



January 23, 2023

#5E31003-BG3

 NMOCD District 1  
 1625 North French Drive  
 Hobbs, New Mexico 88240

SUBJECT: Remediation Plan with Request for Deferral for the Seawolf 1-12 CTB 1 (nrm2004353184 and nAPP2125141291), Lea County, New Mexico

### **1.0 Introduction**

On behalf of Devon Energy Production Company (Devon), Souder, Miller & Associates (SMA) has prepared this Remediation Plan with Request for Deferral that describes the remediation of a produced water release related to oil and gas production activities at the Seawolf 1-12 CTB 1 (nrm2004353184 and nAPP2125141291). The release site is located in Unit C, Section 1, Township 26S, Range 33E, Lea County, New Mexico, on public land administered by the Bureau of Land Management. Figure 1 illustrates the vicinity and site location on a United States Geological Survey (USGS) 7.5-minute quadrangle map.

<b>Table 1: Release Information and Closure Criteria</b>			
Name	Seawolf 1-12 CTB 1	Company	Devon Energy Production Company
API Number	N/A	Location	32.077077, -103.526861
Land Status	Federal (BLM)	NMOCD Closure Criteria	51 to 100 feet bgs
<b>Incident Number nrm2004353184</b>			
Date Release Discovered	January 23, 2020	Source of Release	Water dump valve of Seawolf 86H separator
Released Volume	17.65 barrels (bbls) Produced Water	Recovered Volume	15 bbls Produced Water
<b>Incident Number nAPP2125141291</b>			
Date Release Discovered	August 20, 2021	Source of Release	Pin hole leak on water dump line
Released Volume	5.99 bbls Produced Water	Recovered Volume	5 bbls Produced Water

### **2.0 Background**

On January 23, 2020, and August 20, 2021, produced water releases were discovered at the Seawolf 1-12 CTB 1 site. Initial response activities were conducted by Devon, and included source elimination and site security, containment, and site stabilization activities. Figure 1 illustrates the vicinity and site location; Figure 2 illustrates the release location. Copies of the notifications of release are included in Appendix A.

### **3.0 Site Information and Closure Criteria**

The Seawolf 1-12 CTB 1 site is located approximately 20 miles southwest of Jal, New Mexico on Federal (BLM) land at an elevation of approximately 3,321 feet above mean sea level (amsl).

## Seawolf 1-12 CTB 1 Remediation Plan and Deferral Request January 23, 2023

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### Depth to Groundwater

A test well, C-04628, was registered with the New Mexico Office of the State Engineer (NMOSE) and drilled approximately 860 feet north-northeast of the site. No groundwater was encountered to the total depth drilled of 55 feet below grade surface (bgs). A search of the NMOSE New Mexico Water Rights Reporting System (NMWRRS) and the USGS National Water Information System did not yield any additional results within ½-mile of the site. A copy of the water well documentation is included as Appendix B.

### Wellhead Protection Area

There are no known water sources within ½-mile of the location, according to the NMOSE NMWRRS and USGS National Water Information System. Registered wells in the vicinity are shown on Figure 1.

### Distance to Nearest Significant Watercourse

The nearest significant watercourse is an ephemeral tributary to Salado Draw, located approximately four miles to the west.

### Closure Criteria Determination

Table 2 demonstrates the Closure Criteria applicable to this location. Figures 1 and 2 illustrate the 200 and 300-foot radii which indicate that the site does not lie within a sensitive area as described in Paragraph (4) of Subsection (C) of 19.15.29.12 NMAC.

Based on the information presented herein, the applicable NMOCD Closure Criteria for this site is for a groundwater depth between 51 and 100 feet bgs per Table I of 19.15.29.12 NMAC.

## **4.0 Release Characterization and Remediation Activities**

A release characterization was completed for the release area which included the advancement of 35 soil borings (SB-22 through SB-52, BH-53 through BH-55, and AS-08) using a hand auger. Soil samples were collected from the surface and at 1-foot intervals or less depending on subsurface conditions to the total boring depths or to auger refusal on underlying caliche rock. All soil borings were terminated on hard caliche at depths ranging from just below the surface to 1.5 feet bgs. Soil samples were field screened for chloride using an electrical conductivity (EC) meter and for hydrocarbon impacts using a calibrated MiniRAE 3000 photoionization detector (PID) equipped with a 10.6 eV lamp. Soil boring locations are illustrated on Figure 3 and field notes are included in Appendix C.

Release characterization samples were collected and submitted for laboratory analysis in accordance with the sampling protocol included in Appendix D. The samples were analyzed for total chloride using United States Environmental Protection Agency (USEPA) Method 300.0; benzene, toluene, ethylbenzene, and total xylenes (BTEX) using USEPA Method 8021B; and total petroleum hydrocarbons (TPH) as motor, diesel and gasoline range organics (MRO, DRO, and GRO) by USEPA Method 8015D. Laboratory analytical results are summarized in Table 3 and illustrated on Figure 3.

Based on the findings of the release characterization, impacted soils were excavated except as restricted by proximity to production equipment. Excavation confirmation samples were collected on July 29, and August 4, 11, and 17, 2022. Copies of the sampling notifications are included in Appendix A. Excavation samples were composed of 5-point composites collected every 200 square feet or less in accordance with the sampling protocol included in Appendix D. The confirmation samples were analyzed for chloride, BTEX, and TPH in the same manner as described above for the release characterization samples.

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Laboratory analytical results report benzene, total BTEX, and total TPH concentrations below the NMOCD Closure Criteria for all samples except for 14 sample areas including: SC-01 through SC-04, SC-07, SC-09, SC-10, SC-24, SC-25, SC-30, SC-35, SC-36, SC-41, and SC-42. Additional excavation in these areas was not possible due to proximity to production equipment.

Excavated soils were transported to an NMOCD permitted surface waste facility for remediation/disposal. The excavation was backfilled with clean, imported material and graded to match the surrounding area. Excavation extents and closure confirmation sample locations are depicted in Figure 3. A photo log is included in Appendix C. Confirmation laboratory results are summarized in Table 4. Laboratory reports are included in Appendix E.

### **5.0 Recommendations and Deferral Request**

As demonstrated in Table 4, all excavation confirmation samples meet NMOCD Closure Criteria except for 14 sample areas (SC-01 through SC-04, SC-07, SC-09, SC-10, SC-24, SC-25, SC-30, SC-35, SC-36, SC-41, and SC-42) and those areas immediately under production equipment as illustrated on Figure 4. Additional remedial excavation is not possible in these areas due to proximity of production equipment. The area of the requested deferral measures approximately 7,256 square feet and appears to extend to depths ranging from 0.5 to 1.5 feet bgs.

**SMA recommends no further action at this time and requests deferral of remediation of the residual impacted material for Incident Numbers nrm2004353184 and nAPP2125141291.**

### **6.0 Scope and Limitations**

The scope of our services included: assessment sampling; verifying release stabilization; regulatory liaison; remediation guidance; and preparing this report. All work has been performed in accordance with generally accepted professional environmental consulting practices for oil and gas releases in the Permian Basin in New Mexico.

If there are any questions regarding this report, please contact Heather Woods at 505-716-2787.

Submitted by:  
SOUDER, MILLER & ASSOCIATES

Reviewed by:



Sarahmay Schlea  
Staff Scientist



Heather M. Woods, P.G.  
Project Geoscientist

Seawolf 1-12 CTB 1 Remediation Plan and Deferral Request  
January 23, 2023

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**REFERENCES:**

New Mexico Office of the State Engineer (NMOSE) online water well database  
[https://gis.ose.state.nm.us/gisapps/ose\\_pod\\_locations/](https://gis.ose.state.nm.us/gisapps/ose_pod_locations/)

USGS National Water Information System: Web Interface online water well database  
[https://nwis.waterdata.usgs.gov/nwis/gwlevels?site\\_no=321205103544701&agency\\_cd=USGS&format=html](https://nwis.waterdata.usgs.gov/nwis/gwlevels?site_no=321205103544701&agency_cd=USGS&format=html)

**ATTACHMENTS:**

**Figures:**

Figure 1: Topographic Site Map

Figure 2: Aerial Site Map

Figure 3: Release Characterization Map

Figure 4: Excavation Confirmation Sample Location Map

**Tables:**

Table 2: NMOCD Closure Criteria

Table 3: Summary of Release Characterization Field Screening and Laboratory Analytical Results

Table 4: Summary of Excavation Confirmation Laboratory Analytical Results

**Appendices:**

Appendix A: Correspondence

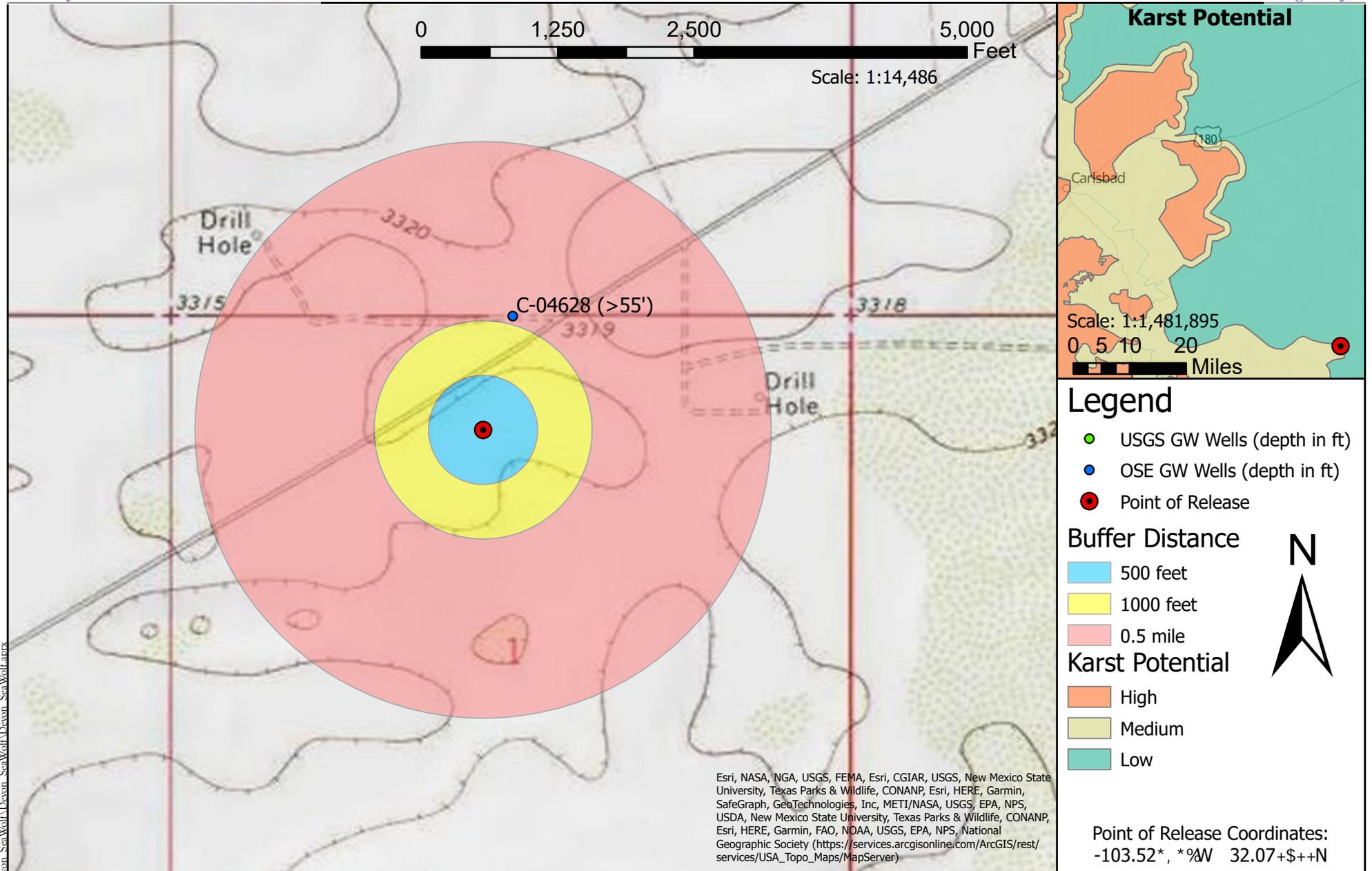
Appendix B: Water Well Data

Appendix C: Field Notes and Photograph Log

Appendix D: Sampling Protocol

Appendix E: Laboratory Analytical Reports

# FIGURES



*Topographic Site Map*  
 SeaWolf 1-12 CTB 1 - Devon Energy Production Company  
 UL: C S: 1 T: 26S R: 33E, Lea County, New Mexico

Figure 1

C:\Users\ss\Desktop\GIS\Devon\SeaWolf\Devon\_SeaWolf\Map

Date Saved: 1/9/2023

Revisions		
By: _____	Date: _____	Descr: _____
By: _____	Date: _____	Descr: _____

Drawn	Sarahmay Schlea
Date	1/9/2023
Checked	_____
Approved	_____



201 South Halaguena Street  
 Carlsbad, New Mexico 88221  
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### Legend

- Point of Release
- Lakes/Playas
- Streams/Rivers
- 300 Foot Radius
- 0.5 Mile Radius

N

Point of Release Coordinates:  
-103.) &\*, \*%W 32.077\$++N

*Aerial Site Map*  
 SeaWolf 1-12 CTB 1 - Devon Energy Production Company  
 UL: C S: 1 T: 26S R: 33E, Lea County, New Mexico

Figure 2

C:\Users\ss\Desktop\GIS\Devon\Devon SeaWolf\Devon SeaWolf.mxd

Revisions		
By: _____	Date: _____	Descr: _____
By: _____	Date: _____	Descr: _____

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Drawn	Sarahmay Schlea
Date	12/7/2022
Checked	_____
Approved	_____



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**Legend**

- Soil Borings

0 15 30 60  
 Feet  
 Scale: 1:390

N

Coordinates:  
 -103.5&\* , \*%W 32.07+\$++N

Soil Boring Location Map  
 SeaWolf 1-12 CTB 1 - Devon Energy Production Company  
 UL: C S: 1 T: 26S R: 33E, Lea County, New Mexico

Figure 3

Revisions

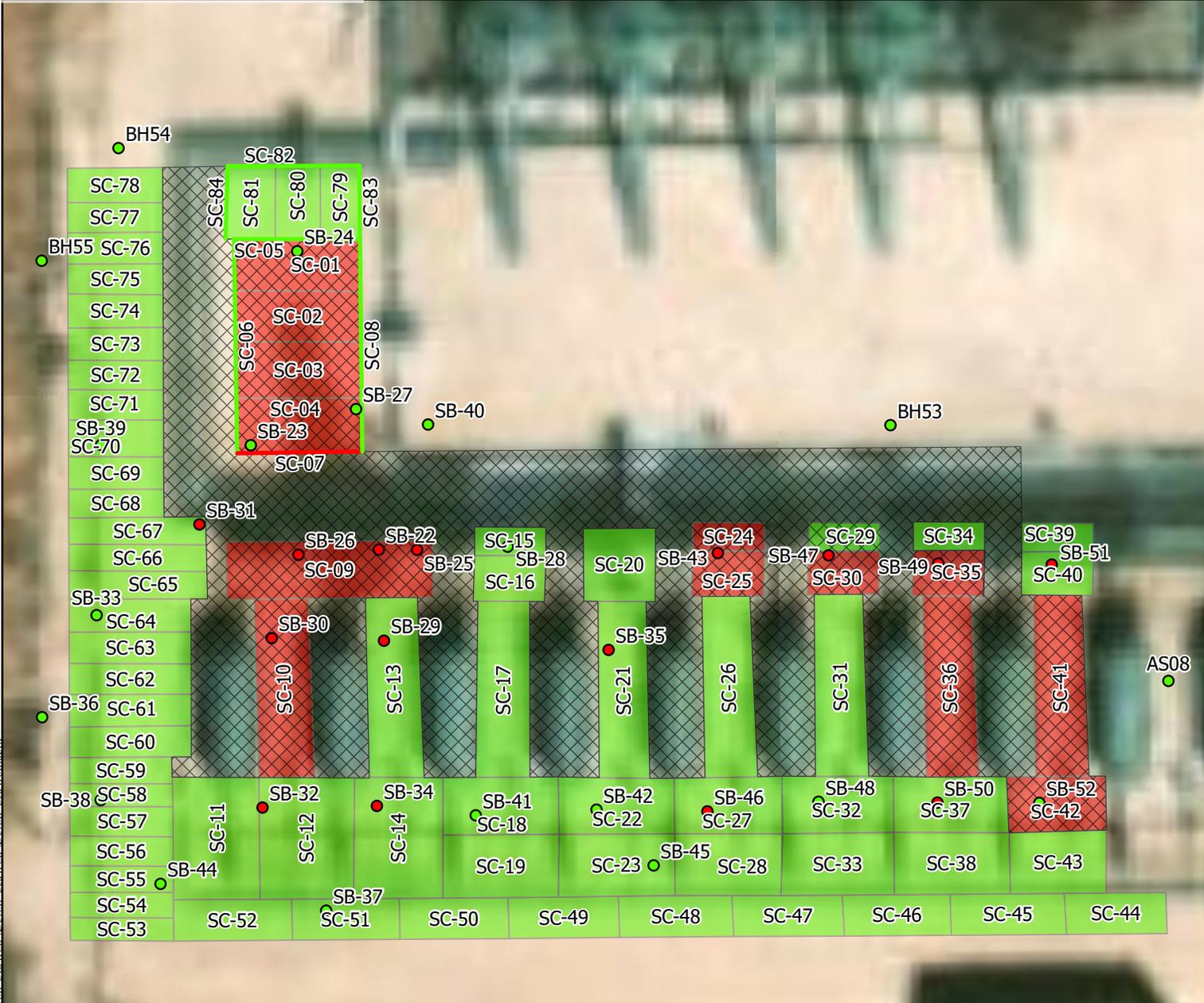
By: \_\_\_\_\_ Date: \_\_\_\_\_ Descr: \_\_\_\_\_  
 By: \_\_\_\_\_ Date: \_\_\_\_\_ Descr: \_\_\_\_\_

Drawn Sarahmay Schlea  
 Date 1/23/2023  
 Checked \_\_\_\_\_  
 Approved \_\_\_\_\_



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### Legend

**Soil Borings**

- Exceeds Closure Criteria (Red dot)
- Meets Closure Criteria (Green dot)

**Sidewall Samples**

- Exceeds Closure Criteria (Red line)
- Meets Closure Criteria (Green line)

**Composite Samples**

- Exceeds Closure Criteria (Red square)
- Meets Closure Criteria (Green square)
- ▨ Deferral Area (Hatched square)

0 10 20 40  
 Feet  
 Scale: 1:295

N

Coordinates:  
 -103.52\*, \*%W 32.07+\$\$\$\$N

Excavation Confirmation Sample Location Map  
 SeaWolf 1-12 CTB 1 - Devon Energy Production Company  
 UL: C S: 1 T: 26S R: 33E, Lea County, New Mexico

Figure 4

Revisions		
By: _____	Date: _____	Descr: _____
By: _____	Date: _____	Descr: _____

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Drawn	Sarahmay Schlea
Date	1/23/2023
Checked	_____
Approved	_____



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# TABLES

Table 2:  
NMOCD Closure Criteria

Devon Energy Production Co  
Seawolf 1-12 CTB 1  
nrm2004262184 and nAPP2125141291

Site Information (19.15.29.11.A(2, 3, and 4) NMAC)		Source/Notes
Depth to Groundwater (feet bgs)	>55	USGS Topo Map and Test Well (C-04628)
Horizontal Distance From All Water Sources Within 1/2 Mile (ft)	None	New Mexico Office of the State Engineer
Horizontal Distance to Nearest Significant Watercourse (ft)	20,650	United States Geological Survey Topo Map

Closure Criteria (19.15.29.12.B(4) and Table 1 NMAC)						
Depth to Groundwater		Closure Criteria (units in mg/kg)				
		Chloride *numerical limit or background, whichever is greater	TPH	GRO + DRO	BTEX	Benzene
< 50' BGS		600	100		50	10
<b>51' to 100'</b>	<b>X</b>	<b>10000</b>	<b>2500</b>	<b>1000</b>	<b>50</b>	<b>10</b>
>100'		20000	2500	1000	50	10
Surface Water	yes or no	if yes, then				
<300' from continuously flowing watercourse or other significant watercourse?	No	600	100		50	10
<200' from lakebed, sinkhole or playa lake?	No					
Water Well or Water Source						
<500 feet from spring or a private, domestic fresh water well used by less than 5 households for domestic or stock watering purposes?	No					
<1000' from fresh water well or spring?	No					
Human and Other Areas						
<300' from an occupied permanent residence, school, hospital, institution or church?	No					
within incorporated municipal boundaries or within a defined municipal fresh water well field?	No					
<100' from wetland?	No					
within area overlying a subsurface mine	No					
within an unstable area?	No					
within a 100-year floodplain?	No					

SMA #

Table 3:  
Summary of Release Characterization Field Screening  
and Laboratory Analytical Results

Devon Energy Production Co  
Seawolf 1-12 CTB 1  
nrm2004262184 and nAPP2125141291

Sample ID	Sample Date	Depth of Sample (feet bgs)	Field Screening		Method 8021B		Method 8015D					Method 300.0
			VOCs by PID	EC	BTEX	Benzene	GRO	DRO	GRO+DRO	MRO	Total TPH	Chloride
			ppm	mS	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
<b>NMOCD Delineation Criteria</b>			--	-	<b>50</b>	<b>10</b>	--	--	--	--	<b>100</b>	<b>600</b>
<b>NMOCD Closure Criteria</b>			--	-	<b>50</b>	<b>10</b>	--	--	<b>1,000</b>	--	<b>2,500</b>	<b>10,000</b>
SB-22	5/19/2022	0	417	19.55	<b>43.7</b>	<b>0.304</b>	<b>350</b>	<b>44,200</b>	<b>44,500</b>	<b>41,200</b>	<b>85,750</b>	<b>28,300</b>
		1	2394	2.1	<b>94.4</b>	<b>1.23</b>	<b>897</b>	<b>7,880</b>	<b>8,777</b>	<b>1,940</b>	<b>10,717</b>	<b>2,980</b>
		1.25	932	4.48	<b>90.2</b>	<b>0.792</b>	<b>744</b>	<b>20,900</b>	<b>21,644</b>	<b>6,340</b>	<b>27,984</b>	<b>6,520</b>
SB-23	5/19/2022	0	20.2	5.11	<0.100	<0.0250	<20.0	<b>72.8</b>	<b>72.8</b>	<b>117</b>	<b>190</b>	<b>8,020</b>
		0.83 (10")	12.3	1.72	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>2,740</b>
SB-24	5/19/2022	0	8	0.22	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>106</b>
		1	6.1	0.11	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>42.8</b>
SB-25	5/19/2022	0	26.9	12.31	<0.100	<0.0250	<20.0	<b>34.8</b>	<b>34.8</b>	<50.0	<b>34.8</b>	<b>25,900</b>
		1	15.2	1.59	<0.100	<0.250	<20.0	<b>30.0</b>	<b>30.0</b>	<50.0	<b>30.0</b>	<b>2,510</b>
SB-26	5/19/2022	0	4.4	18.1	<0.100	<0.0250	<20.0	<b>73.7</b>	<b>73.7</b>	<b>84.4</b>	<b>158.1</b>	<b>32,500</b>
		1	6.6	2.96	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>4,060</b>
SB-27	5/19/2022	0	21.7	0.46	<0.100	<0.0250	<20.0	<b>26.9</b>	<b>26.9</b>	<50.0	<b>26.9</b>	<b>585</b>
		0.83 (10")	5.7	0.18	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>154</b>
SB-28	5/19/2022	0	1.8	0.44	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>581</b>
SB-29	5/19/2022	0	2.1	11.35	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>20,200</b>
SB-30	5/19/2022	0	2.2	11.62	<0.100	<0.0250	<20.0	<b>164</b>	<b>164</b>	<b>145</b>	<b>309</b>	<b>23,700</b>
SB-31	5/19/2022	0	1.3	12.23	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>20,600</b>
SB-32	5/19/2022	0	2.4	13.79	--	--	--	--	--	--	--	<b>23,000</b>
SB-33	5/19/2022	0	2.2	4.35	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>6,830</b>
SB-34	5/19/2022	0	0.8	16.97	--	--	--	--	--	--	--	<b>29,600</b>
	5/20/2022	0.5 (6")	1.7	1.89	--	--	--	--	--	--	--	<b>1,860</b>
SB-35	5/19/2022	0	2	13.04	--	--	--	--	--	--	--	<b>17,400</b>
SB-36	5/19/2022	0	0.9	0.14	--	--	--	--	--	--	--	<b>20.7</b>
		1	0.9	0.19	--	--	--	--	--	--	--	<b>196</b>
SB-37	5/19/2022	0	0.8	0.12	--	--	--	--	--	--	--	<b>34.8</b>
SB-38	5/19/2023	0	0	1.32	--	--	--	--	--	--	--	<b>1,650</b>
SB-39	5/19/2024	0	0	0.25	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>184</b>
SB-40	5/19/2025	0	0.5	0.21	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>99.2</b>
SB-41	5/19/2026	0	0	0.58	--	--	--	--	--	--	--	<b>448</b>



Table 3:  
Summary of Release Characterization Field Screening  
and Laboratory Analytical Results

Devon Energy Production Co  
Seawolf 1-12 CTB 1  
nrm2004262184 and nAPP2125141291

Sample ID	Sample Date	Depth of Sample (feet bgs)	Field Screening		Method 8021B		Method 8015D					Method 300.0
			VOCs by PID	EC	BTEX	Benzene	GRO	DRO	GRO+DRO	MRO	Total TPH	Chloride
			ppm	mS	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
<b>NMOCD Delineation Criteria</b>			--	-	<b>50</b>	<b>10</b>	--	--	--	--	<b>100</b>	<b>600</b>
<b>NMOCD Closure Criteria</b>			--	-	<b>50</b>	<b>10</b>	--	--	<b>1,000</b>	--	<b>2,500</b>	<b>10,000</b>
SB-42	5/19/2027	0	0	0.42	--	--	--	--	--	--	--	<b>192</b>
SB-43	5/19/2028	0	0.2	8.61	--	--	--	--	--	--	--	<b>13,200</b>
SB-44	5/19/2029	0	0.9	0.21	--	--	--	--	--	--	--	<b>127</b>
SB-45	5/19/2030	0	0.2	1.34	--	--	--	--	--	--	--	<b>1,800</b>
SB-46	5/19/2031	0	0	9.59	--	--	--	--	--	--	--	<b>14,400</b>
SB-47	5/19/2022	0	0	20+	--	--	--	--	--	--	--	<b>30,300</b>
		0.5 (6")	3.3	1.93	--	--	--	--	--	--	--	<b>2,750</b>
SB-48	5/20/2022	0	0.5	1.38	--	--	--	--	--	--	--	<b>1,040</b>
SB-49	5/20/2022	0	0.4	10.16	--	--	--	--	--	--	--	<b>16,400</b>
SB-50	5/20/2022	0	0.3	7.26	--	--	--	--	--	--	--	<b>11,800</b>
SB-51	5/20/2022	0	0.6	20+	--	--	--	--	--	--	--	<b>40,600</b>
SB-52	5/20/2022	0	0.6	0.41	--	--	--	--	--	--	--	<b>333</b>
BH53	8/22/2022	0	--	--	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>338</b>
		0.5	--	--	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>45.9</b>
BH54	8/22/2022	0	--	--	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<20.0
BH55	8/22/2022	0	--	--	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>63.6</b>
		0.5	--	--	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>33.3</b>
AS08	8/30/2022	0	7.1	0.39	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>523</b>
		0.5 (6")	5.5	0.29	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>398</b>

Notes: NMOCD - New Mexico Oil Conservation Division  
 VOC - volatile organic compound  
 PID - photoionization detector  
 EC - electrical conductivity  
 BTEX - benzene, toluene, ethylbenzene, and xylenes  
 GRO - gasoline range organics  
 DRO - diesel range organics

MRO - motor oil range organics  
 TPH - total petroleum hydrocarbons  
 mS - millisiemens  
 bgs - below grade surface  
 ppm - parts per million  
 mg/kg - milligram per kilogram  
 "--" not applicable or not analyzed



Table 4:  
Summary of Excavation Confirmation  
Laboratory Analytical Results

Devon Energy Production Co  
Seawolf 1-12 CTB 1  
nrm2004262184 and nAPP2125141291

Sample ID	Sample Date	Depth of Sample (feet bgs)	Method 8021B		Method 8015D					Method 300.0
			BTEX	Benzene	GRO	DRO	GRO+DRO	MRO	Total TPH	Chloride
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
<b>NMOCD Closure Criteria</b>			<b>50</b>	<b>10</b>	--	--	<b>1,000</b>	--	<b>2,500</b>	<b>10,000</b>
SC-1	7/29/2022	0.75 to 1	<0.100	<0.0250	<20.0	<b>1,380</b>	<b>1,380</b>	599	<b>1,979</b>	<b>25.3</b>
SC-2	7/29/2022	0.75 to 1	<0.100	<0.0250	<20.0	<b>5,990</b>	<b>5,990</b>	<b>2,670</b>	<b>8,660</b>	593
SC-3	7/29/2022	0.75 to 1	<b>2.80</b>	<0.0250	<b>36.3</b>	<b>5,520</b>	<b>5,556</b>	<b>2,290</b>	<b>7,846</b>	<b>1,300</b>
SC-4	7/29/2022	0.75 to 1	<b>0.788</b>	<0.0250	<20.0	<b>4,400</b>	<b>4,400</b>	<b>2,060</b>	<b>6,460</b>	<b>1,680</b>
SC-5	7/29/2022	0 to 1	<0.100	<0.0250	<20.0	<b>94.2</b>	<b>94.2</b>	<b>91.4</b>	<b>185.6</b>	<b>63.3</b>
SC-6	7/29/2022	0 to 1	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>360</b>
SC-7	7/29/2022	0 to 1	<b>1.79</b>	<0.0250	<b>28.2</b>	<b>17,800</b>	<b>17,828</b>	<b>10,100</b>	<b>27,928</b>	<b>4,260</b>
SC-8	7/29/2022	0 to 1	<0.100	<0.0250	<20.0	<b>344</b>	<b>344</b>	<b>206</b>	<b>550</b>	<b>182</b>
SC-9	7/29/2022	0.5 to 0.75	<b>0.0611</b>	<0.0250	<20.0	<b>3,430</b>	<b>3,430</b>	<b>1,850</b>	<b>5,280</b>	<b>9,070</b>
SC-10	7/29/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<b>36.5</b>	<b>36.5</b>	<b>67.9</b>	<b>104.4</b>	<b>92,000</b>
SC-11	7/29/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>3,490</b>
SC-12	7/29/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<b>45.1</b>	<b>45.1</b>	<b>72.9</b>	<b>118</b>	<b>2,890</b>
SC-13	7/29/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>7,610</b>
SC-14	7/29/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>3,780</b>
SC-15	8/4/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>428</b>
SC-16	8/4/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>1,520</b>
SC-17	8/4/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>996</b>
SC-18	8/4/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>69.3</b>
SC-19	8/4/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<b>274</b>	<b>274</b>	<b>163</b>	<b>437</b>	<b>7,840</b>
SC-20	8/4/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>3,630</b>
SC-21	8/4/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>117</b>
SC-22	8/4/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>22.2</b>
SC-23	8/4/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>3,080</b>
SC-24	8/4/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<b>95.3</b>	<b>95.3</b>	<b>80.3</b>	<b>175.6</b>	<b>34,800</b>
SC-25	8/4/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>12,200</b>



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Laboratory Analytical Results

Devon Energy Production Co  
Seawolf 1-12 CTB 1  
nrm2004262184 and nAPP2125141291

Sample ID	Sample Date	Depth of Sample (feet bgs)	Method 8021B		Method 8015D					Method 300.0
			BTEX	Benzene	GRO	DRO	GRO+DRO	MRO	Total TPH	Chloride
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
<b>NMOCDC Closure Criteria</b>			<b>50</b>	<b>10</b>	--	--	<b>1,000</b>	--	<b>2,500</b>	<b>10,000</b>
SC-26	8/4/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>6,380</b>
SC-27	8/4/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>201</b>
SC-28	8/4/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>129</b>
SC-29	8/4/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>114</b>
SC-30	8/4/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>14,200</b>
SC-31	8/4/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>3,220</b>
SC-32	8/4/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>564</b>
SC-33	8/4/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>219</b>
SC-34	8/4/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>1,810</b>
SC-35	8/4/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<b>545</b>	<b>545</b>	<b>706</b>	<b>1,251</b>	<b>14,500</b>
SC-36	8/4/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<b>34.2</b>	<b>34.2</b>	<50.0	<b>34.2</b>	<b>14,100</b>
SC-37	8/4/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>4,770</b>
SC-38	8/4/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<b>34.7</b>	<b>34.7</b>	<50.0	<b>34.7</b>	<b>857</b>
SC-39	8/4/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>59.7</b>
SC-40	8/4/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>555</b>
SC-41	8/4/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<b>5,700</b>	<b>5,700</b>	<b>5,100</b>	<b>10,800</b>	<b>6,060</b>
SC-42	8/4/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<b>207</b>	<b>207</b>	<b>306</b>	<b>513</b>	<b>12,100</b>
SC-43	8/4/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>1,370</b>
SC-44	8/4/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>78.2</b>
SC-45	8/4/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>44.0</b>
SC-46	8/4/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>78.7</b>
SC-47	8/4/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>62.1</b>
SC-48	8/4/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>104</b>
SC-49	8/4/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<20.0
SC-50	8/4/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>20.4</b>



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Seawolf 1-12 CTB 1  
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Sample ID	Sample Date	Depth of Sample (feet bgs)	Method 8021B		Method 8015D					Method 300.0
			BTEX	Benzene	GRO	DRO	GRO+DRO	MRO	Total TPH	Chloride
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
<b>NMOCD Closure Criteria</b>			<b>50</b>	<b>10</b>	--	--	<b>1,000</b>	--	<b>2,500</b>	<b>10,000</b>
SC-51	8/4/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>271</b>
SC-52	8/4/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>312</b>
SC-53	8/11/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>70.8</b>
SC-54	8/11/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<b>28.2</b>	<b>28.2</b>	<50.0	<b>28.2</b>	<b>203</b>
SC-55	8/11/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>650</b>
SC-56	8/11/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<b>34.4</b>	<b>34.4</b>	<50.0	<b>34.4</b>	<b>886</b>
SC-57	8/11/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>3,720</b>
SC-58	8/11/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>731</b>
SC-59	8/11/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>875</b>
SC-60	8/11/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>487</b>
SC-61	8/11/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<b>48.3</b>	<b>48.3</b>	<50.0	<b>48.3</b>	<b>2,580</b>
SC-62	8/11/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>376</b>
SC-63	8/11/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>371</b>
SC-64	8/11/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>916</b>
SC-65	8/11/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>977</b>
SC-66	8/11/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<b>64.8</b>	<b>64.8</b>	<b>51.8</b>	<b>116.6</b>	<b>4,190</b>
SC-67	8/11/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>660</b>
SC-68	8/11/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>355</b>
SC-69	8/11/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<b>26.4</b>	<b>26.4</b>	<50.0	<b>26.4</b>	<b>980</b>
SC-70	8/11/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>477</b>
SC-71	8/11/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>944</b>
SC-72	8/11/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>875</b>
SC-73	8/11/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>1,370</b>
SC-74	8/11/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>723</b>
SC-75	8/11/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<b>34.3</b>	<b>34.3</b>	<50.0	<b>34.3</b>	<b>734</b>



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Seawolf 1-12 CTB 1  
nrm2004262184 and nAPP2125141291

Sample ID	Sample Date	Depth of Sample (feet bgs)	Method 8021B		Method 8015D					Method 300.0
			BTEX	Benzene	GRO	DRO	GRO+DRO	MRO	Total TPH	Chloride
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
<b>NMOCD Closure Criteria</b>			<b>50</b>	<b>10</b>	--	--	<b>1,000</b>	--	<b>2,500</b>	<b>10,000</b>
SC-76	8/11/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>239</b>
SC-77	8/11/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>255</b>
SC-78	8/11/2022	0.5 to 0.75	<0.100	<0.0250	<20.0	<b>81.5</b>	<b>81.5</b>	<b>65.3</b>	<b>146.8</b>	<b>741</b>
SC-79	8/17/2022	0.75 to 1	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<20.0
SC-80	8/17/2022	0.75 to 1	<0.100	<0.0250	<20.0	<b>25.5</b>	<b>25.5</b>	<50.0	<b>25.5</b>	<20.0
SC-81	8/17/2022	0.75 to 1	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>26.7</b>
SC-82	8/17/2022	0 to 1	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<20.0
SC-83	8/17/2022	0 to 1	<0.100	<0.0250	<20.0	<b>31.1</b>	<b>31.1</b>	<50.0	<b>31.1</b>	<b>54.7</b>
SC-84	8/17/2022	0 to 1	<0.100	<0.0250	<20.0	<25.0	<45.0	<50.0	<95.0	<b>100</b>

Notes: NMOCD - New Mexico Oil Conservation Division  
 BTEX - benzene, toluene, ethylbenzene, and xylenes  
 GRO - gasoline range organics  
 DRO - diesel range organics  
 MRO - motor oil range organics

TPH - total petroleum hydrocarbons  
 bgs - below grade surface  
 mg/kg - milligram per kilogram  
 "--" not applicable or not analyzed



# APPENDIX A

# CORRESPONDENCE

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural  
Resources Department  
  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-141  
Revised August 24, 2018  
Submit to appropriate OCD District office

Incident ID	NRM2004353184
District RP	
Facility ID	
Application ID	

## Release Notification

### Responsible Party

Responsible Party Devon Energy Production Company	OGRID 6137
Contact Name Amanda T. Davis	Contact Telephone 575-748-0176
Contact email amanda.davis@dvn.com	Incident # (assigned by OCD)
Contact mailing address 6488 Seven Rivers HWY	

### Location of Release Source

Latitude 32.077077 Longitude -103.526861  
*(NAD 83 in decimal degrees to 5 decimal places)*

Site Name SeaWolf 1-12 CTB 1	Site Type Central Tank Battery
Date Release Discovered 1/23/20	API# (if applicable) N/A

Unit Letter	Section	Township	Range	County
C	1	26S	33E	Lea

Surface Owner:  State  Federal  Tribal  Private (Name: \_\_\_\_\_)

### Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 17.65	Volume Recovered (bbls) 15
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release The water dump valve for the Seawolf 86H developed a hole in the housing causing fluid to release onto the pad. All fluids stayed on the pad.

State of New Mexico  
Oil Conservation Division

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Incident ID	NRM2004353184
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC?  <input type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

### Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.
If all the actions described above have <u>not</u> been undertaken, explain why:  <b>This release was not contained within a secondary containment.</b>
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.
Printed Name: <u>Kendra DeHoyos</u> Title: <u>EHS Associate</u> Signature: <u>Kendra DeHoyos</u> Date: <u>2/10/2020</u> email: <u>kendra.dehoyos@dvn.com</u> Telephone: <u>575-748-3371</u>
<b><u>OCD Only</u></b> Received by: <u>Ramona Marcus</u> Date: <u>02/12/2020</u>

Inputs in blue, Outputs in red

NRM2004353184

Contaminated Soil measurement

Length(Ft)	Width(Ft)	Depth(Ft)
<u>50</u>	<u>30.000</u>	<u>0.021</u>
Cubic Feet of Soil Impacted		<u>31.500</u>
Barrels of Soil Impacted		<u>5.61</u>
Soil Type		Clay/Sand
Barrels of Oil Assuming 100% Saturation		<u>0.84</u>
Saturation	Fluid present with shovel/backhoe	
Estimated Barrels of Oil Released		0.84

Free Standing Fluid Only

Length(Ft)	Width(Ft)	Depth(Ft)
<u>50</u>	<u>30.000</u>	<u>0.063</u>
Standing fluid		<u>16.808</u>
<u>Total fluids spilled</u>		<u>17.650</u>

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural  
Resources Department  
  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-141  
Revised August 24, 2018  
Submit to appropriate OCD District office

Incident ID	nAPP2125141291
District RP	
Facility ID	
Application ID	

## Release Notification

### Responsible Party

Responsible Party Devon Energy	OGRID 6137
Contact Name Wesley Mathews	Contact Telephone 575-578-6195
Contact email Wesley.Mathews@dvn.com	Incident # (assigned by OCD)
Contact mailing address 6488 Seven Rivers Hwy Artesia, NM 88210	

### Location of Release Source

Latitude 32.076939 Longitude -103.526632  
*(NAD 83 in decimal degrees to 5 decimal places)*

Site Name Seawolf 1-12 CTB 1	Site Type Oil
Date Release Discovered 8/20/2021	API# (if applicable)

Unit Letter	Section	Township	Range	County
C	1	26S	33E	Lea

Surface Owner:  State  Federal  Tribal  Private (Name: \_\_\_\_\_)

### Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 5.99 BBLS	Volume Recovered (bbls) 5 BBLS
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release Pin hole leak on water dump line.

State of New Mexico  
Oil Conservation Division

Incident ID	nAPP2125141291
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC?  <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

### Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.
If all the actions described above have <u>not</u> been undertaken, explain why:  <b>Spill was not in containment.</b>
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.
Printed Name: <u>Kendra DeHoyos</u> Title: <u>EHS Associate</u> Signature: <u>Kendra DeHoyos</u> Date: <u>9/8/2021</u> email: <u>Kendra.DeHoyos@dvn.com</u> Telephone: <u>575-748-0167</u>
<b><u>OCD Only</u></b> Received by: <u>Ramona Marcus</u> Date: <u>9/12/2021</u>

NAPP2125141291

<b>Spill Volume(Bbls) Calculator</b>		
<i>Inputs in blue, Outputs in red</i>		
Contaminated Soil measurement		
Length(Ft)	Width(Ft)	Depth(Ft)
<u>30</u>	<u>32.000</u>	<u>0.021</u>
Cubic Feet of Soil Impacted		<u>20.160</u>
Barrels of Soil Impacted		<u>3.59</u>
Soil Type		Clay
Barrels of Oil Assuming 100% Saturation		<u>0.36</u>
Saturation	Fluid present with shovel/backhoe	
Estimated Barrels of Oil Released		0.36
Free Standing Fluid Only		
Length(Ft)	Width(Ft)	Depth(Ft)
<u>26</u>	<u>29.000</u>	<u>0.042</u>
Standing fluid		<u>5.632</u>
<b>Total fluids spilled</b>		<b><u>5.992</u></b>

**District I**  
 1625 N. French Dr., Hobbs, NM 88240  
 Phone:(575) 393-6161 Fax:(575) 393-0720

**District II**  
 811 S. First St., Artesia, NM 88210  
 Phone:(575) 748-1283 Fax:(575) 748-9720

**District III**  
 1000 Rio Brazos Rd., Aztec, NM 87410  
 Phone:(505) 334-6178 Fax:(505) 334-6170

**District IV**  
 1220 S. St Francis Dr., Santa Fe, NM 87505  
 Phone:(505) 476-3470 Fax:(505) 476-3462

**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

CONDITIONS  
 Action 47100

**CONDITIONS**

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 47100
	Action Type: [C-141] Release Corrective Action (C-141)

**CONDITIONS**

Created By	Condition	Condition Date
marcus	None	9/12/2021

Incident ID	nrm2004353184
District RP	
Facility ID	
Application ID	

## Site Assessment/Characterization

*This information must be provided to the appropriate district office no later than 90 days after the release discovery date.*

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>    &gt;55    </u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

**Characterization Report Checklist:** *Each of the following items must be included in the report.*

- Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- Field data
- Data table of soil contaminant concentration data
- Depth to water determination
- Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- Boring or excavation logs
- Photographs including date and GIS information
- Topographic/Aerial maps
- Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

State of New Mexico  
Oil Conservation Division

Page 4

Incident ID	nrm2004353184
District RP	
Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Dale Woodall Title: Env. Professional

Signature: Dale Woodall Date: 1/24/2023

email: Dale.Woodall@dvn.com Telephone: 575-748-1838

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

Incident ID	nrm2004353184
District RP	
Facility ID	
Application ID	

## Remediation Plan

**Remediation Plan Checklist:** Each of the following items must be included in the plan.

- Detailed description of proposed remediation technique
- Scaled sitemap with GPS coordinates showing delineation points
- Estimated volume of material to be remediated
- Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

**Deferral Requests Only:** Each of the following items must be confirmed as part of any request for deferral of remediation.

- Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- Extents of contamination must be fully delineated.
- Contamination does not cause an imminent risk to human health, the environment, or groundwater.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Dale Woodall Title: Env. Professional  
 Signature: Dale Woodall Date: 1/24/2023  
 email: Dale.Woodall@dvn.com Telephone: 575-748-1838

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

- Approved     Approved with Attached Conditions of Approval     Denied     Deferral Approved

Signature: Jennifer Nobui Date: 02/14/2023

Incident ID	nAPP2125141291
District RP	
Facility ID	
Application ID	

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Incident ID	nAPP2125141291
District RP	
Facility ID	
Application ID	

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Printed Name: Dale Woodall Title: Env. Professional

Signature: Dale Woodall Date: 1/24/2023

email: Dale.Woodall@dvn.com Telephone: 575-748-1838

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

Incident ID	nAPP2125141291
District RP	
Facility ID	
Application ID	

## Remediation Plan

**Remediation Plan Checklist:** Each of the following items must be included in the plan.

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- Estimated volume of material to be remediated
- Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

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- Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- Extents of contamination must be fully delineated.
- Contamination does not cause an imminent risk to human health, the environment, or groundwater.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Dale Woodall Title: Env. Professional  
 Signature: Dale Woodall Date: 1/24/2023  
 email: Dale.Woodall@dvj.com Telephone: 575-748-1838

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

- Approved     Approved with Attached Conditions of Approval     Denied     Deferral Approved

Signature: Jennifer Nobui Date: 02/14/2023

## Heather Woods

---

**From:** Nobui, Jennifer, EMNRD <Jennifer.Nobui@state.nm.us>  
**Sent:** Wednesday, July 27, 2022 8:10 AM  
**To:** Heather Woods  
**Cc:** Bratcher, Mike, EMNRD; Hamlet, Robert, EMNRD; Harimon, Jocelyn, EMNRD  
**Subject:** FW: [EXTERNAL] Confirmation Sampling Notification - Seawolf 1-12 CTB 1 (nAPP2102637490, nAPP2125141291, nAPP2004353184)

Heather

Thank you for the notification. Please include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Thanks,  
Jennifer Nobui

---

**From:** Enviro, OCD, EMNRD <OCD.Enviro@state.nm.us>  
**Sent:** Wednesday, July 27, 2022 8:03 AM  
**To:** Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>; Nobui, Jennifer, EMNRD <Jennifer.Nobui@state.nm.us>; Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@state.nm.us>; Velez, Nelson, EMNRD <Nelson.Velez@state.nm.us>  
**Subject:** Fw: [EXTERNAL] Confirmation Sampling Notification - Seawolf 1-12 CTB 1 (nAPP2102637490, nAPP2125141291, nAPP2004353184)

---

**From:** Heather Woods <[Heather.Woods@soudermiller.com](mailto:Heather.Woods@soudermiller.com)>  
**Sent:** Tuesday, July 26, 2022 2:55 PM  
**To:** Enviro, OCD, EMNRD <[OCD.Enviro@state.nm.us](mailto:OCD.Enviro@state.nm.us)>  
**Cc:** Woodall, Dale <[Dale.Woodall@dvn.com](mailto:Dale.Woodall@dvn.com)>; Ashley Maxwell <[ashley.maxwell@soudermiller.com](mailto:ashley.maxwell@soudermiller.com)>; Sara McNallen <[sara.mcnallen@soudermiller.com](mailto:sara.mcnallen@soudermiller.com)>; Georgeann Goodman <[Georgeann.Goodman@soudermiller.com](mailto:Georgeann.Goodman@soudermiller.com)>  
**Subject:** [EXTERNAL] Confirmation Sampling Notification - Seawolf 1-12 CTB 1 (nAPP2102637490, nAPP2125141291, nAPP2004353184)

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Good Afternoon,

Souder, Miller & Associates will be on location at the Seawolf 1-12 CTB 1 (nAPP2102637490, nAPP2125141291, nAPP2004353184) beginning on Thursday, July 28<sup>th</sup> at 10:00am and continuing through Friday, July 29<sup>th</sup> as needed to perform confirmation sampling of the ongoing excavation. Please let me know if you have any questions.

Many Thanks,  
Heather

Heather Woods, P.G.  
Project Geoscientist

Personal Registrations: UT Professional Geologist

Corporate Registrations: AZ Engineering/Geology/Surveying Firm (14070), FL Engineering Firm (34203), ID Engineering/Surveying Firm (C-3564), ND Engineering Firm (28545PE), OK Engineering Firm (8498), SD Surveying Firm (C-7436), TX Engineering Firm (8877), TX Geology Firm (50254), TX PST CAPM (CS-0000051), TX Surveying Firm (10162200), WY Engineering/Surveying Firm (S-1704)



**Souder, Miller & Associates**

Engineering ♦ Environmental ♦ Geomatics

401 West Broadway

Farmington, NM 87401

(505) 716-2787 (mobile)

(505) 325-7535 (office)

[www.soudermiller.com](http://www.soudermiller.com)



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## Heather Woods

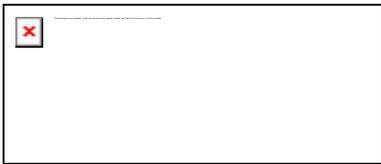
---

**From:** Sarahmay Schlea  
**Sent:** Tuesday, August 2, 2022 11:34 AM  
**To:** Woodall, Dale; Enviro, OCD, EMNRD; Heather Woods; Ashley Maxwell  
**Cc:** Georgeann Goodman

Good Morning,

Souder, Miller and Associates will be on location Thursday, August 4, beginning at 9:00, to conduct confirmation sampling at the SeaWolf 1-12 CTB 1 (napp2208340802, napp2102637490) located at 32.07917228, -103.52616097. Please consider this your 48-hour notification.

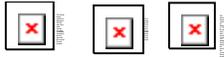
Many Thanks,  
Sarahmay Schlea



**Sarahmay Schlea**  
*Staff Scientist I*  
*(she/her)*

Direct/Mobile: [330-958-5689](tel:330-958-5689)  
Office: [575-449-2758](tel:575-449-2758)

**Stronger Communities by Design**



[201 S Halagueno St](https://www.soudermiller.com)  
[Carlsbad, NM 88220](https://www.soudermiller.com)

[www.soudermiller.com](http://www.soudermiller.com)

**Corporate Registrations:** AZ Engineering/Geology/Surveying Firm (14070), FL Engineering Firm (34203), ID Engineering/Surveying Firm (C-3564), ND Engineering Firm (28545PE), OK Engineering Firm (8498), SD Surveying Firm (C-7436), TX Engineering Firm (8877), TX Geology Firm (50254), TX Surveying Firm (10162200), WY Engineering/Surveying Firm (S-1704)

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## Heather Woods

---

**From:** Sarahmay Schlea  
**Sent:** Tuesday, August 9, 2022 5:04 PM  
**To:** Woodall, Dale; Enviro, OCD, EMNRD; Heather Woods; Ashley Maxwell  
**Cc:** Georgeann Goodman  
**Subject:** Confirmation Sampling Notification - Devon Seawolf 1-12 CTB 1 (napp2208340802, napp2102637490, napp2133355460, napp2125141291, napp2106443694)

Good evening,

Souder, Miller and Associates will be on location Thursday, August 11, beginning at 9:00am, to conduct confirmation sampling at the SeaWolf 1-12 CTB 1 (napp2208340802, napp2102637490, napp2133355460, napp2125141291, napp2106443694) located at 32.07917228, -103.52616097. Please consider this your 48-hour notification.

Many Thanks,  
Sarahmay Schlea



**Stronger Communities by Design**



[www.soudermiller.com](http://www.soudermiller.com)

**Sarahmay Schlea**

*Staff Scientist I  
(she/her)*

Direct/Mobile: 330-958-5689  
Office: 575-449-2758

201 S Halagueno St  
Carlsbad, NM 88220

**Corporate Registrations:** AZ Engineering/Geology/Surveying Firm (14070), FL Engineering Firm (34203), ID Engineering/Surveying Firm (C-3564), ND Engineering Firm (28545PE), OK Engineering Firm (8498), SD Surveying Firm (C-7436), TX Engineering Firm (8877), TX Geology Firm (50254), TX Surveying Firm (10162200), WY Engineering/Surveying Firm (S-1704)

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## Heather Woods

---

**From:** Heather Woods  
**Sent:** Monday, August 15, 2022 12:14 PM  
**To:** Enviro, OCD, EMNRD  
**Cc:** Woodall, Dale; Sarahmay Schlea; Georgeann Goodman  
**Subject:** Confirmation Sampling Notification - Devon Seawolf 1-12 CTB 1 (napp2208340802, napp2102637490, napp2133355460, napp2125141291, napp2106443694)

Good evening,

Souder, Miller and Associates will be on location Wednesday, August 17, beginning at 7:30am, to conduct additional confirmation sampling at the SeaWolf 1-12 CTB 1 (napp2208340802, napp2102637490, napp2133355460, napp2125141291, napp2106443694) located at 32.07917228, -103.52616097.

Many Thanks,  
Heather

Heather Woods, P.G.  
*Project Geoscientist*

Personal Registrations: UT Professional Geologist

Corporate Registrations: AZ Engineering/Geology/Surveying Firm (14070), FL Engineering Firm (34203), ID Engineering/Surveying Firm (C-3564), ND Engineering Firm (28545PE), OK Engineering Firm (8498), SD Surveying Firm (C-7436), TX Engineering Firm (8877), TX Geology Firm (50254), TX PST CAPM (CS-0000051), TX Surveying Firm (10162200), WY Engineering/Surveying Firm (S-1704)



### **Souder, Miller & Associates**

Engineering ♦ Environmental ♦ Geomatics  
401 West Broadway  
Farmington, NM 87401  
(505) 716-2787 (mobile)  
(505) 325-7535 (office)  
[www.soudermiller.com](http://www.soudermiller.com)



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# APPENDIX B

## WATER WELL DATA



# New Mexico Office of the State Engineer Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced,  
O=orphaned,  
C=the file is closed) (quarters are 1=NW 2=NE 3=SW 4=SE)  
(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
<a href="#">C 02294</a>	CUB	LE		4	4	3	11	26S	33E	637465	3547003	200	145	55
<a href="#">C 02295</a>	CUB	LE		2	2	4	12	26S	33E	639865	3547624	250	200	50
<a href="#">C 04628 POD1</a>	CUB	LE		1	1	2	01	26S	33E	639121	3550219			

Average Depth to Water: **172 feet**  
Minimum Depth: **145 feet**  
Maximum Depth: **200 feet**

**Record Count: 3**

**PLSS Search:**

**Section(s):** 1, 2, 11, 12      **Township:** 26S      **Range:** 33E

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.



# WELL RECORD & LOG

## OFFICE OF THE STATE ENGINEER

[www.ose.state.nm.us](http://www.ose.state.nm.us)

<b>1. GENERAL AND WELL LOCATION</b>	OSE POD NO. (WELL NO.) POD 1 (TW-1)		WELL TAG ID NO. N/A		OSE FILE NO(S). C-4628			
	WELL OWNER NAME(S) Devon Energy				PHONE (OPTIONAL) 575-748-1838			
	WELL OWNER MAILING ADDRESS 6488 7 Rivers Hwy				CITY STATE ZIP Artesia NM 88210			
	WELL LOCATION (FROM GPS)		DEGREES		MINUTES		SECONDS	
			LATITUDE		32		4 46.64 N	
LONGITUDE		103		31		34.28 W		
* ACCURACY REQUIRED: ONE TENTH OF A SECOND								
* DATUM REQUIRED: WGS 84								
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE NW NW NE Sec.1 T26S R33S NMPM								

<b>2. DRILLING &amp; CASING INFORMATION</b>	LICENSE NO. 1249		NAME OF LICENSED DRILLER Jackie D. Atkins			NAME OF WELL DRILLING COMPANY Atkins Engineering Associates, Inc.			
	DRILLING STARTED 6/9/2022		DRILLING ENDED 6/9/2022		DEPTH OF COMPLETED WELL (FT) Temporary Well		BORE HOLE DEPTH (FT) ±55		
					DEPTH WATER FIRST ENCOUNTERED (FT) N/A				
	COMPLETED WELL IS: <input type="checkbox"/> ARTESIAN <input checked="" type="checkbox"/> DRY HOLE <input type="checkbox"/> SHALLOW (UNCONFINED)					STATIC WATER LEVEL IN COMPLETED WELL (FT) N/A		DATE STATIC MEASURED 6/13/2022	
	DRILLING FLUID: <input type="checkbox"/> AIR <input type="checkbox"/> MUD ADDITIVES - SPECIFY:								
	DRILLING METHOD: <input type="checkbox"/> ROTARY <input type="checkbox"/> HAMMER <input type="checkbox"/> CABLE TOOL <input checked="" type="checkbox"/> OTHER - SPECIFY: Hollow Stem Auger							CHECK HERE IF PITLESS ADAPTER IS INSTALLED <input type="checkbox"/>	
	DEPTH (feet bgl)		BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)	
	FROM	TO							
	0	55	±6.5	Boring-HSA	--	--	--	--	

<b>3. ANNULAR MATERIAL</b>	DEPTH (feet bgl)		BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT
	FROM	TO				

FOR OSE INTERNAL USE		WR-20 WELL RECORD & LOG (Version 01/28/2022)			
FILE NO.	C-4628-POD 1	POD NO.	1	TRN NO.	726182
LOCATION	26.33.01.112			WELL TAG ID NO.	
					PAGE 1 OF 2



Mike A. Hamman, P.E.  
State Engineer



Roswell Office  
1900 WEST SECOND STREET  
ROSWELL, NM 88201

**STATE OF NEW MEXICO  
OFFICE OF THE STATE ENGINEER**

Trn Nbr: 726182  
File Nbr: C 04628  
Well File Nbr: C 04628 POD1

Jun. 16, 2022

DALE WOODALL  
DEVON ENERGY  
6488 7 RIVERS HWY  
ARESIA, NM 88210

Greetings:

The above numbered permit was issued in your name on 05/24/2022.

The Well Record was received in this office on 06/16/2022, stating that it had been completed on 06/09/2022, and was a dry well. The well is to be plugged according to 19.27.4.30 NMAC.

Please note that another well can be drilled under this permit if the well is completed and the well log filed on or before 05/24/2023.

If you have any questions, please feel free to contact us.

Sincerely,

A handwritten signature in blue ink, appearing to read "Maret Amaral".

Maret Amaral  
(575) 622-6521

drywell



2904 W 2nd St.  
Roswell, NM 88201  
voice: 575.624.2420  
fax: 575.624.2421  
www.atkinseng.com

June 8, 2022

DII-NMOSE  
1900 W 2<sup>nd</sup> Street  
Roswell, NM 88201

*Hand Delivered to the DII Office of the State Engineer*

Re: Well Record C-4628 Pod1at Seawolf 1-12 CTB 1

To whom it may concern:

Attached please find a well log & record and a plugging record, in duplicate, for a one (1) soil borings, C-4628 Pod1.

If you have any questions, please contact me at 575.499.9244 or [lucas@atkinseng.com](mailto:lucas@atkinseng.com).

Sincerely,

A handwritten signature in black ink that reads "Lucas Middleton". The signature is written in a cursive style.

Lucas Middleton

Enclosures: as noted above

OSE DT JUN 16 2022 PM 3:11



# New Mexico Office of the State Engineer Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed) (quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
<a href="#">C 02291</a>	CUB	LE	1	1	2	06	26S	34E	640825	3550140*		220	160	60
<a href="#">C 02292 POD1</a>	CUB	LE	4	1	2	06	26S	34E	640992	3549987		200	140	60
<a href="#">C 03441 POD1</a>	C	LE	4	1	2	06	26S	34E	640971	3550039		250		
<a href="#">C 03442 POD1</a>	C	LE	4	1	2	06	26S	34E	641056	3550028		251		

Average Depth to Water: **150 feet**  
 Minimum Depth: **140 feet**  
 Maximum Depth: **160 feet**

**Record Count:** 4

**PLSS Search:**

**Section(s):** 6, 7

**Township:** 26S

**Range:** 34E

\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.



# New Mexico Office of the State Engineer Water Column/Average Depth to Water

---

No records found.

**PLSS Search:**

**Section(s):** 31

**Township:** 25S

**Range:** 34E

---

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# New Mexico Office of the State Engineer

## Water Column/Average Depth to Water

---

No records found.

**PLSS Search:**

**Section(s):** 35, 36

**Township:** 25S

**Range:** 33E

---

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1/9/23 2:01 PM

Page 1 of 1

WATER COLUMN/ AVERAGE  
DEPTH TO WATER

# APPENDIX C

## FIELD NOTES AND PHOTOGRAPH LOG

 <b>Field Screening</b>									
Location Name: <i>Seawolf 1-12 CT61</i>		Date: <i>5/19/2022</i>							
Sample Name:	Collection Time:	EC (mS)	Temp (°C)	PID Reading /PF	Soil Color	Primary Soil Type	Moisture Level	Other Remarks/Notes:	
<i>SB22@0'</i>	<i>0801</i>	<i>19.55</i>		<i>417</i>	Light Tan Gray Yellow Dark Brown Olive Red	Gravel Sand Clay Rock Silt Clay	Dry Moist Wet		
<i>SB23@0'</i>	<i>0802</i>	<i>5.11</i>		<i>20.2</i>	Light Tan Gray Yellow Dark Brown Olive Red	Gravel Sand Clay Rock Silt Clay	Dry Moist Wet		
<i>SB22@1'</i>	<i>0808</i>	<i>2.1</i>		<i>2394</i>	Light Tan Gray Yellow Dark Brown Olive Red	Gravel Sand Clay Rock Silt Clay	Dry Moist Wet		
<i>SB23@10"</i>	<i>0811</i>	<i>1.72</i>		<i>12.3</i>	Light Tan Gray Yellow Dark Brown Olive Red	Gravel Sand Clay Rock Silt Clay	Dry Moist Wet	<i>refusal on caliche rock</i>	
<i>SB22@1.25'</i>	<i>0816</i>	<i>4.48</i>		<i>932</i>	Light Tan Gray Yellow Dark Brown Olive Red	Gravel Sand Clay Rock Silt Clay	Dry Moist Wet	<i>refusal on caliche rock</i>	
<i>SB24@0'</i>	<i>0818</i>	<i>0.22</i>		<i>8.0</i>	Light Tan Gray Yellow Dark Brown Olive Red	Gravel Sand Clay Rock Silt Clay	Dry Moist Wet		
<i>SB25@0'</i>	<i>0820</i>	<i>12.31</i>		<i>26.9</i>	Light Tan Gray Yellow Dark Brown Olive Red	Gravel Sand Clay Rock Silt Clay	Dry Moist Wet		
<i>SB25@1'</i>	<i>0829</i>	<i>1.59</i>		<i>15.2</i>	Light Tan Gray Yellow Dark Brown Olive Red	Gravel Sand Clay Rock Silt Clay	Dry Moist Wet	<i>refusal</i>	
<i>SB24@1'</i>	<i>0831</i>	<i>0.11</i>		<i>6.1</i>	Light Tan Gray Yellow Dark Brown Olive Red	Gravel Sand Clay Rock Silt Clay	Dry Moist Wet	<i>refusal</i>	

①

2

**Field Screening**



Location Name: Sawolf 1-12 CTB1

Date: 5/19/22

Sample Name:	Collection Time:	EC (mS)	Temp (°C)	PID Reading /PF	Soil Color	Primary Soil Type	Moisture Level	Other Remarks/Notes:
SB2600	0833	18.1		4.4	Light Tan Gray Yellow Dark Brown Olive Red	Gravel Sand Clay Rock Silt Clay	Dry Moist Wet	
SB2700	0835	0.46		21.7	Light Tan Gray Yellow Dark Brown Olive Red	Gravel Sand Clay Rock Silt Clay	Dry Moist Wet	
SB2601	0842	2.96		6.6	Light Tan Gray Yellow Dark Brown Olive Red	Gravel Sand Clay Rock Silt Clay	Dry Moist Wet	refusal
SB27010	0847	0.18		5.7	Light Tan Gray Yellow Dark Brown Olive Red	Gravel Sand Clay Rock Silt Clay	Dry Moist Wet	refusal
SB2800	0955	0.44		1.8	Light Tan Gray Yellow Dark Brown Olive Red	Gravel Sand Clay Rock Silt Clay	Dry Moist Wet	
SB2900	0958	11.35		2.1	Light Tan Gray Yellow Dark Brown Olive Red	Gravel Sand Clay Rock Silt Clay	Dry Moist Wet	
SB3000	1000	11.62		2.2	Light Tan Gray Yellow Dark Brown Olive Red	Gravel Sand Clay Rock Silt Clay	Dry Moist Wet	
SB3100	1003	12.23		1.3	Light Tan Gray Yellow Dark Brown Olive Red	Gravel Sand Clay Rock Silt Clay	Dry Moist Wet	
SB3200	1124	13.79		2.4	Light Tan Gray Yellow Dark Brown Olive Red	Gravel Sand Clay Rock Silt Clay	Dry Moist Wet	

3



Field Screening

Location Name: Sawolk 1-12 CTB 1

Date: 5/19/2022

Sample Name:	Collection Time:	EC (mS)	Temp (°C)	PID Reading /PF	Soil Color	Primary Soil Type	Moisture Level	Other Remarks/Notes:
SB33E0	1120	4.35		2.2	Light Tan Gray Yellow Dark Brown Olive Red	Gravel Sand Clay Rock Silt Clay	Dry Moist Wet	
SB34E0	1129	16.97		0.8	Light Tan Gray Yellow Dark Brown Olive Red	Gravel Sand Clay Rock Silt Clay	Dry Moist Wet	
SB35E0	1131	13.04		2.0	Light Tan Gray Yellow Dark Brown Olive Red	Gravel Sand Clay Rock Silt Clay	Dry Moist Wet	
SB36E0'	1154	0.14		0.9	Light Tan Gray Yellow Dark Brown Olive Red	Gravel Sand Clay Rock Silt Clay	Dry Moist Wet	
SB36E1'	1204	0.19		0.9	Light Tan Gray Yellow Dark Brown Olive Red	Gravel Sand Clay Rock Silt Clay	Dry Moist Wet	refused
					Light Tan Gray Yellow Dark Brown Olive Red	Gravel Sand Clay Rock Silt Clay	Dry Moist Wet	
					Light Tan Gray Yellow Dark Brown Olive Red	Gravel Sand Clay Rock Silt Clay	Dry Moist Wet	
					Light Tan Gray Yellow Dark Brown Olive Red	Gravel Sand Clay Rock Silt Clay	Dry Moist Wet	
					Light Tan Gray Yellow Dark Brown Olive Red	Gravel Sand Clay Rock Silt Clay	Dry Moist Wet	

1

### Field Screening



Location Name: Sawolf 1-12 CTB 1

Date: 5/20/2022

Sample Name:	Collection Time:	EC (mS)	Temp (°C)	PID Reading /PF	Soil Color	Primary Soil Type	Moisture Level	Other Remarks/Notes:
SB3700'	0920	0.12		0.0	Light Tan Gray Yellow Dark Brown Olive Red	Gravel Sand Clay Rock Silt Clay	Dry Moist Wet	
SB3800'	0922	1.32		0.0	Light Tan Gray Yellow Dark Brown Olive Red	Gravel Sand Clay Rock Silt Clay	Dry Moist Wet	
SB3900'	0926	0.25		0.0	Light Tan Gray Yellow Dark Brown Olive Red	Gravel Sand Clay Rock Silt Clay	Dry Moist Wet	
SB4000'	0932	0.21		0.5	Light Tan Gray Yellow Dark Brown Olive Red	Gravel Sand Clay Rock Silt Clay	Dry Moist Wet	
SB4100'	0935	0.50		0.0	Light Tan Gray Yellow Dark Brown Olive Red	Gravel Sand Clay Rock Silt Clay	Dry Moist Wet	
SB4200'	0938	0.42		0.0	Light Tan Gray Yellow Dark Brown Olive Red	Gravel Sand Clay Rock Silt Clay	Dry Moist Wet	
SB4300'	0940	8.61		0.2	Light Tan Gray Yellow Dark Brown Olive Red	Gravel Sand Clay Rock Silt Clay	Dry Moist Wet	
SB4400'	1012	0.21		0.9	Light Tan Gray Yellow Dark Brown Olive Red	Gravel Sand Clay Rock Silt Clay	Dry Moist Wet	
SB4500'	1015	1.34		0.2	Light Tan Gray Yellow Dark Brown Olive Red	Gravel Sand Clay Rock Silt Clay	Dry Moist Wet	

 <b>Field Screening</b>									
Location Name: <i>Seawolf 1-12 CTB 1</i>		Date: <i>5/20/2022</i>							
Sample Name:	Collection Time:	EC (mS)	Temp (°C)	PID Reading /PF	Soil Color	Primary Soil Type	Moisture Level	Other Remarks/Notes:	
<i>SB4620</i>	<i>1017</i>	<i>9.59</i>		<i>0.0</i>	Light Tan Gray Yellow Dark Brown Olive Red	Gravel Sand Clay Rock Silt Clay	Dry Moist Wet		
<i>SB4720</i>	<i>1019</i>	<i>20+</i>		<i>0.0</i>	Light Tan Gray Yellow Dark Brown Olive Red	Gravel Sand Clay Rock Silt Clay	Dry Moist Wet		
<i>SB34@6"</i>	<i>1103</i>	<i>1.89</i>		<i>1.7</i>	Light Tan Gray Yellow Dark Brown Olive Red	Gravel Sand Clay Rock Silt Clay	Dry Moist Wet	<i>refused</i>	
<i>SB4820</i>	<i>1113</i>	<i>1.38</i>		<i>0.5</i>	Light Tan Gray Yellow Dark Brown Olive Red	Gravel Sand Clay Rock Silt Clay	Dry Moist Wet		
<i>SB4920</i>	<i>1116</i>	<i>10.16</i>		<i>0.4</i>	Light Tan Gray Yellow Dark Brown Olive Red	Gravel Sand Clay Rock Silt Clay	Dry Moist Wet		
<i>SB5020</i>	<i>1117</i>	<i>7.26</i>		<i>0.3</i>	Light Tan Gray Yellow Dark Brown Olive Red	Gravel Sand Clay Rock Silt Clay	Dry Moist Wet		
<i>SB47@6"</i>	<i>1146</i>	<i>1.93</i>		<i>3.3</i>	Light Tan Gray Yellow Dark Brown Olive Red	Gravel Sand Clay Rock Silt Clay	Dry Moist Wet	<i>refused</i>	
<i>SB5120</i>	<i>1148</i>	<i>20+</i>		<i>0.6</i>	Light Tan Gray Yellow Dark Brown Olive Red	Gravel Sand Clay Rock Silt Clay	Dry Moist Wet		
<i>SB5220</i>	<i>1149</i>	<i>0.41</i>		<i>0.6</i>	Light Tan Gray Yellow Dark Brown Olive Red	Gravel Sand Clay Rock Silt Clay	Dry Moist Wet		

2



Field Screening

Location Name:	Sample Name:	Collection Time:	EC (mS)	Temp (°C)	PID Reading /PF	Soil Color	Primary Soil Type	Moisture Level	Other Remarks/Notes:
Seawolf 1-12 CTB1					Date: 8/30/2022				
NRE01	0906	9.13	25.0	2.7	Light Tan Gray Yellow	Gravel Sand Clay	Dry Moist Wet		
NRE02	0908	10.01	24.8	4.7	Dark Brown Olive Red	Gravel Sand Clay	Dry Moist Wet		
NRE03	0909	6.21	24.2	0.2	Light Tan Gray Yellow	Gravel Sand Clay	Dry Moist Wet		
NRE04	0910	4.24	24.4	7.0	Dark Brown Olive Red	Gravel Sand Clay	Dry Moist Wet		
NRE05	0911	6.60	24.5	4.7	Light Tan Gray Yellow	Gravel Sand Clay	Dry Moist Wet		
NRE06	0912 <del>0912</del>	4.31	24.5	1.6	Dark Brown Olive Red	Gravel Sand Clay	Dry Moist Wet		
NRE08	0916 <del>0916</del>	6.94	24.6	0.0	Light Tan Gray Yellow	Gravel Sand Clay	Dry Moist Wet		
NRE09	0917 <del>0917</del> <del>0917</del>	6.47 <del>10.33</del>	24.4	0.0	Dark Brown Olive Red	Gravel Sand Clay	Dry Moist Wet		
NRE10	0918 <del>0918</del>	10.33	24.5	0.0	Light Tan Gray Yellow	Gravel Sand Clay	Dry Moist Wet		



Field Screening

Location Name: Sawtooth 1-12 CTBI		Date: 9/30/2022						
Sample Name:	Collection Time:	EC (mS)	Temp (°C)	PID Reading /PF	Soil Color	Primary Soil Type	Moisture Level	Other Remarks/Notes:
NRE11	0919	11.89	24.5	0.8	Light Tan Gray Yellow Dark Brown Olive Red	Gravel Sand Clay Rock Silt Clay	Dry Moist Wet	
NRE12	0920	12.01	24.4	1.5	Light Tan Gray Yellow Dark Brown Olive Red	Gravel Sand Clay Rock Silt Clay	Dry Moist Wet	
NRE13	0921	4.78	24.5	1.2	Light Tan Gray Yellow Dark Brown Olive Red	Gravel Sand Clay Rock Silt Clay	Dry Moist Wet	
NRE14	0922	7.61	24.5	1.0	Light Tan Gray Yellow Dark Brown Olive Red	Gravel Sand Clay Rock Silt Clay	Dry Moist Wet	
NRE15	0923	4.80	24.5	0.0	Light Tan Gray Yellow Dark Brown Olive Red	Gravel Sand Clay Rock Silt Clay	Dry Moist Wet	
NRE16	0924	8.75	24.2	0.0	Light Tan Gray Yellow Dark Brown Olive Red	Gravel Sand Clay Rock Silt Clay	Dry Moist Wet	
NRE07	0915	9.91	24.5	0.0	Light Tan Gray Yellow Dark Brown Olive Red	Gravel Sand Clay Rock Silt Clay	Dry Moist Wet	
AS1 @1	0050	1.88	24.5	7.7	Light Tan Gray Yellow Dark Brown Olive Red	Gravel Sand Clay Rock Silt Clay	Dry Moist Wet	
AS2 @1	0955	4.02	24.6	7.2	Light Tan Gray Yellow Dark Brown Olive Red	Gravel Sand Clay Rock Silt Clay	Dry Moist Wet	



Field Screening

Location Name: Seawolf 1-12 CTBI		Date: Aug 30 2022									
Sample Name:	Collection Time:	EC (mS)	Temp (°C)	PID Reading /PF	Soil Color	Primary Soil Type	Moisture Level	Other Remarks/Notes:			
AS3 @ 1	1002	1.08	24.4	8.7	Light Tan Gray Yellow	Gravel Sand Clay	Dry Moist Wet				
AS4 @ 1	1008	1.26	24.8	9.1	Light Tan Gray Yellow	Gravel Sand Clay	Dry Moist Wet				
AS5 @ 1	1012	0.62	24.7	6.3	Light Tan Gray Yellow	Gravel Sand Clay	Dry Moist Wet				
AS6 @ 0	1022	0.26	24.8	3.5	Light Tan Gray Yellow	Gravel Sand Clay	Dry Moist Wet				
AS7 @ 8	1028	0.14	24.7	4.1	Light Tan Gray Yellow	Gravel Sand Clay	Dry Moist Wet				
AS6 @ 8	1025	0.14	24.7	3.6	Light Tan Gray Yellow	Gravel Sand Clay	Dry Moist Wet				
AS7 @ 8	1031	0.09	24.6	4.7	Light Tan Gray Yellow	Gravel Sand Clay	Dry Moist Wet				
<del>AS8 @ 0</del> AS8 @ 0	1033	0.39	24.4	7.1	Light Tan Gray Yellow	Gravel Sand Clay	Dry Moist Wet				
AS4 @ 8	1035	0.29	24.7	5.5	Light Tan Gray Yellow	Gravel Sand Clay	Dry Moist Wet				
AS7 @ 8											



Field Screening

Location Name: Seawolf CTBI		Date: Aug 30 2022									
Sample Name:	Collection Time:	EC (mS)	Temp (°C)	PID Reading /PF	Soil Color	Primary Soil Type	Moisture Level	Other Remarks/Notes:			
NRW 1 @ 0	11:17	9.53	25.3	12.8	Light Tan Gray Yellow Dark Brown Olive Red	Gravel Sand Clay Rock Silt Clay	Dry Moist Wet				
NRW 2 @ 0	11:19	7.65	25.3	12.9	Light Tan Gray Yellow Dark Brown Olive Red	Gravel Sand Clay Rock Silt Clay	Dry Moist Wet				
NRW 3 @ 0	11:20	6.07	25.4	12.5	Light Tan Gray Yellow Dark Brown Olive Red	Gravel Sand Clay Rock Silt Clay	Dry Moist Wet				
NRW 4 @ 0	11:21	6.51	25.4	10.9	Light Tan Gray Yellow Dark Brown Olive Red	Gravel Sand Clay Rock Silt Clay	Dry Moist Wet				
AS 9 @ 8	11:16	0.17	25.4	9.4	Light Tan Gray Yellow Dark Brown Olive Red	Gravel Sand Clay Rock Silt Clay	Dry Moist Wet				
AS 8 @ 8	11:18	0.15	25.4	8.9	Light Tan Gray Yellow Dark Brown Olive Red	Gravel Sand Clay Rock Silt Clay	Dry Moist Wet				
AS 10 @ 8	11:23	2.56	25.4	18.5	Light Tan Gray Yellow Dark Brown Olive Red	Gravel Sand Clay Rock Silt Clay	Dry Moist Wet				
AS 11 @ 8	11:24	3.46	25.3	11.7	Light Tan Gray Yellow Dark Brown Olive Red	Gravel Sand Clay Rock Silt Clay	Dry Moist Wet				
AS 12 @ 0	11:26	0.29	25.3	7.3	Light Tan Gray Yellow Dark Brown Olive Red	Gravel Sand Clay Rock Silt Clay	Dry Moist Wet				
AS 12 @ 4	11:28	0.28	25.4	10.0	Light Tan Gray Yellow Dark Brown Olive Red	Gravel Sand Clay Rock Silt Clay	Dry Moist Wet				

**Photograph Log**  
**Seawolf 1-12 CTB 1**  
**Devon Energy Production Company**



<p>Photograph #1</p>	
<p>Client: Devon Energy</p>	
<p>Site Name: Seawolf 1-12 CTB 1</p>	
<p>Date Photo Taken: July 29, 2022</p>	
<p>Release Location: -103.5266320W, 32.0769390N  1 T: 26S R: 33E Lea County, New Mexico</p>	
<p>Photo Taken by: Heather Woods</p>	<p>Description: Facing northwest, view of sample areas SC-01 and SC-02.</p>

**Photograph Log**  
**Seawolf 1-12 CTB 1**  
**Devon Energy Production Company**



<p>Photograph #2</p>	
<p>Client: Devon Energy</p>	
<p>Site Name: Seawolf 1-12 CTB 1</p>	
<p>Date Photo Taken: July 29, 2022</p>	
<p>Release Location: -103.5266320W, 32.0769390N  1 T: 26S R: 33E Lea County, New Mexico</p>	
<p>Photo Taken by: Heather Woods</p>	<p>Description: Facing west, view of sample areas SC-03 and SC-04.</p>

**Photograph Log**  
**Seawolf 1-12 CTB 1**  
**Devon Energy Production Company**



<p>Photograph #3</p>	
<p>Client: Devon Energy</p>	<p>UTC: 2022.07.29T17:23:26Z                  Lat, Lon: 32.076755, -103.527172                  Alt: 985m MSL WGS84                  CEP: 5m</p>
<p>Site Name: Seawolf 1-12 CTB 1</p>	<p>Azimuth and Bearing                  138° S47E</p>
<p>Date Photo Taken: July 29, 2022</p>	
<p>Release Location: -103.5266320W, 32.0769390N</p> <p>1 T: 26S R: 33E                  Lea County, New                  Mexico</p>	
<p>Photo Taken by: Heather Woods</p>	<p>Description: Facing southeast, view of the excavation area around the separators.</p>

**Photograph Log**  
**Seawolf 1-12 CTB 1**  
**Devon Energy Production Company**



<p>Photograph #4</p>	
<p>Client: Devon Energy</p>	
<p>Site Name: Seawolf 1-12 CTB 1</p>	
<p>Date Photo Taken: July 29, 2022</p>	
<p>Release Location: -103.5266320W, 32.0769390N  1 T: 26S R: 33E Lea County, New Mexico</p>	
<p>Photo Taken by: Heather Woods</p>	
<p>Description: Facing east, view of the excavation area around the separators.</p>	

**Photograph Log**  
**Seawolf 1-12 CTB 1**  
**Devon Energy Production Company**



Photograph #5	
Client: Devon Energy	UTC: 2022.07.29T17:24:04Z Lat, Lon: 32.07662, -103.527251 Alt: 984m MSL WGS84 CEP: 5m
Site Name: Seawolf 1-12 CTB 1	Azimuth and Bearing 75° N74E
Date Photo Taken: July 29, 2022	-3.8° -20.4°
Release Location: -103.5266320W, 32.0769390N  1 T: 26S R: 33E Lea County, New Mexico	-5° -30° -15° 0° NE E
Photo Taken by: Heather Woods	Description: Facing east-northeast, view of the excavation area around the separators.

**Photograph Log**  
**Seawolf 1-12 CTB 1**  
**Devon Energy Production Company**



<p>Photograph #6</p>	
<p>Client: Devon Energy</p>	<p>UTC: 2022.07.29T17:24:16Z                  Lat, Lon: 32.076568, -103.527249                  Alt: 986m MSL WGS84                  CEP: 5m</p>
<p>Site Name: Seawolf 1-12 CTB 1</p>	<p>Azimuth and Bearing 61° N61E</p>
<p>Date Photo Taken: July 29, 2022</p>	<p>0° -1.7° -5°</p> <p>-45° -30° -15° -25.0°</p>
<p>Release Location: -103.5266320W, 32.0769390N</p> <p>1 T: 26S R: 33E Lea County, New Mexico</p>	<p>NE   E</p>
<p>Photo Taken by: Heather Woods</p>	<p>Description: Facing east-northeast, view of the excavation area around the separators.</p>

**Photograph Log**  
**Seawolf 1-12 CTB 1**  
**Devon Energy Production Company**



<p>Photograph #7</p>	
<p>Client: Devon Energy</p>	<p>UTC: 2022.07.29T17:24:25Z                  Lat, Lon: 32.07655, -103.52723                  Alt: 986m MSL WGS84                  CEP: 5m</p>
<p>Site Name: Seawolf 1-12 CTB 1</p>	<p>Azimuth and Bearing 12° N12E</p>
<p>Date Photo Taken: July 29, 2022</p>	
<p>Release Location: -103.5266320W, 32.0769390N</p> <p>1 T: 26S R: 33E Lea County, New Mexico</p>	
<p>Photo Taken by: Heather Woods</p>	<p>Description: Facing north, view of the excavation area around the separators.</p>

**Photograph Log**  
**Seawolf 1-12 CTB 1**  
**Devon Energy Production Company**



<p>Photograph #8</p>	
<p>Client: Devon Energy</p>	<p>UTC: 2022.07.29T17:24:33Z                  Lat, Lon: 32.076544, -103.527205                  Alt: 986m MSL WGS84                  CEP 5m</p>
<p>Site Name: Seawolf 1-12 CTB 1</p>	<p>Azimuth and Bearing 16° N16E</p>
<p>Date Photo Taken: July 29, 2022</p>	
<p>Release Location: -103.5266320W, 32.0769390N</p> <p>1 T: 26S R: 33E Lea County, New Mexico</p>	
<p>Photo Taken by: Heather Woods</p>	<p>Description: Facing north, view of the excavation area around the separators.</p>

**Photograph Log**  
**Seawolf 1-12 CTB 1**  
**Devon Energy Production Company**



<p>Photograph #9</p>	
<p>Client: Devon Energy</p>	
<p>Site Name: Seawolf 1-12 CTB 1</p>	
<p>Date Photo Taken: August 4, 2022</p>	
<p>Release Location: -103.5266320W, 32.0769390N  1 T: 26S R: 33E Lea County, New Mexico</p>	
<p>Photo Taken by: Sarahmay Schlea</p>	<p>Description: Facing south, view of the excavation area around the separators.</p>

**Photograph Log**  
**Seawolf 1-12 CTB 1**  
**Devon Energy Production Company**



<p>Photograph #10</p>	
<p>Client: Devon Energy</p>	
<p>Site Name: Seawolf 1-12 CTB 1</p>	
<p>Date Photo Taken: August 4, 2022</p>	
<p>Release Location: -103.5266320W, 32.0769390N  1 T: 26S R: 33E Lea County, New Mexico</p>	
<p>Photo Taken by: Sarahmay Schlea</p>	<p>Description: Facing south, view of the excavation area around the separators.</p>

**Photograph Log**  
**Seawolf 1-12 CTB 1**  
**Devon Energy Production Company**



<p>Photograph #11</p>	
<p>Client: Devon Energy</p>	
<p>Site Name: Seawolf 1-12 CTB 1</p>	
<p>Date Photo Taken: August 4, 2022</p>	
<p>Release Location: -103.5266320W, 32.0769390N  1 T: 26S R: 33E Lea County, New Mexico</p>	
<p>Photo Taken by: Sarahmay Schlea</p>	<p>Description: Facing south, view of the excavation area around the separators.</p>

**Photograph Log**  
**Seawolf 1-12 CTB 1**  
**Devon Energy Production Company**



<p>Photograph #12</p>	
<p>Client: Devon Energy</p>	
<p>Site Name: Seawolf 1-12 CTB 1</p>	
<p>Date Photo Taken: August 4, 2022</p>	
<p>Release Location: -103.5266320W, 32.0769390N  1 T: 26S R: 33E Lea County, New Mexico</p>	
<p>Photo Taken by: Sarahmay Schlea</p>	<p>Description: Facing south, view of the excavation area around the separators.</p>

**Photograph Log**  
**Seawolf 1-12 CTB 1**  
**Devon Energy Production Company**



<p>Photograph #13</p>	
<p>Client: Devon Energy</p>	
<p>Site Name: Seawolf 1-12 CTB 1</p>	
<p>Date Photo Taken: August 4, 2022</p>	
<p>Release Location: -103.5266320W, 32.0769390N  1 T: 26S R: 33E Lea County, New Mexico</p>	 <p>08/04/2022, 11:10:03 MDT</p>
<p>Photo Taken by: Sarahmay Schlea</p>	<p>Description: Facing south, view of the excavation area around the separators.</p>

**Photograph Log**  
**Seawolf 1-12 CTB 1**  
**Devon Energy Production Company**



<p>Photograph #14</p>	
<p>Client: Devon Energy</p>	
<p>Site Name: Seawolf 1-12 CTB 1</p>	
<p>Date Photo Taken: August 4, 2022</p>	
<p>Release Location: -103.5266320W, 32.0769390N  1 T: 26S R: 33E Lea County, New Mexico</p>	
<p>Photo Taken by: Sarahmay Schlea</p>	<p>Description: Facing north, view of the excavation area around the separators.</p>

**Photograph Log**  
**Seawolf 1-12 CTB 1**  
**Devon Energy Production Company**



<p>Photograph #15</p>	
<p>Client: Devon Energy</p>	<p>☉ 11°N (T) ☉ 32.076552°N, 103.526949°W ±13ft ▲ 3324ft</p>
<p>Site Name: Seawolf 1-12 CTB 1</p>	
<p>Date Photo Taken: August 4, 2022</p>	
<p>Release Location: -103.5266320W, 32.0769390N  1 T: 26S R: 33E Lea County, New Mexico</p>	
<p>Photo Taken by: Sarahmay Schlea</p>	<p>Description: Facing north, view of the excavation area around the separators.</p>

**Photograph Log**  
**Seawolf 1-12 CTB 1**  
**Devon Energy Production Company**



<p>Photograph #16</p>	
<p>Client: Devon Energy</p>	
<p>Site Name: Seawolf 1-12 CTB 1</p>	
<p>Date Photo Taken: August 4, 2022</p>	
<p>Release Location: -103.5266320W, 32.0769390N  1 T: 26S R: 33E Lea County, New Mexico</p>	
<p>Photo Taken by: Sarahmay Schlea</p>	<p>Description: Facing north, view of the excavation area around the separators.</p>

**Photograph Log**  
**Seawolf 1-12 CTB 1**  
**Devon Energy Production Company**



<p>Photograph #17</p>	
<p>Client: Devon Energy</p>	
<p>Site Name: Seawolf 1-12 CTB 1</p>	
<p>Date Photo Taken: August 4, 2022</p>	
<p>Release Location: -103.5266320W, 32.0769390N  1 T: 26S R: 33E Lea County, New Mexico</p>	
<p>Photo Taken by: Sarahmay Schlea</p>	<p>Description: Facing west-northwest, view of the excavation area south of the separator manifold.</p>

**Photograph Log**  
**Seawolf 1-12 CTB 1**  
**Devon Energy Production Company**



<p>Photograph #18</p>	
<p>Client: Devon Energy</p>	<p>☀ 291°W (T)   ● 32.076505°N, 103.526885°W ±13ft   ▲ 3334ft</p>
<p>Site Name: Seawolf 1-12 CTB 1</p>	
<p>Date Photo Taken: August 4, 2022</p>	
<p>Release Location: -103.5266320W, 32.0769390N  1 T: 26S R: 33E Lea County, New Mexico</p>	
<p>Photo Taken by: Sarahmay Schlea</p>	<p>Description: Facing west-northwest, view of the excavation area south of the separator manifold.</p>

**Photograph Log**  
**Seawolf 1-12 CTB 1**  
**Devon Energy Production Company**



<p>Photograph #19</p>	
<p>Client: Devon Energy</p>	
<p>Site Name: Seawolf 1-12 CTB 1</p>	
<p>Date Photo Taken: August 17, 2022</p>	
<p>Release Location: -103.5266320W, 32.0769390N  1 T: 26S R: 33E Lea County, New Mexico</p>	
<p>Photo Taken by: Sarahmay Schlea</p>	<p>Description: Facing south, view of sample areas SC-53 through SC-78.</p>

**Photograph Log**  
**Seawolf 1-12 CTB 1**  
**Devon Energy Production Company**



<p>Photograph #20</p>	
<p>Client: Devon Energy</p>	
<p>Site Name: Seawolf 1-12 CTB 1</p>	
<p>Date Photo Taken: August 17, 2022</p>	
<p>Release Location: -103.5266320W, 32.0769390N  1 T: 26S R: 33E Lea County, New Mexico</p>	
<p>Photo Taken by: Sarahmay Schlea</p>	<p>Description: Facing east, view of sample areas SC-79 through SC-84.</p>

**Photograph Log**  
**Seawolf 1-12 CTB 1**  
**Devon Energy Production Company**



Photograph #21	
Client: Devon Energy	
Site Name: Seawolf 1-12 CTB 1	
Date Photo Taken: August 17, 2022	
Release Location: -103.5266320W, 32.0769390N  1 T: 26S R: 33E Lea County, New Mexico	
Photo Taken by: Sarahmay Schlea	Description: Facing west-northwest, view of sample areas SC-80 through SC-82 and SC-84.

# APPENDIX D

## SAMPLING PROTOCOL



## Sampling Protocol

The soil samples were collected in laboratory supplied containers in accordance with this sampling protocol, immediately placed on ice and sent under standard chain-of-custody protocols to Envirotech Analytical Laboratory in Farmington, New Mexico for analysis. Samples were analyzed for total chloride using EPA Method 300.0; benzene, toluene, ethylbenzene and total xylenes (BTEX) using EPA Method 8021B; and motor, diesel, and gasoline range organics (MRO, DRO, and GRO) by EPA Method 8015D.

## Sampling Analysis Field Quality Assurance Procedures

A unique sample numbering was used to identify each sample collected and designated for on-site field screening and off-site laboratory analysis. The purpose of this numbering scheme was to provide a tracking system for the retrieval of analytical and field data on each sample. Sample identification numbers were recorded on sample labels or tags, field notes, chain-of-custody records (COC) and all other applicable documentation used during the project. Sample labels were affixed to all sample containers during sampling activities. Information was recorded on each sample container label at the time of sample collection. The information recorded on the labels were as follows: sample identification number; sample type (discrete or composite); site name and area/location number; analysis to be performed; type of chemical preservative present in container; date and time of sample collection; and sample collector's name and initials. All samples were packed in ice in an approved rigid body container, custody sealed signed and shipped to the appropriate laboratory via insured carrier service.

COC procedures implemented for the project provided documentation of the handling of each sample from the time of collection until completion of laboratory analysis. A COC form serves as a legal record of possession of the sample. A sample is considered under custody if one or more of the following criteria are met: the sample is in the sampler's possession; the sample is in the sampler's view after being in possession; the sample was in the sampler's possession and then was placed into a locked area to prevent tampering; and/or the sample is in a designated secure area. Custody was documented throughout the project field sampling activities by a chain-of custody form initiated each day during which samples are collected. Container custody seals placed on either individual samples or on the rigid body container were used to ensure that no sample tampering occurs between the time the samples are placed into the containers and the time the containers are opened for analysis at the laboratory. Container custody seals were signed and dated by the individual responsible for completing the COC form contained within the container.

# APPENDIX E

## LABORATORY ANALYTICAL REPORTS

Report to:  
Ashley Maxwell



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Souder Miller Associates - Carlsbad

Project Name: Seawolf 1-12 CTB 1

Work Order: E205121

Job Number: 01058-0007

Received: 5/23/2022

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
6/1/22

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.  
Envirotech Inc, holds the NM SDWA certification for data reported. (Lab #NM00979)

Date Reported: 6/1/22



Ashley Maxwell  
201 S Halagueno St.  
Carlsbad, NM 88220

Project Name: Seawolf 1-12 CTB 1  
Workorder: E205121  
Date Received: 5/23/2022 5:24:00PM

Ashley Maxwell,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 5/23/2022 5:24:00PM, under the Project Name: Seawolf 1-12 CTB 1.

The analytical test results summarized in this report with the Project Name: Seawolf 1-12 CTB 1 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
Laboratory Administrator  
Office: 505-632-1881  
[rainaschwanz@envirotech-inc.com](mailto:rainaschwanz@envirotech-inc.com)

**Alexa Michaels**  
Sample Custody Officer  
Office: 505-632-1881  
[labadmin@envirotech-inc.com](mailto:labadmin@envirotech-inc.com)

Field Offices:

**Southern New Mexico Area**  
**Lynn Jarboe**  
Technical Representative/Client Services  
Office: 505-421-LABS(5227)  
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[ljjarboe@envirotech-inc.com](mailto:ljjarboe@envirotech-inc.com)

**West Texas Midland/Odessa Area**  
**Rayny Hagan**  
Technical Representative  
Office: 505-421-LABS(5227)

Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

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## Sample Summary

Souder Miller Associates - Carlsbad  
201 S Halagueno St.  
Carlsbad NM, 88220

Project Name: Seawolf 1-12 CTB 1  
Project Number: 01058-0007  
Project Manager: Ashley Maxwell

**Reported:**  
06/01/22 15:03

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SB20 @ 0'	E205121-01A	Soil	05/17/22	05/23/22	Glass Jar, 4 oz.
SB20 @ 2.25'	E205121-02A	Soil	05/17/22	05/23/22	Glass Jar, 4 oz.
SB21 @ 0'	E205121-03A	Soil	05/17/22	05/23/22	Glass Jar, 4 oz.
SB21 @ 1'	E205121-04A	Soil	05/17/22	05/23/22	Glass Jar, 4 oz.
SB21 @ 2'	E205121-05A	Soil	05/17/22	05/23/22	Glass Jar, 4 oz.
SB22 @ 0'	E205121-06A	Soil	05/19/22	05/23/22	Glass Jar, 4 oz.
SB22 @ 1'	E205121-07A	Soil	05/19/22	05/23/22	Glass Jar, 4 oz.
SB22 @ 1.25'	E205121-08A	Soil	05/19/22	05/23/22	Glass Jar, 4 oz.
SB23 @ 0'	E205121-09A	Soil	05/19/22	05/23/22	Glass Jar, 4 oz.
SB23 @ 10"	E205121-10A	Soil	05/19/22	05/23/22	Glass Jar, 4 oz.
SB24 @ 0'	E205121-11A	Soil	05/19/22	05/23/22	Glass Jar, 4 oz.
SB24 @ 1'	E205121-12A	Soil	05/19/22	05/23/22	Glass Jar, 4 oz.
SB25 @ 0'	E205121-13A	Soil	05/19/22	05/23/22	Glass Jar, 4 oz.
SB25 @ 1'	E205121-14A	Soil	05/19/22	05/23/22	Glass Jar, 4 oz.
SB26 @ 0'	E205121-15A	Soil	05/19/22	05/23/22	Glass Jar, 4 oz.
SB26 @ 1'	E205121-16A	Soil	05/19/22	05/23/22	Glass Jar, 4 oz.
SB27 @ 0'	E205121-17A	Soil	05/19/22	05/23/22	Glass Jar, 4 oz.
SB27 @ 10"	E205121-18A	Soil	05/19/22	05/23/22	Glass Jar, 4 oz.
SB28 @ 0'	E205121-19A	Soil	05/19/22	05/23/22	Glass Jar, 4 oz.
SB29 @ 0'	E205121-20A	Soil	05/19/22	05/23/22	Glass Jar, 4 oz.



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 6/1/2022 3:03:55PM
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**SB20 @ 0'**

**E205121-01**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>		mg/kg	mg/kg	Analyst: IY	Batch: 2222054	
Benzene	ND	0.0250	1	05/26/22	05/28/22	
Ethylbenzene	ND	0.0250	1	05/26/22	05/28/22	
Toluene	ND	0.0250	1	05/26/22	05/28/22	
o-Xylene	ND	0.0250	1	05/26/22	05/28/22	
p,m-Xylene	ND	0.0500	1	05/26/22	05/28/22	
Total Xylenes	ND	0.0250	1	05/26/22	05/28/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		99.8 %	70-130	05/26/22	05/28/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>		mg/kg	mg/kg	Analyst: IY	Batch: 2222054	
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/26/22	05/28/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		88.0 %	70-130	05/26/22	05/28/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>		mg/kg	mg/kg	Analyst: JL	Batch: 2222081	
Diesel Range Organics (C10-C28)	ND	25.0	1	05/27/22	05/28/22	
Oil Range Organics (C28-C36)	ND	50.0	1	05/27/22	05/28/22	
<i>Surrogate: n-Nonane</i>		103 %	50-200	05/27/22	05/28/22	
<b>Anions by EPA 300.0/9056A</b>		mg/kg	mg/kg	Analyst: RAS	Batch: 2222065	
Chloride	33.3	20.0	1	05/26/22	05/31/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 6/1/2022 3:03:55PM
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**SB20 @ 2.25'**

**E205121-02**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2222054
Benzene	ND	0.0250	1	05/26/22	05/28/22	
Ethylbenzene	ND	0.0250	1	05/26/22	05/28/22	
Toluene	ND	0.0250	1	05/26/22	05/28/22	
o-Xylene	ND	0.0250	1	05/26/22	05/28/22	
p,m-Xylene	ND	0.0500	1	05/26/22	05/28/22	
Total Xylenes	ND	0.0250	1	05/26/22	05/28/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		98.4 %	70-130	05/26/22	05/28/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2222054
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/26/22	05/28/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		89.9 %	70-130	05/26/22	05/28/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2222081
Diesel Range Organics (C10-C28)	ND	25.0	1	05/27/22	05/28/22	
Oil Range Organics (C28-C36)	ND	50.0	1	05/27/22	05/28/22	
<i>Surrogate: n-Nonane</i>		106 %	50-200	05/27/22	05/28/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2222065
Chloride	ND	20.0	1	05/26/22	06/01/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 6/1/2022 3:03:55PM
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**SB21 @ 0'**

**E205121-03**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2222054
Benzene	ND	0.0250	1	05/26/22	05/28/22	
Ethylbenzene	ND	0.0250	1	05/26/22	05/28/22	
Toluene	ND	0.0250	1	05/26/22	05/28/22	
o-Xylene	ND	0.0250	1	05/26/22	05/28/22	
p,m-Xylene	ND	0.0500	1	05/26/22	05/28/22	
Total Xylenes	ND	0.0250	1	05/26/22	05/28/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		99.8 %	70-130	05/26/22	05/28/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2222054
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/26/22	05/28/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		88.4 %	70-130	05/26/22	05/28/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2222081
Diesel Range Organics (C10-C28)	50.6	25.0	1	05/27/22	05/28/22	
Oil Range Organics (C28-C36)	ND	50.0	1	05/27/22	05/28/22	
<i>Surrogate: n-Nonane</i>		106 %	50-200	05/27/22	05/28/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2222065
Chloride	172	20.0	1	05/26/22	06/01/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 6/1/2022 3:03:55PM
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**SB21 @ 1'**

**E205121-04**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2222054
Benzene	ND	0.0250	1	05/26/22	05/28/22	
Ethylbenzene	ND	0.0250	1	05/26/22	05/28/22	
Toluene	ND	0.0250	1	05/26/22	05/28/22	
o-Xylene	ND	0.0250	1	05/26/22	05/28/22	
p,m-Xylene	ND	0.0500	1	05/26/22	05/28/22	
Total Xylenes	ND	0.0250	1	05/26/22	05/28/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		103 %	70-130	05/26/22	05/28/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2222054
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/26/22	05/28/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		90.4 %	70-130	05/26/22	05/28/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2222081
Diesel Range Organics (C10-C28)	ND	25.0	1	05/27/22	05/28/22	
Oil Range Organics (C28-C36)	ND	50.0	1	05/27/22	05/28/22	
<i>Surrogate: n-Nonane</i>		105 %	50-200	05/27/22	05/28/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2222065
Chloride	ND	20.0	1	05/26/22	06/01/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 6/1/2022 3:03:55PM
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**SB21 @ 2'**

**E205121-05**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2222054
Benzene	ND	0.0250	1	05/26/22	05/28/22	
Ethylbenzene	ND	0.0250	1	05/26/22	05/28/22	
Toluene	ND	0.0250	1	05/26/22	05/28/22	
o-Xylene	ND	0.0250	1	05/26/22	05/28/22	
p,m-Xylene	ND	0.0500	1	05/26/22	05/28/22	
Total Xylenes	ND	0.0250	1	05/26/22	05/28/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		102 %	70-130	05/26/22	05/28/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2222054
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/26/22	05/28/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		87.8 %	70-130	05/26/22	05/28/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2222081
Diesel Range Organics (C10-C28)	ND	25.0	1	05/27/22	05/28/22	
Oil Range Organics (C28-C36)	ND	50.0	1	05/27/22	05/28/22	
<i>Surrogate: n-Nonane</i>		103 %	50-200	05/27/22	05/28/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2222065
Chloride	ND	20.0	1	05/26/22	06/01/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 6/1/2022 3:03:55PM
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**SB22 @ 0'**

**E205121-06**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2222054
Benzene	<b>0.304</b>	0.250	10	05/26/22	05/28/22	
Ethylbenzene	<b>3.35</b>	0.250	10	05/26/22	05/28/22	
Toluene	<b>7.95</b>	0.250	10	05/26/22	05/28/22	
o-Xylene	<b>7.53</b>	0.250	10	05/26/22	05/28/22	
p,m-Xylene	<b>24.6</b>	0.500	10	05/26/22	05/28/22	
Total Xylenes	<b>32.1</b>	0.250	10	05/26/22	05/28/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		106 %	70-130	05/26/22	05/28/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2222054
Gasoline Range Organics (C6-C10)	<b>350</b>	200	10	05/26/22	05/28/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		90.1 %	70-130	05/26/22	05/28/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2222081
Diesel Range Organics (C10-C28)	<b>44200</b>	500	20	05/27/22	05/31/22	
Oil Range Organics (C28-C36)	<b>41200</b>	1000	20	05/27/22	05/31/22	
<i>Surrogate: n-Nonane</i>		294 %	50-200	05/27/22	05/31/22	S5
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2222065
Chloride	<b>28300</b>	2000	100	05/26/22	06/01/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 6/1/2022 3:03:55PM
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**SB22 @ 1'**

**E205121-07**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2222054
Benzene	1.23	0.0500	2	05/26/22	06/01/22	
Ethylbenzene	7.53	0.0500	2	05/26/22	06/01/22	
Toluene	22.5	0.0500	2	05/26/22	06/01/22	
o-Xylene	14.7	0.0500	2	05/26/22	06/01/22	
p,m-Xylene	48.4	0.100	2	05/26/22	06/01/22	
Total Xylenes	63.1	0.0500	2	05/26/22	06/01/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		113 %	70-130	05/26/22	06/01/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2222054
Gasoline Range Organics (C6-C10)	897	40.0	2	05/26/22	06/01/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		112 %	70-130	05/26/22	06/01/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2222081
Diesel Range Organics (C10-C28)	7880	500	20	05/27/22	05/31/22	
Oil Range Organics (C28-C36)	1940	1000	20	05/27/22	05/31/22	
<i>Surrogate: n-Nonane</i>						
		333 %	50-200	05/27/22	05/31/22	S5
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2222065
Chloride	2980	100	5	05/26/22	06/01/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 6/1/2022 3:03:55PM
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**SB22 @ 1.25'**

**E205121-08**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2222054
Benzene	0.792	0.250	10	05/26/22	05/31/22	
Ethylbenzene	6.99	0.250	10	05/26/22	05/31/22	
Toluene	18.4	0.250	10	05/26/22	05/31/22	
o-Xylene	15.4	0.250	10	05/26/22	05/31/22	
p,m-Xylene	48.6	0.500	10	05/26/22	05/31/22	
Total Xylenes	64.0	0.250	10	05/26/22	05/31/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		106 %	70-130	05/26/22	05/31/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2222054
Gasoline Range Organics (C6-C10)	744	200	10	05/26/22	05/31/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		97.5 %	70-130	05/26/22	05/31/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2222081
Diesel Range Organics (C10-C28)	20900	250	10	05/27/22	05/31/22	
Oil Range Organics (C28-C36)	6340	500	10	05/27/22	05/31/22	
<i>Surrogate: n-Nonane</i>		447 %	50-200	05/27/22	05/31/22	S5
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2222065
Chloride	6520	200	10	05/26/22	06/01/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 6/1/2022 3:03:55PM
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**SB23 @ 0'**

**E205121-09**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2222054
Benzene	ND	0.0250	1	05/26/22	05/31/22	
Ethylbenzene	ND	0.0250	1	05/26/22	05/31/22	
Toluene	ND	0.0250	1	05/26/22	05/31/22	
o-Xylene	ND	0.0250	1	05/26/22	05/31/22	
p,m-Xylene	ND	0.0500	1	05/26/22	05/31/22	
Total Xylenes	ND	0.0250	1	05/26/22	05/31/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		97.0 %	70-130	05/26/22	05/31/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2222054
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/26/22	05/31/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		92.0 %	70-130	05/26/22	05/31/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2222081
Diesel Range Organics (C10-C28)	72.8	25.0	1	05/27/22	05/28/22	
Oil Range Organics (C28-C36)	117	50.0	1	05/27/22	05/28/22	
<i>Surrogate: n-Nonane</i>						
		106 %	50-200	05/27/22	05/28/22	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2222065
Chloride	8020	200	10	05/26/22	06/01/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 6/1/2022 3:03:55PM
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**SB23 @ 10"**

**E205121-10**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2222054
Benzene	ND	0.0250	1	05/26/22	05/28/22	
Ethylbenzene	ND	0.0250	1	05/26/22	05/28/22	
Toluene	ND	0.0250	1	05/26/22	05/28/22	
o-Xylene	ND	0.0250	1	05/26/22	05/28/22	
p,m-Xylene	ND	0.0500	1	05/26/22	05/28/22	
Total Xylenes	ND	0.0250	1	05/26/22	05/28/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		105 %	70-130	05/26/22	05/28/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2222054
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/26/22	05/28/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		88.2 %	70-130	05/26/22	05/28/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2222081
Diesel Range Organics (C10-C28)	ND	25.0	1	05/27/22	05/28/22	
Oil Range Organics (C28-C36)	ND	50.0	1	05/27/22	05/28/22	
<i>Surrogate: n-Nonane</i>		104 %	50-200	05/27/22	05/28/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2222065
Chloride	2740	20.0	1	05/26/22	06/01/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 6/1/2022 3:03:55PM
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**SB24 @ 0'**

**E205121-11**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2222054
Benzene	ND	0.0250	1	05/26/22	05/28/22	
Ethylbenzene	ND	0.0250	1	05/26/22	05/28/22	
Toluene	ND	0.0250	1	05/26/22	05/28/22	
o-Xylene	ND	0.0250	1	05/26/22	05/28/22	
p,m-Xylene	ND	0.0500	1	05/26/22	05/28/22	
Total Xylenes	ND	0.0250	1	05/26/22	05/28/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		101 %	70-130	05/26/22	05/28/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2222054
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/26/22	05/28/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		89.5 %	70-130	05/26/22	05/28/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2222081
Diesel Range Organics (C10-C28)	ND	25.0	1	05/27/22	05/28/22	
Oil Range Organics (C28-C36)	ND	50.0	1	05/27/22	05/28/22	
<i>Surrogate: n-Nonane</i>		104 %	50-200	05/27/22	05/28/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2222065
Chloride	106	20.0	1	05/26/22	06/01/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 6/1/2022 3:03:55PM
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**SB24 @ 1'**

**E205121-12**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2222054
Benzene	ND	0.0250	1	05/26/22	05/28/22	
Ethylbenzene	ND	0.0250	1	05/26/22	05/28/22	
Toluene	ND	0.0250	1	05/26/22	05/28/22	
o-Xylene	ND	0.0250	1	05/26/22	05/28/22	
p,m-Xylene	ND	0.0500	1	05/26/22	05/28/22	
Total Xylenes	ND	0.0250	1	05/26/22	05/28/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		106 %	70-130	05/26/22	05/28/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2222054
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/26/22	05/28/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		87.5 %	70-130	05/26/22	05/28/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2222081
Diesel Range Organics (C10-C28)	ND	25.0	1	05/27/22	05/28/22	
Oil Range Organics (C28-C36)	ND	50.0	1	05/27/22	05/28/22	
<i>Surrogate: n-Nonane</i>		102 %	50-200	05/27/22	05/28/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2222065
Chloride	42.8	20.0	1	05/26/22	06/01/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 6/1/2022 3:03:55PM
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**SB25 @ 0'**

**E205121-13**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2222054
Benzene	ND	0.0250	1	05/26/22	05/28/22	
Ethylbenzene	ND	0.0250	1	05/26/22	05/28/22	
Toluene	ND	0.0250	1	05/26/22	05/28/22	
o-Xylene	ND	0.0250	1	05/26/22	05/28/22	
p,m-Xylene	ND	0.0500	1	05/26/22	05/28/22	
Total Xylenes	ND	0.0250	1	05/26/22	05/28/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		106 %	70-130	05/26/22	05/28/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2222054
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/26/22	05/28/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		87.5 %	70-130	05/26/22	05/28/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2222081
Diesel Range Organics (C10-C28)	34.8	25.0	1	05/27/22	05/28/22	
Oil Range Organics (C28-C36)	ND	50.0	1	05/27/22	05/28/22	
<i>Surrogate: n-Nonane</i>		102 %	50-200	05/27/22	05/28/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2222065
Chloride	25900	2000	100	05/26/22	06/01/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 6/1/2022 3:03:55PM
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**SB25 @ 1'**

**E205121-14**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2222054
Benzene	ND	0.0250	1	05/26/22	05/28/22	
Ethylbenzene	ND	0.0250	1	05/26/22	05/28/22	
Toluene	ND	0.0250	1	05/26/22	05/28/22	
o-Xylene	ND	0.0250	1	05/26/22	05/28/22	
p,m-Xylene	ND	0.0500	1	05/26/22	05/28/22	
Total Xylenes	ND	0.0250	1	05/26/22	05/28/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		107 %	70-130	05/26/22	05/28/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2222054
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/26/22	05/28/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		87.2 %	70-130	05/26/22	05/28/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2222081
Diesel Range Organics (C10-C28)	30.0	25.0	1	05/27/22	05/28/22	
Oil Range Organics (C28-C36)	ND	50.0	1	05/27/22	05/28/22	
<i>Surrogate: n-Nonane</i>		106 %	50-200	05/27/22	05/28/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2222065
Chloride	2510	20.0	1	05/26/22	06/01/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 6/1/2022 3:03:55PM
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**SB26 @ 0'**

**E205121-15**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2222054
Benzene	ND	0.0250	1	05/26/22	05/28/22	
Ethylbenzene	ND	0.0250	1	05/26/22	05/28/22	
Toluene	ND	0.0250	1	05/26/22	05/28/22	
o-Xylene	ND	0.0250	1	05/26/22	05/28/22	
p,m-Xylene	ND	0.0500	1	05/26/22	05/28/22	
Total Xylenes	ND	0.0250	1	05/26/22	05/28/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		105 %	70-130	05/26/22	05/28/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2222054
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/26/22	05/28/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		87.2 %	70-130	05/26/22	05/28/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2222081
Diesel Range Organics (C10-C28)	73.7	25.0	1	05/27/22	05/28/22	
Oil Range Organics (C28-C36)	84.4	50.0	1	05/27/22	05/28/22	
<i>Surrogate: n-Nonane</i>		108 %	50-200	05/27/22	05/28/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2222065
Chloride	32500	2000	100	05/26/22	06/01/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 6/1/2022 3:03:55PM
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**SB26 @ 1'**

**E205121-16**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2222054
Benzene	ND	0.0250	1	05/26/22	05/28/22	
Ethylbenzene	ND	0.0250	1	05/26/22	05/28/22	
Toluene	ND	0.0250	1	05/26/22	05/28/22	
o-Xylene	ND	0.0250	1	05/26/22	05/28/22	
p,m-Xylene	ND	0.0500	1	05/26/22	05/28/22	
Total Xylenes	ND	0.0250	1	05/26/22	05/28/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		101 %	70-130	05/26/22	05/28/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2222054
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/26/22	05/28/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		89.1 %	70-130	05/26/22	05/28/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2222081
Diesel Range Organics (C10-C28)	ND	25.0	1	05/27/22	05/28/22	
Oil Range Organics (C28-C36)	ND	50.0	1	05/27/22	05/28/22	
<i>Surrogate: n-Nonane</i>		101 %	50-200	05/27/22	05/28/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2222065
Chloride	4060	100	5	05/26/22	06/01/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 6/1/2022 3:03:55PM
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**SB27 @ 0'**

**E205121-17**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2222054
Benzene	ND	0.0250	1	05/26/22	05/28/22	
Ethylbenzene	ND	0.0250	1	05/26/22	05/28/22	
Toluene	ND	0.0250	1	05/26/22	05/28/22	
o-Xylene	ND	0.0250	1	05/26/22	05/28/22	
p,m-Xylene	ND	0.0500	1	05/26/22	05/28/22	
Total Xylenes	ND	0.0250	1	05/26/22	05/28/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		105 %	70-130	05/26/22	05/28/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2222054
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/26/22	05/28/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		87.0 %	70-130	05/26/22	05/28/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2222081
Diesel Range Organics (C10-C28)	26.9	25.0	1	05/27/22	05/28/22	
Oil Range Organics (C28-C36)	ND	50.0	1	05/27/22	05/28/22	
<i>Surrogate: n-Nonane</i>		103 %	50-200	05/27/22	05/28/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2222065
Chloride	585	20.0	1	05/26/22	06/01/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 6/1/2022 3:03:55PM
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**SB27 @ 10"**

**E205121-18**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2222054
Benzene	ND	0.0250	1	05/26/22	05/28/22	
Ethylbenzene	ND	0.0250	1	05/26/22	05/28/22	
Toluene	ND	0.0250	1	05/26/22	05/28/22	
o-Xylene	ND	0.0250	1	05/26/22	05/28/22	
p,m-Xylene	ND	0.0500	1	05/26/22	05/28/22	
Total Xylenes	ND	0.0250	1	05/26/22	05/28/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		104 %	70-130	05/26/22	05/28/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2222054
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/26/22	05/28/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		90.1 %	70-130	05/26/22	05/28/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2222081
Diesel Range Organics (C10-C28)	ND	25.0	1	05/27/22	05/28/22	
Oil Range Organics (C28-C36)	ND	50.0	1	05/27/22	05/28/22	
<i>Surrogate: n-Nonane</i>		100 %	50-200	05/27/22	05/28/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2222065
Chloride	154	20.0	1	05/26/22	06/01/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 6/1/2022 3:03:55PM
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**SB28 @ 0'**

**E205121-19**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2222054
Benzene	ND	0.0250	1	05/26/22	05/28/22	
Ethylbenzene	ND	0.0250	1	05/26/22	05/28/22	
Toluene	ND	0.0250	1	05/26/22	05/28/22	
o-Xylene	ND	0.0250	1	05/26/22	05/28/22	
p,m-Xylene	ND	0.0500	1	05/26/22	05/28/22	
Total Xylenes	ND	0.0250	1	05/26/22	05/28/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		99.9 %	70-130	05/26/22	05/28/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2222054
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/26/22	05/28/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		90.3 %	70-130	05/26/22	05/28/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2222081
Diesel Range Organics (C10-C28)	ND	25.0	1	05/27/22	05/28/22	
Oil Range Organics (C28-C36)	ND	50.0	1	05/27/22	05/28/22	
<i>Surrogate: n-Nonane</i>		97.5 %	50-200	05/27/22	05/28/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2222065
Chloride	581	20.0	1	05/26/22	06/01/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 6/1/2022 3:03:55PM
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**SB29 @ 0'**

**E205121-20**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2222054
Benzene	ND	0.0250	1	05/26/22	05/28/22	
Ethylbenzene	ND	0.0250	1	05/26/22	05/28/22	
Toluene	ND	0.0250	1	05/26/22	05/28/22	
o-Xylene	ND	0.0250	1	05/26/22	05/28/22	
p,m-Xylene	ND	0.0500	1	05/26/22	05/28/22	
Total Xylenes	ND	0.0250	1	05/26/22	05/28/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		101 %	70-130	05/26/22	05/28/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2222054
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/26/22	05/28/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		89.9 %	70-130	05/26/22	05/28/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2222081
Diesel Range Organics (C10-C28)	ND	25.0	1	05/27/22	05/28/22	
Oil Range Organics (C28-C36)	ND	50.0	1	05/27/22	05/28/22	
<i>Surrogate: n-Nonane</i>		103 %	50-200	05/27/22	05/28/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2222065
Chloride	20200	1000	50	05/26/22	06/01/22	



### QC Summary Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 6/1/2022 3:03:55PM
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#### Volatile Organics by EPA 8021B

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2222054-BLK1)**

Prepared: 05/26/22 Analyzed: 05/31/22

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	8.02		8.00		100	70-130			

**LCS (2222054-BS1)**

Prepared: 05/26/22 Analyzed: 05/31/22

Benzene	4.92	0.0250	5.00		98.5	70-130			
Ethylbenzene	4.58	0.0250	5.00		91.6	70-130			
Toluene	4.81	0.0250	5.00		96.1	70-130			
o-Xylene	4.75	0.0250	5.00		94.9	70-130			
p,m-Xylene	9.44	0.0500	10.0		94.4	70-130			
Total Xylenes	14.2	0.0250	15.0		94.6	70-130			
Surrogate: 4-Bromochlorobenzene-PID	8.21		8.00		103	70-130			

**LCS Dup (2222054-BSD1)**

Prepared: 05/26/22 Analyzed: 05/31/22

Benzene	5.06	0.0250	5.00		101	70-130	2.76	20	
Ethylbenzene	4.72	0.0250	5.00		94.4	70-130	2.97	20	
Toluene	4.94	0.0250	5.00		98.9	70-130	2.83	20	
o-Xylene	4.90	0.0250	5.00		97.9	70-130	3.12	20	
p,m-Xylene	9.73	0.0500	10.0		97.3	70-130	3.02	20	
Total Xylenes	14.6	0.0250	15.0		97.5	70-130	3.05	20	
Surrogate: 4-Bromochlorobenzene-PID	8.23		8.00		103	70-130			



### QC Summary Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 6/1/2022 3:03:55PM
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#### Nonhalogenated Organics by EPA 8015D - GRO

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2222054-BLK1)**

Prepared: 05/26/22 Analyzed: 05/31/22

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.33		8.00		91.6	70-130			

**LCS (2222054-BS2)**

Prepared: 05/26/22 Analyzed: 05/31/22

Gasoline Range Organics (C6-C10)	49.6	20.0	50.0		99.1	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.29		8.00		91.2	70-130			

**LCS Dup (2222054-BSD2)**

Prepared: 05/26/22 Analyzed: 05/31/22

Gasoline Range Organics (C6-C10)	51.3	20.0	50.0		103	70-130	3.47	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.39		8.00		92.4	70-130			



### QC Summary Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 6/1/2022 3:03:55PM
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#### Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: JL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2222081-BLK1)**

Prepared: 05/27/22 Analyzed: 05/28/22

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: <i>n</i> -Nonane	53.4		50.0		107	50-200			

**LCS (2222081-BS1)**

Prepared: 05/27/22 Analyzed: 05/28/22

Diesel Range Organics (C10-C28)	522	25.0	500		104	38-132			
Surrogate: <i>n</i> -Nonane	42.6		50.0		85.1	50-200			

**Matrix Spike (2222081-MS1)**

Source: E205121-04

Prepared: 05/27/22 Analyzed: 05/28/22

Diesel Range Organics (C10-C28)	522	25.0	500	ND	104	38-132			
Surrogate: <i>n</i> -Nonane	50.4		50.0		101	50-200			

**Matrix Spike Dup (2222081-MSD1)**

Source: E205121-04

Prepared: 05/27/22 Analyzed: 05/28/22

Diesel Range Organics (C10-C28)	518	25.0	500	ND	104	38-132	0.631	20	
Surrogate: <i>n</i> -Nonane	48.9		50.0		97.9	50-200			



### QC Summary Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 6/1/2022 3:03:55PM
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#### Anions by EPA 300.0/9056A

Analyst: RAS

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2222065-BLK1)**

Prepared: 05/26/22 Analyzed: 05/31/22

Chloride ND 20.0

**LCS (2222065-BS1)**

Prepared: 05/26/22 Analyzed: 05/31/22

Chloride 261 20.0 250 104 90-110

**Matrix Spike (2222065-MS1)**

Source: E205121-01

Prepared: 05/26/22 Analyzed: 05/31/22

Chloride 284 20.0 250 33.3 100 80-120

**Matrix Spike Dup (2222065-MSD1)**

Source: E205121-01

Prepared: 05/26/22 Analyzed: 06/01/22

Chloride 280 20.0 250 33.3 98.6 80-120 1.39 20

QC Summary Report Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



### Definitions and Notes

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 06/01/22 15:03
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S5 Surrogate spike recovery exceeded acceptance limits due to interfering target and/or non-target analytes.

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

DNI Did Not Ignite

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Client: Souder, Miller & Associates  
 Project: SWWCF 1-12 CTB 1  
 Project Manager: Ashley Maxwell  
 Address: 201 S. Haldagueno  
 City, State, Zip: Carlsbad, NM 88220  
 Phone: (505) 320-0975  
 Email: Ashley\_Maxwell@soudermiller.com  
 Report due by: \_\_\_\_\_

Bill To  
 Attention: Devon  
 Address: ~~Souder~~  
 City, State, Zip: \_\_\_\_\_  
 Phone: \_\_\_\_\_  
 Email: \_\_\_\_\_  
 WO # 20907302

Lab Use Only  
 Lab WO# PE205121 Job Number 01058-0007  
 Analysis and Method

TAT  
 1D 3D

EPA Program  
 RCRA CWA SDWA

State  
 NM CO UT AZ

TX OK

5-day

Time Sampled	Date Sampled	Matrix	No Containers	Sample ID	Lab Number	DRO/DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC - NIM	BGDOC - TX	Remarks
1300	5/17/22	Soil	1	SB20@0'	1							X		
1323	5/17/22	Soil	1	SB20@2.25'	2							X		
1326	5/17/22	Soil	1	SB21@0'	3							X		
1334	5/17/22	Soil	1	SB21@1'	4							X		
1337	5/17/22	Soil	1	SB21@2'	5							X		
0801	5/19/22	Soil	1	SB22@0'	6							X		
0808	5/19/22	Soil	1	SB22@1'	7							X		
0816	5/19/22	Soil	1	SB22@1.25'	8							X		
0802	5/19/22	Soil	1	SB23@0'	9							X		
0811	5/19/22	Soil	1	SB23@10"	10							X		

Additional Instructions:

(Field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: \_\_\_\_\_

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 5 °C on subsequent days

Relinquished by: (Signature) <u>Heath M. W...</u>	Date <u>5/23/22</u>	Time <u>1711</u>	Received by: (Signature) <u>Devon</u>	Date <u>5/23/22</u>	Time <u>1724</u>	Lab Use Only Received on ice: <u>Y/N</u>
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	T1 _____ T2 _____ T3 _____
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	AVG Temp °C <u>4</u>

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other \_\_\_\_\_  
 Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA  
 Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

Client: <u>Souder, Miller &amp; Associates</u> Project: <u>Seawall 1-12 CTB1</u> Project Manager: <u>Ashley Maxwell</u> Address: <u>201 S Haldagueno</u> City, State, Zip: <u>Carlsbad, NM 88220</u> Phone: <u>(505) 320-8975</u> Email: <u>Sarah.Ashley.Maxwell@soudermiller.com</u> Report due by:	Bill To Attention: <u>Devon</u> Address: City, State, Zip Phone: Email:		Lab Use Only Lab WO# <u>PE205121</u> Job Number <u>01058-0007</u>		TAT 1D 3D		EPA Program RCRA CWA SDWA				
	WO # <u>20987302</u>		Analysis and Method					State NM CO UT AZ			
	DIO/DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC - NM	BGDOC - TX	TX OK		
								Remarks			

Time Sampled	Date Sampled	Matrix	No Containers	Sample ID	Lab Number	DIO/DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC - NM	BGDOC - TX	Remarks
0818	5/19/22	soil	1	SB24@0'	11							X		
0831	5/19/22	Soil	1	SB24@1'	12							X		
0820	5/19/22	Soil	1	SB25@0'	13							X		
0829	5/19/22	Soil	1	SB25@1'	14							X		
0833	5/19/22	Soil	1	SB26@0'	15							X		
0842	5/19/22	Soil	1	SB26@1'	16							X		
0835	5/19/22	Soil	1	SB27@0'	17							X		
0847	5/19/22	Soil	1	SB27@10"	18							X		
0955	5/19/22	Soil	1	SB28@0'	19							X		
0958	5/19/22	Soil	1	SB29@0'	20							X		

Additional Instructions:

(Field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: \_\_\_\_\_

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 4 °C on subsequent days

Relinquished by: (Signature) <u>Heath M. W.</u>	Date 5/23/22	Time 1711	Received by: (Signature) <u>[Signature]</u>	Date 5/23/22	Time 1724	Lab Use Only Received on ice: <u>Y</u> / N  T1 _____ T2 _____ T3 _____  AVG Temp °C <u>4</u>
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other \_\_\_\_\_ Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

Envirotech Analytical Laboratory

Printed: 5/24/2022 1:33:24PM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client: Souder Miller Associates - Carlsbad	Date Received: 05/23/22 17:24	Work Order ID: E205121
Phone: (505) 325-7535	Date Logged In: 05/24/22 11:08	Logged In By: Caitlin Christian
Email: ashley.maxwell@soudermiller.com	Due Date: 05/31/22 17:00 (5 day TAT)	

**Chain of Custody (COC)**

- 1. Does the sample ID match the COC? Yes
  - 2. Does the number of samples per sampling site location match the COC? Yes
  - 3. Were samples dropped off by client or carrier? Yes
  - 4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
  - 5. Were all samples received within holding time? Yes
- Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this discussion.

Carrier: Heather Wood

**Comments/Resolution**

Project has been separated into 3 reports due to amount of samples. Workorders are as follows:  
 E205121 COC pg 1&2 of 5, E205122 COC pg 3&4 of 5, E205123 COC pg 5 of 5.

**Sample Turn Around Time (TAT)**

- 6. Did the COC indicate standard TAT, or Expedited TAT? Yes

**Sample Cooler**

- 7. Was a sample cooler received? Yes
  - 8. If yes, was cooler received in good condition? Yes
  - 9. Was the sample(s) received intact, i.e., not broken? Yes
  - 10. Were custody/security seals present? No
  - 11. If yes, were custody/security seals intact? NA
  - 12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C? Yes
- Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

13. If no visible ice, record the temperature. Actual sample temperature: 4°C

**Sample Container**

- 14. Are aqueous VOC samples present? No
- 15. Are VOC samples collected in VOA Vials? NA
- 16. Is the head space less than 6-8 mm (pea sized or less)? NA
- 17. Was a trip blank (TB) included for VOC analyses? NA
- 18. Are non-VOC samples collected in the correct containers? Yes
- 19. Is the appropriate volume/weight or number of sample containers collected? Yes

**Field Label**

- 20. Were field sample labels filled out with the minimum information:
  - Sample ID? Yes
  - Date/Time Collected? Yes
  - Collectors name? No

**Sample Preservation**

- 21. Does the COC or field labels indicate the samples were preserved? No
- 22. Are sample(s) correctly preserved? NA
- 24. Is lab filtration required and/or requested for dissolved metals? No

**Multiphase Sample Matrix**

- 26. Does the sample have more than one phase, i.e., multiphase? No
- 27. If yes, does the COC specify which phase(s) is to be analyzed? NA

**Subcontract Laboratory**

- 28. Are samples required to get sent to a subcontract laboratory? No
- 29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: na

**Client Instruction**

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:  
Ashley Maxwell



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Souder Miller Associates - Carlsbad

Project Name: Seawolf 1-12 CTB 1

Work Order: E205122

Job Number: 01058-0007

Received: 5/23/2022

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
6/1/22

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.  
Envirotech Inc, holds the NM SDWA certification for data reported. (Lab #NM00979)

Date Reported: 6/1/22



Ashley Maxwell  
201 S Halagueno St.  
Carlsbad, NM 88220

Project Name: Seawolf 1-12 CTB 1  
Workorder: E205122  
Date Received: 5/23/2022 5:24:00PM

Ashley Maxwell,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 5/23/2022 5:24:00PM, under the Project Name: Seawolf 1-12 CTB 1.

The analytical test results summarized in this report with the Project Name: Seawolf 1-12 CTB 1 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
Laboratory Administrator  
Office: 505-632-1881  
[rainaschwanz@envirotech-inc.com](mailto:rainaschwanz@envirotech-inc.com)

**Alexa Michaels**  
Sample Custody Officer  
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[labadmin@envirotech-inc.com](mailto:labadmin@envirotech-inc.com)

Field Offices:

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[ljjarboe@envirotech-inc.com](mailto:ljjarboe@envirotech-inc.com)

**West Texas Midland/Odessa Area**  
**Rayny Hagan**  
Technical Representative  
Office: 505-421-LABS(5227)

Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

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## Sample Summary

Souder Miller Associates - Carlsbad  
201 S Halagueno St.  
Carlsbad NM, 88220

Project Name: Seawolf 1-12 CTB 1  
Project Number: 01058-0007  
Project Manager: Ashley Maxwell

**Reported:**  
06/01/22 14:30

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SB30 @ 0'	E205122-01A	Soil	05/19/22	05/23/22	Glass Jar, 4 oz.
SB31 @ 0'	E205122-02A	Soil	05/19/22	05/23/22	Glass Jar, 4 oz.
SB32 @ 0'	E205122-03A	Soil	05/19/22	05/23/22	Glass Jar, 4 oz.
SB33 @ 0'	E205122-04A	Soil	05/19/22	05/23/22	Glass Jar, 4 oz.
SB34 @ 0'	E205122-05A	Soil	05/19/22	05/23/22	Glass Jar, 4 oz.
SB35 @ 0'	E205122-06A	Soil	05/19/22	05/23/22	Glass Jar, 4 oz.
SB36 @ 0'	E205122-07A	Soil	05/19/22	05/23/22	Glass Jar, 4 oz.
SB36 @ 1'	E205122-08A	Soil	05/19/22	05/23/22	Glass Jar, 4 oz.
SB37 @ 0'	E205122-09A	Soil	05/19/22	05/23/22	Glass Jar, 4 oz.
SB38 @ 0'	E205122-10A	Soil	05/19/22	05/23/22	Glass Jar, 4 oz.
SB39 @ 0'	E205122-11A	Soil	05/19/22	05/23/22	Glass Jar, 4 oz.
SB40 @ 0'	E205122-12A	Soil	05/19/22	05/23/22	Glass Jar, 4 oz.
SB41 @ 0'	E205122-13A	Soil	05/19/22	05/23/22	Glass Jar, 4 oz.
SB42 @ 0'	E205122-14A	Soil	05/19/22	05/23/22	Glass Jar, 4 oz.
SB43 @ 0'	E205122-15A	Soil	05/19/22	05/23/22	Glass Jar, 4 oz.
SB44 @ 0'	E205122-16A	Soil	05/19/22	05/23/22	Glass Jar, 4 oz.
SB45 @ 0'	E205122-17A	Soil	05/19/22	05/23/22	Glass Jar, 4 oz.
SB46 @ 0'	E205122-18A	Soil	05/19/22	05/23/22	Glass Jar, 4 oz.
SB47 @ 0'	E205122-19A	Soil	05/19/22	05/23/22	Glass Jar, 4 oz.
SB47 @ 6"	E205122-20A	Soil	05/19/22	05/23/22	Glass Jar, 4 oz.



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 6/1/2022 2:30:25PM
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**SB30 @ 0'**

**E205122-01**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2222053
Benzene	ND	0.0250	1	05/26/22	05/28/22	
Ethylbenzene	ND	0.0250	1	05/26/22	05/28/22	
Toluene	ND	0.0250	1	05/26/22	05/28/22	
o-Xylene	ND	0.0250	1	05/26/22	05/28/22	
p,m-Xylene	ND	0.0500	1	05/26/22	05/28/22	
Total Xylenes	ND	0.0250	1	05/26/22	05/28/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		100 %	70-130	05/26/22	05/28/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2222053
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/26/22	05/28/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		89.0 %	70-130	05/26/22	05/28/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: AK		Batch: 2222082
Diesel Range Organics (C10-C28)	164	25.0	1	05/27/22	05/28/22	
Oil Range Organics (C28-C36)	145	50.0	1	05/27/22	05/28/22	
<i>Surrogate: n-Nonane</i>						
		104 %	50-200	05/27/22	05/28/22	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2222066
Chloride	23700	2000	100	05/26/22	05/31/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 6/1/2022 2:30:25PM
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**SB31 @ 0'**

**E205122-02**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2222053
Benzene	ND	0.0250	1	05/26/22	05/28/22	
Ethylbenzene	ND	0.0250	1	05/26/22	05/28/22	
Toluene	ND	0.0250	1	05/26/22	05/28/22	
o-Xylene	ND	0.0250	1	05/26/22	05/28/22	
p,m-Xylene	ND	0.0500	1	05/26/22	05/28/22	
Total Xylenes	ND	0.0250	1	05/26/22	05/28/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		95.1 %	70-130	05/26/22	05/28/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2222053
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/26/22	05/28/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		90.8 %	70-130	05/26/22	05/28/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: AK		Batch: 2222082
Diesel Range Organics (C10-C28)	ND	25.0	1	05/27/22	05/28/22	
Oil Range Organics (C28-C36)	ND	50.0	1	05/27/22	05/28/22	
<i>Surrogate: n-Nonane</i>						
		100 %	50-200	05/27/22	05/28/22	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2222066
Chloride	20600	1000	50	05/26/22	05/31/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 6/1/2022 2:30:25PM
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**SB32 @ 0'**

**E205122-03**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg	Analyst: RAS		Batch: 2222066	
Chloride	<b>23000</b>	2000	100	05/26/22	05/31/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 6/1/2022 2:30:25PM
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**SB33 @ 0'**

**E205122-04**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2222053
Benzene	ND	0.0250	1	05/26/22	05/28/22	
Ethylbenzene	ND	0.0250	1	05/26/22	05/28/22	
Toluene	ND	0.0250	1	05/26/22	05/28/22	
o-Xylene	ND	0.0250	1	05/26/22	05/28/22	
p,m-Xylene	ND	0.0500	1	05/26/22	05/28/22	
Total Xylenes	ND	0.0250	1	05/26/22	05/28/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		102 %	70-130	05/26/22	05/28/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2222053
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/26/22	05/28/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		89.3 %	70-130	05/26/22	05/28/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: AK		Batch: 2222082
Diesel Range Organics (C10-C28)	ND	25.0	1	05/27/22	05/29/22	
Oil Range Organics (C28-C36)	ND	50.0	1	05/27/22	05/29/22	
<i>Surrogate: n-Nonane</i>		106 %	50-200	05/27/22	05/29/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2222066
Chloride	6830	200	10	05/26/22	05/31/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 6/1/2022 2:30:25PM
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**SB34 @ 0'**

**E205122-05**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg	Analyst: RAS			Batch: 2222066
Chloride	<b>29600</b>	2000	100	05/26/22	05/31/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 6/1/2022 2:30:25PM
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**SB35 @ 0'**

**E205122-06**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg	Analyst: RAS			Batch: 2222066
Chloride	<b>17400</b>	2000	100	05/26/22	06/01/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 6/1/2022 2:30:25PM
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**SB36 @ 0'**

**E205122-07**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg	Analyst: RAS			Batch: 2222066
Chloride	<b>20.7</b>	20.0	1	05/26/22	05/31/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 6/1/2022 2:30:25PM
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**SB36 @ 1'**

**E205122-08**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg	Analyst: RAS		Batch: 2222066	
Chloride	<b>196</b>	20.0	1	05/26/22	05/31/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 6/1/2022 2:30:25PM
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**SB37 @ 0'**

**E205122-09**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg	Analyst: RAS			Batch: 2222066
Chloride	<b>34.8</b>	20.0	1	05/26/22	05/31/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 6/1/2022 2:30:25PM
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**SB38 @ 0'**

**E205122-10**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg	Analyst: RAS			Batch: 2222066
Chloride	<b>1650</b>	20.0	1	05/26/22	05/31/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 6/1/2022 2:30:25PM
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**SB39 @ 0'**

**E205122-11**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2222053
Benzene	ND	0.0250	1	05/26/22	05/28/22	
Ethylbenzene	ND	0.0250	1	05/26/22	05/28/22	
Toluene	ND	0.0250	1	05/26/22	05/28/22	
o-Xylene	ND	0.0250	1	05/26/22	05/28/22	
p,m-Xylene	ND	0.0500	1	05/26/22	05/28/22	
Total Xylenes	ND	0.0250	1	05/26/22	05/28/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		95.6 %	70-130	05/26/22	05/28/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2222053
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/26/22	05/28/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		90.1 %	70-130	05/26/22	05/28/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: AK		Batch: 2222082
Diesel Range Organics (C10-C28)	ND	25.0	1	05/27/22	05/29/22	
Oil Range Organics (C28-C36)	ND	50.0	1	05/27/22	05/29/22	
<i>Surrogate: n-Nonane</i>		106 %	50-200	05/27/22	05/29/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2222066
Chloride	184	20.0	1	05/26/22	05/31/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 6/1/2022 2:30:25PM
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**SB40 @ 0'**

**E205122-12**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2222053
Benzene	ND	0.0250	1	05/26/22	05/28/22	
Ethylbenzene	ND	0.0250	1	05/26/22	05/28/22	
Toluene	ND	0.0250	1	05/26/22	05/28/22	
o-Xylene	ND	0.0250	1	05/26/22	05/28/22	
p,m-Xylene	ND	0.0500	1	05/26/22	05/28/22	
Total Xylenes	ND	0.0250	1	05/26/22	05/28/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		96.8 %	70-130	05/26/22	05/28/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2222053
Gasoline Range Organics (C6-C10)	ND	20.0	1	05/26/22	05/28/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		90.6 %	70-130	05/26/22	05/28/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: AK		Batch: 2222082
Diesel Range Organics (C10-C28)	ND	25.0	1	05/27/22	05/29/22	
Oil Range Organics (C28-C36)	ND	50.0	1	05/27/22	05/29/22	
<i>Surrogate: n-Nonane</i>						
		106 %	50-200	05/27/22	05/29/22	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2222066
Chloride	99.2	20.0	1	05/26/22	05/31/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 6/1/2022 2:30:25PM
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**SB41 @ 0'**

**E205122-13**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg	Analyst: RAS			Batch: 2222066
Chloride	<b>448</b>	20.0	1	05/26/22	05/31/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 6/1/2022 2:30:25PM
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**SB42 @ 0'**

**E205122-14**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg	Analyst: RAS			Batch: 2222066
Chloride	<b>192</b>	20.0	1	05/26/22	05/31/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 6/1/2022 2:30:25PM
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**SB43 @ 0'**

**E205122-15**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg	Analyst: RAS			Batch: 2222066
Chloride	<b>13200</b>	200	10	05/26/22	06/01/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 6/1/2022 2:30:25PM
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**SB44 @ 0'**

**E205122-16**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg	Analyst: RAS			Batch: 2222066
Chloride	127	20.0	1	05/26/22	06/01/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 6/1/2022 2:30:25PM
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**SB45 @ 0'**

**E205122-17**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg	Analyst: RAS			Batch: 2222066
Chloride	<b>1800</b>	20.0	1	05/26/22	06/01/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 6/1/2022 2:30:25PM
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**SB46 @ 0'**

**E205122-18**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg	Analyst: RAS			Batch: 2222066
Chloride	<b>14400</b>	400	20	05/26/22	06/01/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 6/1/2022 2:30:25PM
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**SB47 @ 0'**

**E205122-19**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg	Analyst: RAS		Batch: 2222066	
Chloride	<b>30300</b>	2000	100	05/26/22	06/01/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 6/1/2022 2:30:25PM
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**SB47 @ 6"**

**E205122-20**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg	Analyst: RAS			Batch: 2222066
Chloride	<b>2750</b>	20.0	1	05/26/22	06/01/22	



### QC Summary Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 6/1/2022 2:30:25PM
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#### Volatile Organics by EPA 8021B

Analyst: IY

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec %	Rec Limits	RPD %	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

**Blank (2222053-BLK1)**

Prepared: 05/26/22 Analyzed: 05/31/22

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	8.47		8.00		106	70-130			

**LCS (2222053-BS1)**

Prepared: 05/26/22 Analyzed: 05/31/22

Benzene	4.94	0.0250	5.00		98.8	70-130			
Ethylbenzene	4.56	0.0250	5.00		91.2	70-130			
Toluene	4.81	0.0250	5.00		96.1	70-130			
o-Xylene	4.74	0.0250	5.00		94.8	70-130			
p,m-Xylene	9.41	0.0500	10.0		94.1	70-130			
Total Xylenes	14.1	0.0250	15.0		94.3	70-130			
Surrogate: 4-Bromochlorobenzene-PID	8.06		8.00		101	70-130			

**LCS Dup (2222053-BSD1)**

Prepared: 05/26/22 Analyzed: 05/31/22

Benzene	5.10	0.0250	5.00		102	70-130	3.16	20	
Ethylbenzene	4.70	0.0250	5.00		94.1	70-130	3.05	20	
Toluene	4.96	0.0250	5.00		99.2	70-130	3.19	20	
o-Xylene	4.89	0.0250	5.00		97.7	70-130	3.03	20	
p,m-Xylene	9.69	0.0500	10.0		96.9	70-130	2.96	20	
Total Xylenes	14.6	0.0250	15.0		97.2	70-130	2.99	20	
Surrogate: 4-Bromochlorobenzene-PID	7.76		8.00		97.0	70-130			



### QC Summary Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 6/1/2022 2:30:25PM
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#### Nonhalogenated Organics by EPA 8015D - GRO

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2222053-BLK1)**

Prepared: 05/26/22 Analyzed: 05/31/22

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.28		8.00		91.0	70-130			

**LCS (2222053-BS2)**

Prepared: 05/26/22 Analyzed: 05/31/22

Gasoline Range Organics (C6-C10)	49.0	20.0	50.0		98.0	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.37		8.00		92.1	70-130			

**LCS Dup (2222053-BSD2)**

Prepared: 05/26/22 Analyzed: 05/31/22

Gasoline Range Organics (C6-C10)	50.0	20.0	50.0		100	70-130	1.97	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.49		8.00		93.6	70-130			



### QC Summary Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 6/1/2022 2:30:25PM
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#### Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: AK

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2222082-BLK1)**

Prepared: 05/27/22 Analyzed: 05/28/22

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: <i>n</i> -Nonane	51.7		50.0		103	50-200			

**LCS (2222082-BS1)**

Prepared: 05/27/22 Analyzed: 05/28/22

Diesel Range Organics (C10-C28)	514	25.0	500		103	38-132			
Surrogate: <i>n</i> -Nonane	48.2		50.0		96.4	50-200			

**Matrix Spike (2222082-MS1)**

Source: E205112-02

Prepared: 05/27/22 Analyzed: 05/28/22

Diesel Range Organics (C10-C28)	1310	125	500	777	107	38-132			
Surrogate: <i>n</i> -Nonane	50.4		50.0		101	50-200			

**Matrix Spike Dup (2222082-MSD1)**

Source: E205112-02

Prepared: 05/27/22 Analyzed: 05/28/22

Diesel Range Organics (C10-C28)	1400	125	500	777	124	38-132	6.22	20	
Surrogate: <i>n</i> -Nonane	47.1		50.0		94.2	50-200			



### QC Summary Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 6/1/2022 2:30:25PM
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#### Anions by EPA 300.0/9056A

Analyst: RAS

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2222066-BLK1)**

Prepared: 05/26/22 Analyzed: 05/31/22

Chloride	ND	20.0							
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**LCS (2222066-BS1)**

Prepared: 05/26/22 Analyzed: 05/31/22

Chloride	250	20.0	250		100	90-110			
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**Matrix Spike (2222066-MS1)**

Source: E205122-01

Prepared: 05/26/22 Analyzed: 05/31/22

Chloride	20600	2000	250	23700	NR	80-120			M4
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**Matrix Spike Dup (2222066-MSD1)**

Source: E205122-01

Prepared: 05/26/22 Analyzed: 05/31/22

Chloride	16300	2000	250	23700	NR	80-120	22.9	20	M4, R3
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QC Summary Report Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



### Definitions and Notes

Souder Miller Associates - Carlsbad	Project Name:	Seawolf 1-12 CTB 1	
201 S Halagueno St.	Project Number:	01058-0007	<b>Reported:</b>
Carlsbad NM, 88220	Project Manager:	Ashley Maxwell	06/01/22 14:30

- M4 Matrix spike recovery value is suspect since the analyte concentration in the sample is disproportionate to the spike level. The associated LCS spike recovery was acceptable.
- R3 The RPD exceeded the acceptance limit. LCS spike recovery met acceptance criteria.
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Client: <u>Souder Miller Associates</u> Project: <u>Seawolf 1-12-CTB 1</u> Project Manager: <u>Ashley Maxwell</u> Address: <u>201 S. Haldane</u> City, State, Zip: <u>Carlsbad, NM 88220</u> Phone: <u>(505) 320-6975</u> Email: <u>Ashley.Maxwell@soudermiller.com</u> Report due by:	Bill To Attention: <u>Devon</u> Address: City, State, Zip Phone: Email: WO # <u>20987302</u>		Lab Use Only Lab WO# <u>PE205122</u> Job Number <u>01058-007</u>		TAT ID 3D		EPA Program RCRA CWA SDWA			
	Analysis and Method							State		
	DKO/DRO by 8015 GRO/DRO by 8015 BTEX by 8021 VOC by 8260 Metals 6010 Chloride 300.0	BGDQC - NIM BGDQC - TX	NM CO UT AZ	TX OK	Remarks					

Time Sampled	Date Sampled	Matrix	No Containers	Sample ID	Lab Number	DKO/DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDQC - NIM	BGDQC - TX	Remarks
1000	5/19/22	Soil	1	SB30@0'	1							X		
1003	5/19/22	Soil	1	SB31@0'	2							X		
1124	5/19/22	Soil	1	SB32@0'	3						X			
1126	5/19/22	Soil	1	SB33@0'	4							X		
1129	5/19/22	Soil	1	SB34@0'	5					X				
1131	5/19/22	Soil	1	SB35@0'	6					X				
1154	5/19/22	Soil	1	SB36@0'	7					X				
1204	5/19/22	Soil	1	SB36@1'	8					X				
0920	5/24/22	Soil	1	SB37@0'	9					X				
0922	5/26/22	Soil	1	SB36@0'	10					X				

Additional Instructions:

(Field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by:

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 5 °C on subsequent days

Relinquished by: (Signature) <u>Blath M. Wood</u>	Date <u>5/23/22</u>	Time <u>1711</u>	Received by: (Signature) <u>[Signature]</u>	Date <u>5/23/22</u>	Time <u>1721</u>	Lab Use Only Received on ice: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N T1 _____ T2 _____ T3 _____ AVG Temp °C <u>4</u>
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other \_\_\_\_\_ Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

Client: <u>Sawyer Miller Associates</u>		Bill To		Lab Use Only		TAT		EPA Program							
Project: <u>Sawtooth 1-12 CTB 1</u>		Attention: <u>Dixon</u>		Lab WO# <u>PE-205122</u>		Job Number <u>01058-0007</u>		1D	3D	RCRA	CWA	SDWA			
Project Manager: <u>Ashley Maxwell</u>		Address:		Analysis and Method						State					
Address: <u>201 S. Haldagueno</u>		City, State, Zip		DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC - NM	BGDOC - TX	NM	CO	UT	AZ
City, State, Zip <u>Carlsbad, NM 88220</u>		Phone:										TX	OK		
Phone: <u>(505) 320-8935</u>		Email:													
Email: <u>Ashley.Maxwell@scudermiller.com</u>		Report due by:		WD # <u>209 B7302</u>											

Time Sampled	Date Sampled	Matrix	No Containers	Sample ID	Lab Number	DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC - NM	BGDOC - TX	Remarks
0926	5/20/22	Soil	1	SB39@0'	11							X		
0932	5/20/22	Soil	1	SB40@0'	12							X		
0935	5/20/22	Soil	1	SB41@0'	13					X				
0938	5/20/22	Soil	1	SB42@0'	14					X				
0940	5/20/22	Soil	1	SB43@0'	15					X				
1012	5/20/22	Soil	1	SB44@0'	16					X				
1015	5/20/22	Soil	1	SB45@0'	17					X				
1017	5/20/22	Soil	1	SB46@0'	18					X				
1019	5/20/22	Soil	1	SB47@0'	19					X				
1146	5/20/21	Soil	1	SB47@6"	20					X				

Additional Instructions:

(field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: \_\_\_\_\_

Samples requiring thermal preservation must be received on the day they are sampled or received packed in ice at an avg temp above 0 but less than 5 °C on subsequent days

Relinquished by: (Signature) <u>Heath M. Wood</u>	Date <u>5/23/22</u>	Time <u>1711</u>	Received by: (Signature) <u>[Signature]</u>	Date <u>5/23/22</u>	Time <u>1724</u>	Lab Use Only
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Received on ice: <input checked="" type="radio"/> Y <input type="radio"/> N
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	T1 _____ T2 _____ T3 _____
						AVG Temp °C <u>4</u>

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other \_\_\_\_\_ Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.



Envirotech Analytical Laboratory

Printed: 5/24/2022 1:43:29PM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	Souder Miller Associates - Carlsbad	Date Received:	05/23/22 17:24	Work Order ID:	E205122
Phone:	(505) 325-7535	Date Logged In:	05/24/22 11:09	Logged In By:	Caitlin Christian
Email:	ashley.maxwell@soudermiller.com	Due Date:	05/31/22 17:00 (5 day TAT)		

**Chain of Custody (COC)**

- 1. Does the sample ID match the COC? Yes
  - 2. Does the number of samples per sampling site location match the COC? Yes
  - 3. Were samples dropped off by client or carrier? Yes
  - 4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
  - 5. Were all samples received within holding time? Yes
- Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this discussion.

Carrier: Heather Wood

**Comments/Resolution**

Project has been separated into 3 reports due to amount of samples. Workorders are as follows:  
 E205121 COC pg 1&2 of 5, E205122 COC pg 3&4 of 5, E205123 COC pg 5 of 5.

**Sample Turn Around Time (TAT)**

- 6. Did the COC indicate standard TAT, or Expedited TAT? Yes

**Sample Cooler**

- 7. Was a sample cooler received? Yes
  - 8. If yes, was cooler received in good condition? Yes
  - 9. Was the sample(s) received intact, i.e., not broken? Yes
  - 10. Were custody/security seals present? No
  - 11. If yes, were custody/security seals intact? NA
  - 12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C? Yes
- Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

13. If no visible ice, record the temperature. Actual sample temperature: 4°C

**Sample Container**

- 14. Are aqueous VOC samples present? No
- 15. Are VOC samples collected in VOA Vials? NA
- 16. Is the head space less than 6-8 mm (pea sized or less)? NA
- 17. Was a trip blank (TB) included for VOC analyses? NA
- 18. Are non-VOC samples collected in the correct containers? Yes
- 19. Is the appropriate volume/weight or number of sample containers collected? Yes

**Field Label**

- 20. Were field sample labels filled out with the minimum information:
  - Sample ID? Yes
  - Date/Time Collected? Yes
  - Collectors name? No

**Sample Preservation**

- 21. Does the COC or field labels indicate the samples were preserved? No
- 22. Are sample(s) correctly preserved? NA
- 24. Is lab filtration required and/or requested for dissolved metals? No

**Multiphase Sample Matrix**

- 26. Does the sample have more than one phase, i.e., multiphase? No
- 27. If yes, does the COC specify which phase(s) is to be analyzed? NA

**Subcontract Laboratory**

- 28. Are samples required to get sent to a subcontract laboratory? No
- 29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: na

**Client Instruction**

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:  
Ashley Maxwell



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Souder Miller Associates - Carlsbad

Project Name: Seawolf 1-12 CTB 1

Work Order: E205123

Job Number: 01058-0007

Received: 5/23/2022

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
5/31/22

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.  
Envirotech Inc, holds the NM SDWA certification for data reported. (Lab #NM00979)

Date Reported: 5/31/22



Ashley Maxwell  
201 S Halagueno St.  
Carlsbad, NM 88220

Project Name: Seawolf 1-12 CTB 1  
Workorder: E205123  
Date Received: 5/23/2022 5:24:00PM

Ashley Maxwell,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 5/23/2022 5:24:00PM, under the Project Name: Seawolf 1-12 CTB 1.

The analytical test results summarized in this report with the Project Name: Seawolf 1-12 CTB 1 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

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**Rayny Hagan**  
Technical Representative  
Office: 505-421-LABS(5227)

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### Sample Summary

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 05/31/22 17:06
--	---	------------------------------------

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SB48 @ 0'	E205123-01A	Soil	05/20/22	05/23/22	Glass Jar, 4 oz.
SB49 @ 0'	E205123-02A	Soil	05/20/22	05/23/22	Glass Jar, 4 oz.
SB50 @ 0'	E205123-03A	Soil	05/20/22	05/23/22	Glass Jar, 4 oz.
SB51 @ 0'	E205123-04A	Soil	05/20/22	05/23/22	Glass Jar, 4 oz.
SB52 @ 0'	E205123-05A	Soil	05/20/22	05/23/22	Glass Jar, 4 oz.
SB34 @ 6"	E205123-06A	Soil	05/20/22	05/23/22	Glass Jar, 4 oz.



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 5/31/2022 5:06:41PM
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**SB48 @ 0'**

**E205123-01**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg	Analyst: RAS			Batch: 2222063
Chloride	<b>1040</b>	20.0	1	05/26/22	05/28/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 5/31/2022 5:06:41PM
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**SB49 @ 0'**

**E205123-02**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg	Analyst: RAS			Batch: 2222063
Chloride	<b>16400</b>	400	20	05/26/22	05/28/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 5/31/2022 5:06:41PM
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**SB50 @ 0'**

**E205123-03**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg	Analyst: RAS		Batch: 2222063	
Chloride	<b>11800</b>	400	20	05/26/22	05/28/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 5/31/2022 5:06:41PM
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**SB51 @ 0'**

**E205123-04**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg	Analyst: RAS			Batch: 2222063
Chloride	<b>40600</b>	2000	100	05/26/22	05/28/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 5/31/2022 5:06:41PM
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**SB52 @ 0'**

**E205123-05**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg	Analyst: RAS			Batch: 2222063
Chloride	333	20.0	1	05/26/22	05/28/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 5/31/2022 5:06:41PM
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**SB34 @ 6"**

**E205123-06**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg	Analyst: RAS			Batch: 2222063
Chloride	<b>1860</b>	40.0	2	05/26/22	05/28/22	



### QC Summary Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 5/31/2022 5:06:41PM
--	---	---

#### Anions by EPA 300.0/9056A

Analyst: RAS

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2222063-BLK1)**

Prepared: 05/26/22 Analyzed: 05/28/22

Chloride ND 20.0

**LCS (2222063-BS1)**

Prepared: 05/26/22 Analyzed: 05/28/22

Chloride 250 20.0 250 100 90-110

**Matrix Spike (2222063-MS1)**

Source: E205117-01

Prepared: 05/26/22 Analyzed: 05/28/22

Chloride 15200 200 250 16300 NR 80-120 M4

**Matrix Spike Dup (2222063-MSD1)**

Source: E205117-01

Prepared: 05/26/22 Analyzed: 05/28/22

Chloride 17800 200 250 16300 605 80-120 16.1 20 M4

QC Summary Report Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



### Definitions and Notes

Souder Miller Associates - Carlsbad	Project Name:	Seawolf 1-12 CTB 1	
201 S Halagueno St.	Project Number:	01058-0007	<b>Reported:</b>
Carlsbad NM, 88220	Project Manager:	Ashley Maxwell	05/31/22 17:06

M4 Matrix spike recovery value is suspect since the analyte concentration in the sample is disproportionate to the spike level. The associated LCS spike recovery was acceptable.

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

DNI Did Not Ignite

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Client: <u>Souder, Miller &amp; Associates</u> Project: <u>Seawolf 1-12 CTB 1</u> Project Manager: <u>Ashley Maxwell</u> Address: <u>201 S. Haldagueno</u> City, State, Zip: <u>Carlsbad NM 88220</u> Phone: <u>(505) 320-8975</u> Email: <u>Ashley_Maxwell@soudermiller.com</u> Report due by: _____		Bill To Attention: <u>Devon</u> Address: _____ City, State, Zip: _____ Phone: _____ Email: _____ WO# <u>20987302</u>		Lab Use Only Lab WO# <u>PE 205123</u> Job Number <u>01058-0007</u>		TAT 1D <input type="checkbox"/> 3D <input type="checkbox"/>		EPA Program RCRA <input type="checkbox"/> CWA <input type="checkbox"/> SDWA <input type="checkbox"/>	
Analysis and Method						State			
						NM <input type="checkbox"/> CO <input type="checkbox"/> UT <input type="checkbox"/> AZ <input type="checkbox"/>			
						TX <input type="checkbox"/> OK <input type="checkbox"/>			
						Remarks			

Time Sampled	Date Sampled	Matrix	No Containers	Sample ID	Lab Number	DRO/DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BCDOC - NM	BCDOC - TX	Remarks
1113	5/20/22	Soil	1	SB46@0'	1						X			
1116	5/20/22	Soil	1	SB49@0'	2						X			
1117	5/20/22	Soil	1	SB50@0'	3						X			
1148	5/20/22	Soil	1	SB51@0'	4						X			
1149	5/20/22	Soil	1	SB52@0'	5						X			
1103	5/20/22	Soil	1	SB34@6"	6						X			

**Additional Instructions:**

(field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: \_\_\_\_\_

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed on ice at an avg temp above 5 but less than 6 °C on subsequent days

Relinquished by: (Signature) <u>Ashley M. Maxwell</u>	Date <u>5/23/22</u>	Time <u>1711</u>	Received by: (Signature) <u>Devon</u>	Date <u>5/23/22</u>	Time <u>1724</u>	Lab Use Only Received on ice: <input checked="" type="radio"/> Y <input type="radio"/> N T1 _____ T2 _____ T3 _____ AVG Temp °C <u>4</u>
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other \_\_\_\_\_ Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.



Envirotech Analytical Laboratory

Printed: 5/24/2022 1:48:52PM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	Souder Miller Associates - Carlsbad	Date Received:	05/23/22 17:24	Work Order ID:	E205123
Phone:	(505) 325-7535	Date Logged In:	05/24/22 11:13	Logged In By:	Caitlin Christian
Email:	ashley.maxwell@soudermiller.com	Due Date:	05/31/22 17:00 (5 day TAT)		

**Chain of Custody (COC)**

- 1. Does the sample ID match the COC? Yes
- 2. Does the number of samples per sampling site location match the COC? Yes
- 3. Were samples dropped off by client or carrier? Yes
- 4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
- 5. Were all samples received within holding time? Yes

Carrier: Heather Wood

Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this discussion.

**Comments/Resolution**

**Sample Turn Around Time (TAT)**

- 6. Did the COC indicate standard TAT, or Expedited TAT? Yes

**Sample Cooler**

- 7. Was a sample cooler received? Yes
- 8. If yes, was cooler received in good condition? Yes
- 9. Was the sample(s) received intact, i.e., not broken? Yes
- 10. Were custody/security seals present? No
- 11. If yes, were custody/security seals intact? NA
- 12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

- 13. If no visible ice, record the temperature. Actual sample temperature: 4°C

**Sample Container**

- 14. Are aqueous VOC samples present? No
- 15. Are VOC samples collected in VOA Vials? NA
- 16. Is the head space less than 6-8 mm (pea sized or less)? NA
- 17. Was a trip blank (TB) included for VOC analyses? NA
- 18. Are non-VOC samples collected in the correct containers? Yes
- 19. Is the appropriate volume/weight or number of sample containers collected? Yes

**Field Label**

- 20. Were field sample labels filled out with the minimum information:
  - Sample ID? Yes
  - Date/Time Collected? Yes
  - Collectors name? No

**Sample Preservation**

- 21. Does the COC or field labels indicate the samples were preserved? No
- 22. Are sample(s) correctly preserved? NA
- 24. Is lab filtration required and/or requested for dissolved metals? No

**Multiphase Sample Matrix**

- 26. Does the sample have more than one phase, i.e., multiphase? No
- 27. If yes, does the COC specify which phase(s) is to be analyzed? NA

**Subcontract Laboratory**

- 28. Are samples required to get sent to a subcontract laboratory? No
- 29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: na

**Client Instruction**

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:  
Heather Woods



# envirotech

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## Analytical Report

Souder Miller Associates - Carlsbad

Project Name: Seawolf 1-12 CTB 1

Work Order: E208129

Job Number: 01058-0007

Received: 8/24/2022

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
8/26/22

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.  
Envirotech Inc, holds the NM SDWA certification for data reported. (Lab #NM00979)

Date Reported: 8/26/22



Heather Woods  
201 S Halagueno St.  
Carlsbad, NM 88220

Project Name: Seawolf 1-12 CTB 1  
Workorder: E208129  
Date Received: 8/24/2022 10:30:00AM

Heather Woods,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 8/24/2022 10:30:00AM, under the Project Name: Seawolf 1-12 CTB 1.

The analytical test results summarized in this report with the Project Name: Seawolf 1-12 CTB 1 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
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**Raina Schwanz**  
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**Alexa Michaels**  
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**Lynn Jarboe**  
Technical Representative/Client Services  
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[ljjarboe@envirotech-inc.com](mailto:ljjarboe@envirotech-inc.com)

**West Texas Midland/Odessa Area**  
**Rayny Hagan**  
Technical Representative  
Office: 505-421-LABS(5227)

Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

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### Sample Summary

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 08/26/22 14:35
--	--	------------------------------------

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
BH53 @ 0'	E208129-01A	Soil	08/22/22	08/24/22	Glass Jar, 2 oz.
BH53 @ 0.5'	E208129-02A	Soil	08/22/22	08/24/22	Glass Jar, 2 oz.
BH54 @ 0'	E208129-03A	Soil	08/22/22	08/24/22	Glass Jar, 2 oz.
BH55 @ 0'	E208129-04A	Soil	08/22/22	08/24/22	Glass Jar, 2 oz.
BH55 @ 0.5'	E208129-05A	Soil	08/22/22	08/24/22	Glass Jar, 2 oz.



## Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 8/26/2022 2:35:10PM
--	--	---

**BH53 @ 0'**

**E208129-01**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2235038
Benzene	ND	0.0250	1	08/24/22	08/24/22	
Ethylbenzene	ND	0.0250	1	08/24/22	08/24/22	
Toluene	ND	0.0250	1	08/24/22	08/24/22	
o-Xylene	ND	0.0250	1	08/24/22	08/24/22	
p,m-Xylene	ND	0.0500	1	08/24/22	08/24/22	
Total Xylenes	ND	0.0250	1	08/24/22	08/24/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		102 %	70-130	08/24/22	08/24/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2235038
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/24/22	08/24/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		98.0 %	70-130	08/24/22	08/24/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2235025
Diesel Range Organics (C10-C28)	ND	25.0	1	08/24/22	08/24/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/24/22	08/24/22	
<i>Surrogate: n-Nonane</i>		91.3 %	50-200	08/24/22	08/24/22	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2235034
Chloride	338	20.0	1	08/24/22	08/24/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 8/26/2022 2:35:10PM
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**BH53 @ 0.5'**

**E208129-02**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2235038
Benzene	ND	0.0250	1	08/24/22	08/24/22	
Ethylbenzene	ND	0.0250	1	08/24/22	08/24/22	
Toluene	ND	0.0250	1	08/24/22	08/24/22	
o-Xylene	ND	0.0250	1	08/24/22	08/24/22	
p,m-Xylene	ND	0.0500	1	08/24/22	08/24/22	
Total Xylenes	ND	0.0250	1	08/24/22	08/24/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		102 %	70-130	08/24/22	08/24/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2235038
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/24/22	08/24/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		97.8 %	70-130	08/24/22	08/24/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2235025
Diesel Range Organics (C10-C28)	ND	25.0	1	08/24/22	08/24/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/24/22	08/24/22	
<i>Surrogate: n-Nonane</i>		75.3 %	50-200	08/24/22	08/24/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2235034
Chloride	45.9	20.0	1	08/24/22	08/24/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 8/26/2022 2:35:10PM
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**BH54 @ 0'**

**E208129-03**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2235038
Benzene	ND	0.0250	1	08/24/22	08/24/22	
Ethylbenzene	ND	0.0250	1	08/24/22	08/24/22	
Toluene	ND	0.0250	1	08/24/22	08/24/22	
o-Xylene	ND	0.0250	1	08/24/22	08/24/22	
p,m-Xylene	ND	0.0500	1	08/24/22	08/24/22	
Total Xylenes	ND	0.0250	1	08/24/22	08/24/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		103 %	70-130	08/24/22	08/24/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2235038
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/24/22	08/24/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		96.8 %	70-130	08/24/22	08/24/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2235025
Diesel Range Organics (C10-C28)	ND	25.0	1	08/24/22	08/24/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/24/22	08/24/22	
<i>Surrogate: n-Nonane</i>		71.0 %	50-200	08/24/22	08/24/22	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2235034
Chloride	ND	20.0	1	08/24/22	08/24/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 8/26/2022 2:35:10PM
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**BH55 @ 0'**

**E208129-04**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2235038
Benzene	ND	0.0250	1	08/24/22	08/24/22	
Ethylbenzene	ND	0.0250	1	08/24/22	08/24/22	
Toluene	ND	0.0250	1	08/24/22	08/24/22	
o-Xylene	ND	0.0250	1	08/24/22	08/24/22	
p,m-Xylene	ND	0.0500	1	08/24/22	08/24/22	
Total Xylenes	ND	0.0250	1	08/24/22	08/24/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		103 %	70-130	08/24/22	08/24/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2235038
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/24/22	08/24/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		96.6 %	70-130	08/24/22	08/24/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2235025
Diesel Range Organics (C10-C28)	ND	25.0	1	08/24/22	08/24/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/24/22	08/24/22	
<i>Surrogate: n-Nonane</i>		78.7 %	50-200	08/24/22	08/24/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2235034
Chloride	63.6	20.0	1	08/24/22	08/25/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 8/26/2022 2:35:10PM
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**BH55 @ 0.5'**

**E208129-05**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2235038
Benzene	ND	0.0250	1	08/24/22	08/24/22	
Ethylbenzene	ND	0.0250	1	08/24/22	08/24/22	
Toluene	ND	0.0250	1	08/24/22	08/24/22	
o-Xylene	ND	0.0250	1	08/24/22	08/24/22	
p,m-Xylene	ND	0.0500	1	08/24/22	08/24/22	
Total Xylenes	ND	0.0250	1	08/24/22	08/24/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		103 %	70-130	08/24/22	08/24/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2235038
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/24/22	08/24/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		96.8 %	70-130	08/24/22	08/24/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2235025
Diesel Range Organics (C10-C28)	ND	25.0	1	08/24/22	08/24/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/24/22	08/24/22	
<i>Surrogate: n-Nonane</i>		81.2 %	50-200	08/24/22	08/24/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2235034
Chloride	33.3	20.0	1	08/24/22	08/24/22	



### QC Summary Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 8/26/2022 2:35:10PM
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#### Volatile Organics by EPA 8021B

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2235038-BLK1)**

Prepared: 08/24/22 Analyzed: 08/24/22

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	8.28		8.00		104		70-130		

**LCS (2235038-BS1)**

Prepared: 08/24/22 Analyzed: 08/24/22

Benzene	4.57	0.0250	5.00		91.4		70-130		
Ethylbenzene	4.59	0.0250	5.00		91.8		70-130		
Toluene	4.69	0.0250	5.00		93.8		70-130		
o-Xylene	4.72	0.0250	5.00		94.5		70-130		
p,m-Xylene	9.30	0.0500	10.0		93.0		70-130		
Total Xylenes	14.0	0.0250	15.0		93.5		70-130		
Surrogate: 4-Bromochlorobenzene-PID	8.35		8.00		104		70-130		

**Matrix Spike (2235038-MS1)**

Source: E208129-02

Prepared: 08/24/22 Analyzed: 08/24/22

Benzene	4.55	0.0250	5.00	ND	90.9		54-133		
Ethylbenzene	4.55	0.0250	5.00	ND	91.0		61-133		
Toluene	4.65	0.0250	5.00	ND	93.1		61-130		
o-Xylene	4.65	0.0250	5.00	ND	93.0		63-131		
p,m-Xylene	9.20	0.0500	10.0	ND	92.0		63-131		
Total Xylenes	13.8	0.0250	15.0	ND	92.3		63-131		
Surrogate: 4-Bromochlorobenzene-PID	8.28		8.00		104		70-130		

**Matrix Spike Dup (2235038-MSD1)**

Source: E208129-02

Prepared: 08/24/22 Analyzed: 08/24/22

Benzene	4.57	0.0250	5.00	ND	91.3		54-133	0.472	20
Ethylbenzene	4.57	0.0250	5.00	ND	91.4		61-133	0.510	20
Toluene	4.67	0.0250	5.00	ND	93.5		61-130	0.445	20
o-Xylene	4.69	0.0250	5.00	ND	93.7		63-131	0.713	20
p,m-Xylene	9.25	0.0500	10.0	ND	92.5		63-131	0.570	20
Total Xylenes	13.9	0.0250	15.0	ND	92.9		63-131	0.618	20
Surrogate: 4-Bromochlorobenzene-PID	8.29		8.00		104		70-130		



### QC Summary Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 8/26/2022 2:35:10PM
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#### Nonhalogenated Organics by EPA 8015D - GRO

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2235038-BLK1)**

Prepared: 08/24/22 Analyzed: 08/24/22

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.04		8.00		100	70-130			

**LCS (2235038-BS2)**

Prepared: 08/24/22 Analyzed: 08/24/22

Gasoline Range Organics (C6-C10)	43.0	20.0	50.0		86.1	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.97		8.00		99.6	70-130			

**Matrix Spike (2235038-MS2)**

Source: E208129-02

Prepared: 08/24/22 Analyzed: 08/24/22

Gasoline Range Organics (C6-C10)	44.3	20.0	50.0	ND	88.6	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.92		8.00		99.0	70-130			

**Matrix Spike Dup (2235038-MSD2)**

Source: E208129-02

Prepared: 08/24/22 Analyzed: 08/24/22

Gasoline Range Organics (C6-C10)	42.2	20.0	50.0	ND	84.4	70-130	4.79	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.95		8.00		99.3	70-130			



### QC Summary Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 8/26/2022 2:35:10PM
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#### Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: JL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2235025-BLK1)**

Prepared: 08/23/22 Analyzed: 08/24/22

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	40.7		50.0		81.5	50-200			

**LCS (2235025-BS1)**

Prepared: 08/23/22 Analyzed: 08/24/22

Diesel Range Organics (C10-C28)	222	25.0	250		88.8	38-132			
Surrogate: n-Nonane	35.7		50.0		71.4	50-200			

**Matrix Spike (2235025-MS1)**

Source: E208123-03

Prepared: 08/23/22 Analyzed: 08/24/22

Diesel Range Organics (C10-C28)	8930	1250	250	8760	67.9	38-132			
Surrogate: n-Nonane	46.1		50.0		92.3	50-200			

**Matrix Spike Dup (2235025-MSD1)**

Source: E208123-03

Prepared: 08/23/22 Analyzed: 08/24/22

Diesel Range Organics (C10-C28)	9260	1250	250	8760	201	38-132	3.67	20	M4
Surrogate: n-Nonane	46.1		50.0		92.2	50-200			



### QC Summary Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 8/26/2022 2:35:10PM
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#### Anions by EPA 300.0/9056A

Analyst: RAS

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2235034-BLK1)**

Prepared: 08/24/22 Analyzed: 08/24/22

Chloride	ND	20.0							
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**LCS (2235034-BS1)**

Prepared: 08/24/22 Analyzed: 08/24/22

Chloride	249	20.0	250		99.6	90-110			
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**LCS Dup (2235034-BSD1)**

Prepared: 08/24/22 Analyzed: 08/24/22

Chloride	252	20.0	250		101	90-110	1.21	20	
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QC Summary Report Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



### Definitions and Notes

Souder Miller Associates - Carlsbad	Project Name:	Seawolf 1-12 CTB 1	
201 S Halagueno St.	Project Number:	01058-0007	<b>Reported:</b>
Carlsbad NM, 88220	Project Manager:	Heather Woods	08/26/22 14:35

- M4 Matrix spike recovery value is suspect since the analyte concentration in the sample is disproportionate to the spike level. The associated LCS spike recovery was acceptable.
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite

Note (1): Methods marked with \*\* are non-accredited methods.  
Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.

Chain of Custody

Project Information

Client: Sander Miller & Associates  
 Project: Grain Wolf #12 CTB1  
 Project Manager: Heather Woods  
 Address: 2015 Halaruemo St  
 City, State, Zip: Carlsbad, NM 88220  
 Phone: \_\_\_\_\_  
 Email: \_\_\_\_\_

Report due by: \_\_\_\_\_

Attention: Dexon  
 Address: \_\_\_\_\_  
 City, State, Zip: \_\_\_\_\_  
 Phone: \_\_\_\_\_  
 Email: \_\_\_\_\_  
 WO# 20987302

Lab Use Only  
 Lab WO# PE208129 Job Number 01058-007  
 Analysis and Method

Lab Number	DRO/DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 3000	BGDDC - NM	BGDDC - TX	EPA Program				
									1D	3D	RCRA	CWA	SDWA
1							X						
2							X						
3							X						
4							X						
5							X						

State: \_\_\_\_\_  
 NM CO UT AZ  
 TX OK

Remarks: \_\_\_\_\_

Additional Instructions:

Please send to Georgeann Goodman, Sarahmary Schlea & Heather Woods

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: Sarahmary & Heather

Received on ice: (Y) N

Relinquished by: (Signature) <u>[Signature]</u>	Date <u>8/2/22</u>	Time <u>12:15</u>	Received by: (Signature) <u>[Signature]</u>	Date <u>8/2/22</u>	Time <u>1:00P</u>
Relinquished by: (Signature) <u>[Signature]</u>	Date <u>8/2/22</u>	Time <u>2:15</u>	Received by: (Signature) <u>[Signature]</u>	Date <u>8/24/22</u>	Time <u>10:30</u>
Relinquished by: (Signature) _____	Date _____	Time _____	Received by: (Signature) _____	Date _____	Time _____

AVG Temp °C 4

Sample Matrix: S - Sol, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other \_\_\_\_\_

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 90 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.



Envirotech Analytical Laboratory

Printed: 8/25/2022 11:01:51AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client: Souder Miller Associates - Carlsbad	Date Received: 08/24/22 10:30	Work Order ID: E208129
Phone: (575) 200-5443	Date Logged In: 08/23/22 16:47	Logged In By: Caitlin Christian
Email:	Due Date: 08/26/22 17:00 (2 day TAT)	

**Chain of Custody (COC)**

- 1. Does the sample ID match the COC? Yes
- 2. Does the number of samples per sampling site location match the COC? Yes
- 3. Were samples dropped off by client or carrier? Yes
- 4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
- 5. Were all samples received within holding time? Yes

Carrier: UPS

Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this discussion.

**Comments/Resolution**

**Sample Turn Around Time (TAT)**

- 6. Did the COC indicate standard TAT, or Expedited TAT? Yes

**Sample Cooler**

- 7. Was a sample cooler received? Yes
- 8. If yes, was cooler received in good condition? Yes
- 9. Was the sample(s) received intact, i.e., not broken? Yes
- 10. Were custody/security seals present? No
- 11. If yes, were custody/security seals intact? NA
- 12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

- 13. If no visible ice, record the temperature. Actual sample temperature: 4°C

**Sample Container**

- 14. Are aqueous VOC samples present? No
- 15. Are VOC samples collected in VOA Vials? NA
- 16. Is the head space less than 6-8 mm (pea sized or less)? NA
- 17. Was a trip blank (TB) included for VOC analyses? NA
- 18. Are non-VOC samples collected in the correct containers? Yes
- 19. Is the appropriate volume/weight or number of sample containers collected? Yes

**Field Label**

- 20. Were field sample labels filled out with the minimum information:
  - Sample ID? Yes
  - Date/Time Collected? Yes
  - Collectors name? No

**Sample Preservation**

- 21. Does the COC or field labels indicate the samples were preserved? No
- 22. Are sample(s) correctly preserved? NA
- 24. Is lab filtration required and/or requested for dissolved metals? No

**Multiphase Sample Matrix**

- 26. Does the sample have more than one phase, i.e., multiphase? No
- 27. If yes, does the COC specify which phase(s) is to be analyzed? NA

**Subcontract Laboratory**

- 28. Are samples required to get sent to a subcontract laboratory? No
- 29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: na

**Client Instruction**

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:  
Heather Woods



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Souder Miller Associates - Carlsbad

Project Name: Seawolf CTB 1-12

Work Order: E208187

Job Number: 01058-0007

Received: 9/1/2022

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
9/2/22

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.  
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Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.  
Envirotech Inc, holds the NM SDWA certification for data reported. (Lab #NM00979)

Date Reported: 9/2/22



Heather Woods  
201 S Halagueno St.  
Carlsbad, NM 88220

Project Name: Seawolf CTB 1-12  
Workorder: E208187  
Date Received: 9/1/2022 10:30:00AM

Heather Woods,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 9/1/2022 10:30:00AM, under the Project Name: Seawolf CTB 1-12.

The analytical test results summarized in this report with the Project Name: Seawolf CTB 1-12 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

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## Sample Summary

Souder Miller Associates - Carlsbad  
201 S Halagueno St.  
Carlsbad NM, 88220

Project Name: Seawolf CTB 1-12  
Project Number: 01058-0007  
Project Manager: Heather Woods

**Reported:**  
09/02/22 12:28

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
NRE01	E208187-01A	Soil	08/30/22	09/01/22	Amber Glass Jar, 4 oz.
NRE02	E208187-02A	Soil	08/30/22	09/01/22	Amber Glass Jar, 4 oz.
NRE03	E208187-03A	Soil	08/30/22	09/01/22	Amber Glass Jar, 4 oz.
NRE04	E208187-04A	Soil	08/30/22	09/01/22	Amber Glass Jar, 4 oz.
NRE05	E208187-05A	Soil	08/30/22	09/01/22	Amber Glass Jar, 4 oz.
NRE06	E208187-06A	Soil	08/30/22	09/01/22	Amber Glass Jar, 4 oz.
NRE07	E208187-07A	Soil	08/30/22	09/01/22	Amber Glass Jar, 4 oz.
NRE08	E208187-08A	Soil	08/30/22	09/01/22	Amber Glass Jar, 4 oz.
NRE09	E208187-09A	Soil	08/30/22	09/01/22	Amber Glass Jar, 4 oz.
NRE10	E208187-10A	Soil	08/30/22	09/01/22	Amber Glass Jar, 4 oz.
NRE11	E208187-11A	Soil	08/30/22	09/01/22	Amber Glass Jar, 4 oz.
NRE12	E208187-12A	Soil	08/30/22	09/01/22	Amber Glass Jar, 4 oz.
NRE13	E208187-13A	Soil	08/30/22	09/01/22	Amber Glass Jar, 4 oz.
NRE14	E208187-14A	Soil	08/30/22	09/01/22	Amber Glass Jar, 4 oz.
NRE15	E208187-15A	Soil	08/30/22	09/01/22	Amber Glass Jar, 4 oz.
NRE16	E208187-16A	Soil	08/30/22	09/01/22	Amber Glass Jar, 4 oz.
AS01 @ 1	E208187-17A	Soil	08/30/22	09/01/22	Amber Glass Jar, 4 oz.
AS02 @ 1	E208187-18A	Soil	08/30/22	09/01/22	Amber Glass Jar, 4 oz.
AS03 @ 1	E208187-19A	Soil	08/30/22	09/01/22	Amber Glass Jar, 4 oz.
AS04 @ 1	E208187-20A	Soil	08/30/22	09/01/22	Amber Glass Jar, 4 oz.
AS05 @ 1	E208187-21A	Soil	08/30/22	09/01/22	Amber Glass Jar, 4 oz.
AS06 @ 0	E208187-22A	Soil	08/30/22	09/01/22	Amber Glass Jar, 4 oz.
AS06 @ 8"	E208187-23A	Soil	08/30/22	09/01/22	Amber Glass Jar, 4 oz.
AS07 @ 0	E208187-24A	Soil	08/30/22	09/01/22	Amber Glass Jar, 4 oz.
AS07 @ 8"	E208187-25A	Soil	08/30/22	09/01/22	Amber Glass Jar, 4 oz.
AS08 @ 0	E208187-26A	Soil	08/30/22	09/01/22	Amber Glass Jar, 4 oz.
AS08 @ 6"	E208187-27A	Soil	08/30/22	09/01/22	Amber Glass Jar, 4 oz.



## Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf CTB 1-12 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 9/2/2022 12:28:33PM
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## NRE01

## E208187-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2236054
Benzene	ND	0.0250	1	09/01/22	09/01/22	
Ethylbenzene	ND	0.0250	1	09/01/22	09/01/22	
Toluene	ND	0.0250	1	09/01/22	09/01/22	
o-Xylene	ND	0.0250	1	09/01/22	09/01/22	
p,m-Xylene	ND	0.0500	1	09/01/22	09/01/22	
Total Xylenes	ND	0.0250	1	09/01/22	09/01/22	
<i>Surrogate: Bromofluorobenzene</i>	96.9 %	70-130		09/01/22	09/01/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	102 %	70-130		09/01/22	09/01/22	
<i>Surrogate: Toluene-d8</i>	97.1 %	70-130		09/01/22	09/01/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2236054
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/01/22	09/01/22	
<i>Surrogate: Bromofluorobenzene</i>	96.9 %	70-130		09/01/22	09/01/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	102 %	70-130		09/01/22	09/01/22	
<i>Surrogate: Toluene-d8</i>	97.1 %	70-130		09/01/22	09/01/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2236042
Diesel Range Organics (C10-C28)	ND	25.0	1	08/31/22	09/01/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/31/22	09/01/22	
<i>Surrogate: n-Nonane</i>	77.5 %	50-200		08/31/22	09/01/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2236043
Chloride	15300	400	20	08/31/22	09/01/22	



## Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf CTB 1-12 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 9/2/2022 12:28:33PM
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## NRE02

## E208187-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2236054
Benzene	ND	0.0250	1	09/01/22	09/01/22	
Ethylbenzene	ND	0.0250	1	09/01/22	09/01/22	
Toluene	ND	0.0250	1	09/01/22	09/01/22	
o-Xylene	ND	0.0250	1	09/01/22	09/01/22	
p,m-Xylene	ND	0.0500	1	09/01/22	09/01/22	
Total Xylenes	ND	0.0250	1	09/01/22	09/01/22	
<i>Surrogate: Bromofluorobenzene</i>		96.4 %	70-130	09/01/22	09/01/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		103 %	70-130	09/01/22	09/01/22	
<i>Surrogate: Toluene-d8</i>		98.0 %	70-130	09/01/22	09/01/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2236054
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/01/22	09/01/22	
<i>Surrogate: Bromofluorobenzene</i>		96.4 %	70-130	09/01/22	09/01/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		103 %	70-130	09/01/22	09/01/22	
<i>Surrogate: Toluene-d8</i>		98.0 %	70-130	09/01/22	09/01/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2236042
Diesel Range Organics (C10-C28)	ND	25.0	1	08/31/22	09/01/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/31/22	09/01/22	
<i>Surrogate: n-Nonane</i>		76.2 %	50-200	08/31/22	09/01/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2236043
Chloride	15900	400	20	08/31/22	09/01/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf CTB 1-12 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 9/2/2022 12:28:33PM
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**NRE03**

**E208187-03**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2236054
Benzene	ND	0.0250	1	09/01/22	09/01/22	
Ethylbenzene	ND	0.0250	1	09/01/22	09/01/22	
Toluene	ND	0.0250	1	09/01/22	09/01/22	
o-Xylene	ND	0.0250	1	09/01/22	09/01/22	
p,m-Xylene	ND	0.0500	1	09/01/22	09/01/22	
Total Xylenes	ND	0.0250	1	09/01/22	09/01/22	
<i>Surrogate: Bromofluorobenzene</i>		93.7 %	70-130	09/01/22	09/01/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		97.4 %	70-130	09/01/22	09/01/22	
<i>Surrogate: Toluene-d8</i>		97.3 %	70-130	09/01/22	09/01/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2236054
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/01/22	09/01/22	
<i>Surrogate: Bromofluorobenzene</i>		93.7 %	70-130	09/01/22	09/01/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		97.4 %	70-130	09/01/22	09/01/22	
<i>Surrogate: Toluene-d8</i>		97.3 %	70-130	09/01/22	09/01/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2236042
Diesel Range Organics (C10-C28)	ND	25.0	1	08/31/22	09/01/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/31/22	09/01/22	
<i>Surrogate: n-Nonane</i>		97.3 %	50-200	08/31/22	09/01/22	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2236043
Chloride	9800	400	20	08/31/22	09/01/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf CTB 1-12 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 9/2/2022 12:28:33PM
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**NRE04**

**E208187-04**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2236054
Benzene	ND	0.0250	1	09/01/22	09/01/22	
Ethylbenzene	ND	0.0250	1	09/01/22	09/01/22	
Toluene	ND	0.0250	1	09/01/22	09/01/22	
o-Xylene	ND	0.0250	1	09/01/22	09/01/22	
p,m-Xylene	ND	0.0500	1	09/01/22	09/01/22	
Total Xylenes	ND	0.0250	1	09/01/22	09/01/22	
<i>Surrogate: Bromofluorobenzene</i>		94.3 %	70-130	09/01/22	09/01/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		99.1 %	70-130	09/01/22	09/01/22	
<i>Surrogate: Toluene-d8</i>		99.3 %	70-130	09/01/22	09/01/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2236054
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/01/22	09/01/22	
<i>Surrogate: Bromofluorobenzene</i>		94.3 %	70-130	09/01/22	09/01/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		99.1 %	70-130	09/01/22	09/01/22	
<i>Surrogate: Toluene-d8</i>		99.3 %	70-130	09/01/22	09/01/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2236042
Diesel Range Organics (C10-C28)	ND	25.0	1	08/31/22	09/01/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/31/22	09/01/22	
<i>Surrogate: n-Nonane</i>		85.9 %	50-200	08/31/22	09/01/22	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2236043
Chloride	1740	40.0	2	08/31/22	09/01/22	



## Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf CTB 1-12 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 9/2/2022 12:28:33PM
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## NRE05

## E208187-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2236054
Benzene	ND	0.0250	1	09/01/22	09/01/22	
Ethylbenzene	ND	0.0250	1	09/01/22	09/01/22	
Toluene	ND	0.0250	1	09/01/22	09/01/22	
o-Xylene	ND	0.0250	1	09/01/22	09/01/22	
p,m-Xylene	ND	0.0500	1	09/01/22	09/01/22	
Total Xylenes	ND	0.0250	1	09/01/22	09/01/22	
<i>Surrogate: Bromofluorobenzene</i>		102 %	70-130	09/01/22	09/01/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		101 %	70-130	09/01/22	09/01/22	
<i>Surrogate: Toluene-d8</i>		102 %	70-130	09/01/22	09/01/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2236054
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/01/22	09/01/22	
<i>Surrogate: Bromofluorobenzene</i>		102 %	70-130	09/01/22	09/01/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		101 %	70-130	09/01/22	09/01/22	
<i>Surrogate: Toluene-d8</i>		102 %	70-130	09/01/22	09/01/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2236042
Diesel Range Organics (C10-C28)	ND	25.0	1	08/31/22	09/01/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/31/22	09/01/22	
<i>Surrogate: n-Nonane</i>		100 %	50-200	08/31/22	09/01/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2236043
Chloride	10300	400	20	08/31/22	09/01/22	



## Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf CTB 1-12 Project Number: 01058-0007 Project Manager: Heather Woods	Reported: 9/2/2022 12:28:33PM
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## NRE06

## E208187-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2236054
Benzene	ND	0.0250	1	09/01/22	09/01/22	
Ethylbenzene	ND	0.0250	1	09/01/22	09/01/22	
Toluene	ND	0.0250	1	09/01/22	09/01/22	
o-Xylene	ND	0.0250	1	09/01/22	09/01/22	
p,m-Xylene	ND	0.0500	1	09/01/22	09/01/22	
Total Xylenes	ND	0.0250	1	09/01/22	09/01/22	
<i>Surrogate: Bromofluorobenzene</i>		101 %	70-130	09/01/22	09/01/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		98.1 %	70-130	09/01/22	09/01/22	
<i>Surrogate: Toluene-d8</i>		103 %	70-130	09/01/22	09/01/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2236054
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/01/22	09/01/22	
<i>Surrogate: Bromofluorobenzene</i>		101 %	70-130	09/01/22	09/01/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		98.1 %	70-130	09/01/22	09/01/22	
<i>Surrogate: Toluene-d8</i>		103 %	70-130	09/01/22	09/01/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2236042
Diesel Range Organics (C10-C28)	ND	25.0	1	08/31/22	09/01/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/31/22	09/01/22	
<i>Surrogate: n-Nonane</i>		101 %	50-200	08/31/22	09/01/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2236043
Chloride	6740	200	10	08/31/22	09/01/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf CTB 1-12 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 9/2/2022 12:28:33PM
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**NRE07**

**E208187-07**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2236054
Benzene	ND	0.0250	1	09/01/22	09/01/22	
Ethylbenzene	ND	0.0250	1	09/01/22	09/01/22	
Toluene	ND	0.0250	1	09/01/22	09/01/22	
o-Xylene	ND	0.0250	1	09/01/22	09/01/22	
p,m-Xylene	ND	0.0500	1	09/01/22	09/01/22	
Total Xylenes	ND	0.0250	1	09/01/22	09/01/22	
<i>Surrogate: Bromofluorobenzene</i>		102 %	70-130	09/01/22	09/01/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		99.5 %	70-130	09/01/22	09/01/22	
<i>Surrogate: Toluene-d8</i>		104 %	70-130	09/01/22	09/01/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2236054
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/01/22	09/01/22	
<i>Surrogate: Bromofluorobenzene</i>		102 %	70-130	09/01/22	09/01/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		99.5 %	70-130	09/01/22	09/01/22	
<i>Surrogate: Toluene-d8</i>		104 %	70-130	09/01/22	09/01/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2236042
Diesel Range Organics (C10-C28)	<b>116</b>	25.0	1	08/31/22	09/01/22	
Oil Range Organics (C28-C36)	<b>58.4</b>	50.0	1	08/31/22	09/01/22	
<i>Surrogate: n-Nonane</i>		102 %	50-200	08/31/22	09/01/22	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2236043
Chloride	<b>18700</b>	400	20	08/31/22	09/01/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf CTB 1-12 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 9/2/2022 12:28:33PM
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**NRE08**

**E208187-08**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2236054
Benzene	ND	0.0250	1	09/01/22	09/01/22	
Ethylbenzene	ND	0.0250	1	09/01/22	09/01/22	
Toluene	ND	0.0250	1	09/01/22	09/01/22	
o-Xylene	ND	0.0250	1	09/01/22	09/01/22	
p,m-Xylene	ND	0.0500	1	09/01/22	09/01/22	
Total Xylenes	ND	0.0250	1	09/01/22	09/01/22	
<i>Surrogate: Bromofluorobenzene</i>		103 %	70-130	09/01/22	09/01/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		98.4 %	70-130	09/01/22	09/01/22	
<i>Surrogate: Toluene-d8</i>		102 %	70-130	09/01/22	09/01/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2236054
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/01/22	09/01/22	
<i>Surrogate: Bromofluorobenzene</i>		103 %	70-130	09/01/22	09/01/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		98.4 %	70-130	09/01/22	09/01/22	
<i>Surrogate: Toluene-d8</i>		102 %	70-130	09/01/22	09/01/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2236042
Diesel Range Organics (C10-C28)	ND	25.0	1	08/31/22	09/01/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/31/22	09/01/22	
<i>Surrogate: n-Nonane</i>		90.7 %	50-200	08/31/22	09/01/22	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2236043
Chloride	15700	400	20	08/31/22	09/01/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf CTB 1-12 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 9/2/2022 12:28:33PM
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**NRE09**

**E208187-09**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2236054
Benzene	ND	0.0250	1	09/01/22	09/01/22	
Ethylbenzene	ND	0.0250	1	09/01/22	09/01/22	
Toluene	ND	0.0250	1	09/01/22	09/01/22	
o-Xylene	ND	0.0250	1	09/01/22	09/01/22	
p,m-Xylene	ND	0.0500	1	09/01/22	09/01/22	
Total Xylenes	ND	0.0250	1	09/01/22	09/01/22	
<i>Surrogate: Bromofluorobenzene</i>		102 %	70-130	09/01/22	09/01/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		97.0 %	70-130	09/01/22	09/01/22	
<i>Surrogate: Toluene-d8</i>		102 %	70-130	09/01/22	09/01/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2236054
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/01/22	09/01/22	
<i>Surrogate: Bromofluorobenzene</i>		102 %	70-130	09/01/22	09/01/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		97.0 %	70-130	09/01/22	09/01/22	
<i>Surrogate: Toluene-d8</i>		102 %	70-130	09/01/22	09/01/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2236042
Diesel Range Organics (C10-C28)	ND	25.0	1	08/31/22	09/01/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/31/22	09/01/22	
<i>Surrogate: n-Nonane</i>		98.8 %	50-200	08/31/22	09/01/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2236043
Chloride	17700	400	20	08/31/22	09/01/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf CTB 1-12 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 9/2/2022 12:28:33PM
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**NRE10**

**E208187-10**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2236054
Benzene	ND	0.0250	1	09/01/22	09/01/22	
Ethylbenzene	ND	0.0250	1	09/01/22	09/01/22	
Toluene	ND	0.0250	1	09/01/22	09/01/22	
o-Xylene	ND	0.0250	1	09/01/22	09/01/22	
p,m-Xylene	ND	0.0500	1	09/01/22	09/01/22	
Total Xylenes	ND	0.0250	1	09/01/22	09/01/22	
<i>Surrogate: Bromofluorobenzene</i>		101 %	70-130	09/01/22	09/01/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		103 %	70-130	09/01/22	09/01/22	
<i>Surrogate: Toluene-d8</i>		101 %	70-130	09/01/22	09/01/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2236054
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/01/22	09/01/22	
<i>Surrogate: Bromofluorobenzene</i>		101 %	70-130	09/01/22	09/01/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		103 %	70-130	09/01/22	09/01/22	
<i>Surrogate: Toluene-d8</i>		101 %	70-130	09/01/22	09/01/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2236042
Diesel Range Organics (C10-C28)	ND	25.0	1	08/31/22	09/01/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/31/22	09/01/22	
<i>Surrogate: n-Nonane</i>		90.4 %	50-200	08/31/22	09/01/22	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2236043
Chloride	9640	400	20	08/31/22	09/01/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf CTB 1-12 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 9/2/2022 12:28:33PM
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**NRE11**

**E208187-11**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2236054
Benzene	ND	0.0250	1	09/01/22	09/01/22	
Ethylbenzene	ND	0.0250	1	09/01/22	09/01/22	
Toluene	ND	0.0250	1	09/01/22	09/01/22	
o-Xylene	ND	0.0250	1	09/01/22	09/01/22	
p,m-Xylene	ND	0.0500	1	09/01/22	09/01/22	
Total Xylenes	ND	0.0250	1	09/01/22	09/01/22	
<i>Surrogate: Bromofluorobenzene</i>		101 %	70-130	09/01/22	09/01/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		102 %	70-130	09/01/22	09/01/22	
<i>Surrogate: Toluene-d8</i>		103 %	70-130	09/01/22	09/01/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2236054
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/01/22	09/01/22	
<i>Surrogate: Bromofluorobenzene</i>		101 %	70-130	09/01/22	09/01/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		102 %	70-130	09/01/22	09/01/22	
<i>Surrogate: Toluene-d8</i>		103 %	70-130	09/01/22	09/01/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2236042
Diesel Range Organics (C10-C28)	ND	25.0	1	08/31/22	09/01/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/31/22	09/01/22	
<i>Surrogate: n-Nonane</i>		80.9 %	50-200	08/31/22	09/01/22	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2236043
Chloride	6350	200	10	08/31/22	09/01/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf CTB 1-12 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 9/2/2022 12:28:33PM
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**NRE12**

**E208187-12**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2236054
Benzene	ND	0.0250	1	09/01/22	09/01/22	
Ethylbenzene	ND	0.0250	1	09/01/22	09/01/22	
Toluene	ND	0.0250	1	09/01/22	09/01/22	
o-Xylene	ND	0.0250	1	09/01/22	09/01/22	
p,m-Xylene	ND	0.0500	1	09/01/22	09/01/22	
Total Xylenes	ND	0.0250	1	09/01/22	09/01/22	
<i>Surrogate: Bromofluorobenzene</i>		100 %	70-130	09/01/22	09/01/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		103 %	70-130	09/01/22	09/01/22	
<i>Surrogate: Toluene-d8</i>		101 %	70-130	09/01/22	09/01/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2236054
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/01/22	09/01/22	
<i>Surrogate: Bromofluorobenzene</i>		100 %	70-130	09/01/22	09/01/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		103 %	70-130	09/01/22	09/01/22	
<i>Surrogate: Toluene-d8</i>		101 %	70-130	09/01/22	09/01/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2236042
Diesel Range Organics (C10-C28)	ND	25.0	1	08/31/22	09/01/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/31/22	09/01/22	
<i>Surrogate: n-Nonane</i>		96.3 %	50-200	08/31/22	09/01/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2236043
Chloride	<b>32600</b>	2000	100	08/31/22	09/01/22	



## Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf CTB 1-12 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 9/2/2022 12:28:33PM
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## NRE13

## E208187-13

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2236054
Benzene	ND	0.0250	1	09/01/22	09/01/22	
Ethylbenzene	ND	0.0250	1	09/01/22	09/01/22	
Toluene	ND	0.0250	1	09/01/22	09/01/22	
o-Xylene	ND	0.0250	1	09/01/22	09/01/22	
p,m-Xylene	ND	0.0500	1	09/01/22	09/01/22	
Total Xylenes	ND	0.0250	1	09/01/22	09/01/22	
<i>Surrogate: Bromofluorobenzene</i>		102 %	70-130	09/01/22	09/01/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		104 %	70-130	09/01/22	09/01/22	
<i>Surrogate: Toluene-d8</i>		104 %	70-130	09/01/22	09/01/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2236054
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/01/22	09/01/22	
<i>Surrogate: Bromofluorobenzene</i>		102 %	70-130	09/01/22	09/01/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		104 %	70-130	09/01/22	09/01/22	
<i>Surrogate: Toluene-d8</i>		104 %	70-130	09/01/22	09/01/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2236042
Diesel Range Organics (C10-C28)	ND	25.0	1	08/31/22	09/01/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/31/22	09/01/22	
<i>Surrogate: n-Nonane</i>		94.3 %	50-200	08/31/22	09/01/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2236043
Chloride	1430	40.0	2	08/31/22	09/01/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf CTB 1-12 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 9/2/2022 12:28:33PM
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**NRE14**

**E208187-14**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2236054
Benzene	ND	0.0250	1	09/01/22	09/01/22	
Ethylbenzene	ND	0.0250	1	09/01/22	09/01/22	
Toluene	ND	0.0250	1	09/01/22	09/01/22	
o-Xylene	ND	0.0250	1	09/01/22	09/01/22	
p,m-Xylene	ND	0.0500	1	09/01/22	09/01/22	
Total Xylenes	ND	0.0250	1	09/01/22	09/01/22	
<i>Surrogate: Bromofluorobenzene</i>		96.0 %	70-130	09/01/22	09/01/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		100 %	70-130	09/01/22	09/01/22	
<i>Surrogate: Toluene-d8</i>		98.2 %	70-130	09/01/22	09/01/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2236054
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/01/22	09/01/22	
<i>Surrogate: Bromofluorobenzene</i>		96.0 %	70-130	09/01/22	09/01/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		100 %	70-130	09/01/22	09/01/22	
<i>Surrogate: Toluene-d8</i>		98.2 %	70-130	09/01/22	09/01/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2236042
Diesel Range Organics (C10-C28)	ND	25.0	1	08/31/22	09/01/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/31/22	09/01/22	
<i>Surrogate: n-Nonane</i>		104 %	50-200	08/31/22	09/01/22	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2236043
Chloride	19500	400	20	08/31/22	09/01/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf CTB 1-12 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 9/2/2022 12:28:33PM
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**NRE15**

**E208187-15**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2236054
Benzene	ND	0.0250	1	09/01/22	09/01/22	
Ethylbenzene	ND	0.0250	1	09/01/22	09/01/22	
Toluene	ND	0.0250	1	09/01/22	09/01/22	
o-Xylene	ND	0.0250	1	09/01/22	09/01/22	
p,m-Xylene	ND	0.0500	1	09/01/22	09/01/22	
Total Xylenes	ND	0.0250	1	09/01/22	09/01/22	
<i>Surrogate: Bromofluorobenzene</i>		93.1 %	70-130	09/01/22	09/01/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		99.3 %	70-130	09/01/22	09/01/22	
<i>Surrogate: Toluene-d8</i>		98.2 %	70-130	09/01/22	09/01/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2236054
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/01/22	09/01/22	
<i>Surrogate: Bromofluorobenzene</i>		93.1 %	70-130	09/01/22	09/01/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		99.3 %	70-130	09/01/22	09/01/22	
<i>Surrogate: Toluene-d8</i>		98.2 %	70-130	09/01/22	09/01/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2236042
Diesel Range Organics (C10-C28)	ND	25.0	1	08/31/22	09/01/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/31/22	09/01/22	
<i>Surrogate: n-Nonane</i>		83.6 %	50-200	08/31/22	09/01/22	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2236043
Chloride	7500	200	10	08/31/22	09/01/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf CTB 1-12 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 9/2/2022 12:28:33PM
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**NRE16**

**E208187-16**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2236054
Benzene	ND	0.0250	1	09/01/22	09/01/22	
Ethylbenzene	ND	0.0250	1	09/01/22	09/01/22	
Toluene	ND	0.0250	1	09/01/22	09/01/22	
o-Xylene	ND	0.0250	1	09/01/22	09/01/22	
p,m-Xylene	ND	0.0500	1	09/01/22	09/01/22	
Total Xylenes	ND	0.0250	1	09/01/22	09/01/22	
<i>Surrogate: Bromofluorobenzene</i>		93.6 %	70-130	09/01/22	09/01/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		103 %	70-130	09/01/22	09/01/22	
<i>Surrogate: Toluene-d8</i>		97.0 %	70-130	09/01/22	09/01/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2236054
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/01/22	09/01/22	
<i>Surrogate: Bromofluorobenzene</i>		93.6 %	70-130	09/01/22	09/01/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		103 %	70-130	09/01/22	09/01/22	
<i>Surrogate: Toluene-d8</i>		97.0 %	70-130	09/01/22	09/01/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2236042
Diesel Range Organics (C10-C28)	ND	25.0	1	08/31/22	09/01/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/31/22	09/01/22	
<i>Surrogate: n-Nonane</i>		87.2 %	50-200	08/31/22	09/01/22	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2236043
Chloride	13100	400	20	08/31/22	09/01/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf CTB 1-12 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 9/2/2022 12:28:33PM
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**AS01 @ 1**

**E208187-17**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2236054
Benzene	ND	0.0250	1	09/01/22	09/01/22	
Ethylbenzene	ND	0.0250	1	09/01/22	09/01/22	
Toluene	ND	0.0250	1	09/01/22	09/01/22	
o-Xylene	ND	0.0250	1	09/01/22	09/01/22	
p,m-Xylene	ND	0.0500	1	09/01/22	09/01/22	
Total Xylenes	ND	0.0250	1	09/01/22	09/01/22	
<i>Surrogate: Bromofluorobenzene</i>		92.6 %	70-130	09/01/22	09/01/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		102 %	70-130	09/01/22	09/01/22	
<i>Surrogate: Toluene-d8</i>		96.0 %	70-130	09/01/22	09/01/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2236054
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/01/22	09/01/22	
<i>Surrogate: Bromofluorobenzene</i>		92.6 %	70-130	09/01/22	09/01/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		102 %	70-130	09/01/22	09/01/22	
<i>Surrogate: Toluene-d8</i>		96.0 %	70-130	09/01/22	09/01/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2236042
Diesel Range Organics (C10-C28)	ND	25.0	1	08/31/22	09/01/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/31/22	09/01/22	
<i>Surrogate: n-Nonane</i>		84.9 %	50-200	08/31/22	09/01/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2236043
Chloride	2870	400	20	08/31/22	09/01/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf CTB 1-12 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 9/2/2022 12:28:33PM
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**AS02 @ 1**

**E208187-18**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2236054
Benzene	ND	0.0250	1	09/01/22	09/01/22	
Ethylbenzene	ND	0.0250	1	09/01/22	09/01/22	
Toluene	ND	0.0250	1	09/01/22	09/01/22	
o-Xylene	ND	0.0250	1	09/01/22	09/01/22	
p,m-Xylene	ND	0.0500	1	09/01/22	09/01/22	
Total Xylenes	ND	0.0250	1	09/01/22	09/01/22	
<i>Surrogate: Bromofluorobenzene</i>		92.1 %	70-130	09/01/22	09/01/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		106 %	70-130	09/01/22	09/01/22	
<i>Surrogate: Toluene-d8</i>		97.1 %	70-130	09/01/22	09/01/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2236054
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/01/22	09/01/22	
<i>Surrogate: Bromofluorobenzene</i>		92.1 %	70-130	09/01/22	09/01/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		106 %	70-130	09/01/22	09/01/22	
<i>Surrogate: Toluene-d8</i>		97.1 %	70-130	09/01/22	09/01/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2236042
Diesel Range Organics (C10-C28)	ND	25.0	1	08/31/22	09/01/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/31/22	09/01/22	
<i>Surrogate: n-Nonane</i>		97.0 %	50-200	08/31/22	09/01/22	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2236043
Chloride	8170	200	10	08/31/22	09/01/22	



## Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf CTB 1-12 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 9/2/2022 12:28:33PM
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## AS03 @ 1

## E208187-19

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2236054
Benzene	ND	0.0250	1	09/01/22	09/01/22	
Ethylbenzene	ND	0.0250	1	09/01/22	09/01/22	
Toluene	ND	0.0250	1	09/01/22	09/01/22	
o-Xylene	ND	0.0250	1	09/01/22	09/01/22	
p,m-Xylene	ND	0.0500	1	09/01/22	09/01/22	
Total Xylenes	ND	0.0250	1	09/01/22	09/01/22	
<i>Surrogate: Bromofluorobenzene</i>		93.4 %	70-130	09/01/22	09/01/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		103 %	70-130	09/01/22	09/01/22	
<i>Surrogate: Toluene-d8</i>		99.3 %	70-130	09/01/22	09/01/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2236054
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/01/22	09/01/22	
<i>Surrogate: Bromofluorobenzene</i>		93.4 %	70-130	09/01/22	09/01/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		103 %	70-130	09/01/22	09/01/22	
<i>Surrogate: Toluene-d8</i>		99.3 %	70-130	09/01/22	09/01/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2236042
Diesel Range Organics (C10-C28)	ND	25.0	1	08/31/22	09/01/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/31/22	09/01/22	
<i>Surrogate: n-Nonane</i>		104 %	50-200	08/31/22	09/01/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2236043
Chloride	1630	20.0	1	08/31/22	09/01/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf CTB 1-12 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 9/2/2022 12:28:33PM
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**AS04 @ 1**

**E208187-20**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2236054
Benzene	ND	0.0250	1	09/01/22	09/01/22	
Ethylbenzene	ND	0.0250	1	09/01/22	09/01/22	
Toluene	ND	0.0250	1	09/01/22	09/01/22	
o-Xylene	ND	0.0250	1	09/01/22	09/01/22	
p,m-Xylene	ND	0.0500	1	09/01/22	09/01/22	
Total Xylenes	ND	0.0250	1	09/01/22	09/01/22	
<i>Surrogate: Bromofluorobenzene</i>		93.5 %	70-130	09/01/22	09/01/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		102 %	70-130	09/01/22	09/01/22	
<i>Surrogate: Toluene-d8</i>		99.2 %	70-130	09/01/22	09/01/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2236054
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/01/22	09/01/22	
<i>Surrogate: Bromofluorobenzene</i>		93.5 %	70-130	09/01/22	09/01/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		102 %	70-130	09/01/22	09/01/22	
<i>Surrogate: Toluene-d8</i>		99.2 %	70-130	09/01/22	09/01/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2236042
Diesel Range Organics (C10-C28)	ND	25.0	1	08/31/22	09/01/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/31/22	09/01/22	
<i>Surrogate: n-Nonane</i>		91.1 %	50-200	08/31/22	09/01/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2236043
Chloride	1790	20.0	1	08/31/22	09/01/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf CTB 1-12 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 9/2/2022 12:28:33PM
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**AS05 @ 1**

**E208187-21**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2236049
Benzene	ND	0.0250	1	09/01/22	09/01/22	
Ethylbenzene	ND	0.0250	1	09/01/22	09/01/22	
Toluene	ND	0.0250	1	09/01/22	09/01/22	
o-Xylene	ND	0.0250	1	09/01/22	09/01/22	
p,m-Xylene	ND	0.0500	1	09/01/22	09/01/22	
Total Xylenes	ND	0.0250	1	09/01/22	09/01/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		102 %	70-130	09/01/22	09/01/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2236049
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/01/22	09/01/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		100 %	70-130	09/01/22	09/01/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2236044
Diesel Range Organics (C10-C28)	ND	25.0	1	08/31/22	09/01/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/31/22	09/01/22	
<i>Surrogate: n-Nonane</i>		103 %	50-200	08/31/22	09/01/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2236045
Chloride	946	20.0	1	08/31/22	09/01/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf CTB 1-12 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 9/2/2022 12:28:33PM
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**AS06 @ 0**

**E208187-22**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2236049
Benzene	ND	0.0250	1	09/01/22	09/01/22	
Ethylbenzene	ND	0.0250	1	09/01/22	09/01/22	
Toluene	ND	0.0250	1	09/01/22	09/01/22	
o-Xylene	ND	0.0250	1	09/01/22	09/01/22	
p,m-Xylene	ND	0.0500	1	09/01/22	09/01/22	
Total Xylenes	ND	0.0250	1	09/01/22	09/01/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		106 %	70-130	09/01/22	09/01/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2236049
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/01/22	09/01/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		103 %	70-130	09/01/22	09/01/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2236044
Diesel Range Organics (C10-C28)	ND	25.0	1	08/31/22	09/01/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/31/22	09/01/22	
<i>Surrogate: n-Nonane</i>		98.8 %	50-200	08/31/22	09/01/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2236045
Chloride	144	20.0	1	08/31/22	09/01/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf CTB 1-12 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 9/2/2022 12:28:33PM
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**AS06 @ 8"**

**E208187-23**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2236049
Benzene	ND	0.0250	1	09/01/22	09/01/22	
Ethylbenzene	ND	0.0250	1	09/01/22	09/01/22	
Toluene	ND	0.0250	1	09/01/22	09/01/22	
o-Xylene	ND	0.0250	1	09/01/22	09/01/22	
p,m-Xylene	ND	0.0500	1	09/01/22	09/01/22	
Total Xylenes	ND	0.0250	1	09/01/22	09/01/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		103 %	70-130	09/01/22	09/01/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2236049
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/01/22	09/01/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		103 %	70-130	09/01/22	09/01/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2236044
Diesel Range Organics (C10-C28)	ND	25.0	1	08/31/22	09/01/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/31/22	09/01/22	
<i>Surrogate: n-Nonane</i>		108 %	50-200	08/31/22	09/01/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2236045
Chloride	57.2	20.0	1	08/31/22	09/01/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf CTB 1-12 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 9/2/2022 12:28:33PM
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**AS07 @ 0**

**E208187-24**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2236049
Benzene	ND	0.0250	1	09/01/22	09/01/22	
Ethylbenzene	ND	0.0250	1	09/01/22	09/01/22	
Toluene	ND	0.0250	1	09/01/22	09/01/22	
o-Xylene	ND	0.0250	1	09/01/22	09/01/22	
p,m-Xylene	ND	0.0500	1	09/01/22	09/01/22	
Total Xylenes	ND	0.0250	1	09/01/22	09/01/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		104 %	70-130	09/01/22	09/01/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2236049
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/01/22	09/01/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		103 %	70-130	09/01/22	09/01/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2236044
Diesel Range Organics (C10-C28)	ND	25.0	1	08/31/22	09/01/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/31/22	09/01/22	
<i>Surrogate: n-Nonane</i>		94.4 %	50-200	08/31/22	09/01/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2236045
Chloride	64.8	20.0	1	08/31/22	09/01/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf CTB 1-12 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 9/2/2022 12:28:33PM
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**AS07 @ 8"**

**E208187-25**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2236049
Benzene	ND	0.0250	1	09/01/22	09/01/22	
Ethylbenzene	ND	0.0250	1	09/01/22	09/01/22	
Toluene	ND	0.0250	1	09/01/22	09/01/22	
o-Xylene	ND	0.0250	1	09/01/22	09/01/22	
p,m-Xylene	ND	0.0500	1	09/01/22	09/01/22	
Total Xylenes	ND	0.0250	1	09/01/22	09/01/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		106 %	70-130	09/01/22	09/01/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2236049
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/01/22	09/01/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		103 %	70-130	09/01/22	09/01/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2236044
Diesel Range Organics (C10-C28)	ND	25.0	1	08/31/22	09/01/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/31/22	09/01/22	
<i>Surrogate: n-Nonane</i>		106 %	50-200	08/31/22	09/01/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2236045
Chloride	41.6	20.0	1	08/31/22	09/01/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf CTB 1-12 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 9/2/2022 12:28:33PM
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**AS08 @ 0**

**E208187-26**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2236049
Benzene	ND	0.0250	1	09/01/22	09/01/22	
Ethylbenzene	ND	0.0250	1	09/01/22	09/01/22	
Toluene	ND	0.0250	1	09/01/22	09/01/22	
o-Xylene	ND	0.0250	1	09/01/22	09/01/22	
p,m-Xylene	ND	0.0500	1	09/01/22	09/01/22	
Total Xylenes	ND	0.0250	1	09/01/22	09/01/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		106 %	70-130	09/01/22	09/01/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2236049
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/01/22	09/01/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		103 %	70-130	09/01/22	09/01/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2236044
Diesel Range Organics (C10-C28)	ND	25.0	1	08/31/22	09/01/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/31/22	09/01/22	
<i>Surrogate: n-Nonane</i>		109 %	50-200	08/31/22	09/01/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2236045
Chloride	523	20.0	1	08/31/22	09/01/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf CTB 1-12 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 9/2/2022 12:28:33PM
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**AS08 @ 6"**

**E208187-27**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2236049
Benzene	ND	0.0250	1	09/01/22	09/01/22	
Ethylbenzene	ND	0.0250	1	09/01/22	09/01/22	
Toluene	ND	0.0250	1	09/01/22	09/01/22	
o-Xylene	ND	0.0250	1	09/01/22	09/01/22	
p,m-Xylene	ND	0.0500	1	09/01/22	09/01/22	
Total Xylenes	ND	0.0250	1	09/01/22	09/01/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		106 %	70-130	09/01/22	09/01/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2236049
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/01/22	09/01/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		104 %	70-130	09/01/22	09/01/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2236044
Diesel Range Organics (C10-C28)	ND	25.0	1	08/31/22	09/01/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/31/22	09/01/22	
<i>Surrogate: n-Nonane</i>		107 %	50-200	08/31/22	09/01/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2236045
Chloride	398	20.0	1	08/31/22	09/01/22	



### QC Summary Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf CTB 1-12 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 9/2/2022 12:28:33PM
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#### Volatile Organic Compounds by EPA 8260B

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec % %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2236054-BLK1)**

Prepared: 08/31/22 Analyzed: 09/01/22

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: Bromofluorobenzene	0.453		0.500		90.5	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.493		0.500		98.6	70-130			
Surrogate: Toluene-d8	0.492		0.500		98.3	70-130			

**LCS (2236054-BS1)**

Prepared: 08/31/22 Analyzed: 09/01/22

Benzene	2.47	0.0250	2.50		98.8	70-130			
Ethylbenzene	2.53	0.0250	2.50		101	70-130			
Toluene	2.36	0.0250	2.50		94.4	70-130			
o-Xylene	2.56	0.0250	2.50		102	70-130			
p,m-Xylene	5.00	0.0500	5.00		100	70-130			
Total Xylenes	7.56	0.0250	7.50		101	70-130			
Surrogate: Bromofluorobenzene	0.519		0.500		104	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.507		0.500		101	70-130			
Surrogate: Toluene-d8	0.492		0.500		98.4	70-130			

**LCS Dup (2236054-BSD1)**

Prepared: 08/31/22 Analyzed: 09/01/22

Benzene	2.36	0.0250	2.50		94.4	70-130	4.47	23	
Ethylbenzene	2.44	0.0250	2.50		97.5	70-130	3.67	27	
Toluene	2.26	0.0250	2.50		90.2	70-130	4.59	24	
o-Xylene	2.47	0.0250	2.50		98.9	70-130	3.46	27	
p,m-Xylene	4.82	0.0500	5.00		96.3	70-130	3.74	27	
Total Xylenes	7.29	0.0250	7.50		97.2	70-130	3.64	27	
Surrogate: Bromofluorobenzene	0.512		0.500		102	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.503		0.500		101	70-130			
Surrogate: Toluene-d8	0.498		0.500		99.5	70-130			



### QC Summary Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf CTB 1-12 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 9/2/2022 12:28:33PM
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#### Volatile Organics by EPA 8021B

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2236049-BLK1)**

Prepared: 08/31/22 Analyzed: 08/31/22

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	7.72		8.00		96.6	70-130			

**LCS (2236049-BS1)**

Prepared: 08/31/22 Analyzed: 08/31/22

Benzene	5.20	0.0250	5.00		104	70-130			
Ethylbenzene	5.44	0.0250	5.00		109	70-130			
Toluene	5.48	0.0250	5.00		110	70-130			
o-Xylene	5.40	0.0250	5.00		108	70-130			
p,m-Xylene	11.0	0.0500	10.0		110	70-130			
Total Xylenes	16.4	0.0250	15.0		109	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.82		8.00		97.8	70-130			

**LCS Dup (2236049-BSD1)**

Prepared: 08/31/22 Analyzed: 08/31/22

Benzene	5.05	0.0250	5.00		101	70-130	2.88	20	
Ethylbenzene	5.29	0.0250	5.00		106	70-130	2.87	20	
Toluene	5.33	0.0250	5.00		107	70-130	2.85	20	
o-Xylene	5.25	0.0250	5.00		105	70-130	2.78	20	
p,m-Xylene	10.6	0.0500	10.0		106	70-130	2.94	20	
Total Xylenes	15.9	0.0250	15.0		106	70-130	2.89	20	
Surrogate: 4-Bromochlorobenzene-PID	7.78		8.00		97.3	70-130			



### QC Summary Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf CTB 1-12 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 9/2/2022 12:28:33PM
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#### Nonhalogenated Organics by EPA 8015D - GRO

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2236049-BLK1)**

Prepared: 08/31/22 Analyzed: 08/31/22

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.24		8.00		90.5	70-130			

**LCS (2236049-BS2)**

Prepared: 08/31/22 Analyzed: 08/31/22

Gasoline Range Organics (C6-C10)	50.0	20.0	50.0		100	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.39		8.00		92.4	70-130			

**LCS Dup (2236049-BSD2)**

Prepared: 08/31/22 Analyzed: 09/01/22

Gasoline Range Organics (C6-C10)	50.9	20.0	50.0		102	70-130	1.66	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.50		8.00		93.7	70-130			



### QC Summary Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf CTB 1-12 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 9/2/2022 12:28:33PM
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#### Nonhalogenated Organics by EPA 8015D - GRO

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec % %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2236054-BLK1)**

Prepared: 08/31/22 Analyzed: 09/01/22

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.453		0.500		90.5	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.493		0.500		98.6	70-130			
Surrogate: Toluene-d8	0.492		0.500		98.3	70-130			

**LCS (2236054-BS2)**

Prepared: 08/31/22 Analyzed: 09/01/22

Gasoline Range Organics (C6-C10)	44.0	20.0	50.0		87.9	70-130			
Surrogate: Bromofluorobenzene	0.502		0.500		100	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.499		0.500		99.8	70-130			
Surrogate: Toluene-d8	0.501		0.500		100	70-130			

**LCS Dup (2236054-BSD2)**

Prepared: 08/31/22 Analyzed: 09/01/22

Gasoline Range Organics (C6-C10)	44.6	20.0	50.0		89.3	70-130	1.47	20	
Surrogate: Bromofluorobenzene	0.500		0.500		100	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.495		0.500		98.9	70-130			
Surrogate: Toluene-d8	0.493		0.500		98.5	70-130			



### QC Summary Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf CTB 1-12 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 9/2/2022 12:28:33PM
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#### Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: JL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2236042-BLK1)**

Prepared: 08/31/22 Analyzed: 08/31/22

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	51.7		50.0		103	50-200			

**LCS (2236042-BS1)**

Prepared: 08/31/22 Analyzed: 08/31/22

Diesel Range Organics (C10-C28)	271	25.0	250		108	38-132			
Surrogate: n-Nonane	51.8		50.0		104	50-200			

**LCS Dup (2236042-BSD1)**

Prepared: 08/31/22 Analyzed: 08/31/22

Diesel Range Organics (C10-C28)	251	25.0	250		101	38-132	7.37	20	
Surrogate: n-Nonane	53.2		50.0		106	50-200			



### QC Summary Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf CTB 1-12 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 9/2/2022 12:28:33PM
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#### Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: JL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2236044-BLK1)**

Prepared: 08/31/22 Analyzed: 08/31/22

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: <i>n</i> -Nonane	56.3		50.0		113	50-200			

**LCS (2236044-BS1)**

Prepared: 08/31/22 Analyzed: 08/31/22

Diesel Range Organics (C10-C28)	246	25.0				38-132			
Surrogate: <i>n</i> -Nonane	52.6		50.0		105	50-200			

**LCS Dup (2236044-BSD1)**

Prepared: 08/31/22 Analyzed: 08/31/22

Diesel Range Organics (C10-C28)	248	25.0				38-132	0.959	20	
Surrogate: <i>n</i> -Nonane	53.6		50.0		107	50-200			



### QC Summary Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf CTB 1-12 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 9/2/2022 12:28:33PM
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#### Anions by EPA 300.0/9056A

Analyst: RAS

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2236043-BLK1)**

Prepared: 08/31/22 Analyzed: 09/01/22

Chloride ND 20.0

**LCS (2236043-BS1)**

Prepared: 08/31/22 Analyzed: 09/01/22

Chloride 248 20.0 250 99.1 90-110

**LCS Dup (2236043-BSD1)**

Prepared: 08/31/22 Analyzed: 09/01/22

Chloride 248 20.0 250 99.1 90-110 0.0218 20



### QC Summary Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf CTB 1-12 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 9/2/2022 12:28:33PM
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#### Anions by EPA 300.0/9056A

Analyst: RAS

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2236045-BLK1)**

Prepared: 08/31/22 Analyzed: 09/02/22

Chloride	ND	20.0							
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**LCS (2236045-BS1)**

Prepared: 08/31/22 Analyzed: 09/02/22

Chloride	271	20.0	250		108	90-110			
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**LCS Dup (2236045-BSD1)**

Prepared: 08/31/22 Analyzed: 09/02/22

Chloride	249	20.0	250		99.6	90-110	8.45	20	
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QC Summary Report Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



### Definitions and Notes

Souder Miller Associates - Carlsbad	Project Name:	Seawolf CTB 1-12	
201 S Halagueno St.	Project Number:	01058-0007	<b>Reported:</b>
Carlsbad NM, 88220	Project Manager:	Heather Woods	09/02/22 12:28

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

DNI Did Not Ignite

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Chain of Custody

Project Information

Client: Sauder Miller & Associates  
 Project: Scalwolf CTS 1-12  
 Project Manager: Heather Woods  
 Address: 201 S Halaqueno  
 City, State, Zip: Carlsbad NM 88220  
 Phone: \_\_\_\_\_  
 Email: \_\_\_\_\_

Bill To  
 Attention: Devon  
 Address: \_\_\_\_\_  
 City, State, Zip \_\_\_\_\_  
 Phone: \_\_\_\_\_  
 Email: \_\_\_\_\_  
 WO # 20987302

Lab Use Only  
 Lab WO#: PE218187 Job Number: 01058-0007  
 TAT: 1D  3D   
 EPA Program: RCRA  CWA  SDWA   
 Analysis and Method

Time Sampled	Date Sampled	Matrix	No Containers	Sample ID	Lab Number	PHRO/PHRO by 81015	GR/DRO by 81115	RTX by 8121	VOC by 8260	Metals 0010	Chloride 300.0	UGDOC - NM	EGDOC - TX	Remarks
0906	8/30/22	Soil	1	NRE01	1							X		
0908	8/30/22	Soil	1	NRE02	2							X		
0909	8/30/22	Soil	1	NRE03	3							X		
0910	8/30/22	Soil	1	NRE04	4							X		
0911	8/30/22	Soil	1	NRE05	5							X		
0912	8/30/22	Soil	1	NRE06	6							X		
0915	8/30/22	Soil	1	NRE07	7							X		
0916	8/30/22	Soil	1	NRE08	8							X		
0917	8/30/22	Soil	1	NRE09	9							X		
0918	8/30/22	Soil	1	NRE10	10							X		

Additional Instructions: Please send to Heather Woods, Sarahmay Schlea, Georgann Goodman  
 (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: \_\_\_\_\_

Relinquished by: (Signature) <u>[Signature]</u>	Date <u>8/30/22</u> Time <u>4:05</u>	Received by: (Signature) <u>[Signature]</u>	Date <u>8/30/22</u> Time <u>3:15</u>	Received on ice: <input checked="" type="checkbox"/> N
Relinquished by: (Signature) <u>[Signature]</u>	Date <u>8/31/22</u> Time <u>4:15</u>	Received by: (Signature) <u>[Signature]</u>	Date <u>8/31/22</u> Time <u>10:30</u>	T1 _____ T2 _____ T3 _____
Relinquished by: (Signature) _____	Date _____ Time _____	Received by: (Signature) _____	Date <u>cc</u> Time _____	AVG Temp °C <u>4</u>

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other  
 Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA  
 Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.



Chain of Custody

Project Information

Client: Souder Miller & Associates  
 Project: Sea Wolf CTB 1-12  
 Project Manager: Heather Woods  
 Address: 201 S Nalagueno  
 City, State, Zip: Carlsbad NM 88220  
 Phone: \_\_\_\_\_  
 Email: \_\_\_\_\_  
 Report due by: \_\_\_\_\_

Bill To  
 Attention: Devon  
 Address: \_\_\_\_\_  
 City, State, Zip: \_\_\_\_\_  
 Phone: \_\_\_\_\_  
 Email: \_\_\_\_\_  
 WO # 20987302

Lab Use Only  
 Lab WO# PE208187 Job Number 01058-0007  
 Analysis and Method

TAT  
 1D 3D

EPA Program  
 RCRA CWA SDWA

State  
 NM CO UT AZ  
     
 TX OK

THO/ORO by 8015	GRG/DRO by 8015	BTEX by 8121	VOC by 8260	Metals 6010	Chloride 80010	BCDDC - NM	BCDDC - TX
						X	
						X	
						X	
						X	
						X	
						X	
						X	
						X	
						X	
						X	
						X	
						X	
						X	
						X	
						X	

Remarks

Time Sampled	Date Sampled	Matrix	No Containers	Sample ID	Lab Number
0919	8/30/22	Soil	1	NRE11	11
0920	8/30/22	Soil	1	NRE12	12
0921	8/30/22	Soil	1	NRE13	13
0922	8/30/22	Soil	1	NRE14	14
0923	8/30/22	Soil	1	NRE15	15
0924	8/30/22	Soil	1	NRE16	16
0950	8/30/22	Soil	1	AS01 @ 1	17
0955	8/30/22	Soil	1	AS02 @ 1	18
1002	8/30/22	Soil	1	AS03 @ 1	19
1008	8/30/22	Soil	1	AS04 @ 1	20

Additional Instructions: Please send to Heather Woods, Sakramay Schlea, & Georgeann Goodman  
 (Field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: \_\_\_\_\_

Samples requiring thermal preservation must be received on ice the day they are sampled or stored packed in ice at an avg temp above 0 but less than 5°C on subsequent days

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Lab Use Only
	8/30/22	3:55		8/30/22	4:15	Received on ice: <input checked="" type="radio"/> Y <input type="radio"/> N
	8/30/22	4:15		9/1/22	10:30	T1 _____ T2 _____ T3 _____
						AVG Temp °C <u>4</u>

Sample Matrix: S - Sol, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other  
 Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

Chain of Custody

Project Information

Client: Saunders Miller + Associates  
 Project: Seawall CTB 1-12  
 Project Manager: Heather Woods  
 Address: 201 S Halaqueno  
 City, State, Zip: Carlsbad NM 88220  
 Phone: \_\_\_\_\_  
 Email: \_\_\_\_\_  
 Report due by: \_\_\_\_\_

Bill To  
 Attention: Devon  
 Address: \_\_\_\_\_  
 City, State, Zip: \_\_\_\_\_  
 Phone: \_\_\_\_\_  
 Email: \_\_\_\_\_  
 WO # 20987302

Lab Use Only  
 Lab WO# PE208187 Job Number 01058-0007  
 TAT 1D 3D    
 EPA Program RCRA CWA SDWA  
 Analysis and Method State NM CO UT AZ  
     
     
 Remarks

Time Sampled	Date Sampled	Matrix	No Containers	Sample ID	Lab Number	DRUG/DIRO by 8015	GRU/DIRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BCDOC - NM	BCDOC - TX
1012	8/30/22	Soil	1	AS05 @ 1	21							X	
1022	8/30/22	Soil	1	AS06 @ 0	22							X	
1025	8/30/22	Soil	1	AS06 @ 8"	23							X	
1028	8/30/22	Soil	1	AS07 @ 0	24							X	
1031	8/30/22	Soil	1	AS07 @ 8"	25							X	
1033	8/30/22	Soil	1	AS08 @ 0	26							X	
1035	8/30/22	Soil	1	AS08 @ 6"	27							X	

Additional Instructions: Please send to Heather Woods, Sarahmay Schlea, & Georgann Goodman  
 (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: \_\_\_\_\_

Relinquished by: (Signature) _____	Date 8/30/22	Time 4:20	Received by: (Signature) _____	Date 8/30/22	Time 4:15	Lab Use Only
Relinquished by: (Signature) _____	Date 8/30/22	Time 4:20	Received by: (Signature) _____	Date	Time	Received on ice: Y / N
Relinquished by: (Signature) _____	Date	Time	Received by: (Signature) _____	Date	Time	T1 _____ T2 _____ T3 _____
						AVG Temp °C _____

Sample Matrix: S - Sol, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other  
 Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

Released to Imaging: 2/14/2023 2:04:09 PM

Received by OCD: 1/11/2023 10:39:38 AM

Page 219 of 531

Envirotech Analytical Laboratory

Printed: 9/1/2022 11:38:54AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client: Souder Miller Associates - Carlsbad Date Received: 09/01/22 10:30 Work Order ID: E208187
Phone: (575) 200-5443 Date Logged In: 08/31/22 15:47 Logged In By: Raina Schwanz
Email: Due Date: 09/01/22 17:00 (0 day TAT)

Chain of Custody (COC)

- 1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Carrier: UPS

Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this discussion.

Comments/Resolution

Sample Turn Around Time (TAT)

- 6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

- 7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

- 13. If no visible ice, record the temperature. Actual sample temperature: 4°C

Sample Container

- 14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

- 20. Were field sample labels filled out with the minimum information:
Sample ID? Yes
Date/Time Collected? Yes
Collectors name? No

Sample Preservation

- 21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

- 26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

- 28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: na

Client Instruction

Empty box for client instruction.

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:  
Heather Woods



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Souder Miller Associates - Carlsbad

Project Name: Devon Seawolf 1-12 CTB 1

Work Order: E208014

Job Number: 01058-0007

Received: 8/2/2022

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
8/9/22

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.  
Envirotech Inc, holds the NM SDWA certification for data reported. (Lab #NM00979)

Date Reported: 8/9/22



Heather Woods  
201 S Halagueno St.  
Carlsbad, NM 88220

Project Name: Devon Seawolf 1-12 CTB 1  
Workorder: E208014  
Date Received: 8/2/2022 3:51:00PM

Heather Woods,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 8/2/2022 3:51:00PM, under the Project Name: Devon Seawolf 1-12 CTB 1.

The analytical test results summarized in this report with the Project Name: Devon Seawolf 1-12 CTB 1 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
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Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
Laboratory Administrator  
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**Alexa Michaels**  
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[ljjarboe@envirotech-inc.com](mailto:ljjarboe@envirotech-inc.com)

**West Texas Midland/Odessa Area**  
**Rayny Hagan**  
Technical Representative  
Office: 505-421-LABS(5227)

Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

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Chain of Custody etc.

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**Sample Summary**

Souder Miller Associates - Carlsbad  
201 S Halagueno St.  
Carlsbad NM, 88220

Project Name: Devon Seawolf 1-12 CTB 1  
Project Number: 01058-0007  
Project Manager: Heather Woods

**Reported:**  
08/09/22 17:18

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SC-1	E208014-01A	Soil	07/29/22	08/02/22	Glass Jar, 2 oz.
SC-2	E208014-02A	Soil	07/29/22	08/02/22	Glass Jar, 2 oz.
SC-3	E208014-03A	Soil	07/29/22	08/02/22	Glass Jar, 2 oz.
SC-4	E208014-04A	Soil	07/29/22	08/02/22	Glass Jar, 2 oz.
SC-5	E208014-05A	Soil	07/29/22	08/02/22	Glass Jar, 2 oz.
SC-6	E208014-06A	Soil	07/29/22	08/02/22	Glass Jar, 2 oz.
SC-7	E208014-07A	Soil	07/29/22	08/02/22	Glass Jar, 2 oz.
SC-8	E208014-08A	Soil	07/29/22	08/02/22	Glass Jar, 2 oz.
SC-9	E208014-09A	Soil	07/29/22	08/02/22	Glass Jar, 2 oz.
SC-10	E208014-10A	Soil	07/29/22	08/02/22	Glass Jar, 2 oz.
SC-11	E208014-11A	Soil	07/29/22	08/02/22	Glass Jar, 2 oz.
SC-12	E208014-12A	Soil	07/29/22	08/02/22	Glass Jar, 2 oz.
SC-13	E208014-13A	Soil	07/29/22	08/02/22	Glass Jar, 2 oz.
SC-14	E208014-14A	Soil	07/29/22	08/02/22	Glass Jar, 2 oz.



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Devon Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 8/9/2022 5:18:32PM
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**SC-1**  
**E208014-01**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2232048
Benzene	ND	0.0250	1	08/03/22	08/06/22	
Ethylbenzene	ND	0.0250	1	08/03/22	08/06/22	
Toluene	ND	0.0250	1	08/03/22	08/06/22	
o-Xylene	ND	0.0250	1	08/03/22	08/06/22	
p,m-Xylene	ND	0.0500	1	08/03/22	08/06/22	
Total Xylenes	ND	0.0250	1	08/03/22	08/06/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		114 %	70-130	08/03/22	08/06/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2232048
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/03/22	08/06/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		108 %	70-130	08/03/22	08/06/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2233023
Diesel Range Organics (C10-C28)	<b>1380</b>	25.0	1	08/08/22	08/09/22	
Oil Range Organics (C28-C36)	<b>599</b>	50.0	1	08/08/22	08/09/22	
<i>Surrogate: n-Nonane</i>		96.8 %	50-200	08/08/22	08/09/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: KL		Batch: 2233001
Chloride	<b>25.3</b>	20.0	1	08/08/22	08/09/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Devon Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 8/9/2022 5:18:32PM
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**SC-2**

**E208014-02**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2232048
Benzene	ND	0.0250	1	08/03/22	08/06/22	
Ethylbenzene	ND	0.0250	1	08/03/22	08/06/22	
Toluene	ND	0.0250	1	08/03/22	08/06/22	
o-Xylene	ND	0.0250	1	08/03/22	08/06/22	
p,m-Xylene	ND	0.0500	1	08/03/22	08/06/22	
Total Xylenes	ND	0.0250	1	08/03/22	08/06/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		113 %	70-130	08/03/22	08/06/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2232048
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/03/22	08/06/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		107 %	70-130	08/03/22	08/06/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2233023
Diesel Range Organics (C10-C28)	5990	250	10	08/08/22	08/09/22	
Oil Range Organics (C28-C36)	2670	500	10	08/08/22	08/09/22	
<i>Surrogate: n-Nonane</i>		91.3 %	50-200	08/08/22	08/09/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: KL		Batch: 2233001
Chloride	593	20.0	1	08/08/22	08/08/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Devon Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 8/9/2022 5:18:32PM
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**SC-3**

**E208014-03**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2232048
Benzene	ND	0.0250	1	08/03/22	08/06/22	
Ethylbenzene	<b>0.244</b>	0.0250	1	08/03/22	08/06/22	
Toluene	<b>0.0908</b>	0.0250	1	08/03/22	08/06/22	
o-Xylene	<b>0.658</b>	0.0250	1	08/03/22	08/06/22	
p,m-Xylene	<b>1.81</b>	0.0500	1	08/03/22	08/06/22	
Total Xylenes	<b>2.47</b>	0.0250	1	08/03/22	08/06/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		122 %	70-130	08/03/22	08/06/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2232048
Gasoline Range Organics (C6-C10)	<b>36.3</b>	20.0	1	08/03/22	08/06/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		111 %	70-130	08/03/22	08/06/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2233023
Diesel Range Organics (C10-C28)	<b>5520</b>	250	10	08/08/22	08/09/22	
Oil Range Organics (C28-C36)	<b>2290</b>	500	10	08/08/22	08/09/22	
<i>Surrogate: n-Nonane</i>		105 %	50-200	08/08/22	08/09/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: KL		Batch: 2233001
Chloride	<b>1300</b>	20.0	1	08/08/22	08/08/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Devon Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 8/9/2022 5:18:32PM
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**SC-4**

**E208014-04**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2232048
Benzene	ND	0.0250	1	08/03/22	08/06/22	
Ethylbenzene	<b>0.0519</b>	0.0250	1	08/03/22	08/06/22	
Toluene	ND	0.0250	1	08/03/22	08/06/22	
o-Xylene	<b>0.182</b>	0.0250	1	08/03/22	08/06/22	
p,m-Xylene	<b>0.554</b>	0.0500	1	08/03/22	08/06/22	
Total Xylenes	<b>0.736</b>	0.0250	1	08/03/22	08/06/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		116 %	70-130	08/03/22	08/06/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2232048
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/03/22	08/06/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		110 %	70-130	08/03/22	08/06/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2233023
Diesel Range Organics (C10-C28)	<b>4400</b>	250	10	08/08/22	08/09/22	
Oil Range Organics (C28-C36)	<b>2060</b>	500	10	08/08/22	08/09/22	
<i>Surrogate: n-Nonane</i>		86.9 %	50-200	08/08/22	08/09/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: KL		Batch: 2233001
Chloride	<b>1680</b>	20.0	1	08/08/22	08/08/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Devon Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 8/9/2022 5:18:32PM
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**SC-5**

**E208014-05**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2232048
Benzene	ND	0.0250	1	08/03/22	08/06/22	
Ethylbenzene	ND	0.0250	1	08/03/22	08/06/22	
Toluene	ND	0.0250	1	08/03/22	08/06/22	
o-Xylene	ND	0.0250	1	08/03/22	08/06/22	
p,m-Xylene	ND	0.0500	1	08/03/22	08/06/22	
Total Xylenes	ND	0.0250	1	08/03/22	08/06/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		111 %	70-130	08/03/22	08/06/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2232048
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/03/22	08/06/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		106 %	70-130	08/03/22	08/06/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2233023
Diesel Range Organics (C10-C28)	94.2	25.0	1	08/08/22	08/09/22	
Oil Range Organics (C28-C36)	91.4	50.0	1	08/08/22	08/09/22	
<i>Surrogate: n-Nonane</i>		99.5 %	50-200	08/08/22	08/09/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: KL		Batch: 2233001
Chloride	63.3	20.0	1	08/08/22	08/08/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Devon Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 8/9/2022 5:18:32PM
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**SC-6**

**E208014-06**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2232048
Benzene	ND	0.0250	1	08/03/22	08/06/22	
Ethylbenzene	ND	0.0250	1	08/03/22	08/06/22	
Toluene	ND	0.0250	1	08/03/22	08/06/22	
o-Xylene	ND	0.0250	1	08/03/22	08/06/22	
p,m-Xylene	ND	0.0500	1	08/03/22	08/06/22	
Total Xylenes	ND	0.0250	1	08/03/22	08/06/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		109 %	70-130	08/03/22	08/06/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2232048
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/03/22	08/06/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		106 %	70-130	08/03/22	08/06/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2233023
Diesel Range Organics (C10-C28)	ND	25.0	1	08/08/22	08/09/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/08/22	08/09/22	
<i>Surrogate: n-Nonane</i>		101 %	50-200	08/08/22	08/09/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: KL		Batch: 2233001
Chloride	360	20.0	1	08/08/22	08/08/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Devon Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 8/9/2022 5:18:32PM
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**SC-7**

**E208014-07**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2232048
Benzene	ND	0.0250	1	08/03/22	08/06/22	
Ethylbenzene	<b>0.170</b>	0.0250	1	08/03/22	08/06/22	
Toluene	<b>0.0644</b>	0.0250	1	08/03/22	08/06/22	
o-Xylene	<b>0.480</b>	0.0250	1	08/03/22	08/06/22	
p,m-Xylene	<b>1.08</b>	0.0500	1	08/03/22	08/06/22	
Total Xylenes	<b>1.56</b>	0.0250	1	08/03/22	08/06/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		110 %	70-130	08/03/22	08/06/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2232048
Gasoline Range Organics (C6-C10)	<b>28.2</b>	20.0	1	08/03/22	08/06/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		110 %	70-130	08/03/22	08/06/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2233023
Diesel Range Organics (C10-C28)	<b>17800</b>	250	10	08/08/22	08/09/22	
Oil Range Organics (C28-C36)	<b>10100</b>	500	10	08/08/22	08/09/22	
<i>Surrogate: n-Nonane</i>		113 %	50-200	08/08/22	08/09/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: KL		Batch: 2233001
Chloride	<b>4260</b>	40.0	2	08/08/22	08/08/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Devon Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 8/9/2022 5:18:32PM
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**SC-8**

**E208014-08**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2232048
Benzene	ND	0.0250	1	08/03/22	08/06/22	
Ethylbenzene	ND	0.0250	1	08/03/22	08/06/22	
Toluene	ND	0.0250	1	08/03/22	08/06/22	
o-Xylene	ND	0.0250	1	08/03/22	08/06/22	
p,m-Xylene	ND	0.0500	1	08/03/22	08/06/22	
Total Xylenes	ND	0.0250	1	08/03/22	08/06/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		108 %	70-130	08/03/22	08/06/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2232048
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/03/22	08/06/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		105 %	70-130	08/03/22	08/06/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2233023
Diesel Range Organics (C10-C28)	344	25.0	1	08/08/22	08/09/22	
Oil Range Organics (C28-C36)	206	50.0	1	08/08/22	08/09/22	
<i>Surrogate: n-Nonane</i>		99.5 %	50-200	08/08/22	08/09/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: KL		Batch: 2233001
Chloride	182	20.0	1	08/08/22	08/08/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Devon Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 8/9/2022 5:18:32PM
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**SC-9**

**E208014-09**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2232048
Benzene	ND	0.0250	1	08/03/22	08/07/22	
Ethylbenzene	ND	0.0250	1	08/03/22	08/07/22	
Toluene	ND	0.0250	1	08/03/22	08/07/22	
o-Xylene	ND	0.0250	1	08/03/22	08/07/22	
p,m-Xylene	<b>0.0611</b>	0.0500	1	08/03/22	08/07/22	
Total Xylenes	<b>0.0611</b>	0.0250	1	08/03/22	08/07/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		107 %	70-130	08/03/22	08/07/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2232048
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/03/22	08/07/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		106 %	70-130	08/03/22	08/07/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2233023
Diesel Range Organics (C10-C28)	<b>3430</b>	250	10	08/08/22	08/09/22	
Oil Range Organics (C28-C36)	<b>1850</b>	500	10	08/08/22	08/09/22	
<i>Surrogate: n-Nonane</i>		117 %	50-200	08/08/22	08/09/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: KL		Batch: 2233001
Chloride	<b>9070</b>	100	5	08/08/22	08/08/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Devon Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 8/9/2022 5:18:32PM
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**SC-10**  
**E208014-10**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2232048
Benzene	ND	0.0250	1	08/03/22	08/07/22	
Ethylbenzene	ND	0.0250	1	08/03/22	08/07/22	
Toluene	ND	0.0250	1	08/03/22	08/07/22	
o-Xylene	ND	0.0250	1	08/03/22	08/07/22	
p,m-Xylene	ND	0.0500	1	08/03/22	08/07/22	
Total Xylenes	ND	0.0250	1	08/03/22	08/07/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		107 %	70-130	08/03/22	08/07/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2232048
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/03/22	08/07/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		107 %	70-130	08/03/22	08/07/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2233023
Diesel Range Organics (C10-C28)	36.5	25.0	1	08/08/22	08/09/22	
Oil Range Organics (C28-C36)	67.9	50.0	1	08/08/22	08/09/22	
<i>Surrogate: n-Nonane</i>		92.8 %	50-200	08/08/22	08/09/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: KL		Batch: 2233001
Chloride	92000	400	20	08/08/22	08/08/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Devon Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 8/9/2022 5:18:32PM
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**SC-11**  
**E208014-11**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2232048
Benzene	ND	0.0250	1	08/03/22	08/07/22	
Ethylbenzene	ND	0.0250	1	08/03/22	08/07/22	
Toluene	ND	0.0250	1	08/03/22	08/07/22	
o-Xylene	ND	0.0250	1	08/03/22	08/07/22	
p,m-Xylene	ND	0.0500	1	08/03/22	08/07/22	
Total Xylenes	ND	0.0250	1	08/03/22	08/07/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		107 %	70-130	08/03/22	08/07/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2232048
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/03/22	08/07/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		107 %	70-130	08/03/22	08/07/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2233023
Diesel Range Organics (C10-C28)	ND	25.0	1	08/08/22	08/09/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/08/22	08/09/22	
<i>Surrogate: n-Nonane</i>		92.8 %	50-200	08/08/22	08/09/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: KL		Batch: 2233001
Chloride	3490	40.0	2	08/08/22	08/08/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Devon Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 8/9/2022 5:18:32PM
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**SC-12**  
**E208014-12**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2232048
Benzene	ND	0.0250	1	08/03/22	08/07/22	
Ethylbenzene	ND	0.0250	1	08/03/22	08/07/22	
Toluene	ND	0.0250	1	08/03/22	08/07/22	
o-Xylene	ND	0.0250	1	08/03/22	08/07/22	
p,m-Xylene	ND	0.0500	1	08/03/22	08/07/22	
Total Xylenes	ND	0.0250	1	08/03/22	08/07/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		107 %	70-130	08/03/22	08/07/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2232048
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/03/22	08/07/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		107 %	70-130	08/03/22	08/07/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2233023
Diesel Range Organics (C10-C28)	45.1	25.0	1	08/08/22	08/09/22	
Oil Range Organics (C28-C36)	72.9	50.0	1	08/08/22	08/09/22	
<i>Surrogate: n-Nonane</i>		96.5 %	50-200	08/08/22	08/09/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: KL		Batch: 2233001
Chloride	2890	40.0	2	08/08/22	08/08/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Devon Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 8/9/2022 5:18:32PM
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**SC-13**

**E208014-13**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2232048
Benzene	ND	0.0250	1	08/03/22	08/07/22	
Ethylbenzene	ND	0.0250	1	08/03/22	08/07/22	
Toluene	ND	0.0250	1	08/03/22	08/07/22	
o-Xylene	ND	0.0250	1	08/03/22	08/07/22	
p,m-Xylene	ND	0.0500	1	08/03/22	08/07/22	
Total Xylenes	ND	0.0250	1	08/03/22	08/07/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		107 %	70-130	08/03/22	08/07/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2232048
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/03/22	08/07/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		107 %	70-130	08/03/22	08/07/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2233023
Diesel Range Organics (C10-C28)	ND	25.0	1	08/08/22	08/09/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/08/22	08/09/22	
<i>Surrogate: n-Nonane</i>		86.6 %	50-200	08/08/22	08/09/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: KL		Batch: 2233001
Chloride	7610	100	5	08/08/22	08/08/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Devon Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 8/9/2022 5:18:32PM
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**SC-14**

**E208014-14**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2232048
Benzene	ND	0.0250	1	08/03/22	08/07/22	
Ethylbenzene	ND	0.0250	1	08/03/22	08/07/22	
Toluene	ND	0.0250	1	08/03/22	08/07/22	
o-Xylene	ND	0.0250	1	08/03/22	08/07/22	
p,m-Xylene	ND	0.0500	1	08/03/22	08/07/22	
Total Xylenes	ND	0.0250	1	08/03/22	08/07/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		107 %	70-130	08/03/22	08/07/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2232048
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/03/22	08/07/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		106 %	70-130	08/03/22	08/07/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2233023
Diesel Range Organics (C10-C28)	ND	25.0	1	08/08/22	08/09/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/08/22	08/09/22	
<i>Surrogate: n-Nonane</i>		87.5 %	50-200	08/08/22	08/09/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: KL		Batch: 2233001
Chloride	3780	40.0	2	08/08/22	08/08/22	



### QC Summary Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Devon Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 8/9/2022 5:18:32PM
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#### Volatile Organics by EPA 8021B

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec % %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2232048-BLK1)**

Prepared: 08/03/22 Analyzed: 08/06/22

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	8.88		8.00		111	70-130			

**LCS (2232048-BS1)**

Prepared: 08/03/22 Analyzed: 08/06/22

Benzene	3.97	0.0250	5.00		79.3	70-130			
Ethylbenzene	3.94	0.0250	5.00		78.8	70-130			
Toluene	4.02	0.0250	5.00		80.4	70-130			
o-Xylene	4.10	0.0250	5.00		82.0	70-130			
p,m-Xylene	7.99	0.0500	10.0		79.9	70-130			
Total Xylenes	12.1	0.0250	15.0		80.6	70-130			
Surrogate: 4-Bromochlorobenzene-PID	9.09		8.00		114	70-130			

**Matrix Spike (2232048-MS1)**

Source: E208014-02

Prepared: 08/03/22 Analyzed: 08/06/22

Benzene	3.99	0.0250	5.00	ND	79.7	54-133			
Ethylbenzene	3.89	0.0250	5.00	ND	77.8	61-133			
Toluene	4.01	0.0250	5.00	ND	80.2	61-130			
o-Xylene	4.01	0.0250	5.00	ND	80.3	63-131			
p,m-Xylene	7.86	0.0500	10.0	ND	78.6	63-131			
Total Xylenes	11.9	0.0250	15.0	ND	79.2	63-131			
Surrogate: 4-Bromochlorobenzene-PID	9.01		8.00		113	70-130			

**Matrix Spike Dup (2232048-MSD1)**

Source: E208014-02

Prepared: 08/03/22 Analyzed: 08/06/22

Benzene	4.06	0.0250	5.00	ND	81.2	54-133	1.90	20	
Ethylbenzene	3.97	0.0250	5.00	ND	79.3	61-133	2.00	20	
Toluene	4.09	0.0250	5.00	ND	81.8	61-130	2.03	20	
o-Xylene	4.10	0.0250	5.00	ND	82.1	63-131	2.23	20	
p,m-Xylene	8.03	0.0500	10.0	ND	80.3	63-131	2.05	20	
Total Xylenes	12.1	0.0250	15.0	ND	80.9	63-131	2.11	20	
Surrogate: 4-Bromochlorobenzene-PID	9.09		8.00		114	70-130			



### QC Summary Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Devon Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 8/9/2022 5:18:32PM
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#### Nonhalogenated Organics by EPA 8015D - GRO

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2232048-BLK1)**

Prepared: 08/03/22 Analyzed: 08/06/22

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.91		8.00		111	70-130			

**LCS (2232048-BS2)**

Prepared: 08/03/22 Analyzed: 08/06/22

Gasoline Range Organics (C6-C10)	47.8	20.0	50.0		95.5	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.81		8.00		110	70-130			

**Matrix Spike (2232048-MS2)**

Source: E208014-02

Prepared: 08/03/22 Analyzed: 08/06/22

Gasoline Range Organics (C6-C10)	44.0	20.0	50.0	ND	87.9	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.48		8.00		106	70-130			

**Matrix Spike Dup (2232048-MSD2)**

Source: E208014-02

Prepared: 08/03/22 Analyzed: 08/06/22

Gasoline Range Organics (C6-C10)	43.6	20.0	50.0	ND	87.2	70-130	0.782	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.48		8.00		106	70-130			



### QC Summary Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Devon Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 8/9/2022 5:18:32PM
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#### Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: JL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec % %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2233023-BLK1)**

Prepared: 08/08/22 Analyzed: 08/09/22

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: <i>n-Nonane</i>	57.8		50.0		116	50-200			

**LCS (2233023-BS1)**

Prepared: 08/08/22 Analyzed: 08/09/22

Diesel Range Organics (C10-C28)	228	25.0	250		91.2	38-132			
Surrogate: <i>n-Nonane</i>	43.2		50.0		86.3	50-200			

**Matrix Spike (2233023-MS1)**

Source: E208014-06

Prepared: 08/08/22 Analyzed: 08/09/22

Diesel Range Organics (C10-C28)	274	25.0	250	ND	110	38-132			
Surrogate: <i>n-Nonane</i>	47.6		50.0		95.3	50-200			

**Matrix Spike Dup (2233023-MSD1)**

Source: E208014-06

Prepared: 08/08/22 Analyzed: 08/09/22

Diesel Range Organics (C10-C28)	267	25.0	250	ND	107	38-132	2.76	20	
Surrogate: <i>n-Nonane</i>	46.3		50.0		92.6	50-200			



### QC Summary Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Devon Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 8/9/2022 5:18:32PM
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#### Anions by EPA 300.0/9056A

Analyst: KL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2233001-BLK1)**

Prepared: 08/08/22 Analyzed: 08/08/22

Chloride	ND	20.0							
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**LCS (2233001-BS1)**

Prepared: 08/08/22 Analyzed: 08/08/22

Chloride	237	20.0	250		94.9	90-110			
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**Matrix Spike (2233001-MS1)**

Source: E208014-01

Prepared: 08/08/22 Analyzed: 08/08/22

Chloride	264	20.0	250	25.3	95.3	80-120			
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**Matrix Spike Dup (2233001-MSD1)**

Source: E208014-01

Prepared: 08/08/22 Analyzed: 08/08/22

Chloride	270	20.0	250	25.3	98.0	80-120	2.47	20	
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QC Summary Report Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



## Definitions and Notes

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Devon Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 08/09/22 17:18
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ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

DNI Did Not Ignite

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



5-DAY

Client: <u>Souder, Miller &amp; Associates</u> Project: <u>Devon Seawolf 1-12 CTB 1</u> Project Manager: <u>Heather Woods</u> Address: <u>201 S. Halagueno</u> City, State, Zip: <u>Carlsbad, NM 88220</u> Phone: <u>(505) 716-2787</u> Email: <u>Heather.Woods@soudermiller.com</u> Report due by:	Bill To Attention: <u>Duron</u> Address: City, State, Zip: Phone: Email: WO # <u>20987302</u>		Lab Use Only: Lab WO# <u>PE208014</u> Job Number <u>01058-0007</u>		TAT 1D 3D		EPA Program RCRA CWA SDWA				
	Analysis and Method					State NM CO UT AZ					
	5108 by 8100/8101 GRO/DRO by 8015 BTEX by 8021 VOC by 8260 Metals 6010 Chloride 300.0					BGDUC - NM BGDUC - TX			TX OK		
	Remarks										

Time Sampled	Date Sampled	Matrix	No Containers	Sample ID	Lab Number	5108 by 8100/8101	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDUC - NM	BGDUC - TX	Remarks
1030	7/29/22	S	1	SC-1	1							X		
1031	7/29/22	S	1	SC-2	2							X		
1033	7/29/22	S	1	SC-3	3							X		
<del>1034</del> 1038	7/29/22	S	1	SC-4	4							X		
<del>1038</del> 1039	7/29/22	S	1	SC-5	5							X		
1039	7/29/22	S	1	SC-6	6							X		
1040	7/29/22	S	1	SC-7	7							X		
1041	7/29/22	S	1	SC-8	8							X		
1047	7/29/22	S	1	SC-9	9							X		
1048	7/29/22	S	1	SC-10	10							X		

Additional Instructions: Email results to Sarahmay.Schlea@soudermiller.com

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: Heather Woods

Samples requiring thermal preservation must be received on the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days

Relinquished by: (Signature) <u>Heather Woods</u>	Date <u>8/2/2022</u>	Time <u>1550</u>	Received by: (Signature) <u>[Signature]</u>	Date <u>8/2/22</u>	Time <u>15:51</u>	Lab Use Only Received on ice: <input checked="" type="radio"/> Y / <input type="radio"/> N T1 _____ T2 _____ T3 _____ AVG Temp °C <u>4</u>
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other  
 Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA  
 Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

5-DAY

Client: <u>Souder, Miller Associates</u> Project: <u>Devon Seawolf 1-12 CTB1</u> Project Manager: <u>Heather Woods</u> Address: <u>201 S. Hualagueño</u> City, State, Zip: <u>Carlsbad NM 88220</u> Phone: <u>(505) 746-2787</u> Email: <u>Heather.Woods@soudermiller.com</u> Report due by:					Bill To Attention: <u>Devon</u> Address: City, State, Zip: Phone: Email: WO # <u>20987302</u>					Lab Use Only:		TAT		EPA Program		
										Lab WO# <u>PE 20801401058-0007</u>		Job Number		1D	3D	RCRA
					Analysis and Method							State				
					DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 30010	BODUC - NM	BODUC - TX	NM	CO	UT	AZ
												TX	OK			
												Remarks				
Time Sampled	Date Sampled	Matrix	No Containers	Sample ID	Lab Number											
1049	7/20/22	S	1	SC-11	11							X				
1050	7/20/22	S	1	SC-12	12							X				
1055	7/20/22	S	1	SC-13	13							X				
1056	7/20/22	S	1	SC-14	14							X				
<del>NEC</del>																
Additional Instructions:																
I (field sampler) attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: <u>Heather Woods</u>										Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 3 but less than 6 °C on subsequent days						
Relinquished by: (Signature) <u>Heather M. Woods</u>		Date: <u>8/2/2022</u>		Time: <u>1550</u>		Received by: (Signature) <u>[Signature]</u>		Date: <u>8/2/22</u>		Time: <u>15:51</u>		Lab Use Only Received on ice: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N				
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time		T1 _____ T2 _____ T3 _____				
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time		AVG Temp °C <u>4</u>				
Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other _____										Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA						
Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.																

Envirotech Analytical Laboratory

Printed: 8/2/2022 5:26:42PM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client: Souder Miller Associates - Carlsbad Date Received: 08/02/22 15:51 Work Order ID: E208014
Phone: (505) 325-7535 Date Logged In: 08/02/22 17:23 Logged In By: Alexa Michaels
Email: ashley.maxwell@soudermiller.com Due Date: 08/09/22 17:00 (5 day TAT)

Chain of Custody (COC)

- 1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Carrier: Heather Woods

Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this discussion.

Comments/Resolution

Sample Turn Around Time (TAT)

- 6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

- 7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

- 13. If no visible ice, record the temperature. Actual sample temperature: 4°C

Sample Container

- 14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

- 20. Were field sample labels filled out with the minimum information:
Sample ID? Yes
Date/Time Collected? Yes
Collectors name? No

Sample Preservation

- 21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

- 26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

- 28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

Client Instruction

Empty box for Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:  
Ashley Maxwell



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Souder Miller Associates - Carlsbad

Project Name: Seawolf 1-12 CTB 1

Work Order: E208049

Job Number: 01058-0007

Received: 8/8/2022

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
8/9/22

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.  
Envirotech Inc, holds the NM SDWA certification for data reported. (Lab #NM00979)

Date Reported: 8/9/22



Ashley Maxwell  
201 S Halagueno St.  
Carlsbad, NM 88220

Project Name: Seawolf 1-12 CTB 1  
Workorder: E208049  
Date Received: 8/8/2022 10:50:00AM

Ashley Maxwell,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 8/8/2022 10:50:00AM, under the Project Name: Seawolf 1-12 CTB 1.

The analytical test results summarized in this report with the Project Name: Seawolf 1-12 CTB 1 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
Laboratory Administrator  
Office: 505-632-1881  
[rainaschwanz@envirotech-inc.com](mailto:rainaschwanz@envirotech-inc.com)

**Alexa Michaels**  
Sample Custody Officer  
Office: 505-632-1881  
[labadmin@envirotech-inc.com](mailto:labadmin@envirotech-inc.com)

Field Offices:

**Southern New Mexico Area**  
**Lynn Jarboe**  
Technical Representative/Client Services  
Office: 505-421-LABS(5227)  
Cell: 505-320-4759  
[ljjarboe@envirotech-inc.com](mailto:ljjarboe@envirotech-inc.com)

**West Texas Midland/Odessa Area**  
**Rayny Hagan**  
Technical Representative  
Office: 505-421-LABS(5227)

Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

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## Sample Summary

Souder Miller Associates - Carlsbad  
201 S Halagueno St.  
Carlsbad NM, 88220

Project Name: Seawolf 1-12 CTB 1  
Project Number: 01058-0007  
Project Manager: Ashley Maxwell

**Reported:**  
08/09/22 16:01

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SC-18	E208049-01A	Soil	08/04/22	08/08/22	Glass Jar, 4 oz.
SC-17	E208049-02A	Soil	08/04/22	08/08/22	Glass Jar, 4 oz.
SC-16	E208049-03A	Soil	08/04/22	08/08/22	Glass Jar, 4 oz.
SC-15	E208049-04A	Soil	08/04/22	08/08/22	Glass Jar, 4 oz.
SC-19	E208049-05A	Soil	08/04/22	08/08/22	Glass Jar, 4 oz.
SC-20	E208049-06A	Soil	08/04/22	08/08/22	Glass Jar, 4 oz.
SC-21	E208049-07A	Soil	08/04/22	08/08/22	Glass Jar, 4 oz.
SC-22	E208049-08A	Soil	08/04/22	08/08/22	Glass Jar, 4 oz.
SC-23	E208049-09A	Soil	08/04/22	08/08/22	Glass Jar, 4 oz.
SC-24	E208049-10A	Soil	08/04/22	08/08/22	Glass Jar, 4 oz.
SC-25	E208049-11A	Soil	08/04/22	08/08/22	Glass Jar, 4 oz.
SC-26	E208049-12A	Soil	08/04/22	08/08/22	Glass Jar, 4 oz.
SC-27	E208049-13A	Soil	08/04/22	08/08/22	Glass Jar, 4 oz.
SC-28	E208049-14A	Soil	08/04/22	08/08/22	Glass Jar, 4 oz.
SC-29	E208049-15A	Soil	08/04/22	08/08/22	Glass Jar, 4 oz.
SC-30	E208049-16A	Soil	08/04/22	08/08/22	Glass Jar, 4 oz.
SC-31	E208049-17A	Soil	08/04/22	08/08/22	Glass Jar, 4 oz.
SC-32	E208049-18A	Soil	08/04/22	08/08/22	Glass Jar, 4 oz.
SC-33	E208049-19A	Soil	08/04/22	08/08/22	Glass Jar, 4 oz.
SC-34	E208049-20A	Soil	08/04/22	08/08/22	Glass Jar, 4 oz.



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/9/2022 4:01:51PM
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**SC-18**

**E208049-01**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>		mg/kg	mg/kg	Analyst: IY		Batch: 2233014
Benzene	ND	0.0250	1	08/08/22	08/09/22	
Ethylbenzene	ND	0.0250	1	08/08/22	08/09/22	
Toluene	ND	0.0250	1	08/08/22	08/09/22	
o-Xylene	ND	0.0250	1	08/08/22	08/09/22	
p,m-Xylene	ND	0.0500	1	08/08/22	08/09/22	
Total Xylenes	ND	0.0250	1	08/08/22	08/09/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		96.3 %	70-130	08/08/22	08/09/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>		mg/kg	mg/kg	Analyst: IY		Batch: 2233014
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/08/22	08/09/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		93.6 %	70-130	08/08/22	08/09/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>		mg/kg	mg/kg	Analyst: JL		Batch: 2233021
Diesel Range Organics (C10-C28)	ND	25.0	1	08/08/22	08/08/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/08/22	08/08/22	
<i>Surrogate: n-Nonane</i>		105 %	50-200	08/08/22	08/08/22	
<b>Anions by EPA 300.0/9056A</b>		mg/kg	mg/kg	Analyst: KL		Batch: 2233012
Chloride	69.3	20.0	1	08/08/22	08/09/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/9/2022 4:01:51PM
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**SC-17**

**E208049-02**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233014
Benzene	ND	0.0250	1	08/08/22	08/09/22	
Ethylbenzene	ND	0.0250	1	08/08/22	08/09/22	
Toluene	ND	0.0250	1	08/08/22	08/09/22	
o-Xylene	ND	0.0250	1	08/08/22	08/09/22	
p,m-Xylene	ND	0.0500	1	08/08/22	08/09/22	
Total Xylenes	ND	0.0250	1	08/08/22	08/09/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		95.9 %	70-130	08/08/22	08/09/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233014
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/08/22	08/09/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		92.8 %	70-130	08/08/22	08/09/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2233021
Diesel Range Organics (C10-C28)	ND	25.0	1	08/08/22	08/08/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/08/22	08/08/22	
<i>Surrogate: n-Nonane</i>		103 %	50-200	08/08/22	08/08/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: KL		Batch: 2233012
Chloride	996	20.0	1	08/08/22	08/09/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/9/2022 4:01:51PM
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**SC-16**  
**E208049-03**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233014
Benzene	ND	0.0250	1	08/08/22	08/08/22	
Ethylbenzene	ND	0.0250	1	08/08/22	08/08/22	
Toluene	ND	0.0250	1	08/08/22	08/08/22	
o-Xylene	ND	0.0250	1	08/08/22	08/08/22	
p,m-Xylene	ND	0.0500	1	08/08/22	08/08/22	
Total Xylenes	ND	0.0250	1	08/08/22	08/08/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		98.4 %	70-130	08/08/22	08/08/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233014
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/08/22	08/08/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		92.7 %	70-130	08/08/22	08/08/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2233021
Diesel Range Organics (C10-C28)	ND	25.0	1	08/08/22	08/08/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/08/22	08/08/22	
<i>Surrogate: n-Nonane</i>		107 %	50-200	08/08/22	08/08/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: KL		Batch: 2233012
Chloride	1520	20.0	1	08/08/22	08/09/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/9/2022 4:01:51PM
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**SC-15**  
**E208049-04**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233014
Benzene	ND	0.0250	1	08/08/22	08/08/22	
Ethylbenzene	ND	0.0250	1	08/08/22	08/08/22	
Toluene	ND	0.0250	1	08/08/22	08/08/22	
o-Xylene	ND	0.0250	1	08/08/22	08/08/22	
p,m-Xylene	ND	0.0500	1	08/08/22	08/08/22	
Total Xylenes	ND	0.0250	1	08/08/22	08/08/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		99.3 %	70-130	08/08/22	08/08/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233014
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/08/22	08/08/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		93.2 %	70-130	08/08/22	08/08/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2233021
Diesel Range Organics (C10-C28)	ND	25.0	1	08/08/22	08/08/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/08/22	08/08/22	
<i>Surrogate: n-Nonane</i>		104 %	50-200	08/08/22	08/08/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: KL		Batch: 2233012
Chloride	428	20.0	1	08/08/22	08/09/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/9/2022 4:01:51PM
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**SC-19**

**E208049-05**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233014
Benzene	ND	0.0250	1	08/08/22	08/09/22	
Ethylbenzene	ND	0.0250	1	08/08/22	08/09/22	
Toluene	ND	0.0250	1	08/08/22	08/09/22	
o-Xylene	ND	0.0250	1	08/08/22	08/09/22	
p,m-Xylene	ND	0.0500	1	08/08/22	08/09/22	
Total Xylenes	ND	0.0250	1	08/08/22	08/09/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		98.1 %	70-130	08/08/22	08/09/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233014
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/08/22	08/09/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		93.9 %	70-130	08/08/22	08/09/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2233021
Diesel Range Organics (C10-C28)	274	25.0	1	08/08/22	08/08/22	
Oil Range Organics (C28-C36)	163	50.0	1	08/08/22	08/08/22	
<i>Surrogate: n-Nonane</i>		105 %	50-200	08/08/22	08/08/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: KL		Batch: 2233012
Chloride	7840	100	5	08/08/22	08/09/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/9/2022 4:01:51PM
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**SC-20**

**E208049-06**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233014
Benzene	ND	0.0250	1	08/08/22	08/09/22	
Ethylbenzene	ND	0.0250	1	08/08/22	08/09/22	
Toluene	ND	0.0250	1	08/08/22	08/09/22	
o-Xylene	ND	0.0250	1	08/08/22	08/09/22	
p,m-Xylene	ND	0.0500	1	08/08/22	08/09/22	
Total Xylenes	ND	0.0250	1	08/08/22	08/09/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		97.6 %	70-130	08/08/22	08/09/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233014
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/08/22	08/09/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		94.9 %	70-130	08/08/22	08/09/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2233021
Diesel Range Organics (C10-C28)	ND	25.0	1	08/08/22	08/09/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/08/22	08/09/22	
<i>Surrogate: n-Nonane</i>		105 %	50-200	08/08/22	08/09/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: KL		Batch: 2233012
Chloride	3630	40.0	2	08/08/22	08/09/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/9/2022 4:01:51PM
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**SC-21**  
**E208049-07**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2233014
Benzene	ND	0.0250	1	08/08/22	08/09/22	
Ethylbenzene	ND	0.0250	1	08/08/22	08/09/22	
Toluene	ND	0.0250	1	08/08/22	08/09/22	
o-Xylene	ND	0.0250	1	08/08/22	08/09/22	
p,m-Xylene	ND	0.0500	1	08/08/22	08/09/22	
Total Xylenes	ND	0.0250	1	08/08/22	08/09/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		96.5 %	70-130	08/08/22	08/09/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2233014
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/08/22	08/09/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		94.8 %	70-130	08/08/22	08/09/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2233021
Diesel Range Organics (C10-C28)	ND	25.0	1	08/08/22	08/09/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/08/22	08/09/22	
<i>Surrogate: n-Nonane</i>						
		109 %	50-200	08/08/22	08/09/22	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: KL		Batch: 2233012
Chloride	117	20.0	1	08/08/22	08/09/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/9/2022 4:01:51PM
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**SC-22**

**E208049-08**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233014
Benzene	ND	0.0250	1	08/08/22	08/09/22	
Ethylbenzene	ND	0.0250	1	08/08/22	08/09/22	
Toluene	ND	0.0250	1	08/08/22	08/09/22	
o-Xylene	ND	0.0250	1	08/08/22	08/09/22	
p,m-Xylene	ND	0.0500	1	08/08/22	08/09/22	
Total Xylenes	ND	0.0250	1	08/08/22	08/09/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		96.5 %	70-130	08/08/22	08/09/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233014
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/08/22	08/09/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		94.7 %	70-130	08/08/22	08/09/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2233021
Diesel Range Organics (C10-C28)	ND	25.0	1	08/08/22	08/09/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/08/22	08/09/22	
<i>Surrogate: n-Nonane</i>		83.5 %	50-200	08/08/22	08/09/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: KL		Batch: 2233012
Chloride	22.2	20.0	1	08/08/22	08/09/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/9/2022 4:01:51PM
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**SC-23**  
**E208049-09**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233014
Benzene	ND	0.0250	1	08/08/22	08/09/22	
Ethylbenzene	ND	0.0250	1	08/08/22	08/09/22	
Toluene	ND	0.0250	1	08/08/22	08/09/22	
o-Xylene	ND	0.0250	1	08/08/22	08/09/22	
p,m-Xylene	ND	0.0500	1	08/08/22	08/09/22	
Total Xylenes	ND	0.0250	1	08/08/22	08/09/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		96.5 %	70-130	08/08/22	08/09/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233014
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/08/22	08/09/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		93.7 %	70-130	08/08/22	08/09/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2233021
Diesel Range Organics (C10-C28)	ND	25.0	1	08/08/22	08/09/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/08/22	08/09/22	
<i>Surrogate: n-Nonane</i>		108 %	50-200	08/08/22	08/09/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: KL		Batch: 2233012
Chloride	3080	1000	50	08/08/22	08/09/22	

### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/9/2022 4:01:51PM
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**SC-24**  
**E208049-10**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233014
Benzene	ND	0.0250	1	08/08/22	08/09/22	
Ethylbenzene	ND	0.0250	1	08/08/22	08/09/22	
Toluene	ND	0.0250	1	08/08/22	08/09/22	
o-Xylene	ND	0.0250	1	08/08/22	08/09/22	
p,m-Xylene	ND	0.0500	1	08/08/22	08/09/22	
Total Xylenes	ND	0.0250	1	08/08/22	08/09/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		97.5 %	70-130	08/08/22	08/09/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233014
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/08/22	08/09/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		93.8 %	70-130	08/08/22	08/09/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2233021
Diesel Range Organics (C10-C28)	95.3	25.0	1	08/08/22	08/09/22	
Oil Range Organics (C28-C36)	80.3	50.0	1	08/08/22	08/09/22	
<i>Surrogate: n-Nonane</i>		103 %	50-200	08/08/22	08/09/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: KL		Batch: 2233012
Chloride	34800	1000	50	08/08/22	08/09/22	

### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/9/2022 4:01:51PM
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**SC-25**  
**E208049-11**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233014
Benzene	ND	0.0250	1	08/08/22	08/09/22	
Ethylbenzene	ND	0.0250	1	08/08/22	08/09/22	
Toluene	ND	0.0250	1	08/08/22	08/09/22	
o-Xylene	ND	0.0250	1	08/08/22	08/09/22	
p,m-Xylene	ND	0.0500	1	08/08/22	08/09/22	
Total Xylenes	ND	0.0250	1	08/08/22	08/09/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		97.5 %	70-130	08/08/22	08/09/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233014
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/08/22	08/09/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		93.3 %	70-130	08/08/22	08/09/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2233021
Diesel Range Organics (C10-C28)	ND	25.0	1	08/08/22	08/09/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/08/22	08/09/22	
<i>Surrogate: n-Nonane</i>		105 %	50-200	08/08/22	08/09/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: KL		Batch: 2233012
Chloride	12200	200	10	08/08/22	08/09/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/9/2022 4:01:51PM
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**SC-26**

**E208049-12**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233014
Benzene	ND	0.0250	1	08/08/22	08/09/22	
Ethylbenzene	ND	0.0250	1	08/08/22	08/09/22	
Toluene	ND	0.0250	1	08/08/22	08/09/22	
o-Xylene	ND	0.0250	1	08/08/22	08/09/22	
p,m-Xylene	ND	0.0500	1	08/08/22	08/09/22	
Total Xylenes	ND	0.0250	1	08/08/22	08/09/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		97.2 %	70-130	08/08/22	08/09/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233014
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/08/22	08/09/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		94.1 %	70-130	08/08/22	08/09/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2233021
Diesel Range Organics (C10-C28)	ND	25.0	1	08/08/22	08/09/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/08/22	08/09/22	
<i>Surrogate: n-Nonane</i>		105 %	50-200	08/08/22	08/09/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: KL		Batch: 2233012
Chloride	6380	200	10	08/08/22	08/09/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/9/2022 4:01:51PM
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**SC-27**

**E208049-13**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233014
Benzene	ND	0.0250	1	08/08/22	08/09/22	
Ethylbenzene	ND	0.0250	1	08/08/22	08/09/22	
Toluene	ND	0.0250	1	08/08/22	08/09/22	
o-Xylene	ND	0.0250	1	08/08/22	08/09/22	
p,m-Xylene	ND	0.0500	1	08/08/22	08/09/22	
Total Xylenes	ND	0.0250	1	08/08/22	08/09/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		96.5 %	70-130	08/08/22	08/09/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233014
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/08/22	08/09/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		93.6 %	70-130	08/08/22	08/09/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2233021
Diesel Range Organics (C10-C28)	ND	25.0	1	08/08/22	08/09/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/08/22	08/09/22	
<i>Surrogate: n-Nonane</i>		108 %	50-200	08/08/22	08/09/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: KL		Batch: 2233012
Chloride	201	20.0	1	08/08/22	08/09/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/9/2022 4:01:51PM
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**SC-28**

**E208049-14**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233014
Benzene	ND	0.0250	1	08/08/22	08/09/22	
Ethylbenzene	ND	0.0250	1	08/08/22	08/09/22	
Toluene	ND	0.0250	1	08/08/22	08/09/22	
o-Xylene	ND	0.0250	1	08/08/22	08/09/22	
p,m-Xylene	ND	0.0500	1	08/08/22	08/09/22	
Total Xylenes	ND	0.0250	1	08/08/22	08/09/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		96.9 %	70-130	08/08/22	08/09/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233014
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/08/22	08/09/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		93.9 %	70-130	08/08/22	08/09/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2233021
Diesel Range Organics (C10-C28)	ND	25.0	1	08/08/22	08/09/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/08/22	08/09/22	
<i>Surrogate: n-Nonane</i>		100 %	50-200	08/08/22	08/09/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: KL		Batch: 2233012
Chloride	129	20.0	1	08/08/22	08/09/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/9/2022 4:01:51PM
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**SC-29**

**E208049-15**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233014
Benzene	ND	0.0250	1	08/08/22	08/09/22	
Ethylbenzene	ND	0.0250	1	08/08/22	08/09/22	
Toluene	ND	0.0250	1	08/08/22	08/09/22	
o-Xylene	ND	0.0250	1	08/08/22	08/09/22	
p,m-Xylene	ND	0.0500	1	08/08/22	08/09/22	
Total Xylenes	ND	0.0250	1	08/08/22	08/09/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		96.9 %	70-130	08/08/22	08/09/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233014
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/08/22	08/09/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		94.5 %	70-130	08/08/22	08/09/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2233021
Diesel Range Organics (C10-C28)	ND	25.0	1	08/08/22	08/09/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/08/22	08/09/22	
<i>Surrogate: n-Nonane</i>		107 %	50-200	08/08/22	08/09/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: KL		Batch: 2233012
Chloride	114	40.0	2	08/08/22	08/09/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/9/2022 4:01:51PM
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**SC-30**

**E208049-16**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233014
Benzene	ND	0.0250	1	08/08/22	08/09/22	
Ethylbenzene	ND	0.0250	1	08/08/22	08/09/22	
Toluene	ND	0.0250	1	08/08/22	08/09/22	
o-Xylene	ND	0.0250	1	08/08/22	08/09/22	
p,m-Xylene	ND	0.0500	1	08/08/22	08/09/22	
Total Xylenes	ND	0.0250	1	08/08/22	08/09/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		94.8 %	70-130	08/08/22	08/09/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233014
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/08/22	08/09/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		93.6 %	70-130	08/08/22	08/09/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2233021
Diesel Range Organics (C10-C28)	ND	25.0	1	08/08/22	08/09/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/08/22	08/09/22	
<i>Surrogate: n-Nonane</i>		105 %	50-200	08/08/22	08/09/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: KL		Batch: 2233012
Chloride	14200	200	10	08/08/22	08/09/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/9/2022 4:01:51PM
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**SC-31**  
**E208049-17**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233014
Benzene	ND	0.0250	1	08/08/22	08/09/22	
Ethylbenzene	ND	0.0250	1	08/08/22	08/09/22	
Toluene	ND	0.0250	1	08/08/22	08/09/22	
o-Xylene	ND	0.0250	1	08/08/22	08/09/22	
p,m-Xylene	ND	0.0500	1	08/08/22	08/09/22	
Total Xylenes	ND	0.0250	1	08/08/22	08/09/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		94.8 %	70-130	08/08/22	08/09/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233014
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/08/22	08/09/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		93.9 %	70-130	08/08/22	08/09/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2233021
Diesel Range Organics (C10-C28)	ND	25.0	1	08/08/22	08/09/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/08/22	08/09/22	
<i>Surrogate: n-Nonane</i>		97.8 %	50-200	08/08/22	08/09/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: KL		Batch: 2233012
Chloride	3220	20.0	1	08/08/22	08/09/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/9/2022 4:01:51PM
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**SC-32**

**E208049-18**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233014
Benzene	ND	0.0250	1	08/08/22	08/09/22	
Ethylbenzene	ND	0.0250	1	08/08/22	08/09/22	
Toluene	ND	0.0250	1	08/08/22	08/09/22	
o-Xylene	ND	0.0250	1	08/08/22	08/09/22	
p,m-Xylene	ND	0.0500	1	08/08/22	08/09/22	
Total Xylenes	ND	0.0250	1	08/08/22	08/09/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		94.4 %	70-130	08/08/22	08/09/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233014
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/08/22	08/09/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		94.4 %	70-130	08/08/22	08/09/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2233021
Diesel Range Organics (C10-C28)	ND	25.0	1	08/08/22	08/09/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/08/22	08/09/22	
<i>Surrogate: n-Nonane</i>		112 %	50-200	08/08/22	08/09/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: KL		Batch: 2233012
Chloride	564	20.0	1	08/08/22	08/09/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/9/2022 4:01:51PM
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**SC-33**

**E208049-19**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233014
Benzene	ND	0.0250	1	08/08/22	08/09/22	
Ethylbenzene	ND	0.0250	1	08/08/22	08/09/22	
Toluene	ND	0.0250	1	08/08/22	08/09/22	
o-Xylene	ND	0.0250	1	08/08/22	08/09/22	
p,m-Xylene	ND	0.0500	1	08/08/22	08/09/22	
Total Xylenes	ND	0.0250	1	08/08/22	08/09/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		94.6 %	70-130	08/08/22	08/09/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233014
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/08/22	08/09/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		93.7 %	70-130	08/08/22	08/09/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2233021
Diesel Range Organics (C10-C28)	ND	25.0	1	08/08/22	08/09/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/08/22	08/09/22	
<i>Surrogate: n-Nonane</i>		108 %	50-200	08/08/22	08/09/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: KL		Batch: 2233012
Chloride	219	20.0	1	08/08/22	08/09/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/9/2022 4:01:51PM
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**SC-34**

**E208049-20**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2233014
Benzene	ND	0.0250	1	08/08/22	08/09/22	
Ethylbenzene	ND	0.0250	1	08/08/22	08/09/22	
Toluene	ND	0.0250	1	08/08/22	08/09/22	
o-Xylene	ND	0.0250	1	08/08/22	08/09/22	
p,m-Xylene	ND	0.0500	1	08/08/22	08/09/22	
Total Xylenes	ND	0.0250	1	08/08/22	08/09/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		94.8 %	70-130	08/08/22	08/09/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2233014
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/08/22	08/09/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		95.2 %	70-130	08/08/22	08/09/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2233021
Diesel Range Organics (C10-C28)	ND	25.0	1	08/08/22	08/09/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/08/22	08/09/22	
<i>Surrogate: n-Nonane</i>						
		107 %	50-200	08/08/22	08/09/22	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: KL		Batch: 2233012
Chloride	1810	20.0	1	08/08/22	08/09/22	



### QC Summary Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/9/2022 4:01:51PM
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#### Volatile Organics by EPA 8021B

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2233014-BLK1)**

Prepared: 08/08/22 Analyzed: 08/09/22

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	7.69		8.00		96.1	70-130			

**LCS (2233014-BS1)**

Prepared: 08/08/22 Analyzed: 08/09/22

Benzene	4.41	0.0250	5.00		88.2	70-130			
Ethylbenzene	4.42	0.0250	5.00		88.3	70-130			
Toluene	4.55	0.0250	5.00		90.9	70-130			
o-Xylene	4.52	0.0250	5.00		90.5	70-130			
p,m-Xylene	8.94	0.0500	10.0		89.4	70-130			
Total Xylenes	13.5	0.0250	15.0		89.8	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.82		8.00		97.7	70-130			

**LCS Dup (2233014-BSD1)**

Prepared: 08/08/22 Analyzed: 08/09/22

Benzene	4.45	0.0250	5.00		89.0	70-130	0.904	20	
Ethylbenzene	4.46	0.0250	5.00		89.1	70-130	0.884	20	
Toluene	4.58	0.0250	5.00		91.7	70-130	0.813	20	
o-Xylene	4.56	0.0250	5.00		91.2	70-130	0.851	20	
p,m-Xylene	9.02	0.0500	10.0		90.2	70-130	0.804	20	
Total Xylenes	13.6	0.0250	15.0		90.5	70-130	0.820	20	
Surrogate: 4-Bromochlorobenzene-PID	7.82		8.00		97.8	70-130			



### QC Summary Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/9/2022 4:01:51PM
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#### Nonhalogenated Organics by EPA 8015D - GRO

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2233014-BLK1)**

Prepared: 08/08/22 Analyzed: 08/09/22

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.64		8.00		95.5	70-130			

**LCS (2233014-BS2)**

Prepared: 08/08/22 Analyzed: 08/09/22

Gasoline Range Organics (C6-C10)	42.1	20.0	50.0		84.1	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.61		8.00		95.1	70-130			

**LCS Dup (2233014-BSD2)**

Prepared: 08/08/22 Analyzed: 08/09/22

Gasoline Range Organics (C6-C10)	47.0	20.0	50.0		93.9	70-130	11.0	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.65		8.00		95.7	70-130			



### QC Summary Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/9/2022 4:01:51PM
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#### Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: JL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2233021-BLK1)**

Prepared: 08/08/22 Analyzed: 08/08/22

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: <i>n</i> -Nonane	53.9		50.0		108	50-200			

**LCS (2233021-BS1)**

Prepared: 08/08/22 Analyzed: 08/08/22

Diesel Range Organics (C10-C28)	246	25.0	250		98.5	38-132			
Surrogate: <i>n</i> -Nonane	50.8		50.0		102	50-200			

**Matrix Spike (2233021-MS1)**

Source: E208049-12

Prepared: 08/08/22 Analyzed: 08/08/22

Diesel Range Organics (C10-C28)	246	25.0	250	ND	98.3	38-132			
Surrogate: <i>n</i> -Nonane	47.1		50.0		94.3	50-200			

**Matrix Spike Dup (2233021-MSD1)**

Source: E208049-12

Prepared: 08/08/22 Analyzed: 08/08/22

Diesel Range Organics (C10-C28)	256	25.0	250	ND	103	38-132	4.29	20	
Surrogate: <i>n</i> -Nonane	47.2		50.0		94.5	50-200			



### QC Summary Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/9/2022 4:01:51PM
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#### Anions by EPA 300.0/9056A

Analyst: KL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2233012-BLK1)**

Prepared: 08/08/22 Analyzed: 08/09/22

Chloride ND 20.0

**LCS (2233012-BS1)**

Prepared: 08/08/22 Analyzed: 08/09/22

Chloride 256 20.0 250 102 90-110

**Matrix Spike (2233012-MS1)**

Source: E208049-01

Prepared: 08/08/22 Analyzed: 08/09/22

Chloride 310 20.0 250 69.3 96.2 80-120

**Matrix Spike Dup (2233012-MSD1)**

Source: E208049-01

Prepared: 08/08/22 Analyzed: 08/09/22

Chloride 305 20.0 250 69.3 94.3 80-120 1.51 20

QC Summary Report Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



## Definitions and Notes

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 08/09/22 16:01
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ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

DNI Did Not Ignite

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Project Information

Chain of Custody

2 day

Client: <u>Souder Miller + Associates</u> Project: <u>Scrubie 1-12 CTB 1</u> Project Manager: <u>Ashley Maxwell</u> Address: <u>201 S. La Grille</u> City, State, Zip: <u>Carlsbad NM 88220</u> Phone: _____ Email: _____ Report due by: _____				Bill To Attention: <u>Devon</u> Address: _____ City, State, Zip: _____ Phone: _____ Email: _____ WO # <u>20987302</u>				Lab Use Only Lab WO# <u>PE208049</u> Job Number <u>01058-000</u> Analysis and Method ID <u>9D</u> TAT RCRA CWA SDWA State NM CO UT AZ TX OK Remarks						
Time Sampled	Date Sampled	Matrix	No Containers	Sample ID	Lab Number	DRO/DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC - NM	BGDOC - TX	Remarks
0932	8/4/22	Soil	1	SC-18	1							X		
0931	8/4/22	Soil	1	SC-17	2							X		
0930	8/4/22	Soil	1	SC-16	3							X		
0929	8/4/22	Soil	1	SC-15	4							X		
0933	8/4/22	Soil	1	SC-19	5							X		
0934	8/4/22	Soil	1	SC-20	6							X		
0935	8/4/22	Soil	1	SC-21	7							X		
0936	8/4/22	Soil	1	SC-22	8							X		
0937	8/4/22	Soil	1	SC-23	9							X		
0938	8/4/22	Soil	1	SC-24	10							X		
Additional Instructions: <u>Prise, report to Heather woods Ashley Maxwell Sarahmay Schlea, Georjeann Goodman</u>												Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days		
(field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: _____														
Relinquished by: (Signature)			Date	Time	Received by: (Signature)			Date	Time	Lab Use Only Received on ice: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N T1 _____ T2 _____ T3 _____ AVG Temp °C <u>4</u>				
Relinquished by: (Signature)			Date	Time	Received by: (Signature)			Date	Time					
Relinquished by: (Signature)			Date	Time	Received by: (Signature)			Date	Time					
Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other										Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA				
Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.														

Project Information

Chain of Custody

2 day

Client: <u>Sander Miller &amp; Associates</u> Project: <u>Seawolf 1-1a CTB</u> Project Manager: <u>Ashley Maxwell</u> Address: <u>201 S Haldenano</u> City, State, Zip: <u>Carlsbad NM 88500</u> Phone: _____ Email: _____ Report due by: _____					Bill To Attention: <u>Devon</u> Address: _____ City, State, Zip: _____ Phone: _____ Email: _____ <u>WO # 20987302</u>					Lab Use Only Lab WO# <u>PE20987302</u> Job Number <u>101058-0007</u> Analysis and Method						EPA Program ID <u>3D</u> RCRA CWA SDWA State NM CO UT AZ TX OK			
Time Sampled	Date Sampled	Matrix	No Containers	Sample ID	Lab Number	DRO by 8015	GRO/DRO by 8015	RTX by 8023	VOC by 8260	Metals 6010	Chloride 3000	BCDOC - NM	BCDOC - TX	Remarks					
0939	8/4/22	Soil	1	SC-25	11							X							
0940	8/4/22	Soil	1	SC-26	12							X							
0941	8/4/22	Soil	1	SC-27	13							X							
0945	8/4/22	Soil	1	SC-28	14							X							
0946	8/4/22	Soil	1	SC-29	15							X							
0947	8/4/22	Soil	1	SC-30	16							X							
0948	8/4/22	Soil	1	SC-31	17							X							
0949	8/4/22	Soil	1	SC-32	18							X							
0950	8/4/22	Soil	1	SC-33	19							X							
0951	8/4/22	Soil	1	SC-34	20							X							
Additional Instructions: <u>Please send report to Heather Woods Ashley Maxwell Sarahmax Schlen</u> <u>Georgann Goodman</u> (Field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: _____ Samples requiring thermal preservation must be stored on ice the day they are sampled or returned packed in ice at an avg temp above 0 but less than 5 °C on subsequent days																			
Relinquished by: (Signature) _____ Date: <u>8/4/22</u> Time: <u>1:43</u>			Received by: (Signature) _____ Date: <u>8-5-22</u> Time: <u>1:15</u>			Lab Use Only Received on ice: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N T1 _____ T2 _____ T3 _____ AVG Temp °C <u>4</u>													
Relinquished by: (Signature) _____ Date: <u>8-5-22</u> Time: <u>4:15</u>			Received by: (Signature) _____ Date: <u>8/8/22</u> Time: <u>10:50</u>																
Relinquished by: (Signature) _____ Date: _____ Time: _____			Received by: (Signature) _____ Date: _____ Time: _____																
Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.																			

Envirotech Analytical Laboratory

Printed: 8/8/2022 1:28:49PM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	Souder Miller Associates - Carlsbad	Date Received:	08/08/22 10:50	Work Order ID:	E208049
Phone:	(505) 325-7535	Date Logged In:	08/08/22 11:27	Logged In By:	Alexa Michaels
Email:	ashley.maxwell@soudermiller.com	Due Date:	08/09/22 17:00 (1 day TAT)		

**Chain of Custody (COC)**

- 1. Does the sample ID match the COC? Yes
- 2. Does the number of samples per sampling site location match the COC? Yes
- 3. Were samples dropped off by client or carrier? Yes
- 4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
- 5. Were all samples received within holding time? Yes

Carrier: UPS

Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this discussion.

**Comments/Resolution**

This project has been separated into two workorders due to amount of samples. workorders are as follows: E208049 ( coc pages 1&2 of 4) and E208050 (coc pages 3&4 of 4)

**Sample Turn Around Time (TAT)**

- 6. Did the COC indicate standard TAT, or Expedited TAT? Yes

**Sample Cooler**

- 7. Was a sample cooler received? Yes
- 8. If yes, was cooler received in good condition? Yes
- 9. Was the sample(s) received intact, i.e., not broken? Yes
- 10. Were custody/security seals present? No
- 11. If yes, were custody/security seals intact? NA
- 12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

- 13. If no visible ice, record the temperature. Actual sample temperature: 4°C

**Sample Container**

- 14. Are aqueous VOC samples present? No
- 15. Are VOC samples collected in VOA Vials? NA
- 16. Is the head space less than 6-8 mm (pea sized or less)? NA
- 17. Was a trip blank (TB) included for VOC analyses? NA
- 18. Are non-VOC samples collected in the correct containers? Yes
- 19. Is the appropriate volume/weight or number of sample containers collected? Yes

**Field Label**

- 20. Were field sample labels filled out with the minimum information:
  - Sample ID? Yes
  - Date/Time Collected? Yes
  - Collectors name? No

**Sample Preservation**

- 21. Does the COC or field labels indicate the samples were preserved? No
- 22. Are sample(s) correctly preserved? NA
- 24. Is lab filtration required and/or requested for dissolved metals? No

**Multiphase Sample Matrix**

- 26. Does the sample have more than one phase, i.e., multiphase? No
- 27. If yes, does the COC specify which phase(s) is to be analyzed? NA

**Subcontract Laboratory**

- 28. Are samples required to get sent to a subcontract laboratory? No
- 29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

**Client Instruction**

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:  
Ashley Maxwell



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Souder Miller Associates - Carlsbad

Project Name: Seawolf 1-12 CTB 1

Work Order: E208050

Job Number: 01058-0007

Received: 8/8/2022

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
8/9/22

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.  
Envirotech Inc, holds the NM SDWA certification for data reported. (Lab #NM00979)

Date Reported: 8/9/22



Ashley Maxwell  
201 S Halagueno St.  
Carlsbad, NM 88220

Project Name: Seawolf 1-12 CTB 1  
Workorder: E208050  
Date Received: 8/8/2022 10:50:00AM

Ashley Maxwell,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 8/8/2022 10:50:00AM, under the Project Name: Seawolf 1-12 CTB 1.

The analytical test results summarized in this report with the Project Name: Seawolf 1-12 CTB 1 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
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**Rayny Hagan**  
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Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

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## Sample Summary

Souder Miller Associates - Carlsbad  
201 S Halagueno St.  
Carlsbad NM, 88220

Project Name: Seawolf 1-12 CTB 1  
Project Number: 01058-0007  
Project Manager: Ashley Maxwell

**Reported:**  
08/09/22 17:13

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SC-35	E208050-01A	Soil	08/04/22	08/08/22	Glass Jar, 4 oz.
SC-36	E208050-02A	Soil	08/04/22	08/08/22	Glass Jar, 4 oz.
SC-37	E208050-03A	Soil	08/04/22	08/08/22	Glass Jar, 4 oz.
SC-38	E208050-04A	Soil	08/04/22	08/08/22	Glass Jar, 4 oz.
SC-39	E208050-05A	Soil	08/04/22	08/08/22	Glass Jar, 4 oz.
SC-40	E208050-06A	Soil	08/04/22	08/08/22	Glass Jar, 4 oz.
SC-41	E208050-07A	Soil	08/04/22	08/08/22	Glass Jar, 4 oz.
SC-42	E208050-08A	Soil	08/04/22	08/08/22	Glass Jar, 4 oz.
SC-43	E208050-09A	Soil	08/04/22	08/08/22	Glass Jar, 4 oz.
SC-44	E208050-10A	Soil	08/04/22	08/08/22	Glass Jar, 4 oz.
SC-45	E208050-11A	Soil	08/04/22	08/08/22	Glass Jar, 4 oz.
SC-46	E208050-12A	Soil	08/04/22	08/08/22	Glass Jar, 4 oz.
SC-47	E208050-13A	Soil	08/04/22	08/08/22	Glass Jar, 4 oz.
SC-48	E208050-14A	Soil	08/04/22	08/08/22	Glass Jar, 4 oz.
SC-49	E208050-15A	Soil	08/04/22	08/08/22	Glass Jar, 4 oz.
SC-50	E208050-16A	Soil	08/04/22	08/08/22	Glass Jar, 4 oz.
SC-51	E208050-17A	Soil	08/04/22	08/08/22	Glass Jar, 4 oz.
SC-52	E208050-18A	Soil	08/04/22	08/08/22	Glass Jar, 4 oz.



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/9/2022 5:13:50PM
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**SC-35**  
**E208050-01**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233015
Benzene	ND	0.0250	1	08/08/22	08/09/22	
Ethylbenzene	ND	0.0250	1	08/08/22	08/09/22	
Toluene	ND	0.0250	1	08/08/22	08/09/22	
o-Xylene	ND	0.0250	1	08/08/22	08/09/22	
p,m-Xylene	ND	0.0500	1	08/08/22	08/09/22	
Total Xylenes	ND	0.0250	1	08/08/22	08/09/22	
<i>Surrogate: Bromofluorobenzene</i>	98.1 %	70-130		08/08/22	08/09/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	93.5 %	70-130		08/08/22	08/09/22	
<i>Surrogate: Toluene-d8</i>	104 %	70-130		08/08/22	08/09/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233015
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/08/22	08/09/22	
<i>Surrogate: Bromofluorobenzene</i>	98.1 %	70-130		08/08/22	08/09/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	93.5 %	70-130		08/08/22	08/09/22	
<i>Surrogate: Toluene-d8</i>	104 %	70-130		08/08/22	08/09/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2233022
Diesel Range Organics (C10-C28)	545	25.0	1	08/08/22	08/08/22	
Oil Range Organics (C28-C36)	706	50.0	1	08/08/22	08/08/22	
<i>Surrogate: n-Nonane</i>	100 %	50-200		08/08/22	08/08/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: KL		Batch: 2233013
Chloride	14500	400	20	08/08/22	08/08/22	



## Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/9/2022 5:13:50PM
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## SC-36

## E208050-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233015
Benzene	ND	0.0250	1	08/08/22	08/08/22	
Ethylbenzene	ND	0.0250	1	08/08/22	08/08/22	
Toluene	ND	0.0250	1	08/08/22	08/08/22	
o-Xylene	ND	0.0250	1	08/08/22	08/08/22	
p,m-Xylene	ND	0.0500	1	08/08/22	08/08/22	
Total Xylenes	ND	0.0250	1	08/08/22	08/08/22	
<i>Surrogate: Bromofluorobenzene</i>		99.0 %	70-130	08/08/22	08/08/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		104 %	70-130	08/08/22	08/08/22	
<i>Surrogate: Toluene-d8</i>		103 %	70-130	08/08/22	08/08/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233015
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/08/22	08/08/22	
<i>Surrogate: Bromofluorobenzene</i>		99.0 %	70-130	08/08/22	08/08/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		104 %	70-130	08/08/22	08/08/22	
<i>Surrogate: Toluene-d8</i>		103 %	70-130	08/08/22	08/08/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2233022
Diesel Range Organics (C10-C28)	34.2	25.0	1	08/08/22	08/08/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/08/22	08/08/22	
<i>Surrogate: n-Nonane</i>		101 %	50-200	08/08/22	08/08/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: KL		Batch: 2233013
Chloride	14100	400	20	08/08/22	08/08/22	



## Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	Reported: 8/9/2022 5:13:50PM
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## SC-37

## E208050-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233015
Benzene	ND	0.0250	1	08/08/22	08/08/22	
Ethylbenzene	ND	0.0250	1	08/08/22	08/08/22	
Toluene	ND	0.0250	1	08/08/22	08/08/22	
o-Xylene	ND	0.0250	1	08/08/22	08/08/22	
p,m-Xylene	ND	0.0500	1	08/08/22	08/08/22	
Total Xylenes	ND	0.0250	1	08/08/22	08/08/22	
<i>Surrogate: Bromofluorobenzene</i>		101 %	70-130	08/08/22	08/08/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		103 %	70-130	08/08/22	08/08/22	
<i>Surrogate: Toluene-d8</i>		104 %	70-130	08/08/22	08/08/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233015
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/08/22	08/08/22	
<i>Surrogate: Bromofluorobenzene</i>		101 %	70-130	08/08/22	08/08/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		103 %	70-130	08/08/22	08/08/22	
<i>Surrogate: Toluene-d8</i>		104 %	70-130	08/08/22	08/08/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2233022
Diesel Range Organics (C10-C28)	ND	25.0	1	08/08/22	08/08/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/08/22	08/08/22	
<i>Surrogate: n-Nonane</i>		99.1 %	50-200	08/08/22	08/08/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: KL		Batch: 2233013
Chloride	4770	100	5	08/08/22	08/08/22	



## Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/9/2022 5:13:50PM
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## SC-38

## E208050-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233015
Benzene	ND	0.0250	1	08/08/22	08/08/22	
Ethylbenzene	ND	0.0250	1	08/08/22	08/08/22	
Toluene	ND	0.0250	1	08/08/22	08/08/22	
o-Xylene	ND	0.0250	1	08/08/22	08/08/22	
p,m-Xylene	ND	0.0500	1	08/08/22	08/08/22	
Total Xylenes	ND	0.0250	1	08/08/22	08/08/22	
<i>Surrogate: Bromofluorobenzene</i>		98.9 %	70-130	08/08/22	08/08/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		104 %	70-130	08/08/22	08/08/22	
<i>Surrogate: Toluene-d8</i>		104 %	70-130	08/08/22	08/08/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233015
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/08/22	08/08/22	
<i>Surrogate: Bromofluorobenzene</i>		98.9 %	70-130	08/08/22	08/08/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		104 %	70-130	08/08/22	08/08/22	
<i>Surrogate: Toluene-d8</i>		104 %	70-130	08/08/22	08/08/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2233022
Diesel Range Organics (C10-C28)	34.7	25.0	1	08/08/22	08/08/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/08/22	08/08/22	
<i>Surrogate: n-Nonane</i>		107 %	50-200	08/08/22	08/08/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: KL		Batch: 2233013
Chloride	857	20.0	1	08/08/22	08/08/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/9/2022 5:13:50PM
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**SC-39**  
**E208050-05**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233015
Benzene	ND	0.0250	1	08/08/22	08/08/22	
Ethylbenzene	ND	0.0250	1	08/08/22	08/08/22	
Toluene	ND	0.0250	1	08/08/22	08/08/22	
o-Xylene	ND	0.0250	1	08/08/22	08/08/22	
p,m-Xylene	ND	0.0500	1	08/08/22	08/08/22	
Total Xylenes	ND	0.0250	1	08/08/22	08/08/22	
<i>Surrogate: Bromofluorobenzene</i>		97.5 %	70-130	08/08/22	08/08/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		97.4 %	70-130	08/08/22	08/08/22	
<i>Surrogate: Toluene-d8</i>		104 %	70-130	08/08/22	08/08/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233015
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/08/22	08/08/22	
<i>Surrogate: Bromofluorobenzene</i>		97.5 %	70-130	08/08/22	08/08/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		97.4 %	70-130	08/08/22	08/08/22	
<i>Surrogate: Toluene-d8</i>		104 %	70-130	08/08/22	08/08/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2233022
Diesel Range Organics (C10-C28)	ND	25.0	1	08/08/22	08/08/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/08/22	08/08/22	
<i>Surrogate: n-Nonane</i>		99.9 %	50-200	08/08/22	08/08/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: KL		Batch: 2233013
Chloride	59.7	20.0	1	08/08/22	08/08/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/9/2022 5:13:50PM
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**SC-40**  
**E208050-06**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233015
Benzene	ND	0.0250	1	08/08/22	08/08/22	
Ethylbenzene	ND	0.0250	1	08/08/22	08/08/22	
Toluene	ND	0.0250	1	08/08/22	08/08/22	
o-Xylene	ND	0.0250	1	08/08/22	08/08/22	
p,m-Xylene	ND	0.0500	1	08/08/22	08/08/22	
Total Xylenes	ND	0.0250	1	08/08/22	08/08/22	
<i>Surrogate: Bromofluorobenzene</i>		97.8 %	70-130	08/08/22	08/08/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		98.6 %	70-130	08/08/22	08/08/22	
<i>Surrogate: Toluene-d8</i>		108 %	70-130	08/08/22	08/08/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233015
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/08/22	08/08/22	
<i>Surrogate: Bromofluorobenzene</i>		97.8 %	70-130	08/08/22	08/08/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		98.6 %	70-130	08/08/22	08/08/22	
<i>Surrogate: Toluene-d8</i>		108 %	70-130	08/08/22	08/08/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2233022
Diesel Range Organics (C10-C28)	ND	25.0	1	08/08/22	08/08/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/08/22	08/08/22	
<i>Surrogate: n-Nonane</i>		102 %	50-200	08/08/22	08/08/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: KL		Batch: 2233013
Chloride	555	20.0	1	08/08/22	08/08/22	



## Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/9/2022 5:13:50PM
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## SC-41

## E208050-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233015
Benzene	ND	0.0250	1	08/08/22	08/08/22	
Ethylbenzene	ND	0.0250	1	08/08/22	08/08/22	
Toluene	ND	0.0250	1	08/08/22	08/08/22	
o-Xylene	ND	0.0250	1	08/08/22	08/08/22	
p,m-Xylene	ND	0.0500	1	08/08/22	08/08/22	
Total Xylenes	ND	0.0250	1	08/08/22	08/08/22	
<i>Surrogate: Bromofluorobenzene</i>		97.3 %	70-130	08/08/22	08/08/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		97.3 %	70-130	08/08/22	08/08/22	
<i>Surrogate: Toluene-d8</i>		108 %	70-130	08/08/22	08/08/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233015
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/08/22	08/08/22	
<i>Surrogate: Bromofluorobenzene</i>		97.3 %	70-130	08/08/22	08/08/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		97.3 %	70-130	08/08/22	08/08/22	
<i>Surrogate: Toluene-d8</i>		108 %	70-130	08/08/22	08/08/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2233022
Diesel Range Organics (C10-C28)	5700	500	20	08/08/22	08/09/22	
Oil Range Organics (C28-C36)	5100	1000	20	08/08/22	08/09/22	
<i>Surrogate: n-Nonane</i>		103 %	50-200	08/08/22	08/09/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: KL		Batch: 2233013
Chloride	6060	100	5	08/08/22	08/08/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/9/2022 5:13:50PM
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**SC-42**  
**E208050-08**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233015
Benzene	ND	0.0250	1	08/08/22	08/08/22	
Ethylbenzene	ND	0.0250	1	08/08/22	08/08/22	
Toluene	ND	0.0250	1	08/08/22	08/08/22	
o-Xylene	ND	0.0250	1	08/08/22	08/08/22	
p,m-Xylene	ND	0.0500	1	08/08/22	08/08/22	
Total Xylenes	ND	0.0250	1	08/08/22	08/08/22	
<i>Surrogate: Bromofluorobenzene</i>		102 %	70-130	08/08/22	08/08/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		102 %	70-130	08/08/22	08/08/22	
<i>Surrogate: Toluene-d8</i>		105 %	70-130	08/08/22	08/08/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233015
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/08/22	08/08/22	
<i>Surrogate: Bromofluorobenzene</i>		102 %	70-130	08/08/22	08/08/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		102 %	70-130	08/08/22	08/08/22	
<i>Surrogate: Toluene-d8</i>		105 %	70-130	08/08/22	08/08/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2233022
Diesel Range Organics (C10-C28)	<b>207</b>	25.0	1	08/08/22	08/09/22	
Oil Range Organics (C28-C36)	<b>306</b>	50.0	1	08/08/22	08/09/22	
<i>Surrogate: n-Nonane</i>		99.0 %	50-200	08/08/22	08/09/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: KL		Batch: 2233013
Chloride	<b>12100</b>	400	20	08/08/22	08/09/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/9/2022 5:13:50PM
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**SC-43**  
**E208050-09**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233015
Benzene	ND	0.0250	1	08/08/22	08/08/22	
Ethylbenzene	ND	0.0250	1	08/08/22	08/08/22	
Toluene	ND	0.0250	1	08/08/22	08/08/22	
o-Xylene	ND	0.0250	1	08/08/22	08/08/22	
p,m-Xylene	ND	0.0500	1	08/08/22	08/08/22	
Total Xylenes	ND	0.0250	1	08/08/22	08/08/22	
<i>Surrogate: Bromofluorobenzene</i>		99.2 %	70-130	08/08/22	08/08/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		102 %	70-130	08/08/22	08/08/22	
<i>Surrogate: Toluene-d8</i>		104 %	70-130	08/08/22	08/08/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233015
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/08/22	08/08/22	
<i>Surrogate: Bromofluorobenzene</i>		99.2 %	70-130	08/08/22	08/08/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		102 %	70-130	08/08/22	08/08/22	
<i>Surrogate: Toluene-d8</i>		104 %	70-130	08/08/22	08/08/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2233022
Diesel Range Organics (C10-C28)	ND	25.0	1	08/08/22	08/09/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/08/22	08/09/22	
<i>Surrogate: n-Nonane</i>		107 %	50-200	08/08/22	08/09/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: KL		Batch: 2233013
Chloride	1370	20.0	1	08/08/22	08/09/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/9/2022 5:13:50PM
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**SC-44**  
**E208050-10**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233015
Benzene	ND	0.0250	1	08/08/22	08/09/22	
Ethylbenzene	ND	0.0250	1	08/08/22	08/09/22	
Toluene	ND	0.0250	1	08/08/22	08/09/22	
o-Xylene	ND	0.0250	1	08/08/22	08/09/22	
p,m-Xylene	ND	0.0500	1	08/08/22	08/09/22	
Total Xylenes	ND	0.0250	1	08/08/22	08/09/22	
<i>Surrogate: Bromofluorobenzene</i>		100 %	70-130	08/08/22	08/09/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		96.2 %	70-130	08/08/22	08/09/22	
<i>Surrogate: Toluene-d8</i>		106 %	70-130	08/08/22	08/09/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233015
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/08/22	08/09/22	
<i>Surrogate: Bromofluorobenzene</i>		100 %	70-130	08/08/22	08/09/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		96.2 %	70-130	08/08/22	08/09/22	
<i>Surrogate: Toluene-d8</i>		106 %	70-130	08/08/22	08/09/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2233022
Diesel Range Organics (C10-C28)	ND	25.0	1	08/08/22	08/09/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/08/22	08/09/22	
<i>Surrogate: n-Nonane</i>		108 %	50-200	08/08/22	08/09/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: KL		Batch: 2233013
Chloride	78.2	20.0	1	08/08/22	08/09/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/9/2022 5:13:50PM
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**SC-45**  
**E208050-11**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233015
Benzene	ND	0.0250	1	08/08/22	08/09/22	
Ethylbenzene	ND	0.0250	1	08/08/22	08/09/22	
Toluene	ND	0.0250	1	08/08/22	08/09/22	
o-Xylene	ND	0.0250	1	08/08/22	08/09/22	
p,m-Xylene	ND	0.0500	1	08/08/22	08/09/22	
Total Xylenes	ND	0.0250	1	08/08/22	08/09/22	
<i>Surrogate: Bromofluorobenzene</i>		98.0 %	70-130	08/08/22	08/09/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		99.4 %	70-130	08/08/22	08/09/22	
<i>Surrogate: Toluene-d8</i>		102 %	70-130	08/08/22	08/09/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233015
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/08/22	08/09/22	
<i>Surrogate: Bromofluorobenzene</i>		98.0 %	70-130	08/08/22	08/09/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		99.4 %	70-130	08/08/22	08/09/22	
<i>Surrogate: Toluene-d8</i>		102 %	70-130	08/08/22	08/09/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2233022
Diesel Range Organics (C10-C28)	ND	25.0	1	08/08/22	08/09/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/08/22	08/09/22	
<i>Surrogate: n-Nonane</i>		90.4 %	50-200	08/08/22	08/09/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: KL		Batch: 2233013
Chloride	44.0	20.0	1	08/08/22	08/09/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/9/2022 5:13:50PM
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**SC-46**  
**E208050-12**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233015
Benzene	ND	0.0250	1	08/08/22	08/09/22	
Ethylbenzene	ND	0.0250	1	08/08/22	08/09/22	
Toluene	ND	0.0250	1	08/08/22	08/09/22	
o-Xylene	ND	0.0250	1	08/08/22	08/09/22	
p,m-Xylene	ND	0.0500	1	08/08/22	08/09/22	
Total Xylenes	ND	0.0250	1	08/08/22	08/09/22	
<i>Surrogate: Bromofluorobenzene</i>		101 %	70-130	08/08/22	08/09/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		98.0 %	70-130	08/08/22	08/09/22	
<i>Surrogate: Toluene-d8</i>		104 %	70-130	08/08/22	08/09/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233015
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/08/22	08/09/22	
<i>Surrogate: Bromofluorobenzene</i>		101 %	70-130	08/08/22	08/09/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		98.0 %	70-130	08/08/22	08/09/22	
<i>Surrogate: Toluene-d8</i>		104 %	70-130	08/08/22	08/09/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2233022
Diesel Range Organics (C10-C28)	ND	25.0	1	08/08/22	08/09/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/08/22	08/09/22	
<i>Surrogate: n-Nonane</i>		105 %	50-200	08/08/22	08/09/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: KL		Batch: 2233013
Chloride	78.7	20.0	1	08/08/22	08/09/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/9/2022 5:13:50PM
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**SC-47**  
**E208050-13**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233015
Benzene	ND	0.0250	1	08/08/22	08/09/22	
Ethylbenzene	ND	0.0250	1	08/08/22	08/09/22	
Toluene	ND	0.0250	1	08/08/22	08/09/22	
o-Xylene	ND	0.0250	1	08/08/22	08/09/22	
p,m-Xylene	ND	0.0500	1	08/08/22	08/09/22	
Total Xylenes	ND	0.0250	1	08/08/22	08/09/22	
<i>Surrogate: Bromofluorobenzene</i>		98.4 %	70-130	08/08/22	08/09/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		96.6 %	70-130	08/08/22	08/09/22	
<i>Surrogate: Toluene-d8</i>		104 %	70-130	08/08/22	08/09/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233015
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/08/22	08/09/22	
<i>Surrogate: Bromofluorobenzene</i>		98.4 %	70-130	08/08/22	08/09/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		96.6 %	70-130	08/08/22	08/09/22	
<i>Surrogate: Toluene-d8</i>		104 %	70-130	08/08/22	08/09/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2233022
Diesel Range Organics (C10-C28)	ND	25.0	1	08/08/22	08/09/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/08/22	08/09/22	
<i>Surrogate: n-Nonane</i>		116 %	50-200	08/08/22	08/09/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: KL		Batch: 2233013
Chloride	62.1	20.0	1	08/08/22	08/09/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/9/2022 5:13:50PM
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**SC-48**  
**E208050-14**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233015
Benzene	ND	0.0250	1	08/08/22	08/09/22	
Ethylbenzene	ND	0.0250	1	08/08/22	08/09/22	
Toluene	ND	0.0250	1	08/08/22	08/09/22	
o-Xylene	ND	0.0250	1	08/08/22	08/09/22	
p,m-Xylene	ND	0.0500	1	08/08/22	08/09/22	
Total Xylenes	ND	0.0250	1	08/08/22	08/09/22	
<i>Surrogate: Bromofluorobenzene</i>		98.9 %	70-130	08/08/22	08/09/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		97.0 %	70-130	08/08/22	08/09/22	
<i>Surrogate: Toluene-d8</i>		103 %	70-130	08/08/22	08/09/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233015
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/08/22	08/09/22	
<i>Surrogate: Bromofluorobenzene</i>		98.9 %	70-130	08/08/22	08/09/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		97.0 %	70-130	08/08/22	08/09/22	
<i>Surrogate: Toluene-d8</i>		103 %	70-130	08/08/22	08/09/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2233022
Diesel Range Organics (C10-C28)	ND	25.0	1	08/08/22	08/09/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/08/22	08/09/22	
<i>Surrogate: n-Nonane</i>		97.5 %	50-200	08/08/22	08/09/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: KL		Batch: 2233013
Chloride	104	20.0	1	08/08/22	08/09/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	Reported: 8/9/2022 5:13:50PM
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**SC-49**  
**E208050-15**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2233015
Benzene	ND	0.0250	1	08/08/22	08/09/22	
Ethylbenzene	ND	0.0250	1	08/08/22	08/09/22	
Toluene	ND	0.0250	1	08/08/22	08/09/22	
o-Xylene	ND	0.0250	1	08/08/22	08/09/22	
p,m-Xylene	ND	0.0500	1	08/08/22	08/09/22	
Total Xylenes	ND	0.0250	1	08/08/22	08/09/22	
<i>Surrogate: Bromofluorobenzene</i>		98.8 %	70-130	08/08/22	08/09/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		95.7 %	70-130	08/08/22	08/09/22	
<i>Surrogate: Toluene-d8</i>		103 %	70-130	08/08/22	08/09/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2233015
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/08/22	08/09/22	
<i>Surrogate: Bromofluorobenzene</i>		98.8 %	70-130	08/08/22	08/09/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		95.7 %	70-130	08/08/22	08/09/22	
<i>Surrogate: Toluene-d8</i>		103 %	70-130	08/08/22	08/09/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2233022
Diesel Range Organics (C10-C28)	ND	25.0	1	08/08/22	08/09/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/08/22	08/09/22	
<i>Surrogate: n-Nonane</i>		91.5 %	50-200	08/08/22	08/09/22	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: KL		Batch: 2233013
Chloride	ND	20.0	1	08/08/22	08/09/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/9/2022 5:13:50PM
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**SC-50**  
**E208050-16**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233015
Benzene	ND	0.0250	1	08/08/22	08/09/22	
Ethylbenzene	ND	0.0250	1	08/08/22	08/09/22	
Toluene	ND	0.0250	1	08/08/22	08/09/22	
o-Xylene	ND	0.0250	1	08/08/22	08/09/22	
p,m-Xylene	ND	0.0500	1	08/08/22	08/09/22	
Total Xylenes	ND	0.0250	1	08/08/22	08/09/22	
<i>Surrogate: Bromofluorobenzene</i>		100 %	70-130	08/08/22	08/09/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		96.2 %	70-130	08/08/22	08/09/22	
<i>Surrogate: Toluene-d8</i>		104 %	70-130	08/08/22	08/09/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233015
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/08/22	08/09/22	
<i>Surrogate: Bromofluorobenzene</i>		100 %	70-130	08/08/22	08/09/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		96.2 %	70-130	08/08/22	08/09/22	
<i>Surrogate: Toluene-d8</i>		104 %	70-130	08/08/22	08/09/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2233022
Diesel Range Organics (C10-C28)	ND	25.0	1	08/08/22	08/09/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/08/22	08/09/22	
<i>Surrogate: n-Nonane</i>		93.5 %	50-200	08/08/22	08/09/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: KL		Batch: 2233013
Chloride	20.4	20.0	1	08/08/22	08/09/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/9/2022 5:13:50PM
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**SC-51**  
**E208050-17**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233015
Benzene	ND	0.0250	1	08/08/22	08/09/22	
Ethylbenzene	ND	0.0250	1	08/08/22	08/09/22	
Toluene	ND	0.0250	1	08/08/22	08/09/22	
o-Xylene	ND	0.0250	1	08/08/22	08/09/22	
p,m-Xylene	ND	0.0500	1	08/08/22	08/09/22	
Total Xylenes	ND	0.0250	1	08/08/22	08/09/22	
<i>Surrogate: Bromofluorobenzene</i>		98.1 %	70-130	08/08/22	08/09/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		94.3 %	70-130	08/08/22	08/09/22	
<i>Surrogate: Toluene-d8</i>		104 %	70-130	08/08/22	08/09/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233015
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/08/22	08/09/22	
<i>Surrogate: Bromofluorobenzene</i>		98.1 %	70-130	08/08/22	08/09/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		94.3 %	70-130	08/08/22	08/09/22	
<i>Surrogate: Toluene-d8</i>		104 %	70-130	08/08/22	08/09/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2233022
Diesel Range Organics (C10-C28)	ND	25.0	1	08/08/22	08/09/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/08/22	08/09/22	
<i>Surrogate: n-Nonane</i>		105 %	50-200	08/08/22	08/09/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: KL		Batch: 2233013
Chloride	271	20.0	1	08/08/22	08/09/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/9/2022 5:13:50PM
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**SC-52**  
**E208050-18**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233015
Benzene	ND	0.0250	1	08/08/22	08/09/22	
Ethylbenzene	ND	0.0250	1	08/08/22	08/09/22	
Toluene	ND	0.0250	1	08/08/22	08/09/22	
o-Xylene	ND	0.0250	1	08/08/22	08/09/22	
p,m-Xylene	ND	0.0500	1	08/08/22	08/09/22	
Total Xylenes	ND	0.0250	1	08/08/22	08/09/22	
<i>Surrogate: Bromofluorobenzene</i>		98.8 %	70-130	08/08/22	08/09/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		98.7 %	70-130	08/08/22	08/09/22	
<i>Surrogate: Toluene-d8</i>		106 %	70-130	08/08/22	08/09/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2233015
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/08/22	08/09/22	
<i>Surrogate: Bromofluorobenzene</i>		98.8 %	70-130	08/08/22	08/09/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		98.7 %	70-130	08/08/22	08/09/22	
<i>Surrogate: Toluene-d8</i>		106 %	70-130	08/08/22	08/09/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2233022
Diesel Range Organics (C10-C28)	ND	25.0	1	08/08/22	08/09/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/08/22	08/09/22	
<i>Surrogate: n-Nonane</i>		106 %	50-200	08/08/22	08/09/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: KL		Batch: 2233013
Chloride	312	20.0	1	08/08/22	08/09/22	



### QC Summary Data

Souder Miller Associates - Carlsbad	Project Name:	Seawolf 1-12 CTB 1	<b>Reported:</b> 8/9/2022 5:13:50PM
201 S Halagueno St.	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Maxwell	

#### Volatile Organic Compounds by EPA 8260B

Analyst: IY

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

**Blank (2233015-BLK1)**

Prepared: 08/08/22 Analyzed: 08/09/22

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: Bromofluorobenzene	0.487		0.500		97.4	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.473		0.500		94.6	70-130			
Surrogate: Toluene-d8	0.510		0.500		102	70-130			

**LCS (2233015-BS1)**

Prepared: 08/08/22 Analyzed: 08/09/22

Benzene	2.37	0.0250	2.50		95.0	70-130			
Ethylbenzene	2.40	0.0250	2.50		95.8	70-130			
Toluene	2.35	0.0250	2.50		93.9	70-130			
o-Xylene	2.24	0.0250	2.50		89.7	70-130			
p,m-Xylene	4.46	0.0500	5.00		89.2	70-130			
Total Xylenes	6.70	0.0250	7.50		89.3	70-130			
Surrogate: Bromofluorobenzene	0.497		0.500		99.4	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.501		0.500		100	70-130			
Surrogate: Toluene-d8	0.518		0.500		104	70-130			

**LCS Dup (2233015-BSD1)**

Prepared: 08/08/22 Analyzed: 08/09/22

Benzene	2.24	0.0250	2.50		89.7	70-130	5.67	23	
Ethylbenzene	2.30	0.0250	2.50		92.1	70-130	3.98	27	
Toluene	2.24	0.0250	2.50		89.8	70-130	4.55	24	
o-Xylene	2.15	0.0250	2.50		85.9	70-130	4.28	27	
p,m-Xylene	4.27	0.0500	5.00		85.3	70-130	4.39	27	
Total Xylenes	6.41	0.0250	7.50		85.5	70-130	4.35	27	
Surrogate: Bromofluorobenzene	0.511		0.500		102	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.508		0.500		102	70-130			
Surrogate: Toluene-d8	0.525		0.500		105	70-130			



### QC Summary Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/9/2022 5:13:50PM
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#### Nonhalogenated Organics by EPA 8015D - GRO

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec % %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2233015-BLK1)**

Prepared: 08/08/22 Analyzed: 08/09/22

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.487		0.500		97.4	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.473		0.500		94.6	70-130			
Surrogate: Toluene-d8	0.510		0.500		102	70-130			

**LCS (2233015-BS2)**

Prepared: 08/08/22 Analyzed: 08/09/22

Gasoline Range Organics (C6-C10)	51.5	20.0	50.0		103	70-130			
Surrogate: Bromofluorobenzene	0.503		0.500		101	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.488		0.500		97.5	70-130			
Surrogate: Toluene-d8	0.523		0.500		105	70-130			

**LCS Dup (2233015-BSD2)**

Prepared: 08/08/22 Analyzed: 08/09/22

Gasoline Range Organics (C6-C10)	47.3	20.0	50.0		94.7	70-130	8.48	20	
Surrogate: Bromofluorobenzene	0.483		0.500		96.5	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.507		0.500		101	70-130			
Surrogate: Toluene-d8	0.524		0.500		105	70-130			



### QC Summary Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/9/2022 5:13:50PM
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#### Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: JL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2233022-BLK1)**

Prepared: 08/08/22 Analyzed: 08/08/22

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: <i>n-Nonane</i>	53.9		50.0		108	50-200			

**LCS (2233022-BS1)**

Prepared: 08/08/22 Analyzed: 08/08/22

Diesel Range Organics (C10-C28)	238	25.0	250		95.1	38-132			
Surrogate: <i>n-Nonane</i>	48.0		50.0		96.0	50-200			

**Matrix Spike (2233022-MS1)**

Source: E208050-07

Prepared: 08/08/22 Analyzed: 08/09/22

Diesel Range Organics (C10-C28)	5270	500	250	5700	NR	38-132			M4
Surrogate: <i>n-Nonane</i>	49.1		50.0		98.1	50-200			

**Matrix Spike Dup (2233022-MSD1)**

Source: E208050-07

Prepared: 08/08/22 Analyzed: 08/09/22

Diesel Range Organics (C10-C28)	5640	500	250	5700	NR	38-132	6.76	20	M4
Surrogate: <i>n-Nonane</i>	49.0		50.0		97.9	50-200			



### QC Summary Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/9/2022 5:13:50PM
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#### Anions by EPA 300.0/9056A

Analyst: KL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2233013-BLK1)**

Prepared: 08/08/22 Analyzed: 08/08/22

Chloride	ND	20.0							
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**LCS (2233013-BS1)**

Prepared: 08/08/22 Analyzed: 08/08/22

Chloride	244	20.0	250		97.5	90-110			
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**Matrix Spike (2233013-MS1)**

Source: E208050-01

Prepared: 08/08/22 Analyzed: 08/08/22

Chloride	14500	400	250	14500	1.09	80-120			M2
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**Matrix Spike Dup (2233013-MSD1)**

Source: E208050-01

Prepared: 08/08/22 Analyzed: 08/08/22

Chloride	13100	400	250	14500	NR	80-120	9.98	20	M2
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QC Summary Report Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



### Definitions and Notes

Souder Miller Associates - Carlsbad	Project Name:	Seawolf 1-12 CTB 1	
201 S Halagueno St.	Project Number:	01058-0007	<b>Reported:</b>
Carlsbad NM, 88220	Project Manager:	Ashley Maxwell	08/09/22 17:13

- M2 Matrix spike recovery was outside quality control limits. The associated LCS spike recovery was acceptable.
- M4 Matrix spike recovery value is suspect since the analyte concentration in the sample is disproportionate to the spike level. The associated LCS spike recovery was acceptable.
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite

Note (1): Methods marked with \*\* are non-accredited methods.  
Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.

Client: Souder Miller & Associates  
 Project: Sample 1-12 CTB  
 Project Manager: Ashley Maxwell  
 Address: 201 S Halagueho  
 City, State, Zip: Curksbad NM 88220  
 Phone: \_\_\_\_\_  
 Email: \_\_\_\_\_

Bill To  
 Attention: Devon  
 Address: \_\_\_\_\_  
 City, State, Zip: \_\_\_\_\_  
 Phone: \_\_\_\_\_  
 Email: \_\_\_\_\_  
 WO# 20987302

Lab Use Only  
 Lab WO# PE 20987302  
 Job Number 00000000000000000000  
 Analysis and Method

TAT 2day  
 1D 3D  
 EPA Program  
 RCRA CWA SDWA  
 State  
 NM CO UT AZ  
 TX OK  
 Remarks

Time Sampled	Date Sampled	Matrix	No Containers	Sample ID	Lab Number	DRO/DRO by 8015	GRO/DRO by 8015	BTEX by 8023	VOC by 8260	Metals 6010	Chloride 300.0	BCDOX - NM	BCDOC - TX	Remarks
0952	8/4/22	Soil	1	SC-35	1							X		
0953	8/4/22	Soil	1	SC-36	2							X		
0954	8/4/22	Soil	1	SC-37	3							X		
0955	8/4/22	Soil	1	SC-38	4							X		
0956	8/4/22	Soil	1	SC-39	5							X		
0957	8/4/22	Soil	1	SC-40	6							X		
0958	8/4/22	Soil	1	SC-41	7							X		
0959	8/4/22	Soil	1	SC-42	8							X		
1000	8/4/22	Soil	1	SC-43	9							X		
1003	8/4/22	Soil	1	SC-44	10							X		

Additional Instructions: Please send report to Heather Woods, Ashley Maxwell, Sarahmay Schlect, Georgeann Goodman

Field sampler, attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date of collection is considered fraud and may be grounds for legal action. Sampled by: \_\_\_\_\_

Received by: (Signature) [Signature] Date 8/4/22 Time 1:52

Received by: (Signature) [Signature] Date 8/8/22 Time 10:50

Received by: (Signature) \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Lab Use Only  
 Received on ice:  Y  N  
 T1 \_\_\_\_\_ T2 \_\_\_\_\_ T3 \_\_\_\_\_  
 AVG Temp °C 4

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other  
 Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA  
 Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.



Project Information

Chain of Custody

2 day

Client: <u>Souder Miller &amp; Associates</u> Project: <u>Seawolf 1-12 CTB</u> Project Manager: <u>Ashley Maxwell</u> Address: <u>201 S Paladino</u> City, State, Zip: <u>Carlsbad NM 88520</u> Phone: _____ Email: _____ Report due by: _____				Bill To Attention: <u>Devon</u> Address: _____ City, State, Zip: _____ Phone: _____ Email: _____ <u>WO # 20987302</u>				Lab Use Only Lab WO# <u>PE2080500058-0007</u> Job Number _____ Analysis and Method _____				TAT 3D 3D EPA Program RCRA CWA SDWA State NM CO UT AZ TX OK Remarks					
Time Sampled	Date Sampled	Matrix	No Containers	Sample ID	Lab Number	DRO/DRO by 8015	GRO/DRO by 8015	INTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BCDOC - NM	BCDOC - TX				
1004	8/4/22	Soil	1	SC-45	11							X					
1005	8/4/22	Soil	1	SC-46	12							X					
1006	8/4/22	Soil	1	SC-47	13							X					
1007	8/4/22	Soil	1	SC-48	14							X					
1008	8/4/22	Soil	1	SC-49	15							X					
1009	8/4/22	Soil	1	SC-50	16							X					
1010	8/4/22	Soil	1	SC-51	17							X					
1011	8/4/22	Soil	1	SC-52	18							X					

Additional Instructions: Please send report to Heather Woods, Ashley Maxwell, Sarah May Schlegel, Georgiann Goodman

(Field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: \_\_\_\_\_

Samples requiring thermal preservation must be received on the day they are sampled - received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Lab Use Only
<i>[Signature]</i>	8/4/22	2:06	<i>[Signature]</i>	8/5/22	1:15	Received on ice: <input checked="" type="radio"/> Y / <input type="radio"/> N
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	T1
<i>[Signature]</i>	8-5-22	4:15	<i>[Signature]</i>	8/8/22	10:50	T2
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	T3
						AVG Temp °C <u>4</u>

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other \_\_\_\_\_  
 Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA  
 Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.



Envirotech Analytical Laboratory

Printed: 8/8/2022 1:30:10PM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client: Souder Miller Associates - Carlsbad Date Received: 08/08/22 10:50 Work Order ID: E208050
Phone: (505) 325-7535 Date Logged In: 08/08/22 11:42 Logged In By: Alexa Michaels
Email: ashley.maxwell@soudermiller.com Due Date: 08/09/22 17:00 (1 day TAT)

Chain of Custody (COC)

- 1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Carrier: UPS

Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this discussion.

Sample Turn Around Time (TAT)

- 6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

- 7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

- 13. If no visible ice, record the temperature. Actual sample temperature: 4°C

Sample Container

- 14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

- 20. Were field sample labels filled out with the minimum information:
Sample ID? Yes
Date/Time Collected? Yes
Collectors name? No

Sample Preservation

- 21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

- 26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

- 28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

Client Instruction

Empty box for client instructions.

Comments/Resolution

This project has been separated into two workorders due to amount of samples. workorders are as follows: E208049 ( coc pages 1&2 of 4) and E208050 (coc pages 3&4 of 4)

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:  
Ashley Maxwell



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Souder Miller Associates - Carlsbad

Project Name: Seawolf 1-12 CTB 1

Work Order: E208076

Job Number: 01058-0007

Received: 8/15/2022

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
8/16/22

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
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Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.  
Envirotech Inc, holds the NM SDWA certification for data reported. (Lab #NM00979)

Date Reported: 8/16/22



Ashley Maxwell  
201 S Halagueno St.  
Carlsbad, NM 88220

Project Name: Seawolf 1-12 CTB 1  
Workorder: E208076  
Date Received: 8/15/2022 9:50:00AM

Ashley Maxwell,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 8/15/2022 9:50:00AM, under the Project Name: Seawolf 1-12 CTB 1.

The analytical test results summarized in this report with the Project Name: Seawolf 1-12 CTB 1 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

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## Sample Summary

Souder Miller Associates - Carlsbad  
201 S Halagueno St.  
Carlsbad NM, 88220

Project Name: Seawolf 1-12 CTB 1  
Project Number: 01058-0007  
Project Manager: Ashley Maxwell

**Reported:**  
08/16/22 15:18

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SC-53	E208076-01A	Soil	08/11/22	08/15/22	Glass Jar, 2 oz.
SC-54	E208076-02A	Soil	08/11/22	08/15/22	Glass Jar, 2 oz.
SC-55	E208076-03A	Soil	08/11/22	08/15/22	Glass Jar, 2 oz.
SC-56	E208076-04A	Soil	08/11/22	08/15/22	Glass Jar, 2 oz.
SC-57	E208076-05A	Soil	08/11/22	08/15/22	Glass Jar, 2 oz.
SC-58	E208076-06A	Soil	08/11/22	08/15/22	Glass Jar, 2 oz.
SC-59	E208076-07A	Soil	08/11/22	08/15/22	Glass Jar, 2 oz.
SC-60	E208076-08A	Soil	08/11/22	08/15/22	Glass Jar, 2 oz.
SC-61	E208076-09A	Soil	08/11/22	08/15/22	Glass Jar, 2 oz.
SC-62	E208076-10A	Soil	08/11/22	08/15/22	Glass Jar, 2 oz.
SC-63	E208076-11A	Soil	08/11/22	08/15/22	Glass Jar, 2 oz.
SC-64	E208076-12A	Soil	08/11/22	08/15/22	Glass Jar, 2 oz.
SC-65	E208076-13A	Soil	08/11/22	08/15/22	Glass Jar, 2 oz.
SC-66	E208076-14A	Soil	08/11/22	08/15/22	Glass Jar, 2 oz.
SC-67	E208076-15A	Soil	08/11/22	08/15/22	Glass Jar, 2 oz.
SC-68	E208076-16A	Soil	08/11/22	08/15/22	Glass Jar, 2 oz.
SC-69	E208076-17A	Soil	08/11/22	08/15/22	Glass Jar, 2 oz.
SC-70	E208076-18A	Soil	08/11/22	08/15/22	Glass Jar, 2 oz.
SC-71	E208076-19A	Soil	08/11/22	08/15/22	Glass Jar, 2 oz.
SC-72	E208076-20A	Soil	08/11/22	08/15/22	Glass Jar, 2 oz.
SC-73	E208076-21A	Soil	08/11/22	08/15/22	Glass Jar, 2 oz.
SC-74	E208076-22A	Soil	08/11/22	08/15/22	Glass Jar, 2 oz.
SC-75	E208076-23A	Soil	08/11/22	08/15/22	Glass Jar, 2 oz.
SC-76	E208076-24A	Soil	08/11/22	08/15/22	Glass Jar, 2 oz.
SC-77	E208076-25A	Soil	08/11/22	08/15/22	Glass Jar, 2 oz.
SC-78	E208076-26A	Soil	08/11/22	08/15/22	Glass Jar, 2 oz.



## Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/16/2022 3:18:35PM
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SC-53

E208076-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2234006
Benzene	ND	0.0250	1	08/15/22	08/15/22	
Ethylbenzene	ND	0.0250	1	08/15/22	08/15/22	
Toluene	ND	0.0250	1	08/15/22	08/15/22	
o-Xylene	ND	0.0250	1	08/15/22	08/15/22	
p,m-Xylene	ND	0.0500	1	08/15/22	08/15/22	
Total Xylenes	ND	0.0250	1	08/15/22	08/15/22	
<i>Surrogate: Bromofluorobenzene</i>	96.1 %	70-130		08/15/22	08/15/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	99.3 %	70-130		08/15/22	08/15/22	
<i>Surrogate: Toluene-d8</i>	99.6 %	70-130		08/15/22	08/15/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2234006
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/15/22	08/15/22	
<i>Surrogate: Bromofluorobenzene</i>	96.1 %	70-130		08/15/22	08/15/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	99.3 %	70-130		08/15/22	08/15/22	
<i>Surrogate: Toluene-d8</i>	99.6 %	70-130		08/15/22	08/15/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2234001
Diesel Range Organics (C10-C28)	ND	25.0	1	08/15/22	08/15/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/15/22	08/15/22	
<i>Surrogate: n-Nonane</i>	67.6 %	50-200		08/15/22	08/15/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2234010
Chloride	70.8	20.0	1	08/15/22	08/15/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/16/2022 3:18:35PM
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**SC-54**  
**E208076-02**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2234006
Benzene	ND	0.0250	1	08/15/22	08/15/22	
Ethylbenzene	ND	0.0250	1	08/15/22	08/15/22	
Toluene	ND	0.0250	1	08/15/22	08/15/22	
o-Xylene	ND	0.0250	1	08/15/22	08/15/22	
p,m-Xylene	ND	0.0500	1	08/15/22	08/15/22	
Total Xylenes	ND	0.0250	1	08/15/22	08/15/22	
<i>Surrogate: Bromofluorobenzene</i>		93.6 %	70-130	08/15/22	08/15/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		93.3 %	70-130	08/15/22	08/15/22	
<i>Surrogate: Toluene-d8</i>		97.4 %	70-130	08/15/22	08/15/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2234006
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/15/22	08/15/22	
<i>Surrogate: Bromofluorobenzene</i>		93.6 %	70-130	08/15/22	08/15/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		93.3 %	70-130	08/15/22	08/15/22	
<i>Surrogate: Toluene-d8</i>		97.4 %	70-130	08/15/22	08/15/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2234001
Diesel Range Organics (C10-C28)	28.2	25.0	1	08/15/22	08/15/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/15/22	08/15/22	
<i>Surrogate: n-Nonane</i>		72.3 %	50-200	08/15/22	08/15/22	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2234010
Chloride	203	20.0	1	08/15/22	08/15/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/16/2022 3:18:35PM
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**SC-55**  
**E208076-03**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2234006
Benzene	ND	0.0250	1	08/15/22	08/15/22	
Ethylbenzene	ND	0.0250	1	08/15/22	08/15/22	
Toluene	ND	0.0250	1	08/15/22	08/15/22	
o-Xylene	ND	0.0250	1	08/15/22	08/15/22	
p,m-Xylene	ND	0.0500	1	08/15/22	08/15/22	
Total Xylenes	ND	0.0250	1	08/15/22	08/15/22	
<i>Surrogate: Bromofluorobenzene</i>		99.8 %	70-130	08/15/22	08/15/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		96.1 %	70-130	08/15/22	08/15/22	
<i>Surrogate: Toluene-d8</i>		105 %	70-130	08/15/22	08/15/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2234006
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/15/22	08/15/22	
<i>Surrogate: Bromofluorobenzene</i>		99.8 %	70-130	08/15/22	08/15/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		96.1 %	70-130	08/15/22	08/15/22	
<i>Surrogate: Toluene-d8</i>		105 %	70-130	08/15/22	08/15/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2234001
Diesel Range Organics (C10-C28)	ND	25.0	1	08/15/22	08/15/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/15/22	08/15/22	
<i>Surrogate: n-Nonane</i>		76.9 %	50-200	08/15/22	08/15/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2234010
Chloride	650	20.0	1	08/15/22	08/15/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/16/2022 3:18:35PM
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**SC-56**  
**E208076-04**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2234006
Benzene	ND	0.0250	1	08/15/22	08/15/22	
Ethylbenzene	ND	0.0250	1	08/15/22	08/15/22	
Toluene	ND	0.0250	1	08/15/22	08/15/22	
o-Xylene	ND	0.0250	1	08/15/22	08/15/22	
p,m-Xylene	ND	0.0500	1	08/15/22	08/15/22	
Total Xylenes	ND	0.0250	1	08/15/22	08/15/22	
<i>Surrogate: Bromofluorobenzene</i>		102 %	70-130	08/15/22	08/15/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		97.4 %	70-130	08/15/22	08/15/22	
<i>Surrogate: Toluene-d8</i>		106 %	70-130	08/15/22	08/15/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2234006
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/15/22	08/15/22	
<i>Surrogate: Bromofluorobenzene</i>		102 %	70-130	08/15/22	08/15/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		97.4 %	70-130	08/15/22	08/15/22	
<i>Surrogate: Toluene-d8</i>		106 %	70-130	08/15/22	08/15/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2234001
Diesel Range Organics (C10-C28)	34.4	25.0	1	08/15/22	08/15/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/15/22	08/15/22	
<i>Surrogate: n-Nonane</i>		80.4 %	50-200	08/15/22	08/15/22	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2234010
Chloride	886	20.0	1	08/15/22	08/15/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/16/2022 3:18:35PM
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**SC-57**  
**E208076-05**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2234006
Benzene	ND	0.0250	1	08/15/22	08/15/22	
Ethylbenzene	ND	0.0250	1	08/15/22	08/15/22	
Toluene	ND	0.0250	1	08/15/22	08/15/22	
o-Xylene	ND	0.0250	1	08/15/22	08/15/22	
p,m-Xylene	ND	0.0500	1	08/15/22	08/15/22	
Total Xylenes	ND	0.0250	1	08/15/22	08/15/22	
<i>Surrogate: Bromofluorobenzene</i>		100 %	70-130	08/15/22	08/15/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		98.2 %	70-130	08/15/22	08/15/22	
<i>Surrogate: Toluene-d8</i>		109 %	70-130	08/15/22	08/15/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2234006
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/15/22	08/15/22	
<i>Surrogate: Bromofluorobenzene</i>		100 %	70-130	08/15/22	08/15/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		98.2 %	70-130	08/15/22	08/15/22	
<i>Surrogate: Toluene-d8</i>		109 %	70-130	08/15/22	08/15/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2234001
Diesel Range Organics (C10-C28)	ND	25.0	1	08/15/22	08/15/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/15/22	08/15/22	
<i>Surrogate: n-Nonane</i>		73.1 %	50-200	08/15/22	08/15/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2234010
Chloride	3720	40.0	2	08/15/22	08/15/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/16/2022 3:18:35PM
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**SC-58**  
**E208076-06**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2234006
Benzene	ND	0.0250	1	08/15/22	08/15/22	
Ethylbenzene	ND	0.0250	1	08/15/22	08/15/22	
Toluene	ND	0.0250	1	08/15/22	08/15/22	
o-Xylene	ND	0.0250	1	08/15/22	08/15/22	
p,m-Xylene	ND	0.0500	1	08/15/22	08/15/22	
Total Xylenes	ND	0.0250	1	08/15/22	08/15/22	
<i>Surrogate: Bromofluorobenzene</i>		93.8 %	70-130	08/15/22	08/15/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		96.6 %	70-130	08/15/22	08/15/22	
<i>Surrogate: Toluene-d8</i>		99.4 %	70-130	08/15/22	08/15/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2234006
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/15/22	08/15/22	
<i>Surrogate: Bromofluorobenzene</i>		93.8 %	70-130	08/15/22	08/15/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		96.6 %	70-130	08/15/22	08/15/22	
<i>Surrogate: Toluene-d8</i>		99.4 %	70-130	08/15/22	08/15/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2234001
Diesel Range Organics (C10-C28)	ND	25.0	1	08/15/22	08/15/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/15/22	08/15/22	
<i>Surrogate: n-Nonane</i>		78.2 %	50-200	08/15/22	08/15/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2234010
Chloride	731	20.0	1	08/15/22	08/15/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/16/2022 3:18:35PM
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**SC-59**  
**E208076-07**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2234006
Benzene	ND	0.0250	1	08/15/22	08/15/22	
Ethylbenzene	ND	0.0250	1	08/15/22	08/15/22	
Toluene	ND	0.0250	1	08/15/22	08/15/22	
o-Xylene	ND	0.0250	1	08/15/22	08/15/22	
p,m-Xylene	ND	0.0500	1	08/15/22	08/15/22	
Total Xylenes	ND	0.0250	1	08/15/22	08/15/22	
<i>Surrogate: Bromofluorobenzene</i>		92.5 %	70-130	08/15/22	08/15/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		100 %	70-130	08/15/22	08/15/22	
<i>Surrogate: Toluene-d8</i>		97.3 %	70-130	08/15/22	08/15/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2234006
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/15/22	08/15/22	
<i>Surrogate: Bromofluorobenzene</i>		92.5 %	70-130	08/15/22	08/15/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		100 %	70-130	08/15/22	08/15/22	
<i>Surrogate: Toluene-d8</i>		97.3 %	70-130	08/15/22	08/15/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2234001
Diesel Range Organics (C10-C28)	ND	25.0	1	08/15/22	08/15/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/15/22	08/15/22	
<i>Surrogate: n-Nonane</i>		58.2 %	50-200	08/15/22	08/15/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2234010
Chloride	875	20.0	1	08/15/22	08/15/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/16/2022 3:18:35PM
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**SC-60**  
**E208076-08**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2234006
Benzene	ND	0.0250	1	08/15/22	08/15/22	
Ethylbenzene	ND	0.0250	1	08/15/22	08/15/22	
Toluene	ND	0.0250	1	08/15/22	08/15/22	
o-Xylene	ND	0.0250	1	08/15/22	08/15/22	
p,m-Xylene	ND	0.0500	1	08/15/22	08/15/22	
Total Xylenes	ND	0.0250	1	08/15/22	08/15/22	
<i>Surrogate: Bromofluorobenzene</i>		96.7 %	70-130	08/15/22	08/15/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		95.1 %	70-130	08/15/22	08/15/22	
<i>Surrogate: Toluene-d8</i>		98.1 %	70-130	08/15/22	08/15/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2234006
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/15/22	08/15/22	
<i>Surrogate: Bromofluorobenzene</i>		96.7 %	70-130	08/15/22	08/15/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		95.1 %	70-130	08/15/22	08/15/22	
<i>Surrogate: Toluene-d8</i>		98.1 %	70-130	08/15/22	08/15/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2234001
Diesel Range Organics (C10-C28)	ND	25.0	1	08/15/22	08/15/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/15/22	08/15/22	
<i>Surrogate: n-Nonane</i>		66.7 %	50-200	08/15/22	08/15/22	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2234010
Chloride	487	20.0	1	08/15/22	08/15/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/16/2022 3:18:35PM
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**SC-61**  
**E208076-09**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2234006
Benzene	ND	0.0250	1	08/15/22	08/15/22	
Ethylbenzene	ND	0.0250	1	08/15/22	08/15/22	
Toluene	ND	0.0250	1	08/15/22	08/15/22	
o-Xylene	ND	0.0250	1	08/15/22	08/15/22	
p,m-Xylene	ND	0.0500	1	08/15/22	08/15/22	
Total Xylenes	ND	0.0250	1	08/15/22	08/15/22	
<i>Surrogate: Bromofluorobenzene</i>		97.5 %	70-130	08/15/22	08/15/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		96.9 %	70-130	08/15/22	08/15/22	
<i>Surrogate: Toluene-d8</i>		97.8 %	70-130	08/15/22	08/15/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2234006
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/15/22	08/15/22	
<i>Surrogate: Bromofluorobenzene</i>		97.5 %	70-130	08/15/22	08/15/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		96.9 %	70-130	08/15/22	08/15/22	
<i>Surrogate: Toluene-d8</i>		97.8 %	70-130	08/15/22	08/15/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2234001
Diesel Range Organics (C10-C28)	48.3	25.0	1	08/15/22	08/15/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/15/22	08/15/22	
<i>Surrogate: n-Nonane</i>		62.3 %	50-200	08/15/22	08/15/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2234010
Chloride	2580	40.0	2	08/15/22	08/15/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/16/2022 3:18:35PM
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**SC-62**  
**E208076-10**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2234006
Benzene	ND	0.0250	1	08/15/22	08/15/22	
Ethylbenzene	ND	0.0250	1	08/15/22	08/15/22	
Toluene	ND	0.0250	1	08/15/22	08/15/22	
o-Xylene	ND	0.0250	1	08/15/22	08/15/22	
p,m-Xylene	ND	0.0500	1	08/15/22	08/15/22	
Total Xylenes	ND	0.0250	1	08/15/22	08/15/22	
<i>Surrogate: Bromofluorobenzene</i>		95.2 %	70-130	08/15/22	08/15/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		102 %	70-130	08/15/22	08/15/22	
<i>Surrogate: Toluene-d8</i>		98.3 %	70-130	08/15/22	08/15/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2234006
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/15/22	08/15/22	
<i>Surrogate: Bromofluorobenzene</i>		95.2 %	70-130	08/15/22	08/15/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		102 %	70-130	08/15/22	08/15/22	
<i>Surrogate: Toluene-d8</i>		98.3 %	70-130	08/15/22	08/15/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2234001
Diesel Range Organics (C10-C28)	ND	25.0	1	08/15/22	08/15/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/15/22	08/15/22	
<i>Surrogate: n-Nonane</i>		68.7 %	50-200	08/15/22	08/15/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2234010
Chloride	376	20.0	1	08/15/22	08/15/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/16/2022 3:18:35PM
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**SC-63**  
**E208076-11**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2234006
Benzene	ND	0.0250	1	08/15/22	08/15/22	
Ethylbenzene	ND	0.0250	1	08/15/22	08/15/22	
Toluene	ND	0.0250	1	08/15/22	08/15/22	
o-Xylene	ND	0.0250	1	08/15/22	08/15/22	
p,m-Xylene	ND	0.0500	1	08/15/22	08/15/22	
Total Xylenes	ND	0.0250	1	08/15/22	08/15/22	
<i>Surrogate: Bromofluorobenzene</i>		95.8 %	70-130	08/15/22	08/15/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		103 %	70-130	08/15/22	08/15/22	
<i>Surrogate: Toluene-d8</i>		97.6 %	70-130	08/15/22	08/15/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2234006
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/15/22	08/15/22	
<i>Surrogate: Bromofluorobenzene</i>		95.8 %	70-130	08/15/22	08/15/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		103 %	70-130	08/15/22	08/15/22	
<i>Surrogate: Toluene-d8</i>		97.6 %	70-130	08/15/22	08/15/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2234001
Diesel Range Organics (C10-C28)	ND	25.0	1	08/15/22	08/15/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/15/22	08/15/22	
<i>Surrogate: n-Nonane</i>		71.3 %	50-200	08/15/22	08/15/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2234010
Chloride	371	20.0	1	08/15/22	08/15/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/16/2022 3:18:35PM
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**SC-64**  
**E208076-12**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2234006
Benzene	ND	0.0250	1	08/15/22	08/15/22	
Ethylbenzene	ND	0.0250	1	08/15/22	08/15/22	
Toluene	ND	0.0250	1	08/15/22	08/15/22	
o-Xylene	ND	0.0250	1	08/15/22	08/15/22	
p,m-Xylene	ND	0.0500	1	08/15/22	08/15/22	
Total Xylenes	ND	0.0250	1	08/15/22	08/15/22	
<i>Surrogate: Bromofluorobenzene</i>		96.7 %	70-130	08/15/22	08/15/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		97.0 %	70-130	08/15/22	08/15/22	
<i>Surrogate: Toluene-d8</i>		98.2 %	70-130	08/15/22	08/15/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2234006
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/15/22	08/15/22	
<i>Surrogate: Bromofluorobenzene</i>		96.7 %	70-130	08/15/22	08/15/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		97.0 %	70-130	08/15/22	08/15/22	
<i>Surrogate: Toluene-d8</i>		98.2 %	70-130	08/15/22	08/15/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2234001
Diesel Range Organics (C10-C28)	ND	25.0	1	08/15/22	08/15/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/15/22	08/15/22	
<i>Surrogate: n-Nonane</i>		77.4 %	50-200	08/15/22	08/15/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2234010
Chloride	916	20.0	1	08/15/22	08/15/22	



## Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/16/2022 3:18:35PM
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## SC-65

## E208076-13

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2234006
Benzene	ND	0.0250	1	08/15/22	08/15/22	
Ethylbenzene	ND	0.0250	1	08/15/22	08/15/22	
Toluene	ND	0.0250	1	08/15/22	08/15/22	
o-Xylene	ND	0.0250	1	08/15/22	08/15/22	
p,m-Xylene	ND	0.0500	1	08/15/22	08/15/22	
Total Xylenes	ND	0.0250	1	08/15/22	08/15/22	
<i>Surrogate: Bromofluorobenzene</i>		97.2 %	70-130	08/15/22	08/15/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		96.0 %	70-130	08/15/22	08/15/22	
<i>Surrogate: Toluene-d8</i>		98.9 %	70-130	08/15/22	08/15/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2234006
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/15/22	08/15/22	
<i>Surrogate: Bromofluorobenzene</i>		97.2 %	70-130	08/15/22	08/15/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		96.0 %	70-130	08/15/22	08/15/22	
<i>Surrogate: Toluene-d8</i>		98.9 %	70-130	08/15/22	08/15/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2234001
Diesel Range Organics (C10-C28)	ND	25.0	1	08/15/22	08/15/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/15/22	08/15/22	
<i>Surrogate: n-Nonane</i>		75.0 %	50-200	08/15/22	08/15/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2234010
Chloride	977	20.0	1	08/15/22	08/15/22	



## Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/16/2022 3:18:35PM
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## SC-66

## E208076-14

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2234006
Benzene	ND	0.0250	1	08/15/22	08/15/22	
Ethylbenzene	ND	0.0250	1	08/15/22	08/15/22	
Toluene	ND	0.0250	1	08/15/22	08/15/22	
o-Xylene	ND	0.0250	1	08/15/22	08/15/22	
p,m-Xylene	ND	0.0500	1	08/15/22	08/15/22	
Total Xylenes	ND	0.0250	1	08/15/22	08/15/22	
<i>Surrogate: Bromofluorobenzene</i>		94.6 %	70-130	08/15/22	08/15/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		97.0 %	70-130	08/15/22	08/15/22	
<i>Surrogate: Toluene-d8</i>		96.7 %	70-130	08/15/22	08/15/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2234006
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/15/22	08/15/22	
<i>Surrogate: Bromofluorobenzene</i>		94.6 %	70-130	08/15/22	08/15/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		97.0 %	70-130	08/15/22	08/15/22	
<i>Surrogate: Toluene-d8</i>		96.7 %	70-130	08/15/22	08/15/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2234001
Diesel Range Organics (C10-C28)	64.8	25.0	1	08/15/22	08/15/22	
Oil Range Organics (C28-C36)	51.8	50.0	1	08/15/22	08/15/22	
<i>Surrogate: n-Nonane</i>		86.5 %	50-200	08/15/22	08/15/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2234010
Chloride	4190	40.0	2	08/15/22	08/15/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/16/2022 3:18:35PM
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**SC-67**  
**E208076-15**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2234006
Benzene	ND	0.0250	1	08/15/22	08/15/22	
Ethylbenzene	ND	0.0250	1	08/15/22	08/15/22	
Toluene	ND	0.0250	1	08/15/22	08/15/22	
o-Xylene	ND	0.0250	1	08/15/22	08/15/22	
p,m-Xylene	ND	0.0500	1	08/15/22	08/15/22	
Total Xylenes	ND	0.0250	1	08/15/22	08/15/22	
<i>Surrogate: Bromofluorobenzene</i>		98.8 %	70-130	08/15/22	08/15/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		105 %	70-130	08/15/22	08/15/22	
<i>Surrogate: Toluene-d8</i>		101 %	70-130	08/15/22	08/15/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2234006
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/15/22	08/15/22	
<i>Surrogate: Bromofluorobenzene</i>		98.8 %	70-130	08/15/22	08/15/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		105 %	70-130	08/15/22	08/15/22	
<i>Surrogate: Toluene-d8</i>		101 %	70-130	08/15/22	08/15/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2234001
Diesel Range Organics (C10-C28)	ND	25.0	1	08/15/22	08/15/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/15/22	08/15/22	
<i>Surrogate: n-Nonane</i>		80.2 %	50-200	08/15/22	08/15/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2234010
Chloride	660	20.0	1	08/15/22	08/15/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/16/2022 3:18:35PM
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**SC-68**  
**E208076-16**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2234006
Benzene	ND	0.0250	1	08/15/22	08/15/22	
Ethylbenzene	ND	0.0250	1	08/15/22	08/15/22	
Toluene	ND	0.0250	1	08/15/22	08/15/22	
o-Xylene	ND	0.0250	1	08/15/22	08/15/22	
p,m-Xylene	ND	0.0500	1	08/15/22	08/15/22	
Total Xylenes	ND	0.0250	1	08/15/22	08/15/22	
<i>Surrogate: Bromofluorobenzene</i>		96.9 %	70-130	08/15/22	08/15/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		102 %	70-130	08/15/22	08/15/22	
<i>Surrogate: Toluene-d8</i>		97.1 %	70-130	08/15/22	08/15/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2234006
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/15/22	08/15/22	
<i>Surrogate: Bromofluorobenzene</i>		96.9 %	70-130	08/15/22	08/15/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		102 %	70-130	08/15/22	08/15/22	
<i>Surrogate: Toluene-d8</i>		97.1 %	70-130	08/15/22	08/15/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2234001
Diesel Range Organics (C10-C28)	ND	25.0	1	08/15/22	08/15/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/15/22	08/15/22	
<i>Surrogate: n-Nonane</i>		86.9 %	50-200	08/15/22	08/15/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2234010
Chloride	355	20.0	1	08/15/22	08/15/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/16/2022 3:18:35PM
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**SC-69**  
**E208076-17**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2234006
Benzene	ND	0.0250	1	08/15/22	08/15/22	
Ethylbenzene	ND	0.0250	1	08/15/22	08/15/22	
Toluene	ND	0.0250	1	08/15/22	08/15/22	
o-Xylene	ND	0.0250	1	08/15/22	08/15/22	
p,m-Xylene	ND	0.0500	1	08/15/22	08/15/22	
Total Xylenes	ND	0.0250	1	08/15/22	08/15/22	
<i>Surrogate: Bromofluorobenzene</i>		101 %	70-130	08/15/22	08/15/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		103 %	70-130	08/15/22	08/15/22	
<i>Surrogate: Toluene-d8</i>		103 %	70-130	08/15/22	08/15/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2234006
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/15/22	08/15/22	
<i>Surrogate: Bromofluorobenzene</i>		101 %	70-130	08/15/22	08/15/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		103 %	70-130	08/15/22	08/15/22	
<i>Surrogate: Toluene-d8</i>		103 %	70-130	08/15/22	08/15/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2234001
Diesel Range Organics (C10-C28)	26.4	25.0	1	08/15/22	08/15/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/15/22	08/15/22	
<i>Surrogate: n-Nonane</i>		81.7 %	50-200	08/15/22	08/15/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2234010
Chloride	980	20.0	1	08/15/22	08/15/22	



## Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/16/2022 3:18:35PM
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## SC-70

## E208076-18

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2234006
Benzene	ND	0.0250	1	08/15/22	08/15/22	
Ethylbenzene	ND	0.0250	1	08/15/22	08/15/22	
Toluene	ND	0.0250	1	08/15/22	08/15/22	
o-Xylene	ND	0.0250	1	08/15/22	08/15/22	
p,m-Xylene	ND	0.0500	1	08/15/22	08/15/22	
Total Xylenes	ND	0.0250	1	08/15/22	08/15/22	
<i>Surrogate: Bromofluorobenzene</i>		98.1 %	70-130	08/15/22	08/15/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		101 %	70-130	08/15/22	08/15/22	
<i>Surrogate: Toluene-d8</i>		104 %	70-130	08/15/22	08/15/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2234006
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/15/22	08/15/22	
<i>Surrogate: Bromofluorobenzene</i>		98.1 %	70-130	08/15/22	08/15/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		101 %	70-130	08/15/22	08/15/22	
<i>Surrogate: Toluene-d8</i>		104 %	70-130	08/15/22	08/15/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2234001
Diesel Range Organics (C10-C28)	ND	25.0	1	08/15/22	08/15/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/15/22	08/15/22	
<i>Surrogate: n-Nonane</i>		85.8 %	50-200	08/15/22	08/15/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2234010
Chloride	477	20.0	1	08/15/22	08/15/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/16/2022 3:18:35PM
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**SC-71**  
**E208076-19**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2234006
Benzene	ND	0.0250	1	08/15/22	08/15/22	
Ethylbenzene	ND	0.0250	1	08/15/22	08/15/22	
Toluene	ND	0.0250	1	08/15/22	08/15/22	
o-Xylene	ND	0.0250	1	08/15/22	08/15/22	
p,m-Xylene	ND	0.0500	1	08/15/22	08/15/22	
Total Xylenes	ND	0.0250	1	08/15/22	08/15/22	
<i>Surrogate: Bromofluorobenzene</i>		101 %	70-130	08/15/22	08/15/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		98.7 %	70-130	08/15/22	08/15/22	
<i>Surrogate: Toluene-d8</i>		103 %	70-130	08/15/22	08/15/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2234006
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/15/22	08/15/22	
<i>Surrogate: Bromofluorobenzene</i>		101 %	70-130	08/15/22	08/15/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		98.7 %	70-130	08/15/22	08/15/22	
<i>Surrogate: Toluene-d8</i>		103 %	70-130	08/15/22	08/15/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2234001
Diesel Range Organics (C10-C28)	ND	25.0	1	08/15/22	08/15/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/15/22	08/15/22	
<i>Surrogate: n-Nonane</i>		96.6 %	50-200	08/15/22	08/15/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2234010
Chloride	944	20.0	1	08/15/22	08/15/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/16/2022 3:18:35PM
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**SC-72**  
**E208076-20**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2234006
Benzene	ND	0.0250	1	08/15/22	08/15/22	
Ethylbenzene	ND	0.0250	1	08/15/22	08/15/22	
Toluene	ND	0.0250	1	08/15/22	08/15/22	
o-Xylene	ND	0.0250	1	08/15/22	08/15/22	
p,m-Xylene	ND	0.0500	1	08/15/22	08/15/22	
Total Xylenes	ND	0.0250	1	08/15/22	08/15/22	
<i>Surrogate: Bromofluorobenzene</i>		101 %	70-130	08/15/22	08/15/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		102 %	70-130	08/15/22	08/15/22	
<i>Surrogate: Toluene-d8</i>		103 %	70-130	08/15/22	08/15/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2234006
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/15/22	08/15/22	
<i>Surrogate: Bromofluorobenzene</i>		101 %	70-130	08/15/22	08/15/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		102 %	70-130	08/15/22	08/15/22	
<i>Surrogate: Toluene-d8</i>		103 %	70-130	08/15/22	08/15/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2234001
Diesel Range Organics (C10-C28)	ND	25.0	1	08/15/22	08/15/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/15/22	08/15/22	
<i>Surrogate: n-Nonane</i>		60.2 %	50-200	08/15/22	08/15/22	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2234010
Chloride	875	20.0	1	08/15/22	08/15/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/16/2022 3:18:35PM
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**SC-73**

**E208076-21**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2234008
Benzene	ND	0.0250	1	08/15/22	08/15/22	
Ethylbenzene	ND	0.0250	1	08/15/22	08/15/22	
Toluene	ND	0.0250	1	08/15/22	08/15/22	
o-Xylene	ND	0.0250	1	08/15/22	08/15/22	
p,m-Xylene	ND	0.0500	1	08/15/22	08/15/22	
Total Xylenes	ND	0.0250	1	08/15/22	08/15/22	
<i>Surrogate: Bromofluorobenzene</i>		98.7 %	70-130	08/15/22	08/15/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		98.2 %	70-130	08/15/22	08/15/22	
<i>Surrogate: Toluene-d8</i>		105 %	70-130	08/15/22	08/15/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2234008
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/15/22	08/15/22	
<i>Surrogate: Bromofluorobenzene</i>		98.7 %	70-130	08/15/22	08/15/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		98.2 %	70-130	08/15/22	08/15/22	
<i>Surrogate: Toluene-d8</i>		105 %	70-130	08/15/22	08/15/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2234002
Diesel Range Organics (C10-C28)	ND	25.0	1	08/15/22	08/15/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/15/22	08/15/22	
<i>Surrogate: n-Nonane</i>		87.9 %	50-200	08/15/22	08/15/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2234011
Chloride	1370	20.0	1	08/15/22	08/15/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/16/2022 3:18:35PM
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**SC-74**  
**E208076-22**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2234008
Benzene	ND	0.0250	1	08/15/22	08/15/22	
Ethylbenzene	ND	0.0250	1	08/15/22	08/15/22	
Toluene	ND	0.0250	1	08/15/22	08/15/22	
o-Xylene	ND	0.0250	1	08/15/22	08/15/22	
p,m-Xylene	ND	0.0500	1	08/15/22	08/15/22	
Total Xylenes	ND	0.0250	1	08/15/22	08/15/22	
<i>Surrogate: Bromofluorobenzene</i>		98.9 %	70-130	08/15/22	08/15/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		102 %	70-130	08/15/22	08/15/22	
<i>Surrogate: Toluene-d8</i>		102 %	70-130	08/15/22	08/15/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2234008
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/15/22	08/15/22	
<i>Surrogate: Bromofluorobenzene</i>		98.9 %	70-130	08/15/22	08/15/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		102 %	70-130	08/15/22	08/15/22	
<i>Surrogate: Toluene-d8</i>		102 %	70-130	08/15/22	08/15/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2234002
Diesel Range Organics (C10-C28)	ND	25.0	1	08/15/22	08/15/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/15/22	08/15/22	
<i>Surrogate: n-Nonane</i>		86.8 %	50-200	08/15/22	08/15/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2234011
Chloride	723	20.0	1	08/15/22	08/15/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/16/2022 3:18:35PM
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**SC-75**  
**E208076-23**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2234008
Benzene	ND	0.0250	1	08/15/22	08/15/22	
Ethylbenzene	ND	0.0250	1	08/15/22	08/15/22	
Toluene	ND	0.0250	1	08/15/22	08/15/22	
o-Xylene	ND	0.0250	1	08/15/22	08/15/22	
p,m-Xylene	ND	0.0500	1	08/15/22	08/15/22	
Total Xylenes	ND	0.0250	1	08/15/22	08/15/22	
<i>Surrogate: Bromofluorobenzene</i>		98.5 %	70-130	08/15/22	08/15/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		98.5 %	70-130	08/15/22	08/15/22	
<i>Surrogate: Toluene-d8</i>		104 %	70-130	08/15/22	08/15/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2234008
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/15/22	08/15/22	
<i>Surrogate: Bromofluorobenzene</i>		98.5 %	70-130	08/15/22	08/15/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		98.5 %	70-130	08/15/22	08/15/22	
<i>Surrogate: Toluene-d8</i>		104 %	70-130	08/15/22	08/15/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2234002
Diesel Range Organics (C10-C28)	34.3	25.0	1	08/15/22	08/15/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/15/22	08/15/22	
<i>Surrogate: n-Nonane</i>		94.2 %	50-200	08/15/22	08/15/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2234011
Chloride	734	20.0	1	08/15/22	08/15/22	



## Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/16/2022 3:18:35PM
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## SC-76

## E208076-24

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2234008
Benzene	ND	0.0250	1	08/15/22	08/15/22	
Ethylbenzene	ND	0.0250	1	08/15/22	08/15/22	
Toluene	ND	0.0250	1	08/15/22	08/15/22	
o-Xylene	ND	0.0250	1	08/15/22	08/15/22	
p,m-Xylene	ND	0.0500	1	08/15/22	08/15/22	
Total Xylenes	ND	0.0250	1	08/15/22	08/15/22	
<i>Surrogate: Bromofluorobenzene</i>		99.9 %	70-130	08/15/22	08/15/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		105 %	70-130	08/15/22	08/15/22	
<i>Surrogate: Toluene-d8</i>		103 %	70-130	08/15/22	08/15/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2234008
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/15/22	08/15/22	
<i>Surrogate: Bromofluorobenzene</i>		99.9 %	70-130	08/15/22	08/15/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		105 %	70-130	08/15/22	08/15/22	
<i>Surrogate: Toluene-d8</i>		103 %	70-130	08/15/22	08/15/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2234002
Diesel Range Organics (C10-C28)	ND	25.0	1	08/15/22	08/15/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/15/22	08/15/22	
<i>Surrogate: n-Nonane</i>		93.4 %	50-200	08/15/22	08/15/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2234011
Chloride	239	20.0	1	08/15/22	08/15/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/16/2022 3:18:35PM
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**SC-77**  
**E208076-25**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2234008
Benzene	ND	0.0250	1	08/15/22	08/15/22	
Ethylbenzene	ND	0.0250	1	08/15/22	08/15/22	
Toluene	ND	0.0250	1	08/15/22	08/15/22	
o-Xylene	ND	0.0250	1	08/15/22	08/15/22	
p,m-Xylene	ND	0.0500	1	08/15/22	08/15/22	
Total Xylenes	ND	0.0250	1	08/15/22	08/15/22	
<i>Surrogate: Bromofluorobenzene</i>		98.5 %	70-130	08/15/22	08/15/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		105 %	70-130	08/15/22	08/15/22	
<i>Surrogate: Toluene-d8</i>		101 %	70-130	08/15/22	08/15/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2234008
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/15/22	08/15/22	
<i>Surrogate: Bromofluorobenzene</i>		98.5 %	70-130	08/15/22	08/15/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		105 %	70-130	08/15/22	08/15/22	
<i>Surrogate: Toluene-d8</i>		101 %	70-130	08/15/22	08/15/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2234002
Diesel Range Organics (C10-C28)	ND	25.0	1	08/15/22	08/15/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/15/22	08/15/22	
<i>Surrogate: n-Nonane</i>		92.1 %	50-200	08/15/22	08/15/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2234011
Chloride	255	20.0	1	08/15/22	08/15/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/16/2022 3:18:35PM
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**SC-78**  
**E208076-26**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2234008
Benzene	ND	0.0250	1	08/15/22	08/15/22	
Ethylbenzene	ND	0.0250	1	08/15/22	08/15/22	
Toluene	ND	0.0250	1	08/15/22	08/15/22	
o-Xylene	ND	0.0250	1	08/15/22	08/15/22	
p,m-Xylene	ND	0.0500	1	08/15/22	08/15/22	
Total Xylenes	ND	0.0250	1	08/15/22	08/15/22	
<i>Surrogate: Bromofluorobenzene</i>		100 %	70-130	08/15/22	08/15/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		103 %	70-130	08/15/22	08/15/22	
<i>Surrogate: Toluene-d8</i>		104 %	70-130	08/15/22	08/15/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2234008
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/15/22	08/15/22	
<i>Surrogate: Bromofluorobenzene</i>		100 %	70-130	08/15/22	08/15/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		103 %	70-130	08/15/22	08/15/22	
<i>Surrogate: Toluene-d8</i>		104 %	70-130	08/15/22	08/15/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2234002
Diesel Range Organics (C10-C28)	81.5	25.0	1	08/15/22	08/15/22	
Oil Range Organics (C28-C36)	65.3	50.0	1	08/15/22	08/15/22	
<i>Surrogate: n-Nonane</i>		92.4 %	50-200	08/15/22	08/15/22	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2234011
Chloride	741	20.0	1	08/15/22	08/15/22	



### QC Summary Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	Reported: 8/16/2022 3:18:35PM
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#### Volatile Organic Compounds by EPA 8260B

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2234006-BLK1)**

Prepared: 08/15/22 Analyzed: 08/15/22

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: Bromofluorobenzene	0.473		0.500		94.6		70-130		
Surrogate: 1,2-Dichloroethane-d4	0.513		0.500		103		70-130		
Surrogate: Toluene-d8	0.485		0.500		96.9		70-130		

**LCS (2234006-BS1)**

Prepared: 08/15/22 Analyzed: 08/15/22

Benzene	2.03	0.0250	2.50		81.0		70-130		
Ethylbenzene	2.11	0.0250	2.50		84.6		70-130		
Toluene	1.99	0.0250	2.50		79.4		70-130		
o-Xylene	2.20	0.0250	2.50		87.9		70-130		
p,m-Xylene	4.23	0.0500	5.00		84.7		70-130		
Total Xylenes	6.43	0.0250	7.50		85.8		70-130		
Surrogate: Bromofluorobenzene	0.502		0.500		100		70-130		
Surrogate: 1,2-Dichloroethane-d4	0.505		0.500		101		70-130		
Surrogate: Toluene-d8	0.489		0.500		97.8		70-130		

**Matrix Spike (2234006-MS1)**

Source: E208076-05

Prepared: 08/15/22 Analyzed: 08/15/22

Benzene	2.12	0.0250	2.50	ND	84.9		48-131		
Ethylbenzene	2.32	0.0250	2.50	ND	93.0		45-135		
Toluene	2.17	0.0250	2.50	ND	86.8		48-130		
o-Xylene	2.38	0.0250	2.50	ND	95.4		43-135		
p,m-Xylene	4.66	0.0500	5.00	ND	93.1		43-135		
Total Xylenes	7.04	0.0250	7.50	ND	93.9		43-135		
Surrogate: Bromofluorobenzene	0.511		0.500		102		70-130		
Surrogate: 1,2-Dichloroethane-d4	0.489		0.500		97.7		70-130		
Surrogate: Toluene-d8	0.502		0.500		100		70-130		

**Matrix Spike Dup (2234006-MSD1)**

Source: E208076-05

Prepared: 08/15/22 Analyzed: 08/15/22

Benzene	2.23	0.0250	2.50	ND	89.3		48-131	5.00	23
Ethylbenzene	2.35	0.0250	2.50	ND	94.0		45-135	1.05	27
Toluene	2.21	0.0250	2.50	ND	88.4		48-130	1.87	24
o-Xylene	2.42	0.0250	2.50	ND	97.0		43-135	1.68	27
p,m-Xylene	4.73	0.0500	5.00	ND	94.6		43-135	1.58	27
Total Xylenes	7.16	0.0250	7.50	ND	95.4		43-135	1.61	27
Surrogate: Bromofluorobenzene	0.511		0.500		102		70-130		
Surrogate: 1,2-Dichloroethane-d4	0.497		0.500		99.3		70-130		
Surrogate: Toluene-d8	0.493		0.500		98.6		70-130		



### QC Summary Data

Souder Miller Associates - Carlsbad	Project Name:	Seawolf 1-12 CTB 1	<b>Reported:</b> 8/16/2022 3:18:35PM
201 S Halagueno St.	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Ashley Maxwell	

#### Volatile Organic Compounds by EPA 8260B

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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#### Blank (2234008-BLK1)

Prepared: 08/15/22 Analyzed: 08/15/22

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: Bromofluorobenzene	0.488		0.500		97.5	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.518		0.500		104	70-130			
Surrogate: Toluene-d8	0.513		0.500		103	70-130			

#### LCS (2234008-BS1)

Prepared: 08/15/22 Analyzed: 08/15/22

Benzene	2.20	0.0250	2.50		87.9	70-130			
Ethylbenzene	2.27	0.0250	2.50		90.7	70-130			
Toluene	2.20	0.0250	2.50		88.0	70-130			
o-Xylene	2.13	0.0250	2.50		85.0	70-130			
p,m-Xylene	4.22	0.0500	5.00		84.3	70-130			
Total Xylenes	6.34	0.0250	7.50		84.6	70-130			
Surrogate: Bromofluorobenzene	0.498		0.500		99.6	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.512		0.500		102	70-130			
Surrogate: Toluene-d8	0.509		0.500		102	70-130			

#### Matrix Spike (2234008-MS1)

Source: E208070-02

Prepared: 08/15/22 Analyzed: 08/15/22

Benzene	2.20	0.0250	2.50	ND	88.0	48-131			
Ethylbenzene	2.30	0.0250	2.50	ND	91.9	45-135			
Toluene	2.18	0.0250	2.50	ND	87.4	48-130			
o-Xylene	2.18	0.0250	2.50	ND	87.1	43-135			
p,m-Xylene	4.27	0.0500	5.00	ND	85.4	43-135			
Total Xylenes	6.45	0.0250	7.50	ND	85.9	43-135			
Surrogate: Bromofluorobenzene	0.515		0.500		103	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.502		0.500		100	70-130			
Surrogate: Toluene-d8	0.514		0.500		103	70-130			

#### Matrix Spike Dup (2234008-MSD1)

Source: E208070-02

Prepared: 08/15/22 Analyzed: 08/15/22

Benzene	2.24	0.0250	2.50	ND	89.7	48-131	1.91	23	
Ethylbenzene	2.38	0.0250	2.50	ND	95.2	45-135	3.55	27	
Toluene	2.28	0.0250	2.50	ND	91.1	48-130	4.21	24	
o-Xylene	2.22	0.0250	2.50	ND	88.7	43-135	1.84	27	
p,m-Xylene	4.44	0.0500	5.00	ND	88.8	43-135	3.94	27	
Total Xylenes	6.66	0.0250	7.50	ND	88.8	43-135	3.24	27	
Surrogate: Bromofluorobenzene	0.492		0.500		98.4	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.504		0.500		101	70-130			
Surrogate: Toluene-d8	0.510		0.500		102	70-130			



### QC Summary Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/16/2022 3:18:35PM
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#### Nonhalogenated Organics by EPA 8015D - GRO

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2234006-BLK1)**

Prepared: 08/15/22 Analyzed: 08/15/22

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.473		0.500		94.6	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.513		0.500		103	70-130			
Surrogate: Toluene-d8	0.485		0.500		96.9	70-130			

**LCS (2234006-BS2)**

Prepared: 08/15/22 Analyzed: 08/15/22

Gasoline Range Organics (C6-C10)	43.8	20.0	50.0		87.6	70-130			
Surrogate: Bromofluorobenzene	0.502		0.500		100	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.454		0.500		90.7	70-130			
Surrogate: Toluene-d8	0.507		0.500		101	70-130			

**Matrix Spike (2234006-MS2)**

Source: E208076-05

Prepared: 08/15/22 Analyzed: 08/15/22

Gasoline Range Organics (C6-C10)	41.7	20.0	50.0	ND	83.4	70-130			
Surrogate: Bromofluorobenzene	0.489		0.500		97.7	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.485		0.500		96.9	70-130			
Surrogate: Toluene-d8	0.496		0.500		99.2	70-130			

**Matrix Spike Dup (2234006-MSD2)**

Source: E208076-05

Prepared: 08/15/22 Analyzed: 08/15/22

Gasoline Range Organics (C6-C10)	42.1	20.0	50.0	ND	84.1	70-130	0.913	20	
Surrogate: Bromofluorobenzene	0.482		0.500		96.3	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.458		0.500		91.5	70-130			
Surrogate: Toluene-d8	0.497		0.500		99.3	70-130			



### QC Summary Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/16/2022 3:18:35PM
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#### Nonhalogenated Organics by EPA 8015D - GRO

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2234008-BLK1)**

Prepared: 08/15/22 Analyzed: 08/15/22

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.488		0.500		97.5	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.518		0.500		104	70-130			
Surrogate: Toluene-d8	0.513		0.500		103	70-130			

**LCS (2234008-BS2)**

Prepared: 08/15/22 Analyzed: 08/15/22

Gasoline Range Organics (C6-C10)	55.1	20.0	50.0		110	70-130			
Surrogate: Bromofluorobenzene	0.495		0.500		99.0	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.520		0.500		104	70-130			
Surrogate: Toluene-d8	0.532		0.500		106	70-130			

**Matrix Spike (2234008-MS2)**

Source: E208070-02

Prepared: 08/15/22 Analyzed: 08/15/22

Gasoline Range Organics (C6-C10)	52.9	20.0	50.0	ND	106	70-130			
Surrogate: Bromofluorobenzene	0.495		0.500		98.9	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.494		0.500		98.8	70-130			
Surrogate: Toluene-d8	0.535		0.500		107	70-130			

**Matrix Spike Dup (2234008-MSD2)**

Source: E208070-02

Prepared: 08/15/22 Analyzed: 08/15/22

Gasoline Range Organics (C6-C10)	51.2	20.0	50.0	ND	102	70-130	3.23	20	
Surrogate: Bromofluorobenzene	0.503		0.500		101	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.499		0.500		99.8	70-130			
Surrogate: Toluene-d8	0.527		0.500		105	70-130			



### QC Summary Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/16/2022 3:18:35PM
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#### Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: JL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2234001-BLK1)**

Prepared: 08/15/22 Analyzed: 08/15/22

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: <i>n</i> -Nonane	47.4		50.0		94.7	50-200			

**LCS (2234001-BS1)**

Prepared: 08/15/22 Analyzed: 08/15/22

Diesel Range Organics (C10-C28)	242	25.0	250		96.8	38-132			
Surrogate: <i>n</i> -Nonane	44.7		50.0		89.4	50-200			

**Matrix Spike (2234001-MS1)**

Source: E208076-18

Prepared: 08/15/22 Analyzed: 08/15/22

Diesel Range Organics (C10-C28)	269	25.0	250	ND	108	38-132			
Surrogate: <i>n</i> -Nonane	45.3		50.0		90.7	50-200			

**Matrix Spike Dup (2234001-MSD1)**

Source: E208076-18

Prepared: 08/15/22 Analyzed: 08/15/22

Diesel Range Organics (C10-C28)	277	25.0	250	ND	111	38-132	2.89	20	
Surrogate: <i>n</i> -Nonane	36.4		50.0		72.8	50-200			



### QC Summary Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/16/2022 3:18:35PM
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#### Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: JL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2234002-BLK1)**

Prepared: 08/15/22 Analyzed: 08/15/22

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: <i>n-Nonane</i>	47.2		50.0		94.4	50-200			

**LCS (2234002-BS1)**

Prepared: 08/15/22 Analyzed: 08/15/22

Diesel Range Organics (C10-C28)	247	25.0	250		98.8	38-132			
Surrogate: <i>n-Nonane</i>	44.2		50.0		88.4	50-200			

**Matrix Spike (2234002-MS1)**

Source: E208076-24

Prepared: 08/15/22 Analyzed: 08/15/22

Diesel Range Organics (C10-C28)	256	25.0	250	ND	102	38-132			
Surrogate: <i>n-Nonane</i>	39.6		50.0		79.1	50-200			

**Matrix Spike Dup (2234002-MSD1)**

Source: E208076-24

Prepared: 08/15/22 Analyzed: 08/15/22

Diesel Range Organics (C10-C28)	256	25.0	250	ND	102	38-132	0.0141	20	
Surrogate: <i>n-Nonane</i>	38.7		50.0		77.4	50-200			



### QC Summary Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/16/2022 3:18:35PM
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#### Anions by EPA 300.0/9056A

Analyst: RAS

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2234010-BLK1)**

Prepared: 08/15/22 Analyzed: 08/15/22

Chloride	ND	20.0							
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**LCS (2234010-BS1)**

Prepared: 08/15/22 Analyzed: 08/15/22

Chloride	243	20.0	250		97.0	90-110			
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**LCS Dup (2234010-BSD1)**

Prepared: 08/15/22 Analyzed: 08/15/22

Chloride	245	20.0	250		97.9	90-110	0.922	20	
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### QC Summary Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Ashley Maxwell	<b>Reported:</b> 8/16/2022 3:18:35PM
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#### Anions by EPA 300.0/9056A

Analyst: RAS

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2234011-BLK1)**

Prepared: 08/15/22 Analyzed: 08/15/22

Chloride	ND	20.0							
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**LCS (2234011-BS1)**

Prepared: 08/15/22 Analyzed: 08/16/22

Chloride	249	20.0	250		99.7	90-110			
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**LCS Dup (2234011-BSD1)**

Prepared: 08/15/22 Analyzed: 08/16/22

Chloride	244	20.0	250		97.5	90-110	2.17	20	
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QC Summary Report Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



### Definitions and Notes

Souder Miller Associates - Carlsbad	Project Name:	Seawolf 1-12 CTB 1	
201 S Halagueno St.	Project Number:	01058-0007	<b>Reported:</b>
Carlsbad NM, 88220	Project Manager:	Ashley Maxwell	08/16/22 15:18

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

DNI Did Not Ignite

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



RUSH

Client: <u>Soudier Miller &amp; Associates</u> Project: <u>Seawolf T-12 CTB1</u> Project Manager: <u>Heather Woods</u> Address: <u>201 S. Halague St</u> City, State, Zip: <u>Carlsbad, NM 88220</u> Phone: _____ Email: _____ Report due by: _____				Bill To Attention: <u>Bevon</u> Address: _____ City, State, Zip: _____ Phone: _____ Email: _____ WO# <u>20987302</u>				Lab Use Only Lab WO# <u>PE 208076</u> Job Number <u>D1058-0007</u> Analysis and Method				TAT 1D <input checked="" type="checkbox"/> 3D <input type="checkbox"/>		EPA Program RCRA <input type="checkbox"/> CWA <input type="checkbox"/> SDWA <input type="checkbox"/>		
								State NM <input checked="" type="checkbox"/> CO <input type="checkbox"/> UT <input type="checkbox"/> AZ <input type="checkbox"/> TX <input type="checkbox"/> OK <input type="checkbox"/>		Remarks						
Time Sampled	Date Sampled	Matrix	No Containers	Sample ID	Lab Number	DRO/DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 3000	BCDOC - NM	BCDOC - TX			
0907	8/11/22	Soil	1	SC-53	1							X				
0910	8/11/22	Soil	1	SC-54	2							X				
0911	8/11/22	Soil	1	SC-55	3							X				
0912	8/11/22	Soil	1	SC-56	4							X				
0913	8/11/22	Soil	1	SC-57	5							X				
0914	8/11/22	Soil	1	SC-58	6							X				
0915	8/11/22	Soil	1	SC-59	7							X				
0916	8/11/22	Soil	1	SC-60	8							X				
0917	8/11/22	Soil	1	SC-61	9							X				
0918	8/11/22	Soil	1	SC-62	10							X				
Additional Instructions:																
(field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by:										Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.						
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	Received on ice: <input checked="" type="checkbox"/> Y / <input type="checkbox"/> N		Lab Use Only						
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	T1 _____ T2 _____ T3 _____		AVG Temp °C <u>4</u>						
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA								
Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.																

RUSH

Client: <u>Souder Miller &amp; Associates</u>		Bill To		Lab Use Only		TAT		EPA Program							
Project: <u>Seawolf F12 CTB1</u>		Attention: <u>Devon</u>		Lab WO# <u>PE208076</u>		Job Number <u>01058-0007</u>		1D	3D	RCRA	CWA	SDWA			
Project Manager: <u>Heather Woods</u>		Address:		Analysis and Method		State									
Address: <u>201 S Halaqueno St</u>		City, State, Zip		DIRO/DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 9010	Chloride 300.0	BGDOC - NM	BGDOC - TX	NM	CO	UT	AZ
City, State, Zip <u>Carlsbad, NM 88220</u>		Phone:										<input checked="" type="checkbox"/>			
Phone:		Email:										TX	OK		
Report due by:		<u>WO# 20987302</u>												Remarks	

Time Sampled	Date Sampled	Matrix	No Containers	Sample ID	Lab Number	DIRO/DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 9010	Chloride 300.0	BGDOC - NM	BGDOC - TX	Remarks
0919	8/11/22	Soil	1	SC-63	11							X		
0920	8/11/22	Soil	1	SC-64	12							X		
0923	8/11/22	Soil	1	SC-65	13							X		
0924	8/11/22	Soil	1	SC-66	14							X		
0925	8/11/22	Soil	1	SC-67	15							X		
0926	8/11/22	Soil	1	SC-68	16							X		
0927	8/11/22	Soil	1	SC-69	17							X		
0928	8/11/22	Soil	1	SC-70	18							X		
0929	8/11/22	Soil	1	SC-71	19							X		
0931	8/11/22	Soil	1	SC-72	20							X		

Additional Instructions:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: \_\_\_\_\_

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 5 °C on subsequent days

Relinquished by: (Signature) _____	Date: <u>8/11/22</u>	Time: <u>1700</u>	Received by: (Signature) _____	Date: <u>8-12-22</u>	Time: <u>1200</u>	Lab Use Only
Relinquished by: (Signature) _____	Date: <u>8-15</u>	Time: <u>8-12-22</u>	Received by: (Signature) _____	Date: <u>8/15/22</u>	Time: <u>9:50</u>	Received on ice: <u>Y</u> / N
Relinquished by: (Signature) _____	Date: _____	Time: _____	Received by: (Signature) _____	Date: _____	Time: _____	T1 _____ T2 _____ T3 _____
						AVG Temp °C <u>4</u>

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other \_\_\_\_\_ Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.



RUSH

Client: <u>Sauder Miller &amp; Associates</u>		Bill To		Lab Use Only		TAT		EPA Program				
Project: <u>Scawolf 1-12 CTB 1</u>		Attention: <u>Dexon</u>		Lab WO# <u>PE2098076</u>		Job Number <u>01058-0057</u>		1D	3D	RCRA	CWA	SDWA
Project Manager: <u>Heather Woods</u>		Address:		Analysis and Method		State						
Address: <u>201 S Halacundo St</u>		City, State, Zip										
City, State, Zip: <u>Carlsbad, NM 88220</u>		Phone:										
Phone:		Email:										
Email:		<u>WO# 20987302</u>										
Report due by:												

Time Sampled	Date Sampled	Matrix	No Containers	Sample ID	Lab Number	DRO/DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BDOC - NM	BDOC - TX	Remarks
0932	8/11/22	soil	1	SC-73	21							X		
0933	8/11/22	soil	1	SC-74	22							X		
0934	8/11/22	soil	1	SC-75	23							X		
0935	8/11/22	soil	1	SC-76	24							X		
0939	8/11/22	soil	1	SC-77	25							X		
0940	8/11/22	soil	1	SC-78	26							X		

Additional Instructions:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: \_\_\_\_\_

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 5 °C on subsequent days

Relinquished by: (Signature) <u>[Signature]</u>	Date <u>8/11/22</u>	Time <u>17:00</u>	Received by: (Signature) <u>[Signature]</u>	Date <u>8-12-22</u>	Time <u>1:00</u>	Lab Use Only
Relinquished by: (Signature) <u>[Signature]</u>	Date <u>8-12-22</u>	Time <u>4:15</u>	Received by: (Signature) <u>[Signature]</u>	Date <u>8/15/22</u>	Time <u>9:50</u>	Received on ice: <u>Y</u> / N
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	T1 _____ T2 _____ T3 _____
						AVG Temp °C <u>4</u>

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other \_\_\_\_\_ Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.



Envirotech Analytical Laboratory

Printed: 8/15/2022 10:09:51AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client: Souder Miller Associates - Carlsbad Date Received: 08/15/22 09:50 Work Order ID: E208076
Phone: (505) 325-7535 Date Logged In: 08/12/22 15:48 Logged In By: Caitlin Christian
Email: ashley.maxwell@soudermiller.com Due Date: 08/15/22 17:00 (0 day TAT)

Chain of Custody (COC)

- 1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Carrier: UPS

Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this discussion.

Comments/Resolution

Sample Turn Around Time (TAT)

- 6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

- 7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

- 13. If no visible ice, record the temperature. Actual sample temperature: 4°C

Sample Container

- 14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

- 20. Were field sample labels filled out with the minimum information:
Sample ID? Yes
Date/Time Collected? Yes
Collectors name? No

Sample Preservation

- 21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

- 26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

- 28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: na

Client Instruction

Empty box for client instruction.

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:  
Heather Woods



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Souder Miller Associates - Carlsbad

Project Name: Seawolf 1-12 CTB 1

Work Order: E208097

Job Number: 01058-0007

Received: 8/18/2022

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
8/19/22

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.  
Envirotech Inc, holds the NM SDWA certification for data reported. (Lab #NM00979)

Date Reported: 8/19/22



Heather Woods  
201 S Halagueno St.  
Carlsbad, NM 88220

Project Name: Seawolf 1-12 CTB 1  
Workorder: E208097  
Date Received: 8/18/2022 10:00:00AM

Heather Woods,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 8/18/2022 10:00:00AM, under the Project Name: Seawolf 1-12 CTB 1.

The analytical test results summarized in this report with the Project Name: Seawolf 1-12 CTB 1 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
Laboratory Administrator  
Office: 505-632-1881  
[rainaschwanz@envirotech-inc.com](mailto:rainaschwanz@envirotech-inc.com)

**Alexa Michaels**  
Sample Custody Officer  
Office: 505-632-1881  
[labadmin@envirotech-inc.com](mailto:labadmin@envirotech-inc.com)

Field Offices:

**Southern New Mexico Area**  
**Lynn Jarboe**  
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Cell: 505-320-4759  
[ljjarboe@envirotech-inc.com](mailto:ljjarboe@envirotech-inc.com)

**West Texas Midland/Odessa Area**  
**Rayny Hagan**  
Technical Representative  
Office: 505-421-LABS(5227)

Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

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### Sample Summary

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 08/19/22 14:15
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Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SC-79	E208097-01A	Soil	08/17/22	08/18/22	Glass Jar, 2 oz.
SC-80	E208097-02A	Soil	08/17/22	08/18/22	Glass Jar, 2 oz.
SC-81	E208097-03A	Soil	08/17/22	08/18/22	Glass Jar, 2 oz.
SC-82	E208097-04A	Soil	08/17/22	08/18/22	Glass Jar, 2 oz.
SC-83	E208097-05A	Soil	08/17/22	08/18/22	Glass Jar, 2 oz.
SC-84	E208097-06A	Soil	08/17/22	08/18/22	Glass Jar, 2 oz.



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 8/19/2022 2:15:06PM
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**SC-79**

**E208097-01**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2234061
Benzene	ND	0.0250	1	08/18/22	08/18/22	
Ethylbenzene	ND	0.0250	1	08/18/22	08/18/22	
Toluene	ND	0.0250	1	08/18/22	08/18/22	
o-Xylene	ND	0.0250	1	08/18/22	08/18/22	
p,m-Xylene	ND	0.0500	1	08/18/22	08/18/22	
Total Xylenes	ND	0.0250	1	08/18/22	08/18/22	
<i>Surrogate: Bromofluorobenzene</i>	98.4 %	70-130		08/18/22	08/18/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	97.7 %	70-130		08/18/22	08/18/22	
<i>Surrogate: Toluene-d8</i>	104 %	70-130		08/18/22	08/18/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2234061
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/18/22	08/18/22	
<i>Surrogate: Bromofluorobenzene</i>	98.4 %	70-130		08/18/22	08/18/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	97.7 %	70-130		08/18/22	08/18/22	
<i>Surrogate: Toluene-d8</i>	104 %	70-130		08/18/22	08/18/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2234071
Diesel Range Organics (C10-C28)	ND	25.0	1	08/18/22	08/18/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/18/22	08/18/22	
<i>Surrogate: n-Nonane</i>	77.8 %	50-200		08/18/22	08/18/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2234058
Chloride	ND	20.0	1	08/17/22	08/18/22	



## Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Heather Woods	Reported: 8/19/2022 2:15:06PM
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## SC-80

## E208097-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2234061
Benzene	ND	0.0250	1	08/18/22	08/18/22	
Ethylbenzene	ND	0.0250	1	08/18/22	08/18/22	
Toluene	ND	0.0250	1	08/18/22	08/18/22	
o-Xylene	ND	0.0250	1	08/18/22	08/18/22	
p,m-Xylene	ND	0.0500	1	08/18/22	08/18/22	
Total Xylenes	ND	0.0250	1	08/18/22	08/18/22	
<i>Surrogate: Bromofluorobenzene</i>		100 %	70-130	08/18/22	08/18/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		99.8 %	70-130	08/18/22	08/18/22	
<i>Surrogate: Toluene-d8</i>		104 %	70-130	08/18/22	08/18/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2234061
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/18/22	08/18/22	
<i>Surrogate: Bromofluorobenzene</i>		100 %	70-130	08/18/22	08/18/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		99.8 %	70-130	08/18/22	08/18/22	
<i>Surrogate: Toluene-d8</i>		104 %	70-130	08/18/22	08/18/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2234071
Diesel Range Organics (C10-C28)	25.5	25.0	1	08/18/22	08/18/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/18/22	08/18/22	
<i>Surrogate: n-Nonane</i>		74.2 %	50-200	08/18/22	08/18/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2234058
Chloride	ND	20.0	1	08/17/22	08/18/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 8/19/2022 2:15:06PM
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**SC-81**  
**E208097-03**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2234061
Benzene	ND	0.0250	1	08/18/22	08/18/22	
Ethylbenzene	ND	0.0250	1	08/18/22	08/18/22	
Toluene	ND	0.0250	1	08/18/22	08/18/22	
o-Xylene	ND	0.0250	1	08/18/22	08/18/22	
p,m-Xylene	ND	0.0500	1	08/18/22	08/18/22	
Total Xylenes	ND	0.0250	1	08/18/22	08/18/22	
<i>Surrogate: Bromofluorobenzene</i>		98.9 %	70-130	08/18/22	08/18/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		96.2 %	70-130	08/18/22	08/18/22	
<i>Surrogate: Toluene-d8</i>		103 %	70-130	08/18/22	08/18/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2234061
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/18/22	08/18/22	
<i>Surrogate: Bromofluorobenzene</i>		98.9 %	70-130	08/18/22	08/18/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		96.2 %	70-130	08/18/22	08/18/22	
<i>Surrogate: Toluene-d8</i>		103 %	70-130	08/18/22	08/18/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2234071
Diesel Range Organics (C10-C28)	ND	25.0	1	08/18/22	08/18/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/18/22	08/18/22	
<i>Surrogate: n-Nonane</i>		86.0 %	50-200	08/18/22	08/18/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2234058
Chloride	26.7	20.0	1	08/17/22	08/18/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 8/19/2022 2:15:06PM
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**SC-82**  
**E208097-04**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2234061
Benzene	ND	0.0250	1	08/18/22	08/18/22	
Ethylbenzene	ND	0.0250	1	08/18/22	08/18/22	
Toluene	ND	0.0250	1	08/18/22	08/18/22	
o-Xylene	ND	0.0250	1	08/18/22	08/18/22	
p,m-Xylene	ND	0.0500	1	08/18/22	08/18/22	
Total Xylenes	ND	0.0250	1	08/18/22	08/18/22	
<i>Surrogate: Bromofluorobenzene</i>		98.3 %	70-130	08/18/22	08/18/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		97.9 %	70-130	08/18/22	08/18/22	
<i>Surrogate: Toluene-d8</i>		103 %	70-130	08/18/22	08/18/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2234061
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/18/22	08/18/22	
<i>Surrogate: Bromofluorobenzene</i>		98.3 %	70-130	08/18/22	08/18/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		97.9 %	70-130	08/18/22	08/18/22	
<i>Surrogate: Toluene-d8</i>		103 %	70-130	08/18/22	08/18/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2234071
Diesel Range Organics (C10-C28)	ND	25.0	1	08/18/22	08/18/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/18/22	08/18/22	
<i>Surrogate: n-Nonane</i>		84.0 %	50-200	08/18/22	08/18/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2234058
Chloride	ND	20.0	1	08/17/22	08/18/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 8/19/2022 2:15:06PM
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**SC-83**  
**E208097-05**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2234061
Benzene	ND	0.0250	1	08/18/22	08/18/22	
Ethylbenzene	ND	0.0250	1	08/18/22	08/18/22	
Toluene	ND	0.0250	1	08/18/22	08/18/22	
o-Xylene	ND	0.0250	1	08/18/22	08/18/22	
p,m-Xylene	ND	0.0500	1	08/18/22	08/18/22	
Total Xylenes	ND	0.0250	1	08/18/22	08/18/22	
<i>Surrogate: Bromofluorobenzene</i>		99.7 %	70-130	08/18/22	08/18/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		98.1 %	70-130	08/18/22	08/18/22	
<i>Surrogate: Toluene-d8</i>		102 %	70-130	08/18/22	08/18/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2234061
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/18/22	08/18/22	
<i>Surrogate: Bromofluorobenzene</i>		99.7 %	70-130	08/18/22	08/18/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		98.1 %	70-130	08/18/22	08/18/22	
<i>Surrogate: Toluene-d8</i>		102 %	70-130	08/18/22	08/18/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2234071
Diesel Range Organics (C10-C28)	31.1	25.0	1	08/18/22	08/18/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/18/22	08/18/22	
<i>Surrogate: n-Nonane</i>		86.8 %	50-200	08/18/22	08/18/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2234058
Chloride	54.7	20.0	1	08/17/22	08/18/22	



### Sample Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 8/19/2022 2:15:06PM
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**SC-84**  
**E208097-06**

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2234061
Benzene	ND	0.0250	1	08/18/22	08/18/22	
Ethylbenzene	ND	0.0250	1	08/18/22	08/18/22	
Toluene	ND	0.0250	1	08/18/22	08/18/22	
o-Xylene	ND	0.0250	1	08/18/22	08/18/22	
p,m-Xylene	ND	0.0500	1	08/18/22	08/18/22	
Total Xylenes	ND	0.0250	1	08/18/22	08/18/22	
<i>Surrogate: Bromofluorobenzene</i>		98.4 %	70-130	08/18/22	08/18/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		102 %	70-130	08/18/22	08/18/22	
<i>Surrogate: Toluene-d8</i>		103 %	70-130	08/18/22	08/18/22	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg		Analyst: IY		Batch: 2234061
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/18/22	08/18/22	
<i>Surrogate: Bromofluorobenzene</i>		98.4 %	70-130	08/18/22	08/18/22	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		102 %	70-130	08/18/22	08/18/22	
<i>Surrogate: Toluene-d8</i>		103 %	70-130	08/18/22	08/18/22	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg		Analyst: JL		Batch: 2234071
Diesel Range Organics (C10-C28)	ND	25.0	1	08/18/22	08/18/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/18/22	08/18/22	
<i>Surrogate: n-Nonane</i>		81.0 %	50-200	08/18/22	08/18/22	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg		Analyst: RAS		Batch: 2234058
Chloride	100	20.0	1	08/17/22	08/18/22	



### QC Summary Data

Souder Miller Associates - Carlsbad	Project Name:	Seawolf 1-12 CTB 1	<b>Reported:</b> 8/19/2022 2:15:06PM
201 S Halagueno St.	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Heather Woods	

#### Volatile Organic Compounds by EPA 8260B

Analyst: IY

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

**Blank (2234061-BLK1)**

Prepared: 08/18/22 Analyzed: 08/18/22

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: Bromofluorobenzene	0.471		0.500		94.1	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.503		0.500		101	70-130			
Surrogate: Toluene-d8	0.485		0.500		97.0	70-130			

**LCS (2234061-BS1)**

Prepared: 08/18/22 Analyzed: 08/18/22

Benzene	2.31	0.0250	2.50		92.4	70-130			
Ethylbenzene	2.33	0.0250	2.50		93.3	70-130			
Toluene	2.17	0.0250	2.50		86.9	70-130			
o-Xylene	2.33	0.0250	2.50		93.4	70-130			
p,m-Xylene	4.53	0.0500	5.00		90.6	70-130			
Total Xylenes	6.86	0.0250	7.50		91.5	70-130			
Surrogate: Bromofluorobenzene	0.533		0.500		107	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.505		0.500		101	70-130			
Surrogate: Toluene-d8	0.471		0.500		94.2	70-130			

**LCS Dup (2234061-BSD1)**

Prepared: 08/18/22 Analyzed: 08/19/22

Benzene	2.27	0.0250	2.50		90.9	70-130	1.64	23	
Ethylbenzene	2.33	0.0250	2.50		93.0	70-130	0.279	27	
Toluene	2.20	0.0250	2.50		88.2	70-130	1.46	24	
o-Xylene	2.41	0.0250	2.50		96.2	70-130	2.97	27	
p,m-Xylene	4.72	0.0500	5.00		94.4	70-130	4.14	27	
Total Xylenes	7.12	0.0250	7.50		95.0	70-130	3.75	27	
Surrogate: Bromofluorobenzene	0.515		0.500		103	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.476		0.500		95.2	70-130			
Surrogate: Toluene-d8	0.500		0.500		99.9	70-130			



### QC Summary Data

Souder Miller Associates - Carlsbad	Project Name:	Seawolf 1-12 CTB 1	<b>Reported:</b> 8/19/2022 2:15:06PM
201 S Halagueno St.	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Heather Woods	

#### Nonhalogenated Organics by EPA 8015D - GRO

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2234061-BLK1)**

Prepared: 08/18/22 Analyzed: 08/18/22

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.471		0.500		94.1	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.503		0.500		101	70-130			
Surrogate: Toluene-d8	0.485		0.500		97.0	70-130			

**LCS (2234061-BS2)**

Prepared: 08/18/22 Analyzed: 08/19/22

Gasoline Range Organics (C6-C10)	44.7	20.0	50.0		89.5	70-130			
Surrogate: Bromofluorobenzene	0.491		0.500		98.1	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.450		0.500		90.0	70-130			
Surrogate: Toluene-d8	0.509		0.500		102	70-130			

**LCS Dup (2234061-BSD2)**

Prepared: 08/18/22 Analyzed: 08/19/22

Gasoline Range Organics (C6-C10)	41.6	20.0	50.0		83.2	70-130	7.25	20	
Surrogate: Bromofluorobenzene	0.490		0.500		97.9	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.461		0.500		92.2	70-130			
Surrogate: Toluene-d8	0.501		0.500		100	70-130			



### QC Summary Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 8/19/2022 2:15:06PM
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#### Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: JL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2234071-BLK1)**

Prepared: 08/18/22 Analyzed: 08/18/22

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: <i>n</i> -Nonane	43.0		50.0		85.9	50-200			

**LCS (2234071-BS1)**

Prepared: 08/18/22 Analyzed: 08/18/22

Diesel Range Organics (C10-C28)	229	25.0	250		91.4	38-132			
Surrogate: <i>n</i> -Nonane	42.9		50.0		85.9	50-200			

**LCS Dup (2234071-BSD1)**

Prepared: 08/18/22 Analyzed: 08/18/22

Diesel Range Organics (C10-C28)	228	25.0	250		91.1	38-132	0.367	20	
Surrogate: <i>n</i> -Nonane	40.3		50.0		80.5	50-200			



### QC Summary Data

Souder Miller Associates - Carlsbad 201 S Halagueno St. Carlsbad NM, 88220	Project Name: Seawolf 1-12 CTB 1 Project Number: 01058-0007 Project Manager: Heather Woods	<b>Reported:</b> 8/19/2022 2:15:06PM
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#### Anions by EPA 300.0/9056A

Analyst: RAS

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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**Blank (2234058-BLK1)**

Prepared: 08/17/22 Analyzed: 08/17/22

Chloride	ND	20.0							
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**LCS (2234058-BS1)**

Prepared: 08/17/22 Analyzed: 08/17/22

Chloride	263	20.0	250		105	90-110			
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**LCS Dup (2234058-BSD1)**

Prepared: 08/17/22 Analyzed: 08/17/22

Chloride	254	20.0	250		101	90-110	3.47	20	
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QC Summary Report Comment:

Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



### Definitions and Notes

Souder Miller Associates - Carlsbad	Project Name:	Seawolf 1-12 CTB 1	
201 S Halagueno St.	Project Number:	01058-0007	<b>Reported:</b>
Carlsbad NM, 88220	Project Manager:	Heather Woods	08/19/22 14:15

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

DNI Did Not Ignite

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Chain of Custody

Project Information

Client: Souder Miller + Associates  
 Project: Scrubf 1-12 CTB  
 Project Manager: Heather Woods  
 Address: 201 S Halaqueno  
 City, State, Zip: Carlsbad NM 88320  
 Phone: \_\_\_\_\_  
 Email: \_\_\_\_\_  
 Report due by: \_\_\_\_\_

Bill To  
 Attention: Devon  
 Address: \_\_\_\_\_  
 City, State, Zip: \_\_\_\_\_  
 Phone: \_\_\_\_\_  
 Email: \_\_\_\_\_  
 WO # 20987302

Lab Use Only  
 Lab WO# PE208097 Job Number 00580002  
 Analysis and Method

TAT  
 1D 3D

EPA Program  
 RCRA CWA SDWA  
 State  
 NM CO UT AZ  
 TX OK  
 Remarks

Time Sampled	Date Sampled	Matrix	No Containers	Sample ID	Lab Number	DRO/DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC - NM	BGDOC - TX	Remarks
0748	8/17/22	Soil	1	SC-79	1							X		
0749	8/17/22	Soil	1	SC-80	2							X		
0750	8/17/22	Soil	1	SC-81	3							X		
0754	8/17/22	Soil	1	SC-82	4							X		
0757	8/17/22	Soil	1	SC-83	5							X		
0758	8/17/22	Soil	1	SC-84	6							X		

Additional Instructions: Please send to Sarahmay Schlea, Heather Woods & Georgeann Goodman

(field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: \_\_\_\_\_

Received on ice:  Y /  N

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
<u>[Signature]</u>	8/17/22	10:30	<u>[Signature]</u>	8-17-22	12:30
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
<u>[Signature]</u>			<u>[Signature]</u>	8/18/22	10:00
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other \_\_\_\_\_

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.



Envirotech Analytical Laboratory

Printed: 8/18/2022 11:10:29AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client: Souder Miller Associates - Carlsbad	Date Received: 08/18/22 10:00	Work Order ID: E208097
Phone: (575) 200-5443	Date Logged In: 08/17/22 16:14	Logged In By: Caitlin Christian
Email:	Due Date: 08/18/22 17:00 (0 day TAT)	

**Chain of Custody (COC)**

- 1. Does the sample ID match the COC? Yes
- 2. Does the number of samples per sampling site location match the COC? Yes
- 3. Were samples dropped off by client or carrier? Yes
- 4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
- 5. Were all samples received within holding time? Yes

Carrier: UPS

Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this discussion.

**Comments/Resolution**

**Sample Turn Around Time (TAT)**

- 6. Did the COC indicate standard TAT, or Expedited TAT? Yes

**Sample Cooler**

- 7. Was a sample cooler received? Yes
- 8. If yes, was cooler received in good condition? Yes
- 9. Was the sample(s) received intact, i.e., not broken? Yes
- 10. Were custody/security seals present? No
- 11. If yes, were custody/security seals intact? NA
- 12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

- 13. If no visible ice, record the temperature. Actual sample temperature: 4°C

**Sample Container**

- 14. Are aqueous VOC samples present? No
- 15. Are VOC samples collected in VOA Vials? NA
- 16. Is the head space less than 6-8 mm (pea sized or less)? NA
- 17. Was a trip blank (TB) included for VOC analyses? NA
- 18. Are non-VOC samples collected in the correct containers? Yes
- 19. Is the appropriate volume/weight or number of sample containers collected? Yes

**Field Label**

- 20. Were field sample labels filled out with the minimum information:
  - Sample ID? Yes
  - Date/Time Collected? Yes
  - Collectors name? No

**Sample Preservation**

- 21. Does the COC or field labels indicate the samples were preserved? No
- 22. Are sample(s) correctly preserved? NA
- 24. Is lab filtration required and/or requested for dissolved metals? No

**Multiphase Sample Matrix**

- 26. Does the sample have more than one phase, i.e., multiphase? No
- 27. If yes, does the COC specify which phase(s) is to be analyzed? NA

**Subcontract Laboratory**

- 28. Are samples required to get sent to a subcontract laboratory? No
- 29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: na

**Client Instruction**

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.



June 4, 2020

Vertex Project #: 20E-00141-026

**Spill Closure Report:** SeaWolf 1-12 CTB 1  
Unit A, Section 1, Township 26 South, Range 33 East  
County: Lea  
Tracking Number(s): NCE2003556136; NRM2004353184

**Prepared For:** Devon Energy Production Company  
6488 Seven Rivers Highway  
Artesia, New Mexico 88210

**New Mexico Oil Conservation Division – District 1 – Hobbs**

1625 North French Drive  
Hobbs, New Mexico 88240

Devon Energy Production Company (Devon) retained Vertex Resource Services Inc. (Vertex) to conduct a spill assessment and remediation for two produced water releases that occurred at SeaWolf 1-12 CTB 1 (hereafter referred to as “SeaWolf”). Devon provided notification of the separate incidents to New Mexico Oil Conservation Division (NM OCD) District 1 and the Bureau of Land Management (BLM), who own the land, via submission of initial C-141 Release Notifications on January 27, 2020, and February 10, 2020 (Attachment 1). The NM OCD tracking numbers assigned to these incidents are NCE2003556136 and NRM2004353184.

This letter provides a description of the spill assessments and remediation activities, and demonstrates that closure criteria established in 19.15.29.12 *New Mexico Administrative Code* (NMAC; New Mexico Oil Conservation Division, 2018) have been met and all applicable regulations are being followed. This document is intended to serve as a final report to obtain approval from NM OCD for closure of these releases.

## Incident Descriptions

On January 23, 2020, a release occurred at Devon’s SeaWolf site when a half-inch nipple at a ball valve on the water transfer pump developed a hole. This incident resulted in the release of approximately 780 barrels (bbls) of produced water into a lined secondary containment structure. Upon discovery of the release, a hydrovac truck was dispatched to site to recover free liquids. All fluids were contained within the lined Spill Prevention Control and Countermeasures (SPCC) containment; no produced water was released onto the pad, or into undisturbed areas or waterways. Approximately 780 bbls of produced water were recovered from the SPCC containment and removed for disposal off-site.

On January 23, 2020, a second release occurred at Devon’s SeaWolf site when a water dump valve for SeaWolf 86H developed a hole in the housing causing a fluid release onto the wellpad. This incident resulted in the release of approximately 17.65 bbls of produced water onto the compacted pad area. No produced water was released into undisturbed areas or waterways. Upon discovery of the release, a hydrovac truck was dispatched to the site to recover free liquids. Approximately 15 bbls of produced water were recovered from the spill area and removed for disposal off-site.

[vertex.ca](http://vertex.ca)

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3101 Boyd Drive, Carlsbad, New Mexico 88220, USA | P 575.725.5001

## Site Characterization

The releases at SeaWolf occurred on federally owned land, N 32.077077, W 103.526861, approximately 20 miles west of Jal, New Mexico. The legal description for the site is Unit A, Section 1, Township 26 South, Range 33 East, Lea County, New Mexico. This location is within the Permian Basin in southeast New Mexico and has historically been used for oil and gas exploration and production, and rangeland.

SeaWolf is typical of oil and gas exploration and production sites in the western portion of the Permian Basin, and is currently used for oil and gas production, and storage. The following sections specifically describe the environment and ecology in the immediate vicinity of the constructed wellpad where the releases occurred.

The surrounding landscape has historically been associated with upland plains and the tops of low ridges and mesas at elevations of 3,000 to 4,400 feet above sea level. The climate is semiarid, with average annual precipitation ranging between 10 and 16 inches. The plant community has historically been grassland dominated by black grama, with dropseeds and bluestem grasses, and scattered shinnery oak and sand sage. Heavy grazing has led to an increase in shrubs, especially mesquite and creosotebush. Litter and, to a lesser extent, bare ground make up a significant portion of ground cover (United States Department of Agriculture, 2020). Limited to no vegetation is allowed to grow on the compacted wellpad.

*The Geological Map of New Mexico* indicates the surface geology at SeaWolf is on the border of Qep-Eolian and piedmont deposits (Holocene to middle Pleistocene) characterized by interlayered eolian sand and piedmont deposits, and To – Ogallala Formation (lower Pliocene to middle Miocene) comprised of alluvial and eolian deposits, and petrocalcic soils of the southern High Plains (New Mexico Bureau of Geology and Mineral Resources, 2020). The National Resource Conservation Service (NRCS) Web Soil Survey characterizes the soil at the site as on the cusp of Pyote and Maljamar fine sands and Simona-Upton complex, predominantly found on plains, and comprised of fine sand over deep layers of sandy clay loam and loamy sand. It tends to be well-drained with low runoff and moderate available moisture levels in the soil profile (United States Department of Agriculture, Natural Resources Conservation Service, 2020). There is low potential for karst geology to be present near SeaWolf (United States Department of the Interior, Bureau of Land Management, 2020).

There is no surface water located on-site. The nearest significant watercourse, as defined in Subsection P of 19.15.17.7 NMAC, is an intermittent stream located approximately 3.75 miles southwest of the site. A freshwater emergent wetland is located approximately 0.28 miles southeast of the site (United States Fish and Wildlife Service, 2020). There are no continuously flowing watercourses or significant watercourses, lakebeds, sinkholes, playa lakes, or other critical water or community features near SeaWolf as outlined in Paragraph (4) of Subsection C of 19.15.29.12 NMAC.

The nearest active well to SeaWolf is a United States Geological Survey (USGS)-identified well from 2013 located approximately 1.2 miles east of the site. Depth to groundwater at this well is 360 feet below ground surface (bgs; United States Department of the Interior, United States Geological Survey, 2020). A New Mexico Office of the State Engineer well from 2010, with a depth to groundwater of 140 feet bgs, is in the same vicinity as the USGS well (New Mexico Office of the State Engineer, New Mexico Water Rights Reporting System, 2020). The shallowest depth to groundwater identified near SeaWolf is from a 1995 USGS well located approximately 2 miles northeast of the site with a depth of 165 feet bgs (United States Department of the Interior, United States Geological Survey, 2020). The Chevron Texaco Depth to Ground

vertex.ca

Water Map for Lea County confirms that depth to groundwater in the vicinity of SeaWolf is between 100 and 200 feet bgs (Chevron Texaco, 2005). Documentation pertaining to site characterization and depth to groundwater determination is included in Attachment 2.

## Closure Criteria Determination

Using site characterization information, a closure criteria determination worksheet (Attachment 2) was completed to determine if the releases were subject to any of the special case scenarios outlined in Paragraph (4) of Subsection C of 19.15.29.12 NMAC.

Based on data included in the closure criteria determination worksheet, the releases at SeaWolf are not subject to the requirements of Paragraph (4) of Subsection C of 19.15.29.12 NMAC and the closure criteria for the site is determined to be associated with the following constituent concentration limits based on depth to groundwater.

Table 1. Closure Criteria for Soils Impacted by a Release		
Depth to Groundwater	Constituent	Limit
>100 feet	Chloride	20,000 mg/kg
	TPH <sup>1</sup> (GRO + DRO + MRO)	2,500 mg/kg
	GRO + DRO	1,000 mg/kg
	BTEX <sup>2</sup>	50 mg/kg
	Benzene	10 mg/kg

<sup>1</sup> Total petroleum hydrocarbons (TPH) = gasoline range organics (GRO) + diesel range organics (DRO) + motor oil range organics (MRO)

<sup>2</sup> Benzene, toluene, ethyl benzene and xylenes (BTEX)

## Remedial Actions

An initial spill inspection, completed on February 18, 2020, used field screening methods to identify and map the boundaries of the smaller release outside of containment. An electroconductivity (EC) probe was used to approximate the level of chlorides present in the soil of the release area. The initial data obtained during the field screening process were used to horizontally and vertically delineate the release footprint. The release area was determined to be approximately 48 feet long by 48 feet wide; the total impacted area was approximately 1,700 square feet. An aerial photograph and site schematic for this release are included in Attachment 3. Field screening results are summarized in the Daily Field Report (DFR) associated with the initial inspection visit (Attachment 4). A selection of the initial characterization soil samples was submitted for laboratory analysis to confirm the delineation effort. Based on the field screening and laboratory analyses data presented in Table 2 (Attachment 5), the level of chlorides present on the wellpad did not exceed closure criteria for locations where depth to groundwater is greater than 100 feet bgs. No remediation work to address the smaller release near the heater treaters and flow lines was deemed necessary.

On April 21, 2020, Vertex provided 48-hour notification of confirmation sampling and liner inspection to NM OCD District 1 and the BLM, as required by Subparagraph (a) of Paragraph (1) of Subsection D 19.15.29.12 NMAC and Subparagraph (a) of Paragraph (5) of Subsection A 19.15.29.11 NMAC, respectively (Attachment 6). On April 24, 2020, Vertex was on-site to conduct a visual inspection of the production equipment secondary containment liner pertaining to the initial release, and conduct confirmatory sampling at the location of the second release.

vertex.ca

3101 Boyd Drive, Carlsbad, New Mexico 88220, USA | P 575.725.5001

Devon Energy Production Company  
SeaWolf 1-12 CTB 1

2020 Spill Assessment and Closure  
June 2020

The liner inspection involved a thorough examination of the secondary containment liner to verify its integrity and ensure there were no tears, rips or holes that would have impacted its ability to contain the release.

At the heater treaters, Vertex collected nine five-point composite confirmatory samples from the area where the 17-bbl release occurred. Each composite sample was representative of no more than 200 square feet per the alternate sampling method outlined in Subparagraph (c) of Paragraph (1) of Subsection D 19.15.29.12 NMAC, which does not require prior NM OCD approval. The composite samples were placed into laboratory-provided containers, preserved on ice, and submitted to a National Environmental Laboratory Accreditation Program-approved laboratory for chemical analysis.

Laboratory analyses included Method 300.0 for chlorides, Method 8021B for volatile organics, including BTEX, and EPA Method 8015 for TPH, including MRO, DRO and GRO. Confirmatory sample analytical data are summarized in Table 3 (Attachment 5). Laboratory data reports and chain of custody forms are included in Attachment 7.

A GeoExplorer 7000 Series Trimble global positioning system (GPS) unit, or equivalent, was used to map the approximate center of each of the five-point composite samples. The confirmatory sampling locations are presented on Figure 2 (Attachment 2). Relevant equipment and prominent features/reference points at the site are mapped as well.

## Closure Request

Vertex recommends no additional remediation action to address the two releases at SeaWolf. For incident NCE2003556136, the liner inspection showed that the secondary containment liner was intact and had the ability to contain the release in question, as shown in the inspection photographs included with the DFR (Attachment 4). Laboratory analyses for the confirmatory samples associated with incident NRM2004353184 showed constituent of concern concentration levels below NM OCD Closure Criteria for areas where depth to groundwater is greater than 100 feet bgs as shown in Table 1. There are no anticipated risks to human, ecological or hydrological receptors associated with the release site.

Vertex requests that the two incidents (NCE2003556136 and NRM2004353184) be closed as all closure requirements set forth in Subsection E of 19.15.29.12 NMAC have been met. Devon certifies that all information in this report and the attachments is correct and that they have complied with all applicable closure requirements and conditions specified in Division rules and directives to meet NM OCD requirements to obtain closure on the January 23, 2020, releases at SeaWolf.

Should you have any questions or concerns, please do not hesitate to contact the undersigned at 505.506.0040 or ngordon@vertex.ca.

Sincerely,



Natalie Gordon  
PROJECT MANAGER

vertex.ca

3101 Boyd Drive, Carlsbad, New Mexico 88220, USA | P 575.725.5001

**Devon Energy Production Company**  
SeaWolf 1-12 CTB 1

**2020 Spill Assessment and Closure**  
June 2020

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## **Attachments**

- Attachment 1. NM OCD C-141 Reports
- Attachment 2. Closure Criteria for Soils Impacted by a Release Research Determination Documentation
- Attachment 3. Site Schematic and Confirmatory Sample Locations for Incident NRM2004353184
- Attachment 4. Daily Field Report(s) with Photographs
- Attachment 5. Characterization and Confirmatory Sample Field Screening and Laboratory Results
- Attachment 6. Required 48-hr Notification of Liner Inspection and Confirmatory Sampling to Regulatory Agencies
- Attachment 7. Laboratory Data Reports/Chain of Custody Forms

## References

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United States Fish and Wildlife Service. (2020). *National Wetlands Inventory*. Retrieved from <https://www.fws.gov/wetlands/Data/Mapper.html>

### Limitations

This report has been prepared for the sole benefit of Devon Energy Production Company (Devon). This document may not be used by any other person or entity, with the exception of the New Mexico Oil Conservation Division, without the express written consent of Vertex Resource Services Inc. (Vertex) and Devon. Any use of this report by a third party, or any reliance on decisions made based on it, or damages suffered as a result of the use of this report are the sole responsibility of the user.

The information and conclusions contained in this report are based upon work undertaken by trained professional and technical staff in accordance with generally accepted scientific practices current at the time the work was performed. The conclusions and recommendations presented represent the best judgement of Vertex based on the data collected during the assessment. Due to the nature of the assessment and the data available, Vertex cannot warrant against undiscovered environmental liabilities. Conclusions and recommendations presented in this report should not be considered legal advice.

## **ATTACHMENT 1**

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural  
Resources Department

Form C-141  
Revised August 24, 2018  
Submit to appropriate OCD District office

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Incident ID	NCE2003556136
District RP	
Facility ID	
Application ID	

## Release Notification

### Responsible Party

Responsible Party Devon Energy Production Company	OGRID 6137
Contact Name Amanda T. Davis	Contact Telephone 575-748-0176
Contact email amanda.davis@dvn.com	Incident # (assigned by OCD)
Contact mailing address 6488 Seven Rivers HWY	

### Location of Release Source

Latitude 32.077077 Longitude -103.526861  
*(NAD 83 in decimal degrees to 5 decimal places)*

Site Name SeaWolf 1-12 CTB 1	Site Type Central Tank Battery
Date Release Discovered 1/23/20	API# (if applicable) N/A

Unit Letter	Section	Township	Range	County
C	1	26S	33E	Lea

Surface Owner:  State  Federal  Tribal  Private (Name: \_\_\_\_\_)

### Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 780	Volume Recovered (bbls) 780
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release  
A 1/2" nipple at a ball valve on the water transfer pump developed a hole causing fluid to be released into a lined secondary containment. All fluids stayed inside the secondary containment.

State of New Mexico  
Oil Conservation Division

Incident ID	NCE2003556136
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC?  <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release? <b>This release was over 25 bbls.</b>
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

### Initial Response

*The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury*

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.
If all the actions described above have <u>not</u> been undertaken, explain why:
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.
Printed Name: <u>Kendra DeHoyos</u> Title: <u>EHS Associate</u> Signature: <u><i>Kendra DeHoyos</i></u> Date: <u>1/27/2020</u> email: <u>kendra.dehoyos@dvn.com</u> Telephone: <u>575-748-3371</u>
<b><u>OCD Only</u></b> Received by: <u>Cristina Eads</u> Date: <u>02/04/2020</u>

Spills in Lined Containment	
Received by 1/11/2023 10:39:38 AM Page 3 of 3	
Measurements Of Standing Fluid	
Length(Ft)	130
Width(Ft)	134
Depth(in.)	3.9
Total Capacity without tank displacements (bbls)	1008.35
No. of 500 bbl Tanks In Standing Fluid	21
No. of Other Tanks In Standing Fluid	
OD Of Other Tanks In Standing Fluid(feet)	
Total Volume of standing fluid accounting for tank displacement.	779.10

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State of New Mexico  
Energy Minerals and Natural  
Resources Department  
  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-141  
Revised August 24, 2018  
Submit to appropriate OCD District office

Incident ID	NRM2004353184
District RP	
Facility ID	
Application ID	

## Release Notification

### Responsible Party

Responsible Party	OGRID
Contact Name	Contact Telephone
Contact email	Incident # (assigned by OCD)
Contact mailing address	

### Location of Release Source

Latitude \_\_\_\_\_ Longitude \_\_\_\_\_  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Site Type
Date Release Discovered	API# (if applicable)

Unit Letter	Section	Township	Range	County

Surface Owner:  State  Federal  Tribal  Private (Name: \_\_\_\_\_)

### Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

State of New Mexico  
Oil Conservation Division

Page 2

Incident ID	NRM2004353184
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC?  <input type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

### Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

<input type="checkbox"/> The source of the release has been stopped. <input type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.
If all the actions described above have <u>not</u> been undertaken, explain why:
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.
Printed Name: _____ Title: _____ Signature: <u>Kendra DeHoyos</u> Date: _____ email: _____ Telephone: _____
<b><u>OCD Only</u></b> Received by: <u>Ramona Marcus</u> Date: <u>02/12/2020</u>

Inputs in blue, Outputs in red

NRM2004353184

Contaminated Soil measurement

Length(Ft)	Width(Ft)	Depth(Ft)
<u>50</u>	<u>30.000</u>	<u>0.021</u>
Cubic Feet of Soil Impacted		<u>31.500</u>
Barrels of Soil Impacted		<u>5.61</u>
Soil Type		Clay/Sand
Barrels of Oil Assuming 100% Saturation		<u>0.84</u>
Saturation	Fluid present with shovel/backhoe	
Estimated Barrels of Oil Released		0.84
Free Standing Fluid Only		
Length(Ft)	Width(Ft)	Depth(Ft)
<u>50</u>	<u>30.000</u>	<u>0.063</u>
Standing fluid		<u>16.808</u>
Total fluids spilled		<u>17.650</u>

Incident ID	NRM2004353184
District RP	
Facility ID	
Application ID	

## Site Assessment/Characterization

*This information must be provided to the appropriate district office no later than 90 days after the release discovery date.*

What is the shallowest depth to groundwater beneath the area affected by the release?	160 (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

**Characterization Report Checklist:** *Each of the following items must be included in the report.*

- Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- Field data
- Data table of soil contaminant concentration data
- Depth to water determination
- Determination of water sources and significant watercourses within 1/2-mile of the lateral extents of the release
- Boring or excavation logs
- Photographs including date and GIS information
- Topographic/Aerial maps
- Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

Oil Conservation Division

Incident ID	NRM2004353184
District RP	
Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Dale Woodall Title: Environmental Professional

Signature: Dale Woodall Date: 1/11/2023

email: dale.woodall@dvn.com Telephone: 575-748-1838

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

Incident ID	NRM2004353184
District RP	
Facility ID	
Application ID	

## Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

**Closure Report Attachment Checklist: Each of the following items must be included in the closure report.**

- A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Dale Woodall Title: Environmental Professional

Signature: Dale Woodall Date: 1/11/2023

email: dale.woodall@dvn.com Telephone: 575-748-1838

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_

Incident ID	NCE2003556136
District RP	
Facility ID	
Application ID	

## Site Assessment/Characterization

*This information must be provided to the appropriate district office no later than 90 days after the release discovery date.*

What is the shallowest depth to groundwater beneath the area affected by the release?	160 (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

**Characterization Report Checklist:** *Each of the following items must be included in the report.*

- Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- Field data
- Data table of soil contaminant concentration data
- Depth to water determination
- Determination of water sources and significant watercourses within 1/2-mile of the lateral extents of the release
- Boring or excavation logs
- Photographs including date and GIS information
- Topographic/Aerial maps
- Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

State of New Mexico  
Oil Conservation Division

Page 4

Incident ID	NCE2003556136
District RP	
Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Dale Woodall Title: Environmental Professional

Signature: Dale Woodall Date: 1/11/2023

email: dale.woodall@dvn.com Telephone: 575-748-1838

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_



## **ATTACHMENT 2**

<b>Table 1.</b>			
<b>Site Name: Sea Wolf 1-12 CTB</b>			
<b>Spill Coordinates:</b>		<b>X: 32.077077</b>	<b>-103.526861</b>
<b>Site Specific Conditions</b>		<b>Value</b>	<b>Unit</b>
1	Depth to Groundwater	160'	feet
2	Within 300 feet of any continuously flowing watercourse or any other significant watercourse	20,170	feet
3	Within 200 feet of any lakebed, sinkhole or playa lake (measured from the ordinary high-water mark)	24,700	feet
4	Within 300 feet from an occupied residence, school, hospital, institution or church	11,003	feet
5	i) Within 500 feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, <b>or</b>	1,801	feet
	ii) Within 1000 feet of any fresh water well or spring	1,801	feet
6	Within incorporated municipal boundaries or within a defined municipal fresh water field covered under a municipal ordinance adopted pursuant to Section 3-27-3 NMSA 1978 as amended, unless the municipality specifically approves	No	(Y/N)
7	Within 300 feet of a wetland	1,491	feet
8	Within the area overlying a subsurface mine	No	(Y/N)
9	Within an unstable area (Karst Map)	Medium	Critical High Medium Low
10	Within a 100-year Floodplain	>100	year
11	Soil Type	Pyote and maljamar fine sands Simona-Upton association	
12	Ecological Classification	Loamy Sand Shallow Sandy/Shallow	
13	Geology		
<b>NMAC 19.15.29.12 E (Table 1) Closure Criteria</b>		>100'	<50' 51-100' >100'

Column1
Critical
High
Medium
Low

Column1
Yes
No

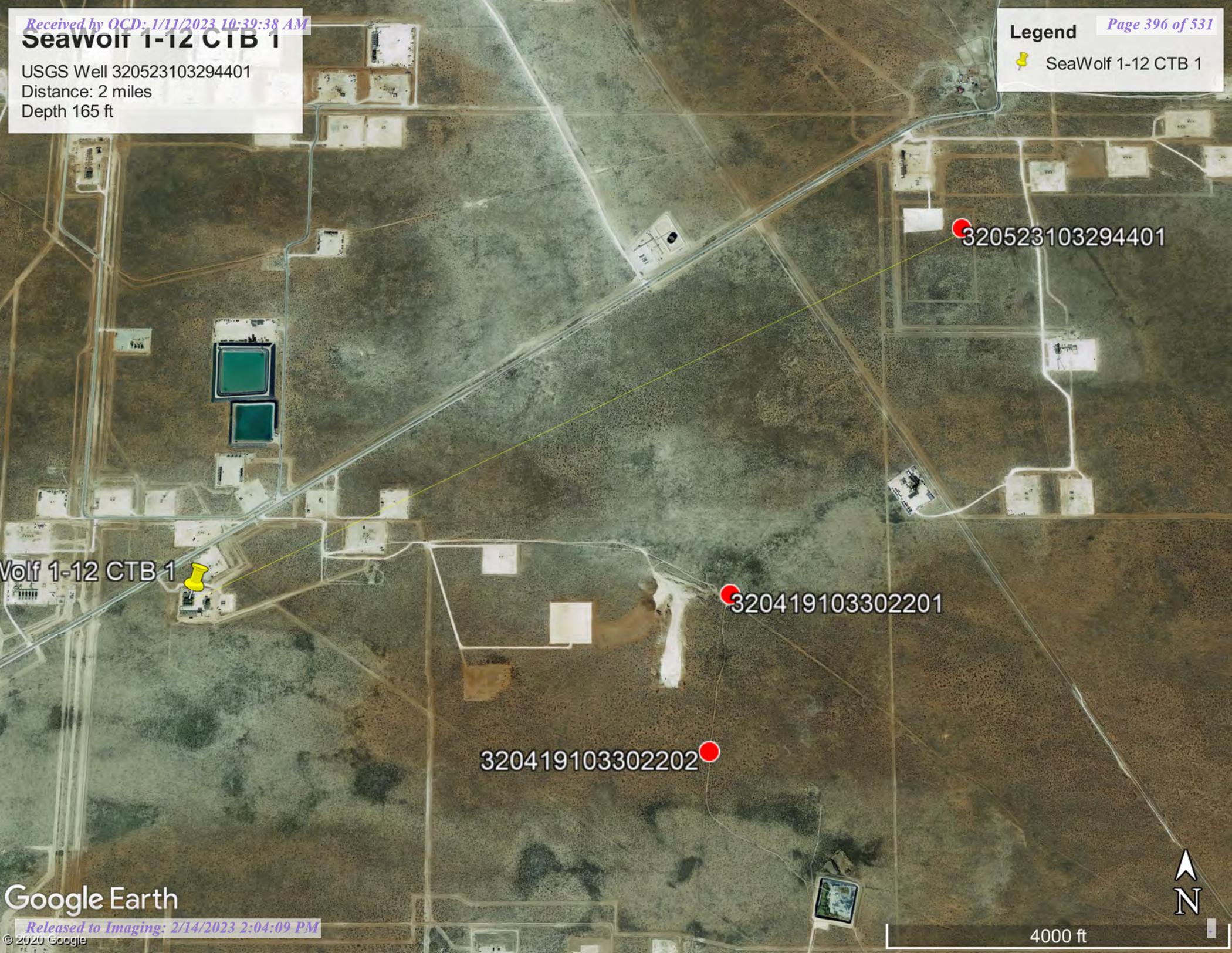
<50'
51-100'
>100'

# SeaWolf 1-12 CTB 1

USGS Well 320523103294401  
Distance: 2 miles  
Depth 165 ft

## Legend

 SeaWolf 1-12 CTB 1



SeaWolf 1-12 CTB 1

320523103294401

320419103302201

320419103302202



4000 ft

# Sea Wolf 1-12 CTB 1

Distance to USGS Well: 1.21 miles  
Depth to Water: 360 ft

## Legend

 Feature 1

SeaWolf 1-12 CTB 1  32.077077, -103.526861

 32041910330220

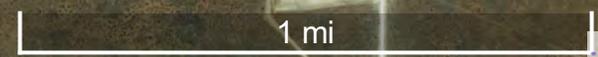
 320419103302202

 320407103331001

 320405103331001

 320342103331401

Google Earth





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## National Water Information System: Web Interface

USGS Water Resources

Data Category:  Geographic Area:

Click to hide News Bulletins

- [Introducing The Next Generation of USGS Water Data for the Nation](#)
- [Full News](#) 

# USGS 320419103302201 26S.34E.06.21414

Available data for this site

### Well Site

#### DESCRIPTION:

Latitude 32°04'37.9", Longitude 103°30'20.5" NAD83  
 Lea County, New Mexico , Hydrologic Unit 13070007  
 Well depth: 360 feet  
 Land surface altitude: 3,319.00 feet above NGVD29.  
 Well completed in "Chinle Formation" (231CHNL) local aquifer

#### AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
<a href="#">Field groundwater-level measurements</a>	1954-07-23	2013-01-16	6
<a href="#">Revisions</a>	Unavailable (site:0) (timeseries:0)		

#### OPERATION:

Record for this site is maintained by the USGS New Mexico Water Science Center

Email questions about this site to [New Mexico Water Science Center Water-Data Inquiries](#)

---

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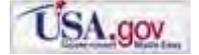
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**Title: NWIS Site Information for USA: Site Inventory**

**URL: [https://waterdata.usgs.gov/nwis/inventory?agency\\_code=USGS&site\\_no=320419103302201](https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=320419103302201)**



Page Contact Information: [New Mexico Water Data Support Team](#)

Page Last Modified: 2020-02-25 15:28:53 EST

0.32 0.29 caww01



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## USGS 320523103294401 25S.34E.29.343322

Available data for this site

### Well Site

#### DESCRIPTION:

Latitude 32°05'23", Longitude 103°29'44" NAD27  
 Lea County, New Mexico , Hydrologic Unit 13070007  
 Well depth: 165 feet  
 Land surface altitude: 3,321 feet above NAVD88.  
 Well completed in "Ogallala Formation" (121OGLL) local aquifer

#### AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
<a href="#">Field groundwater-level measurements</a>	1970-12-08	1991-06-06	5
<a href="#">Revisions</a>	Unavailable (site:0) (timeseries:0)		

#### OPERATION:

Record for this site is maintained by the USGS New Mexico Water Science Center  
 Email questions about this site to [New Mexico Water Science Center Water-Data Inquiries](#)

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[U.S. Department of the Interior](#) | [U.S. Geological Survey](#)

Title: **NWIS Site Information for USA: Site Inventory**

URL: [https://waterdata.usgs.gov/nwis/inventory?agency\\_code=USGS&site\\_no=320523103294401](https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=320523103294401)

Page Contact Information: [New Mexico Water Data Support Team](#)

Page Last Modified: 2020-05-26 13:12:27 EDT

0.41 0.39 caww02





# New Mexico Office of the State Engineer

## Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)  
(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
<a href="#">C 02291</a>	CUB	LE		1	1	2	06	26S	34E	640825	3550140*	1801	220	160	60
<a href="#">C 03441</a> POD1	C	LE		4	1	2	06	26S	34E	640971	3550039	1937	250		
<a href="#">C 02292</a> POD1	CUB	LE		4	1	2	06	26S	34E	640992	3549987	1956	200	140	60
<a href="#">C 03442</a> POD1	C	LE		4	1	2	06	26S	34E	641056	3550028	2022	251		
<a href="#">C 02295</a>	CUB	LE		2	2	4	12	26S	33E	639850	3547710*	2363	250	200	50
<a href="#">C 02285</a> POD1	CUB	LE		1	4	4	03	26S	33E	636613	3548855	2650	220	220	0
<a href="#">C 02288</a>	CUB	LE		4	4	4	03	26S	33E	636646	3548758	2661	220	180	40
<a href="#">C 02289</a>	CUB	LE		4	4	4	03	26S	33E	636612	3548675*	2728	200	160	40
<a href="#">C 02290</a>	CUB	LE		4	4	4	03	26S	33E	636538	3548770	2753	200	160	40
<a href="#">C 02286</a>	CUB	LE		3	4	4	03	26S	33E	636470	3548714	2839	220	175	45
<a href="#">C 02287</a>	C	LE		3	4	4	03	26S	33E	636427	3548708	2880	220		
<a href="#">C 02313</a>	CUB	LE		2	3	3	26	25S	33E	636971	3552098*	2995	150	110	40
<a href="#">C 02294</a>	CUB	LE		4	4	3	11	26S	33E	637465	3547003	3320	200	145	55
<a href="#">C 02293</a>	CUB	LE		2	2	1	14	26S	33E	637501	3546975	3328	200	135	65
<a href="#">C 02316</a>	CUB	LE		3	4	3	29	25S	34E	642003	3551967*	3599	100	50	50
<a href="#">C 02317</a>	CUB	LE		3	4	3	29	25S	34E	642003	3551967*	3599	100	50	50

Average Depth to Water: **145 feet**  
 Minimum Depth: **50 feet**  
 Maximum Depth: **220 feet**

**Record Count:** 16

**UTMNAD83 Radius Search (in meters):**

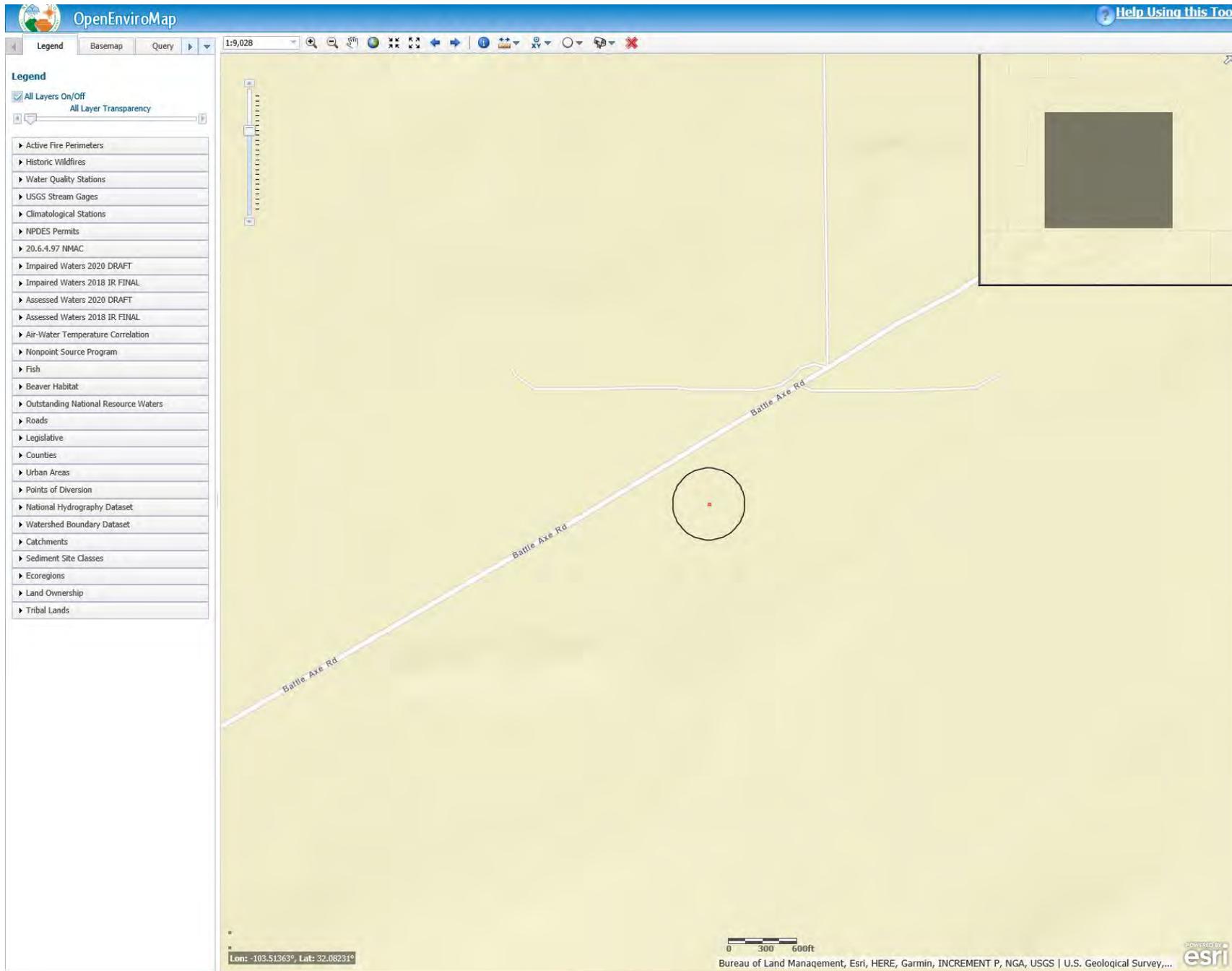
**Easting (X):** 639036

**Northing (Y):** 3549928.49

**Radius:** 5000

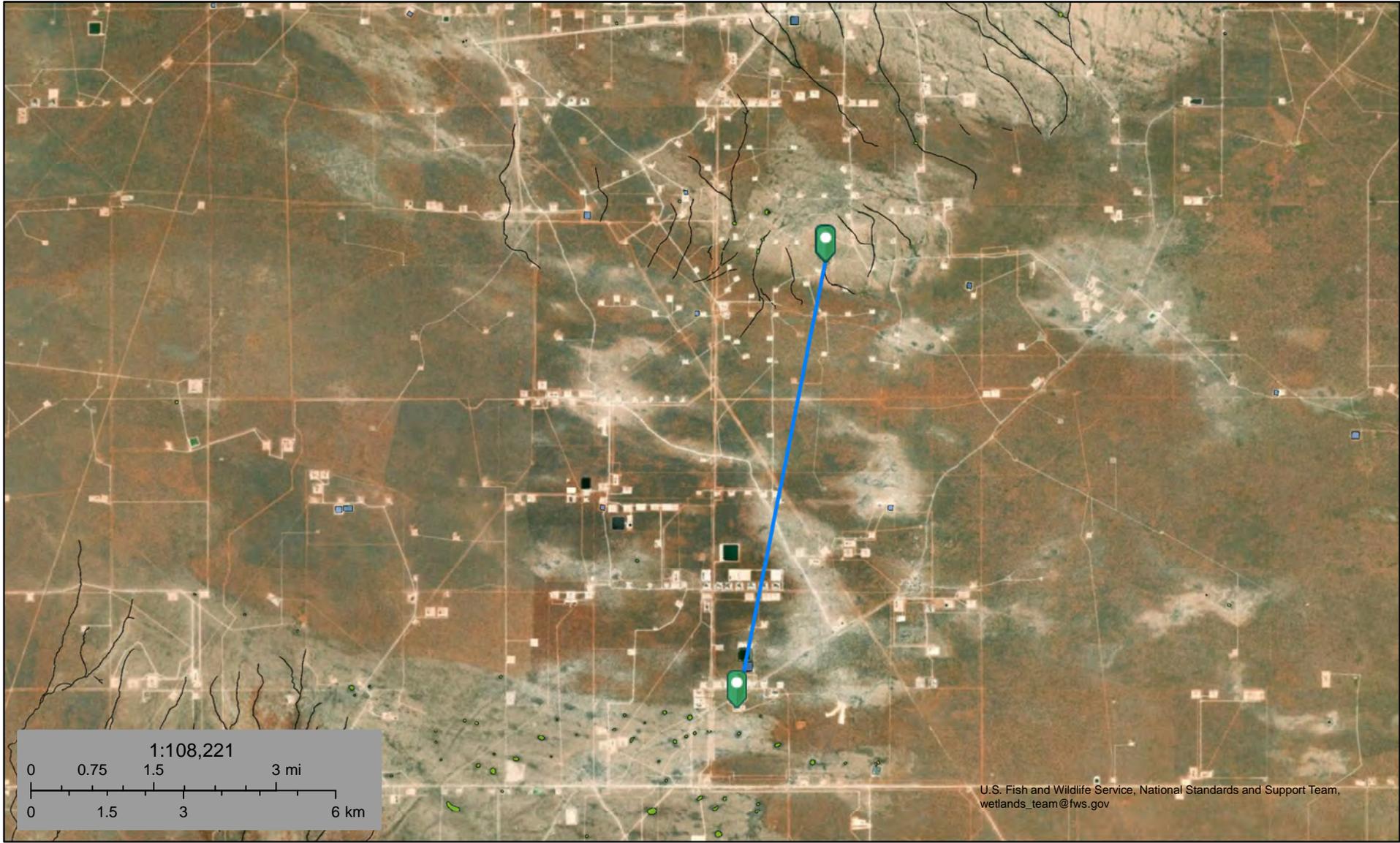
\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.





# Sea Wolf 1-12 CTB 1 Lake 24,700 ft



February 23, 2020

### Wetlands

- Estuarine and Marine Deepwater
- Freshwater Emergent Wetland
- Lake
- Estuarine and Marine Wetland
- Freshwater Forested/Shrub Wetland
- Other
- Freshwater Pond
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

# Nearest Residence

11,003'

## Legend

 Feature 1

nearest sea wolf well

32.077077, -103.526861

sea wolf

N32.075°

W103.555°

W103.545°

W103.535°

N32.065°

W103.525°

W103.515°

W103.505°

N32.055°

Residence

N32.045°

1 km





# New Mexico Office of the State Engineer

## Active & Inactive Points of Diversion

(with Ownership Information)

(R=POD has been replaced and no longer serves this file, (quarters are 1=NW 2=NE 3=SW 4=SE)  
 C=the file is closed) (quarters are smallest to largest) (NAD83 UTM in meters)

WR File Nbr	Sub		Diversion	Owner	County	POD Number	Well Tag	Code	Grant	Source	q q q			X	Y	Distance				
	basin	Use									6416	4	Sec				Tws	Rng		
<a href="#">C 02291</a>	CUB	PLS		3 INTREPID POTASH NEW MEXICO LLC	LE	<a href="#">C 02291</a>					1	1	2	06	26S	34E	640825	3550140*		1801
<a href="#">C 03441</a>	C	STK		3 INTREPID POTASH NEW MEXICO LLC	LE	<a href="#">C 03441 POD1</a>				Shallow	4	1	2	06	26S	34E	640970	3550039		1937
<a href="#">C 03491</a>	C	PRO		0 EOG RESOURCES, INC	LE	<a href="#">C 03441 POD1</a>				Shallow	4	1	2	06	26S	34E	640970	3550039		1937
<a href="#">C 02292</a>	CUB	PLS		3 DINWIDDIE CATTLE CO.	LE	<a href="#">C 02292 POD1</a>					4	1	2	06	26S	34E	640991	3549987		1956
<a href="#">C 03493</a>	C	PRO		0 EOG RESOURCES, INC.	LE	<a href="#">C 02292 POD1</a>					4	1	2	06	26S	34E	640991	3549987		1956
<a href="#">C 03442</a>	C	STK		3 INTREPID POTASH NEW MEXICO LLC	LE	<a href="#">C 03442 POD1</a>				Shallow	4	1	2	06	26S	34E	641055	3550028		2022
<a href="#">C 03477</a>	C	PRO		0 EOG RESOURCES, INC.	LE	<a href="#">C 03442 POD1</a>				Shallow	4	1	2	06	26S	34E	641055	3550028		2022
<a href="#">C 03492</a>	C	PRO		0 EOG RESOURCES, INC	LE	<a href="#">C 03442 POD1</a>				Shallow	4	1	2	06	26S	34E	641055	3550028		2022
<a href="#">C 02295</a>	CUB	PLS		3 INTREPID POTASH NEW MEXICO LLC	LE	<a href="#">C 02295</a>					2	2	4	12	26S	33E	639850	3547710*		2363
<a href="#">C 02285</a>	CUB	PLS		3 DINWIDDIE CATTLE CO.	LE	<a href="#">C 02285 POD1</a>				Shallow	1	4	4	03	26S	33E	636612	3548855		2650
<a href="#">C 03494</a>	C	PRO		0 EOG RESOURCES, INC.	LE	<a href="#">C 02285 POD1</a>				Shallow	1	4	4	03	26S	33E	636612	3548855		2650
<a href="#">C 02288</a>	CUB	PLS		3 DINWIDDLE CATTLE CO.	LE	<a href="#">C 02288</a>					4	4	4	03	26S	33E	636645	3548758		2661
<a href="#">C 03497</a>	C	PRO		0 EOG RESOURCES, INC.	LE	<a href="#">C 02288</a>					4	4	4	03	26S	33E	636645	3548758		2661
<a href="#">C 02287</a>	C	STK		3 DINWIDDLE CATTLE CO.	LE	<a href="#">C 02287 POD2</a>					4	4	4	03	26S	33E	636612	3548675*		2728
<a href="#">C 02289</a>	CUB	PLS		3 DINWIDDIE CATTLE COMPANY LLC	LE	<a href="#">C 02289</a>					4	4	4	03	26S	33E	636612	3548675*		2728
<a href="#">C 02290</a>	CUB	PLS		3 DINWIDDLE CATTLE CO.	LE	<a href="#">C 02290</a>					4	4	4	03	26S	33E	636538	3548770		2753
<a href="#">C 03498</a>	C	PRO		0 EOG RESOURCES, INC.	LE	<a href="#">C 02290</a>					4	4	4	03	26S	33E	636538	3548770		2753
<a href="#">C 02286</a>	CUB	PLS		3 DINWIDDLE CATTLE CO.	LE	<a href="#">C 02286</a>					3	4	4	03	26S	33E	636469	3548714		2839

\*UTM location was derived from PLSS - see Help

(R=POD has been replaced and no longer serves this file, (quarters are 1=NW 2=NE 3=SW 4=SE)  
 C=the file is closed) (quarters are smallest to largest) (NAD83 UTM in meters)

(acre ft per annum)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Well Tag	Code	Grant	Source	q	q	q	Sec	Tws	Rng	X	Y	Distance
<a href="#">C 03495</a>	C	PRO		0 EOG RESOURCES, INC.	LE	<a href="#">C 02286</a>					3	4	4	03	26S	33E	636469	3548714	2839
<a href="#">C 02287</a>	C	STK		3 DINWIDDLE CATTLE CO.	LE	<a href="#">C 02287</a>					3	4	4	03	26S	33E	636427	3548708	2880
<a href="#">C 03496</a>	C	PRO		0 EOG RESOURCES, INC.	LE	<a href="#">C 02287</a>					3	4	4	03	26S	33E	636427	3548708	2880
<a href="#">C 02313</a>	CUB	STK		3 NGL WATER SOLUTIONS PERMIAN	LE	<a href="#">C 02313</a>					2	3	3	26	25S	33E	636971	3552098*	2995
<a href="#">C 04265</a>	CUB	GEO		0 EOG RESOURCES	LE	<a href="#">C 04265 POD1</a>	NA				2	3	1	32	25S	34E	641842	3551281	3115
<a href="#">C 02294</a>	CUB	PLS		3 DINWIDDIE CATTLE CO.	LE	<a href="#">C 02294</a>					4	4	3	11	26S	33E	637465	3547003	3320
<a href="#">C 03500</a>	C	PRO		0 EOG RESOURCES, INC.	LE	<a href="#">C 02294</a>					4	4	3	11	26S	33E	637465	3547003	3320
<a href="#">C 02293</a>	CUB	PLS		3 DINWIDDIE CATTLE CO.	LE	<a href="#">C 02293</a>					2	2	1	14	26S	33E	637500	3546975	3328
<a href="#">C 03499</a>	C	PRO		0 EOG RESOURCES, INC.	LE	<a href="#">C 02293</a>					2	2	1	14	26S	33E	637500	3546975	3328
<a href="#">C 02316</a>	CUB	DOM		6 NGL WATER SOLUTIONS PERMIAN	LE	<a href="#">C 02316</a>					3	4	3	29	25S	34E	642003	3551967*	3599
<a href="#">C 02317</a>	CUB	IRR		6 NGL WATER SOLUTIONS PERMIAN	LE	<a href="#">C 02317</a>					3	4	3	29	25S	34E	642003	3551967*	3599

Record Count: 29

**UTMNAD83 Radius Search (in meters):**

**Easting (X):** 639036

**Northing (Y):** 3549928.49

**Radius:** 5000

**Sorted by:** Distance

\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.



# New Mexico Office of the State Engineer

## Active & Inactive Points of Diversion

(with Ownership Information)

No PODs found.

**UTMNAD83 Radius Search (in meters):**

**Easting (X):** 639036

**Northing (Y):** 3549928.49

**Radius:** 1610



# SeaWolf 1-12 CTB 1 Wetland 1,491ft



February 23, 2020

### Wetlands

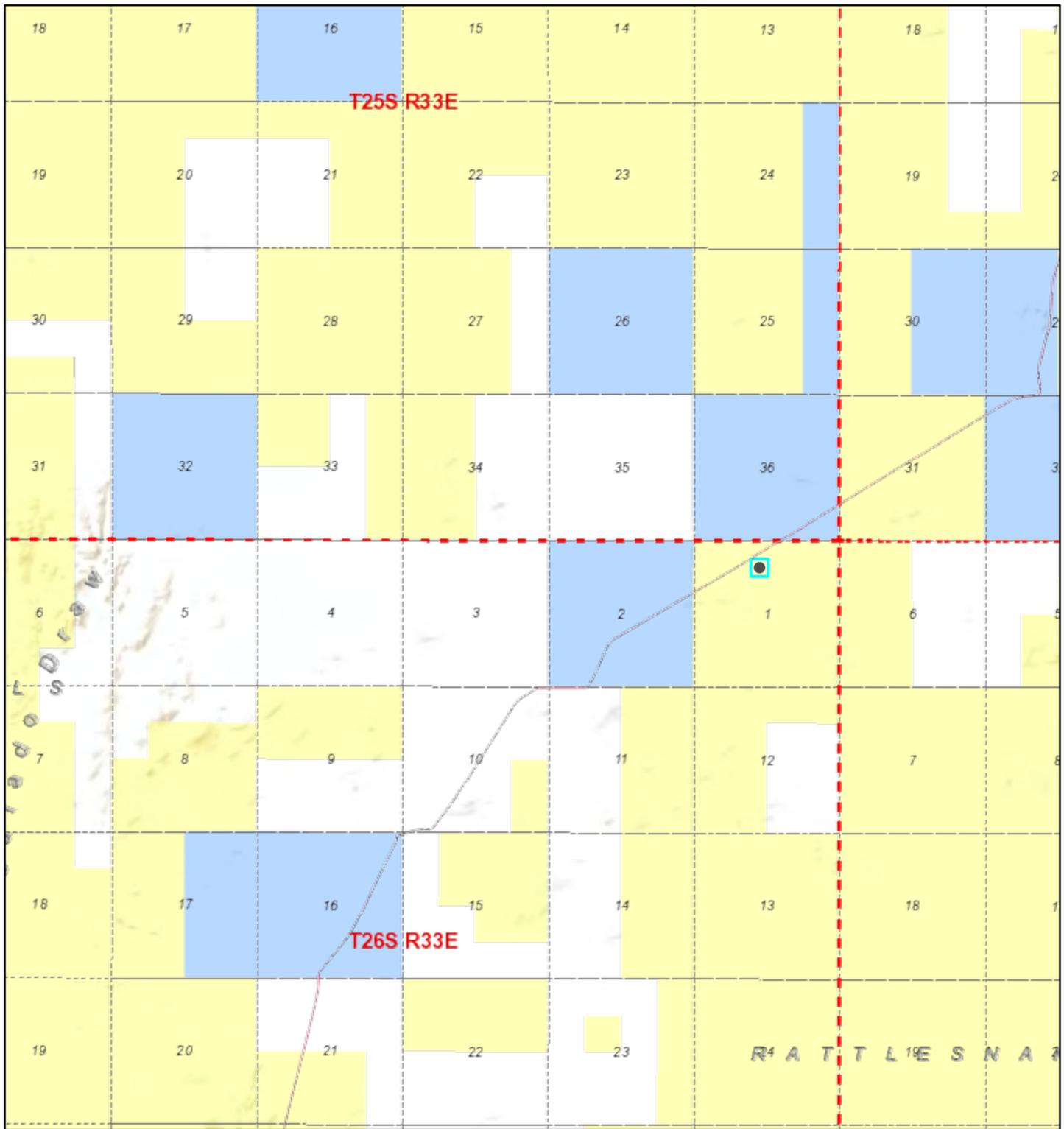
- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond

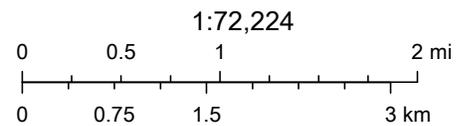
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

# Active Mines in New Mexico

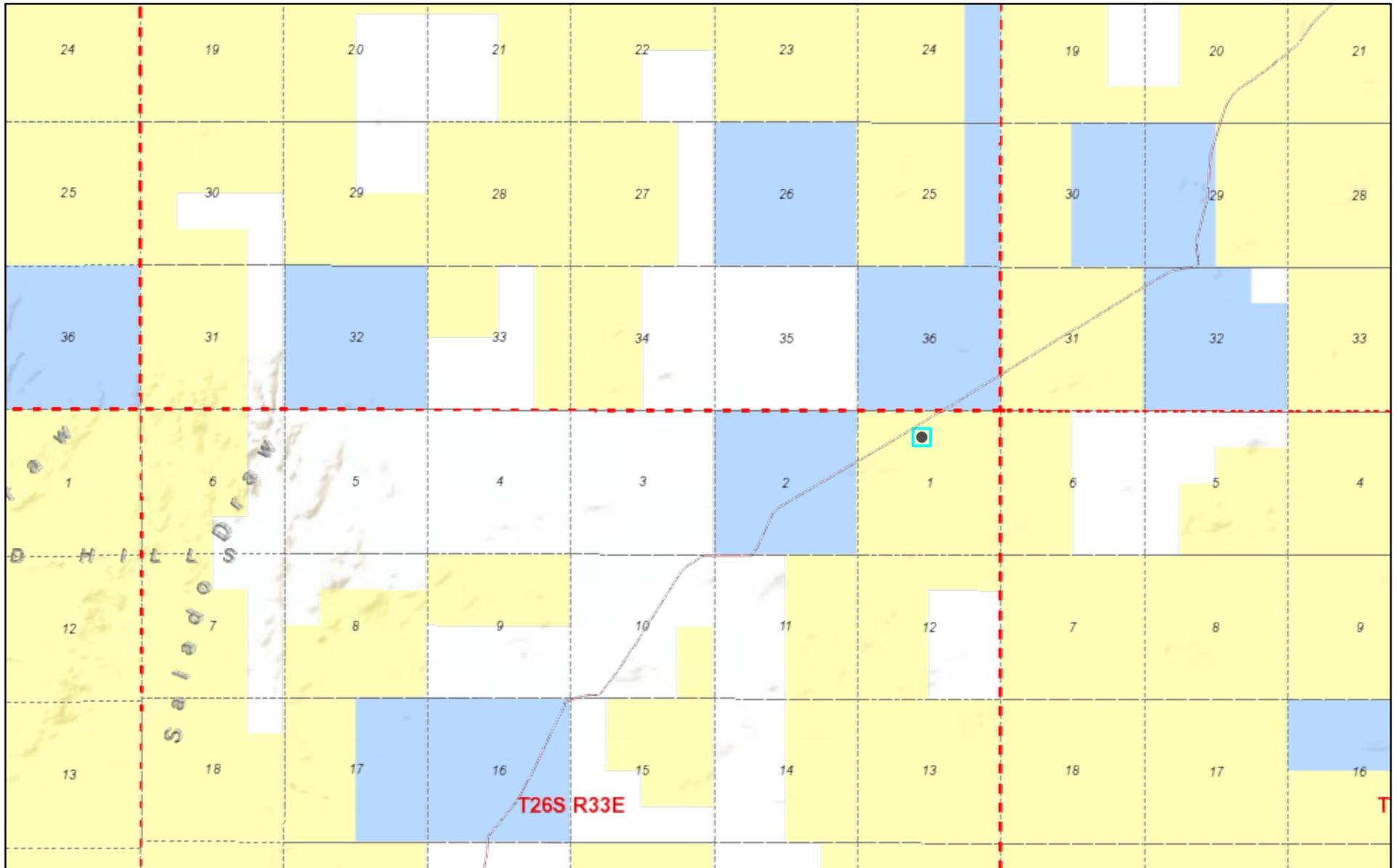


2020-02-23 11:44:31 AM



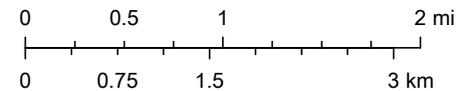
U.S. Bureau of Land Management - New Mexico State Office, Sources: Esri, USGS, NOAA, Sources: Esri, Garmin, USGS, NPS

# Active Mines in New Mexico



2020-02-23 11:44:15 AM

1:72,224

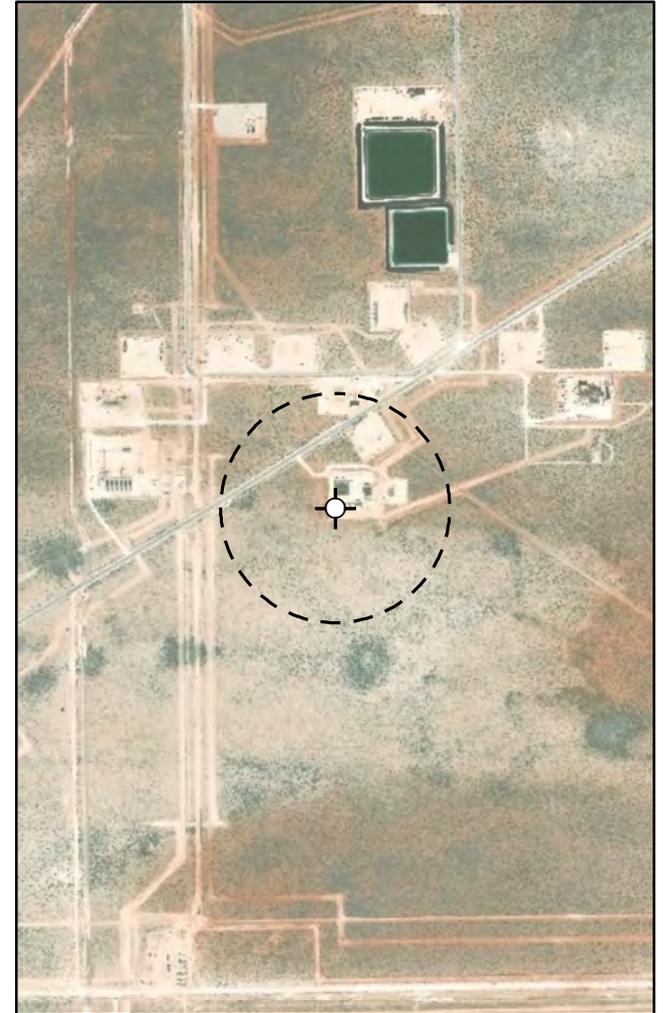
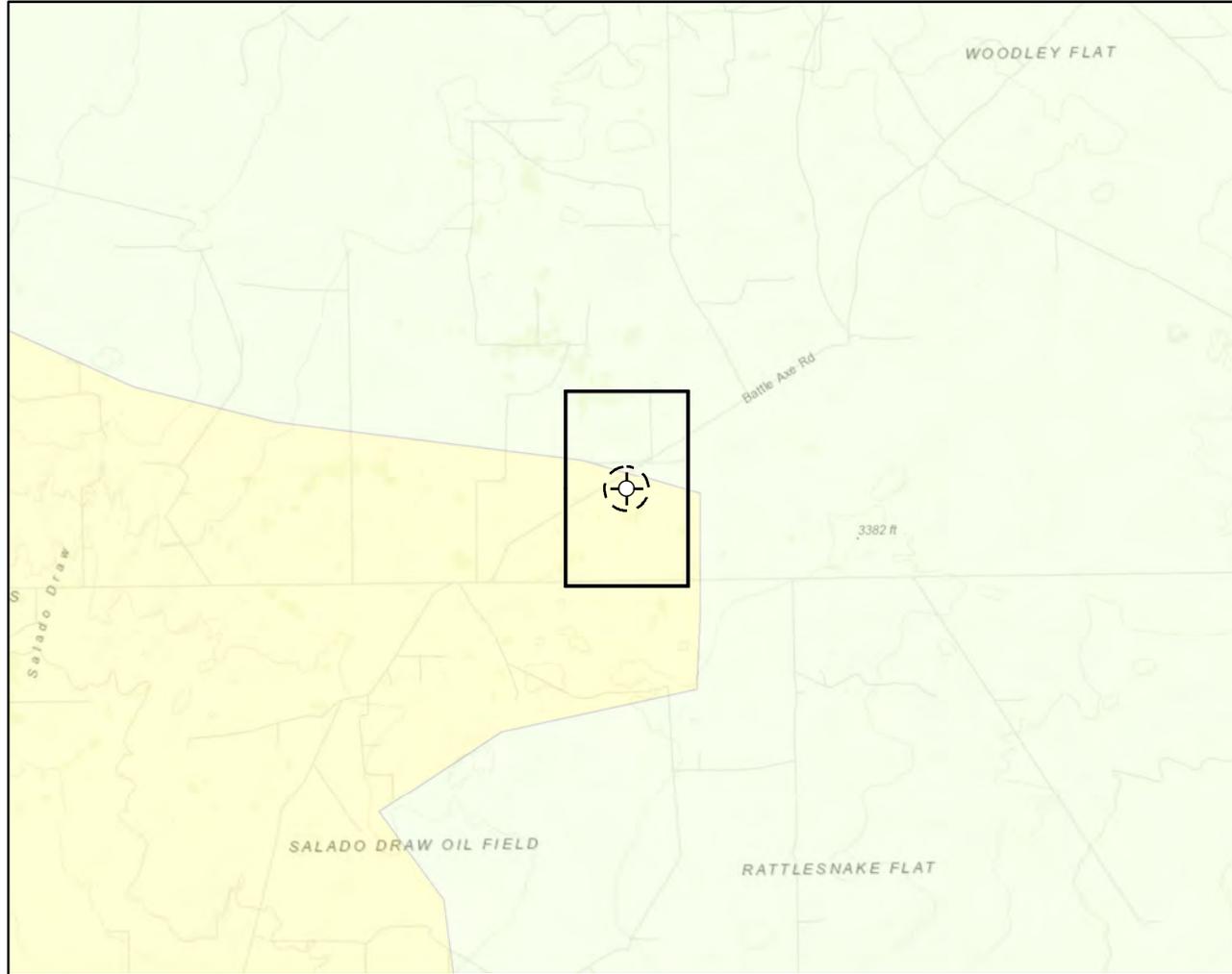


U.S. Bureau of Land Management - New Mexico State Office, Sources: Esri,

EMNRD MMD GIS Coordinator

NM Energy, Minerals and Natural Resources Department (<http://nm-emnrd.maps.arcgis.com/apps/webappviewer/index.html?id=1b5e577974664d689b47790897ca2795>)

Document Path: G:\1-Projects\US PROJECTS\Devon Energy Corporation\20E-00141026 - SeaWolf 1-12 CTB 1\Fig X SeaWolf 1-12 CTB 1 Karst.mxd



**Karst Potential**

- Critical
- High
- Medium
- Low



Site



Site Buffer - 1000 ft.

**Overview Map**

0 0.25 0.5 1 1.5 mi



**Detail Map**

0 300 600 1,200 ft.



Map Center:  
Lat/Long: 32.076608, -103.527142

NAD 1983 UTM Zone 13N  
Date: Feb 24/20



**Karst Potential Map  
SeaWolf 1-12 CTB 1**

FIGURE:

**X**



Geospatial data presented in this figure may be derived from external sources and Vertex does not assume any liability for inaccuracies. This figure is intended for reference use only and is not certified for legal, survey, or engineering purposes.

Note: Inset Map - ESRI 2018; Overview Map - ESRI World Topographic

**VERSATILITY. EXPERTISE.**

# National Flood Hazard Layer FIRMette



32°4'52.72"N



## Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

- SPECIAL FLOOD HAZARD AREAS**
  - Without Base Flood Elevation (BFE) Zone A, V, A99
  - With BFE or Depth Zone AE, AO, AH, VE, AR
  - Regulatory Floodway
- OTHER AREAS OF FLOOD HAZARD**
  - 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
  - Future Conditions 1% Annual Chance Flood Hazard Zone X
  - Area with Reduced Flood Risk due to Levee. See Notes. Zone X
  - Area with Flood Risk due to Levee Zone D
- OTHER AREAS**
  - NO SCREEN Area of Minimal Flood Hazard Zone X
  - Effective LOMRs
  - Area of Undetermined Flood Hazard Zone D
- GENERAL STRUCTURES**
  - Channel, Culvert, or Storm Sewer
  - Levee, Dike, or Floodwall
- OTHER FEATURES**
  - Cross Sections with 1% Annual Chance Water Surface Elevation
  - Coastal Transect
  - Base Flood Elevation Line (BFE)
  - Limit of Study
  - Jurisdiction Boundary
  - Coastal Transect Baseline
  - Profile Baseline
  - Hydrographic Feature
- MAP PANELS**
  - Digital Data Available
  - No Digital Data Available
  - Unmapped

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 2/23/2020 at 1:52:13 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

USGS The National Map: Orthoimagery. Data refreshed April, 2019.

Released to Imaging: 2/14/2023 2:04:09 PM

103°31'17.97"W

32°4'22.23"N



A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

# Custom Soil Resource Report for Lea County, New Mexico



February 23, 2020

# Preface

---

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist ([http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2\\_053951](http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951)).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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## How Soil Surveys Are Made

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Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

## Custom Soil Resource Report

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

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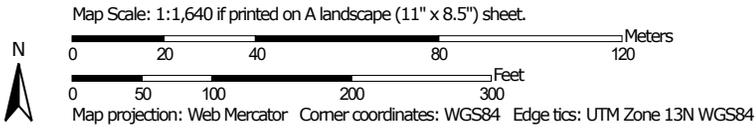
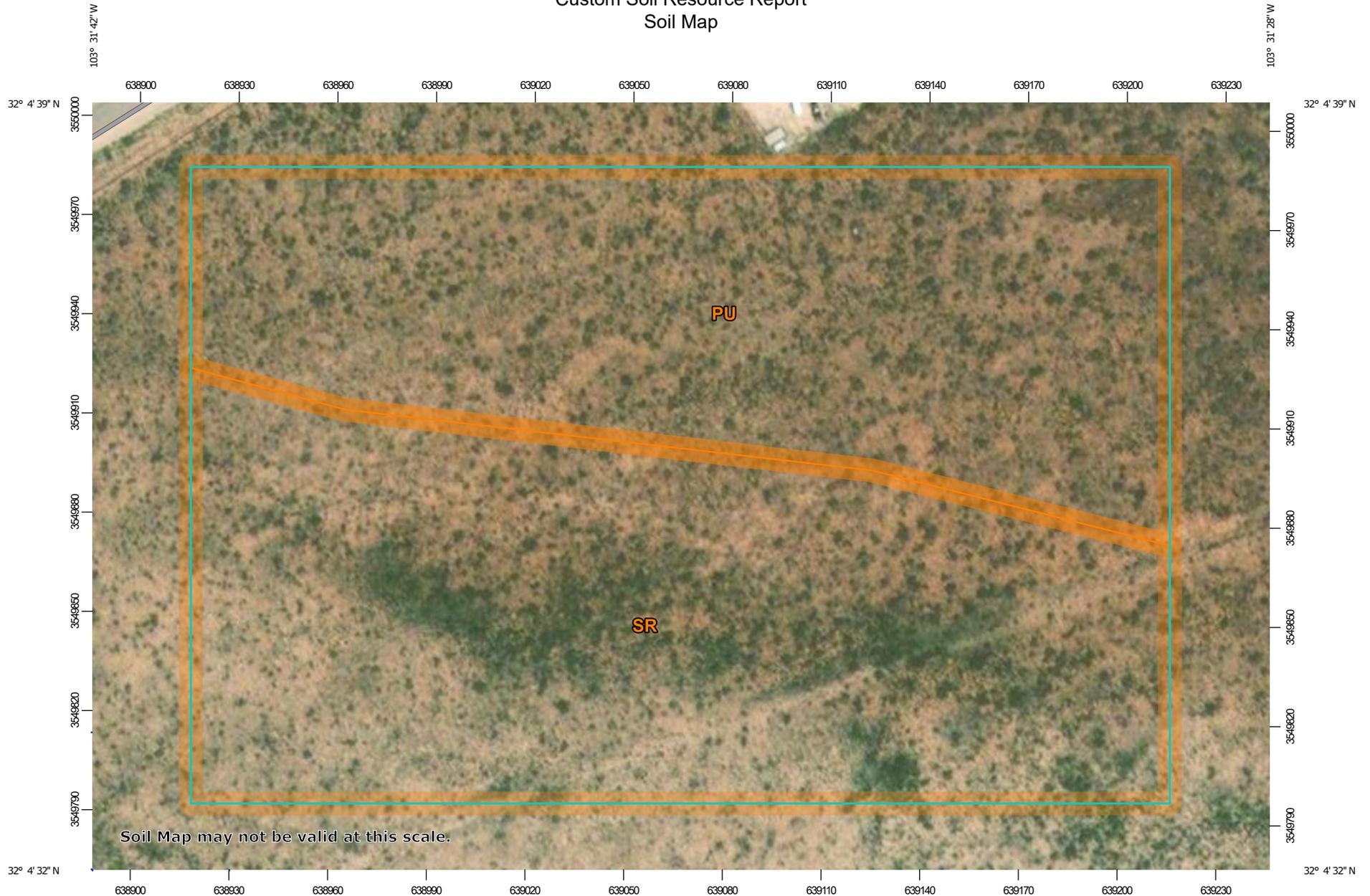
identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

## Soil Map

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The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

### Custom Soil Resource Report Soil Map



### Custom Soil Resource Report

#### MAP LEGEND

**Area of Interest (AOI)**

 Area of Interest (AOI)

**Soils**

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

**Special Point Features**

-  Blowout
-  Borrow Pit
-  Clay Spot
-  Closed Depression
-  Gravel Pit
-  Gravelly Spot
-  Landfill
-  Lava Flow
-  Marsh or swamp
-  Mine or Quarry
-  Miscellaneous Water
-  Perennial Water
-  Rock Outcrop
-  Saline Spot
-  Sandy Spot
-  Severely Eroded Spot
-  Sinkhole
-  Slide or Slip
-  Sodic Spot

-  Spoil Area
-  Stony Spot
-  Very Stony Spot
-  Wet Spot
-  Other
-  Special Line Features

**Water Features**

 Streams and Canals

**Transportation**

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

**Background**

 Aerial Photography

#### MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
 Web Soil Survey URL:  
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Lea County, New Mexico  
 Survey Area Data: Version 16, Sep 15, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Dec 31, 2009—Sep 17, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Custom Soil Resource Report

## Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
PU	Pyote and maljamar fine sands	6.4	44.9%
SR	Simona-Upton association	7.8	55.1%
<b>Totals for Area of Interest</b>		<b>14.2</b>	<b>100.0%</b>

## Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however,

## Custom Soil Resource Report

onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

## Custom Soil Resource Report

**Lea County, New Mexico****PU—Pyote and maljamar fine sands****Map Unit Setting**

*National map unit symbol:* dmqq  
*Elevation:* 3,000 to 3,900 feet  
*Mean annual precipitation:* 10 to 12 inches  
*Mean annual air temperature:* 60 to 62 degrees F  
*Frost-free period:* 190 to 205 days  
*Farmland classification:* Not prime farmland

**Map Unit Composition**

*Maljamar and similar soils:* 45 percent  
*Pyote and similar soils:* 45 percent  
*Minor components:* 10 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Maljamar****Setting**

*Landform:* Plains  
*Landform position (three-dimensional):* Rise  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Parent material:* Sandy eolian deposits derived from sedimentary rock

**Typical profile**

*A - 0 to 24 inches:* fine sand  
*Bt - 24 to 50 inches:* sandy clay loam  
*Bkm - 50 to 60 inches:* cemented material

**Properties and qualities**

*Slope:* 0 to 3 percent  
*Depth to restrictive feature:* 40 to 60 inches to petrocalcic  
*Natural drainage class:* Well drained  
*Runoff class:* Very low  
*Capacity of the most limiting layer to transmit water (Ksat):* Very low to moderately low (0.00 to 0.06 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum in profile:* 5 percent  
*Gypsum, maximum in profile:* 1 percent  
*Salinity, maximum in profile:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Sodium adsorption ratio, maximum in profile:* 2.0  
*Available water storage in profile:* Low (about 5.6 inches)

**Interpretive groups**

*Land capability classification (irrigated):* 6e  
*Land capability classification (nonirrigated):* 7e  
*Hydrologic Soil Group:* B  
*Ecological site:* Loamy Sand (R042XC003NM)  
*Hydric soil rating:* No

## Custom Soil Resource Report

### Description of Pyote

#### Setting

*Landform:* Plains  
*Landform position (three-dimensional):* Rise  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Parent material:* Sandy eolian deposits derived from sedimentary rock

#### Typical profile

*A - 0 to 30 inches:* fine sand  
*Bt - 30 to 60 inches:* fine sandy loam

#### Properties and qualities

*Slope:* 0 to 3 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Well drained  
*Runoff class:* Negligible  
*Capacity of the most limiting layer to transmit water (Ksat):* High (2.00 to 6.00 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum in profile:* 5 percent  
*Gypsum, maximum in profile:* 1 percent  
*Salinity, maximum in profile:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Sodium adsorption ratio, maximum in profile:* 2.0  
*Available water storage in profile:* Low (about 5.1 inches)

#### Interpretive groups

*Land capability classification (irrigated):* 6e  
*Land capability classification (nonirrigated):* 7s  
*Hydrologic Soil Group:* A  
*Ecological site:* Loamy Sand (R042XC003NM)  
*Hydric soil rating:* No

### Minor Components

#### Kermit

*Percent of map unit:* 10 percent  
*Ecological site:* Sandhills (R042XC022NM)  
*Hydric soil rating:* No

## SR—Simona-Upton association

#### Map Unit Setting

*National map unit symbol:* dmr3  
*Elevation:* 3,000 to 4,400 feet

## Custom Soil Resource Report

*Mean annual precipitation:* 10 to 16 inches  
*Mean annual air temperature:* 58 to 62 degrees F  
*Frost-free period:* 190 to 205 days  
*Farmland classification:* Not prime farmland

**Map Unit Composition**

*Simona and similar soils:* 50 percent  
*Upton and similar soils:* 35 percent  
*Minor components:* 15 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Simona****Setting**

*Landform:* Ridges  
*Landform position (two-dimensional):* Shoulder  
*Landform position (three-dimensional):* Rise  
*Down-slope shape:* Convex  
*Across-slope shape:* Linear  
*Parent material:* Calcareous eolian deposits derived from sedimentary rock

**Typical profile**

*A - 0 to 8 inches:* gravelly fine sandy loam  
*Bk - 8 to 16 inches:* fine sandy loam  
*Bkm - 16 to 26 inches:* cemented material

**Properties and qualities**

*Slope:* 0 to 3 percent  
*Depth to restrictive feature:* 7 to 20 inches to petrocalcic  
*Natural drainage class:* Well drained  
*Runoff class:* Very low  
*Capacity of the most limiting layer to transmit water (Ksat):* Very low to moderately low (0.00 to 0.06 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum in profile:* 50 percent  
*Gypsum, maximum in profile:* 1 percent  
*Salinity, maximum in profile:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Sodium adsorption ratio, maximum in profile:* 2.0  
*Available water storage in profile:* Very low (about 1.9 inches)

**Interpretive groups**

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 7s  
*Hydrologic Soil Group:* D  
*Ecological site:* Shallow Sandy (R042XC002NM)  
*Hydric soil rating:* No

**Description of Upton****Setting**

*Landform:* Ridges  
*Landform position (two-dimensional):* Shoulder  
*Landform position (three-dimensional):* Rise  
*Down-slope shape:* Convex

## Custom Soil Resource Report

*Across-slope shape:* Linear

*Parent material:* Calcareous eolian deposits derived from sedimentary rock

**Typical profile**

*A - 0 to 8 inches:* gravelly loam

*Bkm - 8 to 18 inches:* cemented material

*Bck - 18 to 60 inches:* very gravelly loam

**Properties and qualities**

*Slope:* 0 to 3 percent

*Depth to restrictive feature:* 7 to 20 inches to petrocalcic

*Natural drainage class:* Well drained

*Runoff class:* Medium

*Capacity of the most limiting layer to transmit water (Ksat):* Low to moderately high (0.01 to 0.60 in/hr)

*Depth to water table:* More than 80 inches

*Frequency of flooding:* None

*Frequency of ponding:* None

*Calcium carbonate, maximum in profile:* 75 percent

*Gypsum, maximum in profile:* 1 percent

*Salinity, maximum in profile:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

*Sodium adsorption ratio, maximum in profile:* 2.0

*Available water storage in profile:* Very low (about 0.9 inches)

**Interpretive groups**

*Land capability classification (irrigated):* 6e

*Land capability classification (nonirrigated):* 7s

*Hydrologic Soil Group:* D

*Ecological site:* Shallow (R042XC025NM)

*Hydric soil rating:* No

**Minor Components****Kimbrough**

*Percent of map unit:* 6 percent

*Ecological site:* Very Shallow 16-21" PZ (R077CY037TX)

*Hydric soil rating:* No

**Stegall**

*Percent of map unit:* 5 percent

*Ecological site:* Limy Upland 16-21" PZ (R077CY028TX)

*Hydric soil rating:* No

**Slaughter**

*Percent of map unit:* 4 percent

*Ecological site:* Limy Upland 16-21" PZ (R077CY028TX)

*Hydric soil rating:* No

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All Ecological Sites -- Rangeland—Lea County, New Mexico



Soil Map may not be valid at this scale.

Map Scale: 1:1,720 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 13N WGS84

All Ecological Sites -- Rangeland—Lea County, New Mexico

### MAP LEGEND

**Area of Interest (AOI)**

 Area of Interest (AOI)

**Soils**

**Soil Rating Polygons**

 R042XC002NM  
 R042XC003NM  
 Not rated or not available

**Soil Rating Lines**

 R042XC002NM  
 R042XC003NM  
 Not rated or not available

**Soil Rating Points**

 R042XC002NM  
 R042XC003NM  
 Not rated or not available

**Water Features**

 Streams and Canals

**Transportation**

 Rails  
 Interstate Highways  
 US Routes  
 Major Roads  
 Local Roads

**Background**

 Aerial Photography

### MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

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Source of Map: Natural Resources Conservation Service  
 Web Soil Survey URL:  
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Lea County, New Mexico  
 Survey Area Data: Version 16, Sep 15, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

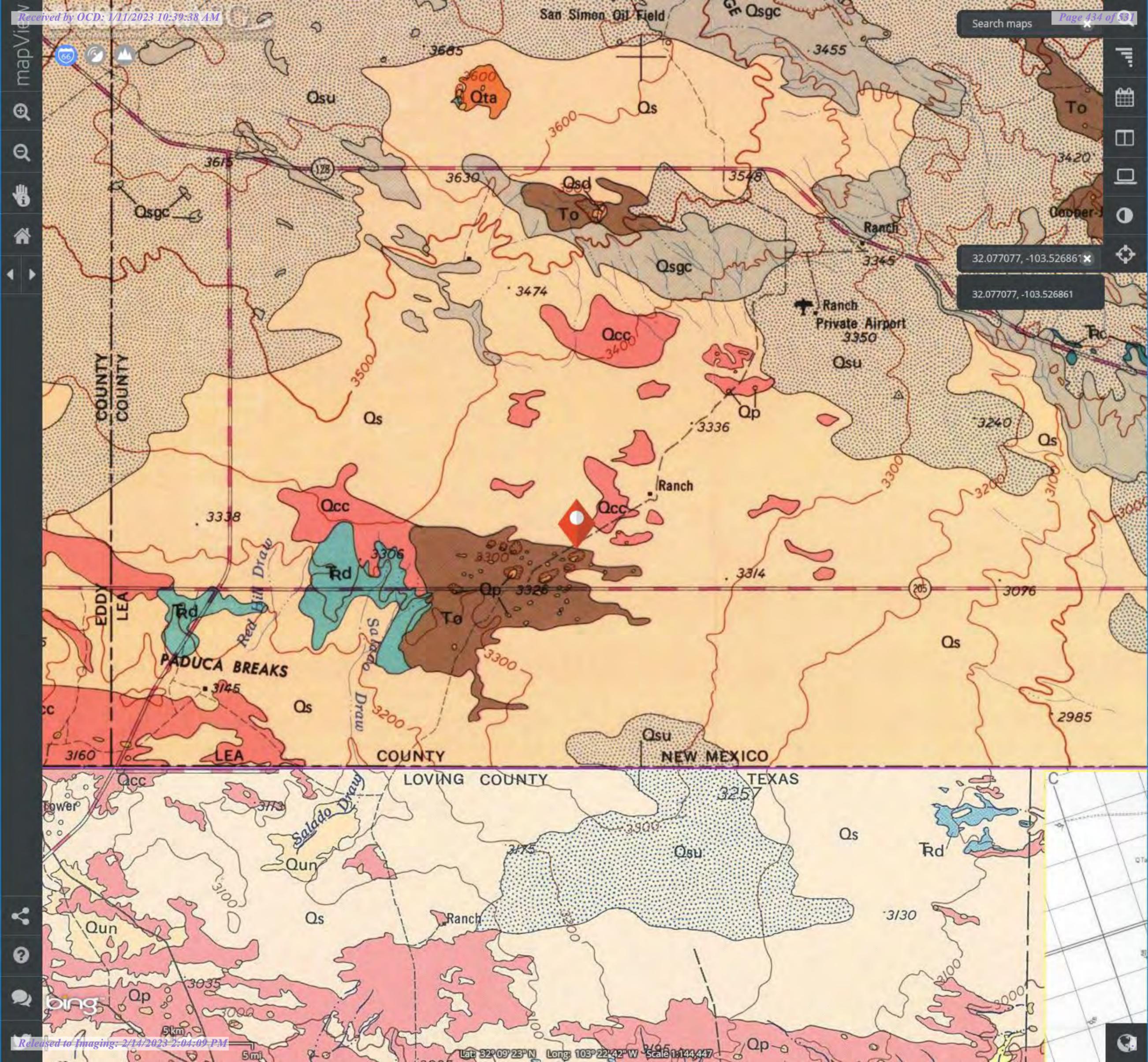
Date(s) aerial images were photographed: Dec 31, 2009—Sep 17, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## All Ecological Sites — Rangeland

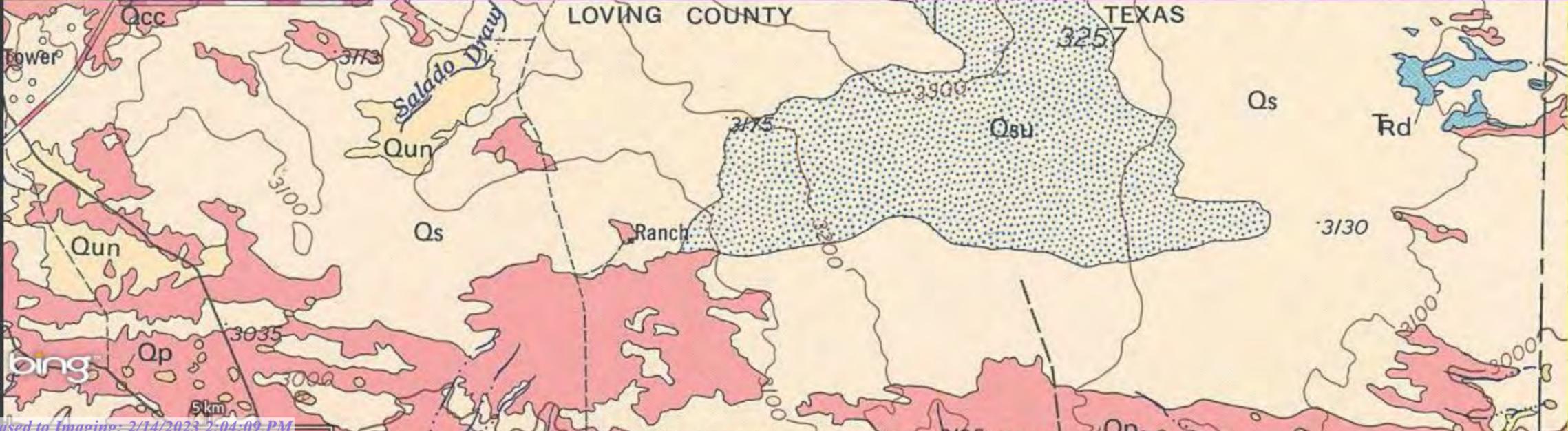
Map unit symbol	Map unit name	Component name (percent)	Ecological site	Acres in AOI	Percent of AOI
PU	Pyote and maljamar fine sands	Maljamar (45%)	R042XC003NM — Loamy Sand	6.5	47.9%
		Pyote (45%)	R042XC003NM — Loamy Sand		
		Kermit (10%)	R042XC022NM — Sandhills		
SR	Simona-Upton association	Simona (50%)	R042XC002NM — Shallow Sandy	7.0	52.1%
		Upton (35%)	R042XC025NM — Shallow		
		Kimbrough (6%)	R077CY037TX — Very Shallow 16-21" PZ		
		Stegall (5%)	R077CY028TX — Limy Upland 16-21" PZ		
		Slaughter (4%)	R077CY028TX — Limy Upland 16-21" PZ		
<b>Totals for Area of Interest</b>				<b>13.5</b>	<b>100.0%</b>

Search maps

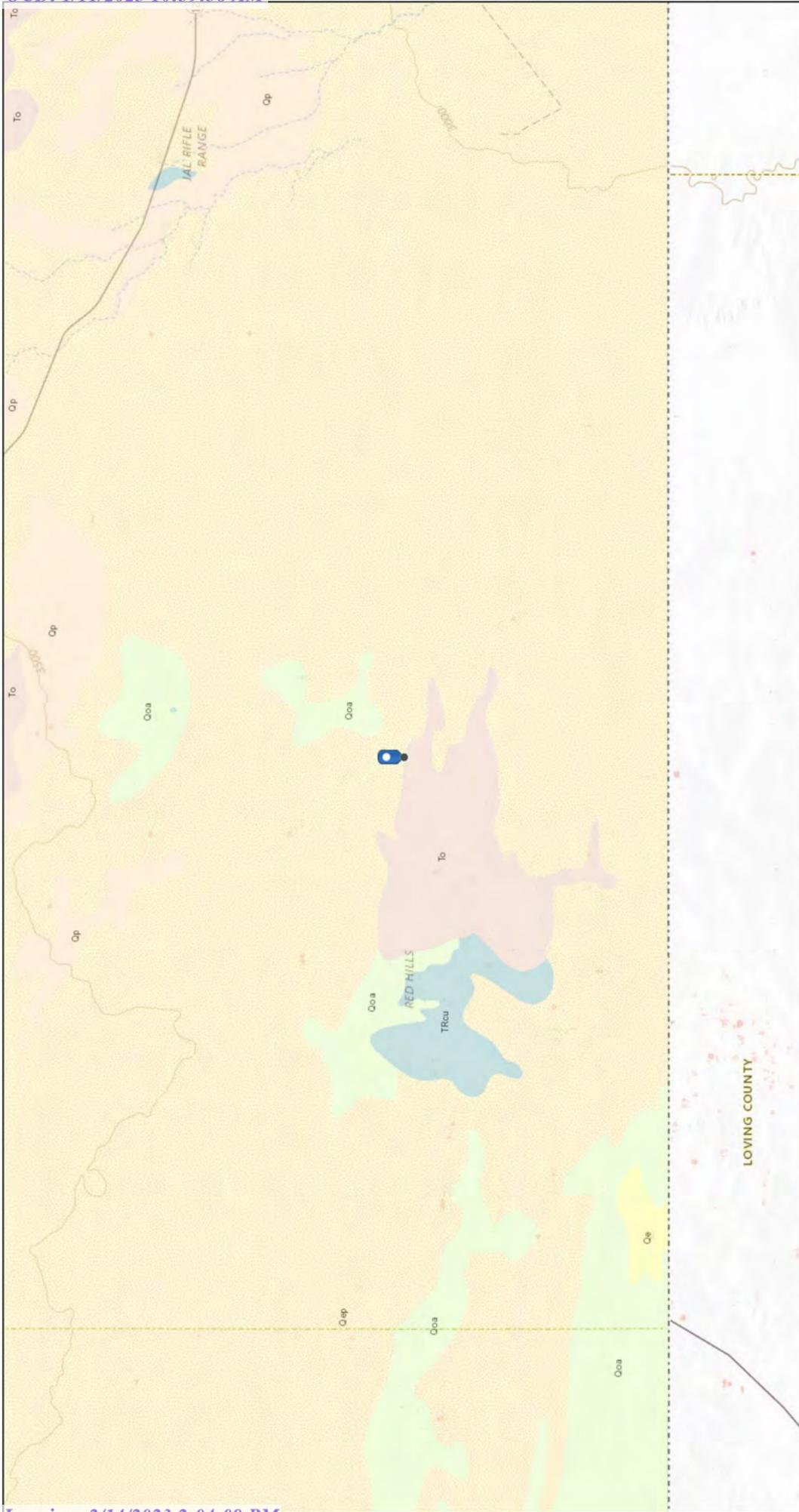


32.077077, -103.526861

32.077077, -103.526861



# SeaWolf 1-12 CTB 1 To Geology



5/26/2020, 10:46:37 AM

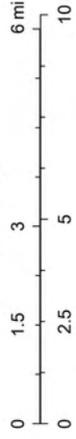
Faults

- Fault, Exposed
- - - Fault, Intermittent
- ..... Fault, Concealed
- ~ ~ ~ Shere Zone
- Dikes
- <all other values>
- Dike
- ++++ Dike intruding fault
- \* Volcanic Vents

STATEMAP (1993 to Present) [Publications]

- Mapping in Complete
- Mapping in Progress

1:144,448

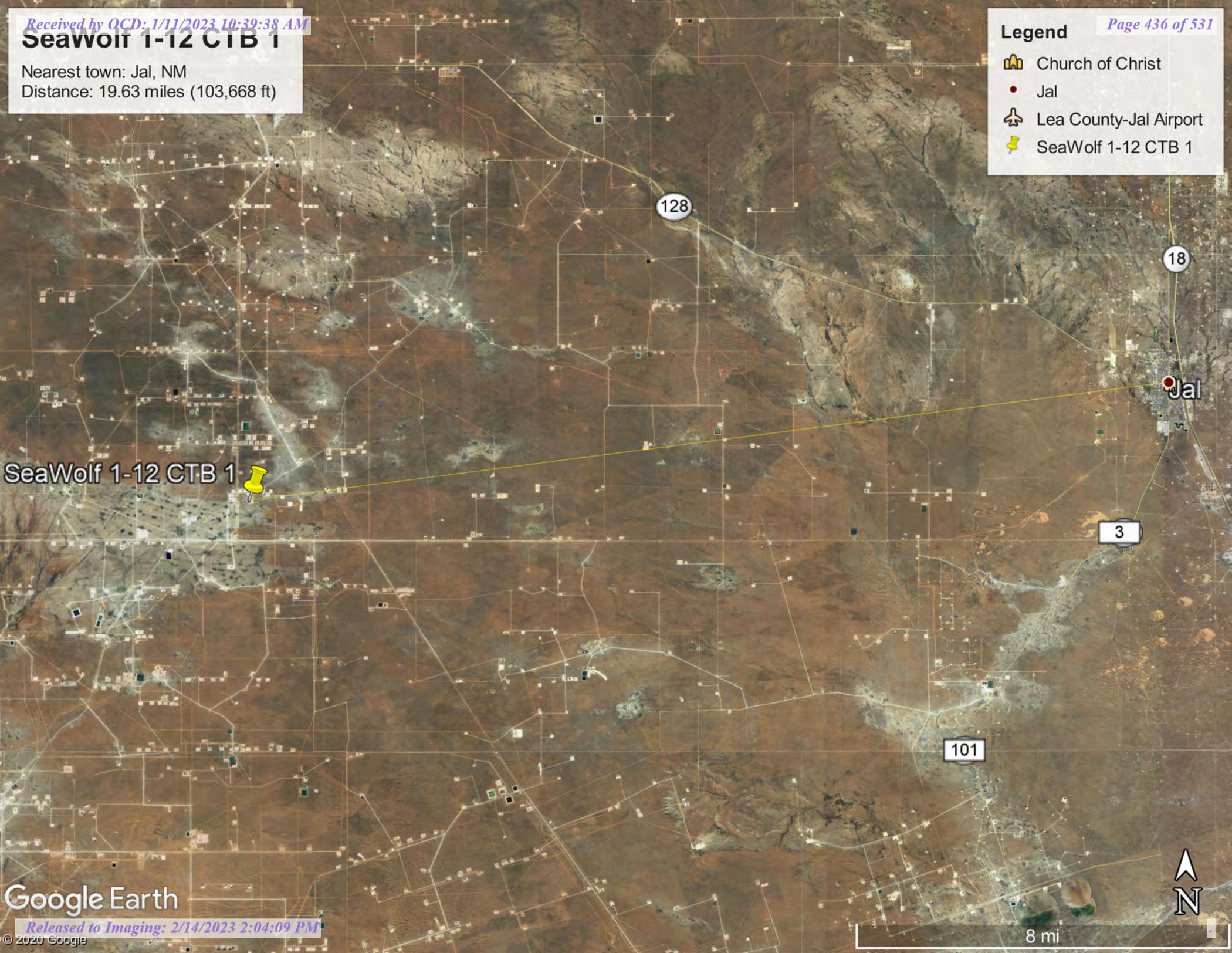


# SeaWolf 1-12 CTB 1

Nearest town: Jal, NM  
Distance: 19.63 miles (103,668 ft)

**Legend**

-  Church of Christ
-  Jal
-  Lea County-Jal Airport
-  SeaWolf 1-12 CTB 1

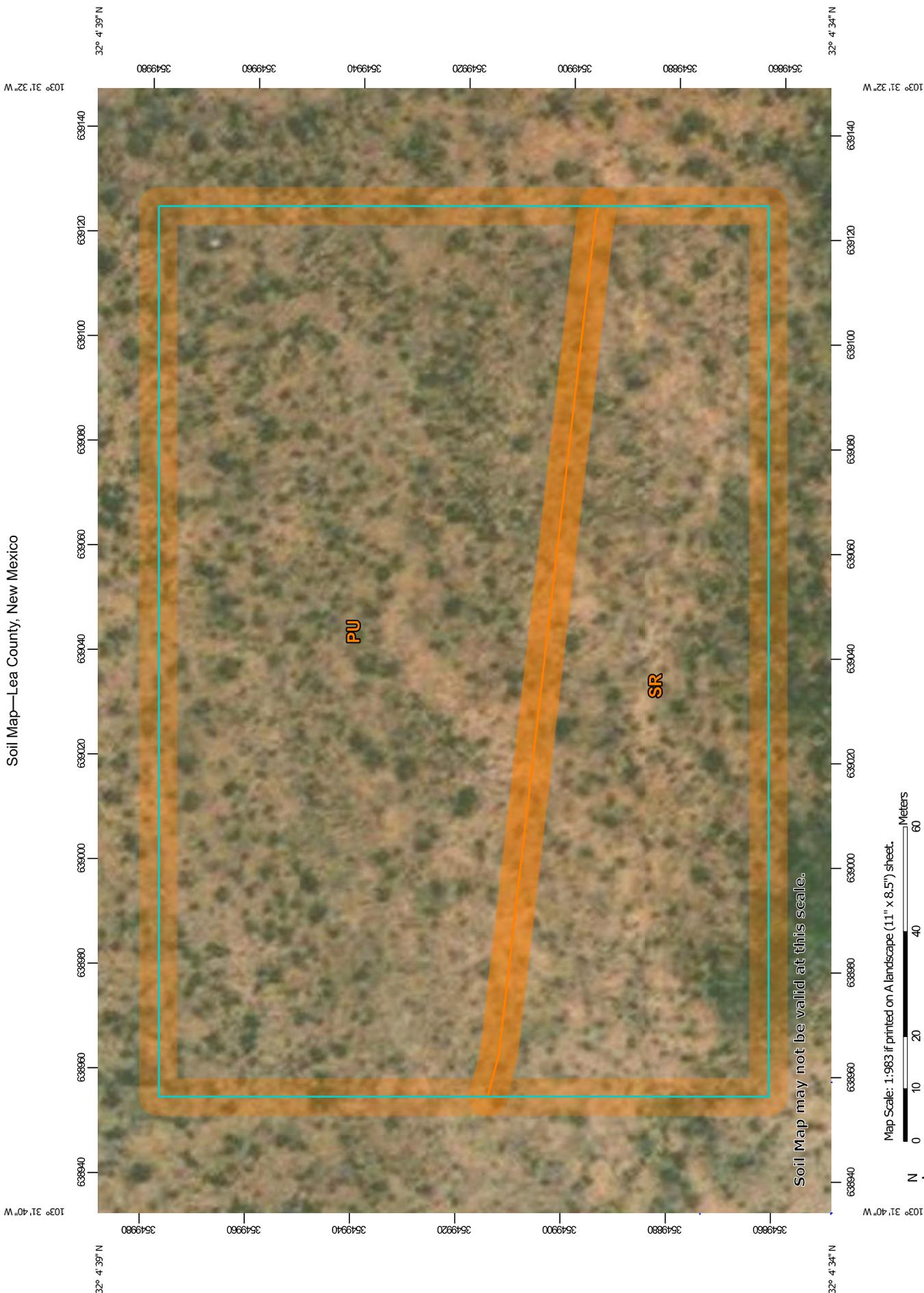


SeaWolf 1-12 CTB 1 

Jal



Soil Map—Lea County, New Mexico



Natural Resources Conservation Service

Web Soil Survey National Cooperative Soil Survey

### MAP LEGEND

- Area of Interest (AOI)
- Area of Interest (AOI)
- Soils**
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points
- Special Point Features**
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features
- Water Features**
- Streams and Canals
- Transportation**
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads
- Background**
- Aerial Photography

### MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
 Web Soil Survey URL:  
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Lea County, New Mexico  
 Survey Area Data: Version 16, Sep 15, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Dec 31, 2009—Sep 17, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
PU	Pyote and maljamar fine sands	3.1	63.4%
SR	Simona-Upton association	1.8	36.6%
<b>Totals for Area of Interest</b>		<b>4.9</b>	<b>100.0%</b>

Map Unit Description: Pyote and maljamar fine sands---Lea County, New Mexico

---

## Lea County, New Mexico

### PU—Pyote and maljamar fine sands

#### Map Unit Setting

*National map unit symbol:* dmqq  
*Elevation:* 3,000 to 3,900 feet  
*Mean annual precipitation:* 10 to 12 inches  
*Mean annual air temperature:* 60 to 62 degrees F  
*Frost-free period:* 190 to 205 days  
*Farmland classification:* Not prime farmland

#### Map Unit Composition

*Maljamar and similar soils:* 45 percent  
*Pyote and similar soils:* 45 percent  
*Minor components:* 10 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### Description of Maljamar

##### Setting

*Landform:* Plains  
*Landform position (three-dimensional):* Rise  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Parent material:* Sandy eolian deposits derived from sedimentary rock

##### Typical profile

*A - 0 to 24 inches:* fine sand  
*Bt - 24 to 50 inches:* sandy clay loam  
*Bkm - 50 to 60 inches:* cemented material

##### Properties and qualities

*Slope:* 0 to 3 percent  
*Depth to restrictive feature:* 40 to 60 inches to petrocalcic  
*Natural drainage class:* Well drained  
*Runoff class:* Very low  
*Capacity of the most limiting layer to transmit water (Ksat):* Very low to moderately low (0.00 to 0.06 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum in profile:* 5 percent  
*Gypsum, maximum in profile:* 1 percent  
*Salinity, maximum in profile:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Sodium adsorption ratio, maximum in profile:* 2.0  
*Available water storage in profile:* Low (about 5.6 inches)

Map Unit Description: Pyote and maljamar fine sands---Lea County, New Mexico

---

### Interpretive groups

*Land capability classification (irrigated):* 6e  
*Land capability classification (nonirrigated):* 7e  
*Hydrologic Soil Group:* B  
*Ecological site:* Loamy Sand (R042XC003NM)  
*Hydric soil rating:* No

### Description of Pyote

#### Setting

*Landform:* Plains  
*Landform position (three-dimensional):* Rise  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Parent material:* Sandy eolian deposits derived from sedimentary rock

#### Typical profile

*A - 0 to 30 inches:* fine sand  
*Bt - 30 to 60 inches:* fine sandy loam

#### Properties and qualities

*Slope:* 0 to 3 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Well drained  
*Runoff class:* Negligible  
*Capacity of the most limiting layer to transmit water (Ksat):* High (2.00 to 6.00 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum in profile:* 5 percent  
*Gypsum, maximum in profile:* 1 percent  
*Salinity, maximum in profile:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Sodium adsorption ratio, maximum in profile:* 2.0  
*Available water storage in profile:* Low (about 5.1 inches)

### Interpretive groups

*Land capability classification (irrigated):* 6e  
*Land capability classification (nonirrigated):* 7s  
*Hydrologic Soil Group:* A  
*Ecological site:* Loamy Sand (R042XC003NM)  
*Hydric soil rating:* No

### Minor Components

#### Kermit

*Percent of map unit:* 10 percent  
*Ecological site:* Sandhills (R042XC022NM)

Map Unit Description: Pyote and maljamar fine sands--Lea County, New Mexico

---

*Hydric soil rating:* No

## Data Source Information

Soil Survey Area: Lea County, New Mexico  
Survey Area Data: Version 16, Sep 15, 2019

Map Unit Description: Simona-Upton association---Lea County, New Mexico

## Lea County, New Mexico

### SR—Simona-Upton association

#### Map Unit Setting

*National map unit symbol:* dmr3  
*Elevation:* 3,000 to 4,400 feet  
*Mean annual precipitation:* 10 to 16 inches  
*Mean annual air temperature:* 58 to 62 degrees F  
*Frost-free period:* 190 to 205 days  
*Farmland classification:* Not prime farmland

#### Map Unit Composition

*Simona and similar soils:* 50 percent  
*Upton and similar soils:* 35 percent  
*Minor components:* 15 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### Description of Simona

##### Setting

*Landform:* Ridges  
*Landform position (two-dimensional):* Shoulder  
*Landform position (three-dimensional):* Rise  
*Down-slope shape:* Convex  
*Across-slope shape:* Linear  
*Parent material:* Calcareous eolian deposits derived from sedimentary rock

##### Typical profile

*A - 0 to 8 inches:* gravelly fine sandy loam  
*Bk - 8 to 16 inches:* fine sandy loam  
*Bkm - 16 to 26 inches:* cemented material

##### Properties and qualities

*Slope:* 0 to 3 percent  
*Depth to restrictive feature:* 7 to 20 inches to petrocalcic  
*Natural drainage class:* Well drained  
*Runoff class:* Very low  
*Capacity of the most limiting layer to transmit water (Ksat):* Very low to moderately low (0.00 to 0.06 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum in profile:* 50 percent  
*Gypsum, maximum in profile:* 1 percent  
*Salinity, maximum in profile:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Sodium adsorption ratio, maximum in profile:* 2.0  
*Available water storage in profile:* Very low (about 1.9 inches)

Map Unit Description: Simona-Upton association---Lea County, New Mexico

---

### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 7s  
*Hydrologic Soil Group:* D  
*Ecological site:* Shallow Sandy (R042XC002NM)  
*Hydric soil rating:* No

### Description of Upton

#### Setting

*Landform:* Ridges  
*Landform position (two-dimensional):* Shoulder  
*Landform position (three-dimensional):* Rise  
*Down-slope shape:* Convex  
*Across-slope shape:* Linear  
*Parent material:* Calcareous eolian deposits derived from sedimentary rock

#### Typical profile

*A - 0 to 8 inches:* gravelly loam  
*Bkm - 8 to 18 inches:* cemented material  
*Bck - 18 to 60 inches:* very gravelly loam

#### Properties and qualities

*Slope:* 0 to 3 percent  
*Depth to restrictive feature:* 7 to 20 inches to petrocalcic  
*Natural drainage class:* Well drained  
*Runoff class:* Medium  
*Capacity of the most limiting layer to transmit water (Ksat):* Low to moderately high (0.01 to 0.60 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum in profile:* 75 percent  
*Gypsum, maximum in profile:* 1 percent  
*Salinity, maximum in profile:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Sodium adsorption ratio, maximum in profile:* 2.0  
*Available water storage in profile:* Very low (about 0.9 inches)

### Interpretive groups

*Land capability classification (irrigated):* 6e  
*Land capability classification (nonirrigated):* 7s  
*Hydrologic Soil Group:* D  
*Ecological site:* Shallow (R042XC025NM)  
*Hydric soil rating:* No

### Minor Components

#### Kimbrough

*Percent of map unit:* 6 percent  
*Ecological site:* Very Shallow 16-21" PZ (R077CY037TX)  
*Hydric soil rating:* No

Map Unit Description: Simona-Upton association---Lea County, New Mexico

---

**Stegall**

*Percent of map unit:* 5 percent

*Ecological site:* Limy Upland 16-21" PZ (R077CY028TX)

*Hydric soil rating:* No

**Slaughter**

*Percent of map unit:* 4 percent

*Ecological site:* Limy Upland 16-21" PZ (R077CY028TX)

*Hydric soil rating:* No

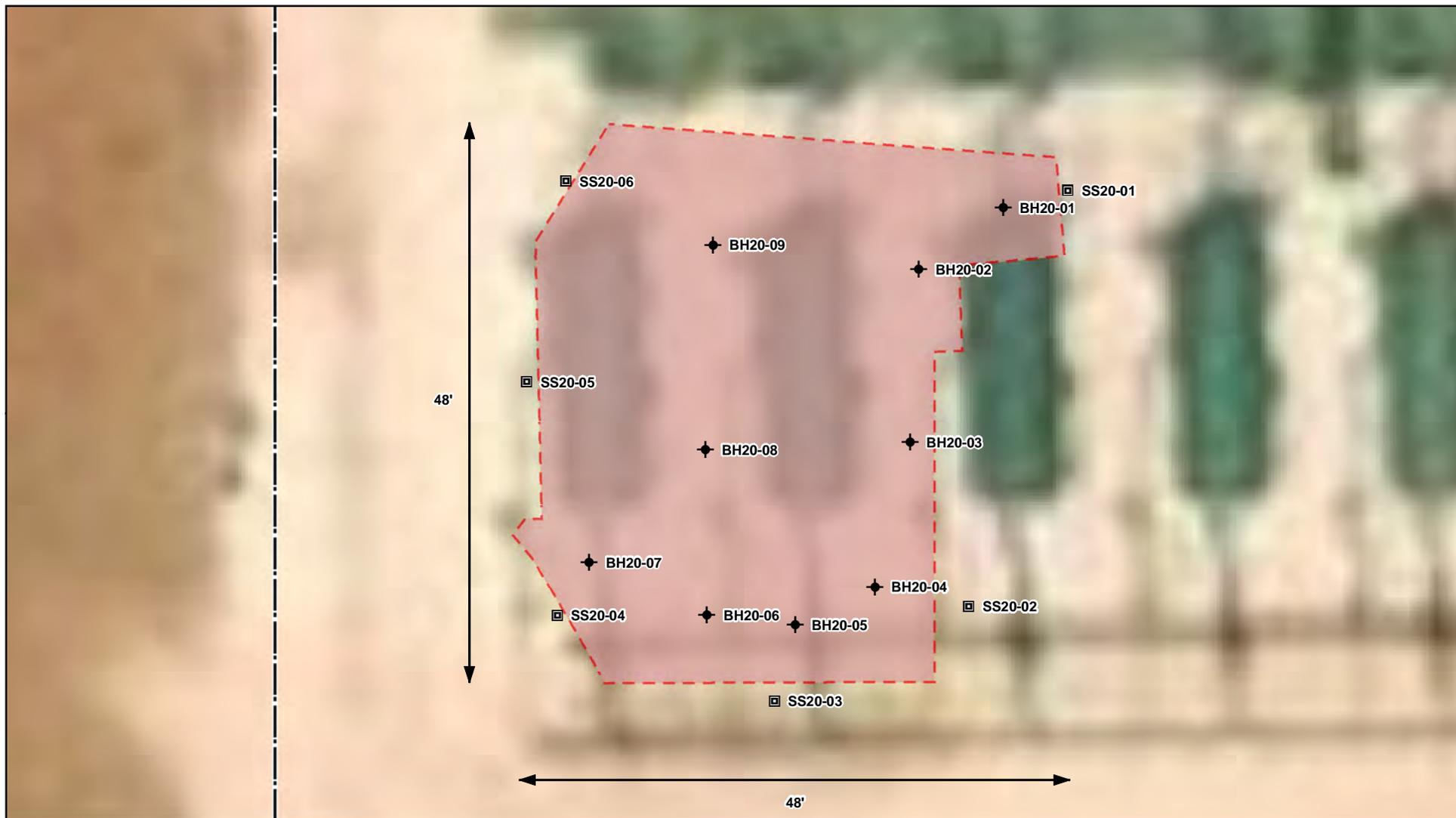
**Data Source Information**

Soil Survey Area: Lea County, New Mexico

Survey Area Data: Version 16, Sep 15, 2019

## **ATTACHMENT 3**

Document Path: G:\1-Projects\US PROJECTS\Devon Energy Corporation\20E-00141026 - SeaWolf 1-12 CTB 1\Fig 1 SeaWolf 1-12 CTB 1 Initial Characterization.mxd



- ◆ Borehole
- Surface Sample
- ⬡ Approximate Lease Boundary
- ⬢ Spill Extent (~ 1700 sq.ft)



0 2.5 5 10 ft  
 Map Center:  
 Lat/Long: 32.076612, -103.527205

NAD 1983 UTM Zone 13N  
 Date: Feb 20/20



**Site Schematic and Characterization Sampling  
 Locations - Incident NRM2004353184  
 SeaWolf 1-12 CTB 1**

FIGURE:

**1**

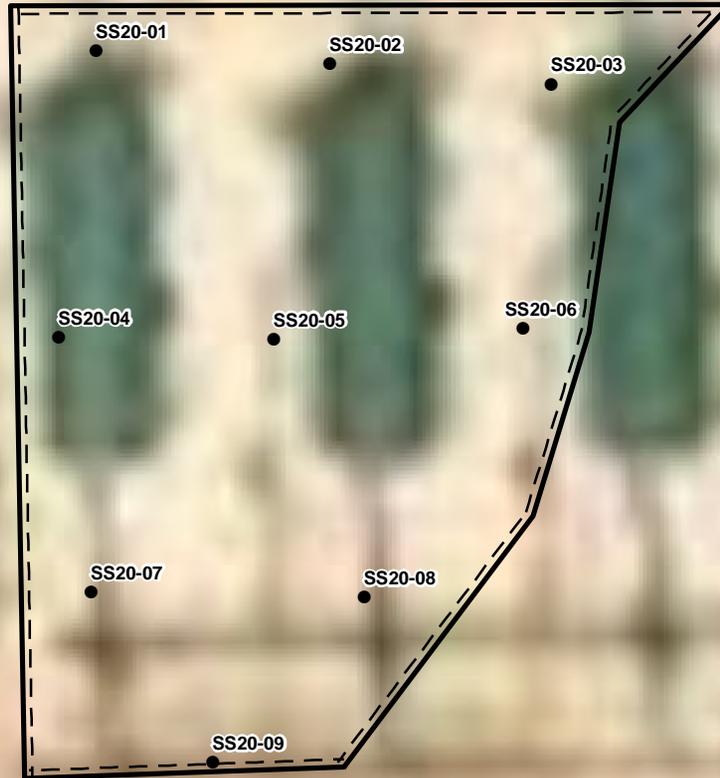


Geospatial data presented in this figure may be derived from external sources and Vertex does not assume any liability for inaccuracies. This figure is intended for reference use only and is not certified for legal, survey, or engineering purposes.

Note: Background image from ESRI, 2018.

**VERSATILITY. EXPERTISE.**

Document Path: G:\1-Projects\US PROJECTS\Devon Energy Corporation\20E-00141026 - SeaWolf 1-12 CTB 1\Fig 2 SeaWolf 1-12 CTB 1 Confirmatory Schematic.mxd



- Soil Sample ( 0 - 1 feet )
- ▭ Confirmatory Sampling Area ( ~1742 sq.ft. )



0 2.5 5 10 ft  
 Map Center:  
 Lat/Long: 32.076612, -103.527183

NAD 1983 UTM Zone 13N  
 Date: Apr 28/20



**Site Schematic and Confirmatory Sampling  
 Locations - Incident NRM2004353184  
 SeaWolf 1-12 CTB 1**

FIGURE:

2



Geospatial data presented in this figure may be derived from external sources and Vertex does not assume any liability for inaccuracies. This figure is intended for reference use only and is not certified for legal, survey, or engineering purposes.

Note: Background image from ESRI, 2018.

**ATTACHMENT 4**



# Daily Site Visit Report

Client:	Devon Energy Corporation	Inspection Date:	2/18/2020
Site Location Name:	SeaWolf 1-12 CTB 1	Report Run Date:	2/19/2020 4:43 PM
Project Owner:	Wes Mathews	File (Project) #:	20E-00141
Project Manager:	Natalie Gordon	API #:	
Client Contact Name:	Amanda Davis	Reference	01/23/2020 - 780 bbl PW Release
Client Contact Phone #:	(575) 748-0176		

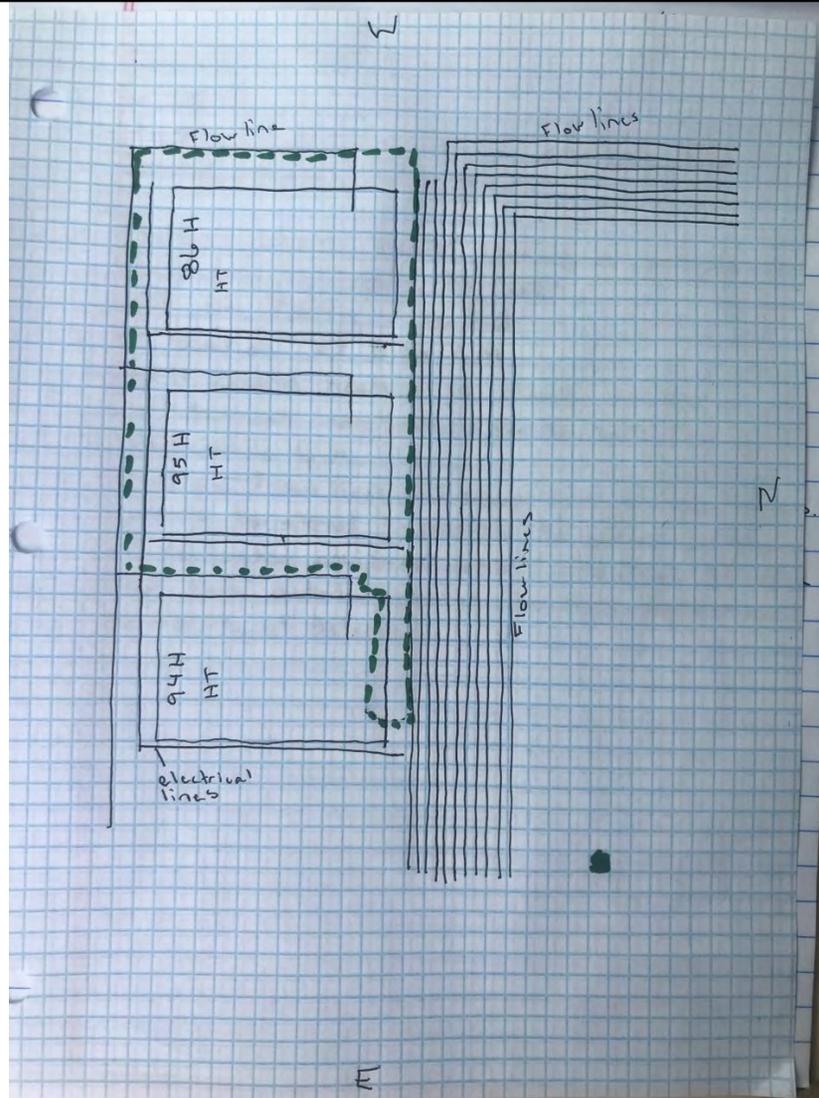
## Summary of Times

Left Office	2/18/2020 7:00 AM
Arrived at Site	2/18/2020 8:33 AM
Departed Site	2/18/2020 3:29 PM
Returned to Office	2/18/2020 5:45 AM

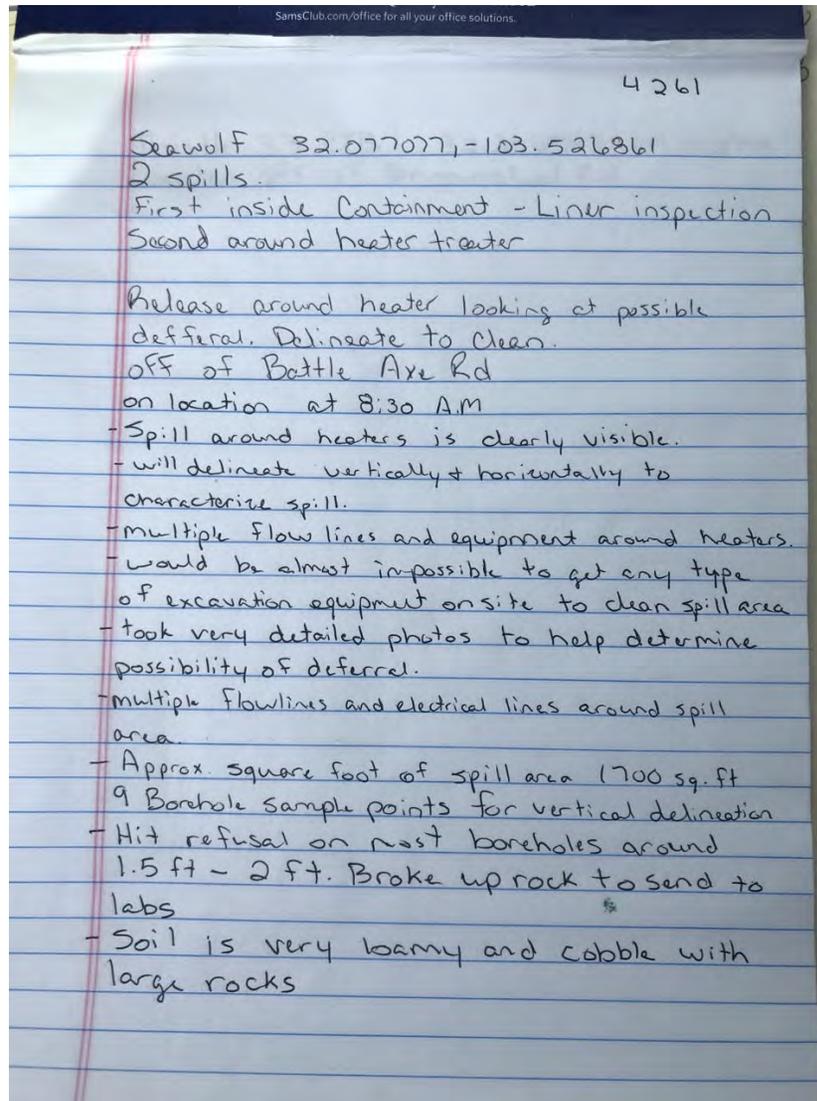


# Daily Site Visit Report

## Site Sketch



# Daily Site Visit Report



# Daily Site Visit Report



# Daily Site Visit Report



**Spill Response and Sampling**

Client: Duron  
 Date: 2/18/20  
 Site Name: Sea Wolf 1.12 Ctb1  
 Site Location:  
 Project Owner:  
 Project Manager:  
 Project #:

**Initial Spill Information - Record on First Visit**

Spill Date:  
 Spill Volume:  
 Spill Cause:  
 Spill Product:  
 Recovered Spill Volume:  
 Recovery Method:

Sample ID	Depth (ft)	Field Screening			Data Collection (Check for Yes)		
		VOC (ppm)	Petrolog TPH (ppm)	Quantab (High/Low) +/-	Lab Analysis	Picture	Trimble Coordinates
SS/TH/HH - Year Number Ex. BH1B-01	Ex. 2ft	Ex. 400 ppm	200 ppm	Ex. High +	Ex. Hydrocarbon Chloride		
SS 1	0			1.12 / 22.9			2:25
	0.5			0.41 / 23.0			2:30
SS 2	0			0.07 / 22.6			2:40
	0.5			0.10 / 22.2			2:45
SS 3	0			0.06 / 22.3			2:55
	0.5			0.06 / 22.2			3:00
SS 4	0			0.06 / 21.4			3:10
	0.5			0.05 / 21.6			3:15
SS 5	0			0.07 / 19.3			3:25
	0.5			0.08 / 19.5			3:30
SS 6	0			0.12 / 19.7			3:40
	0.5			0.10 / 19.8			3:45

# Daily Site Visit Report



Spill Response and Sampling					Initial Spill Information - Record on First Visit			
Client: 2/18/20					Spill Date: _____			
Date: Devon					Spill Volume: _____			
Site Name: Sea Wolf H2GB1					Spill Cause: _____			
Site Location: _____					Spill Product: _____			
Project Owner: _____					Recovered Spill Volume: _____			
Project Manager: _____					Recovery Method: _____			
Project #: 20E-00141-026								
		Field Screening			Data Collection (Check for Yes)			
Sample ID	Depth (ft)	VOC (ppb)	Petrolog TPH (ppm)	Quantab (High/Low) + or -	Lab Analysis	Picture	Trimble Coordinates	Marked on Site Sketch
OS/TPH/1: Year Noniles Ex. BH18-01	Ex. 2ft	Ex. 400 ppb	200 ppm	Ex. 7High +	Ex. Hydrocarbon Chloride			
BH1	0			7.85 / 20.2	9:00			
	0.5			0.83 / 20.3	9:05			
	1			0.23 / 22.7	9:10			
	2			0.17 / 24.4	9:15			
BH2	0			4.29 / 24.0	9:25			
	0.5			2.83 / 23.6	9:30			
	1			0.63 / 33.7	9:35			
	2				9:50			
BH3	0			5.39 / 28.0	10:00			
	0.5			2.03 / 27.0	10:05			
	1			0.40 / 24.8	10:15			
	1.25			0.60 / 27.9	10:30			
BH4	0			5.09 / 27.9	10:40			
	0.5			3.07 / 27.2	10:45			
	1			3.30 / 24.8	10:50			
	2			3.33 / 25.7	10:55			
BH4	3			2.80 / 18.9	11:10			
	3	rock			11:10			
BH5	0			4.74 / 18.6	11:25			
	0.5			1.66 / 18.8	11:30			
	1			1.11 / 18.9	11:35			
	1.5			1.08 / 18.9	11:40			

# Daily Site Visit Report



**VERTEX**

**Spill Response and Sampling**

Client: Devon  
 Date: 2/18/20  
 Site Name: See Wolf F-12 Ctl 1  
 Site Location: \_\_\_\_\_  
 Project Owner: \_\_\_\_\_  
 Project Manager: \_\_\_\_\_  
 Project #: 20E-00141-00026

**Initial Spill Information - Record on First Visit**

Spill Date: \_\_\_\_\_  
 Spill Volume: \_\_\_\_\_  
 Spill Cause: \_\_\_\_\_  
 Spill Product: \_\_\_\_\_  
 Recovered Spill Volume: \_\_\_\_\_  
 Recovery Method: \_\_\_\_\_

Sampling				Data Collection (Check for Yes)				
Sample ID	Depth (ft)	Field Screening		Quantab (High/Low) +/-	Lab Analysis	Picture	Trimble Coordinates	Marked on Site Sketch
		VOC (ppb)	Detect/Tag TPH (ppm)					
SC/TPH1 - Your Handies Ex. BH1B-01	Ex. 2ft	Ex. 400 ppb	200 ppm	Ex. High +	Ex. Hydrocarbon Chloride			
BH5	2			0.50 / 18.8		11:45		
	3			0.19 / 18.8		11:50		
BH6	0			6.94 / 18.9		12:00		
	0.5			0.50 / 19.1		12:05		
	1			0.19 / 19.2		12:10		
	1.5	rock				12:20		
BH7	0			6.46 / 19.3		12:30		
	<del>0.5</del>			0.85 / 19.2		12:35		
	1			0.14 / 19.2		12:40		
	2			0.11 / 19.3		12:45		
	2.5			0.13 / 19.0		1:00 R		
BH8	0			5.61 / 19.4		1:10		
	0.5			2.26 / 19.5		1:15		
	1			0.37 / 19.6		1:20		
	1.5	Rock				1:30 R		
BH9	0			3.65 / 19.5		1:50		
	0.5			0.14 / 19.5		1:55		
	1			0.08 / 19.5		2:00		
	2	Rock				0:15 R		

# Daily Site Visit Report



## Summary of Daily Operations

**9:04** Arrive on location safety paperwork Delineation vertically and horizontally around heaters

## Next Steps & Recommendations

1



# Daily Site Visit Report

## Site Photos

**Viewing Direction: West**



*Descriptive Photo*  
Viewing Direction: West  
Desc: Spill area under and around equipment  
Created: 2/18/2020 9:06:30 AM  
Lat:32.076606, Long:-103.527120

Spill area under and around equipment

**Viewing Direction: South**



*Descriptive Photo*  
Viewing Direction: South  
Desc: Spill area between heaters 95h and 86h  
Created: 2/18/2020 9:07:00 AM  
Lat:32.076714, Long:-103.527101

Spill area between heaters 95h and 86h

**Viewing Direction: South**



*Descriptive Photo*  
Viewing Direction: South  
Desc: Spill area between heaters 94h and 95h  
Created: 2/18/2020 9:08:00 AM  
Lat:32.076716, Long:-103.527150

Spill area between heaters 94h and 95h

**Viewing Direction: East**



*Descriptive Photo*  
Viewing Direction: East  
Desc: Spill area under flow lines going to heaters in front of heaters  
Created: 2/18/2020 9:08:01 AM  
Lat:32.076673, Long:-103.527222

Spill area under flow lines going to heaters in front of heaters



# Daily Site Visit Report

**Viewing Direction: East**



Descriptive Photo  
Viewing Direction: East  
Desc: Spill area on south side of heaters under equipment  
Created: 2/19/2020 9:09:44 AM  
Lat:32.076574, Long:-103.527235

Spill area on south side of heaters under equipment

**Viewing Direction: North**



Descriptive Photo  
Viewing Direction: North  
Desc: Spill area on south side of heaters and in between heaters  
Created: 2/19/2020 9:10:34 AM  
Lat:32.076481, Long:-103.527151

Spill area on south side of heaters and in between heaters

# Daily Site Visit Report



## Daily Site Visit Signature

**Inspector:** Monica Peppin

**Signature:**

A handwritten signature in black ink, appearing to be 'MP', written over a thin horizontal line. Below the line, the word 'Signature' is printed in a small font.



# Daily Site Visit Report

Client:	<u>Devon Energy Corporation</u>	Inspection Date:	<u>2/22/2020</u>
Site Location Name:	<u>SeaWolf 1-12 CTB 1</u>	Report Run Date:	<u>2/23/2020 2:01 AM</u>
Project Owner:	<u>Wes Mathews</u>	File (Project) #:	<u>20E-00141</u>
Project Manager:	<u>Natalie Gordon</u>	API #:	<u></u>
Client Contact Name:	<u>Amanda Davis</u>	Reference	<u>01/23/2020 - 780 bbl PW Release</u>
Client Contact Phone #:	<u>(575) 748-0176</u>		

### Summary of Times

Left Office	<u>2/22/2020 2:30 PM</u>
Arrived at Site	<u>2/22/2020 3:55 PM</u>
Departed Site	<u>2/22/2020 4:42 PM</u>
Returned to Office	<u>2/22/2020 6:30 PM</u>

### Summary of Daily Operations

### Next Steps & Recommendations

- 1 Await repair and testing
- 2 This was the Large battery



# Daily Site Visit Report

## Site Photos

Viewing Direction: North



Descriptive Photo  
Viewing Direction: North  
Date: 2/23/2020  
Created: 2/23/2020 4:10:09 PM  
Lat: 38.077166, Long: 103.527126

Sw corner

Viewing Direction: East



Descriptive Photo  
Viewing Direction: East  
Date: 2/23/2020  
Created: 2/23/2020 4:10:09 PM  
Lat: 38.077166, Long: 103.527126

Sw

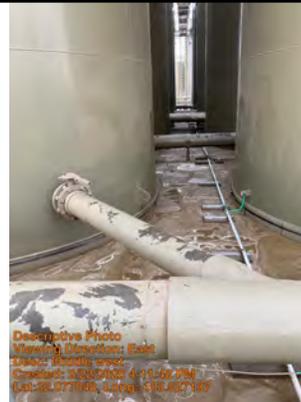
Viewing Direction: South



Descriptive Photo  
Viewing Direction: South  
Date: Middle West  
Created: 2/23/2020 4:11:08 PM  
Lat: 38.077166, Long: 103.527126

Middle West

Viewing Direction: East

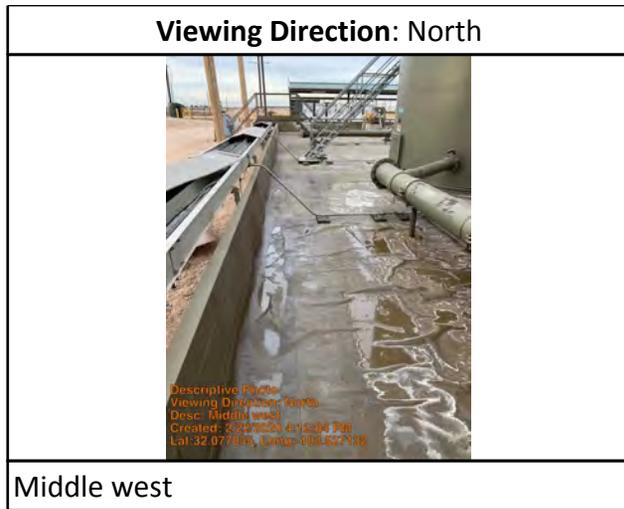


Descriptive Photo  
Viewing Direction: East  
Date: Middle West  
Created: 2/23/2020 4:11:08 PM  
Lat: 38.077166, Long: 103.527126

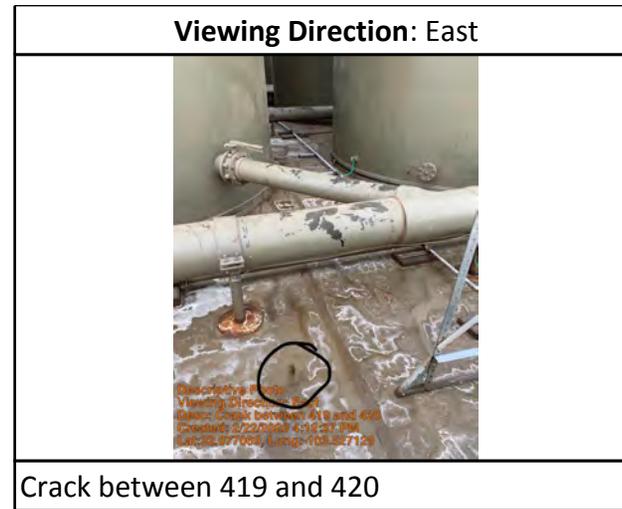
Middle west



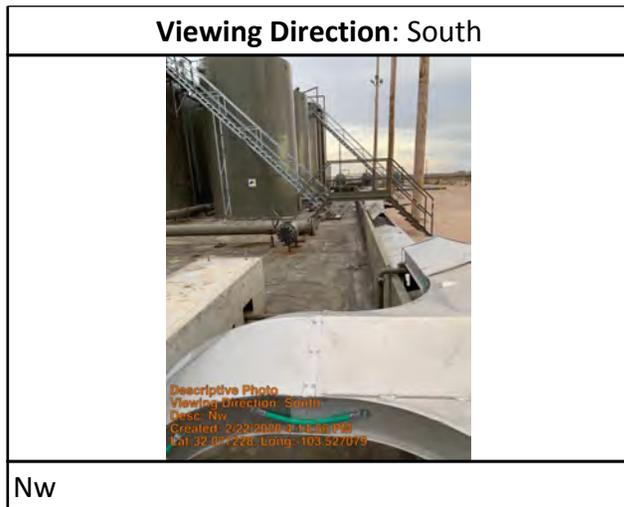
# Daily Site Visit Report



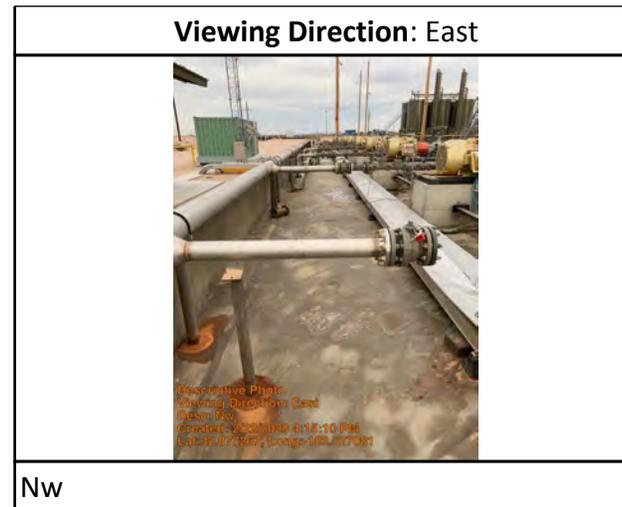
Middle west



Crack between 419 and 420



Nw



Nw



# Daily Site Visit Report

**Viewing Direction: East**

Descriptive Photo  
Viewing Direction: East  
Desc: Middle of N end  
Created: 2/22/2020 4:17:18 PM  
Lat:32.077256, Long:-103.526797

Small tears in Middle of N end

**Viewing Direction: East**

Descriptive Photo  
Viewing Direction: East  
Desc: Small tears in middle of north end  
Created: 2/22/2020 4:18:05 PM  
Lat:32.077256, Long:-103.526797

Small tears in middle of north end

**Viewing Direction: Northeast**

Descriptive Photo  
Viewing Direction: Northeast  
Desc: Small cracking near 404 and 408 in north per  
Created: 2/22/2020 4:24:11 PM  
Lat:32.077256, Long:-103.526797

Small cracking near 404 and 408 in north per

**Viewing Direction: West**

Descriptive Photo  
Viewing Direction: West  
Desc: None  
Created: 2/22/2020 4:25:13 PM  
Lat:32.077256, Long:-103.526797

Ne end



# Daily Site Visit Report

**Viewing Direction: South**

Descriptive Photo  
Viewing Direction: South  
Decor: Middle East  
Created: 2/22/2020 4:22:28 PM  
Lat:32.077197, Long:-103.526711

Ne end

**Viewing Direction: North**

Descriptive Photo  
Viewing Direction: North  
Decor: Middle East  
Created: 2/22/2020 4:22:26 PM  
Lat:32.077197, Long:-103.526711

Middle East

**Viewing Direction: West**

Descriptive Photo  
Viewing Direction: West  
Decor: Middle East  
Created: 2/22/2020 4:24:38 PM  
Lat:32.077036, Long:-103.526744

Middle East

**Viewing Direction: South**

Descriptive Photo  
Viewing Direction: South  
Decor: Middle East  
Created: 2/22/2020 4:24:36 PM  
Lat:32.077036, Long:-103.526719

Middle East



# Daily Site Visit Report

**Viewing Direction: North**



Descriptive Photo  
Viewing Direction: North  
Photo: Se end  
Created: 2/22/2020 4:32:20 PM  
Lat:32.07687, Long:-103.528782

Se end

**Viewing Direction: West**



Descriptive Photo  
Viewing Direction: West  
Photo: Se  
Created: 2/22/2020 4:32:20 PM  
Lat:32.07685, Long:-103.528782

Se

**Viewing Direction: Southeast**



Descriptive Photo  
Viewing Direction: Southeast  
Desc: Small cracks by 416 and 420  
Created: 2/22/2020 4:29:58 PM  
Lat:32.077042, Long:-103.527002

Small cracks by 416 and 420

**Viewing Direction: South**

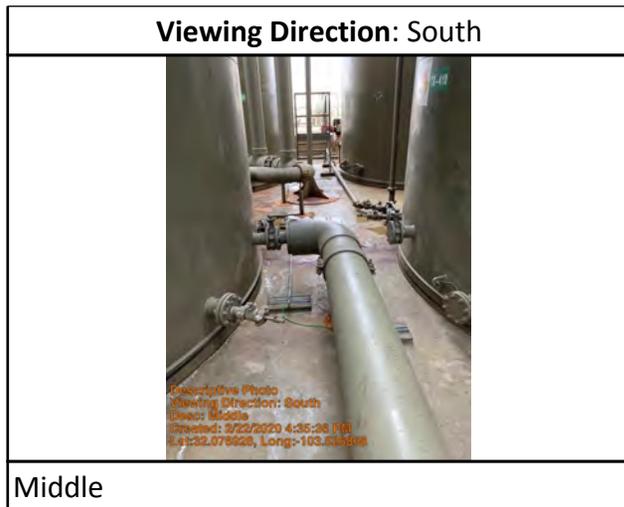
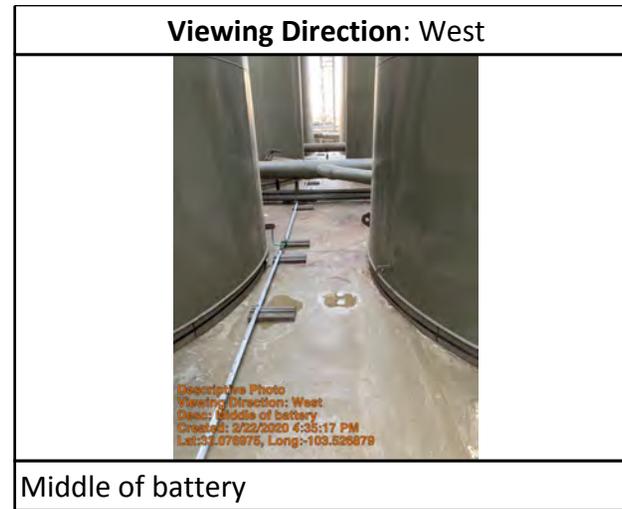
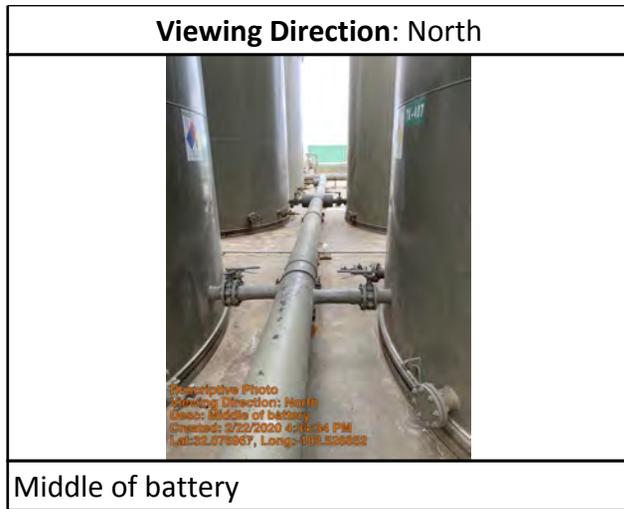


Descriptive Photo  
Viewing Direction: South  
Desc: Cracks on the crease of 411 and 416  
Created: 2/22/2020 4:32:53 PM  
Lat:32.077892, Long:-103.528843

Cracks on the crease of 411 and 416



# Daily Site Visit Report





# Daily Site Visit Report

**Viewing Direction: North**



Describe Photo  
Viewing Direction: North  
Desc: Tear between 414 and 418  
Created: 2/22/2020 4:57:38 PM  
Lat:32.078911, Long:-103.527041

**Tear between 414 and 418**

**Viewing Direction: North**



Describe Photo  
Viewing Direction: North  
Desc: Tear through whole liner near 414  
Created: 2/22/2020 4:39:38 PM  
Lat:32.078911, Long:-103.527038

**Tear through whole liner near 414**

# Daily Site Visit Report



Daily Site Visit Signature

**Inspector:** Brandon Schafer

**Signature:**   
Signature



# Daily Site Visit Report

Client:	<u>Devon Energy Corporation</u>	Inspection Date:	<u>2/22/2020</u>
Site Location Name:	<u>SeaWolf 1-12 CTB 1</u>	Report Run Date:	<u>2/23/2020 2:01 AM</u>
Project Owner:	<u>Wes Mathews</u>	File (Project) #:	<u>20E-00141</u>
Project Manager:	<u>Natalie Gordon</u>	API #:	<u></u>
Client Contact Name:	<u>Amanda Davis</u>	Reference	<u>01/23/2020 - 780 bbl PW Release</u>
Client Contact Phone #:	<u>(575) 748-0176</u>		

### Summary of Times

Left Office	<u>2/22/2020 4:42 PM</u>
Arrived at Site	<u>2/22/2020 4:42 PM</u>
Departed Site	<u>2/22/2020 5:00 PM</u>
Returned to Office	<u>2/22/2020 6:30 PM</u>

### Summary of Daily Operations

**16:49** Small liner inspection

### Next Steps & Recommendations

1



# Daily Site Visit Report

## Site Photos

Viewing Direction: North



Descriptive Photo  
Viewing Direction: North  
Date: Sw  
Created: 2/22/2020 4:42:50 PM  
Lat:32.076395, Long:-103.526284

Sw

Viewing Direction: East



Descriptive Photo  
Viewing Direction: East  
Date: Sw  
Created: 2/22/2020 4:44:00 PM  
Lat:32.076857, Long:-103.526277

Sw

Viewing Direction: Northwest



Descriptive Photo  
Viewing Direction: Northwest  
Date: Tear near sw corner  
Created: 2/22/2020 4:44:55 PM  
Lat:32.076843, Long:-103.526311

Tear near sw corner

Viewing Direction: East

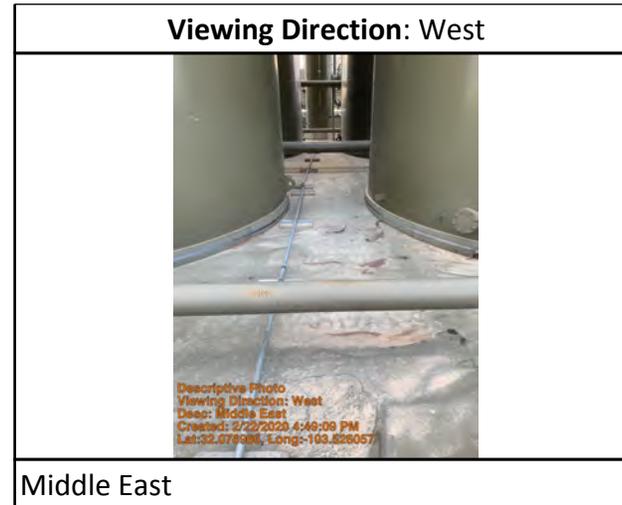
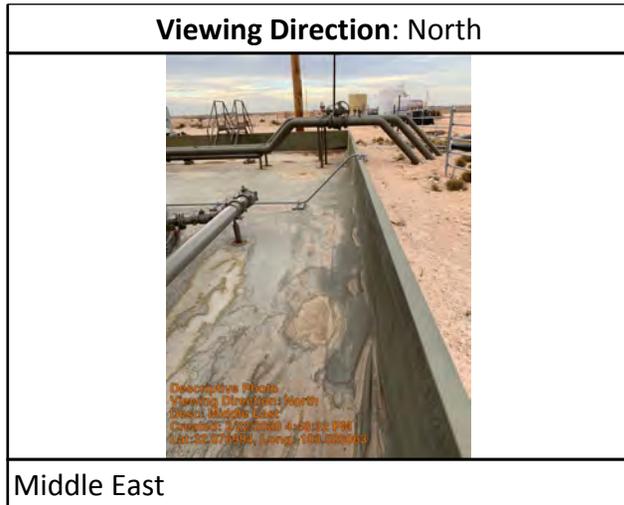
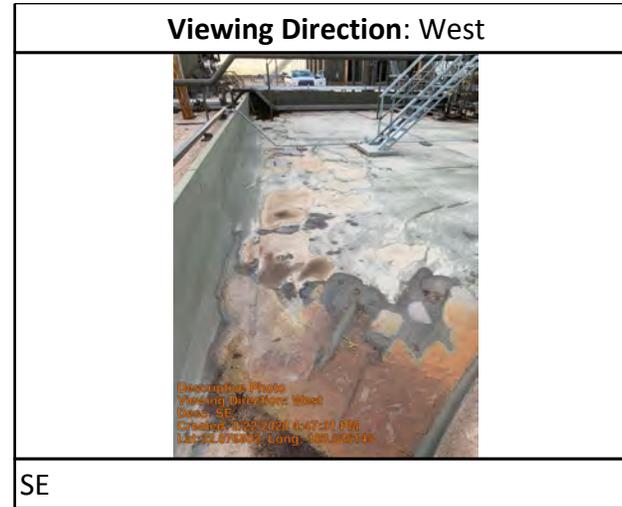
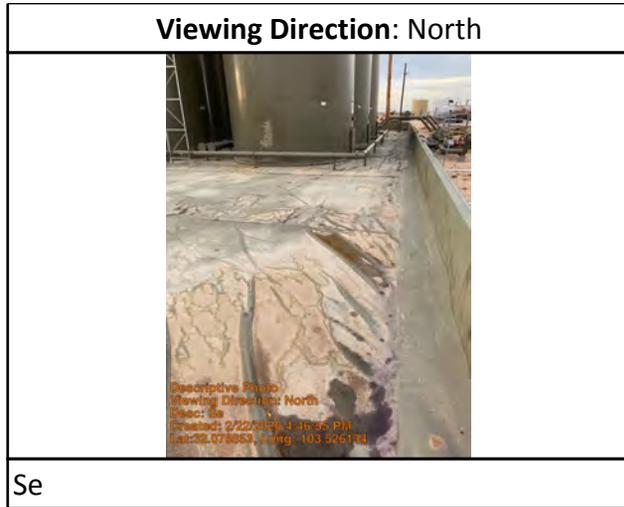


Descriptive Photo  
Viewing Direction: East  
Date: Tears near middle South end  
Created: 2/22/2020 4:45:02 PM  
Lat:32.076834, Long:-103.526228

Tears near middle South end



# Daily Site Visit Report





# Daily Site Visit Report

**Viewing Direction: South**



Descriptive Photo  
Viewing Direction: South  
Desc: Middle East  
Created: 2/22/2020 4:50:31 PM  
Lat:32.075914, Long:-103.526067

Middle East

**Viewing Direction: South**



Descriptive Photo  
Viewing Direction: South  
Desc: Ne corner  
Created: 2/22/2020 4:50:51 PM  
Lat:32.077084, Long:-103.526067

Ne corner

**Viewing Direction: West**



Descriptive Photo  
Viewing Direction: West  
Desc: Ne  
Created: 2/22/2020 4:51:01 PM  
Lat:32.077084, Long:-103.526067

Ne

**Viewing Direction: East**

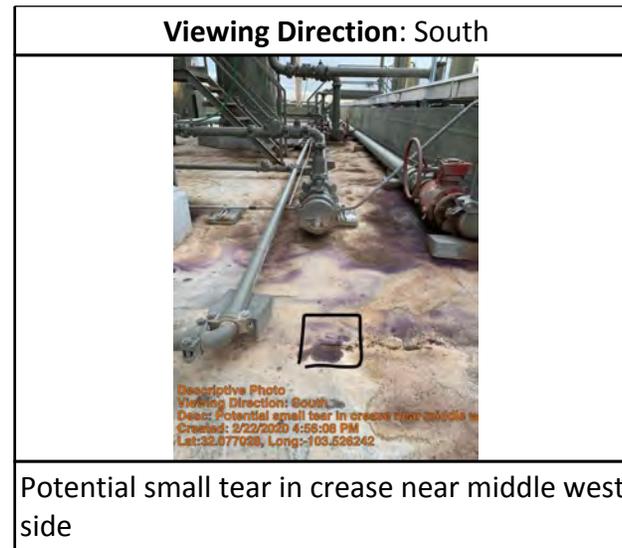
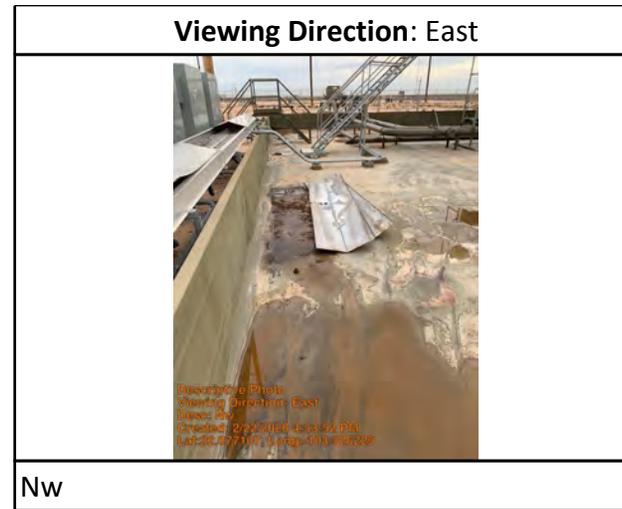
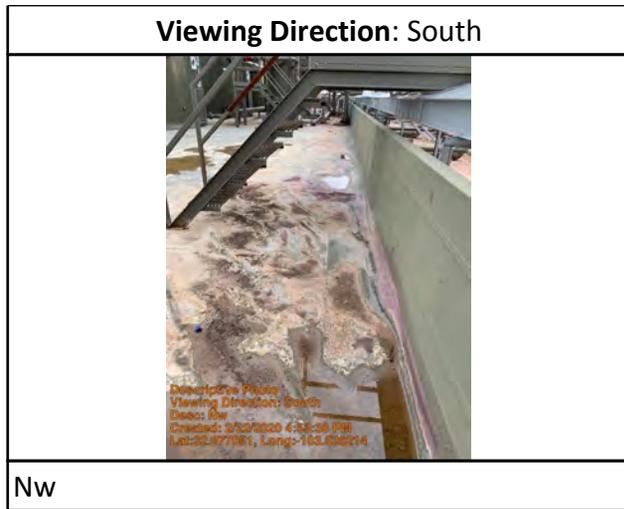


Descriptive Photo  
Viewing Direction: East  
Desc: Tears near middle north  
Created: 2/22/2020 4:52:37 PM  
Lat:32.077084, Long:-103.526067

Tears near middle north



# Daily Site Visit Report





# Daily Site Visit Report

**Viewing Direction: North**



Descriptive Photo  
 Viewing Direction: North  
 Desc: Middle west  
 Created: 2/22/2020 4:58:48 PM  
 Lat:32.076908, Long:-103.526291

Middle west

**Viewing Direction: East**



Descriptive Photo  
 Viewing Direction: East  
 Desc: Middle west  
 Created: 2/22/2020 4:57:47 PM  
 Lat:32.076997, Long:-103.526288

Middle west

**Viewing Direction: South**



Descriptive Photo  
 Viewing Direction: South  
 Desc: Middle west  
 Created: 2/22/2020 4:58:12 PM  
 Lat:32.076992, Long:-103.526293

Middle west

**Viewing Direction: North**



Descriptive Photo  
 Viewing Direction: North  
 Desc: Middle  
 Created: 2/22/2020 4:58:33 PM  
 Lat:32.076998, Long:-103.526184

Middle



# Daily Site Visit Report

Viewing Direction: East	
 <p><small>Descriptive Photo Viewing Direction: East Date: Middle Created: 2/22/2020 4:58:40 PM Lat:32.077005, Long:-103.526181</small></p>	
Middle	

Viewing Direction: South	
 <p><small>Descriptive Photo Viewing Direction: South Date: Middle Created: 2/22/2020 4:58:33 PM Lat:32.077002, Long:-103.526183</small></p>	
Middle	

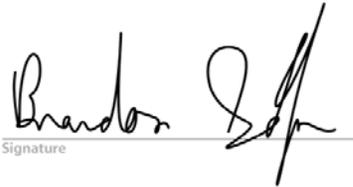
Viewing Direction: West	
 <p><small>Descriptive Photo Viewing Direction: West Date: Middle Created: 2/22/2020 4:59:29 PM Lat:32.077001, Long:-103.526183</small></p>	
Middle	

# Daily Site Visit Report



Daily Site Visit Signature

**Inspector:** Brandon Schafer

**Signature:**   
Signature

**ATTACHMENT 5**

Client Name: Devon Energy Production Company  
 Site Name: Sea Wolf 1-12 CTB 1  
 NM OCD Incident Tracking Numbers: NCE2003556136; NRM2004353184  
 Project #: 20E-00141-026  
 Lab Report: 2002834

Table 2. Characterization Sampling Field Screening and Laboratory Results - Depth to Groundwater >100 ft													
Sample Description			Field Screening			Petroleum Hydrocarbons							Inorganic
Sample ID	Depth (ft)	Sample Date	Volatile Organic Compounds (PID)	Extractable Organic Compounds (Petro Flag)	Inorganics (Electroconductivity)	Volatile		Extractable					Chloride
						Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	GRO + DRO	Total Petroleum Hydrocarbons (TPH)	
			(ppm)	(ppm)	(ppm)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
BH 20-01	0	February 18, 2020	-	-	11,179	<0.023	<0.211	<4.7	<9.7	<49	<14.4	<63.4	10,000
BH 20-01	0.5	February 18, 2020	-	-	1,042	-	-	-	-	-	-	-	-
BH 20-01	1	February 18, 2020	-	-	151	<0.024	<0.219	<4.8	<9.4	<47	<14.2	<61.2	110
BH 20-01	2	February 18, 2020	-	-	28	-	-	-	-	-	-	-	-
BH 20-02	0	February 18, 2020	-	-	5,833	-	-	-	-	-	-	-	-
BH 20-02	0.5	February 18, 2020	-	-	3,873	-	-	-	-	-	-	-	-
BH 20-02	1	February 18, 2020	-	-	260	-	-	-	-	-	-	-	-
BH 20-02	2	February 18, 2020	-	-	rock	-	-	-	-	-	-	-	-
BH 20-03	0	February 18, 2020	-	-	7,247	-	-	-	-	-	-	-	-
BH 20-03	0.5	February 18, 2020	-	-	2,556	-	-	-	-	-	-	-	-
BH 20-03	1	February 18, 2020	-	-	314	-	-	-	-	-	-	-	-
BH 20-03	1.25	February 18, 2020	-	-	468	-	-	-	-	-	-	-	-
BH 20-04	0	February 18, 2020	-	-	7,107	<0.024	<0.212	<4.7	<9.9	<49	<14.6	<63.6	6,200
BH 20-04	0.5	February 18, 2020	-	-	4,063	-	-	-	-	-	-	-	-
BH 20-04	1	February 18, 2020	-	-	4,499	-	-	-	-	-	-	-	-
BH 20-04	2	February 18, 2020	-	-	4,504	-	-	-	-	-	-	-	-
BH 20-04	3	February 18, 2020	-	-	3,311	<0.025	<0.221	<4.9	<18	<88	<22.9	<110.9	2,100
BH 20-04	3	February 18, 2020	-	-	rock	-	-	-	-	-	-	-	-
BH 20-05	0	February 18, 2020	-	-	6,846	-	-	-	-	-	-	-	-
BH 20-05	0.5	February 18, 2020	-	-	2,392	-	-	-	-	-	-	-	-
BH 20-05	1	February 18, 2020	-	-	1,594	-	-	-	-	-	-	-	-
BH 20-05	1.5	February 18, 2020	-	-	1,551	-	-	-	-	-	-	-	-
BH 20-05	2	February 18, 2020	-	-	718	-	-	-	-	-	-	-	-
BH 20-05	3	February 18, 2020	-	-	270	-	-	-	-	-	-	-	-
BH 20-06	0	February 18, 2020	-	-	10,008	-	-	-	-	-	-	-	-
BH 20-06	0.5	February 18, 2020	-	-	705	-	-	-	-	-	-	-	-
BH 20-06	1	February 18, 2020	-	-	123	-	-	-	-	-	-	-	-
BH 20-06	1.5	February 18, 2020	-	-	rock	-	-	-	-	-	-	-	-
BH 20-07	0	February 18, 2020	-	-	9,298	<0.023	<0.210	<4.7	<9.5	<48	<14.2	<62.2	10,000
BH 20-07	0.5	February 18, 2020	-	-	1,206	-	-	-	-	-	-	-	-
BH 20-07	1	February 18, 2020	-	-	181	<0.025	<0.221	<4.9	<9.1	<45	<14.0	<59.0	<60
BH 20-07	2	February 18, 2020	-	-	133	-	-	-	-	-	-	-	-
BH 20-07	2.5	February 18, 2020	-	-	175	-	-	-	-	-	-	-	-
BH 20-08	0	February 18, 2020	-	-	8,067	-	-	-	-	-	-	-	-
BH 20-08	0.5	February 18, 2020	-	-	3,228	-	-	-	-	-	-	-	-
BH 20-08	1	February 18, 2020	-	-	524	-	-	-	-	-	-	-	-
BH 20-08	1.5	February 18, 2020	-	-	rock	-	-	-	-	-	-	-	-
BH 20-09	0	February 18, 2020	-	-	5,234	<0.024	<0.212	<4.7	490	230	490	720	5,600
BH 20-09	0.5	February 18, 2020	-	-	168	-	-	-	-	-	-	-	-
BH 20-09	1	February 18, 2020	-	-	81	<0.025	<0.222	<4.9	<9.4	<47	<14.3	<61.3	<60
BH 20-09	2	February 18, 2020	-	-	rock	-	-	-	-	-	-	-	-
SS 20-01	0	February 18, 2020	-	-	1,435	<0.024	<0.215	<4.8	<9.1	<45	<13.9	<58.9	1,100
SS 20-01	0.5	February 18, 2020	-	-	406	<0.024	<0.212	<4.7	<9.9	<49	<14.6	<63.6	420
SS 20-02	0	February 18, 2020	-	-	<0	<0.024	<0.213	<4.7	<9.8	<49	<14.5	<63.5	<60
SS 20-02	0.5	February 18, 2020	-	-	<0	-	-	-	-	-	-	-	-
SS 20-03	0	February 18, 2020	-	-	<0	<0.024	<0.216	<4.8	<8.9	<44	<13.7	<57.7	<60
SS 20-03	0.5	February 18, 2020	-	-	<0	-	-	-	-	-	-	-	-
SS 20-04	0	February 18, 2020	-	-	<0	<0.023	<0.207	<4.6	<9.4	<47	<14.0	<61.0	<60
SS 20-04	0.5	February 18, 2020	-	-	<0	-	-	-	-	-	-	-	-
SS 20-05	0	February 18, 2020	-	-	75	<0.023	<0.208	<4.6	<9.2	<46	<13.8	<59.8	<60
SS 20-05	0.5	February 18, 2020	-	-	81	-	-	-	-	-	-	-	-
SS 20-06	0	February 18, 2020	-	-	130	<0.024	<0.213	<4.7	<9.4	<47	<14.1	<61.1	<60
SS 20-06	0.5	February 18, 2020	-	-	97	-	-	-	-	-	-	-	-

"-" - Not applicable/assessed

**Bold and shaded indicates exceedance outside of applied action level**



Client Name: Devon Energy Production Company  
 Site Name: Sea Wolf 1-12 CTB 1  
 NM OCD Incident Tracking Numbers: NCE2003556136; NRM2004353184  
 Project #: 20E-00141-026  
 Lab Report: 2004B34

Table 3. Confirmatory Sampling Laboratory Results - Depth to Groundwater >100 ft

Sample Description			Petroleum Hydrocarbons							Inorganic
Sample ID	Depth (ft)	Sample Date	Volatile		Extractable					Chloride (mg/kg)
			Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	
SS20-01	0-1	April 24, 2020	<0.025	<0.222	<4.9	<9.7	<49	<14.6	<63.6	100
SS20-02	0-1	April 24, 2020	<0.024	<0.217	<4.8	<9.9	<50	<14.7	<64.7	5,100
SS20-03	0-1	April 24, 2020	<0.025	<0.224	<5.0	<9.8	<49	<14.8	<63.8	3,700
SS20-04	0-1	April 24, 2020	<0.024	<0.213	<4.7	<9.7	<48	<14.4	<62.4	4,400
SS20-05	0-1	April 24, 2020	<0.025	<0.222	<4.9	<9.8	<49	<14.7	<63.7	4,900
SS20-06	0-1	April 24, 2020	<0.024	<0.217	<4.8	<9.7	<48	<14.5	<62.5	8,400
SS20-07	0-1	April 24, 2020	<0.025	<0.222	<4.9	<9.1	<45	<14	<59.0	2,400
SS20-08	0-1	April 24, 2020	<0.024	<0.219	<4.9	<9.7	<48	<14.6	<62.6	980
SS20-09	0-1	April 24, 2020	<0.024	<0.219	<4.9	<9.2	<46	<14.1	<60.1	2,500

"-" - Not applicable/assessed

**Bold and shaded indicates exceedance outside of applied action level**



## **ATTACHMENT 6**

## Natalie Gordon

---

**From:** Natalie Gordon  
**Sent:** Wednesday, February 19, 2020 4:37 PM  
**To:** emnrd-ocd-district1spills@state.nm.us; blm\_nm\_cfo\_spill@blm.gov; jamos@blm.gov; Mike Bratcher (mike.bratcher@state.nm.us); ramona.marcus@state.nm.us  
**Cc:** Bynum, Tom (Contract); Wesley. Mathews@dvn. com (Wesley.Mathews@dvn.com); Dennis Williams (DWilliams@vertex.ca)  
**Subject:** SeaWolf 1-12 CTB 1; DOR 01/23/2020 48-hr notification of liner inspection

All:

Please accept this email as 48-hour notification that Vertex Resource Services will conduct a liner inspection at SeaWolf 1-12 CTB 1 to close out the release incident that occurred on January 23, 2020, where 780 bbls of produced water were released into the tank battery lined secondary containment. The incident tracking number for this release is still to be assigned.

On Saturday, February 22, 2020, at approximately 10:00 a.m., Austin Harris of Vertex will be onsite to perform the liner inspection. He can be reached at (432)250-5003. If you need directions to the site, please do not hesitate to contact him.

If you have any questions or concerns regarding this notification, please give me a call at (505)506-0040.

Thank you,  
Natalie

## Natalie Gordon

---

**From:** Dhugal Hanton <vertexresourcegroupusa@gmail.com>  
**Sent:** Tuesday, April 21, 2020 1:29 PM  
**To:** Natalie Gordon  
**Subject:** Fwd: SeaWolf 1-12 CTB 1 - 48-hr Notification of Liner Inspection/Confirmatory Sampling

----- Forwarded message -----

From: **Dhugal Hanton** <[vertexresourcegroupusa@gmail.com](mailto:vertexresourcegroupusa@gmail.com)>  
Date: Tue, Apr 21, 2020 at 1:27 PM  
Subject: SeaWolf 1-12 CTB 1 - 48-hr Notification of Liner Inspection/Confirmatory Sampling  
To: Bratcher, Mike, EMNRD <[Mike.Bratcher@state.nm.us](mailto:Mike.Bratcher@state.nm.us)>, EMNRD-OCD-District1spills <[emnrd-ocd-district1spills@state.nm.us](mailto:emnrd-ocd-district1spills@state.nm.us)>, <[blm\\_nm\\_cfo\\_spill@blm.gov](mailto:blm_nm_cfo_spill@blm.gov)>, Kelsey <[KWade@blm.gov](mailto:KWade@blm.gov)>, <[Jamos@blm.gov](mailto:Jamos@blm.gov)>, <[ramona.marcus@state.nm.us](mailto:ramona.marcus@state.nm.us)>  
Cc: <[Lupe.Carrasco@dvn.com](mailto:Lupe.Carrasco@dvn.com)>, <[amanda.davis@dvn.com](mailto:amanda.davis@dvn.com)>, <[tom.bynum@dvn.com](mailto:tom.bynum@dvn.com)>, <[wesley.mathews@dvn.com](mailto:wesley.mathews@dvn.com)>

All,

Please accept this email as 48-hr notification that Vertex Resource Services has scheduled confirmatory sampling and a liner inspection to be conducted at SeaWolf 1-12 CTB 1 for the following two release:

NCE2003556136 - DOR: January 23, 2020  
NRM2004353184 - DOR: February 9, 2020

This work will be completed on behalf of Devon Energy Production Company.

On Friday, April 24, 2020 at approximately 9:30 a.m., Kevin Smith of Vertex will be onsite to perform a liner inspection and collect confirmatory samples at SeaWolf 1-12 CTB. Kevin can be reached at 575-988-0871. If you need directions to the site, please do not hesitate to contact him. If you have any questions or concerns regarding this notification, please give me a call at 505-506-0040.

Thank you,  
Natalie

**Natalie Gordon**  
Project Manager

Vertex Resource Group Ltd.  
213 S. Mesa Street  
Carlsbad, NM 88220

**P 575.725.5001 ext 709**  
**C 505.506.0040**  
**F**

[www.vertex.ca](http://www.vertex.ca)

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and any attachment is prohibited. If you have received this communication in error, please notify us by reply email and immediately and permanently delete this message and any attachments. Thank you.

## Natalie Gordon

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**From:** Natalie Gordon  
**Sent:** Thursday, April 16, 2020 4:57 PM  
**To:** Carrasco, Lupe  
**Cc:** Bynum, Tom (Contract); Mathews, Wesley  
**Subject:** RE: [EXTERNAL] RE: Gaucho #006  
**Attachments:** Lea\_Devon\_Seawolf 1-12 CTB 1\_1.23.20\_Initial C-141.pdf; Lea\_Devon\_Seawolf 1-12 CTB 1\_2.9.20\_Initial C-141.pdf

Lupe,

Will you please request a 30-day extension on the two Sea Wolf projects assigned to Vertex. I don't have any incident numbers as the C-141s have not been saved into the OCD system yet. One incident was a release into containment on January 23, 2020 and the second was a release from the 3-phase on February 9, 2020. See the two attached C-141s.

I just got word from your ops guys the other day that the liner has been repaired and is ready for an inspection. I will have a remediation plan for you for the second spill tomorrow a.m. so that you can bid out the work and we will conduct the inspection and fieldwork/confirmation sampling in one fell swoop.

My apologies on this delay 😞.

Natalie

---

**From:** Carrasco, Lupe <Lupe.Carrasco@dvn.com>  
**Sent:** Wednesday, March 4, 2020 2:49 PM  
**To:** Natalie Gordon <ngordon@vertex.ca>  
**Cc:** Bynum, Tom (Contract) <Tom.Bynum@dvn.com>; Mathews, Wesley <Wesley.Mathews@dvn.com>  
**Subject:** RE: [EXTERNAL] RE: Gaucho #006

Will you add these? The comments below is all I have for info. These were given to another contractor whom is no longer in business.  
Thanks!

*Lupe Carrasco*  
Environmental Professional  
B-Schedule

**Devon Energy Corporation**  
PO Box 250  
Artesia, NM 88211  
Office: 575-748-0765  
Cell: 575-725-0787



Devon - Internal

**From:** Natalie Gordon <[ngordon@vertex.ca](mailto:ngordon@vertex.ca)>  
**Sent:** Wednesday, March 4, 2020 2:12 PM  
**To:** Carrasco, Lupe <[Lupe.Carrasco@dvn.com](mailto:Lupe.Carrasco@dvn.com)>  
**Cc:** Bynum, Tom (Contract) <[Tom.Bynum@dvn.com](mailto:Tom.Bynum@dvn.com)>; Mathews, Wesley <[Wesley.Mathews@dvn.com](mailto:Wesley.Mathews@dvn.com)>  
**Subject:** [EXTERNAL] RE: Gaucho #006

Hi Lupe,

Regarding your questions for the Gaucho releases below, Vertex has only received information and assignment on one: 1RP-5507 from 8/12/2018. This release involves a liner inspection and closure report. We are actually waiting on some liner repairs to be completed and I have been in touch with Cory Ochs about that.

I have not seen anything come across my desk for the other three incidents; however, if you want to send the info, we can group them together and try to address the site as a whole. Please just let me know.

Thanks,  
 Natalie

---

**From:** Carrasco, Lupe <[Lupe.Carrasco@dvn.com](mailto:Lupe.Carrasco@dvn.com)>  
**Sent:** Wednesday, February 26, 2020 1:45 PM  
**To:** Natalie Gordon <[ngordon@vertex.ca](mailto:ngordon@vertex.ca)>  
**Cc:** Bynum, Tom (Contract) <[Tom.Bynum@dvn.com](mailto:Tom.Bynum@dvn.com)>; Mathews, Wesley <[Wesley.Mathews@dvn.com](mailto:Wesley.Mathews@dvn.com)>  
**Subject:** Gaucho #006

Natalie,

I believe some of the releases below have been assigned to Vertex? Would you mind looking through your files and letting me know which ones Vertex has or doesn't have on their project list? Just an FYI, we have split up the areas so I will be bugging you for information on the Thistle, Gaucho/Redbull, Seawolf, and Rattlesnake areas. Not sure if it really matters, but I am trying to make sense of things within in this area. Please let me know at your earliest convenience.

**Gaucho Unit #006:**

8/12/18	1RP-5602	WO#20715639 Vertex
		<a href="#">Appears to be a duplicate of 5507</a>
8/12/18	1RP-5507	WO#20715639 Vertex
9/14/17	1RP-4116	WO#20715639 WBE

All 10 BBLS released stayed in containment and occurred at night. There is an open RP-4116 from 1/22/16 (contamination us visible in release area) A Davis told White Buffalo to combine 1/22/16, 9/14/17 and 8/12/18 nOY1727243107. Not sure why there are different release info with same RP?

1/22/16	1RP-4116	WO#20715639
		<a href="#">30 BBLS Spilled/20 BBLS Rec. Miscommunication resulting in separator being opened instead of tightened.</a>

Thanks!

*Lupe Carrasco*  
 Environmental Professional  
 B-Schedule

**Devon Energy Corporation**  
PO Box 250  
Artesia, NM 88211  
Office: 575-748-0765  
Cell: 575-725-0787



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## Natalie Gordon

---

**From:** Carrasco, Lupe <Lupe.Carrasco@dvn.com>  
**Sent:** Friday, April 17, 2020 11:06 AM  
**To:** Lea Co Spills (emnrd-ocd-district1spills@state.nm.us)  
**Cc:** Davis, Amanda; Mathews, Wesley; Bynum, Tom (Contract); Natalie Gordon  
**Subject:** Lea\_Devon\_Seawolf 1-12 CTB  
**Attachments:** Lea\_Devon\_Seawolf 1-12 CTB 1\_1.23.20\_Initial C-141.pdf; Lea\_Devon\_Seawolf 1-12 CTB 1\_2.9.20\_Initial C-141.pdf

Please accept this email as Devon's request for a 30-day extension for the attached incidents. There was an error on our part when submitting the C-141's for several locations thus our contractors do not have the necessary information to complete their reports. We are in the process of correcting the issue and would like an extension to complete these projects. Please let me know if you have any questions or concerns.

Thanks!

*Lupe Carrasco*

Environmental Professional  
B-Schedule

**Devon Energy Corporation**  
PO Box 250  
Artesia, NM 88211  
Office: 575-748-0765  
Cell: 575-725-0787



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**ATTACHMENT 7**



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

February 27, 2020

Amanda Davis  
Devon Energy  
6488 Seven Rivers Highway  
Artesia, NM 88210  
TEL: (575) 748-0176  
FAX:

RE: Sea Wolf 1 12 CTB 1

OrderNo.: 2002834

Dear Amanda Davis:

Hall Environmental Analysis Laboratory received 15 sample(s) on 2/20/2020 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a white background.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

**Analytical Report**

Lab Order **2002834**

Date Reported: **2/27/2020**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Devon Energy

**Client Sample ID:** BH20-01' 0'

**Project:** Sea Wolf 1 12 CTB 1

**Collection Date:** 2/18/2020 9:00:00 AM

**Lab ID:** 2002834-001

**Matrix:** SOIL

**Received Date:** 2/20/2020 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JMT</b>
Chloride	10000	600		mg/Kg	200	2/25/2020 6:36:15 PM	50639
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/22/2020 12:08:15 AM	50573
Surr: BFB	99.2	70-130		%Rec	1	2/22/2020 12:08:15 AM	50573
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	2/25/2020 4:42:23 PM	50579
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/25/2020 4:42:23 PM	50579
Surr: DNOP	91.0	55.1-146		%Rec	1	2/25/2020 4:42:23 PM	50579
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.023		mg/Kg	1	2/22/2020 12:08:15 AM	50573
Toluene	ND	0.047		mg/Kg	1	2/22/2020 12:08:15 AM	50573
Ethylbenzene	ND	0.047		mg/Kg	1	2/22/2020 12:08:15 AM	50573
Xylenes, Total	ND	0.094		mg/Kg	1	2/22/2020 12:08:15 AM	50573
Surr: 1,2-Dichloroethane-d4	86.5	70-130		%Rec	1	2/22/2020 12:08:15 AM	50573
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	2/22/2020 12:08:15 AM	50573
Surr: Dibromofluoromethane	94.4	70-130		%Rec	1	2/22/2020 12:08:15 AM	50573
Surr: Toluene-d8	102	70-130		%Rec	1	2/22/2020 12:08:15 AM	50573

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

**Analytical Report**

Lab Order **2002834**

Date Reported: **2/27/2020**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Devon Energy

**Client Sample ID:** BH20-01 1'

**Project:** Sea Wolf 1 12 CTB 1

**Collection Date:** 2/18/2020 9:10:00 AM

**Lab ID:** 2002834-002

**Matrix:** SOIL

**Received Date:** 2/20/2020 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JMT</b>
Chloride	110	60		mg/Kg	20	2/21/2020 2:34:08 PM	50585
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/22/2020 1:35:44 AM	50573
Surr: BFB	104	70-130		%Rec	1	2/22/2020 1:35:44 AM	50573
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	2/24/2020 2:41:09 PM	50592
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/24/2020 2:41:09 PM	50592
Surr: DNOP	85.3	55.1-146		%Rec	1	2/24/2020 2:41:09 PM	50592
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.024		mg/Kg	1	2/22/2020 1:35:44 AM	50573
Toluene	ND	0.048		mg/Kg	1	2/22/2020 1:35:44 AM	50573
Ethylbenzene	ND	0.048		mg/Kg	1	2/22/2020 1:35:44 AM	50573
Xylenes, Total	ND	0.096		mg/Kg	1	2/22/2020 1:35:44 AM	50573
Surr: 1,2-Dichloroethane-d4	85.9	70-130		%Rec	1	2/22/2020 1:35:44 AM	50573
Surr: 4-Bromofluorobenzene	106	70-130		%Rec	1	2/22/2020 1:35:44 AM	50573
Surr: Dibromofluoromethane	94.9	70-130		%Rec	1	2/22/2020 1:35:44 AM	50573
Surr: Toluene-d8	102	70-130		%Rec	1	2/22/2020 1:35:44 AM	50573

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

**Analytical Report**

Lab Order **2002834**

Date Reported: **2/27/2020**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Devon Energy

**Client Sample ID:** BH20-04 0'

**Project:** Sea Wolf 1 12 CTB 1

**Collection Date:** 2/18/2020 10:40:00 AM

**Lab ID:** 2002834-003

**Matrix:** SOIL

**Received Date:** 2/20/2020 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JMT</b>
Chloride	6200	300		mg/Kg	100	2/25/2020 6:48:35 PM	50585
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/22/2020 3:03:05 AM	50573
Surr: BFB	98.9	70-130		%Rec	1	2/22/2020 3:03:05 AM	50573
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	2/24/2020 3:47:54 PM	50592
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/24/2020 3:47:54 PM	50592
Surr: DNOP	86.3	55.1-146		%Rec	1	2/24/2020 3:47:54 PM	50592
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.024		mg/Kg	1	2/22/2020 3:03:05 AM	50573
Toluene	ND	0.047		mg/Kg	1	2/22/2020 3:03:05 AM	50573
Ethylbenzene	ND	0.047		mg/Kg	1	2/22/2020 3:03:05 AM	50573
Xylenes, Total	ND	0.094		mg/Kg	1	2/22/2020 3:03:05 AM	50573
Surr: 1,2-Dichloroethane-d4	84.5	70-130		%Rec	1	2/22/2020 3:03:05 AM	50573
Surr: 4-Bromofluorobenzene	104	70-130		%Rec	1	2/22/2020 3:03:05 AM	50573
Surr: Dibromofluoromethane	91.3	70-130		%Rec	1	2/22/2020 3:03:05 AM	50573
Surr: Toluene-d8	104	70-130		%Rec	1	2/22/2020 3:03:05 AM	50573

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

**Analytical Report**

Lab Order **2002834**

Date Reported: **2/27/2020**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Devon Energy

**Client Sample ID:** BH20-04 3'

**Project:** Sea Wolf 1 12 CTB 1

**Collection Date:** 2/18/2020 11:10:00 AM

**Lab ID:** 2002834-004

**Matrix:** SOLID

**Received Date:** 2/20/2020 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JMT</b>
Chloride	2100	61		mg/Kg	20	2/21/2020 3:23:32 PM	50585
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/22/2020 3:32:11 AM	50573
Surr: BFB	98.0	70-130		%Rec	1	2/22/2020 3:32:11 AM	50573
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	18		mg/Kg	1	2/24/2020 4:09:59 PM	50592
Motor Oil Range Organics (MRO)	ND	88		mg/Kg	1	2/24/2020 4:09:59 PM	50592
Surr: DNOP	86.9	55.1-146		%Rec	1	2/24/2020 4:09:59 PM	50592
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.025		mg/Kg	1	2/22/2020 3:32:11 AM	50573
Toluene	ND	0.049		mg/Kg	1	2/22/2020 3:32:11 AM	50573
Ethylbenzene	ND	0.049		mg/Kg	1	2/22/2020 3:32:11 AM	50573
Xylenes, Total	ND	0.098		mg/Kg	1	2/22/2020 3:32:11 AM	50573
Surr: 1,2-Dichloroethane-d4	85.9	70-130		%Rec	1	2/22/2020 3:32:11 AM	50573
Surr: 4-Bromofluorobenzene	103	70-130		%Rec	1	2/22/2020 3:32:11 AM	50573
Surr: Dibromofluoromethane	94.7	70-130		%Rec	1	2/22/2020 3:32:11 AM	50573
Surr: Toluene-d8	101	70-130		%Rec	1	2/22/2020 3:32:11 AM	50573

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

**Analytical Report**

Lab Order **2002834**

Date Reported: **2/27/2020**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Devon Energy

**Client Sample ID:** BH20-07 0'

**Project:** Sea Wolf 1 12 CTB 1

**Collection Date:** 2/18/2020 12:30:00 PM

**Lab ID:** 2002834-005

**Matrix:** SOIL

**Received Date:** 2/20/2020 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JMT</b>
Chloride	10000	300		mg/Kg	100	2/25/2020 7:00:56 PM	50585
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/22/2020 4:01:17 AM	50573
Surr: BFB	97.7	70-130		%Rec	1	2/22/2020 4:01:17 AM	50573
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	2/24/2020 4:32:13 PM	50592
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/24/2020 4:32:13 PM	50592
Surr: DNOP	90.3	55.1-146		%Rec	1	2/24/2020 4:32:13 PM	50592
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.023		mg/Kg	1	2/22/2020 4:01:17 AM	50573
Toluene	ND	0.047		mg/Kg	1	2/22/2020 4:01:17 AM	50573
Ethylbenzene	ND	0.047		mg/Kg	1	2/22/2020 4:01:17 AM	50573
Xylenes, Total	ND	0.093		mg/Kg	1	2/22/2020 4:01:17 AM	50573
Surr: 1,2-Dichloroethane-d4	85.5	70-130		%Rec	1	2/22/2020 4:01:17 AM	50573
Surr: 4-Bromofluorobenzene	105	70-130		%Rec	1	2/22/2020 4:01:17 AM	50573
Surr: Dibromofluoromethane	92.2	70-130		%Rec	1	2/22/2020 4:01:17 AM	50573
Surr: Toluene-d8	103	70-130		%Rec	1	2/22/2020 4:01:17 AM	50573

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

**Analytical Report**

Lab Order **2002834**

Date Reported: **2/27/2020**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Devon Energy

**Client Sample ID:** BH20-07 1'

**Project:** Sea Wolf 1 12 CTB 1

**Collection Date:** 2/18/2020 12:40:00 PM

**Lab ID:** 2002834-006

**Matrix:** SOIL

**Received Date:** 2/20/2020 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JMT</b>
Chloride	ND	60		mg/Kg	20	2/21/2020 3:48:14 PM	50585
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/22/2020 4:30:23 AM	50573
Surr: BFB	96.1	70-130		%Rec	1	2/22/2020 4:30:23 AM	50573
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	2/24/2020 4:54:19 PM	50592
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	2/24/2020 4:54:19 PM	50592
Surr: DNOP	90.5	55.1-146		%Rec	1	2/24/2020 4:54:19 PM	50592
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.025		mg/Kg	1	2/22/2020 4:30:23 AM	50573
Toluene	ND	0.049		mg/Kg	1	2/22/2020 4:30:23 AM	50573
Ethylbenzene	ND	0.049		mg/Kg	1	2/22/2020 4:30:23 AM	50573
Xylenes, Total	ND	0.098		mg/Kg	1	2/22/2020 4:30:23 AM	50573
Surr: 1,2-Dichloroethane-d4	85.3	70-130		%Rec	1	2/22/2020 4:30:23 AM	50573
Surr: 4-Bromofluorobenzene	103	70-130		%Rec	1	2/22/2020 4:30:23 AM	50573
Surr: Dibromofluoromethane	96.1	70-130		%Rec	1	2/22/2020 4:30:23 AM	50573
Surr: Toluene-d8	100	70-130		%Rec	1	2/22/2020 4:30:23 AM	50573

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

**Analytical Report**

Lab Order **2002834**

Date Reported: **2/27/2020**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Devon Energy

**Client Sample ID:** BH20-09 0'

**Project:** Sea Wolf 1 12 CTB 1

**Collection Date:** 2/18/2020 1:50:00 PM

**Lab ID:** 2002834-007

**Matrix:** SOIL

**Received Date:** 2/20/2020 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JMT</b>
Chloride	5600	300		mg/Kg	100	2/25/2020 7:13:17 PM	50585
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/22/2020 4:59:27 AM	50573
Surr: BFB	103	70-130		%Rec	1	2/22/2020 4:59:27 AM	50573
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	490	9.4		mg/Kg	1	2/24/2020 5:16:26 PM	50592
Motor Oil Range Organics (MRO)	230	47		mg/Kg	1	2/24/2020 5:16:26 PM	50592
Surr: DNOP	102	55.1-146		%Rec	1	2/24/2020 5:16:26 PM	50592
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.024		mg/Kg	1	2/22/2020 4:59:27 AM	50573
Toluene	ND	0.047		mg/Kg	1	2/22/2020 4:59:27 AM	50573
Ethylbenzene	ND	0.047		mg/Kg	1	2/22/2020 4:59:27 AM	50573
Xylenes, Total	ND	0.094		mg/Kg	1	2/22/2020 4:59:27 AM	50573
Surr: 1,2-Dichloroethane-d4	86.3	70-130		%Rec	1	2/22/2020 4:59:27 AM	50573
Surr: 4-Bromofluorobenzene	97.4	70-130		%Rec	1	2/22/2020 4:59:27 AM	50573
Surr: Dibromofluoromethane	95.1	70-130		%Rec	1	2/22/2020 4:59:27 AM	50573
Surr: Toluene-d8	104	70-130		%Rec	1	2/22/2020 4:59:27 AM	50573

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

**Analytical Report**

Lab Order **2002834**

Date Reported: **2/27/2020**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Devon Energy

**Client Sample ID:** BH20-09 1'

**Project:** Sea Wolf 1 12 CTB 1

**Collection Date:** 2/18/2020 2:00:00 PM

**Lab ID:** 2002834-008

**Matrix:** SOIL

**Received Date:** 2/20/2020 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JMT</b>
Chloride	ND	60		mg/Kg	20	2/21/2020 4:37:39 PM	50585
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/22/2020 5:28:33 AM	50573
Surr: BFB	97.1	70-130		%Rec	1	2/22/2020 5:28:33 AM	50573
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	2/24/2020 5:38:32 PM	50592
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/24/2020 5:38:32 PM	50592
Surr: DNOP	92.4	55.1-146		%Rec	1	2/24/2020 5:38:32 PM	50592
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.025		mg/Kg	1	2/22/2020 5:28:33 AM	50573
Toluene	ND	0.049		mg/Kg	1	2/22/2020 5:28:33 AM	50573
Ethylbenzene	ND	0.049		mg/Kg	1	2/22/2020 5:28:33 AM	50573
Xylenes, Total	ND	0.099		mg/Kg	1	2/22/2020 5:28:33 AM	50573
Surr: 1,2-Dichloroethane-d4	88.0	70-130		%Rec	1	2/22/2020 5:28:33 AM	50573
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	2/22/2020 5:28:33 AM	50573
Surr: Dibromofluoromethane	94.4	70-130		%Rec	1	2/22/2020 5:28:33 AM	50573
Surr: Toluene-d8	103	70-130		%Rec	1	2/22/2020 5:28:33 AM	50573

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

**Analytical Report**

Lab Order **2002834**

Date Reported: **2/27/2020**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Devon Energy

**Client Sample ID:** SS20-01 0'

**Project:** Sea Wolf 1 12 CTB 1

**Collection Date:** 2/18/2020 2:25:00 PM

**Lab ID:** 2002834-009

**Matrix:** SOIL

**Received Date:** 2/20/2020 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JMT</b>
Chloride	1100	60		mg/Kg	20	2/21/2020 4:49:59 PM	50585
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/22/2020 5:57:36 AM	50573
Surr: BFB	95.4	70-130		%Rec	1	2/22/2020 5:57:36 AM	50573
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	2/24/2020 6:00:45 PM	50592
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	2/24/2020 6:00:45 PM	50592
Surr: DNOP	93.2	55.1-146		%Rec	1	2/24/2020 6:00:45 PM	50592
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.024		mg/Kg	1	2/22/2020 5:57:36 AM	50573
Toluene	ND	0.048		mg/Kg	1	2/22/2020 5:57:36 AM	50573
Ethylbenzene	ND	0.048		mg/Kg	1	2/22/2020 5:57:36 AM	50573
Xylenes, Total	ND	0.095		mg/Kg	1	2/22/2020 5:57:36 AM	50573
Surr: 1,2-Dichloroethane-d4	83.9	70-130		%Rec	1	2/22/2020 5:57:36 AM	50573
Surr: 4-Bromofluorobenzene	98.8	70-130		%Rec	1	2/22/2020 5:57:36 AM	50573
Surr: Dibromofluoromethane	96.2	70-130		%Rec	1	2/22/2020 5:57:36 AM	50573
Surr: Toluene-d8	107	70-130		%Rec	1	2/22/2020 5:57:36 AM	50573

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

**Analytical Report**

Lab Order **2002834**

Date Reported: **2/27/2020**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Devon Energy

**Client Sample ID:** SS20-01 0.5'

**Project:** Sea Wolf 1 12 CTB 1

**Collection Date:** 2/18/2020 2:30:00 PM

**Lab ID:** 2002834-010

**Matrix:** SOIL

**Received Date:** 2/20/2020 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JMT</b>
Chloride	420	60		mg/Kg	20	2/21/2020 5:02:20 PM	50585
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/22/2020 6:26:22 AM	50573
Surr: BFB	103	70-130		%Rec	1	2/22/2020 6:26:22 AM	50573
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	2/24/2020 6:22:43 PM	50592
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/24/2020 6:22:43 PM	50592
Surr: DNOP	89.5	55.1-146		%Rec	1	2/24/2020 6:22:43 PM	50592
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.024		mg/Kg	1	2/22/2020 6:26:22 AM	50573
Toluene	ND	0.047		mg/Kg	1	2/22/2020 6:26:22 AM	50573
Ethylbenzene	ND	0.047		mg/Kg	1	2/22/2020 6:26:22 AM	50573
Xylenes, Total	ND	0.094		mg/Kg	1	2/22/2020 6:26:22 AM	50573
Surr: 1,2-Dichloroethane-d4	86.1	70-130		%Rec	1	2/22/2020 6:26:22 AM	50573
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	1	2/22/2020 6:26:22 AM	50573
Surr: Dibromofluoromethane	93.2	70-130		%Rec	1	2/22/2020 6:26:22 AM	50573
Surr: Toluene-d8	103	70-130		%Rec	1	2/22/2020 6:26:22 AM	50573

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

**Analytical Report**

Lab Order **2002834**

Date Reported: **2/27/2020**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Devon Energy

**Client Sample ID:** SS20-02 0'

**Project:** Sea Wolf 1 12 CTB 1

**Collection Date:** 2/18/2020 2:40:00 PM

**Lab ID:** 2002834-011

**Matrix:** SOIL

**Received Date:** 2/20/2020 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JMT</b>
Chloride	ND	60		mg/Kg	20	2/21/2020 5:14:41 PM	50585
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/22/2020 6:55:25 AM	50573
Surr: BFB	101	70-130		%Rec	1	2/22/2020 6:55:25 AM	50573
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	2/24/2020 6:44:51 PM	50592
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/24/2020 6:44:51 PM	50592
Surr: DNOP	91.1	55.1-146		%Rec	1	2/24/2020 6:44:51 PM	50592
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.024		mg/Kg	1	2/22/2020 6:55:25 AM	50573
Toluene	ND	0.047		mg/Kg	1	2/22/2020 6:55:25 AM	50573
Ethylbenzene	ND	0.047		mg/Kg	1	2/22/2020 6:55:25 AM	50573
Xylenes, Total	ND	0.095		mg/Kg	1	2/22/2020 6:55:25 AM	50573
Surr: 1,2-Dichloroethane-d4	84.1	70-130		%Rec	1	2/22/2020 6:55:25 AM	50573
Surr: 4-Bromofluorobenzene	107	70-130		%Rec	1	2/22/2020 6:55:25 AM	50573
Surr: Dibromofluoromethane	93.7	70-130		%Rec	1	2/22/2020 6:55:25 AM	50573
Surr: Toluene-d8	103	70-130		%Rec	1	2/22/2020 6:55:25 AM	50573

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

**Analytical Report**

Lab Order **2002834**

Date Reported: **2/27/2020**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Devon Energy

**Client Sample ID:** SS20-03 0'

**Project:** Sea Wolf 1 12 CTB 1

**Collection Date:** 2/18/2020 2:55:00 PM

**Lab ID:** 2002834-012

**Matrix:** SOIL

**Received Date:** 2/20/2020 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JMT</b>
Chloride	ND	60		mg/Kg	20	2/21/2020 5:27:02 PM	50585
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/22/2020 7:24:29 AM	50573
Surr: BFB	97.8	70-130		%Rec	1	2/22/2020 7:24:29 AM	50573
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	8.9		mg/Kg	1	2/24/2020 7:28:43 PM	50592
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	2/24/2020 7:28:43 PM	50592
Surr: DNOP	93.7	55.1-146		%Rec	1	2/24/2020 7:28:43 PM	50592
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.024		mg/Kg	1	2/22/2020 7:24:29 AM	50573
Toluene	ND	0.048		mg/Kg	1	2/22/2020 7:24:29 AM	50573
Ethylbenzene	ND	0.048		mg/Kg	1	2/22/2020 7:24:29 AM	50573
Xylenes, Total	ND	0.096		mg/Kg	1	2/22/2020 7:24:29 AM	50573
Surr: 1,2-Dichloroethane-d4	86.0	70-130		%Rec	1	2/22/2020 7:24:29 AM	50573
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	2/22/2020 7:24:29 AM	50573
Surr: Dibromofluoromethane	93.9	70-130		%Rec	1	2/22/2020 7:24:29 AM	50573
Surr: Toluene-d8	102	70-130		%Rec	1	2/22/2020 7:24:29 AM	50573

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

**Analytical Report**

Lab Order **2002834**

Date Reported: **2/27/2020**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Devon Energy

**Client Sample ID:** SS20-04 0'

**Project:** Sea Wolf 1 12 CTB 1

**Collection Date:** 2/18/2020 3:10:00 PM

**Lab ID:** 2002834-013

**Matrix:** SOIL

**Received Date:** 2/20/2020 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JMT</b>
Chloride	ND	60		mg/Kg	20	2/21/2020 5:39:22 PM	50585
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	2/22/2020 7:53:32 AM	50573
Surr: BFB	100	70-130		%Rec	1	2/22/2020 7:53:32 AM	50573
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	2/24/2020 7:50:42 PM	50592
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/24/2020 7:50:42 PM	50592
Surr: DNOP	93.9	55.1-146		%Rec	1	2/24/2020 7:50:42 PM	50592
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.023		mg/Kg	1	2/22/2020 7:53:32 AM	50573
Toluene	ND	0.046		mg/Kg	1	2/22/2020 7:53:32 AM	50573
Ethylbenzene	ND	0.046		mg/Kg	1	2/22/2020 7:53:32 AM	50573
Xylenes, Total	ND	0.092		mg/Kg	1	2/22/2020 7:53:32 AM	50573
Surr: 1,2-Dichloroethane-d4	88.7	70-130		%Rec	1	2/22/2020 7:53:32 AM	50573
Surr: 4-Bromofluorobenzene	103	70-130		%Rec	1	2/22/2020 7:53:32 AM	50573
Surr: Dibromofluoromethane	94.4	70-130		%Rec	1	2/22/2020 7:53:32 AM	50573
Surr: Toluene-d8	103	70-130		%Rec	1	2/22/2020 7:53:32 AM	50573

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

**Analytical Report**

Lab Order **2002834**

Date Reported: **2/27/2020**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Devon Energy

**Client Sample ID:** SS20-05 0'

**Project:** Sea Wolf 1 12 CTB 1

**Collection Date:** 2/18/2020 3:25:00 PM

**Lab ID:** 2002834-014

**Matrix:** SOIL

**Received Date:** 2/20/2020 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JMT</b>
Chloride	ND	60		mg/Kg	20	2/21/2020 5:51:43 PM	50585
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	2/22/2020 8:22:44 AM	50573
Surr: BFB	98.1	70-130		%Rec	1	2/22/2020 8:22:44 AM	50573
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	2/24/2020 8:34:22 PM	50592
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/24/2020 8:34:22 PM	50592
Surr: DNOP	87.8	55.1-146		%Rec	1	2/24/2020 8:34:22 PM	50592
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.023		mg/Kg	1	2/22/2020 8:22:44 AM	50573
Toluene	ND	0.046		mg/Kg	1	2/22/2020 8:22:44 AM	50573
Ethylbenzene	ND	0.046		mg/Kg	1	2/22/2020 8:22:44 AM	50573
Xylenes, Total	ND	0.093		mg/Kg	1	2/22/2020 8:22:44 AM	50573
Surr: 1,2-Dichloroethane-d4	84.0	70-130		%Rec	1	2/22/2020 8:22:44 AM	50573
Surr: 4-Bromofluorobenzene	103	70-130		%Rec	1	2/22/2020 8:22:44 AM	50573
Surr: Dibromofluoromethane	88.9	70-130		%Rec	1	2/22/2020 8:22:44 AM	50573
Surr: Toluene-d8	99.7	70-130		%Rec	1	2/22/2020 8:22:44 AM	50573

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

**Analytical Report**

Lab Order **2002834**

Date Reported: **2/27/2020**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Devon Energy

**Client Sample ID:** SS20-06 0'

**Project:** Sea Wolf 1 12 CTB 1

**Collection Date:** 2/18/2020 3:40:00 PM

**Lab ID:** 2002834-015

**Matrix:** SOIL

**Received Date:** 2/20/2020 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JMT</b>
Chloride	ND	60		mg/Kg	20	2/21/2020 6:04:04 PM	50585
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/22/2020 8:51:57 AM	50573
Surr: BFB	98.1	70-130		%Rec	1	2/22/2020 8:51:57 AM	50573
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	2/24/2020 8:56:17 PM	50592
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/24/2020 8:56:17 PM	50592
Surr: DNOP	91.0	55.1-146		%Rec	1	2/24/2020 8:56:17 PM	50592
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.024		mg/Kg	1	2/22/2020 8:51:57 AM	50573
Toluene	ND	0.047		mg/Kg	1	2/22/2020 8:51:57 AM	50573
Ethylbenzene	ND	0.047		mg/Kg	1	2/22/2020 8:51:57 AM	50573
Xylenes, Total	ND	0.095		mg/Kg	1	2/22/2020 8:51:57 AM	50573
Surr: 1,2-Dichloroethane-d4	85.4	70-130		%Rec	1	2/22/2020 8:51:57 AM	50573
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	2/22/2020 8:51:57 AM	50573
Surr: Dibromofluoromethane	94.7	70-130		%Rec	1	2/22/2020 8:51:57 AM	50573
Surr: Toluene-d8	97.5	70-130		%Rec	1	2/22/2020 8:51:57 AM	50573

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2002834

27-Feb-20

**Client:** Devon Energy  
**Project:** Sea Wolf 1 12 CTB 1

Sample ID: <b>MB-50585</b>	SampType: <b>mblk</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBS</b>	Batch ID: <b>50585</b>	RunNo: <b>66715</b>								
Prep Date: <b>2/21/2020</b>	Analysis Date: <b>2/21/2020</b>	SeqNo: <b>2294149</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: <b>LCS-50585</b>	SampType: <b>ics</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>50585</b>	RunNo: <b>66715</b>								
Prep Date: <b>2/21/2020</b>	Analysis Date: <b>2/21/2020</b>	SeqNo: <b>2294150</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.6	90	110			

Sample ID: <b>MB-50639</b>	SampType: <b>mblk</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBS</b>	Batch ID: <b>50639</b>	RunNo: <b>66754</b>								
Prep Date: <b>2/24/2020</b>	Analysis Date: <b>2/24/2020</b>	SeqNo: <b>2295479</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: <b>LCS-50639</b>	SampType: <b>ics</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>50639</b>	RunNo: <b>66754</b>								
Prep Date: <b>2/24/2020</b>	Analysis Date: <b>2/24/2020</b>	SeqNo: <b>2295481</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.0	90	110			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2002834

27-Feb-20

**Client:** Devon Energy  
**Project:** Sea Wolf 1 12 CTB 1

Sample ID: <b>2002834-002AMS</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>BH20-01 1'</b>	Batch ID: <b>50592</b>	RunNo: <b>66740</b>								
Prep Date: <b>2/21/2020</b>	Analysis Date: <b>2/24/2020</b>	SeqNo: <b>2295345</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	9.9	49.70	0	98.1	47.4	136			
Surr: DNOP	4.1		4.970		81.5	55.1	146			

Sample ID: <b>2002834-002AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>BH20-01 1'</b>	Batch ID: <b>50592</b>	RunNo: <b>66740</b>								
Prep Date: <b>2/21/2020</b>	Analysis Date: <b>2/24/2020</b>	SeqNo: <b>2295346</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	9.2	46.08	0	103	47.4	136	3.09	43.4	
Surr: DNOP	3.9		4.608		84.2	55.1	146	0	0	

Sample ID: <b>LCS-50592</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>50592</b>	RunNo: <b>66740</b>								
Prep Date: <b>2/21/2020</b>	Analysis Date: <b>2/24/2020</b>	SeqNo: <b>2295413</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	10	50.00	0	98.8	70	130			
Surr: DNOP	3.6		5.000		71.8	55.1	146			

Sample ID: <b>MB-50579</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>50579</b>	RunNo: <b>66740</b>								
Prep Date: <b>2/21/2020</b>	Analysis Date: <b>2/25/2020</b>	SeqNo: <b>2295417</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	6.3		10.00		63.0	55.1	146			

Sample ID: <b>MB-50592</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>50592</b>	RunNo: <b>66740</b>								
Prep Date: <b>2/21/2020</b>	Analysis Date: <b>2/24/2020</b>	SeqNo: <b>2295419</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.2		10.00		81.9	55.1	146			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2002834

27-Feb-20

**Client:** Devon Energy  
**Project:** Sea Wolf 1 12 CTB 1

Sample ID: <b>LCS-50579</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>50579</b>	RunNo: <b>66778</b>								
Prep Date: <b>2/21/2020</b>	Analysis Date: <b>2/25/2020</b>	SeqNo: <b>2295848</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	10	50.00	0	88.5	70	130			
Surr: DNOP	4.6		5.000		92.3	55.1	146			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2002834

27-Feb-20

**Client:** Devon Energy  
**Project:** Sea Wolf 1 12 CTB 1

Sample ID: <b>mb-50573</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8260B: Volatiles Short List</b>								
Client ID: <b>PBS</b>	Batch ID: <b>50573</b>	RunNo: <b>66728</b>								
Prep Date: <b>2/20/2020</b>	Analysis Date: <b>2/21/2020</b>	SeqNo: <b>2293910</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.44		0.5000		87.4	70	130			
Surr: 4-Bromofluorobenzene	0.51		0.5000		103	70	130			
Surr: Dibromofluoromethane	0.47		0.5000		94.7	70	130			
Surr: Toluene-d8	0.51		0.5000		102	70	130			

Sample ID: <b>ics-50573</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8260B: Volatiles Short List</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>50573</b>	RunNo: <b>66728</b>								
Prep Date: <b>2/20/2020</b>	Analysis Date: <b>2/21/2020</b>	SeqNo: <b>2293911</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.70	0.025	1.000	0	70.4	70	130			
Toluene	0.84	0.050	1.000	0	83.6	70	130			
Ethylbenzene	0.83	0.050	1.000	0	82.9	70	130			
Xylenes, Total	2.8	0.10	3.000	0	93.8	70	130			
Surr: 1,2-Dichloroethane-d4	0.41		0.5000		81.5	70	130			
Surr: 4-Bromofluorobenzene	0.50		0.5000		101	70	130			
Surr: Dibromofluoromethane	0.44		0.5000		87.9	70	130			
Surr: Toluene-d8	0.49		0.5000		98.6	70	130			

Sample ID: <b>2002834-001ams</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 8260B: Volatiles Short List</b>								
Client ID: <b>BH20-01' 0'</b>	Batch ID: <b>50573</b>	RunNo: <b>66728</b>								
Prep Date: <b>2/20/2020</b>	Analysis Date: <b>2/22/2020</b>	SeqNo: <b>2293913</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.80	0.023	0.9200	0	87.2	70	130			
Toluene	0.89	0.046	0.9200	0	96.6	70	130			
Ethylbenzene	0.90	0.046	0.9200	0	97.6	70	130			
Xylenes, Total	3.1	0.092	2.760	0	111	70	130			
Surr: 1,2-Dichloroethane-d4	0.42		0.4600		92.0	70	130			
Surr: 4-Bromofluorobenzene	0.49		0.4600		105	70	130			
Surr: Dibromofluoromethane	0.44		0.4600		95.8	70	130			
Surr: Toluene-d8	0.47		0.4600		101	70	130			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2002834

27-Feb-20

**Client:** Devon Energy  
**Project:** Sea Wolf 1 12 CTB 1

Sample ID: <b>2002834-001amsd</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 8260B: Volatiles Short List</b>								
Client ID: <b>BH20-01' 0'</b>	Batch ID: <b>50573</b>	RunNo: <b>66728</b>								
Prep Date: <b>2/20/2020</b>	Analysis Date: <b>2/22/2020</b>	SeqNo: <b>2293914</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.85	0.024	0.9718	0	87.3	70	130	5.62	20	
Toluene	0.99	0.049	0.9718	0	102	70	130	10.5	20	
Ethylbenzene	0.98	0.049	0.9718	0	101	70	130	8.46	0	
Xylenes, Total	3.3	0.097	2.915	0	113	70	130	7.94	0	
Surr: 1,2-Dichloroethane-d4	0.42		0.4859		86.5	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.49		0.4859		102	70	130	0	0	
Surr: Dibromofluoromethane	0.46		0.4859		94.9	70	130	0	0	
Surr: Toluene-d8	0.51		0.4859		106	70	130	0	0	

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2002834

27-Feb-20

**Client:** Devon Energy  
**Project:** Sea Wolf 1 12 CTB 1

Sample ID: <b>2002834-002ams</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>								
Client ID: <b>BH20-01 1'</b>	Batch ID: <b>50573</b>	RunNo: <b>66728</b>								
Prep Date: <b>2/20/2020</b>	Analysis Date: <b>2/22/2020</b>	SeqNo: <b>2294246</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	4.9	24.68	0	99.8	70	130			
Surr: BFB	500		493.6		101	70	130			

Sample ID: <b>2002834-002amsd</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>								
Client ID: <b>BH20-01 1'</b>	Batch ID: <b>50573</b>	RunNo: <b>66728</b>								
Prep Date: <b>2/20/2020</b>	Analysis Date: <b>2/22/2020</b>	SeqNo: <b>2294247</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	4.9	24.41	0	102	70	130	0.748	20	
Surr: BFB	480		488.3		97.9	70	130	0	0	

Sample ID: <b>lcs-50573</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>50573</b>	RunNo: <b>66728</b>								
Prep Date: <b>2/20/2020</b>	Analysis Date: <b>2/21/2020</b>	SeqNo: <b>2294261</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	25.00	0	84.9	70	130			
Surr: BFB	500		500.0		100	70	130			

Sample ID: <b>mb-50573</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>								
Client ID: <b>PBS</b>	Batch ID: <b>50573</b>	RunNo: <b>66728</b>								
Prep Date: <b>2/20/2020</b>	Analysis Date: <b>2/21/2020</b>	SeqNo: <b>2294262</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	500		500.0		101	70	130			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit



Hall Environmental Analysis Laboratory  
 4901 Hawkins NE  
 Albuquerque, NM 87109  
 TEL: 505-345-3975 FAX: 505-345-4107  
 Website: www.hallenvironmental.com

# Sample Log-In Check List

Client Name: **DEVON ENERGY**

Work Order Number: **2002834**

RcptNo: 1

Received By: *Juan Rojas*

2/20/2020 9:00:00 AM

Completed By: *Leah Baca*

2/20/2020 10:13:02 AM

*Leah Baca*

Reviewed By: *ENM*

2/20/20

**Chain of Custody**

1. Is Chain of Custody sufficiently complete? Yes  No  Not Present
2. How was the sample delivered? Client

**Log In**

3. Was an attempt made to cool the samples? Yes  No  NA
4. Were all samples received at a temperature of >0° C to 6.0°C Yes  No  NA
5. Sample(s) in proper container(s)? Yes  No
6. Sufficient sample volume for indicated test(s)? Yes  No
7. Are samples (except VOA and ONG) properly preserved? Yes  No
8. Was preservative added to bottles? Yes  No  NA
9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes  No  NA
10. Were any sample containers received broken? Yes  No
11. Does paperwork match bottle labels? Yes  No   
 (Note discrepancies on chain of custody)
12. Are matrices correctly identified on Chain of Custody? Yes  No
13. Is it clear what analyses were requested? Yes  No
14. Were all holding times able to be met? Yes  No   
 (If no, notify customer for authorization.)

# of preserved bottles checked for pH: \_\_\_\_\_  
 (<2 or >12 unless noted)  
 Adjusted? \_\_\_\_\_  
 Checked by: *JR 2/20/20*

**Special Handling (if applicable)**

15. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

16. Additional remarks:

**17. Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.1	Good				

### Chain-of-Custody Record

Client: Devon  
 Amanda Davis/Wes Mathews  
 Mailing Address: 6488 Seven Rivers Hwy  
Artesia, NM 88210  
 Phone #: \_\_\_\_\_

email or Fax#: \_\_\_\_\_  
 QA/QC Package:  Standard  Level 4 (Full Validation)  
 Accreditation:  Az Compliance  Other  
 NELAC  Other  
 EDD (Type) \_\_\_\_\_

Turn-Around Time: 5 Day  
 Standard  Rush  
 Project Name:  
Sea Wolf 1-12 CTB 1  
 Project #:  
20E-00141-026

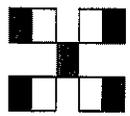
Project Manager:  
Natalie Gordon  
 Sampler: MJP  
 On Ice:  Yes  No  
 # of Coolers: \_\_\_\_\_  
 Cooler Temp (including CF): 5.0 to 15.1 (°C)

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.
2/18	9:00	soil	BH20-01 0'	402	ice	-001
	9:10	soil	BH20-01 1'	402		-007
	10:40	soil	BH20-04 0'	402		-003
	11:10	rock	BH20-04 3'	baggie		-004
	12:30	soil	BH20-07 0'	402		-005
	12:40	soil	BH20-07 1'	402		-006
	1:50		BH20-09 0'	402		-007
	2:00		BH20-09 1'	402		-008
	2:25		SS20-01 0'	402		-009
	2:30		SS20-01 0.5'	402		-010
	2:40		SS20-02 0'	402		-011
	2:55		SS20-03 0'	402		-012

Date: 2/19/20 Relinquished by: [Signature]  
 Time: 1400  
 Date: 2/19/20 Relinquished by: [Signature]  
 Time: 1900

Analysis Request	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCBs	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl <sup>-</sup> , F <sup>-</sup> , Br <sup>-</sup> , NO <sub>3</sub> <sup>-</sup> , NO <sub>2</sub> <sup>-</sup> , PO <sub>4</sub> <sup>3-</sup> , SO <sub>4</sub> <sup>2-</sup>	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
BTEX / MTBE / TMBs (8021)	✓	✓	✓	✓	✓	✓	✓	✓	✓
	✓	✓	✓	✓	✓	✓	✓	✓	✓
	✓	✓	✓	✓	✓	✓	✓	✓	✓
	✓	✓	✓	✓	✓	✓	✓	✓	✓
	✓	✓	✓	✓	✓	✓	✓	✓	✓
	✓	✓	✓	✓	✓	✓	✓	✓	✓
	✓	✓	✓	✓	✓	✓	✓	✓	✓
	✓	✓	✓	✓	✓	✓	✓	✓	✓
	✓	✓	✓	✓	✓	✓	✓	✓	✓
	✓	✓	✓	✓	✓	✓	✓	✓	✓

Remarks:  
Direct Bill  
Devon w/o #: 20833951  
CC: Natalie Gordon  
Vertex



**HALL ENVIRONMENTAL ANALYSIS LABORATORY**  
 www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109  
 Tel. 505-345-3975 Fax 505-345-4107

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.





Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

May 05, 2020

Amanda Davis  
Devon Energy  
6488 Seven Rivers Highway  
Artesia, NM 88210  
TEL: (505) 350-1336  
FAX

RE: Seawolf 1 12 CTB 1

OrderNo.: 2004B34

Dear Amanda Davis:

Hall Environmental Analysis Laboratory received 9 sample(s) on 4/28/2020 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a light blue horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

**Analytical Report**

Lab Order **2004B34**

Date Reported: **5/5/2020**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Devon Energy

**Client Sample ID:** SS20-01 0-12"

**Project:** Seawolf 1 12 CTB 1

**Collection Date:** 4/24/2020

**Lab ID:** 2004B34-001

**Matrix:** SOIL

**Received Date:** 4/28/2020 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	5/1/2020 7:47:25 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/1/2020 7:47:25 AM
Surr: DNOP	76.8	55.1-146		%Rec	1	5/1/2020 7:47:25 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>MRA</b>
Chloride	100	60		mg/Kg	20	5/1/2020 1:55:04 PM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>JMR</b>
Benzene	ND	0.025		mg/Kg	1	4/29/2020 8:48:46 PM
Toluene	ND	0.049		mg/Kg	1	4/29/2020 8:48:46 PM
Ethylbenzene	ND	0.049		mg/Kg	1	4/29/2020 8:48:46 PM
Xylenes, Total	ND	0.099		mg/Kg	1	4/29/2020 8:48:46 PM
Surr: 1,2-Dichloroethane-d4	79.6	70-130		%Rec	1	4/29/2020 8:48:46 PM
Surr: 4-Bromofluorobenzene	100	70-130		%Rec	1	4/29/2020 8:48:46 PM
Surr: Dibromofluoromethane	90.9	70-130		%Rec	1	4/29/2020 8:48:46 PM
Surr: Toluene-d8	95.1	70-130		%Rec	1	4/29/2020 8:48:46 PM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>JMR</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/29/2020 8:48:46 PM
Surr: BFB	96.5	70-130		%Rec	1	4/29/2020 8:48:46 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

**Analytical Report**

Lab Order **2004B34**

Date Reported: 5/5/2020

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Devon Energy

**Client Sample ID:** SS20-02 0-12"

**Project:** Seawolf 1 12 CTB 1

**Collection Date:** 4/24/2020

**Lab ID:** 2004B34-002

**Matrix:** SOIL

**Received Date:** 4/28/2020 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	4/30/2020 11:45:41 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	4/30/2020 11:45:41 AM
Surr: DNOP	58.4	55.1-146		%Rec	1	4/30/2020 11:45:41 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CAS</b>
Chloride	5100	300		mg/Kg	100	5/4/2020 6:28:07 PM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>JMR</b>
Benzene	ND	0.024		mg/Kg	1	4/29/2020 9:17:37 PM
Toluene	ND	0.048		mg/Kg	1	4/29/2020 9:17:37 PM
Ethylbenzene	ND	0.048		mg/Kg	1	4/29/2020 9:17:37 PM
Xylenes, Total	ND	0.097		mg/Kg	1	4/29/2020 9:17:37 PM
Surr: 1,2-Dichloroethane-d4	79.2	70-130		%Rec	1	4/29/2020 9:17:37 PM
Surr: 4-Bromofluorobenzene	99.2	70-130		%Rec	1	4/29/2020 9:17:37 PM
Surr: Dibromofluoromethane	90.8	70-130		%Rec	1	4/29/2020 9:17:37 PM
Surr: Toluene-d8	97.0	70-130		%Rec	1	4/29/2020 9:17:37 PM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>JMR</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/29/2020 9:17:37 PM
Surr: BFB	98.3	70-130		%Rec	1	4/29/2020 9:17:37 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

**Analytical Report**

Lab Order **2004B34**

Date Reported: 5/5/2020

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Devon Energy

**Client Sample ID:** SS20-03 0-12"

**Project:** Seawolf 1 12 CTB 1

**Collection Date:** 4/24/2020

**Lab ID:** 2004B34-003

**Matrix:** SOIL

**Received Date:** 4/28/2020 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/1/2020 8:11:15 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/1/2020 8:11:15 AM
Surr: DNOP	82.6	55.1-146		%Rec	1	5/1/2020 8:11:15 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CAS</b>
Chloride	3700	150		mg/Kg	50	5/4/2020 6:40:32 PM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>JMR</b>
Benzene	ND	0.025		mg/Kg	1	4/29/2020 9:46:16 PM
Toluene	ND	0.050		mg/Kg	1	4/29/2020 9:46:16 PM
Ethylbenzene	ND	0.050		mg/Kg	1	4/29/2020 9:46:16 PM
Xylenes, Total	ND	0.099		mg/Kg	1	4/29/2020 9:46:16 PM
Surr: 1,2-Dichloroethane-d4	81.4	70-130		%Rec	1	4/29/2020 9:46:16 PM
Surr: 4-Bromofluorobenzene	97.6	70-130		%Rec	1	4/29/2020 9:46:16 PM
Surr: Dibromofluoromethane	88.5	70-130		%Rec	1	4/29/2020 9:46:16 PM
Surr: Toluene-d8	93.1	70-130		%Rec	1	4/29/2020 9:46:16 PM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>JMR</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/29/2020 9:46:16 PM
Surr: BFB	98.3	70-130		%Rec	1	4/29/2020 9:46:16 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

**Analytical Report**

Lab Order **2004B34**

Date Reported: 5/5/2020

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Devon Energy

**Client Sample ID:** SS20-04 0-12"

**Project:** Seawolf 1 12 CTB 1

**Collection Date:** 4/24/2020

**Lab ID:** 2004B34-004

**Matrix:** SOIL

**Received Date:** 4/28/2020 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	4/30/2020 12:33:54 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/30/2020 12:33:54 PM
Surr: DNOP	62.2	55.1-146		%Rec	1	4/30/2020 12:33:54 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CAS</b>
Chloride	4400	150		mg/Kg	50	5/4/2020 6:52:57 PM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>JMR</b>
Benzene	ND	0.024		mg/Kg	1	4/29/2020 10:15:06 PM
Toluene	ND	0.047		mg/Kg	1	4/29/2020 10:15:06 PM
Ethylbenzene	ND	0.047		mg/Kg	1	4/29/2020 10:15:06 PM
Xylenes, Total	ND	0.095		mg/Kg	1	4/29/2020 10:15:06 PM
Surr: 1,2-Dichloroethane-d4	79.2	70-130		%Rec	1	4/29/2020 10:15:06 PM
Surr: 4-Bromofluorobenzene	98.7	70-130		%Rec	1	4/29/2020 10:15:06 PM
Surr: Dibromofluoromethane	88.8	70-130		%Rec	1	4/29/2020 10:15:06 PM
Surr: Toluene-d8	95.7	70-130		%Rec	1	4/29/2020 10:15:06 PM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>JMR</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/29/2020 10:15:06 PM
Surr: BFB	99.0	70-130		%Rec	1	4/29/2020 10:15:06 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

**Analytical Report**

Lab Order **2004B34**

Date Reported: 5/5/2020

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Devon Energy

**Client Sample ID:** SS20-05 0-12"

**Project:** Seawolf 1 12 CTB 1

**Collection Date:** 4/24/2020

**Lab ID:** 2004B34-005

**Matrix:** SOIL

**Received Date:** 4/28/2020 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	4/30/2020 12:57:51 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/30/2020 12:57:51 PM
Surr: DNOP	58.6	55.1-146		%Rec	1	4/30/2020 12:57:51 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CAS</b>
Chloride	4900	300		mg/Kg	100	5/4/2020 7:05:21 PM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>JMR</b>
Benzene	ND	0.025		mg/Kg	1	4/30/2020 2:05:00 AM
Toluene	ND	0.049		mg/Kg	1	4/30/2020 2:05:00 AM
Ethylbenzene	ND	0.049		mg/Kg	1	4/30/2020 2:05:00 AM
Xylenes, Total	ND	0.099		mg/Kg	1	4/30/2020 2:05:00 AM
Surr: 1,2-Dichloroethane-d4	77.6	70-130		%Rec	1	4/30/2020 2:05:00 AM
Surr: 4-Bromofluorobenzene	96.4	70-130		%Rec	1	4/30/2020 2:05:00 AM
Surr: Dibromofluoromethane	89.0	70-130		%Rec	1	4/30/2020 2:05:00 AM
Surr: Toluene-d8	96.5	70-130		%Rec	1	4/30/2020 2:05:00 AM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>JMR</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/30/2020 2:05:00 AM
Surr: BFB	99.1	70-130		%Rec	1	4/30/2020 2:05:00 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

**Analytical Report**

Lab Order **2004B34**

Date Reported: 5/5/2020

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Devon Energy

**Client Sample ID:** SS20-06 0-12"

**Project:** Seawolf 1 12 CTB 1

**Collection Date:** 4/24/2020

**Lab ID:** 2004B34-006

**Matrix:** SOIL

**Received Date:** 4/28/2020 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	4/30/2020 1:22:08 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/30/2020 1:22:08 PM
Surr: DNOP	64.2	55.1-146		%Rec	1	4/30/2020 1:22:08 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CAS</b>
Chloride	8400	300		mg/Kg	100	5/4/2020 7:17:46 PM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>JMR</b>
Benzene	ND	0.024		mg/Kg	1	4/30/2020 2:33:50 AM
Toluene	ND	0.048		mg/Kg	1	4/30/2020 2:33:50 AM
Ethylbenzene	ND	0.048		mg/Kg	1	4/30/2020 2:33:50 AM
Xylenes, Total	ND	0.097		mg/Kg	1	4/30/2020 2:33:50 AM
Surr: 1,2-Dichloroethane-d4	78.2	70-130		%Rec	1	4/30/2020 2:33:50 AM
Surr: 4-Bromofluorobenzene	99.2	70-130		%Rec	1	4/30/2020 2:33:50 AM
Surr: Dibromofluoromethane	91.9	70-130		%Rec	1	4/30/2020 2:33:50 AM
Surr: Toluene-d8	96.6	70-130		%Rec	1	4/30/2020 2:33:50 AM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>JMR</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/30/2020 2:33:50 AM
Surr: BFB	100	70-130		%Rec	1	4/30/2020 2:33:50 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

**Analytical Report**

Lab Order **2004B34**

Date Reported: 5/5/2020

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Devon Energy

**Client Sample ID:** SS20-07 0-12"

**Project:** Seawolf 1 12 CTB 1

**Collection Date:** 4/24/2020

**Lab ID:** 2004B34-007

**Matrix:** SOIL

**Received Date:** 4/28/2020 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	4/30/2020 1:22:13 PM
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	4/30/2020 1:22:13 PM
Surr: DNOP	78.6	55.1-146		%Rec	1	4/30/2020 1:22:13 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>MRA</b>
Chloride	2400	60		mg/Kg	20	5/1/2020 3:34:22 PM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>JMR</b>
Benzene	ND	0.025		mg/Kg	1	4/30/2020 3:02:39 AM
Toluene	ND	0.049		mg/Kg	1	4/30/2020 3:02:39 AM
Ethylbenzene	ND	0.049		mg/Kg	1	4/30/2020 3:02:39 AM
Xylenes, Total	ND	0.099		mg/Kg	1	4/30/2020 3:02:39 AM
Surr: 1,2-Dichloroethane-d4	75.5	70-130		%Rec	1	4/30/2020 3:02:39 AM
Surr: 4-Bromofluorobenzene	99.8	70-130		%Rec	1	4/30/2020 3:02:39 AM
Surr: Dibromofluoromethane	88.1	70-130		%Rec	1	4/30/2020 3:02:39 AM
Surr: Toluene-d8	97.9	70-130		%Rec	1	4/30/2020 3:02:39 AM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>JMR</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/30/2020 3:02:39 AM
Surr: BFB	102	70-130		%Rec	1	4/30/2020 3:02:39 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

**Analytical Report**

Lab Order **2004B34**

Date Reported: 5/5/2020

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Devon Energy

**Client Sample ID:** SS20-08 0-12"

**Project:** Seawolf 1 12 CTB 1

**Collection Date:** 4/24/2020

**Lab ID:** 2004B34-008

**Matrix:** SOIL

**Received Date:** 4/28/2020 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	4/30/2020 1:46:25 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/30/2020 1:46:25 PM
Surr: DNOP	108	55.1-146		%Rec	1	4/30/2020 1:46:25 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>MRA</b>
Chloride	980	61		mg/Kg	20	5/1/2020 4:11:35 PM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>JMR</b>
Benzene	ND	0.024		mg/Kg	1	4/30/2020 3:31:25 AM
Toluene	ND	0.049		mg/Kg	1	4/30/2020 3:31:25 AM
Ethylbenzene	ND	0.049		mg/Kg	1	4/30/2020 3:31:25 AM
Xylenes, Total	ND	0.097		mg/Kg	1	4/30/2020 3:31:25 AM
Surr: 1,2-Dichloroethane-d4	77.2	70-130		%Rec	1	4/30/2020 3:31:25 AM
Surr: 4-Bromofluorobenzene	95.2	70-130		%Rec	1	4/30/2020 3:31:25 AM
Surr: Dibromofluoromethane	89.7	70-130		%Rec	1	4/30/2020 3:31:25 AM
Surr: Toluene-d8	97.4	70-130		%Rec	1	4/30/2020 3:31:25 AM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>JMR</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/30/2020 3:31:25 AM
Surr: BFB	98.2	70-130		%Rec	1	4/30/2020 3:31:25 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

**Analytical Report**

Lab Order **2004B34**

Date Reported: 5/5/2020

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Devon Energy

**Client Sample ID:** SS20-09 0-12"

**Project:** Seawolf 1 12 CTB 1

**Collection Date:** 4/24/2020

**Lab ID:** 2004B34-009

**Matrix:** SOIL

**Received Date:** 4/28/2020 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	5/1/2020 10:42:31 AM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	5/1/2020 10:42:31 AM
Surr: DNOP	93.6	55.1-146		%Rec	1	5/1/2020 10:42:31 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CAS</b>
Chloride	2500	150		mg/Kg	50	5/4/2020 7:30:10 PM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>JMR</b>
Benzene	ND	0.024		mg/Kg	1	4/30/2020 4:00:13 AM
Toluene	ND	0.049		mg/Kg	1	4/30/2020 4:00:13 AM
Ethylbenzene	ND	0.049		mg/Kg	1	4/30/2020 4:00:13 AM
Xylenes, Total	ND	0.097		mg/Kg	1	4/30/2020 4:00:13 AM
Surr: 1,2-Dichloroethane-d4	77.1	70-130		%Rec	1	4/30/2020 4:00:13 AM
Surr: 4-Bromofluorobenzene	96.4	70-130		%Rec	1	4/30/2020 4:00:13 AM
Surr: Dibromofluoromethane	87.6	70-130		%Rec	1	4/30/2020 4:00:13 AM
Surr: Toluene-d8	96.2	70-130		%Rec	1	4/30/2020 4:00:13 AM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>JMR</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/30/2020 4:00:13 AM
Surr: BFB	98.5	70-130		%Rec	1	4/30/2020 4:00:13 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2004B34

05-May-20

**Client:** Devon Energy  
**Project:** Seawolf 1 12 CTB 1

Sample ID: <b>MB-52210</b>	SampType: <b>mblk</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBS</b>	Batch ID: <b>52210</b>	RunNo: <b>68572</b>								
Prep Date: <b>5/1/2020</b>	Analysis Date: <b>5/1/2020</b>	SeqNo: <b>2374227</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: <b>LCS-52210</b>	SampType: <b>ics</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>52210</b>	RunNo: <b>68572</b>								
Prep Date: <b>5/1/2020</b>	Analysis Date: <b>5/1/2020</b>	SeqNo: <b>2374228</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.1	90	110			

Sample ID: <b>MB-52216</b>	SampType: <b>mblk</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBS</b>	Batch ID: <b>52216</b>	RunNo: <b>68572</b>								
Prep Date: <b>5/1/2020</b>	Analysis Date: <b>5/1/2020</b>	SeqNo: <b>2374259</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: <b>LCS-52216</b>	SampType: <b>ics</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>52216</b>	RunNo: <b>68572</b>								
Prep Date: <b>5/1/2020</b>	Analysis Date: <b>5/1/2020</b>	SeqNo: <b>2374260</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.4	90	110			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2004B34

05-May-20

**Client:** Devon Energy  
**Project:** Seawolf 1 12 CTB 1

Sample ID: <b>MB-52159</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>52159</b>	RunNo: <b>68543</b>								
Prep Date: <b>4/29/2020</b>	Analysis Date: <b>4/30/2020</b>	SeqNo: <b>2371591</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		105	55.1	146			

Sample ID: <b>LCS-52159</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>52159</b>	RunNo: <b>68543</b>								
Prep Date: <b>4/29/2020</b>	Analysis Date: <b>4/30/2020</b>	SeqNo: <b>2371592</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	10	50.00	0	83.8	70	130			
Surr: DNOP	4.1		5.000		83.0	55.1	146			

Sample ID: <b>LCS-52196</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>52196</b>	RunNo: <b>68578</b>								
Prep Date: <b>4/30/2020</b>	Analysis Date: <b>5/1/2020</b>	SeqNo: <b>2372791</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	10	50.00	0	98.5	70	130			
Surr: DNOP	4.5		5.000		89.2	55.1	146			

Sample ID: <b>MB-52196</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>52196</b>	RunNo: <b>68578</b>								
Prep Date: <b>4/30/2020</b>	Analysis Date: <b>5/1/2020</b>	SeqNo: <b>2372792</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.9		10.00		89.1	55.1	146			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2004B34

05-May-20

**Client:** Devon Energy  
**Project:** Seawolf 1 12 CTB 1

Sample ID: <b>mb-52148</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8260B: Volatiles Short List</b>								
Client ID: <b>PBS</b>	Batch ID: <b>52148</b>	RunNo: <b>68529</b>								
Prep Date: <b>4/28/2020</b>	Analysis Date: <b>4/29/2020</b>	SeqNo: <b>2371091</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.40		0.5000		79.9	70	130			
Surr: 4-Bromofluorobenzene	0.49		0.5000		98.1	70	130			
Surr: Dibromofluoromethane	0.45		0.5000		90.1	70	130			
Surr: Toluene-d8	0.48		0.5000		96.2	70	130			

Sample ID: <b>ics-52148</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8260B: Volatiles Short List</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>52148</b>	RunNo: <b>68529</b>								
Prep Date: <b>4/28/2020</b>	Analysis Date: <b>4/29/2020</b>	SeqNo: <b>2371092</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.79	0.025	1.000	0	79.0	70	130			
Toluene	0.98	0.050	1.000	0	98.0	70	130			
Ethylbenzene	1.0	0.050	1.000	0	101	70	130			
Xylenes, Total	3.0	0.10	3.000	0	100	70	130			
Surr: 1,2-Dichloroethane-d4	0.38		0.5000		77.0	70	130			
Surr: 4-Bromofluorobenzene	0.49		0.5000		97.3	70	130			
Surr: Dibromofluoromethane	0.44		0.5000		87.2	70	130			
Surr: Toluene-d8	0.47		0.5000		95.0	70	130			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2004B34

05-May-20

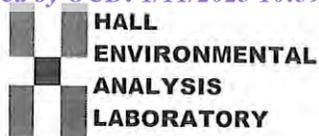
**Client:** Devon Energy  
**Project:** Seawolf 1 12 CTB 1

Sample ID: <b>mb-52148</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>							
Client ID: <b>PBS</b>	Batch ID: <b>52148</b>		RunNo: <b>68529</b>							
Prep Date: <b>4/28/2020</b>	Analysis Date: <b>4/29/2020</b>		SeqNo: <b>2371128</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	490		500.0		98.2	70	130			

Sample ID: <b>ics-52148</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>52148</b>		RunNo: <b>68529</b>							
Prep Date: <b>4/28/2020</b>	Analysis Date: <b>4/29/2020</b>		SeqNo: <b>2371130</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	99.4	70	130			
Surr: BFB	500		500.0		100	70	130			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
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- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: DEVON ENERGY Work Order Number: 2004B34 RcptNo: 1

Received By: Juan Rojas 4/28/2020 9:15:00 AM
Completed By: Isaiah Ortiz 4/28/2020 9:37:03 AM
Reviewed By: JP 4/28/20

Chain of Custody

- 1. Is Chain of Custody sufficiently complete? Yes [checked] No [ ] Not Present [ ]
2. How was the sample delivered? Courier

Log In

- 3. Was an attempt made to cool the samples? Yes [checked] No [ ] NA [ ]
4. Were all samples received at a temperature of >0° C to 6.0° C Yes [checked] No [ ] NA [ ]
5. Sample(s) in proper container(s)? Yes [checked] No [ ]
6. Sufficient sample volume for indicated test(s)? Yes [checked] No [ ]
7. Are samples (except VOA and ONG) properly preserved? Yes [checked] No [ ]
8. Was preservative added to bottles? Yes [ ] No [checked] NA [ ]
9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes [ ] No [ ] NA [checked]
10. Were any sample containers received broken? Yes [ ] No [checked]
11. Does paperwork match bottle labels? Yes [checked] No [ ]
12. Are matrices correctly identified on Chain of Custody? Yes [checked] No [ ]
13. Is it clear what analyses were requested? Yes [checked] No [ ]
14. Were all holding times able to be met? Yes [checked] No [ ]

# of preserved bottles checked for pH: (<2 or >12 unless noted) Adjusted? Checked by: SPA 4/28/20

Special Handling (if applicable)

- 15. Was client notified of all discrepancies with this order? Yes [ ] No [ ] NA [checked]

Person Notified: Date:
By Whom: Via: [ ] eMail [ ] Phone [ ] Fax [ ] In Person
Regarding:
Client Instructions:

16. Additional remarks:

17. Cooler Information

Table with 7 columns: Cooler No, Temp °C, Condition, Seal Intact, Seal No, Seal Date, Signed By. Row 1: 1, 3.9, Good, Not Present, [ ], [ ], [ ]



**District I**  
 1625 N. French Dr., Hobbs, NM 88240  
 Phone:(575) 393-6161 Fax:(575) 393-0720  
**District II**  
 811 S. First St., Artesia, NM 88210  
 Phone:(575) 748-1283 Fax:(575) 748-9720  
**District III**  
 1000 Rio Brazos Rd., Aztec, NM 87410  
 Phone:(505) 334-6178 Fax:(505) 334-6170  
**District IV**  
 1220 S. St Francis Dr., Santa Fe, NM 87505  
 Phone:(505) 476-3470 Fax:(505) 476-3462

**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

CONDITIONS

Action 175073

**CONDITIONS**

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 175073
	Action Type: [C-141] Release Corrective Action (C-141)

**CONDITIONS**

Created By	Condition	Condition Date
jnobui	Deferral Request Approved. The Deferral Request and C-141 will be accepted for record and marked accordingly. The release will remain open in OCD database files and reflect an open environmental issue. The OCD will not close a release, where contaminants are left in place, due to close proximity to equipment. The incident will only be closed after all contaminated soil has been remediated to meet OCD Spill Rule Standards. Deferral Request approved with SMA's 1/23/23 Report.	2/14/2023