

TABLE 1
FORMER SCHLAGEL 5-26 WELLHEAD
SOIL ANALYTICAL RESULTS SUMMARY TABLE
ORGANIC COMPOUNDS

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 @ 7'	11/16/2021	7 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50
FLR01 @ 3'	11/16/2021	3 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50
FL01-06 @ 3'	11/16/2021	3 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50
FL01-07 @ 3'	11/16/2021	3 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50
FLR02 @ 3'	11/16/2021	3 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 extractable petroleum hydrocarbons - oil range organics

mg/kg = Milligrams per kilogram

TMB = Trimethylbenzene

ft. = Feet

bgs = Below ground surface

TABLE 2
FORMER SCHLAGEL 5-26 WELLHEAD
SOIL ANALYTICAL RESULTS SUMMARY TABLE
INORGANIC COMPOUNDS

Sample ID	Date Sampled	Depth	pH (units)	EC (mmhos/cm)	SAR (units)	Boron (mg/L)
Soil Suitability for Reclamation Standard ⁽¹⁾			6-8.3	<4	<6	2
WH01 @ 7'	11/16/2021	7 ft. bgs	8.07	2.11	2.49	0.0729
FLR01 @ 3'	11/16/2021	3 ft. bgs	8.03	0.351	0.267	0.116

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

bgs = Below ground surface

TABLE 3
FORMER SCHLAGEL 5-26 WELLHEAD
SOIL ANALYTICAL RESULTS SUMMARY TABLE
ORGANIC COMPOUNDS - PAHs

Sample ID	Date Sampled	Depth	Acenaphthene (mg/kg)	Anthracene (mg/kg)	Benz(a) (mg/kg)	Benzo(a) (mg/kg)	Benzo(b) (mg/kg)	Benzo(k) (mg/kg)	Chrysene (mg/kg)	A,H (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	1,2,3-CD (mg/kg)	Pyrene (mg/kg)	1-M (mg/kg)	2-M (mg/kg)
Residential SSL ^(1,2)			360	1,800	1.1	0.11	1.1	11	110	0.11	240	240	1.1	180	18	24
Protection of Groundwater SSL ^(1,2,3)			0.55	5.8	0.011	0.24	0.3	2.9	9	0.096	8.9	0.54	0.98	1.3	0.006	0.019
WH01 @ 7'	11/16/2021	7 ft. bgs	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
FLR01 @ 3'	11/16/2021	3 ft. bgs	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500

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

COGCC = Colorado Oil and Gas Conservation Commission

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

PAHs = Polycyclic aromatic hydrocarbons

Benzo(a) = Benzantracene

Benzo(a) = Benzopyrene

Benzo(b) = Benzofluoranthene

Benzo(k) = Benzofluoranthene

A,H = Dibenzoanthracene

1,2,3-CD = Indenopyrene

M = Methylnaphthalene

mg/kg = Milligrams per kilogram

ft. = Feet

bgs = Below ground surface

TABLE 4
FORMER SCHLAGEL 5-26 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	11/16/2021	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	7.5	0

Notes:

1. Groundwater standards referenced from 2 CCR 404-1, Table 915-1, January 15, 2021.

2. 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

TABLE 5
FORMER SCHLAGEL 5-26 WELLHEAD
FIELD DATA SUMMARY TABLE

Sample ID	Date Sampled	Depth	GPS Data ⁽¹⁾ Latitude / Longitude		PDOP Value	VOC Concentration ⁽²⁾ (ppm)
WH01 @ 7'	11/16/2021	7 ft. bgs	40.367043	-104.512415	1.6	0.3
FLR01 @ 3'	11/16/2021	3 ft. bgs	40.367034	-104.512422	1.4	0.4
WHS01-N @ 0-6"	11/16/2021	0-6 in. bgs	40.367109	-104.512399	1.1	0.5
WHS01-W @ 0-6"	11/16/2021	0-6 in. bgs	40.367064	-104.512565	1.1	0.5
WHS01-S @ 0-6"	11/16/2021	0-6 in. bgs	40.366951	-104.512463	1.1	0.3
WHS01-E @ 0-6"	11/16/2021	0-6 in. bgs	40.367013	-104.512315	1.1	0.5
BKG01 @ 3'	11/16/2021	3 ft. bgs	40.366941	-104.512485	1.4	0.3
BKG01 @ 7'	11/16/2021	7 ft. bgs	40.366941	-104.512485	1.4	0.2
FL01-01 @ 3'	11/16/2021	3 ft. bgs	40.366314	-104.512413	1.3	0.1
FL01-02 @ 3'	11/16/2021	3 ft. bgs	40.365536	-104.512383	1.4	0.5
FL01-03 @ 3'	11/16/2021	3 ft. bgs	40.364873	-104.512383	1.3	0.1
FL01-04 @ 3'	11/16/2021	3 ft. bgs	40.364101	-104.512354	1.4	0.1
FL01-05 @ 3'	11/16/2021	3 ft. bgs	40.363379	-104.512356	1.5	0.4
FL01-06 @ 3'	11/16/2021	3 ft. bgs	40.363229	-104.512358	1.4	0.3
FL01-07 @ 3'	11/16/2021	3 ft. bgs	40.363233	-104.513750	1.2	0.2
FLR02 @ 3'	11/16/2021	3 ft. bgs	40.363390	-104.513977	1.2	0.2
GW01	11/16/2021	7.5 ft. bgs	40.367037	-104.512418	1.4	NA

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

in. = Inches

bgs = Below ground surface

NC = Not applicable

Attachment A

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

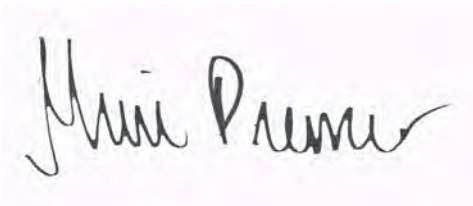
303.277.9310

December 03, 2021

Mark Longhurst
PDC Energy
1775 Sherman St. STE. 3000
Denver, CO 80203
RE: Schlagel 5-26 Wellhead
Work Order #2111300

Enclosed are the results of analyses for samples received by Summit Scientific on 11/16/21 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 "Muri Premer", is shown on a light pink background.

Muri Premer For Paul Shrewsbury
President



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

Project: Schlagel 5-26 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
12/03/21 12:16

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
WH01@7'	2111300-01	Soil	11/16/21 10:20	11/16/21 16:30
FLR01@3'	2111300-02	Soil	11/16/21 10:25	11/16/21 16:30
FL01-06@3'	2111300-03	Soil	11/16/21 11:15	11/16/21 16:30
FL01-07@3'	2111300-04	Soil	11/16/21 11:20	11/16/21 16:30
FLR02@3'	2111300-05	Soil	11/16/21 11:25	11/16/21 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.

Summit Scientific

S₂

2111300

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: Schlager 5-26 Wellhead
Sampler Name: Mike Connolly Project Number: NA

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	PAH-915	On Hold		
1	WH01 @ 7'	11/16/21	1020	3			X			X				X	X	X	X	X	X		
2	FL01 @ 3'		1025	3			X			X				X	X	X	X	X			
3	FL01-06 @ 3'		1115	2			X			X				X	X	X					
4	FL01-07 @ 3'		1120	2			X			X				X	X	X					
5	FL02 @ 3'		1125	2			X			X				X	X	X					
6	BK601 @ 3'		1040	1			X			X									X		
7	BK601 @ 7'		1045	1			X			X									X		
8																					
9																					
10																					

Relinquished by:	Date/Time:	Received by:	Date/Time:	Turn Around Time	(Check)	Notes: Full PAH Suite
Mike Connolly	11/16/21 1630	Tasman's Lock Box		Same Day	72 hours	
Relinquished by:	Date/Time:	Received by:	Date/Time:	24 hours	Standard	
Tasman's Lock Box		[Signature]	11/16/21 1630	48 hours	X	
Relinquished by:	Date/Time:	Received by:	Date/Time:	Sample Integrity:		
				Temperature Upon Receipt:	3.0	
				Samples Intact:	Yes	No

S₂

2111300

Sample Receipt Checklist

S2 Work Order# _____


Client: Roc FrismanClient Project ID: Schlagel S-26 wellheadShipped Via: ☐ H.D./P.U./FedEx/UPS/USPS/Other _____ Airbill #: _____
☐ ☒ ☐ ☐ ☐
Matrix (check all that apply): ☐ Air ☒ Soil/Solid ☐ Water ☐ Other: _____
(Describe)

Temp (°C)	3.0
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Thermometer ID: G86A9201901378

	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 if there is evidence that cooling has begun.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	on ICE
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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are samples with holding times due within 48 hours sample due within 48 hours present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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, H ₂ SO ₄ , NaOH, HNO ₃ , etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ? Record the pH in Comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Additional Comments (if any):

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

 Custodian Printed Name or Initials

 11.16.21
 Date/Time



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

Project: Schlagel 5-26 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
12/03/21 12:16

WH01@7'
2111300-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **11/16/21 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BEK0428	11/18/21	11/19/21	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: **11/16/21 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		103 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		106 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.1 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **11/16/21 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BEK0429	11/18/21	11/20/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **11/16/21 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		93.1 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

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

Project: Schlagel 5-26 Wellhead

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
12/03/21 12:16

WH01@7'
2111300-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **11/16/21 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BEK0433	11/19/21	11/23/21	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **11/16/21 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		74.2 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		71.9 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **11/16/21 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.0729	0.0100	mg/L	1	BEK0493	11/22/21	12/01/21	EPA 6020B	

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

Date Sampled: **11/16/21 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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PDC Energy
1775 Sherman St. STE. 3000
Denver CO, 80203

Project: Schlagel 5-26 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
12/03/21 12:16

WH01@7'
2111300-01 (Soil)

Summit Scientific

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

Calcium	186	0.0588	mg/L dry	1	BEK0488	11/22/21	12/02/21	EPA 6020B
Magnesium	84.1	0.0588	"	"	"	"	"	"
Sodium	163	0.0588	"	"	"	"	"	"

Calculated Analysis

Date Sampled: **11/16/21 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	2.49	0.00100	units	1	BEL0052	12/03/21	12/03/21	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **11/16/21 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	85.0		%	1	BEK0502	11/23/21	11/23/21	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **11/16/21 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	2.11	0.0100	mmhos/cm	1	BEK0507	11/23/21	11/23/21	EPA 120.1	

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

Date Sampled: **11/16/21 10:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.07		pH Units	1	BEK0508	11/23/21	11/23/21	EPA 9045D	

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

Project: Schlagel 5-26 Wellhead

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
12/03/21 12:16

FLR01@3'
2111300-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **11/16/21 10:25**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEK0428	11/18/21	11/19/21	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: **11/16/21 10:25**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		97.3 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		104 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.0 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **11/16/21 10:25**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEK0429	11/18/21	11/20/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **11/16/21 10:25**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		95.7 %	30-150		"	"	"	"	

PAH by EPA Method 8270D SIM

Summit Scientific

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



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

Project: Schlagel 5-26 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
12/03/21 12:16

FLR01@3'
2111300-02 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **11/16/21 10:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BEK0433	11/19/21	11/23/21	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **11/16/21 10:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		68.2 %	40-150		"	"	"	"	
Surrogate: Fluoranthene-d10		69.5 %	40-150		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **11/16/21 10:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	0.116	0.0100	mg/L	1	BEK0493	11/22/21	12/01/21	EPA 6020B	

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

Date Sampled: **11/16/21 10:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Summit Scientific

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

Project: Schlagel 5-26 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
12/03/21 12:16

FLR01@3'
2111300-02 (Soil)

Summit Scientific

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

Calcium	34.2	0.0561	mg/L dry	1	BEK0488	11/22/21	12/02/21	EPA 6020B
Magnesium	10.4	0.0561	"	"	"	"	"	"
Sodium	6.94	0.0561	"	"	"	"	"	"

Calculated Analysis

Date Sampled: **11/16/21 10:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.267	0.00100	units	1	BEL0052	12/03/21	12/03/21	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **11/16/21 10:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	89.1		%	1	BEK0502	11/23/21	11/23/21	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **11/16/21 10:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.351	0.0100	mmhos/cm	1	BEK0507	11/23/21	11/23/21	EPA 120.1	

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

Date Sampled: **11/16/21 10:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.03		pH Units	1	BEK0508	11/23/21	11/23/21	EPA 9045D	

Summit Scientific

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

Project: Schlagel 5-26 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
12/03/21 12:16

FL01-06@3'
2111300-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **11/16/21 11:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEK0428	11/18/21	11/19/21	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: **11/16/21 11:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		132 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		117 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		109 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **11/16/21 11:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEK0429	11/18/21	11/20/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **11/16/21 11:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		96.8 %	30-150		"	"	"	"	

Summit Scientific

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

Project: Schlagel 5-26 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
12/03/21 12:16

FL01-07@3'
2111300-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **11/16/21 11:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEK0428	11/18/21	11/19/21	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: **11/16/21 11:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		129 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		116 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		110 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **11/16/21 11:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEK0429	11/18/21	11/20/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **11/16/21 11:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		97.8 %	30-150		"	"	"	"	

Summit Scientific

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

Project: Schlagel 5-26 Wellhead

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
12/03/21 12:16

FLR02@3'
2111300-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **11/16/21 11:25**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	BEK0428	11/18/21	11/19/21	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: **11/16/21 11:25**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		130 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		119 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		112 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **11/16/21 11:25**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	BEK0429	11/18/21	11/20/21	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **11/16/21 11:25**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		104 %	30-150		"	"	"	"	

Summit Scientific

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

Project: Schlagel 5-26 Wellhead

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
12/03/21 12:16

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 BEK0428 - EPA 5030 Soil MS

Blank (BEK0428-BLK1)

Prepared: 11/18/21 Analyzed: 11/19/21

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	0.0443		"	0.0400		111	23-173			
Surrogate: Toluene-d8	0.0434		"	0.0400		109	20-170			
Surrogate: 4-Bromofluorobenzene	0.0405		"	0.0400		101	21-167			

LCS (BEK0428-BS1)

Prepared: 11/18/21 Analyzed: 11/19/21

Benzene	0.0916	0.0020	mg/kg	0.100		91.6	70-130			
Toluene	0.114	0.0050	"	0.100		114	70-130			
Ethylbenzene	0.0950	0.0050	"	0.100		95.0	70-130			
m,p-Xylene	0.184	0.010	"	0.200		91.9	70-130			
o-Xylene	0.0931	0.0050	"	0.100		93.1	70-130			
1,2,4-Trimethylbenzene	0.0897	0.0050	"	0.100		89.7	70-130			
1,3,5-Trimethylbenzene	0.0862	0.0050	"	0.100		86.2	70-130			
Naphthalene	0.118	0.0038	"	0.100		118	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0369		"	0.0400		92.2	23-173			
Surrogate: Toluene-d8	0.0409		"	0.0400		102	20-170			
Surrogate: 4-Bromofluorobenzene	0.0404		"	0.0400		101	21-167			

Matrix Spike (BEK0428-MS1)

Source: 2111261-01

Prepared: 11/18/21 Analyzed: 11/19/21

Benzene	0.113	0.0020	mg/kg	0.100	ND	113	70-130			
Toluene	0.105	0.0050	"	0.100	ND	105	70-130			
Ethylbenzene	0.108	0.0050	"	0.100	ND	108	70-130			
m,p-Xylene	0.215	0.010	"	0.200	ND	107	70-130			
o-Xylene	0.107	0.0050	"	0.100	ND	107	70-130			
1,2,4-Trimethylbenzene	0.106	0.0050	"	0.100	ND	106	70-130			
1,3,5-Trimethylbenzene	0.103	0.0050	"	0.100	ND	103	70-130			
Naphthalene	0.119	0.0038	"	0.100	ND	119	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0402		"	0.0400		100	23-173			
Surrogate: Toluene-d8	0.0416		"	0.0400		104	20-170			
Surrogate: 4-Bromofluorobenzene	0.0404		"	0.0400		101	21-167			

Summit Scientific

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

Project: Schlagel 5-26 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
12/03/21 12:16

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 BEK0428 - EPA 5030 Soil MS

Matrix Spike Dup (BEK0428-MSD1)	Source: 2111261-01			Prepared: 11/18/21 Analyzed: 11/19/21						
Benzene	0.103	0.0020	mg/kg	0.100	ND	103	70-130	10.0	30	
Toluene	0.130	0.0050	"	0.100	ND	130	70-130	21.3	30	
Ethylbenzene	0.108	0.0050	"	0.100	ND	108	70-130	0.528	30	
m,p-Xylene	0.219	0.010	"	0.200	ND	110	70-130	1.87	30	
o-Xylene	0.108	0.0050	"	0.100	ND	108	70-130	0.530	30	
1,2,4-Trimethylbenzene	0.107	0.0050	"	0.100	ND	107	70-130	0.704	30	
1,3,5-Trimethylbenzene	0.103	0.0050	"	0.100	ND	103	70-130	0.495	30	
Naphthalene	0.114	0.0038	"	0.100	ND	114	70-130	4.85	30	
Surrogate: 1,2-Dichloroethane-d4	0.0379		"	0.0400		94.8	23-173			
Surrogate: Toluene-d8	0.0413		"	0.0400		103	20-170			
Surrogate: 4-Bromofluorobenzene	0.0402		"	0.0400		101	21-167			

Summit Scientific

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

Project: Schlagel 5-26 Wellhead

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
12/03/21 12:16

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch BEK0429 - EPA 3550A

Blank (BEK0429-BLK1)

Prepared: 11/18/21 Analyzed: 11/20/21

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

LCS (BEK0429-BS1)

Prepared: 11/18/21 Analyzed: 11/20/21

C10-C28 (DRO)	494	50	mg/kg	500	98.7	70-130
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Matrix Spike (BEK0429-MS1)

Source: 2111261-01

Prepared: 11/18/21 Analyzed: 11/20/21

C10-C28 (DRO)	416	50	mg/kg	500	ND	83.1	70-130
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Matrix Spike Dup (BEK0429-MSD1)

Source: 2111261-01

Prepared: 11/18/21 Analyzed: 11/20/21

C10-C28 (DRO)	396	50	mg/kg	500	ND	79.3	70-130	4.70	20
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Summit Scientific

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

Project: Schlagel 5-26 Wellhead

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
12/03/21 12:16

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BEK0433 - EPA 5030 Soil MS

Blank (BEK0433-BLK1)

Prepared: 11/19/21 Analyzed: 11/22/21

Acenaphthene	ND	0.00500	mg/kg							
Anthracene	ND	0.00500	"							
Benzo (a) anthracene	ND	0.00500	"							
Benzo (a) pyrene	ND	0.00500	"							
Benzo (b) fluoranthene	ND	0.00500	"							
Benzo (k) fluoranthene	ND	0.00500	"							
Chrysene	ND	0.00500	"							
Dibenz (a,h) anthracene	ND	0.00500	"							
Fluoranthene	ND	0.00500	"							
Fluorene	ND	0.00500	"							
Indeno (1,2,3-cd) pyrene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
1-Methylnaphthalene	ND	0.00500	"							
2-Methylnaphthalene	ND	0.00500	"							
Surrogate: 2-Methylnaphthalene-d10	0.0318		"	0.0333		95.4	40-150			
Surrogate: Fluoranthene-d10	0.0298		"	0.0333		89.5	40-150			

LCS (BEK0433-BS1)

Prepared: 11/19/21 Analyzed: 11/22/21

Acenaphthene	0.0298	0.00500	mg/kg	0.0333		89.4	31-137			
Anthracene	0.0310	0.00500	"	0.0333		92.9	30-120			
Benzo (a) anthracene	0.0283	0.00500	"	0.0333		84.8	30-120			
Benzo (a) pyrene	0.0292	0.00500	"	0.0333		87.6	30-120			
Benzo (b) fluoranthene	0.0308	0.00500	"	0.0333		92.5	30-120			
Benzo (k) fluoranthene	0.0372	0.00500	"	0.0333		112	30-120			
Chrysene	0.0293	0.00500	"	0.0333		87.9	30-120			
Dibenz (a,h) anthracene	0.0240	0.00500	"	0.0333		72.1	30-120			
Fluoranthene	0.0281	0.00500	"	0.0333		84.3	30-120			
Fluorene	0.0314	0.00500	"	0.0333		94.3	30-120			
Indeno (1,2,3-cd) pyrene	0.0301	0.00500	"	0.0333		90.2	30-120			
Pyrene	0.0326	0.00500	"	0.0333		97.7	35-142			
1-Methylnaphthalene	0.0281	0.00500	"	0.0333		84.4	35-142			
2-Methylnaphthalene	0.0292	0.00500	"	0.0333		87.5	35-142			
Surrogate: 2-Methylnaphthalene-d10	0.0316		"	0.0333		94.9	40-150			
Surrogate: Fluoranthene-d10	0.0319		"	0.0333		95.7	40-150			

Summit Scientific

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

Project: Schlagel 5-26 Wellhead

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
12/03/21 12:16

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

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

Batch BEK0433 - EPA 5030 Soil MS

Matrix Spike (BEK0433-MS1)

Source: 2111293-01

Prepared: 11/19/21 Analyzed: 11/22/21

Acenaphthene	0.0214	0.00500	mg/kg	0.0333	ND	64.2	31-137		
Anthracene	0.0213	0.00500	"	0.0333	ND	63.9	30-120		
Benzo (a) anthracene	0.0211	0.00500	"	0.0333	ND	63.2	30-120		
Benzo (a) pyrene	0.0200	0.00500	"	0.0333	ND	60.1	30-120		
Benzo (b) fluoranthene	0.0209	0.00500	"	0.0333	ND	62.7	30-120		
Benzo (k) fluoranthene	0.0238	0.00500	"	0.0333	ND	71.3	30-120		
Chrysene	0.0212	0.00500	"	0.0333	ND	63.6	30-120		
Dibenz (a,h) anthracene	0.0172	0.00500	"	0.0333	ND	51.5	30-120		
Fluoranthene	0.0225	0.00500	"	0.0333	ND	67.6	30-120		
Fluorene	0.0228	0.00500	"	0.0333	ND	68.5	30-120		
Indeno (1,2,3-cd) pyrene	0.0215	0.00500	"	0.0333	ND	64.4	30-120		
Pyrene	0.0224	0.00500	"	0.0333	ND	67.3	35-142		
1-Methylnaphthalene	0.0214	0.00500	"	0.0333	ND	64.1	15-130		
2-Methylnaphthalene	0.0232	0.00500	"	0.0333	ND	69.5	15-130		
Surrogate: 2-Methylnaphthalene-d10	0.0237		"	0.0333		71.1	40-150		
Surrogate: Fluoranthene-d10	0.0251		"	0.0333		75.2	40-150		

Matrix Spike Dup (BEK0433-MSD1)

Source: 2111293-01

Prepared: 11/19/21 Analyzed: 11/22/21

Acenaphthene	0.0226	0.00500	mg/kg	0.0333	ND	67.7	31-137	5.31	30
Anthracene	0.0237	0.00500	"	0.0333	ND	71.0	30-120	10.5	30
Benzo (a) anthracene	0.0226	0.00500	"	0.0333	ND	67.7	30-120	6.82	30
Benzo (a) pyrene	0.0223	0.00500	"	0.0333	ND	67.0	30-120	10.9	30
Benzo (b) fluoranthene	0.0224	0.00500	"	0.0333	ND	67.1	30-120	6.67	30
Benzo (k) fluoranthene	0.0248	0.00500	"	0.0333	ND	74.4	30-120	4.24	30
Chrysene	0.0228	0.00500	"	0.0333	ND	68.3	30-120	7.19	30
Dibenz (a,h) anthracene	0.0185	0.00500	"	0.0333	ND	55.5	30-120	7.45	30
Fluoranthene	0.0239	0.00500	"	0.0333	ND	71.7	30-120	5.84	30
Fluorene	0.0243	0.00500	"	0.0333	ND	72.8	30-120	6.11	30
Indeno (1,2,3-cd) pyrene	0.0248	0.00500	"	0.0333	ND	74.5	30-120	14.6	30
Pyrene	0.0236	0.00500	"	0.0333	ND	70.8	35-142	5.15	30
1-Methylnaphthalene	0.0225	0.00500	"	0.0333	ND	67.5	15-130	5.16	50
2-Methylnaphthalene	0.0235	0.00500	"	0.0333	ND	70.6	15-130	1.47	50
Surrogate: 2-Methylnaphthalene-d10	0.0262		"	0.0333		78.5	40-150		
Surrogate: Fluoranthene-d10	0.0273		"	0.0333		82.0	40-150		

Summit Scientific

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

Project: Schlagel 5-26 Wellhead

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
12/03/21 12:16

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

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

Batch BEK0493 - EPA 3050B

Blank (BEK0493-BLK1)

Prepared: 11/22/21 Analyzed: 12/01/21

Boron ND 0.0100 mg/L

LCS (BEK0493-BS1)

Prepared: 11/22/21 Analyzed: 12/01/21

Boron 5.18 0.0100 mg/L 5.00 104 80-120

Duplicate (BEK0493-DUP1)

Source: 2111261-01

Prepared: 11/22/21 Analyzed: 12/01/21

Boron 0.148 0.0100 mg/L 0.155 4.65 20

Matrix Spike (BEK0493-MS1)

Source: 2111261-01

Prepared: 11/22/21 Analyzed: 12/01/21

Boron 5.30 0.0100 mg/L 5.00 0.155 103 75-125

Matrix Spike Dup (BEK0493-MSD1)

Source: 2111261-01

Prepared: 11/22/21 Analyzed: 12/01/21

Boron 5.38 0.0100 mg/L 5.00 0.155 104 75-125 1.40 25

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

Project: Schlagel 5-26 Wellhead

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
12/03/21 12:16

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 BEK0488 - General Preparation

Blank (BEK0488-BLK1)

Prepared: 11/22/21 Analyzed: 12/02/21

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

LCS (BEK0488-BS1)

Prepared: 11/22/21 Analyzed: 12/02/21

Calcium	5.91	0.0500	mg/L wet	5.00	118	70-130
Magnesium	5.64	0.0500	"	5.00	113	70-130
Sodium	5.50	0.0500	"	5.00	110	70-130

Summit Scientific

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

Project: Schlagel 5-26 Wellhead

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
12/03/21 12:16

Physical Parameters by APHA/ASTM/EPA Methods - Quality Control

Summit Scientific

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

Batch BEK0502 - General Preparation

Duplicate (BEK0502-DUP1)		Source: 2111086-01		Prepared & Analyzed: 11/23/21						
% Solids	89.6		%		89.8			0.252	20	

Summit Scientific

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

Project: Schlagel 5-26 Wellhead

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
12/03/21 12:16

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

Summit Scientific

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

Batch BEK0507 - General Preparation

Blank (BEK0507-BLK1)

Prepared & Analyzed: 11/23/21

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (BEK0507-BS1)

Prepared & Analyzed: 11/23/21

Specific Conductance (EC) 0.150 0.0100 mmhos/cm 0.150 100 95-105

Duplicate (BEK0507-DUP1)

Source: 2111262-07

Prepared & Analyzed: 11/23/21

Specific Conductance (EC) 1.16 0.0100 mmhos/cm 1.18 1.54 20

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

Project: Schlagel 5-26 Wellhead

Project Number: [none]

Project Manager: Mark Longhurst

Reported:
12/03/21 12:16

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

Summit Scientific

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

Batch BEK0508 - General Preparation

LCS (BEK0508-BS1)

Prepared & Analyzed: 11/23/21

pH	9.11	pH Units	9.18	99.2	95-105
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Duplicate (BEK0508-DUP1)

Source: 2111262-07

Prepared & Analyzed: 11/23/21

pH	8.08	pH Units	8.05	0.372	20
----	------	----------	------	-------	----

Summit Scientific

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

Project: Schlagel 5-26 Wellhead

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
12/03/21 12:16

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

November 16, 2021

Mark Longhurst
PDC Energy
1775 Sherman St. STE. 3000
Denver, CO 80203
RE: Schlagel 5-26 Wellhead
Work Order #2111286

Enclosed are the results of analyses for samples received by Summit Scientific on 11/16/21 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, flowing script.

Paul Shrewsbury
President



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

Project: Schlagel 5-26 Wellhead

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
11/16/21 22:33

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GW01	2111286-01	Water	11/16/21 14:45	11/16/21 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.

Summit Scientific

S₂

2111286

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:	Schlegel 5-26 Wellhead
Sampler Name:	Mike Conolly	Project Number:	NA

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	PAHs - 915	Metals - 915			
1	GW01	11/16/21	1445	3	X				X					X	X							pH, EC, SAR by saturated paste
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						

Relinquished by:	Date/Time:	Received by:	Date/Time:	Turn Around Time	(Check)	Notes:
Mike Conolly	11/16/21 1630	Tasman's Lock Box		Same Day	X 72 hours	
Relinquished by:	Date/Time:	Received by:	Date/Time:	24 hours	Standard	
Tasman's Lock Box			11/16/21 1630	48 hours		
Relinquished by:	Date/Time:	Received by:	Date/Time:	Sample Integrity:		
				Temperature Upon Receipt:	3.0	
				Samples Intact:	Yes No	

S₂

Sample Receipt Checklist

S2 Work Order# 2111286Client: ROC/Tasman Client Project ID: Schlagel S-26 wellheadShipped Via: ☐ H.D./P.U./FedEx/UPS/USPS/Other ☒ Airbill #: _____Matrix (check all that apply): ☐ Air ☐ Soil/Solid ☒ Water ☐ Other: _____
(Describe)Temp (°C) 3.0

Thermometer ID: G86A9201901378

	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 if there is evidence that cooling has begun.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ON ICE
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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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"/>	Same day
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, H ₂ SO ₄ , NaOH, HNO ₃ , etc.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	HCl
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ? Record the pH in Comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Additional Comments (if any):

⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.R. Kelly
Custodian Printed Name or Initials11/16/21
Date/Time



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

Project: Schlagel 5-26 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
11/16/21 22:33

GW01
2111286-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **11/16/21 14:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	1.0	ug/l	1	BEK0367	11/16/21	11/16/21	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	
Naphthalene	ND	1.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.0	"	"	"	"	"	"	

Date Sampled: **11/16/21 14:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		96.8 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		96.1 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.3 %	21-167		"	"	"	"	

Summit Scientific

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

Project: Schlagel 5-26 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
11/16/21 22:33

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 BEK0367 - EPA 5030 Water MS

Blank (BEK0367-BLK1)

Prepared & Analyzed: 11/16/21

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	12.4		"	13.3		92.6	23-173			
Surrogate: Toluene-d8	12.6		"	13.3		94.2	20-170			
Surrogate: 4-Bromofluorobenzene	13.4		"	13.3		100	21-167			

LCS (BEK0367-BS1)

Prepared & Analyzed: 11/16/21

Benzene	32.0	1.0	ug/l	33.3		96.2	51-132			
Toluene	34.8	1.0	"	33.3		104	51-138			
Ethylbenzene	39.3	1.0	"	33.3		118	58-146			
m,p-Xylene	69.9	2.0	"	66.7		105	57-144			
o-Xylene	35.6	1.0	"	33.3		107	53-146			
Naphthalene	35.4	1.0	"	33.3		106	70-130			
1,2,4-Trimethylbenzene	32.3	1.0	"	33.3		97.0	70-130			
1,3,5-Trimethylbenzene	42.3	1.0	"	33.3		127	70-130			
Surrogate: 1,2-Dichloroethane-d4	13.3		"	13.3		99.8	23-173			
Surrogate: Toluene-d8	12.9		"	13.3		96.8	20-170			
Surrogate: 4-Bromofluorobenzene	13.2		"	13.3		99.4	21-167			

Matrix Spike (BEK0367-MS1)

Source: 2111276-06

Prepared & Analyzed: 11/16/21

Benzene	38.4	1.0	ug/l	33.3	5.60	98.5	34-141			
Toluene	35.9	1.0	"	33.3	ND	108	27-151			
Ethylbenzene	31.7	1.0	"	33.3	ND	95.0	29-160			
m,p-Xylene	69.1	2.0	"	66.7	4.23	97.4	20-166			
o-Xylene	36.5	1.0	"	33.3	ND	109	33-159			
Naphthalene	40.8	1.0	"	33.3	1.12	119	70-130			
1,2,4-Trimethylbenzene	35.0	1.0	"	33.3	ND	105	70-130			
1,3,5-Trimethylbenzene	34.0	1.0	"	33.3	ND	102	70-130			
Surrogate: 1,2-Dichloroethane-d4	13.1		"	13.3		98.3	23-173			
Surrogate: Toluene-d8	12.9		"	13.3		97.0	20-170			
Surrogate: 4-Bromofluorobenzene	13.1		"	13.3		98.5	21-167			

Summit Scientific

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

Project: Schlagel 5-26 Wellhead
Project Number: [none]
Project Manager: Mark Longhurst

Reported:
11/16/21 22:33

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 BEK0367 - EPA 5030 Water MS

Matrix Spike Dup (BEK0367-MSD1)	Source: 2111276-06			Prepared & Analyzed: 11/16/21						
Benzene	37.7	1.0	ug/l	33.3	5.60	96.3	34-141	1.89	30	
Toluene	36.0	1.0	"	33.3	ND	108	27-151	0.417	30	
Ethylbenzene	31.8	1.0	"	33.3	ND	95.5	29-160	0.473	30	
m,p-Xylene	69.0	2.0	"	66.7	4.23	97.1	20-166	0.275	30	
o-Xylene	38.4	1.0	"	33.3	ND	115	33-159	5.23	30	
Naphthalene	35.5	1.0	"	33.3	1.12	103	70-130	13.9	30	
1,2,4-Trimethylbenzene	37.0	1.0	"	33.3	ND	111	70-130	5.42	30	
1,3,5-Trimethylbenzene	34.7	1.0	"	33.3	ND	104	70-130	2.21	30	
Surrogate: 1,2-Dichloroethane-d4	13.8		"	13.3		103	23-173			
Surrogate: Toluene-d8	13.0		"	13.3		97.6	20-170			
Surrogate: 4-Bromofluorobenzene	13.4		"	13.3		100	21-167			

Summit Scientific

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

Project: Schlagel 5-26 Wellhead

Project Number: [none]
Project Manager: Mark Longhurst

Reported:
11/16/21 22:33

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