

TABLE 1
FORMER BOOTH 10-26 WELLHEAD
SOIL ANALYTICAL RESULTS SUMMARY TABLE

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 ⁽⁴⁾ (mg/kg)
Residential SSL ^(1,2)			1.2	490	5.8	58	30	27	2	500
Protection of Groundwater SSL ^(1,2,3)			0.0026	0.69	0.78	9.9	0.0081	0.0087	0.0038	500
WH01 @ 6'	6/30/2021	6 ft. bgs	0.018	0.0063	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50
SS01 @ 6.5'	7/1/2021	6.5 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50
SS02 @ 4'	7/1/2021	4 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50
SS03 @ 6.5'	7/1/2021	6.5 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50
SS04 @ 4'	7/1/2021	4 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50
SS05 @ 6.5'	7/1/2021	6.5 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50
SS06 @ 4'	7/1/2021	4 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50
SS07 @ 6.5'	7/1/2021	6.5 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50
SS08 @ 4'	7/1/2021	4 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50
SS09 @ 6.5'	7/1/2021	6.5 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50

Notes:

- Compounds referenced from the COGCC 2 CCR 404-1, Table 915-1, effective January 15, 2021.
- Soil Screening Levels (SSL) referenced from EPA Regional Screening Levels (EPA RSLs) for Chemical Contaminants at Superfund Sites, effective November 2020.
- SSLs are applicable if a pathway for communication with groundwater is present.
- 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

 = Source material characterization sample

ft. = Feet

bgs = Below ground surface

BOLD = Analytical result is in exceedance of applicable standard.

TABLE 2
FORMER BOOTH 10-26 WELLHEAD
GROUNDWATER ANALYTICAL RESULTS SUMMARY TABLE
ORGANIC COMPOUNDS

Sample ID	Date Sampled	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Naphthalene (µg/L)	1,2,4-TMB (µg/L)	1,3,5-TMB (µg/L)	Depth to Water ⁽²⁾ (ft.)	Groundwater Elevation (ft. AMSL)
COGCC Table 915-1 Groundwater Standard (µg/L) ⁽¹⁾		5	560	700	1,400	140	67	67	-	-
GW01	7/1/2021	12	7.0	1.1	4.5	<1.0	<1.0	<1.0	6	NA

Notes:

- Groundwater standards referenced from 2 CCR 404-1, Table 915-1, January 15, 2021.
 - Depth to water measurements were measured from ground surface for excavation samples. Monitoring well measurements were collected from top of casing and adjusted using survey data to reflect depth of water from ground surface.
- TMB = Trimethylbenzene
COGCC = Colorado Oil and Gas Conservation Commission
µg/L = Micrograms per liter
(<) = Analytical result is less than the indicated laboratory reporting limit.
ft. = Feet
AMSL = Above Mean Sea Level
BOLD = Analytical result is in exceedance of applicable standard.
NA = Not applicable

TABLE 3
FORMER BOOTH 10-26 WELLHEAD
FIELD DATA SUMMARY TABLE

Sample ID	Date Sampled	Depth	GPS Data ⁽¹⁾ Latitude / Longitude		PDOP Value	VOC Concentration ⁽²⁾ (ppm)
WH01 @ 6'	6/30/2021	6 ft. bgs	40.537537	-104.627115	1.3	8.6
FLR01 @ 2.5'	6/30/2021	2.5 ft. bgs	40.537539	-104.627123	1.4	0.4
SS01 @ 6.5'	7/1/2021	6.5 ft. bgs	40.537529	-104.627114	1.1	1.2
SS02 @ 4'	7/1/2021	4 ft. bgs	40.537552	-104.627130	1.0	0.1
SS03 @ 6.5'	7/1/2021	6.5 ft. bgs	40.537552	-104.627130	1.0	1.1
SS04 @ 4'	7/1/2021	4 ft. bgs	40.537535	-104.627163	1.0	0.0
SS05 @ 6.5'	7/1/2021	6.5 ft. bgs	40.537535	-104.627163	1.0	0.0
SS06 @ 4'	7/1/2021	4 ft. bgs	40.537513	-104.627133	1.1	0.0
SS07 @ 6.5'	7/1/2021	6.5 ft. bgs	40.537513	-104.627133	1.1	0.4
SS08 @ 4'	7/1/2021	4 ft. bgs	40.537529	-104.627099	1.0	4.3
SS09 @ 6.5'	7/1/2021	6.5 ft. bgs	40.537529	-104.627099	1.0	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

 = Source material characterization sample

ft. = Feet

bgs = Below ground surface

Attachment A

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

July 01, 2021

Mark Longhurst

PDC Energy

1775 Sherman St. STE. 3000

Denver, CO 80203

RE: Booth 10,20-26 Wellheads

Work Order #2106526

Enclosed are the results of analyses for samples received by Summit Scientific on 06/30/21 18:10. 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: Booth 10,20-26 Wellheads

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
07/01/21 06:11

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
WH01@6'	2106526-01	Soil	06/30/21 09:52	06/30/21 18:10

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.

2106526

303-277-9310

Page 1 of 1

Project Number:

Temperature Upon Receipt: 7
Samples Intact: Yes No

Sample Receipt Checklist

S2 Work Order 2106526

Client: PDC / Tasman

Client Project ID: Booth 10, 20-26 Wells

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

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

Temp (°C) 7

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C ⁽¹⁾ ? 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"/>	<i>On rec.</i>
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"/>	
If custody seals are present, are they intact ⁽¹⁾ ?	<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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>Same day</i>
Is a chain-of-custody (COC) form present and filled out completely ⁽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"/>	
Is the COC properly relinquished by the client w/ date and time recorded ⁽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, 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 ⁽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.

JB
Custodian Printed Name or Initials

[Signature]
Signature of Custodian

6/30/21
Date/Time



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

Project: Booth 10,20-26 Wellheads

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
07/01/21 06:11

WH01@6'
2106526-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/30/21 09:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	0.018	0.0020	mg/kg	1	BEF0624	06/30/21	06/30/21	EPA 8260B	
Toluene	0.0063	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: **06/30/21 09:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		99.7 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		103 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/30/21 09:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BEF0625	06/30/21	06/30/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **06/30/21 09:52**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		95.2 %	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: Booth 10,20-26 Wellheads

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
07/01/21 06:11

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 BEF0624 - EPA 5030 Soil MS

Blank (BEF0624-BLK1)

Prepared: 06/30/21 Analyzed: 07/01/21

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	0.0406		"	0.0400		102	23-173			
Surrogate: Toluene-d8	0.0409		"	0.0400		102	20-170			
Surrogate: 4-Bromofluorobenzene	0.0403		"	0.0400		101	21-167			

LCS (BEF0624-BS1)

Prepared: 06/30/21 Analyzed: 07/01/21

Benzene	0.107	0.0020	mg/kg	0.100		107	70-130			
Toluene	0.111	0.0050	"	0.100		111	70-130			
Ethylbenzene	0.0970	0.0050	"	0.100		97.0	70-130			
m,p-Xylene	0.187	0.010	"	0.200		93.6	70-130			
o-Xylene	0.103	0.0050	"	0.100		103	70-130			
1,2,4-Trimethylbenzene	0.0939	0.0050	"	0.100		93.9	70-130			
1,3,5-Trimethylbenzene	0.0866	0.0050	"	0.100		86.6	70-130			
Naphthalene	0.0813	0.0038	"	0.100		81.3	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0417		"	0.0400		104	23-173			
Surrogate: Toluene-d8	0.0427		"	0.0400		107	20-170			
Surrogate: 4-Bromofluorobenzene	0.0406		"	0.0400		101	21-167			

Matrix Spike (BEF0624-MS1)

Source: 2106526-01

Prepared: 06/30/21 Analyzed: 07/01/21

Benzene	0.113	0.0020	mg/kg	0.100	0.0179	95.2	70-130			
Toluene	0.0841	0.0050	"	0.100	0.00627	77.8	70-130			
Ethylbenzene	0.104	0.0050	"	0.100	ND	104	70-130			
m,p-Xylene	0.201	0.010	"	0.200	ND	101	70-130			
o-Xylene	0.0805	0.0050	"	0.100	ND	80.5	70-130			
1,2,4-Trimethylbenzene	0.102	0.0050	"	0.100	ND	102	70-130			
1,3,5-Trimethylbenzene	0.0963	0.0050	"	0.100	ND	96.3	70-130			
Naphthalene	0.0958	0.0038	"	0.100	ND	95.8	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0425		"	0.0400		106	23-173			
Surrogate: Toluene-d8	0.0426		"	0.0400		106	20-170			
Surrogate: 4-Bromofluorobenzene	0.0402		"	0.0400		100	21-167			

Summit Scientific

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

Project: Booth 10,20-26 Wellheads

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
07/01/21 06:11

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 BEF0624 - EPA 5030 Soil MS

Matrix Spike Dup (BEF0624-MSD1)	Source: 2106526-01			Prepared: 06/30/21 Analyzed: 07/01/21							
Benzene	0.117	0.0020	mg/kg	0.100	0.0179	99.3	70-130	3.52	30		
Toluene	0.103	0.0050	"	0.100	0.00627	96.6	70-130	20.1	30		
Ethylbenzene	0.0906	0.0050	"	0.100	ND	90.6	70-130	13.8	30		
m,p-Xylene	0.170	0.010	"	0.200	ND	85.0	70-130	16.7	30		
o-Xylene	0.0944	0.0050	"	0.100	ND	94.4	70-130	16.0	30		
1,2,4-Trimethylbenzene	0.0888	0.0050	"	0.100	ND	88.8	70-130	14.0	30		
1,3,5-Trimethylbenzene	0.0815	0.0050	"	0.100	ND	81.5	70-130	16.6	30		
Naphthalene	0.0837	0.0038	"	0.100	ND	83.7	70-130	13.5	30		
Surrogate: 1,2-Dichloroethane-d4	0.0415		"	0.0400		104	23-173				
Surrogate: Toluene-d8	0.0424		"	0.0400		106	20-170				
Surrogate: 4-Bromofluorobenzene	0.0401		"	0.0400		100	21-167				

Summit Scientific

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

Project: Booth 10,20-26 Wellheads
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
07/01/21 06:11

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BEF0625 - EPA 3550A

Blank (BEF0625-BLK1)

Prepared & Analyzed: 06/30/21

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

LCS (BEF0625-BS1)

Prepared: 06/30/21 Analyzed: 07/01/21

C10-C28 (DRO)	505	50	mg/kg	500	101	70-130
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Matrix Spike (BEF0625-MS1)

Source: 2106526-01

Prepared: 06/30/21 Analyzed: 07/01/21

C10-C28 (DRO)	477	50	mg/kg	500	16.1	92.1	70-130
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Matrix Spike Dup (BEF0625-MSD1)

Source: 2106526-01

Prepared: 06/30/21 Analyzed: 07/01/21

C10-C28 (DRO)	496	50	mg/kg	500	16.1	96.0	70-130	3.98	20
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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: Booth 10,20-26 Wellheads

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
07/01/21 06:11

Notes and Definitions

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

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

July 02, 2021

Mark Longhurst

PDC Energy

1775 Sherman St. STE. 3000

Denver, CO 80203

RE: Booth 10-26 Wellhead

Work Order #2107014

Enclosed are the results of analyses for samples received by Summit Scientific on 07/01/21 19:25. 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: Booth 10-26 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
07/02/21 05:42

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS01@6.5'	2107014-01	Soil	07/01/21 10:14	07/01/21 19:25
SS02@4'	2107014-02	Soil	07/01/21 10:25	07/01/21 19:25
SS03@6.5'	2107014-03	Soil	07/01/21 10:26	07/01/21 19:25
SS04@4'	2107014-04	Soil	07/01/21 10:31	07/01/21 19:25
SS05@6.5'	2107014-05	Soil	07/01/21 10:32	07/01/21 19:25
SS06@4'	2107014-06	Soil	07/01/21 10:48	07/01/21 19:25
SS07@6.5'	2107014-07	Soil	07/01/21 10:49	07/01/21 19:25
SS08@4'	2107014-08	Soil	07/01/21 10:55	07/01/21 19:25
SS09@6.5'	2107014-09	Soil	07/01/21 10:56	07/01/21 19:25
GW01	2107014-10	Water	07/01/21 11:05	07/01/21 19:25

Summit Scientific

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2107014

Summit Scientific

S₂

4653 Table Mountain Drive ♦ Golden, Colorado 80403

303-277-9310

Page 1 of 1

Client: PDC / Tasman

Project Manager: Mark Longhurst

Address: 6855 W 119th Ave

E-Mail: mark.longhurst@PDCE.com

City/State/Zip: Broomfield/ CO/ 80020

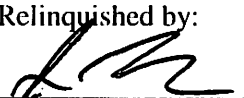
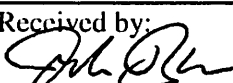
Phone: 303-487-1228

Project Name: Booth 10-26 Wellhead

Sampler Name: J. Marcus

Project Number: 1/a

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested						Special Instructions
					HCl	HNO ₃	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	SS01@6.5'	7/1/21	1014	3			X			X			X	X	X				pH, EC, SAR by saturated paste
2	SS02@4'		1025	3			X			X			X	X	X				
3	SS03@6.5'		1026	3			X			X			X	X	X				
4	SS04@4'		1031	3			X			X			X	X	X				
5	SS05@6.5'		1032	3			X			X			X	X	X				
6	SS06@4'		1048	3			X			X			X	X	X				
7	SS07@6.5'		1049	3			X			X			X	X	X				
8	SS08@4'		1055	3			X			X			X	X	X				
9	SS09@6.5'		1056	3			X			X			X	X	X				
10	6W01		1105	3			X		X				X		X				

Relinquished by: 	Date/Time: 7/1/21 1300	Received by: Tasman's Lock Box	Date/Time: 7/1/21 1300	Turn Around Time (Check) Same Day <input checked="" type="checkbox"/> 72 hours 24 hours <input type="checkbox"/> Standard 48 hours <input type="checkbox"/>	Notes:
Relinquished by: Tasman's Lock Box	Date/Time: 7/1/21 1925	Received by: 	Date/Time: 7/1/21 1925	Sample Integrity: 4	
Relinquished by:	Date/Time:	Received by:	Date/Time:	Temperature Upon Receipt: Samples Intact: <input checked="" type="radio"/> Yes <input type="radio"/> No	

Sample Receipt Checklist

S2 Work Order 2107014

Client: PDC / Tasman

Client Project ID: Booth 10-26 Wellhead

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

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

Temp (°C)	<u>4</u>
-----------	----------

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C ⁽¹⁾ ? 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"/>	<u>On ice.</u>
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"/>	
If custody seals are present, are they intact ⁽¹⁾ ?	<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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>Same day.</u>
Is a chain-of-custody (COC) form present and filled out completely ⁽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"/>	
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ? Note the type of preservative in the Comments column – HCl, 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 ⁽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.

JB
Custodian Printed Name or Initials

[Signature]
Signature of Custodian

7/1/21
Date/Time



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

Project: Booth 10-26 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
07/02/21 05:42

SS01@6.5'
2107014-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/01/21 10:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BEG0033	07/01/21	07/01/21	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: **07/01/21 10:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		105 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		60.8 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		112 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/01/21 10:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BEG0034	07/01/21	07/01/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **07/01/21 10:14**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		107 %	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: Booth 10-26 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
07/02/21 05:42

SS02@4'
2107014-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/01/21 10:25**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEG0033	07/01/21	07/01/21	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: **07/01/21 10:25**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		82.0 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		102 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.3 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/01/21 10:25**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEG0034	07/01/21	07/01/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **07/01/21 10:25**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		98.9 %	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: Booth 10-26 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
07/02/21 05:42

SS03@6.5'
2107014-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/01/21 10:26**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEG0033	07/01/21	07/01/21	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: **07/01/21 10:26**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		88.5 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		105 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.0 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/01/21 10:26**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEG0034	07/01/21	07/01/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **07/01/21 10:26**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		95.1 %	30-150		"	"	"	"	

Summit Scientific

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

Project: Booth 10-26 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
07/02/21 05:42

SS04@4'
2107014-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/01/21 10:31**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEG0033	07/01/21	07/01/21	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: **07/01/21 10:31**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		100 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		104 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		93.4 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/01/21 10:31**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEG0034	07/01/21	07/01/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **07/01/21 10:31**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		99.6 %	30-150		"	"	"	"	

Summit Scientific

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

Project: Booth 10-26 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
07/02/21 05:42

SS05@6.5'
2107014-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/01/21 10:32**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEG0033	07/01/21	07/01/21	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: **07/01/21 10:32**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		87.2 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		106 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.4 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/01/21 10:32**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEG0034	07/01/21	07/01/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **07/01/21 10:32**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		93.7 %	30-150		"	"	"	"	

Summit Scientific

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

Project: Booth 10-26 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
07/02/21 05:42

SS06@4'
2107014-06 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/01/21 10:48**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEG0033	07/01/21	07/01/21	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: **07/01/21 10:48**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		98.6 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		113 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.5 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/01/21 10:48**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEG0034	07/01/21	07/01/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **07/01/21 10:48**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		88.2 %	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: Booth 10-26 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
07/02/21 05:42

SS07@6.5'
2107014-07 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/01/21 10:49**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEG0033	07/01/21	07/01/21	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: **07/01/21 10:49**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		98.5 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		103 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/01/21 10:49**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEG0034	07/01/21	07/01/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **07/01/21 10:49**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		88.5 %	30-150		"	"	"	"	

Summit Scientific

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

Project: Booth 10-26 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
07/02/21 05:42

SS08@4'
2107014-08 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/01/21 10:55**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEG0033	07/01/21	07/01/21	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: **07/01/21 10:55**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		102 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		103 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/01/21 10:55**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEG0034	07/01/21	07/01/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **07/01/21 10:55**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		89.4 %	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: Booth 10-26 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
07/02/21 05:42

SS09@6.5'
2107014-09 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/01/21 10:56**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEG0033	07/01/21	07/01/21	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: **07/01/21 10:56**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		103 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		106 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		103 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/01/21 10:56**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEG0034	07/01/21	07/01/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **07/01/21 10:56**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		90.1 %	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: Booth 10-26 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
07/02/21 05:42

GW01
2107014-10 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/01/21 11:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	12	1.0		ug/l	1	BEG0032	07/01/21	07/01/21	EPA 8260B	
Toluene	7.0	1.0		"	"	"	"	"	"	
Ethylbenzene	1.1	1.0		"	"	"	"	"	"	
Xylenes (total)	4.5	2.0		"	"	"	"	"	"	
Naphthalene	ND	1.0		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0		"	"	"	"	"	"	

Date Sampled: **07/01/21 11:05**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		94.3 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		104 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %		21-167		"	"	"	"	

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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: Booth 10-26 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
07/02/21 05:42

Volatile Organic Compounds by EPA Method 8260B - Quality Control

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

Batch BEG0032 - EPA 5030 Water MS

Blank (BEG0032-BLK1)

Prepared & Analyzed: 07/01/21

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	2.0	"							
Naphthalene	ND	1.0	"							
1,2,4-Trimethylbenzene	ND	1.0	"							
1,3,5-Trimethylbenzene	ND	1.0	"							
Surrogate: 1,2-Dichloroethane-d4	13.4		"	13.3		100	23-173			
Surrogate: Toluene-d8	14.0		"	13.3		105	20-170			
Surrogate: 4-Bromofluorobenzene	13.4		"	13.3		101	21-167			

LCS (BEG0032-BS1)

Prepared & Analyzed: 07/01/21

Benzene	31.2	1.0	ug/l	33.3		93.7	51-132			
Toluene	29.7	1.0	"	33.3		89.0	51-138			
Ethylbenzene	35.9	1.0	"	33.3		108	58-146			
m,p-Xylene	70.6	2.0	"	66.7		106	57-144			
o-Xylene	36.4	1.0	"	33.3		109	53-146			
Naphthalene	35.6	1.0	"	33.3		107	70-130			
1,2,4-Trimethylbenzene	33.8	1.0	"	33.3		102	70-130			
1,3,5-Trimethylbenzene	42.7	1.0	"	33.3		128	70-130			
Surrogate: 1,2-Dichloroethane-d4	13.8		"	13.3		103	23-173			
Surrogate: Toluene-d8	14.3		"	13.3		107	20-170			
Surrogate: 4-Bromofluorobenzene	13.2		"	13.3		98.8	21-167			

Matrix Spike (BEG0032-MS1)

Source: 2107014-10

Prepared & Analyzed: 07/01/21

Benzene	31.3	1.0	ug/l	33.3	12.4	56.6	34-141			
Toluene	29.1	1.0	"	33.3	6.95	66.4	27-151			
Ethylbenzene	35.6	1.0	"	33.3	1.06	104	29-160			
m,p-Xylene	70.9	2.0	"	66.7	3.11	102	20-166			
o-Xylene	35.6	1.0	"	33.3	1.41	103	33-159			
Naphthalene	33.7	1.0	"	33.3	ND	101	70-130			
1,2,4-Trimethylbenzene	33.7	1.0	"	33.3	ND	101	70-130			
1,3,5-Trimethylbenzene	42.9	1.0	"	33.3	ND	129	70-130			
Surrogate: 1,2-Dichloroethane-d4	12.8		"	13.3		95.7	23-173			
Surrogate: Toluene-d8	14.4		"	13.3		108	20-170			
Surrogate: 4-Bromofluorobenzene	13.1		"	13.3		98.4	21-167			

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

Project: Booth 10-26 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
07/02/21 05:42

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 BEG0032 - EPA 5030 Water MS

Matrix Spike Dup (BEG0032-MSD1)	Source: 2107014-10			Prepared: 07/01/21 Analyzed: 07/02/21						
Benzene	31.2	1.0	ug/l	33.3	12.4	56.4	34-141	0.192	30	
Toluene	29.4	1.0	"	33.3	6.95	67.3	27-151	0.992	30	
Ethylbenzene	36.1	1.0	"	33.3	1.06	105	29-160	1.53	30	
m,p-Xylene	71.3	2.0	"	66.7	3.11	102	20-166	0.506	30	
o-Xylene	36.8	1.0	"	33.3	1.41	106	33-159	3.21	30	
Naphthalene	33.9	1.0	"	33.3	ND	102	70-130	0.710	30	
1,2,4-Trimethylbenzene	33.8	1.0	"	33.3	ND	101	70-130	0.237	30	
1,3,5-Trimethylbenzene	33.6	1.0	"	33.3	ND	101	70-130	24.4	30	
Surrogate: 1,2-Dichloroethane-d4	12.9		"	13.3		96.6	23-173			
Surrogate: Toluene-d8	14.5		"	13.3		109	20-170			
Surrogate: 4-Bromofluorobenzene	13.1		"	13.3		98.2	21-167			

Batch BEG0033 - EPA 5030 Soil MS

Blank (BEG0033-BLK1)	Prepared & Analyzed: 07/01/21									
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	0.0392		"	0.0400		97.9	23-173			
Surrogate: Toluene-d8	0.0461		"	0.0400		115	20-170			
Surrogate: 4-Bromofluorobenzene	0.0398		"	0.0400		99.6	21-167			

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

Project: Booth 10-26 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
07/02/21 05:42

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 BEG0033 - EPA 5030 Soil MS

LCS (BEG0033-BS1)

Prepared & Analyzed: 07/01/21

Benzene	0.0871	0.0020	mg/kg	0.100		87.1	70-130			
Toluene	0.0710	0.0050	"	0.100		71.0	70-130			
Ethylbenzene	0.0753	0.0050	"	0.100		75.3	70-130			
m,p-Xylene	0.142	0.010	"	0.200		71.1	70-130			
o-Xylene	0.0739	0.0050	"	0.100		73.9	70-130			
1,2,4-Trimethylbenzene	0.0758	0.0050	"	0.100		75.8	70-130			
1,3,5-Trimethylbenzene	0.0733	0.0050	"	0.100		73.3	70-130			
Naphthalene	0.0989	0.0038	"	0.100		98.9	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0236		"	0.0400		59.1	23-173			
Surrogate: Toluene-d8	0.0415		"	0.0400		104	20-170			
Surrogate: 4-Bromofluorobenzene	0.0374		"	0.0400		93.4	21-167			

Matrix Spike (BEG0033-MS1)

Source: 2107014-01

Prepared & Analyzed: 07/01/21

Benzene	0.0827	0.0020	mg/kg	0.100	ND	82.7	70-130			
Toluene	0.0990	0.0050	"	0.100	ND	99.0	70-130			
Ethylbenzene	0.0737	0.0050	"	0.100	ND	73.7	70-130			
m,p-Xylene	0.199	0.010	"	0.200	ND	99.6	70-130			
o-Xylene	0.0737	0.0050	"	0.100	ND	73.7	70-130			
1,2,4-Trimethylbenzene	0.0770	0.0050	"	0.100	ND	77.0	70-130			
1,3,5-Trimethylbenzene	0.0735	0.0050	"	0.100	ND	73.5	70-130			
Naphthalene	0.0889	0.0038	"	0.100	ND	88.9	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0197		"	0.0400		49.3	23-173			
Surrogate: Toluene-d8	0.0412		"	0.0400		103	20-170			
Surrogate: 4-Bromofluorobenzene	0.0369		"	0.0400		92.2	21-167			

Matrix Spike Dup (BEG0033-MSD1)

Source: 2107014-01

Prepared & Analyzed: 07/01/21

Benzene	0.0879	0.0020	mg/kg	0.100	ND	87.9	70-130	6.12	30	
Toluene	0.100	0.0050	"	0.100	ND	100	70-130	1.27	30	
Ethylbenzene	0.0772	0.0050	"	0.100	ND	77.2	70-130	4.61	30	
m,p-Xylene	0.203	0.010	"	0.200	ND	101	70-130	1.88	30	
o-Xylene	0.0760	0.0050	"	0.100	ND	76.0	70-130	3.04	30	
1,2,4-Trimethylbenzene	0.0783	0.0050	"	0.100	ND	78.3	70-130	1.70	30	
1,3,5-Trimethylbenzene	0.0753	0.0050	"	0.100	ND	75.3	70-130	2.46	30	
Naphthalene	0.0957	0.0038	"	0.100	ND	95.7	70-130	7.31	30	
Surrogate: 1,2-Dichloroethane-d4	0.0256		"	0.0400		64.1	23-173			
Surrogate: Toluene-d8	0.0400		"	0.0400		100	20-170			
Surrogate: 4-Bromofluorobenzene	0.0366		"	0.0400		91.4	21-167			

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

Project: Booth 10-26 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
07/02/21 05:42

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 BEG0034 - EPA 3550A

Blank (BEG0034-BLK1)

Prepared & Analyzed: 07/01/21

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

LCS (BEG0034-BS1)

Prepared & Analyzed: 07/01/21

C10-C28 (DRO)	605	50	mg/kg	500	121	70-130
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Matrix Spike (BEG0034-MS1)

Source: 2107014-01

Prepared: 07/01/21 Analyzed: 07/02/21

C10-C28 (DRO)	501	50	mg/kg	500	22.6	95.8	70-130
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Matrix Spike Dup (BEG0034-MSD1)

Source: 2107014-01

Prepared: 07/01/21 Analyzed: 07/02/21

C10-C28 (DRO)	505	50	mg/kg	500	22.6	96.5	70-130	0.731	20
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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Booth 10-26 Wellhead

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
07/02/21 05:42

Notes and Definitions

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