TABLE 1
FORMER OCHSNER 19N WELLHEAD AND TANK BATTERY
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 @ 6'	4/7/2022	6 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50
FLR01 @ 4'	4/7/2022	4 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50
SEP01-FL @ 4'	4/7/2022	4 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50
PWV01-B @ 3.5'	4/11/2022	3.5 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50
PWV01-E @ 2'	4/11/2022	2 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50
AST01 @ 0-6"	4/11/2022	0-6 in. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50
SEP02-FL @ 4'	4/11/2022	4 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50
SEP02-DL @ 4'	4/11/2022	4 ft. bgs	<0.0020	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0038	<50

Notes:

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

COGCC = Colorado Oil and Gas Conservation Commission
(<) = Analytical result is less than the indicated laboratory reporting limit.
TVPH-GRO = Total volatile petroleum hydrocarbons - gasoline range organics
TEPH-DRO = Total extractable petroleum hydrocarbons - diesel range organics
TEPH-ORO = Total extractable petroleum hydrocarbons - oil range organics
mg/kg = Milligrams per kilogram
TMB = Trimethylbenzene
ft. = Feet
bgs = Below ground surface

TABLE 2
FORMER OCHSNER 19N WELLHEAD AND TANK BATTERY
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 @ 6'	4/7/2022	6 ft. bgs	7.73	1.220	2.160	0.117
FLR01 @ 4'	4/7/2022	4 ft. bgs	7.87	0.879	1.760	0.0922
PWV01-B @ 3.5'	4/11/2022	3.5 ft. bgs	7.47	1.02	0.920	0.0903
PWV01-N @ 2'	4/11/2022	2 ft. bgs	NA	0.810	4.03	NA
PWV01-W @ 2'	4/11/2022	2 ft. bgs	NA	2.10	3.10	NA
PWV01-S @ 2'	4/11/2022	2 ft. bgs	NA	**5.89**	**10.5**	NA
PWV01-E @ 2'	4/11/2022	2 ft. bgs	7.66	**5.02**	**7.41**	0.203
BKG01 @ 2'	4/11/2022	2 ft. bgs	NA	0.916	1.80	NA
BKG01 @ 3.5'	4/11/2022	3.5 ft. bgs	NA	0.628	1.40	NA

Notes:
1. Compounds referenced from the COGCC 2 CCR 404-1, Table 915-1, effective January 15, 2021.
COGCC = Colorado Oil and Gas Conservation Commission
EC = Electrical conductivity
SAR = Sodium adsorption ratio
mmhos/cm = Millimhos per centimeter
mg/L = Milligrams per liter
ft. = Feet
bgs = Below ground surface
BOLD = Analytical result is in exceedance of applicable standard.

TABLE 3
FORMER OCHSNER 19N WELLHEAD AND TANK BATTERY
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 @ 6'	4/7/2022	6 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 @ 4'	4/7/2022	4 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 groundwater is present.

COGCC = Colorado Oil and Gas Conservation Commission
(<) = Analytical result is less than the indicated laboratory reporting limit.
PAHs = Polycyclic aromatic hydrocarbons
Benz(a) = Benzanthracene
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 OCHSNER 19N WELLHEAD AND TANK BATTERY
FIELD DATA SUMMARY TABLE

Sample ID	Date Sampled	Depth	GPS Data [1] Latitude / Longitude		PDOP Value	VOC Concentration [2] (ppm)
WHS01-N @ 0-6"	4/7/2022	0-6 in. bgs	40.388149	-104.480059	1.1	0.0
WHS01-W @ 0-6"	4/7/2022	0-6 in. bgs	40.388124	-104.480155	1.1	0.0
WHS01-S @ 0-6"	4/7/2022	0-6 in. bgs	40.388065	-104.480097	0.9	0.0
WHS01-E @ 0-6"	4/7/2022	0-6 in. bgs	40.388094	-104.480012	1.1	0.0
BKG01 @ 2.5'	4/7/2022	2.5 ft. bgs	40.388198	-104.480113	1.7	0.0
BKG01 @ 4'	4/7/2022	4 ft. bgs	40.388198	-104.480113	1.7	0.0
BKG01 @ 6'	4/7/2022	6 ft. bgs	40.388198	-104.480113	1.7	0.0
WH01 @ 4'	4/7/2022	4 ft. bgs	40.388101	-104.480073	1.1	0.1
FLR01 @ 4'	4/7/2022	4 ft. bgs	40.388106	-104.480095	1.1	0.6
GW01	4/7/2022	6.5 ft. bgs	40.388102	-104.480072	1.1	NA
SEP01-FL @ 4'	4/7/2022	4 ft. bgs	40.388242	-104.479787	1.9	0.1
PWV01-B @ 3.5'	4/11/2022	3.5 ft. bgs	40.38836253	-104.4801124	1.2	0.1
PWV01-N @ 2'	4/11/2022	2 ft. bgs	40.38836123	-104.4800934	1.2	0.2
PWV01-W @ 2'	4/11/2022	2 ft. bgs	40.38837134	-104.4801371	1.1	0.2
PWV01-S @ 2'	4/11/2022	2 ft. bgs	40.38833638	-104.4801238	1.2	0.1
PWV01-E @ 2'	4/11/2022	2 ft. bgs	40.38834594	-104.4800823	1.1	0.3
WDL01 @ 3'	4/11/2022	3 ft. bgs	40.38837213	-104.480103	1.2	0.2
AST01 @ 0-6"	4/11/2022	0-6 in. bgs	40.38835442	-104.4801841	1.3	1.7
AST01 @ 1.5'	4/11/2022	1.5 ft. bgs	40.38838531	-104.480164	1.4	0.3
SEP02-FL @ 4'	4/11/2022	4 ft. bgs	40.3882758	-104.479813	1.0	0.5
SEP02-DL @ 4'	4/11/2022	4 ft. bgs	40.38831017	-104.4798194	1.0	0.4
MH01 @ 0-6"	4/11/2022	0-6 in. bgs	40.38829308	-104.4798514	1.0	0.7
ECD01 @ 0-6"	4/11/2022	0-6 in. bgs	40.38826823	-104.4797011	1.0	0.3
ECD02 @ 0-6"	4/11/2022	0-6 in. bgs	40.38822108	-104.4797232	1.0	0.5
BKG01 @ 2'	4/11/2022	2 ft. bgs	40.38854952	-104.4802216	1.0	0.1
BKG01 @ 3.5'	4/11/2022	3.5 ft. bgs	40.38854952	-104.4802216	1.0	0.1

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
NA = Not Applicable

TABLE 5
FORMER OCHSNER 19N WELLHEAD AND TANK BATTERY
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	4/7/2022	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	6.5	NA

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
NA = Not applicable

Attachment A

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

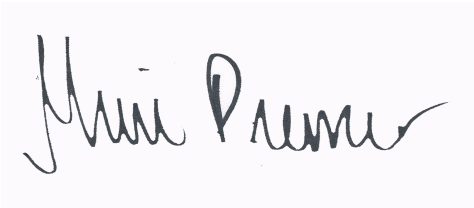
April 21, 2022

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

RE: Oschner 19N Wellhead
Work Order #2204103

Enclosed are the results of analyses for samples received by Summit Scientific on 04/07/22 14:20. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Muri Premer
Project Manager

S2

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Oschner 19N Wellhead Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 04/21/22 11:56

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
WH01@6'	2204103-01	Soil	04/07/22 10:00	04/07/22 14:20
FLR01@4'	2204103-02	Soil	04/07/22 10:05	04/07/22 14:20
SEP01-FL@4'	2204103-03	Soil	04/07/22 10:10	04/07/22 14:20

Summit Scientific

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

Summit Scientific

2204103

S2

4653 Table Mountain Drive ♦ Golden, Colorado 80403
303-277-9310

Page 1 of 1

Client: PDC | Tasman
Address: 6855 W 119th Ave.
City/State/Zip: Broomfield CO 80020
Phone: (303) 487-1228
Sampler Name: Kris Shepherd

Project Manager: Mark Loughurst
E-Mail: mark.loughurst@PDCE.com
Project Name: Osckner 19N wellhead
Project Number:

					Preservative				Matrix				Analysis Requested								Special Instructions
ID	Sample Description	Date Sampled	Time Sampled	# of containers	HCl	HNO3	None	Other ___	Water	Soil	Air-Canister #	Other ___	BTEX (8260B)	TPH (Ga-C36)	1,2,4&1,3,5 TMB	PAHs	Ph, EC, SAR	Boron			* PAH's = full table 915-1.
1	WH01@6'	4/7/22	1000	3			X			X			X	X	X	X	X	X			
2	FLD01@4'		1005	3									X	X	X	X	X	X			
3	SED01-A @4'		1010	3									X	X	X						
4	BKG01@2.5'		0936	1																	
5	BKG01@4'		0940	1																	
6	BKG01@6'		0946	1																	
7																					
8																					
9																					
10																					

Relinquished by: Date/Time: 4/7/22 1420
Received by: Date/Time: 4/7/22 1420
Relinquished by: Date/Time:
Received by: Date/Time:

Temperature Upon Receipt: 4.0
IR gun correction: 0
Corrected Temperature 4.0
IR gun #: 1
HNO3 lot #

Turn Around Time (Check)
Same Day ___ 72 hours ___
24 hours ___ Standard X
48 hours ___
Sample Integrity:
Samples Intact: (Yes) No

Notes:
pH, EC, & SAR by saturated paste

S2

2204103

S2 Work Order#

Sample Receipt Checklist

Client: Pacrasman Client Project ID: OSchuer 19N Wellhead

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

	-			

Matrix (Check all that apply) Air [ ] Soil/Solid [ ] Water [ ] Other [ ]

Temp (°C) 4.0 Thermometer # 1

	Yes	No	N/A	Comments (if any)
If samples require cooling, is the temperature < 6 °C [1]? **NOTE:** If samples are delivered the same day of sampling, this requirement is met if there is evidence that cooling has begun.	-			on ICE
Were all samples received intact [1]?	-			
Was adequate sample volume provided [1]?	-			
If custody seals are present, are they intact [1]?	-			
Are samples due within 48 hours present?	-	*		samday
Are water samples with short hold times present? Note the short hold analysis in the comments column - pH, Nitrate/Nitrite, Ferrous Iron (Fe^{2+}), Hexavalent Chromium (Cr^{6+}, Cr VI), COD/BOD, Total Coliform, E. Coli, Total Residual Chlorine (TRC), Dissolved Oxygen			-	
Is a chain-of-custody (COC) form present and filled out completely [1]?	-			
Does the COC agree with the number and type of sample bottles received [1]?	-			
Do the sample IDs on the bottle labels match the COC [1]?	-			
Is the COC properly relinquished by the client w/ date and time recorded [1]?	-			
For volatiles in water – is there headspace present? **If yes, contact client and note in narrative.**			-	
Are samples preserved that require preservation **(excluding cooling)** [1]? Note the type of preservative in the comments column – HCl, H_2SO_4, NaOH, HNO_3, etc.			-	
If samples are acid preserved for metals, is the pH ≤ 2[1]? Record the pH in Comments.			-	
If dissolved metals are requested, were samples field filtered?			-	
Additional Comments (if any):				

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

Custodian Printed Name

4.7.22
Date/Time

S2

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Oschner 19N Wellhead Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 04/21/22 11:56

WH01@6'

2204103-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/07/22 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFD0164	04/08/22	04/09/22	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: **04/07/22 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		*139 %*	*50-150*		"	"	"	"	
Surrogate: Toluene-d8		*104 %*	*50-150*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*105 %*	*50-150*		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/07/22 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BFD0166	04/08/22	04/12/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **04/07/22 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		*89.5 %*	*30-150*		"	"	"	"	

PAH by EPA Method 8270D SIM

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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.

S2

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Oschner 19N Wellhead Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 04/21/22 11:56

WH01@6'

2204103-01 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **04/07/22 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFD0174	04/08/22	04/13/22	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: **04/07/22 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		*86.7 %*	*40-150*		"	"	"	"	
Surrogate: Fluoranthene-d10		*87.4 %*	*40-150*		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/07/22 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	**0.117**	0.0100	mg/L	1	BFD0247	04/13/22	04/15/22	EPA 6020B	

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

Date Sampled: **04/07/22 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Summit Scientific

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

S2

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Oschner 19N Wellhead Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 04/21/22 11:56

WH01@6'

2204103-01 (Soil)

Summit Scientific

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	**54.7**	0.0585	mg/L dry	1	BFD0342	04/18/22	04/20/22	EPA 6020B	
Magnesium	**24.3**	0.0585	"	"	"	"	"	"	
Sodium	**76.5**	0.0585	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/07/22 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	**2.16**	0.00100	units	1	BFD0451	04/21/22	04/21/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/07/22 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**85.5**		%	1	BFD0242	04/12/22	04/12/22	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/07/22 10:00**

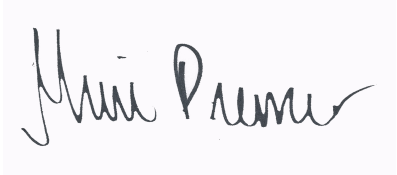
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	**1.22**	0.0100	mmhos/cm	1	BFD0372	04/19/22	04/19/22	EPA 120.1	

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

Date Sampled: **04/07/22 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	**7.73**		pH Units	1	BFD0373	04/19/22	04/19/22	EPA 9045D	

Summit Scientific



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S2

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Oschner 19N Wellhead Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 04/21/22 11:56

FLR01@4'

2204103-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/07/22 10:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFD0164	04/08/22	04/09/22	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: **04/07/22 10:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		*137 %*	*50-150*		"	"	"	"	
Surrogate: Toluene-d8		*105 %*	*50-150*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*104 %*	*50-150*		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/07/22 10:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BFD0166	04/08/22	04/12/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **04/07/22 10:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		*85.8 %*	*30-150*		"	"	"	"	

PAH by EPA Method 8270D SIM

S2

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Oschner 19N Wellhead Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 04/21/22 11:56

FLR01@4'

2204103-02 (Soil)

Summit Scientific

PAH by EPA Method 8270D SIM

Date Sampled: **04/07/22 10:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	BFD0174	04/08/22	04/13/22	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: **04/07/22 10:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		*106 %*	*40-150*		"	"	"	"	
Surrogate: Fluoranthene-d10		*102 %*	*40-150*		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/07/22 10:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	**0.0922**	0.0100	mg/L	1	BFD0247	04/13/22	04/15/22	EPA 6020B	

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

Date Sampled: **04/07/22 10:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

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S2

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Oschner 19N Wellhead Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 04/21/22 11:56

FLR01@4'

2204103-02 (Soil)

Summit Scientific

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

Calcium	**34.8**	0.0530	mg/L dry	1	BFD0342	04/18/22	04/20/22	EPA 6020B
Magnesium	**15.9**	0.0530	"	"	"	"	"	"
Sodium	**49.9**	0.0530	"	"	"	"	"	"

Calculated Analysis

Date Sampled: **04/07/22 10:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	**1.76**	0.00100	units	1	BFD0451	04/21/22	04/21/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/07/22 10:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**94.3**		%	1	BFD0242	04/12/22	04/12/22	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/07/22 10:05**

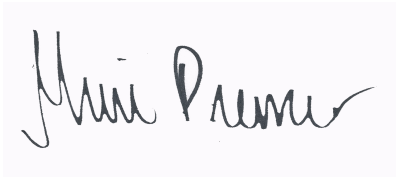
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	**0.879**	0.0100	mmhos/cm	1	BFD0372	04/19/22	04/19/22	EPA 120.1	

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

Date Sampled: **04/07/22 10:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	**7.87**		pH Units	1	BFD0373	04/19/22	04/19/22	EPA 9045D	

Summit Scientific



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S2

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Oschner 19N Wellhead Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 04/21/22 11:56

SEP01-FL@4'

2204103-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/07/22 10:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFD0164	04/08/22	04/09/22	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: **04/07/22 10:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		*137 %*	*50-150*		"	"	"	"	
Surrogate: Toluene-d8		*106 %*	*50-150*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*107 %*	*50-150*		"	"	"	"	

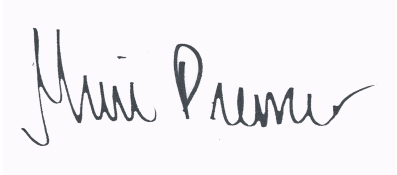
Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/07/22 10:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BFD0166	04/08/22	04/12/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **04/07/22 10:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		*90.5 %*	*30-150*		"	"	"	"	



S2

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Oschner 19N Wellhead Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 04/21/22 11:56

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BFD0164 - EPA 5030 Soil MS										
Blank (BFD0164-BLK1)				Prepared: 04/08/22 Analyzed: 04/09/22						
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	*0.0551*		*"*	*0.0400*		*138*	*50-150*			
Surrogate: Toluene-d8	*0.0416*		*"*	*0.0400*		*104*	*50-150*			
Surrogate: 4-Bromofluorobenzene	*0.0418*		*"*	*0.0400*		*104*	*50-150*			
LCS (BFD0164-BS1)				Prepared: 04/08/22 Analyzed: 04/09/22						
Benzene	0.0936	0.0020	mg/kg	0.100		93.6	70-130			
Toluene	0.0991	0.0050	"	0.100		99.1	70-130			
Ethylbenzene	0.0874	0.0050	"	0.100		87.4	70-130			
m,p-Xylene	0.182	0.010	"	0.200		90.8	70-130			
o-Xylene	0.0922	0.0050	"	0.100		92.2	70-130			
1,2,4-Trimethylbenzene	0.0958	0.0050	"	0.100		95.8	70-130			
1,3,5-Trimethylbenzene	0.0910	0.0050	"	0.100		91.0	70-130			
Naphthalene	0.0881	0.0038	"	0.100		88.1	70-130			
Surrogate: 1,2-Dichloroethane-d4	*0.0426*		*"*	*0.0400*		*106*	*50-150*			
Surrogate: Toluene-d8	*0.0415*		*"*	*0.0400*		*104*	*50-150*			
Surrogate: 4-Bromofluorobenzene	*0.0418*		*"*	*0.0400*		*105*	*50-150*			
Matrix Spike (BFD0164-MS1)		**Source: 2204086-01**		Prepared: 04/08/22 Analyzed: 04/09/22						
Benzene	0.0948	0.0020	mg/kg	0.100	ND	94.8	70-130			
Toluene	0.101	0.0050	"	0.100	ND	101	70-130			
Ethylbenzene	0.0875	0.0050	"	0.100	ND	87.5	70-130			
m,p-Xylene	0.182	0.010	"	0.200	ND	91.0	70-130			
o-Xylene	0.0924	0.0050	"	0.100	ND	92.4	70-130			
1,2,4-Trimethylbenzene	0.0980	0.0050	"	0.100	ND	98.0	70-130			
1,3,5-Trimethylbenzene	0.0935	0.0050	"	0.100	ND	93.5	70-130			
Naphthalene	0.109	0.0038	"	0.100	ND	109	70-130			
Surrogate: 1,2-Dichloroethane-d4	*0.0474*		*"*	*0.0400*		*118*	*50-150*			
Surrogate: Toluene-d8	*0.0415*		*"*	*0.0400*		*104*	*50-150*			
Surrogate: 4-Bromofluorobenzene	*0.0429*		*"*	*0.0400*		*107*	*50-150*			

Summit Scientific

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S2

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Oschner 19N Wellhead Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 04/21/22 11:56

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BFD0164 - EPA 5030 Soil MS										
Matrix Spike Dup (BFD0164-MSD1)	**Source: 2204086-01**			Prepared: 04/08/22 Analyzed: 04/09/22						
Benzene	0.105	0.0020	mg/kg	0.100	ND	105	70-130	9.90	30	
Toluene	0.109	0.0050	"	0.100	ND	109	70-130	7.28	30	
Ethylbenzene	0.0983	0.0050	"	0.100	ND	98.3	70-130	11.6	30	
m,p-Xylene	0.203	0.010	"	0.200	ND	102	70-130	11.2	30	
o-Xylene	0.101	0.0050	"	0.100	ND	101	70-130	8.55	30	
1,2,4-Trimethylbenzene	0.108	0.0050	"	0.100	ND	108	70-130	9.70	30	
1,3,5-Trimethylbenzene	0.103	0.0050	"	0.100	ND	103	70-130	9.39	30	
Naphthalene	0.117	0.0038	"	0.100	ND	117	70-130	7.65	30	
Surrogate: 1,2-Dichloroethane-d4	*0.0489*		"	*0.0400*		*122*	*50-150*			
Surrogate: Toluene-d8	*0.0410*		"	*0.0400*		*103*	*50-150*			
Surrogate: 4-Bromofluorobenzene	*0.0423*		"	*0.0400*		*106*	*50-150*			

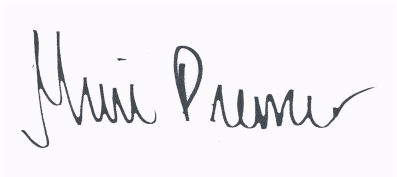
S2

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Oschner 19N Wellhead Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 04/21/22 11:56

Extractable Petroleum Hydrocarbons by 8015 - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BFD0166 - EPA 3550A										
Blank (BFD0166-BLK1)				Prepared: 04/08/22 Analyzed: 04/11/22						
C10-C28 (DRO)	ND	50	mg/kg							
C28-C36 (ORO)	ND	50	"							
LCS (BFD0166-BS1)				Prepared: 04/08/22 Analyzed: 04/11/22						
C10-C28 (DRO)	492	50	mg/kg	500		98.3	70-130			
Matrix Spike (BFD0166-MS1)	**Source: 2204086-01**			Prepared: 04/08/22 Analyzed: 04/11/22						
C10-C28 (DRO)	479	50	mg/kg	500	27.0	90.3	70-130			
Matrix Spike Dup (BFD0166-MSD1)	**Source: 2204086-01**			Prepared: 04/08/22 Analyzed: 04/11/22						
C10-C28 (DRO)	432	50	mg/kg	500	27.0	80.9	70-130	10.3	20	



S2

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Oschner 19N Wellhead Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 04/21/22 11:56

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BFD0174 - EPA 5030 Soil MS										
Blank (BFD0174-BLK1)				Prepared: 04/08/22 Analyzed: 04/12/22						
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	*0.0260*		*"*	*0.0333*		*78.0*	*40-150*			
Surrogate: Fluoranthene-d10	*0.0275*		*"*	*0.0333*		*82.6*	*40-150*			
LCS (BFD0174-BS1)				Prepared: 04/08/22 Analyzed: 04/12/22						
Acenaphthene	0.0350	0.00500	mg/kg	0.0333		105	31-137			
Anthracene	0.0344	0.00500	"	0.0333		103	30-120			
Benzo (a) anthracene	0.0359	0.00500	"	0.0333		108	30-120			
Benzo (a) pyrene	0.0319	0.00500	"	0.0333		95.6	30-120			
Benzo (b) fluoranthene	0.0340	0.00500	"	0.0333		102	30-120			
Benzo (k) fluoranthene	0.0333	0.00500	"	0.0333		100	30-120			
Chrysene	0.0349	0.00500	"	0.0333		105	30-120			
Dibenz (a,h) anthracene	0.0225	0.00500	"	0.0333		67.5	30-120			
Fluoranthene	0.0347	0.00500	"	0.0333		104	30-120			
Fluorene	0.0355	0.00500	"	0.0333		107	30-120			
Indeno (1,2,3-cd) pyrene	0.0162	0.00500	"	0.0333		48.6	30-120			
Pyrene	0.0349	0.00500	"	0.0333		105	35-142			
1-Methylnaphthalene	0.0340	0.00500	"	0.0333		102	35-142			
2-Methylnaphthalene	0.0465	0.00500	"	0.0333		139	35-142			
Surrogate: 2-Methylnaphthalene-d10	*0.0384*		*"*	*0.0333*		*115*	*40-150*			
Surrogate: Fluoranthene-d10	*0.0365*		*"*	*0.0333*		*110*	*40-150*			

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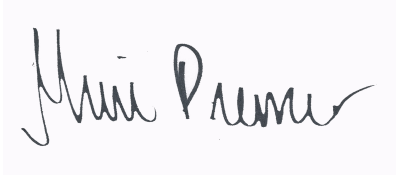
S2

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Oschner 19N Wellhead Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 04/21/22 11:56

PAH by EPA Method 8270D SIM - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BFD0174 - EPA 5030 Soil MS										
Matrix Spike (BFD0174-MS1)	**Source: 2204099-01**			Prepared: 04/08/22 Analyzed: 04/12/22						
Acenaphthene	0.0193	0.00500	mg/kg	0.0333	ND	57.9	31-137			
Anthracene	0.0217	0.00500	"	0.0333	ND	65.1	30-120			
Benzo (a) anthracene	0.0223	0.00500	"	0.0333	ND	66.8	30-120			
Benzo (a) pyrene	0.0193	0.00500	"	0.0333	ND	57.8	30-120			
Benzo (b) fluoranthene	0.0210	0.00500	"	0.0333	ND	63.1	30-120			
Benzo (k) fluoranthene	0.0200	0.00500	"	0.0333	ND	59.9	30-120			
Chrysene	0.0214	0.00500	"	0.0333	ND	64.1	30-120			
Dibenz (a,h) anthracene	0.0198	0.00500	"	0.0333	ND	59.4	30-120			
Fluoranthene	0.0245	0.00500	"	0.0333	0.00511	58.1	30-120			
Fluorene	0.0209	0.00500	"	0.0333	ND	62.7	30-120			
Indeno (1,2,3-cd) pyrene	0.0230	0.00500	"	0.0333	ND	69.0	30-120			
Pyrene	0.0235	0.00500	"	0.0333	0.00227	63.6	35-142			
1-Methylnaphthalene	0.0187	0.00500	"	0.0333	ND	56.2	15-130			
2-Methylnaphthalene	0.0261	0.00500	"	0.0333	ND	78.4	15-130			
Surrogate: 2-Methylnaphthalene-d10	*0.0194*		*"*	*0.0333*		*58.2*	*40-150*			
Surrogate: Fluoranthene-d10	*0.0244*		*"*	*0.0333*		*73.1*	*40-150*			
Matrix Spike Dup (BFD0174-MSD1)	**Source: 2204099-01**			Prepared: 04/08/22 Analyzed: 04/12/22						
Acenaphthene	0.0226	0.00500	mg/kg	0.0333	ND	67.7	31-137	15.7	30	
Anthracene	0.0175	0.00500	"	0.0333	ND	52.5	30-120	21.4	30	
Benzo (a) anthracene	0.0239	0.00500	"	0.0333	ND	71.8	30-120	7.22	30	
Benzo (a) pyrene	0.0259	0.00500	"	0.0333	ND	77.6	30-120	29.3	30	
Benzo (b) fluoranthene	0.0212	0.00500	"	0.0333	ND	63.5	30-120	0.728	30	
Benzo (k) fluoranthene	0.0259	0.00500	"	0.0333	ND	77.7	30-120	25.8	30	
Chrysene	0.0223	0.00500	"	0.0333	ND	66.9	30-120	4.22	30	
Dibenz (a,h) anthracene	0.0221	0.00500	"	0.0333	ND	66.4	30-120	11.1	30	
Fluoranthene	0.0251	0.00500	"	0.0333	0.00511	59.9	30-120	2.38	30	
Fluorene	0.0216	0.00500	"	0.0333	ND	64.8	30-120	3.35	30	
Indeno (1,2,3-cd) pyrene	0.0184	0.00500	"	0.0333	ND	55.3	30-120	22.0	30	
Pyrene	0.0244	0.00500	"	0.0333	0.00227	66.3	35-142	3.68	30	
1-Methylnaphthalene	0.0243	0.00500	"	0.0333	ND	73.0	15-130	26.1	50	
2-Methylnaphthalene	0.0299	0.00500	"	0.0333	ND	89.7	15-130	13.5	50	
Surrogate: 2-Methylnaphthalene-d10	*0.0382*		*"*	*0.0333*		*114*	*40-150*			
Surrogate: Fluoranthene-d10	*0.0412*		*"*	*0.0333*		*124*	*40-150*			



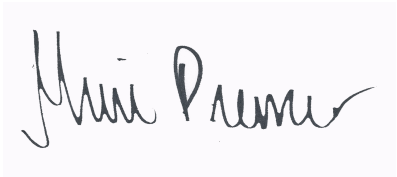
S2

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Oschner 19N Wellhead Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 04/21/22 11:56

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

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BFD0247 - EPA 3050B										
Blank (BFD0247-BLK1)				Prepared: 04/13/22 Analyzed: 04/15/22						
Boron	ND	0.0100	mg/L							
LCS (BFD0247-BS1)				Prepared: 04/13/22 Analyzed: 04/15/22						
Boron	4.84	0.0100	mg/L	5.00		96.7	80-120			
Duplicate (BFD0247-DUP1)		**Source: 2204099-01**		Prepared: 04/13/22 Analyzed: 04/15/22						
Boron	0.148	0.0100	mg/L		0.166			11.8	20	
Matrix Spike (BFD0247-MS1)		**Source: 2204099-01**		Prepared: 04/13/22 Analyzed: 04/15/22						
Boron	5.02	0.0100	mg/L	5.00	0.166	97.0	75-125			
Matrix Spike Dup (BFD0247-MSD1)		**Source: 2204099-01**		Prepared: 04/13/22 Analyzed: 04/15/22						
Boron	5.18	0.0100	mg/L	5.00	0.166	100	75-125	3.28	25	



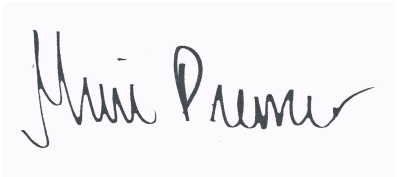
S2

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Oschner 19N Wellhead Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 04/21/22 11:56

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

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BFD0342 - General Preparation										
Blank (BFD0342-BLK1)				Prepared: 04/18/22 Analyzed: 04/20/22						
Calcium	ND	0.0500	mg/L wet							
Magnesium	ND	0.0500	"							
Sodium	ND	0.0500	"							
LCS (BFD0342-BS1)				Prepared: 04/18/22 Analyzed: 04/20/22						
Calcium	5.08	0.0500	mg/L wet	5.00		102	70-130			
Magnesium	5.15	0.0500	"	5.00		103	70-130			
Sodium	5.28	0.0500	"	5.00		106	70-130			



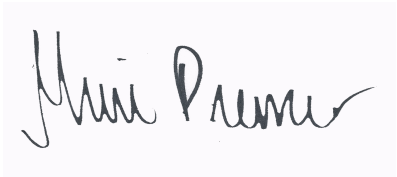
S2

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Oschner 19N Wellhead Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 04/21/22 11:56

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

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BFD0242 - General Preparation										
Duplicate (BFD0242-DUP1)	**Source: 2204102-03**			Prepared & Analyzed: 04/12/22						
% Solids	80.0		%		78.6			1.76	20	



S2

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Oschner 19N Wellhead Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 04/21/22 11:56

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

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BFD0372 - General Preparation										
Blank (BFD0372-BLK1)				Prepared & Analyzed: 04/19/22						
Specific Conductance (EC)	ND	0.0100	mmhos/cm							
LCS (BFD0372-BS1)				Prepared & Analyzed: 04/19/22						
Specific Conductance (EC)	0.154	0.0100	mmhos/cm	0.150		103	95-105			
Duplicate (BFD0372-DUP1)		**Source: 2204103-01**		Prepared & Analyzed: 04/19/22						
Specific Conductance (EC)	1.20	0.0100	mmhos/cm		1.22			1.73	20	

Summit Scientific

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

S2

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Oschner 19N Wellhead Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 04/21/22 11:56

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

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BFD0373 - General Preparation										
LCS (BFD0373-BS1)				Prepared & Analyzed: 04/19/22						
pH	9.12		pH Units	9.18		99.3	95-105			
Duplicate (BFD0373-DUP1)		**Source: 2204103-01**		Prepared & Analyzed: 04/19/22						
pH	7.83		pH Units		7.73			1.29	20	

Summit Scientific

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

S2

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Oschner 19N Wellhead Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 04/21/22 11:56

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

April 11, 2022

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

RE: Oschner 19N Wellhead
Work Order #2204113

Enclosed are the results of analyses for samples received by Summit Scientific on 04/07/22 14:20. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Paul Shrewsbury For Muri Premer
Project Manager

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Oschner 19N Wellhead Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 04/11/22 13:48

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GW01	2204113-01	Water	04/07/22 09:50	04/07/22 14:20

Summit Scientific

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

2204113

Summit Scientific

S2

4653 Table Mountain Drive ♦ Golden, Colorado 80403
303-277-9310

Client: PDC/Tasman
Address: 6855 W 119th Ave.
City/State/Zip: Broomfield CO 80020
Phone: (303) 487-1228
Sampler Name: Kris Sleeper

Project Manager: Mark Longhurst
E-Mail: Mark.Longhurst@PDCE.com
Project Name: Oschner 19N Wellhead
Project Number:

					Preservative				Matrix				Analysis Requested								Special Instructions
ID	Sample Description	Date Sampled	Time Sampled	# of containers	HCl	HNO3	None	Other ___	Water	Soil	Air-Canister #	Other ___	X BTEX	1,2,4 & 1,3,5 TMB							
1	GW01	4/7/22	0950	3			X		X				X	X							
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					

Relinquished by: Date/Time: 4/7/22 1420
Received by: Date/Time: 4/7/22 1430
Relinquished by: Date/Time:
Received by: Date/Time:

Temperature Upon Receipt: 4.0
IR gun correction: 0
Corrected Temperature 4.0
IR gun #: 1
HNO3 lot #

Turn Around Time (Check)
Same Day X
24 hours ___
48 hours ___
72 hours ___
Standard ___

Sample Integrity:
Samples Intact: (Yes) No

Notes:

S2

Sample Receipt Checklist

S2 Work Order# 2204113

Client: PDC/Tasman Client Project ID: Oschner 19N Wellhead

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

		✓						

Matrix (Check all that apply) Air [ ] Soil/Solid [ ] Water [✓] Other [ ]

Temp (°C) [4.0] Thermometer # [ ]

	Yes	No	N/A	Comments (if any)
If samples require cooling, is the temperature < 6 °C [1]? **NOTE:** If samples are delivered the same day of sampling, this requirement is met if there is evidence that cooling has begun.	✓			
Were all samples received intact [1]?	✓			
Was adequate sample volume provided [1]?	✓			
If custody seals are present, are they intact [1]?			✓	
Are samples due within 48 hours present?			✓	
Are water samples with short hold times present? Note the short hold analysis in the comments column - pH, Nitrate/Nitrite, Ferrous Iron (Fe^{2+}), Hexavalent Chromium (Cr^{6+}, Cr VI), COD/BOD, Total Coliform, E. Coli, Total Residual Chlorine (TRC), Dissolved Oxygen			✓	
Is a chain-of-custody (COC) form present and filled out completely [1]?	✓			
Does the COC agree with the number and type of sample bottles received [1]?	✓			
Do the sample IDs on the bottle labels match the COC [1]?	✓			
Is the COC properly relinquished by the client w/ date and time recorded [1]?	✓			
For volatiles in water – is there headspace present? **If yes, contact client and note in narrative.**		✓		
Are samples preserved that require preservation **(excluding cooling)** [1]? Note the type of preservative in the comments column – HCl, H_2SO_4, NaOH, HNO_3, etc.	✓			HNO_3
If samples are acid preserved for metals, is the pH ≤ 2[1]? Record the pH in Comments.			✓	
If dissolved metals are requested, were samples field filtered?			✓	
Additional Comments (if any):				

[1] **If NO, then contact the client before proceeding with analysis and note in case narrative.**

CH
Custodian Printed Name

4/7/22
Date/Time

S2

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Oschner 19N Wellhead Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 04/11/22 13:48

GW01

2204113-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/07/22 09:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	BFD0067	04/07/22	04/07/22	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: **04/07/22 09:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		*110 %*	*23-173*		"	"	"	"	
Surrogate: Toluene-d8		*92.1 %*	*20-170*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*99.5 %*	*21-167*		"	"	"	"	

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Oschner 19N Wellhead Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 04/11/22 13:48

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BFD0067 - EPA 5030 Water MS										
Blank (BFD0067-BLK1)				Prepared & Analyzed: 04/07/22						
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	*14.5*		*"*	*13.3*		*109*	*23-173*			
Surrogate: Toluene-d8	*12.5*		*"*	*13.3*		*93.6*	*20-170*			
Surrogate: 4-Bromofluorobenzene	*13.0*		*"*	*13.3*		*97.5*	*21-167*			
LCS (BFD0067-BS1)				Prepared & Analyzed: 04/07/22						
Benzene	34.9	1.0	ug/l	41.7		83.7	51-132			
Toluene	39.0	1.0	"	41.7		93.5	51-138			
Ethylbenzene	41.4	1.0	"	41.7		99.3	58-146			
m,p-Xylene	83.4	2.0	"	83.3		100	57-144			
o-Xylene	41.2	1.0	"	41.7		98.8	53-146			
Naphthalene	38.0	1.0	"	41.7		91.1	70-130			
1,2,4-Trimethylbenzene	48.4	1.0	"	41.7		116	70-130			
1,3,5-Trimethylbenzene	47.5	1.0	"	41.7		114	70-130			
Surrogate: 1,2-Dichloroethane-d4	*15.1*		*"*	*13.3*		*113*	*23-173*			
Surrogate: Toluene-d8	*13.0*		*"*	*13.3*		*97.3*	*20-170*			
Surrogate: 4-Bromofluorobenzene	*13.4*		*"*	*13.3*		*101*	*21-167*			
Matrix Spike (BFD0067-MS1)	**Source: 2204012-01**			Prepared & Analyzed: 04/07/22						
Benzene	35.2	1.0	ug/l	41.7	ND	84.4	34-141			
Toluene	39.1	1.0	"	41.7	ND	93.8	27-151			
Ethylbenzene	41.8	1.0	"	41.7	ND	100	29-160			
m,p-Xylene	83.4	2.0	"	83.3	ND	100	20-166			
o-Xylene	41.8	1.0	"	41.7	ND	100	33-159			
Naphthalene	41.0	1.0	"	41.7	ND	98.4	70-130			
1,2,4-Trimethylbenzene	49.1	1.0	"	41.7	ND	118	70-130			
1,3,5-Trimethylbenzene	47.7	1.0	"	41.7	ND	114	70-130			
Surrogate: 1,2-Dichloroethane-d4	*15.1*		*"*	*13.3*		*113*	*23-173*			
Surrogate: Toluene-d8	*13.1*		*"*	*13.3*		*98.6*	*20-170*			
Surrogate: 4-Bromofluorobenzene	*13.5*		*"*	*13.3*		*102*	*21-167*			

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.

S2

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Oschner 19N Wellhead Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 04/11/22 13:48

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BFD0067 - EPA 5030 Water MS										
Matrix Spike Dup (BFD0067-MSD1)	**Source: 2204012-01**			Prepared & Analyzed: 04/07/22						
Benzene	35.0	1.0	ug/l	41.7	ND	83.9	34-141	0.570	30	
Toluene	38.9	1.0	"	41.7	ND	93.5	27-151	0.384	30	
Ethylbenzene	41.6	1.0	"	41.7	ND	99.8	29-160	0.456	30	
m,p-Xylene	83.8	2.0	"	83.3	ND	101	20-166	0.491	30	
o-Xylene	41.8	1.0	"	41.7	ND	100	33-159	0.0957	30	
Naphthalene	44.2	1.0	"	41.7	ND	106	70-130	7.42	30	
1,2,4-Trimethylbenzene	48.7	1.0	"	41.7	ND	117	70-130	0.941	30	
1,3,5-Trimethylbenzene	47.8	1.0	"	41.7	ND	115	70-130	0.210	30	
Surrogate: 1,2-Dichloroethane-d4	*15.4*		*"*	*13.3*		*116*	*23-173*			
Surrogate: Toluene-d8	*12.9*		*"*	*13.3*		*97.1*	*20-170*			
Surrogate: 4-Bromofluorobenzene	*13.5*		*"*	*13.3*		*101*	*21-167*			

S2

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Oschner 19N Wellhead Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 04/11/22 13:48

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

May 09, 2022

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

RE: Ochsner 19N Tank Battery
Work Order #2204161

Enclosed are the results of analyses for samples received by Summit Scientific on 04/11/22 17:13. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Paul Shrewsbury For Muri Premer
Project Manager

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Ochsner 19N Tank Battery Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 05/09/22 10:05

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
PWV01-B@3.5'	2204161-01	Soil	04/11/22 09:45	04/11/22 17:13
PWV01-N@2'	2204161-02	Soil	04/11/22 09:50	04/11/22 17:13
PWV01-W@2'	2204161-03	Soil	04/11/22 09:55	04/11/22 17:13
PWV01-S@2'	2204161-04	Soil	04/11/22 10:00	04/11/22 17:13
PWV01-E@2'	2204161-05	Soil	04/11/22 10:05	04/11/22 17:13
AST01@0-6"'	2204161-06	Soil	04/11/22 10:15	04/11/22 17:13
SEP02-FL@4'	2204161-08	Soil	04/11/22 11:00	04/11/22 17:13
SEP02-DL@4'	2204161-09	Soil	04/11/22 11:05	04/11/22 17:13
BKG01@2'	2204161-10	Soil	04/11/22 11:35	04/11/22 17:13
BKG01@3.5'	2204161-11	Soil	04/11/22 11:40	04/11/22 17:13

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

2204161.1

S_2

4653 Table Mountain Drive ♦ Golden, Colorado 80403
303-277-9310

Client: PDC/Tasman
Address: 6855 W 119th Ave.
City/State/Zip: Broomfield CO 80020
Phone: (303) 487-1228
Sampler Name: Kris Shepherd

Project Manager: Mark Loughurst
E-Mail: mark.loughurst@PDCE.com
Project Name: Ochsner 19N Tank Battery
Project Number:

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative: HCl	HNO3	None	Other	Matrix: Water	Soil	Air-Canister #	Other	Analysis Requested: BTEX (8260B)	TPH (Cuttings)	1,2,4 & 1,3,5 TMB	pH, EC, SAR	Boron	Hold			Special Instructions
1	PWV01-B@3.5'	4/11/22	0945	3			X			X			X	X	X	X	X				
2	PWV01-N@2'		0950	3														X			
3	PWV01-W@2'		0955	3														X			
4	PWV01-S@2'		1000	3														X			
5	PWV01-E@2'		1005	3									X	X	X	X	X				
6	AST01 @ 0-6"		1015	2									X	X	X						
7	AST01 @ 1.5"		1025	2														X			
8	SEP02-FL@4'		1100	2									X	X	X						
9	SEP02-DL@4'		1105	2									X	X	X						
10	BKG01@2'		1135	1														X			

Relinquished by: Date/Time: 4/11/22 1350
Received by: Date/Time: 4/11/22 13:50

Relinquished by: Date/Time: 4/11/22 16:15
Received by: Tasman Lock Box Date/Time: 4/11/22 16:15

Temperature Upon Receipt: 8.9
IR gun correction: 0
Corrected Temperature 8.9
IR gun #: 1
HNO3 lot #

4/11/22 1713

Turn Around Time (Check)
Same Day ___ 72 hours ___
24 hours ___ Standard X
48 hours ___

Sample Integrity:
Samples Intact: (Yes) No

Notes:
pH, EC, & SAR by Saturated paste

Summit Scientific

2204161.2

S2

4653 Table Mountain Drive ♦ Golden, Colorado 80403
303-277-9310

Client: PDC/Tasman
Address: 4855 W 119th Ave
City/State/Zip: Broomfield CO 80020
Phone: (303) 487-1228
Sampler Name: Kris Shepherd

Project Manager: Mark Longhurst
E-Mail: mark.longhurst@PDCE.com
Project Name: Ochsner 9N Tank Battery
Project Number:

					Preservative				Matrix				Analysis Requested								Special Instructions
ID	Sample Description	Date Sampled	Time Sampled	# of containers	HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	Hold								
1	BKG01 @3.5'	4/11/22	1140				X			X			X								
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					

Relinquished by: Date/Time: 4/11/22 1350
Received by: Date/Time: 4/11/22 1350

Relinquished by: Date/Time: 4/11/22 16:15
Received by: Tasman Lock Box Date/Time: 4/11/22 16:15

Temperature Upon Receipt: 8.9
IR gun correction: 0
Corrected Temperature 8.9
IR gun #: 1
HNO3 lot #

4/11/22 1713

Turn Around Time (Check)
Same Day ___ 72 hours ___
24 hours ___ Standard X
48 hours ___

Sample Integrity:
Samples Intact: (Yes) No

Notes:
PHEC & SAR by saturated paste.

S2

2/2

2204161

S2 Work Order#_____

Sample Receipt Checklist

Client: PDC/Tasman Client Project ID: Ochsher 19N Tank Battery

Shipped Via: H.D./P.U./FedEx/UPS/USPS/Other_____ Airbill #:_____

	–			

Matrix (Check all that apply) Air [ ] Soil/Solid [–] Water [ ] Other [ ]

Temp (°C) [8.9] Thermometer # [1]

	Yes	No	N/A	Comments (if any)
If samples require cooling, is the temperature < 6 °C [1]? **NOTE:** If samples are delivered the same day of sampling, this requirement is met if there is evidence that cooling has begun.	–			ON ICE
Were all samples received intact [1]?	–			
Was adequate sample volume provided [1]?	–			
If custody seals are present, are they intact [1]?	–			
Are samples due within 48 hours present?		–		
Are water samples with short hold times present? Note the short hold analysis in the comments column - pH, Nitrate/Nitrite, Ferrous Iron (Fe^{2+}), Hexavalent Chromium (Cr^{6+}, Cr VI), COD/BOD, Total Coliform, E. Coli, Total Residual Chlorine (TRC), Dissolved Oxygen			–	
Is a chain-of-custody (COC) form present and filled out completely [1]?	–			
Does the COC agree with the number and type of sample bottles received [1]?	–			
Do the sample IDs on the bottle labels match the COC [1]?	–			
Is the COC properly relinquished by the client w/ date and time recorded [1]?	–			
For volatiles in water – is there headspace present? **If yes, contact client and note in narrative.**			–	
Are samples preserved that require preservation **(excluding cooling)** [1]? Note the type of preservative in the comments column – HCl, H_2SO_4, NaOH, HNO_3, etc.			–	
If samples are acid preserved for metals, is the pH ≤ 2[1]? Record the pH in Comments.			–	
If dissolved metals are requested, were samples field filtered?			–	
Additional Comments (if any):				

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

Custodian Printed Name

4.1.22

Date/Time

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Ochsner 19N Tank Battery Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 05/09/22 10:05

PWV01-B@3.5'

2204161-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/11/22 09:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFD0220	04/12/22	04/13/22	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: **04/11/22 09:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0379	*94.6 %*	*50-150*		"	"	"	"	
Surrogate: Toluene-d8	0.0424	*106 %*	*50-150*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0441	*110 %*	*50-150*		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

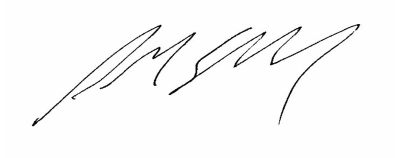
Date Sampled: **04/11/22 09:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BFD0221	04/12/22	04/13/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **04/11/22 09:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	13.0	*104 %*	*30-150*		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction



PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Ochsner 19N Tank Battery Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 05/09/22 10:05

PWV01-B@3.5'

2204161-01 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/11/22 09:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	**0.0903**	0.0100	mg/L	1	BFD0308	04/15/22	04/16/22	EPA 6020B	

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

Date Sampled: **04/11/22 09:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	**42.6**	0.0513	mg/L dry	1	BFD0374	04/19/22	04/22/22	EPA 6020B	
Magnesium	**23.4**	0.0513	"	"	"	"	"	"	
Sodium	**30.0**	0.0513	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/11/22 09:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	**0.920**	0.00100	units	1	BFD0509	04/23/22	04/23/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/11/22 09:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**97.5**		%	1	BFD0263	04/13/22	04/13/22	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/11/22 09:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	**1.02**	0.0100	mmhos/cm	1	BFD0419	04/20/22	04/20/22	EPA 120.1	

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

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: Ochsner 19N Tank Battery Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 05/09/22 10:05

PWV01-B@3.5'

2204161-01 (Soil)

Summit Scientific

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

Date Sampled: **04/11/22 09:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	**7.47**		pH Units	1	BFD0420	04/20/22	04/20/22	EPA 9045D	

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Ochsner 19N Tank Battery Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 05/09/22 10:05

PWV01-N@2'

2204161-02 (Soil)

Summit Scientific

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

Date Sampled: **04/11/22 09:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	**23.9**	0.0529	mg/L dry	1	BFE0028	05/02/22	05/08/22	EPA 6020B	
Magnesium	**8.18**	0.0529	"	"	"	"	"	"	
Sodium	**89.5**	0.0529	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/11/22 09:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	**4.03**	0.00100	units	1	BFE0165	05/09/22	05/09/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/11/22 09:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**94.5**		%	1	BFD0652	04/29/22	04/29/22	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/11/22 09:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	**0.810**	0.0100	mmhos/cm	1	BFE0101	05/05/22	05/05/22	EPA 120.1	

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Ochsner 19N Tank Battery Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 05/09/22 10:05

PWV01-W@2'

2204161-03 (Soil)

Summit Scientific

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

Date Sampled: **04/11/22 09:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	**132**	0.0587	mg/L dry	1	BFE0028	05/02/22	05/08/22	EPA 6020B	
Magnesium	**49.9**	0.0587	"	"	"	"	"	"	
Sodium	**165**	0.0587	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/11/22 09:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	**3.10**	0.00100	units	1	BFE0165	05/09/22	05/09/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/11/22 09:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**85.1**		%	1	BFD0652	04/29/22	04/29/22	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/11/22 09:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	**2.10**	0.0100	mmhos/cm	1	BFE0101	05/05/22	05/05/22	EPA 120.1	

S2

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Ochsner 19N Tank Battery Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 05/09/22 10:05

PWV01-S@2'

2204161-04 (Soil)

Summit Scientific

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

Date Sampled: **04/11/22 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	**229**	0.0526	mg/L dry	1	BFE0028	05/02/22	05/08/22	EPA 6020B	
Magnesium	**88.3**	0.0526	"	"	"	"	"	"	
Sodium	**736**	0.0526	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/11/22 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	**10.5**	0.00100	units	1	BFE0165	05/09/22	05/09/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

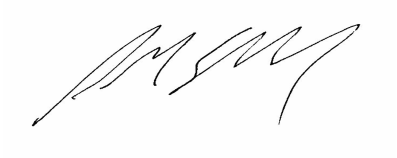
Date Sampled: **04/11/22 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**95.1**		%	1	BFD0652	04/29/22	04/29/22	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/11/22 10:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	**5.89**	0.0100	mmhos/cm	1	BFE0101	05/05/22	05/05/22	EPA 120.1	



PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Ochsner 19N Tank Battery Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 05/09/22 10:05

PWV01-E@2'

2204161-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/11/22 10:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFD0220	04/12/22	04/13/22	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: **04/11/22 10:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0434	*108 %*	*50-150*		"	"	"	"	
Surrogate: Toluene-d8	0.0425	*106 %*	*50-150*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0448	*112 %*	*50-150*		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/11/22 10:05**

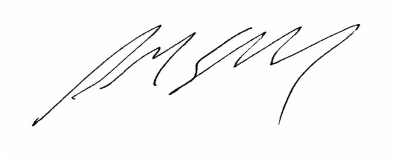
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BFD0221	04/12/22	04/13/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **04/11/22 10:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	13.0	*104 %*	*30-150*		"	"	"	"	

Total Metals by EPA 6020B Hot Water Soluble Extraction

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: Ochsner 19N Tank Battery Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 05/09/22 10:05

PWV01-E@2'

2204161-05 (Soil)

Summit Scientific

Total Metals by EPA 6020B Hot Water Soluble Extraction

Date Sampled: **04/11/22 10:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Boron	**0.203**	0.0100	mg/L	1	BFD0308	04/15/22	04/16/22	EPA 6020B	

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

Date Sampled: **04/11/22 10:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	**159**	0.0543	mg/L dry	1	BFD0374	04/19/22	04/22/22	EPA 6020B	
Magnesium	**74.8**	0.0543	"	"	"	"	"	"	
Sodium	**452**	0.0543	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/11/22 10:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	**7.41**	0.00100	units	1	BFD0509	04/23/22	04/23/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/11/22 10:05**

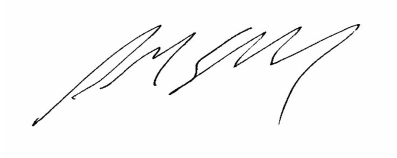
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**92.0**		%	1	BFD0263	04/13/22	04/13/22	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/11/22 10:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	**5.02**	0.0100	mmhos/cm	1	BFD0419	04/20/22	04/20/22	EPA 120.1	

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



S2

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Ochsner 19N Tank Battery Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 05/09/22 10:05

PWV01-E@2'

2204161-05 (Soil)

Summit Scientific

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

Date Sampled: **04/11/22 10:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	**7.66**		pH Units	1	BFD0420	04/20/22	04/20/22	EPA 9045D	

S2

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Ochsner 19N Tank Battery Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 05/09/22 10:05

AST01@0-6'''

2204161-06 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/11/22 10:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFD0220	04/12/22	04/13/22	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: **04/11/22 10:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0352	*88.0 %*	*50-150*		"	"	"	"	
Surrogate: Toluene-d8	0.0428	*107 %*	*50-150*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0449	*112 %*	*50-150*		"	"	"	"	

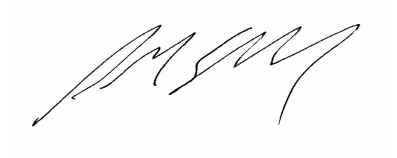
Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/11/22 10:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BFD0221	04/12/22	04/13/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **04/11/22 10:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	12.9	*103 %*	*30-150*		"	"	"	"	



PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Ochsner 19N Tank Battery Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 05/09/22 10:05

SEP02-FL@4'

2204161-08 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/11/22 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFD0220	04/12/22	04/13/22	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: **04/11/22 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0363	*90.8 %*	*50-150*		"	"	"	"	
Surrogate: Toluene-d8	0.0425	*106 %*	*50-150*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0445	*111 %*	*50-150*		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/11/22 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BFD0221	04/12/22	04/13/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **04/11/22 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	13.0	*104 %*	*30-150*		"	"	"	"	

S2

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Ochsner 19N Tank Battery Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 05/09/22 10:05

SEP02-DL@4'

2204161-09 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/11/22 11:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BFD0220	04/12/22	04/13/22	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: **04/11/22 11:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0357	*89.3 %*	*50-150*		"	"	"	"	
Surrogate: Toluene-d8	0.0424	*106 %*	*50-150*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0437	*109 %*	*50-150*		"	"	"	"	

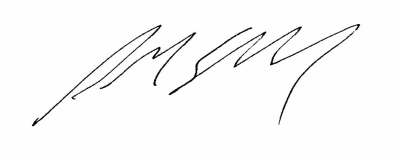
Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/11/22 11:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BFD0221	04/12/22	04/13/22	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **04/11/22 11:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	12.5	*100 %*	*30-150*		"	"	"	"	



S2

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Ochsner 19N Tank Battery Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 05/09/22 10:05

BKG01@2'

2204161-10 (Soil)

Summit Scientific

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

Date Sampled: **04/11/22 11:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	**52.2**	0.0524	mg/L dry	1	BFE0028	05/02/22	05/08/22	EPA 6020B	
Magnesium	**25.3**	0.0524	"	"	"	"	"	"	
Sodium	**63.5**	0.0524	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/11/22 11:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	**1.80**	0.00100	units	1	BFE0165	05/09/22	05/09/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/11/22 11:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**95.4**		%	1	BFD0652	04/29/22	04/29/22	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/11/22 11:35**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	**0.916**	0.0100	mmhos/cm	1	BFE0101	05/05/22	05/05/22	EPA 120.1	

S2

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Ochsner 19N Tank Battery Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 05/09/22 10:05

BKG01@3.5'

2204161-11 (Soil)

Summit Scientific

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

Date Sampled: **04/11/22 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	**31.2**	0.0508	mg/L dry	1	BFE0028	05/02/22	05/08/22	EPA 6020B	
Magnesium	**15.1**	0.0508	"	"	"	"	"	"	
Sodium	**38.2**	0.0508	"	"	"	"	"	"	

Calculated Analysis

Date Sampled: **04/11/22 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	**1.40**	0.00100	units	1	BFE0165	05/09/22	05/09/22	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/11/22 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	**98.5**		%	1	BFD0652	04/29/22	04/29/22	Calculation	

Specific Conductance by EPA Method 120.1, Saturated Paste Extraction

Date Sampled: **04/11/22 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	**0.628**	0.0100	mmhos/cm	1	BFE0101	05/05/22	05/05/22	EPA 120.1	

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BFD0220 - EPA 5030 Soil MS										
Blank (BFD0220-BLK1)				Prepared & Analyzed: 04/12/22						
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	*0.0384*		*"*	*0.0400*		*96.1*	*50-150*			
Surrogate: Toluene-d8	*0.0430*		*"*	*0.0400*		*108*	*50-150*			
Surrogate: 4-Bromofluorobenzene	*0.0447*		*"*	*0.0400*		*112*	*50-150*			
LCS (BFD0220-BS1)				Prepared & Analyzed: 04/12/22						
Benzene	0.118	0.0020	mg/kg	0.100		118	70-130			
Toluene	0.123	0.0050	"	0.100		123	70-130			
Ethylbenzene	0.101	0.0050	"	0.100		101	70-130			
m,p-Xylene	0.193	0.010	"	0.200		96.3	70-130			
o-Xylene	0.0975	0.0050	"	0.100		97.5	70-130			
1,2,4-Trimethylbenzene	0.103	0.0050	"	0.100		103	70-130			
1,3,5-Trimethylbenzene	0.100	0.0050	"	0.100		100	70-130			
Naphthalene	0.0897	0.0038	"	0.100		89.7	70-130			
Surrogate: 1,2-Dichloroethane-d4	*0.0370*		*"*	*0.0400*		*92.4*	*50-150*			
Surrogate: Toluene-d8	*0.0423*		*"*	*0.0400*		*106*	*50-150*			
Surrogate: 4-Bromofluorobenzene	*0.0434*		*"*	*0.0400*		*108*	*50-150*			
Matrix Spike (BFD0220-MS1)	**Source: 2204141-01**			Prepared & Analyzed: 04/12/22						
Benzene	0.115	0.0020	mg/kg	0.100	ND	115	70-130			
Toluene	0.116	0.0050	"	0.100	ND	116	70-130			
Ethylbenzene	0.0914	0.0050	"	0.100	ND	91.4	70-130			
m,p-Xylene	0.176	0.010	"	0.200	ND	87.8	70-130			
o-Xylene	0.0880	0.0050	"	0.100	ND	88.0	70-130			
1,2,4-Trimethylbenzene	0.0932	0.0050	"	0.100	ND	93.2	70-130			
1,3,5-Trimethylbenzene	0.0902	0.0050	"	0.100	ND	90.2	70-130			
Naphthalene	0.0806	0.0038	"	0.100	ND	80.6	70-130			
Surrogate: 1,2-Dichloroethane-d4	*0.0398*		*"*	*0.0400*		*99.4*	*50-150*			
Surrogate: Toluene-d8	*0.0432*		*"*	*0.0400*		*108*	*50-150*			
Surrogate: 4-Bromofluorobenzene	*0.0440*		*"*	*0.0400*		*110*	*50-150*			

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BFD0220 - EPA 5030 Soil MS										
Matrix Spike Dup (BFD0220-MSD1)	**Source: 2204141-01**			Prepared & Analyzed: 04/12/22						
Benzene	0.104	0.0020	mg/kg	0.100	ND	104	70-130	10.2	30	
Toluene	0.103	0.0050	"	0.100	ND	103	70-130	11.7	30	
Ethylbenzene	0.0819	0.0050	"	0.100	ND	81.9	70-130	11.0	30	
m,p-Xylene	0.158	0.010	"	0.200	ND	78.8	70-130	10.8	30	
o-Xylene	0.0799	0.0050	"	0.100	ND	79.9	70-130	9.68	30	
1,2,4-Trimethylbenzene	0.0829	0.0050	"	0.100	ND	82.9	70-130	11.7	30	
1,3,5-Trimethylbenzene	0.0809	0.0050	"	0.100	ND	80.9	70-130	10.9	30	
Naphthalene	0.0997	0.0038	"	0.100	ND	99.7	70-130	21.1	30	
Surrogate: 1,2-Dichloroethane-d4	*0.0384*		"	*0.0400*		*96.0*	*50-150*			
Surrogate: Toluene-d8	*0.0427*		"	*0.0400*		*107*	*50-150*			
Surrogate: 4-Bromofluorobenzene	*0.0441*		"	*0.0400*		*110*	*50-150*			

Extractable Petroleum Hydrocarbons by 8015 - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BFD0221 - EPA 3550A										
Blank (BFD0221-BLK1)				Prepared & Analyzed: 04/12/22						
C10-C28 (DRO)	ND	50	mg/kg							
C28-C36 (ORO)	ND	50	"							
LCS (BFD0221-BS1)				Prepared & Analyzed: 04/12/22						
C10-C28 (DRO)	491	50	mg/kg	500		98.2	70-130			
Matrix Spike (BFD0221-MS1)	**Source: 2204141-01**			Prepared & Analyzed: 04/12/22						
C10-C28 (DRO)	464	50	mg/kg	500	24.7	87.9	70-130			
Matrix Spike Dup (BFD0221-MSD1)	**Source: 2204141-01**			Prepared & Analyzed: 04/12/22						
C10-C28 (DRO)	467	50	mg/kg	500	24.7	88.4	70-130	0.495	20	

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

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BFD0308 - EPA 3050B										
Blank (BFD0308-BLK1)				Prepared: 04/15/22 Analyzed: 04/16/22						
Boron	ND	0.0100	mg/L							
LCS (BFD0308-BS1)				Prepared: 04/15/22 Analyzed: 04/16/22						
Boron	5.16	0.0100	mg/L	5.00		103	80-120			
Duplicate (BFD0308-DUP1)		**Source: 2204141-01**		Prepared: 04/15/22 Analyzed: 04/16/22						
Boron	0.192	0.0100	mg/L		0.200			3.78	20	
Matrix Spike (BFD0308-MS1)		**Source: 2204141-01**		Prepared: 04/15/22 Analyzed: 04/16/22						
Boron	5.48	0.0100	mg/L	5.00	0.200	106	75-125			
Matrix Spike Dup (BFD0308-MSD1)		**Source: 2204141-01**		Prepared: 04/15/22 Analyzed: 04/16/22						
Boron	5.20	0.0100	mg/L	5.00	0.200	100	75-125	5.23	25	

PDC Energy	Project:	Ochsner 19N Tank Battery	
1775 Sherman St. STE. 3000	Project Number:	[none]	**Reported:**
Denver CO, 80203	Project Manager:	Mark Longhurst	05/09/22 10:05

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

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BFD0374 - General Preparation										
Blank (BFD0374-BLK1)				Prepared: 04/19/22 Analyzed: 04/22/22						
Calcium	ND	0.0500	mg/L wet							
Magnesium	ND	0.0500	"							
Sodium	ND	0.0500	"							
LCS (BFD0374-BS1)				Prepared: 04/19/22 Analyzed: 04/22/22						
Calcium	5.65	0.0500	mg/L wet	5.00		113	70-130			
Magnesium	5.67	0.0500	"	5.00		113	70-130			
Sodium	5.25	0.0500	"	5.00		105	70-130			
Batch BFE0028 - General Preparation										
Blank (BFE0028-BLK1)				Prepared: 05/02/22 Analyzed: 05/08/22						
Calcium	ND	0.0500	mg/L wet							
Magnesium	ND	0.0500	"							
Sodium	ND	0.0500	"							
LCS (BFE0028-BS1)				Prepared: 05/02/22 Analyzed: 05/08/22						
Calcium	5.31	0.0500	mg/L wet	5.00		106	70-130			
Magnesium	5.19	0.0500	"	5.00		104	70-130			
Sodium	5.07	0.0500	"	5.00		101	70-130			

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Ochsner 19N Tank Battery Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 05/09/22 10:05

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

Summit Scientific

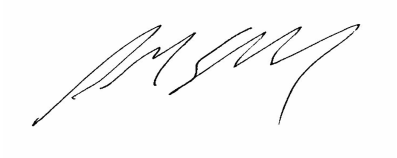
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BFD0263 - General Preparation										
Duplicate (BFD0263-DUP1)		**Source: 2204099-01**		Prepared & Analyzed: 04/13/22						
% Solids	95.4		%		96.4			1.13	20	
Batch BFD0652 - General Preparation										
Duplicate (BFD0652-DUP1)		**Source: 2204142-12**		Prepared & Analyzed: 04/29/22						
% Solids	97.7		%		97.6			0.0828	20	

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Ochsner 19N Tank Battery Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 05/09/22 10:05

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

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BFD0419 - General Preparation										
Blank (BFD0419-BLK1)				Prepared & Analyzed: 04/20/22						
Specific Conductance (EC)	ND	0.0100	mmhos/cm							
LCS (BFD0419-BS1)				Prepared & Analyzed: 04/20/22						
Specific Conductance (EC)	0.158	0.0100	mmhos/cm	0.150		105	95-105			
Duplicate (BFD0419-DUP1)		**Source: 2204141-01**		Prepared & Analyzed: 04/20/22						
Specific Conductance (EC)	3.82	0.0100	mmhos/cm		3.84			0.627	20	
Batch BFE0101 - General Preparation										
Blank (BFE0101-BLK1)				Prepared & Analyzed: 05/05/22						
Specific Conductance (EC)	ND	0.0100	mmhos/cm							
LCS (BFE0101-BS1)				Prepared & Analyzed: 05/05/22						
Specific Conductance (EC)	0.155	0.0100	mmhos/cm	0.150		103	95-105			
Duplicate (BFE0101-DUP1)		**Source: 2204161-02**		Prepared & Analyzed: 05/05/22						
Specific Conductance (EC)	0.775	0.0100	mmhos/cm		0.810			4.43	20	



PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Ochsner 19N Tank Battery Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 05/09/22 10:05

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

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BFD0420 - General Preparation										
LCS (BFD0420-BS1)				Prepared & Analyzed: 04/20/22						
pH	9.02		pH Units	9.18		98.3	95-105			
Duplicate (BFD0420-DUP1)		**Source: 2204141-01**		Prepared & Analyzed: 04/20/22						
pH	7.69		pH Units		7.66			0.391	20	

S2

PDC Energy 1775 Sherman St. STE. 3000 Denver CO, 80203	Project: Ochsner 19N Tank Battery Project Number: [none] Project Manager: Mark Longhurst	**Reported:** 05/09/22 10:05

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