

**TABLE 1**  
**FORMER NOFFSINGER 31-33 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 <sup>(4)</sup> (mg/kg)
Residential SSL <sup>(1,2)</sup>			1.2	490	5.8	58	30	27	2	500
Protection of Groundwater SSL <sup>(1,2,3)</sup>			0.0026	0.69	0.78	9.9	0.0081	0.0087	0.0038	500
SS01 @ 3'	1/3/2023	3 ft. bgs	<0.0020	<0.0050	0.068	<0.010	<b>0.50</b>	<b>0.21</b>	<b>0.028</b>	16

**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

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

**TABLE 2  
FORMER NOFFSINGER 31-33 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 <sup>(2)</sup> (ft.)	Groundwater Elevation (ft. AMSL)
<b>COGCC Table 915-1 Groundwater Standard (µg/L)<sup>(1)</sup></b>		<b>5</b>	<b>560</b>	<b>700</b>	<b>1,400</b>	<b>140</b>	<b>67</b>	<b>67</b>	<b>-</b>	<b>-</b>
GW01	1/3/2023	<1.0	12	6.2	86	3.8	33	14	4	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

**TABLE 3**  
**FORMER NOFFSINGER 31-33 WELLHEAD**  
**FIELD DATA SUMMARY TABLE**

Sample ID	Date Sampled	Depth	GPS Data <sup>(1)</sup>		PDOP Value	VOC Concentration <sup>(2)</sup> (ppm)
			Latitude / Longitude			
WH01-N @ 0-6"	1/3/2023	0-6 in. bgs	40.448414	-104.552430	0.9	0.0
WH01-W @ 0-6"	1/3/2023	0-6 in. bgs	40.448328	-104.552486	0.8	0.0
WH01-S @ 0-6"	1/3/2023	0-6 in. bgs	40.448278	-104.552435	0.9	0.0
WH01-E @ 0-6"	1/3/2023	0-6 in. bgs	40.448322	-104.552341	0.8	0.0
SS01 @ 3'	1/3/2023	3 ft. bgs	40.448354	-104.552434	0.8	10.8
SS02 @ 3'	1/3/2023	3 ft. bgs	40.448370	-104.552422	0.8	0.0
SS03 @ 4'	1/3/2023	4 ft. bgs	40.448370	-104.552422	0.8	0.0
SS04 @ 4'	1/3/2023	4 ft. bgs	40.448349	-104.552416	0.8	0.0
SS05 @ 3'	1/3/2023	3 ft. bgs	40.448351	-104.552451	0.8	0.1
SS06 @ 4'	1/3/2023	4 ft. bgs	40.448351	-104.552451	0.8	0.0
SS07 @ 3'	1/3/2023	3 ft. bgs	40.448314	-104.552420	0.8	0.0
SS08 @ 4'	1/3/2023	4 ft. bgs	40.448314	-104.552420	0.8	0.0
SS09 @ 3'	1/3/2023	3 ft. bgs	40.448347	-104.552388	0.8	0.0
SS10 @ 4'	1/3/2023	4 ft. bgs	40.448347	-104.552388	0.8	0.0
SS11 @ 2.5'	1/3/2023	2.5 ft. bgs	40.448367	-104.552399	0.8	0.0
SS12 @ 2.5'	1/3/2023	2.5 ft. bgs	40.448318	-104.552458	0.8	0.0
BKG01 @ 2.5'	1/3/2023	2.5 ft. bgs	40.448259	-104.552607	0.8	0.0
BKG01 @ 3'	1/3/2023	3 ft. bgs	40.448259	-104.552607	0.8	0.0
BKG01 @ 4'	1/3/2023	4 ft. bgs	40.448259	-104.552607	0.8	0.0
BKG02 @ 2.5'	1/3/2023	2.5 ft. bgs	40.448165	-104.552473	0.7	0.0
BKG02 @ 3'	1/3/2023	3 ft. bgs	40.448165	-104.552473	0.7	0.0
BKG02 @ 4'	1/3/2023	4 ft. bgs	40.448165	-104.552473	0.7	0.0

**Notes:**

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

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

PDOP = Position Dilution of Precision

ppm = Parts per million

ft. = Feet

bgs = Below ground surface

in. = Inches

## Attachment A

# Summit Scientific

---

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

January 04, 2023

Mark Longhurst

PDC Energy

1775 Sherman St. STE. 3000

Denver, CO 80203

RE: Noffsinger 31-33 Wellhead

Work Order #2301024

Enclosed are the results of analyses for samples received by Summit Scientific on 01/03/23 18:01. 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', written in a cursive style.

Paul Shrewsbury

President



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

Project: Noffsinger 31-33 Wellhead

Project Number: [none]

Project Manager: Mark Longhurst

**Reported:**  
01/04/23 06:03

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GW01	2301024-01	Water	01/03/23 10:29	01/03/23 18:01
GW02	2301024-02	Water	01/03/23 11:17	01/03/23 18:01
SS01@3'	2301024-03	Soil	01/03/23 10:09	01/03/23 18:01

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.*

2301024

# Summit Scientific

S<sub>2</sub>

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

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: <i>Neffinger 31-33 wellhead</i>
Sampler Name: Sam Anderson	Project Number:

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix			Analysis Requested							Special Instructions				
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	BTEXN - 8260B	TPH - (C6 - C36)	1,2,4 & 1,3,5-TMB	Boron - HWS	pH, EC, SAR	PAHs		Metals			
1	6w01	1/3/23	1029	4	X				X				X								pH, EC, SAR by saturated paste		
2	6w02	↓	1117	3	←				←				X		X								
3	SS01e3'	↓	1009	3			X			X			X	X	X	X	X	X	X				
4																							
5																							
6																							
7																							
8																							
9																							
10	..																						

Relinquished by:	Date/Time: 1/3/23 1648	Received by: Tasman's Lock Box	Date/Time: 1/3/23 1648	Turn Around Time (Check)	Notes:
				Same Day <input checked="" type="checkbox"/> 72 hours <input type="checkbox"/>	
				24 hours <input type="checkbox"/> Standard <input type="checkbox"/>	
Relinquished by: Tasman's Lock Box	Date/Time: 1325 1801	Received by:	Date/Time: 1323 (801)	48 hours <input type="checkbox"/>	
Relinquished by:	Date/Time:	Received by:	Date/Time:	Sample Integrity:	
				Temperature Upon Receipt: 7.1	
				Samples Intact: <input checked="" type="radio"/> Yes <input type="radio"/> No	

# S<sub>2</sub>

## Sample Receipt Checklist

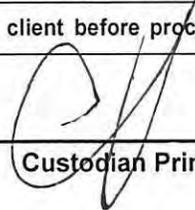
S2 Work Order# 2301024Client: PacTrasman Client Project ID: Noffsinger 31-33 WellheadShipped Via: H.D./P.U./FedEx/UPS/USPS/Other  Airbill #: \_\_\_\_\_

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	-------------------------------------	--------------------------	--------------------------	--------------------------

Matrix (Check all that apply) Air  Soil/Solid  Water  Other Temp (°C)  Thermometer # 

	Yes	No	N/A	Comments (if any)
If samples require cooling, is the temperature < 6°C? <sup>(1)</sup> <b>NOTE:</b> 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
If custody seals are present, are they intact? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are samples due within 48 hours present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	same day
Are water samples with short hold times present? Note the short hold analysis in the comments column - pH, Nitrate/Nitrite, Ferrous Iron (Fe <sup>2+</sup> ), Hexavalent Chromium (Cr <sup>6+</sup> , Cr VI), COD/BOD, Total Coliform, E. Coli, Total Residual Chlorine (TRC), Dissolved Oxygen	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out Completely? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC? <sup>(1)</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? <b>If yes, contact client and note in narrative.</b>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling)? <sup>(1)</sup> Note the type of preservative in the comments column – HCl, H <sub>2</sub> SO <sub>4</sub> , NaOH, HNO <sub>3</sub> , etc.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	HCl
If samples are acid preserved for metals, is the pH ≤ 2? <sup>(1)</sup> Record the pH in Comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Additional Comments (if any):				

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

  
Custodian Printed Name

1.3.23  
Date/Time



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

Project: Noffsinger 31-33 Wellhead

Project Number: [none]  
 Project Manager: Mark Longhurst

**Reported:**  
 01/04/23 06:03

**GW01**  
**2301024-01 (Water)**

**Summit Scientific**

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

Date Sampled: **01/03/23 10:29**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	1.0	ug/l	1	BGA0028	01/03/23	01/03/23	EPA 8260B	
<b>Toluene</b>	<b>12</b>	1.0	"	"	"	"	"	"	
<b>Ethylbenzene</b>	<b>6.2</b>	1.0	"	"	"	"	"	"	
<b>Xylenes (total)</b>	<b>86</b>	2.0	"	"	"	"	"	"	
<b>Naphthalene</b>	<b>3.8</b>	1.0	"	"	"	"	"	"	
<b>1,2,4-Trimethylbenzene</b>	<b>33</b>	1.0	"	"	"	"	"	"	
<b>1,3,5-Trimethylbenzene</b>	<b>14</b>	1.0	"	"	"	"	"	"	

Date Sampled: **01/03/23 10:29**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4	13.4	101 %	23-173		"	"	"	"	
Surrogate: Toluene-d8	13.1	98.0 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	13.3	99.5 %	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.



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

Project: Noffsinger 31-33 Wellhead

Project Number: [none]  
 Project Manager: Mark Longhurst

**Reported:**  
 01/04/23 06:03

**GW02**  
**2301024-02 (Water)**

**Summit Scientific**

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

Date Sampled: **01/03/23 11:17**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	1.0	ug/l	1	BGA0028	01/03/23	01/03/23	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: **01/03/23 11:17**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4	13.5	101 %	23-173		"	"	"	"	
Surrogate: Toluene-d8	13.0	97.8 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	13.1	98.0 %	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.*



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

Project: Noffsinger 31-33 Wellhead

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
01/04/23 06:03

**SS01@3'**  
**2301024-03 (Soil)**

**Summit Scientific**

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

Date Sampled: **01/03/23 10:09**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	BGA0029	01/03/23	01/04/23	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
<b>Ethylbenzene</b>	<b>0.068</b>	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
<b>1,2,4-Trimethylbenzene</b>	<b>0.50</b>	0.0050	"	"	"	"	"	"	
<b>1,3,5-Trimethylbenzene</b>	<b>0.21</b>	0.0050	"	"	"	"	"	"	
<b>Naphthalene</b>	<b>0.028</b>	0.0038	"	"	"	"	"	"	
<b>Gasoline Range Hydrocarbons</b>	<b>16</b>	0.50	"	"	"	"	"	"	

Date Sampled: **01/03/23 10:09**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4	0.0332	83.0 %	50-150		"	"	"	"	
Surrogate: Toluene-d8	0.0470	117 %	50-150		"	"	"	"	
Surrogate: 4-Bromofluorobenzene	0.0611	153 %	50-150		"	"	"	"	S-02

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **01/03/23 10:09**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	BGA0030	"	01/04/23	EPA 8015M	
C28-C36 (ORO)	ND	50	"	"	"	"	"	"	

Date Sampled: **01/03/23 10:09**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl	15.5	124 %	30-150		"	"	"	"	

Summit Scientific

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



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

Project: Noffsinger 31-33 Wellhead

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
01/04/23 06:03

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

#### Summit Scientific

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

#### Batch BGA0028 - EPA 5030 Water MS

##### Blank (BGA0028-BLK1)

Prepared: 01/03/23 Analyzed: 01/04/23

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	"								
<i>Surrogate: 1,2-Dichloroethane-d4</i>	13.0		"	13.3		97.4		23-173			
<i>Surrogate: Toluene-d8</i>	13.2		"	13.3		99.2		20-170			
<i>Surrogate: 4-Bromofluorobenzene</i>	13.4		"	13.3		100		21-167			

##### LCS (BGA0028-BS1)

Prepared: 01/03/23 Analyzed: 01/04/23

Benzene	38.8	1.0	ug/l	33.3		116		51-132			
Toluene	38.4	1.0	"	33.3		115		51-138			
Ethylbenzene	40.5	1.0	"	33.3		122		58-146			
m,p-Xylene	81.0	2.0	"	66.7		122		57-144			
o-Xylene	38.4	1.0	"	33.3		115		53-146			
Naphthalene	34.5	1.0	"	33.3		103		70-130			
1,2,4-Trimethylbenzene	34.0	1.0	"	33.3		102		70-130			
1,3,5-Trimethylbenzene	35.3	1.0	"	33.3		106		70-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	13.4		"	13.3		100		23-173			
<i>Surrogate: Toluene-d8</i>	13.2		"	13.3		98.7		20-170			
<i>Surrogate: 4-Bromofluorobenzene</i>	12.9		"	13.3		96.8		21-167			

##### Matrix Spike (BGA0028-MS1)

Source: 2301001-01

Prepared: 01/03/23 Analyzed: 01/04/23

Benzene	37.9	1.0	ug/l	33.3	ND	114		34-141			
Toluene	38.1	1.0	"	33.3	ND	114		27-151			
Ethylbenzene	40.8	1.0	"	33.3	ND	123		29-160			
m,p-Xylene	81.1	2.0	"	66.7	ND	122		20-166			
o-Xylene	38.7	1.0	"	33.3	ND	116		33-159			
Naphthalene	35.2	1.0	"	33.3	ND	106		70-130			
1,2,4-Trimethylbenzene	33.4	1.0	"	33.3	ND	100		70-130			
1,3,5-Trimethylbenzene	34.4	1.0	"	33.3	ND	103		70-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	13.2		"	13.3		99.4		23-173			
<i>Surrogate: Toluene-d8</i>	13.0		"	13.3		97.4		20-170			
<i>Surrogate: 4-Bromofluorobenzene</i>	13.1		"	13.3		98.0		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.



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

Project: Noffsinger 31-33 Wellhead

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
01/04/23 06:03

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

**Summit Scientific**

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

**Batch BGA0028 - EPA 5030 Water MS**

**Matrix Spike Dup (BGA0028-MSD1)**

Source: 2301001-01

Prepared: 01/03/23 Analyzed: 01/04/23

Benzene	38.1	1.0	ug/l	33.3	ND	114	34-141	0.605	30	
Toluene	37.9	1.0	"	33.3	ND	114	27-151	0.474	30	
Ethylbenzene	40.2	1.0	"	33.3	ND	121	29-160	1.60	30	
m,p-Xylene	80.4	2.0	"	66.7	ND	121	20-166	0.941	30	
o-Xylene	38.6	1.0	"	33.3	ND	116	33-159	0.233	30	
Naphthalene	37.9	1.0	"	33.3	ND	114	70-130	7.52	30	
1,2,4-Trimethylbenzene	32.9	1.0	"	33.3	ND	98.7	70-130	1.54	30	
1,3,5-Trimethylbenzene	33.5	1.0	"	33.3	ND	100	70-130	2.60	30	
Surrogate: 1,2-Dichloroethane-d4	14.1		"	13.3		106	23-173			
Surrogate: Toluene-d8	12.9		"	13.3		97.0	20-170			
Surrogate: 4-Bromofluorobenzene	13.0		"	13.3		97.9	21-167			

**Batch BGA0029 - EPA 5030 Soil MS**

**Blank (BGA0029-BLK1)**

Prepared: 01/03/23 Analyzed: 01/04/23

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	0.0444		"	0.0400		111	50-150			
Surrogate: Toluene-d8	0.0380		"	0.0400		95.0	50-150			
Surrogate: 4-Bromofluorobenzene	0.0425		"	0.0400		106	50-150			

Summit Scientific

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



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

Project: Noffsinger 31-33 Wellhead

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
01/04/23 06:03

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

**Summit Scientific**

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

**Batch BGA0029 - EPA 5030 Soil MS**

**LCS (BGA0029-BS1)**

Prepared: 01/03/23 Analyzed: 01/04/23

Benzene	0.100	0.0020	mg/kg	0.100		100	70-130			
Toluene	0.0995	0.0050	"	0.100		99.5	70-130			
Ethylbenzene	0.0975	0.0050	"	0.100		97.5	70-130			
m,p-Xylene	0.190	0.010	"	0.200		95.1	70-130			
o-Xylene	0.0915	0.0050	"	0.100		91.5	70-130			
1,2,4-Trimethylbenzene	0.0989	0.0050	"	0.100		98.9	70-130			
1,3,5-Trimethylbenzene	0.104	0.0050	"	0.100		104	70-130			
Naphthalene	0.0950	0.0038	"	0.100		95.0	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0351		"	0.0400		87.8	50-150			
Surrogate: Toluene-d8	0.0374		"	0.0400		93.4	50-150			
Surrogate: 4-Bromofluorobenzene	0.0404		"	0.0400		101	50-150			

**Matrix Spike (BGA0029-MS1)**

Source: 2301012-01

Prepared: 01/03/23 Analyzed: 01/04/23

Benzene	0.104	0.0020	mg/kg	0.100	ND	104	70-130			
Toluene	0.103	0.0050	"	0.100	ND	103	70-130			
Ethylbenzene	0.100	0.0050	"	0.100	ND	100	70-130			
m,p-Xylene	0.199	0.010	"	0.200	ND	99.5	70-130			
o-Xylene	0.0918	0.0050	"	0.100	ND	91.8	70-130			
1,2,4-Trimethylbenzene	0.100	0.0050	"	0.100	ND	100	70-130			
1,3,5-Trimethylbenzene	0.106	0.0050	"	0.100	ND	106	70-130			
Naphthalene	0.101	0.0038	"	0.100	ND	101	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0361		"	0.0400		90.2	50-150			
Surrogate: Toluene-d8	0.0371		"	0.0400		92.7	50-150			
Surrogate: 4-Bromofluorobenzene	0.0381		"	0.0400		95.3	50-150			

**Matrix Spike Dup (BGA0029-MSD1)**

Source: 2301012-01

Prepared: 01/03/23 Analyzed: 01/04/23

Benzene	0.105	0.0020	mg/kg	0.100	ND	105	70-130	0.631	30
Toluene	0.104	0.0050	"	0.100	ND	104	70-130	0.406	30
Ethylbenzene	0.100	0.0050	"	0.100	ND	100	70-130	0.180	30
m,p-Xylene	0.199	0.010	"	0.200	ND	99.4	70-130	0.106	30
o-Xylene	0.0937	0.0050	"	0.100	ND	93.7	70-130	2.01	30
1,2,4-Trimethylbenzene	0.101	0.0050	"	0.100	ND	101	70-130	1.10	30
1,3,5-Trimethylbenzene	0.107	0.0050	"	0.100	ND	107	70-130	0.677	30
Naphthalene	0.105	0.0038	"	0.100	ND	105	70-130	4.32	30
Surrogate: 1,2-Dichloroethane-d4	0.0357		"	0.0400		89.2	50-150		
Surrogate: Toluene-d8	0.0376		"	0.0400		94.0	50-150		
Surrogate: 4-Bromofluorobenzene	0.0391		"	0.0400		97.7	50-150		

Summit Scientific

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



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

Project: Noffsinger 31-33 Wellhead

Project Number: [none]  
 Project Manager: Mark Longhurst

**Reported:**  
 01/04/23 06:03

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

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

**Batch BGA0030 - EPA 3550A**

**Blank (BGA0030-BLK1)**

Prepared: 01/03/23 Analyzed: 01/04/23

C10-C28 (DRO)	ND	50	mg/kg								
C28-C36 (ORO)	ND	50	"								
Surrogate: <i>o</i> -Terphenyl	15.8		"	12.5		126		30-150			

**LCS (BGA0030-BS1)**

Prepared: 01/03/23 Analyzed: 01/04/23

C10-C28 (DRO)	510	50	mg/kg	500		102		70-130			
Surrogate: <i>o</i> -Terphenyl	17.0		"	12.5		136		30-150			

**Matrix Spike (BGA0030-MS1)**

Source: 2301012-01

Prepared: 01/03/23 Analyzed: 01/04/23

C10-C28 (DRO)	488	50	mg/kg	500	14.8	94.7		70-130			
Surrogate: <i>o</i> -Terphenyl	15.8		"	12.5		126		30-150			

**Matrix Spike Dup (BGA0030-MSD1)**

Source: 2301012-01

Prepared: 01/03/23 Analyzed: 01/04/23

C10-C28 (DRO)	487	50	mg/kg	500	14.8	94.4		70-130	0.279	20	
Surrogate: <i>o</i> -Terphenyl	16.4		"	12.5		131		30-150			

Summit Scientific

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



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

Project: Noffsinger 31-33 Wellhead

Project Number: [none]  
Project Manager: Mark Longhurst

**Reported:**  
01/04/23 06:03

### Notes and Definitions

- S-02 The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.
- 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