Prepared: 09/21/21 Analyzed: 09/22/21

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

**LCS (BEI0430-BS1)**

Prepared: 09/21/21 Analyzed: 09/22/21

Calcium	5.89	0.0500	mg/L wet	5.00	118	70-130
Magnesium	5.60	0.0500	"	5.00	112	70-130
Sodium	5.48	0.0500	"	5.00	110	70-130

**Batch BEI0441 - General Preparation**

**Blank (BEI0441-BLK1)**

Prepared: 09/21/21 Analyzed: 09/23/21

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

**LCS (BEI0441-BS1)**

Prepared: 09/21/21 Analyzed: 09/23/21

Calcium	5.31	0.0500	mg/L wet	5.00	106	70-130
Magnesium	5.15	0.0500	"	5.00	103	70-130
Sodium	4.97	0.0500	"	5.00	99.4	70-130

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Toedtli 1-10  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
09/23/21 12:11

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

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

**Batch BEI0372 - General Preparation**

<b>Duplicate (BEI0372-DUP1)</b>		<b>Source: 2109196-01</b>			Prepared: 09/16/21 Analyzed: 09/17/21						
% Solids	94.9		%		95.4			0.535		20	

**Batch BEI0433 - General Preparation**

<b>Duplicate (BEI0433-DUP1)</b>		<b>Source: 2109214-17</b>			Prepared & Analyzed: 09/21/21						
% Solids	79.6		%		80.0			0.572		20	

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Toedtli 1-10  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
09/23/21 12:11

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

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

**Batch BEI0432 - General Preparation**

**Blank (BEI0432-BLK1)**

Prepared & Analyzed: 09/21/21

Specific Conductance (EC) ND 0.0100 mmhos/cm

**LCS (BEI0432-BS1)**

Prepared & Analyzed: 09/21/21

Specific Conductance (EC) 0.160 0.0100 mmhos/cm 0.150 107 90-110

**Duplicate (BEI0432-DUP1)**

**Source: 2109038-02**

Prepared & Analyzed: 09/21/21

Specific Conductance (EC) 1.05 0.0100 mmhos/cm 1.05 0.00 20

**Batch BEI0443 - General Preparation**

**Blank (BEI0443-BLK1)**

Prepared & Analyzed: 09/21/21

Specific Conductance (EC) ND 0.0100 mmhos/cm

**LCS (BEI0443-BS1)**

Prepared & Analyzed: 09/21/21

Specific Conductance (EC) 0.158 0.0100 mmhos/cm 0.150 105 90-110

**Duplicate (BEI0443-DUP1)**

**Source: 2109214-21**

Prepared & Analyzed: 09/21/21

Specific Conductance (EC) 4.82 0.0100 mmhos/cm 4.82 0.0622 20

Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Toedtli 1-10  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
09/23/21 12:11

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

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

**Batch BEI0431 - General Preparation**

**LCS (BEI0431-BS1)**

Prepared & Analyzed: 09/21/21

pH	9.32		pH Units	9.21	101	95-105
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**Duplicate (BEI0431-DUP1)**

**Source: 2109038-02**

Prepared & Analyzed: 09/21/21

pH	8.47		pH Units	8.47		0.00	20
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**Batch BEI0442 - General Preparation**

**LCS (BEI0442-BS1)**

Prepared & Analyzed: 09/21/21

pH	9.31		pH Units	9.21	101	95-105
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**Duplicate (BEI0442-DUP1)**

**Source: 2109214-21**

Prepared & Analyzed: 09/21/21

pH	7.73		pH Units	7.72		0.129	20
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Summit Scientific

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PDC Energy  
1775 Sherman St. STE. 3000  
Denver CO, 80203

Project: Toedtli 1-10  
Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
09/23/21 12:11

### Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference