

SPUD MUFFIN 31-30 334H

3/6/2024

OCD Incident nAPP2406734751

Spill Volume(Bbls) Calculator		
<i>Inputs in blue, Outputs in red</i>		
Contaminated Soil measurement		
Length(Ft)	Width(Ft)	Depth(Ft)
<u>42.5</u>	<u>30.000</u>	<u>0.025</u>
Cubic Feet of Soil Impacted		<u>31.875</u>
Impacted		<u>5.68</u>
Soil Type		Clay/Sand
Barrels of Oil Assuming 100% Saturation		<u>0.85</u>
Saturation	Damp no fluid when squeezed	
Estimated Barrels of Oil Released		0.09
Free Standing Fluid Only		
Length(Ft)	Width(Ft)	Depth(Ft)
<u>42.5</u>	<u>30.000</u>	<u>0.025</u>
Standing fluid		<u>5.669</u>
Total fluids spilled		<u>6.521</u>



September 16, 2024

New Mexico Oil Conservation Division

1220 South St. Francis Drive
Santa Fe, New Mexico 87505

**Re: Deferral Request
 Spud Muffin 31-30 334H
 Incident Number nAPP2406734751
 Eddy County, New Mexico**

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of Devon Energy Production Company, LP (Devon), has prepared this *Deferral Request* to document excavation and soil sampling activities performed at the Spud Muffin 31-30 334H (Site). The purpose of the excavation and soil sampling activities was to address impacts to soil following a release of crude oil onto the well pad. Based on field observations, field screening activities, and soil sample laboratory analytical results, Devon is submitting this *Deferral Request*, describing Site assessment and excavation activities that have occurred and requesting deferral of final remediation for Incident Number nAPP2406734751 until the Site is reconstructed and/or the well pad is abandoned and reclaimed.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit P, Section 31, Township 23 South, Range 29 East, in Eddy County, New Mexico (32.2555182°, -104.0161698°) and is associated with oil and gas exploration and production operations on Private Land.

On March 6, 2024, a pinhole leak located near the choke on a 3-inch line resulted in the release of approximately 7 barrels (bbls) of crude oil onto the well pad, approximately 5 bbls of crude oil were recovered. Devon reported the release to the New Mexico Oil Conservation Division (NMOCD) via web portal on March 6, 2024, and submitted a Release Notification Form C-141 (Form C-141) on March 8, 2024. The release was assigned Incident Number nAPP2406734751.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

The Site was characterized to assess the applicability of Table I, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29 (19.15.29) of the New Mexico Administrative Code (NMAC). Results from the characterization desktop review are presented on page 3 of the Form C-141, Site Assessment/Characterization.

The closest permitted groundwater well with depth to groundwater data is New Mexico Office of the State Engineer (NMOSE) well C-03615 POD1 with a depth to water measurement of 36 feet below ground surface (bgs). The well is located 0.61 miles southwest of the Site and the most recent documented water level measurement was collected on May 10, 2013. All wells used for depth to groundwater determination are depicted on Figure 1 and the referenced well records are included in Appendix A.

Devon Energy Production Company, LP
Spud Muffin 31 30 #334H
Deferral Request

The closest continuously flowing or significant watercourse to the Site is a freshwater pond, located approximately 0.43 miles southwest of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (medium potential karst designation area). Potential site receptors are identified on Figure 1.

Based on the results of the Site Characterization, the following NMOCD Table I Closure Criteria (Closure Criteria) apply:

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total petroleum hydrocarbons (TPH)-gasoline range organics (GRO), (TPH)-oil range organics (ORO), and TPH-diesel range organics (DRO): 100 mg/kg
- Chloride: 600 mg/kg

SITE ASSESSMENT AND DELINEATION SOIL SAMPLING ACTIVITIES

On March 14, 2024, Ensolum personnel were onsite to begin to evaluate the release extent and to conduct delineation soil sampling activities. Delineation soil samples (SS01 through SS04) were collected at ground surface to verify the lateral extent of the release area. Lateral delineation soil samples (SS01 through SS04) were field screened for chloride utilizing Mohr method titration and for TPH utilizing a PetroFLAG® Soil analyzer system. Ensolum personnel returned to the Site on March 27, 2024, to advance two boreholes (BH01 and BH02) within the release extent to a depth of 2 feet and 0.5 feet bgs, respectively. Soil from the boreholes were field screened for chloride in the same manner previously described. Field screening results and observations for the boreholes were logged on lithologic/soil sampling logs, which are included in Appendix B. Delineation soil sample locations are depicted on Figure 2 and a photographic log is included in Appendix C.

The delineation soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported under strict chain-of-custody procedures to Envirotech Laboratory Analysis (Envirotech) in Farmington, New Mexico, for analysis of the following constituents of concern (COCs): BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-ORO following EPA Method 8015M/D; and chloride following EPA Method 300.0.

EXCAVATION AND CONFIRMATION SOIL SAMPLING ACTIVITIES

From July 31, 2024, through August 16, 2024, Ensolum personnel were onsite to oversee the excavation of impacted soil within the accessible spill area. Excavation of the spill area was completed with a backhoe, skid steer, and hand tools to depths ranging from 1-foot bgs to 3 feet bgs. Following removal of impacted soil, Ensolum personnel collected 71, 5-point composite soil samples representing up to 200 square feet from the floor of the excavation and 5, 5-point confirmation sidewall soil samples from the walls of the excavation. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. The excavation soil samples were handled and analyzed following the same procedures as described above. The excavation extent and excavation soil sample locations are presented on Figure 3.

Devon Energy Production Company, LP
Spud Muffin 31 30 #334H
Deferral Request

Ensolum personnel completed two additional boreholes, BH03 and BH04, via hand auger within the area of requested deferral. Borehole BH03 was advanced to a depth of 4 feet bgs and borehole BH04 was advanced to a depth of 6 feet bgs.

The final excavation extent measured approximately 13,909 square feet. A total of approximately 742 cubic yards of impacted soil was removed during the excavation activities. The impacted soil was transported and disposed of at the R360 Landfill Disposal Facility in Hobbs, New Mexico. After completion of confirmation sampling, the excavation areas were secured with fencing.

LABORATORY ANALYTICAL RESULTS

Laboratory analytical results for lateral delineation soil samples (SS01 through SS04), collected at ground surface, were all in compliance with the strictest Closure Criteria per NMOCDC Table I. Laboratory analytical results for boreholes BH01 and BH02 were in compliance with the Site Closure Criteria at 2 feet bgs and 0.5 feet bgs respectively.

Laboratory analytical results for confirmation soil samples (FS01 through FS71) were all in compliance with the Site Closure Criteria, with the exception of FS15, FS33, FS34, FS49, FS50, FS52, collected at a depth of 1-foot bgs and confirmation soil samples FS58, and FS51, FS55, FS57, FS61 through FS63, and FS69 through FS71, which are located within the area of requested deferral. Laboratory analytical results for confirmation soil samples FS15, FS33, FS34, FS49, FS50, FS52, collected at depths ranging from 1.5 feet to 2 feet bgs, were in compliance with the Site Closure Criteria following additional excavation.

Laboratory analytical results for all confirmation sidewall soil samples collected at depths ranging from the ground surface to 4 feet bgs were all in compliance with the Site Closure Criteria. The laboratory analytical results are summarized in Tables 1 through 3 and the complete laboratory analytical reports are included in Appendix D. All sampling notifications to NMOCDC and additional correspondence are included in Appendix E.

DEFERRAL REQUEST

Devon is requesting deferral of final remediation due to the presence of active production equipment process piping, electrical lines and production pipelines preventing the full excavation of impacted soil. The estimated area of remaining impacted soil measures approximately 1,460 square feet, and assuming a depth of 6 feet based on the analytical results from delineation borehole BH04, a total of approximately 325 cubic yards of impacted soil remains in place. The deferral area and delineation soil samples are depicted on Figure 4. The impacted soil is limited to the area beneath active production equipment and surface piping, where remediation would require a major facility deconstruction. The release extent has been laterally delineated by delineation soil samples (SS01 through SS04) collected at ground surface and vertically delineated to the strictest Closure Criteria by boreholes sample locations BH01, BH02, BH03, and BH04 collected at 2 feet, 0.5 feet, 4 feet, and 6 feet bgs, respectively.

Devon does not believe deferment will result in imminent risk to human health, the environment, or groundwater. Depth to groundwater was determined to be 36 feet bgs, and the entirety of the release remained on pad. Any gross impacts were removed by excavation and hand digging. Based on the presence of active production equipment within the release area and the complete lateral and vertical delineation of impacted soil remaining in place, Devon requests deferral of final remediation for Incident Number nAPP2406734751 until final reclamation of the well pad or major construction, whichever comes first.

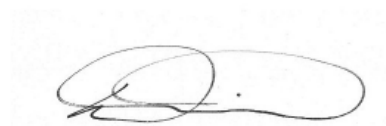
Devon Energy Production Company, LP
Spud Muffin 31 30 #334H
Deferral Request

If you have any questions or comments, please contact Ms. Ashley Giovengo at (575) 988-0055 or agiovengo@ensolum.com.

Sincerely,
Ensolum, LLC



Ashley Giovengo
Senior Scientist



Daniel R. Moir, PG (licensed in WY & TX)
Senior Managing Geologist

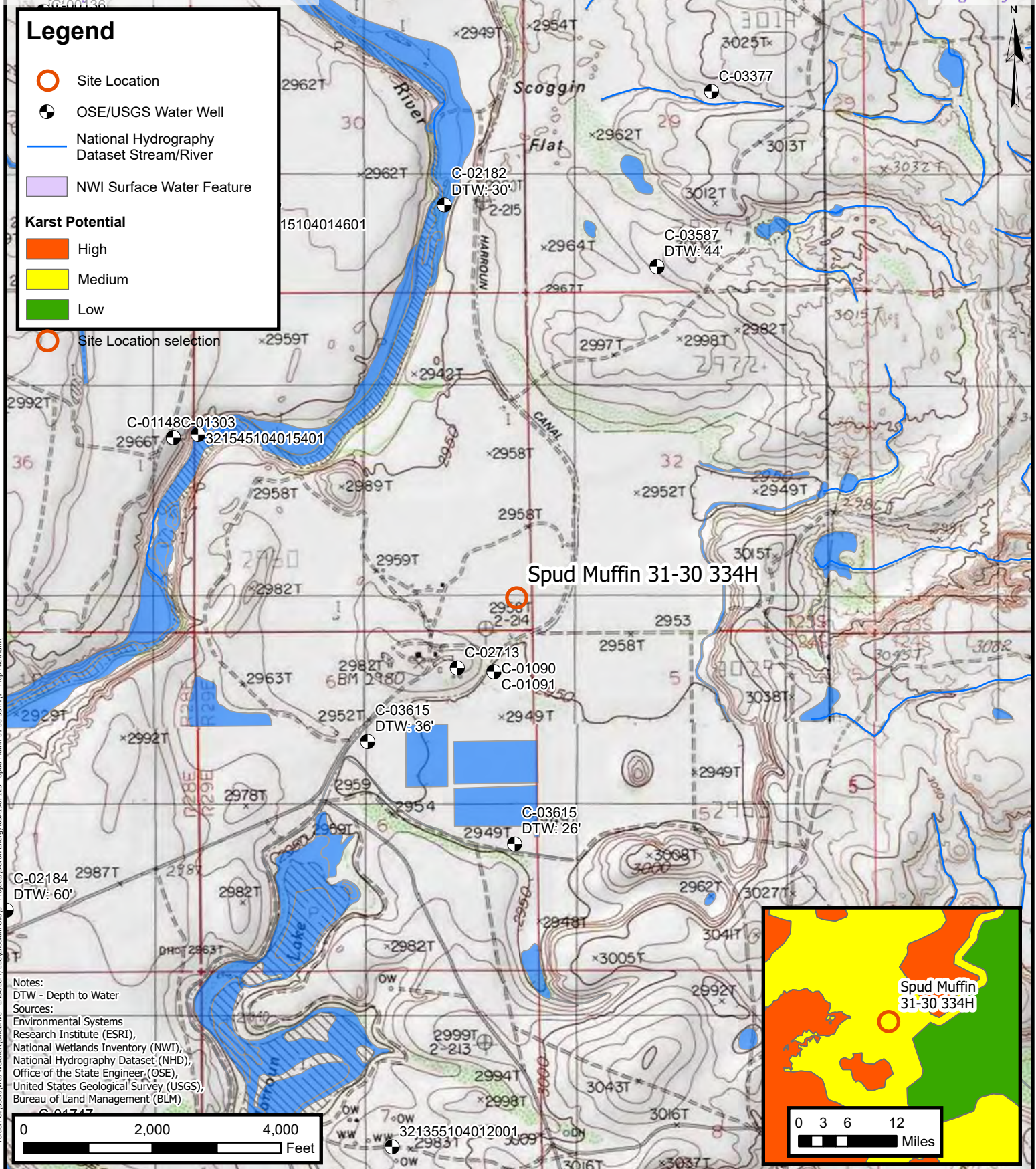
cc: Dale Woodall, Devon Energy Production Company, LP

Appendices:

Figure 1	Site Receptor Map
Figure 2	Delineation Soil Sample Locations
Figure 3	Excavation Soil Sample Locations
Figure 4	Deferral Area
Table 1	Delineation Soil Sample Analytical Results
Table 2	Soil Sample Analytical Results – Confirmation Soil Samples
Table 3	Soil Sample Analytical Results – Sidewall Soil Samples
Appendix A	Well Log and Record
Appendix B	Lithologic Soil Sampling Logs
Appendix C	Photographic Log
Appendix D	Laboratory Analytical Reports & Chain-of-Custody Documentation
Appendix E	NMOCD Email Correspondence



FIGURES



Site Receptor Map

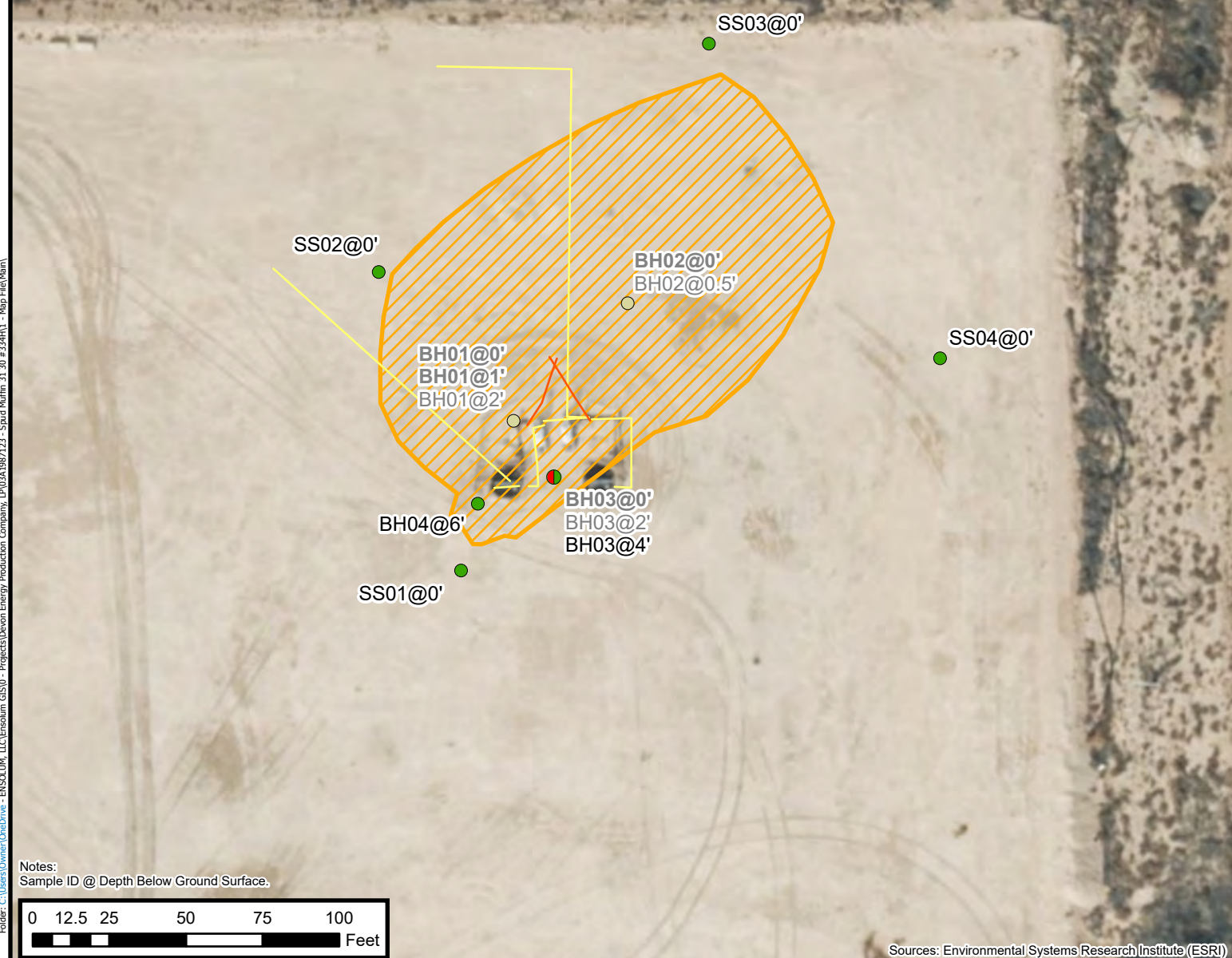
Devon Energy Production Company
Spud Muffin 31-30 334H
Incident Number: nAPP2406734751
Unit P, Section 31, T 23S, R 29E
Eddy County, New Mexico, United States

FIGURE

1

Legend

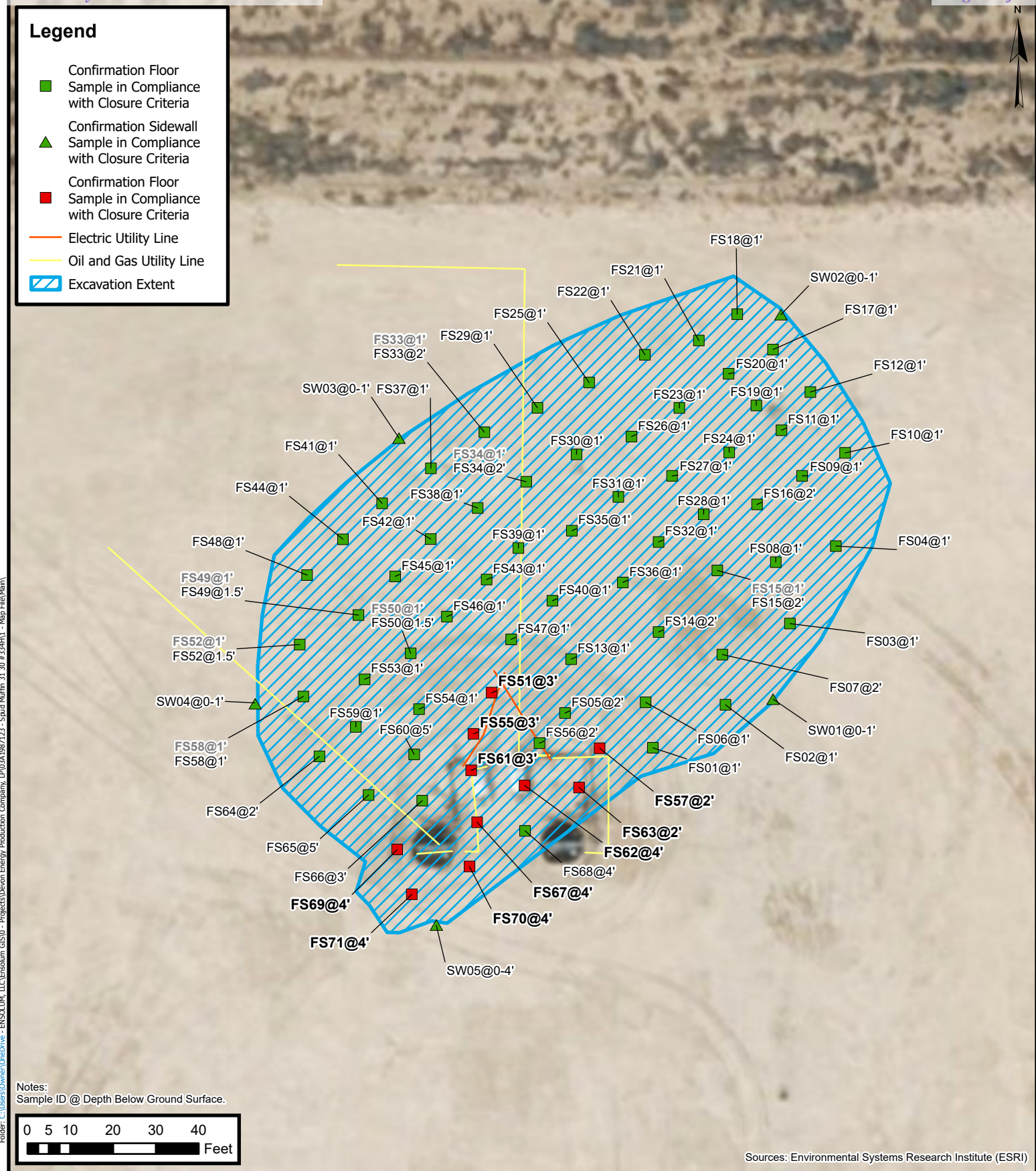
- Delineation Soil Sample in Compliance with Closure Criteria
- Delineation Soil Sample with Concentrations Previously Exceeding Closure Criteria
- Removed Soil Sample Location
- Electric Utility Line
- Oil and Gas Utility Line
- Release Extent



Delineation Soil Sample Locations

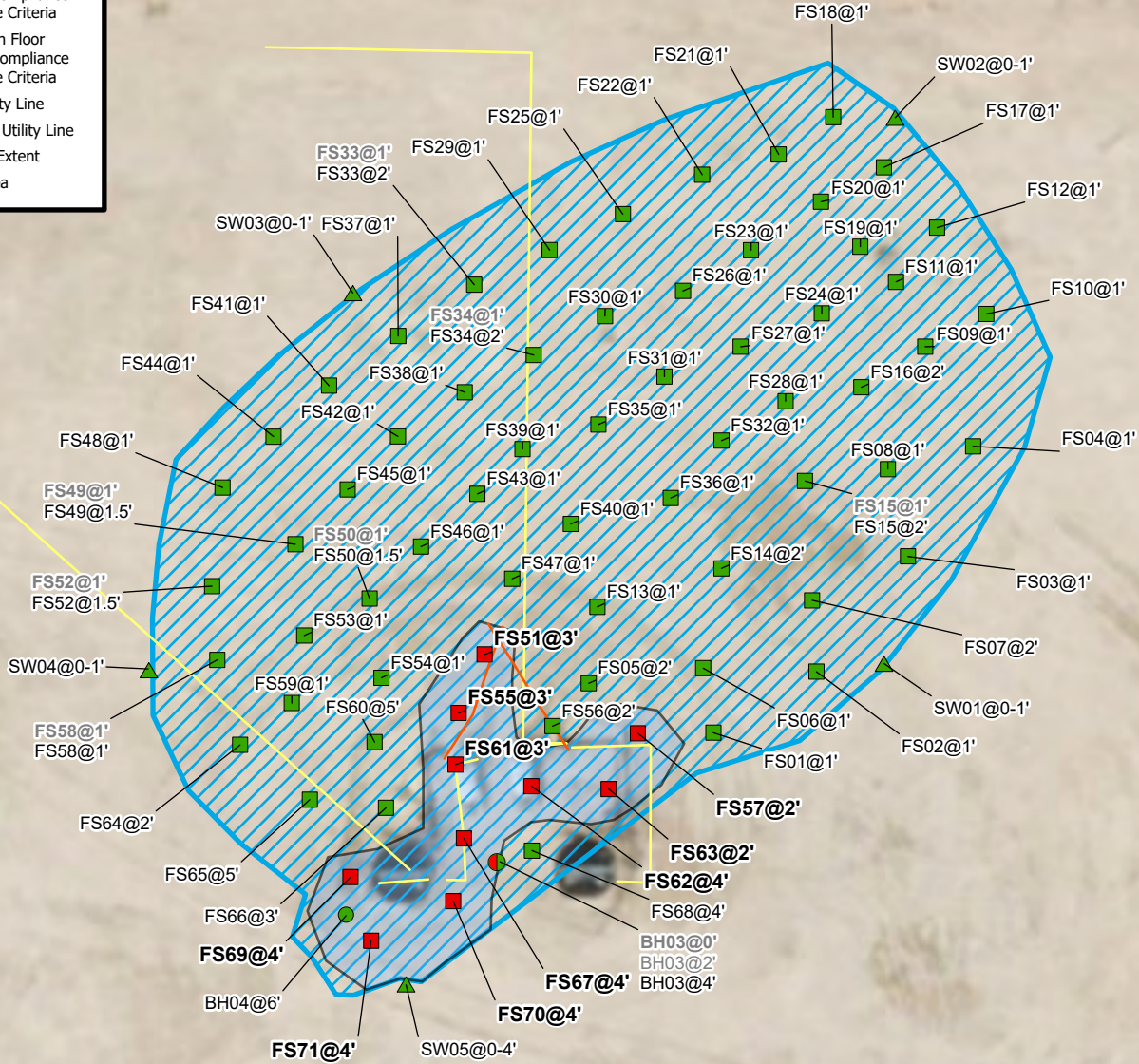
Devon Energy Production Company, LP
 Spud Muffin 31 30 #334H
 Incident Number: nAPP2406734751
 Unit P, Section 31, Township 23S, Range 29E
 Eddy County, New Mexico

FIGURE
2

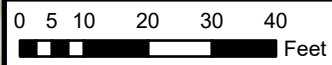


Legend

- Delineation Soil Sample in Compliance with Closure Criteria
- Delineation Soil Sample with Concentrations Previously Exceeding Closure Criteria
- Confirmation Floor Sample in Compliance with Closure Criteria
- Confirmation Sidewall Sample in Compliance with Closure Criteria
- Confirmation Floor Sample in Compliance with Closure Criteria
- Electric Utility Line
- Oil and Gas Utility Line
- Excavation Extent
- Deferral Area



Notes:
Sample ID @ Depth Below Ground Surface.



Sources: Environmental Systems Research Institute (ESRI)



Area of Requested Deferral

Devon Energy Production Company, LP
Spud Muffin 31 30 #334H
Incident Number: nAPP2406734751
Unit P, Section 31, Township 23S, Range 29E
Eddy County, New Mexico

FIGURE

4



TABLES



TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
 Spud Muffin 31-30 334H
 Devon Energy Production Company, LP
 Eddy County, New Mexico

Sample Designation	Date	Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	NE	100	600
Delineation Soil Samples										
SS01	3/14/2024	0	<0.0250	<0.0250	<20.0	<25.0	<50.0	<20.0	<20.0	336
SS02	3/14/2024	0	<0.0250	<0.0250	<20.0	<25.0	<50.0	<20.0	<20.0	579
SS03	3/14/2024	0	<0.0250	<0.0250	<20.0	27.8	<50.0	<20.0	<20.0	342
SS04	3/14/2024	0	<0.0250	<0.0250	<20.0	<25.0	<50.0	<20.0	<20.0	268
BH01	3/27/2024	0	<0.0250	6.189	75.5	24,200	7,540	24,275.50	31,815.50	6,750
BH01	3/27/2024	1	<0.0250	<0.0250	<20.0	132	53.4	132	185.4	1,490
BH01	3/27/2024	2	<0.0250	<0.0250	<20.0	<25.0	<50.0	<20.0	<20.0	536
BH02	3/27/2024	0	<0.0250	<0.0250	<20.0	954	458	954	1,412	1,040
BH02	3/27/2024	0.5	<0.0250	<0.0250	<20.0	<25.0	<50.0	<20.0	<20.0	297
BH03	8/16/2024	0	<0.0250	<0.0250	<20.0	1500	987	1500	2,487	5,020
BH03	8/16/2024	2	<0.0250	<0.0250	<20.0	39.4	<50.0	39.4	39.4	301
BH03	8/16/2024	4	<0.0250	<0.0250	<20.0	<25.0	<50.0	<20.0	<20.0	158
BH04	9/4/2024	6	<0.0250	<0.0250	<20.0	<25.0	<50.0	<20.0	<20.0	163

Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

NMAC: New Mexico Administrative Code

Grey text represents samples that have been excavated

<": Laboratory Analytical result is less than reporting limit

Concentrations in **bold** exceed the NMOCD Table I Closure Criteria or reclamation standard where applicable.

* Indicates sample was collected in area to be reclaimed after remediation is complete; reclamation for chloride in the top 4 feet is 600 mg/kg and total TPH is 100 mg/kg.

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes



TABLE 2
SOIL SAMPLE ANALYTICAL RESULTS
 Spud Muffin 31-30 334H
 Devon Energy Production Company, LP
 Eddy County, New Mexico

Sample Designation	Date	Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	NE	100	600
Confirmation Soil Samples										
FS01	8/2/2024	1	<0.0250	<0.0500	<20.0	<25.0	<50.0	<20.0	<50.0	85.9
FS02	8/2/2024	1	<0.0250	<0.0500	<20.0	<25.0	<50.0	<20.0	<50.0	151
FS03	8/2/2024	1	<0.0250	<0.0500	<20.0	27.8	<50.0	<20.0	<50.0	140
FS04	8/5/2024	1	<0.0250	<0.0500	<20.0	<25.0	<50.0	<20.0	<50.0	241
FS05	8/5/2024	2	<0.0250	<0.0500	<20.0	<25.0	<50.0	<20.0	<50.0	95.8
FS06	8/5/2024	1	<0.0250	<0.0500	<20.0	<25.0	<50.0	<20.0	<50.0	297
FS07	8/5/2024	2	<0.0250	<0.0500	<20.0	<25.0	<50.0	<20.0	<50.0	140
FS08	8/5/2024	1	<0.0250	<0.0500	<20.0	<25.0	<50.0	<20.0	<50.0	441
FS09	8/5/2024	1	<0.0250	<0.0500	<20.0	<25.0	<50.0	<20.0	<50.0	338
FS10	8/5/2024	1	<0.0250	<0.0500	<20.0	<25.0	<50.0	<20.0	<50.0	403
FS11	8/5/2024	1	<0.0250	<0.0500	<20.0	<25.0	<50.0	<20.0	<50.0	276
FS12	8/5/2024	1	<0.0250	<0.0500	<20.0	<25.0	<50.0	<20.0	<50.0	261
FS13	8/6/2024	1	<0.0250	<0.0500	<20.0	<25.0	<50.0	<20.0	<50.0	229
FS14	8/6/2024	2	<0.0250	<0.0500	<20.0	<25.0	<50.0	<20.0	<50.0	156
FS15	8/6/2024	1	<0.0250	0.0415	<20.0	2,580	108	2,580	2,688	559
FS15	8/16/2024	2	<0.0250	<0.0500	<20.0	<25.0	<50.0	<20.0	<50.0	20.4
FS16	8/6/2024	2	<0.0250	<0.0500	<20.0	<25.0	<50.0	<20.0	<50.0	301
FS17	8/6/2024	1	<0.0250	<0.0500	<20.0	<25.0	<50.0	<20.0	<50.0	305
FS18	8/6/2024	1	<0.0250	<0.0500	<20.0	<25.0	<50.0	<20.0	<50.0	171
FS19	8/6/2024	1	<0.0250	<0.0500	<20.0	<25.0	<50.0	<20.0	<50.0	285
FS20	8/6/2024	1	<0.0250	0.037	<20.0	<25.0	<50.0	<20.0	<50.0	291
FS21	8/6/2024	1	<0.0250	<0.0500	<20.0	<25.0	<50.0	<20.0	<50.0	216
FS22	8/6/2024	1	<0.0250	<0.0500	<20.0	<25.0	<50.0	<20.0	<50.0	214
FS23	8/6/2024	1	<0.0250	<0.0500	<20.0	34.2	<50.0	34.2	34.2	293
FS24	8/6/2024	1	<0.0250	<0.0500	<20.0	<25.0	<50.0	<20.0	<50.0	238
FS25	8/6/2024	1	<0.0250	<0.0500	<20.0	<25.0	<50.0	<20.0	<50.0	273
FS26	8/6/2024	1	<0.0250	<0.0500	<20.0	44.6	<50.0	44.6	44.6	272
FS27	8/6/2024	1	<0.0250	<0.0500	<20.0	59.1	<50.0	59.1	59.1	206
FS28	8/6/2024	1	<0.0250	<0.0500	<20.0	68.0	<50.0	68	68	272
FS29	8/7/2024	1	<0.0250	<0.0500	<20.0	<25.0	<50.0	<20.0	<50.0	221
FS30	8/7/2024	1	<0.0250	<0.0500	<20.0	<25.0	<50.0	<20.0	<50.0	222



TABLE 2 - CONT'D
SOIL SAMPLE ANALYTICAL RESULTS
 Spud Muffin 31-30 334H
 Devon Energy Production Company, LP
 Eddy County, New Mexico

Sample Designation	Date	Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	NE	100	600
Confirmation Soil Samples										
FS31	8/7/2024	1	<0.0250	<0.0500	<20.0	<25.0	<50.0	<20.0	<50.0	196
FS32	8/7/2024	1	<0.0250	<0.0500	<20.0	<25.0	<50.0	<20.0	<50.0	189
FS33	8/7/2024	1	<0.0250	<0.0500	<20.0	101.0	<50.0	101	101	327
FS33	8/16/2024	2	<0.0250	<0.0500	<20.0	<25.0	<50.0	<20.0	<50.0	227
FS34	8/7/2024	1	<0.0250	<0.0500	<20.0	122.0	<50.0	122	122	369
FS34	8/16/2024	2	<0.0250	<0.0500	<20.0	<25.0	<50.0	<20.0	<50.0	175
FS35	8/7/2024	1	<0.0250	<0.0500	<20.0	92.5	<50.0	92.5	92.5	353
FS36	8/7/2024	1	<0.0250	<0.0500	<20.0	34.4	<50.0	34.4	34.4	119
FS37	8/7/2024	1	<0.0250	<0.0500	<20.0	52.6	<50.0	52.6	52.6	104
FS38	8/7/2024	1	<0.0250	<0.0500	<20.0	50.4	<50.0	50.4	50.4	137
FS39	8/7/2024	1	<0.0250	<0.0500	<20.0	34.1	<50.0	34.1	34.1	143
FS40	8/7/2024	1	<0.0250	<0.0500	<20.0	28.2	<50.0	28.2	28.2	414
FS41	8/7/2024	1	<0.0250	<0.0500	<20.0	29.4	<50.0	29.4	29.4	322
FS42	8/7/2024	1	<0.0250	<0.0500	<20.0	58.4	<50.0	58.4	58.4	318
FS43	8/7/2024	1	<0.0250	<0.0500	<20.0	69.1	<50.0	69.1	69.1	374
FS44	8/7/2024	1	<0.0250	<0.0500	<20.0	44.8	<50.0	44.8	44.8	283
FS45	8/7/2024	1	<0.0250	<0.0500	<20.0	48.7	<50.0	48.7	48.7	286
FS46	8/7/2024	1	<0.0250	<0.0500	<20.0	42.8	<50.0	42.8	42.8	263
FS47	8/7/2024	1	<0.0250	<0.0500	<20.0	<25.0	<50.0	<20.0	<50.0	253
FS48	8/7/2024	1	<0.0250	<0.0500	<20.0	<25.0	<50.0	<20.0	<50.0	443
FS49	8/7/2024	1	<0.0250	<0.0500	<20.0	102	<50.0	102	102	152
FS49	8/16/2024	1.5	<0.0250	<0.0500	<20.0	<25.0	<50.0	<20.0	<50.0	204
FS50	8/7/2024	1	<0.0250	<0.0500	<20.0	610	1,580	610	2,190	262
FS50	8/16/2024	1.5	<0.0250	<0.0500	<20.0	<25.0	<50.0	<20.0	<50.0	150
FS51	8/9/2024	3	<0.0250	<0.0500	<20.0	481.0	105	481	586	465
FS52	8/7/2024	1	<0.0250	<0.0500	<20.0	105	52.5	105	157.5	283
FS52	8/16/2024	1.5	<0.0250	<0.0500	<20.0	<25.0	<50.0	<20.0	<50.0	20.1
FS53	8/7/2024	1	<0.0250	<0.0500	<20.0	91.6	<50.0	91.6	91.6	286
FS54	8/7/2024	1	<0.0250	<0.0500	<20.0	<25.0	<50.0	<20.0	<50.0	237
FS55	8/9/2024	3	<0.0250	<0.0500	<20.0	419.0	<50.0	419	419	534
FS56	8/9/2024	2	<0.0250	<0.0500	<20.0	49.9	<50.0	<50.0	49.9	237
FS57	8/9/2024	2	<0.0250	<0.0500	<20.0	144	<50.0	<50.0	144	273



TABLE 2 - CONT'D
SOIL SAMPLE ANALYTICAL RESULTS
 Spud Muffin 31-30 334H
 Devon Energy Production Company, LP
 Eddy County, New Mexico

Sample Designation	Date	Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	NE	100	600
Confirmation Soil Samples										
FS58	8/7/2024	1	<0.0250	<0.0500	<20.0	<25.0	<50.0	<20.0	<50.0	266
FS58	8/8/2024	2	<0.0250	<0.0500	<20.0	<25.0	<50.0	<20.0	<50.0	184
FS59	8/7/2024	1	<0.0250	<0.0500	<20.0	<25.0	<50.0	<20.0	<50.0	399
FS60	8/9/2024	5	<0.0250	<0.0500	<20.0	<25.0	<50.0	<50.0	<50.0	362
FS61	8/9/2024	3	<0.0250	<0.0500	<20.0	8,170	4,180	8,170	12,350	8,970
FS62	8/9/2024	4	<0.0250	<0.0500	<20.0	402.0	<50.0	402	402	368
FS63	8/9/2024	2	<0.0250	<0.0500	<20.0	468	<50.0	468	468	374
FS64	8/9/2024	2	<0.0250	<0.0500	<20.0	42.5	<50.0	42.5	42.5	253
FS65	8/9/2024	5	<0.0250	<0.0500	<20.0	<25.0	<50.0	<50.0	<50.0	272
FS66	8/8/2024	3	<0.0250	<0.0500	<20.0	<25.0	<50.0	<50.0	<50.0	563
FS67	8/9/2024	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<50.0	<50.0	838
FS68	8/9/2024	4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<50.0	<50.0	232
FS69	8/9/2024	4	<0.0250	<0.0500	<20.0	117	<50.0	117	117	733
FS70	8/9/2024	4	<0.0250	<0.0500	<20.0	193	<50.0	193	193	1,680
FS71	8/9/2024	4	<0.0250	<0.0500	<20.0	392	<50.0	392	392	338

Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

NMAC: New Mexico Administrative Code

Grey text represents samples that have been excavated

<: Laboratory Analytical result is less than reporting limit

Concentrations in **bold** exceed the NMOCD Table I Closure Criteria or reclamation standard where applicable.

* Indicates sample was collected in area to be reclaimed after remediation is complete; reclamation for chloride in the top 4 feet is 600 mg/kg and total TPH is 100 mg/kg.

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes



TABLE 3
SOIL SAMPLE ANALYTICAL RESULTS
 Spud Muffin 31-30 334H
 Devon Energy Production Company, LP
 Eddy County, New Mexico

Sample Designation	Date	Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	NE	100	600
Sidewall Soil Samples										
SW01	8/8/2024	0-2	<0.0250	<0.0250	<20.0	<25.0	<50.0	<20.0	<20.0	67.5
SW02	8/8/2024	0-1	<0.0250	<0.0250	<20.0	<25.0	<50.0	<20.0	<20.0	296
SW03	8/8/2024	0-1	<0.0250	<0.0250	<20.0	43.0	<50.0	<20.0	<20.0	466
SW04	8/16/2024	0-1	<0.0250	<0.0250	<20.0	<25.0	<50.0	<20.0	<20.0	44.9
SW05	8/16/2024	0-4	<0.0250	<0.0250	<20.0	<25.0	<50.0	<20.0	<20.0	<20.0

Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

NMAC: New Mexico Administrative Code

Grey text represents samples that have been excavated

<: Laboratory Analytical result is less than reporting limit

Concentrations in **bold** exceed the NMOCD Table I Closure Criteria or reclamation standard where applicable.

* Indicates sample was collected in area to be reclaimed after remediation is complete; reclamation for chloride in the top 4 feet is 600 mg/kg and total TPH is 100 mg/kg.

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes



APPENDIX A

Well Log and Record



WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

STATE ENGINEER OFFICE

1. GENERAL AND WELL LOCATION	OSE POD NUMBER (WELL NUMBER) C-3615 POD 1				OSE FILE NUMBER(S) 2013 MAY 10 P 2:22			
	WELL OWNER NAME(S) Southwest Salt Company LLC				PHONE (OPTIONAL) 575-885-8367			
	WELL OWNER MAILING ADDRESS 701 Winged Foot Drive				CITY Carlsbad		STATE NM	ZIP 88220
	WELL LOCATION (FROM GPS)	DEGREES LATITUDE 32	MINUTES 14	SECONDS 57.9 N	* ACCURACY REQUIRED: ONE TENTH OF A SECOND			
	LONGITUDE 104	01	25.5 W	* DATUM REQUIRED: WGS 84				
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE Harroun Farm								
2. DRILLING & CASING INFORMATION	LICENSE NUMBER WD-1348		NAME OF LICENSED DRILLER Clinton E Taylor			NAME OF WELL DRILLING COMPANY Taylor Water Well Service		
	DRILLING STARTED 5/4/13	DRILLING ENDED 5/4/13	DEPTH OF COMPLETED WELL (FT) 60	BORE HOLE DEPTH (FT) 60	DEPTH WATER FIRST ENCOUNTERED (FT) 50			
	COMPLETED WELL IS: <input type="radio"/> ARTESIAN <input type="radio"/> DRY HOLE <input checked="" type="radio"/> SHALLOW (UNCONFINED)					STATIC WATER LEVEL IN COMPLETED WELL (FT) 36		
	DRILLING FLUID: <input type="radio"/> AIR <input checked="" type="radio"/> MUD ADDITIVES - SPECIFY:							
	DRILLING METHOD: <input checked="" type="radio"/> ROTARY <input type="radio"/> HAMMER <input type="radio"/> CABLE TOOL <input type="radio"/> OTHER - SPECIFY:							
	DEPTH (feet bgl)		BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
	FROM	TO						
	+3	50	6	PVC Flush Wall	Threaded	2	SCH 40	
	50	60	6	PVC Flush Wall	Threaded	2	SCH 40	.010
3. ANNULAR MATERIAL	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						
	0	37	6	20% Bentonite Grout	2 Sacks	Tremie		
	37	45	6	Bentonite Chips	2 Sacks	Pour		
	45	60	6	Silica Sand Pack	6 Sacks	Pour		

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 06/08/2012)

FILE NUMBER	C-3615	POD NUMBER	1	TRN NUMBER	524242
LOCATION	Monitor	245.29E 10.231			PAGE 1 OF 2

Released to Imaging: 10/17/2024 1:34:05 PM



APPENDIX B

Photographic Log



Photographic Log

Devon Energy Production Company, LP

Spud Muffin 31-30 334H

Incident Number: nAPP2406734751



Photograph 1

Date: 03/14/2024

Description: Site Signage

View: Southwest



Photograph 2

Date: 03/14/2024

Description: Initial Release

View: South



Photograph 3

Date: 03/14/2024

Description: Initial Release

View: Northwest



Photograph 4

Date: 03/14/2024

Description: Delineation Sampling

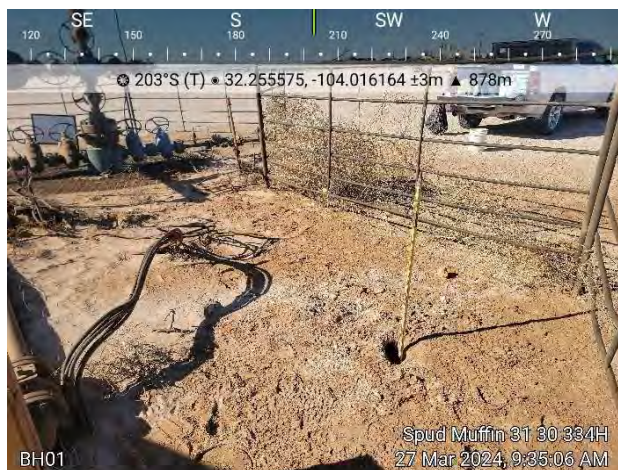
View: North

**Photographic Log**

Devon Energy Production Company, LP

Spud Muffin 31-30 334H

Incident Number: nAPP2406734751



Photograph 5 Date: 03/27/2024
Description: Delineation Sampling
View: Southwest



Photograph 6 Date: 03/27/2024
Description: Delineation Sampling
View: Southwest



Photograph 7 Date: 07/31/2024
Description: Hydrovac
View: North



Photograph 8 Date: 07/31/2024
Description: Hydrovac
View: North



Photographic Log

Devon Energy Production Company, LP

Spud Muffin 31-30 334H

Incident Number: nAPP2406734751



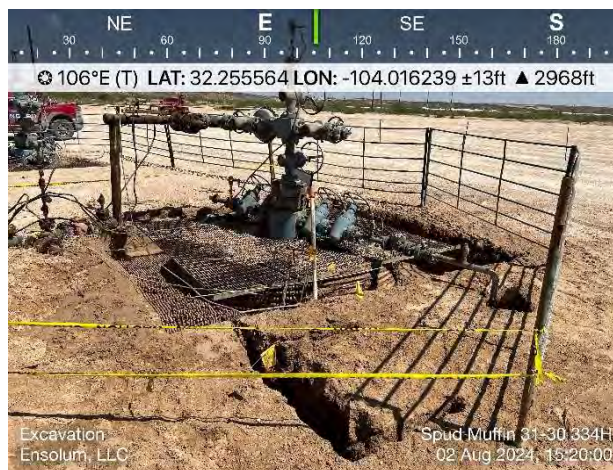
Photograph 9 Date: 08/01/2024
Description: Excavation Activities
View: North



Photograph 10 Date: 08/01/2024
Description: Excavation Activities
View: North



Photograph 11 Date: 08/02/2024
Description: Excavation Activities
View: Northwest



Photograph 12 Date: 08/02/2024
Description: Excavation Activities
View: East



Photographic Log

Devon Energy Production Company, LP

Spud Muffin 31-30 334H

Incident Number: nAPP2406734751



Photograph 13

Date: 08/05/2024

Description: Excavation Activities

View: Northwest



Photograph 14

Date: 08/05/2024

Description: Excavation Activities

View: Northwest



Photograph 15

Date: 08/06/2024

Description: Excavation Activities

View: Northeast



Photograph 16

Date: 08/06/2024

Description: Excavation Activities

View: West



Photographic Log

Devon Energy Production Company, LP

Spud Muffin 31-30 334H

Incident Number: nAPP2406734751



Photograph 17

Date: 08/07/2024

Description: Excavation Activities

View: Southwest



Photograph 18

Date: 08/07/2024

Description: Excavation Activities

View: North



Photograph 19

Date: 08/08/2024

Description: Excavation Activities

View: North



Photograph 20

Date: 08/08/2024

Description: Excavation Activities

View: North



Photographic Log

Devon Energy Production Company, LP

Spud Muffin 31-30 334H

Incident Number: nAPP2406734751



Photograph 21

Date: 08/09/2024

Description: Excavation Activities

View: Southwest



Photograph 22

Date: 08/09/2024

Description: Excavation Activities

View: North



Photograph 23

Date: 08/16/2024

Description: Excavation Activities

View: East



Photograph 24

Date: 08/16/2024

Description: Excavation Activities

View: West



Photographic Log

Devon Energy Production Company, LP

Spud Muffin 31-30 334H

Incident Number: nAPP2406734751



Photograph 25 Date: 09/04/2024
Description: Hand Auger (Area of Requested Deferral)
View: Northwest



Photograph 26 Date: 09/04/2024
Description: Hand Auger (Area of Requested Deferral)
View: Northeast



Photograph 27 Date: 09/04/2024
Description: Hand Auger (Area of Requested Deferral)
View: Southwest





Photograph 28 Date: 09/04/2024
Description: Hand Auger (Area of Requested Deferral)
View: South




APPENDIX C

Lithologic Soil Sampling Logs

								Sample Name: BH01		Date: 3/27/24	
								Site Name: Spud Muffin 31 30 334H			
								Incident Number: nAPP2406734751			
								Job Number: 03A1987123			
LITHOLOGIC / SOIL SAMPLING LOG								Logged By: Cole Burton		Method: Hand Auger	
Coordinates: 32.25558, -104.01617								Hole Diameter: 3"		Total Depth: 3'	
Comments: Field screening conducted with the Mohr method titration for chloride. Chloride test performed with 1:1 dilution factor of soil to distilled water. No correction factors included.											
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions			
M			Y	BH01	0	0	CCHE	Caliche - Staining, odor			
M			N	BH01	1	1	SP-SM	Sand/Silt - Slight odor, light brown			
M	600		N	BH01	2	2	SP-SM	Sand/Silt - No odor, light brown			
M	450		N	BH01	3	3	SP-SM				
Total Depth @ 3 ft bgs											

								Sample Name: BH02		Date: 3/27/24	
								Site Name: Spud Muffin 31 30 334H			
								Incident Number: nAPP2406734751			
								Job Number: 03A1987123			
LITHOLOGIC / SOIL SAMPLING LOG								Logged By: Cole Burton		Method: Hand Auger	
Coordinates: 32.25568, -104.01605								Hole Diameter: 3"		Total Depth: 1'	
Comments: Field screening conducted with the Mohr method titration for chloride. Chloride test performed with 1:1 dilution factor of soil to distilled water. No correction factors included.											
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions			
D	350		N	BH02	0	0	CCHE	Caliche - No staining, no odor			
D			N	BH02	0.5		CCHE				
D			N	BH02	1	1	SP-SM	Sand/Silt - No odor, light brown			
Total Depth @ 1 ft bgs											

								Sample Name: BH03		Date: 8/16/24	
								Site Name: Spud Muffin 31-30 334H			
								Incident Number: nAPP2406734751			
								Job Number: 03A1987123			
LITHOLOGIC / SOIL SAMPLING LOG								Logged By: Israel Estrella		Method: Hand Auger	
Coordinates: 32.255548, -104.016134								Hole Diameter: 3"		Total Depth: 4'	
Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.											
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions			
D				BH03	0	0	CCHE	dry, no stain, caliche, non plasticity, non plyable			
D				BH03	1	1	CCHE	dry, no stain, caliche, non plasticity, non plyable			
D				BH03	2	2	SP-SM	dry, no stain, sand, non plasticity, non plyable			
D				BH03	3	3	SP-SM	dry, no stain, sand, non plasticity, non plyable			
D	229			BH03	4	4	SP-SM	dry, no stain, sand, non plasticity, non plyable			
Total depth @ 4' bgs											



APPENDIX D

Laboratory Analytical Reports & Chain-of-Custody Documentation

Report to:
Ashley Giovengo



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Devon Energy - Carlsbad

Project Name: Spud Muffin 31 30 334H

Work Order: E403152

Job Number: 01058-0007

Received: 3/18/2024

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
3/20/24

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.

Date Reported: 3/20/24

Ashley Giovengo
6488 7 Rivers Hwy
Artesia, NM 88210



Project Name: Spud Muffin 31 30 334H
Workorder: E403152
Date Received: 3/18/2024 8:30:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 3/18/2024 8:30:00AM, under the Project Name: Spud Muffin 31 30 334H.

The analytical test results summarized in this report with the Project Name: Spud Muffin 31 30 334H 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

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Alexa Michaels
Sample Custody Officer
Office: 505-632-1881
labadmin@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Golzaes
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

Table of Contents

Title Page	1
Cover Page	2
Table of Contents	3
Sample Summary	4
Sample Data	5
SS01 -0'	5
SS04 -0'	6
QC Summary Data	7
QC - Volatile Organics by EPA 8021B	7
QC - Nonhalogenated Organics by EPA 8015D - GRO	8
QC - Nonhalogenated Organics by EPA 8015D - DRO/ORO	9
QC - Anions by EPA 300.0/9056A	10
Definitions and Notes	11
Chain of Custody etc.	12

Sample Summary

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	03/20/24 16:07

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SS01 -0'	E403152-01A	Soil	03/14/24	03/18/24	Glass Jar, 2 oz.
SS04 -0'	E403152-02A	Soil	03/14/24	03/18/24	Glass Jar, 2 oz.



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Spud Muffin 31 30 334H Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 3/20/2024 4:07:57PM
---	--	----------------------------------

SS01 -0'

E403152-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: EG		Batch: 2412008	
Benzene	ND	0.0250	1	03/18/24	03/20/24	
Ethylbenzene	ND	0.0250	1	03/18/24	03/20/24	
Toluene	ND	0.0250	1	03/18/24	03/20/24	
o-Xylene	ND	0.0250	1	03/18/24	03/20/24	
p,m-Xylene	ND	0.0500	1	03/18/24	03/20/24	
Total Xylenes	ND	0.0250	1	03/18/24	03/20/24	
Surrogate: 4-Bromochlorobenzene-PID	94.0 %	70-130		03/18/24	03/20/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: EG		Batch: 2412008	
Gasoline Range Organics (C6-C10)	ND	20.0	1	03/18/24	03/20/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	90.3 %	70-130		03/18/24	03/20/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM		Batch: 2412017	
Diesel Range Organics (C10-C28)	ND	25.0	1	03/18/24	03/19/24	
Oil Range Organics (C28-C36)	ND	50.0	1	03/18/24	03/19/24	
Surrogate: n-Nonane	86.7 %	50-200		03/18/24	03/19/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY		Batch: 2412009	
Chloride	336	20.0	1	03/18/24	03/19/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Spud Muffin 31 30 334H Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 3/20/2024 4:07:57PM
---	--	----------------------------------

SS04 -0'

E403152-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: EG		Batch: 2412008	
Benzene	ND	0.0250	1	03/18/24	03/20/24	
Ethylbenzene	ND	0.0250	1	03/18/24	03/20/24	
Toluene	ND	0.0250	1	03/18/24	03/20/24	
o-Xylene	ND	0.0250	1	03/18/24	03/20/24	
p,m-Xylene	ND	0.0500	1	03/18/24	03/20/24	
Total Xylenes	ND	0.0250	1	03/18/24	03/20/24	
Surrogate: 4-Bromochlorobenzene-PID	94.6 %	70-130		03/18/24	03/20/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: EG		Batch: 2412008	
Gasoline Range Organics (C6-C10)	ND	20.0	1	03/18/24	03/20/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	91.6 %	70-130		03/18/24	03/20/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM		Batch: 2412017	
Diesel Range Organics (C10-C28)	ND	25.0	1	03/18/24	03/19/24	
Oil Range Organics (C28-C36)	ND	50.0	1	03/18/24	03/19/24	
Surrogate: n-Nonane	90.4 %	50-200		03/18/24	03/19/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY		Batch: 2412009	
Chloride	268	20.0	1	03/18/24	03/19/24	



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	3/20/2024 4:07:57PM

Volatile Organics by EPA 8021B

Analyst: EG

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

Blank (2412008-BLK1) Prepared: 03/18/24 Analyzed: 03/19/24

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	7.45		8.00		93.1	70-130			

LCS (2412008-BS1) Prepared: 03/18/24 Analyzed: 03/19/24

Benzene	4.90	0.0250	5.00		98.0	70-130			
Ethylbenzene	5.00	0.0250	5.00		100	70-130			
Toluene	4.98	0.0250	5.00		99.6	70-130			
o-Xylene	4.96	0.0250	5.00		99.1	70-130			
p,m-Xylene	10.1	0.0500	10.0		101	70-130			
Total Xylenes	15.0	0.0250	15.0		100	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.60		8.00		95.0	70-130			

Matrix Spike (2412008-MS1) Source: E403155-01 Prepared: 03/18/24 Analyzed: 03/19/24

Benzene	5.05	0.0250	5.00	ND	101	54-133			
Ethylbenzene	5.21	0.0250	5.00	0.0413	103	61-133			
Toluene	5.15	0.0250	5.00	ND	103	61-130			
o-Xylene	5.28	0.0250	5.00	ND	106	63-131			
p,m-Xylene	10.4	0.0500	10.0	0.0602	104	63-131			
Total Xylenes	15.7	0.0250	15.0	0.0602	104	63-131			
Surrogate: 4-Bromochlorobenzene-PID	7.52		8.00		94.0	70-130			

Matrix Spike Dup (2412008-MSD1) Source: E403155-01 Prepared: 03/18/24 Analyzed: 03/19/24

Benzene	4.95	0.0250	5.00	ND	98.9	54-133	2.14	20	
Ethylbenzene	5.11	0.0250	5.00	0.0413	101	61-133	1.93	20	
Toluene	5.06	0.0250	5.00	ND	101	61-130	1.78	20	
o-Xylene	5.17	0.0250	5.00	ND	103	63-131	2.01	20	
p,m-Xylene	10.2	0.0500	10.0	0.0602	101	63-131	1.98	20	
Total Xylenes	15.4	0.0250	15.0	0.0602	102	63-131	1.99	20	
Surrogate: 4-Bromochlorobenzene-PID	7.42		8.00		92.8	70-130			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	3/20/2024 4:07:57PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: EG

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

Blank (2412008-BLK1) Prepared: 03/18/24 Analyzed: 03/19/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.51		8.00		93.9	70-130			

LCS (2412008-BS2) Prepared: 03/18/24 Analyzed: 03/19/24

Gasoline Range Organics (C6-C10)	49.5	20.0	50.0		99.0	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.67		8.00		95.8	70-130			

Matrix Spike (2412008-MS2) Source: E403155-01 Prepared: 03/18/24 Analyzed: 03/20/24

Gasoline Range Organics (C6-C10)	58.4	20.0	50.0	ND	117	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.35		8.00		91.9	70-130			

Matrix Spike Dup (2412008-MSD2) Source: E403155-01 Prepared: 03/18/24 Analyzed: 03/20/24

Gasoline Range Organics (C6-C10)	60.8	20.0	50.0	ND	122	70-130	4.05	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.27		8.00		90.8	70-130			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	3/20/2024 4:07:57PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

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

Blank (2412017-BLK1) Prepared: 03/18/24 Analyzed: 03/19/24

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	45.1		50.0		90.1	50-200			

LCS (2412017-BS1) Prepared: 03/18/24 Analyzed: 03/19/24

Diesel Range Organics (C10-C28)	275	25.0	250		110	38-132			
Surrogate: n-Nonane	44.7		50.0		89.3	50-200			

Matrix Spike (2412017-MS1) Source: E403153-01 Prepared: 03/18/24 Analyzed: 03/19/24

Diesel Range Organics (C10-C28)	287	25.0	250	ND	115	38-132			
Surrogate: n-Nonane	44.1		50.0		88.1	50-200			

Matrix Spike Dup (2412017-MSD1) Source: E403153-01 Prepared: 03/18/24 Analyzed: 03/19/24

Diesel Range Organics (C10-C28)	278	25.0	250	ND	111	38-132	3.22	20	
Surrogate: n-Nonane	42.2		50.0		84.3	50-200			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	3/20/2024 4:07:57PM

Anions by EPA 300.0/9056A

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 (2412009-BLK1)					Prepared: 03/18/24 Analyzed: 03/18/24				
Chloride	ND	20.0							
LCS (2412009-BS1)					Prepared: 03/18/24 Analyzed: 03/18/24				
Chloride	258	20.0	250		103	90-110			
LCS Dup (2412009-BSD1)					Prepared: 03/18/24 Analyzed: 03/18/24				
Chloride	258	20.0	250		103	90-110	0.191	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

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	
6488 7 Rivers Hwy	Project Number:	01058-0007	Reported:
Artesia NM, 88210	Project Manager:	Ashley Giovengo	03/20/24 16:07

- ND Analyte NOT DETECTED at or above the reporting limit
 - NR Not Reported
 - RPD Relative Percent Difference
 - DNI Did Not Ignite
 - DNR Did not react with the addition of acid or base.
- Note (1): Methods marked with ** are non-accredited methods.
- Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.





Envirotech Analytical Laboratory

Printed: 3/19/2024 10:15:42AM

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:	Devon Energy - Carlsbad	Date Received:	03/18/24 08:30	Work Order ID:	E403152
Phone:	(505) 382-1211	Date Logged In:	03/18/24 08:35	Logged In By:	Angelina Pineda
Email:	ashley.giovengo@wescominc.com	Due Date:	03/22/24 17:00 (4 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:

Comments/ResolutionSample 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? | Yes |

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 Giovengo



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Devon Energy - Carlsbad

Project Name: Spud Muffin 31 30 334H

Work Order: E403153

Job Number: 01058-0007

Received: 3/18/2024

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
3/20/24

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.

Date Reported: 3/20/24

Ashley Giovengo
6488 7 Rivers Hwy
Artesia, NM 88210



Project Name: Spud Muffin 31 30 334H
Workorder: E403153
Date Received: 3/18/2024 8:30:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 3/18/2024 8:30:00AM, under the Project Name: Spud Muffin 31 30 334H.

The analytical test results summarized in this report with the Project Name: Spud Muffin 31 30 334H 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

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Alexa Michaels
Sample Custody Officer
Office: 505-632-1881
labadmin@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Golzaes
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

Table of Contents

Title Page	1
Cover Page	2
Table of Contents	3
Sample Summary	4
Sample Data	5
SS02 -0'	5
QC Summary Data	6
QC - Volatile Organics by EPA 8021B	6
QC - Nonhalogenated Organics by EPA 8015D - GRO	7
QC - Nonhalogenated Organics by EPA 8015D - DRO/ORO	8
QC - Anions by EPA 300.0/9056A	9
Definitions and Notes	10
Chain of Custody etc.	11

Sample Summary

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	03/20/24 16:06

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SS02 -0'	E403153-01A	Soil	03/14/24	03/18/24	Glass Jar, 2 oz.



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Spud Muffin 31 30 334H Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 3/20/2024 4:06:49PM
---	--	----------------------------------

SS02 -0'

E403153-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: EG		Batch: 2412008	
Benzene	ND	0.0250	1	03/18/24	03/20/24	
Ethylbenzene	ND	0.0250	1	03/18/24	03/20/24	
Toluene	ND	0.0250	1	03/18/24	03/20/24	
o-Xylene	ND	0.0250	1	03/18/24	03/20/24	
p,m-Xylene	ND	0.0500	1	03/18/24	03/20/24	
Total Xylenes	ND	0.0250	1	03/18/24	03/20/24	
Surrogate: 4-Bromochlorobenzene-PID	96.0 %	70-130		03/18/24	03/20/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: EG		Batch: 2412008	
Gasoline Range Organics (C6-C10)	ND	20.0	1	03/18/24	03/20/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	91.6 %	70-130		03/18/24	03/20/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM		Batch: 2412017	
Diesel Range Organics (C10-C28)	ND	25.0	1	03/18/24	03/19/24	
Oil Range Organics (C28-C36)	ND	50.0	1	03/18/24	03/19/24	
Surrogate: n-Nonane	84.0 %	50-200		03/18/24	03/19/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY		Batch: 2412021	
Chloride	579	20.0	1	03/18/24	03/20/24	



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	3/20/2024 4:06:49PM

Volatile Organics by EPA 8021B

Analyst: EG

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

Blank (2412008-BLK1) Prepared: 03/18/24 Analyzed: 03/19/24

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	7.45		8.00		93.1	70-130			

LCS (2412008-BS1) Prepared: 03/18/24 Analyzed: 03/19/24

Benzene	4.90	0.0250	5.00		98.0	70-130			
Ethylbenzene	5.00	0.0250	5.00		100	70-130			
Toluene	4.98	0.0250	5.00		99.6	70-130			
o-Xylene	4.96	0.0250	5.00		99.1	70-130			
p,m-Xylene	10.1	0.0500	10.0		101	70-130			
Total Xylenes	15.0	0.0250	15.0		100	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.60		8.00		95.0	70-130			

Matrix Spike (2412008-MS1) Source: E403155-01 Prepared: 03/18/24 Analyzed: 03/19/24

Benzene	5.05	0.0250	5.00	ND	101	54-133			
Ethylbenzene	5.21	0.0250	5.00	0.0413	103	61-133			
Toluene	5.15	0.0250	5.00	ND	103	61-130			
o-Xylene	5.28	0.0250	5.00	ND	106	63-131			
p,m-Xylene	10.4	0.0500	10.0	0.0602	104	63-131			
Total Xylenes	15.7	0.0250	15.0	0.0602	104	63-131			
Surrogate: 4-Bromochlorobenzene-PID	7.52		8.00		94.0	70-130			

Matrix Spike Dup (2412008-MSD1) Source: E403155-01 Prepared: 03/18/24 Analyzed: 03/19/24

Benzene	4.95	0.0250	5.00	ND	98.9	54-133	2.14	20	
Ethylbenzene	5.11	0.0250	5.00	0.0413	101	61-133	1.93	20	
Toluene	5.06	0.0250	5.00	ND	101	61-130	1.78	20	
o-Xylene	5.17	0.0250	5.00	ND	103	63-131	2.01	20	
p,m-Xylene	10.2	0.0500	10.0	0.0602	101	63-131	1.98	20	
Total Xylenes	15.4	0.0250	15.0	0.0602	102	63-131	1.99	20	
Surrogate: 4-Bromochlorobenzene-PID	7.42		8.00		92.8	70-130			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	3/20/2024 4:06:49PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: EG

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

Blank (2412008-BLK1) Prepared: 03/18/24 Analyzed: 03/19/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.51		8.00		93.9	70-130			

LCS (2412008-BS2) Prepared: 03/18/24 Analyzed: 03/19/24

Gasoline Range Organics (C6-C10)	49.5	20.0	50.0		99.0	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.67		8.00		95.8	70-130			

Matrix Spike (2412008-MS2) Source: E403155-01 Prepared: 03/18/24 Analyzed: 03/20/24

Gasoline Range Organics (C6-C10)	58.4	20.0	50.0	ND	117	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.35		8.00		91.9	70-130			

Matrix Spike Dup (2412008-MSD2) Source: E403155-01 Prepared: 03/18/24 Analyzed: 03/20/24

Gasoline Range Organics (C6-C10)	60.8	20.0	50.0	ND	122	70-130	4.05	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.27		8.00		90.8	70-130			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	3/20/2024 4:06:49PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

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

Blank (2412017-BLK1)					Prepared: 03/18/24 Analyzed: 03/19/24				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	45.1		50.0		90.1	50-200			

LCS (2412017-BS1)					Prepared: 03/18/24 Analyzed: 03/19/24				
Diesel Range Organics (C10-C28)	275	25.0	250		110	38-132			
Surrogate: n-Nonane	44.7		50.0		89.3	50-200			

Matrix Spike (2412017-MS1)					Source: E403153-01		Prepared: 03/18/24 Analyzed: 03/19/24		
Diesel Range Organics (C10-C28)	287	25.0	250	ND	115	38-132			
Surrogate: n-Nonane	44.1		50.0		88.1	50-200			

Matrix Spike Dup (2412017-MSD1)					Source: E403153-01		Prepared: 03/18/24 Analyzed: 03/19/24		
Diesel Range Organics (C10-C28)	278	25.0	250	ND	111	38-132	3.22	20	
Surrogate: n-Nonane	42.2		50.0		84.3	50-200			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	3/20/2024 4:06:49PM

Anions by EPA 300.0/9056A

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 (2412021-BLK1)					Prepared: 03/18/24 Analyzed: 03/19/24				
Chloride	ND	20.0							
LCS (2412021-BS1)					Prepared: 03/18/24 Analyzed: 03/19/24				
Chloride	252	20.0	250		101	90-110			
LCS Dup (2412021-BSD1)					Prepared: 03/18/24 Analyzed: 03/19/24				
Chloride	251	20.0	250		100	90-110	0.512	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

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	
6488 7 Rivers Hwy	Project Number:	01058-0007	Reported:
Artesia NM, 88210	Project Manager:	Ashley Giovengo	03/20/24 16:06

- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite
- DNR Did not react with the addition of acid or base.
- 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: Devon				Bill To				Lab Use Only				TAT				EPA Program					
Project: Spud Muffin 31 30 334H				Attention: Dale Woodall				Lab WO#		Job Number		1D	2D	3D	Standard	CWA	SDWA				
Project Manager: Ashley Giovengo				Address: 205 E Bender Road #150				E403153		11058-007					x						
Address: 3122 National Parks Hwy				City, State, Zip: Hobbs NM, 88240				Analysis and Method												RCRA	
City, State, Zip: Carlsbad NM, 88220				Phone: (575)748-1838				TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0			BGDOC NM		GDOC TX	State			
Phone: 575-988-0055				Email: dale.woodall@dvn.com														NM	CO	UT	AZ
Email: agiovengo@ensolum.com								x													
Report due by:																		Remarks			
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number																
10:12	3/14/2024	Soil	1	SS02 - 0'	1										X						
Additional Instructions: Please CC: cburton@ensolum.com, agiovengo@ensolum.com, dale.woodall@dvn.com, chamilton@ensolum.com, iestrella@ensolum.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.												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.									
Sampled by: Cole Burton																					
Relinquished by: (Signature)				Date		Time		Received by: (Signature)				Date		Time		Lab Use Only					
Michelle Cough				3-15-24		7:30		Michelle Cough				3-15-24		0730		Received on ice: (Y) / N					
Michelle Cough				3-15-24		1300		A.M.				3-15-24		1700		T1 T2 T3					
A.M.				3-15-24		2400		A.M.				3/18/24		0830		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.																					



envirotech

Envirotech Analytical Laboratory

Printed: 3/19/2024 10:16:03AM

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:	Devon Energy - Carlsbad	Date Received:	03/18/24 08:30	Work Order ID:	E403153
Phone:	(505) 382-1211	Date Logged In:	03/18/24 08:41	Logged In By:	Angelina Pineda
Email:	ashley.giovengo@wescominc.com	Due Date:	03/22/24 17:00 (4 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: Courier**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? Yes

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 Giovengo



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Devon Energy - Carlsbad

Project Name: Spud Muffin 31 30 334H

Work Order: E403154

Job Number: 01058-0007

Received: 3/18/2024

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
3/22/24

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.

Date Reported: 3/22/24

Ashley Giovengo
6488 7 Rivers Hwy
Artesia, NM 88210



Project Name: Spud Muffin 31 30 334H
Workorder: E403154
Date Received: 3/18/2024 8:30:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 3/18/2024 8:30:00AM, under the Project Name: Spud Muffin 31 30 334H.

The analytical test results summarized in this report with the Project Name: Spud Muffin 31 30 334H 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

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Alexa Michaels
Sample Custody Officer
Office: 505-632-1881
labadmin@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Golzaes
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

Table of Contents

Title Page	1
Cover Page	2
Table of Contents	3
Sample Summary	4
Sample Data	5
SS03 -0'	5
QC Summary Data	6
QC - Volatile Organics by EPA 8021B	6
QC - Nonhalogenated Organics by EPA 8015D - GRO	7
QC - Nonhalogenated Organics by EPA 8015D - DRO/ORO	8
QC - Anions by EPA 300.0/9056A	9
Definitions and Notes	10
Chain of Custody etc.	11

Sample Summary

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	03/22/24 10:48

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SS03 -0'	E403154-01A	Soil	03/14/24	03/18/24	Glass Jar, 2 oz.



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Spud Muffin 31 30 334H Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 3/22/2024 10:48:43AM
---	--	-----------------------------------

SS03 -0'

E403154-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: EG		Batch: 2412008	
Benzene	ND	0.0250	1	03/18/24	03/20/24	
Ethylbenzene	ND	0.0250	1	03/18/24	03/20/24	
Toluene	ND	0.0250	1	03/18/24	03/20/24	
o-Xylene	ND	0.0250	1	03/18/24	03/20/24	
p,m-Xylene	ND	0.0500	1	03/18/24	03/20/24	
Total Xylenes	ND	0.0250	1	03/18/24	03/20/24	
Surrogate: 4-Bromochlorobenzene-PID	94.2 %	70-130		03/18/24	03/20/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: EG		Batch: 2412008	
Gasoline Range Organics (C6-C10)	ND	20.0	1	03/18/24	03/20/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	90.4 %	70-130		03/18/24	03/20/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM		Batch: 2412017	
Diesel Range Organics (C10-C28)	27.8	25.0	1	03/18/24	03/19/24	
Oil Range Organics (C28-C36)	ND	50.0	1	03/18/24	03/19/24	
Surrogate: n-Nonane	84.0 %	50-200		03/18/24	03/19/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY		Batch: 2412054	
Chloride	342	20.0	1	03/20/24	03/20/24	



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	3/22/2024 10:48:43AM

Volatile Organics by EPA 8021B

Analyst: EG

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

Blank (2412008-BLK1) Prepared: 03/18/24 Analyzed: 03/19/24

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	7.45		8.00		93.1	70-130			

LCS (2412008-BS1) Prepared: 03/18/24 Analyzed: 03/19/24

Benzene	4.90	0.0250	5.00		98.0	70-130			
Ethylbenzene	5.00	0.0250	5.00		100	70-130			
Toluene	4.98	0.0250	5.00		99.6	70-130			
o-Xylene	4.96	0.0250	5.00		99.1	70-130			
p,m-Xylene	10.1	0.0500	10.0		101	70-130			
Total Xylenes	15.0	0.0250	15.0		100	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.60		8.00		95.0	70-130			

Matrix Spike (2412008-MS1) Source: E403155-01 Prepared: 03/18/24 Analyzed: 03/19/24

Benzene	5.05	0.0250	5.00	ND	101	54-133			
Ethylbenzene	5.21	0.0250	5.00	0.0413	103	61-133			
Toluene	5.15	0.0250	5.00	ND	103	61-130			
o-Xylene	5.28	0.0250	5.00	ND	106	63-131			
p,m-Xylene	10.4	0.0500	10.0	0.0602	104	63-131			
Total Xylenes	15.7	0.0250	15.0	0.0602	104	63-131			
Surrogate: 4-Bromochlorobenzene-PID	7.52		8.00		94.0	70-130			

Matrix Spike Dup (2412008-MSD1) Source: E403155-01 Prepared: 03/18/24 Analyzed: 03/19/24

Benzene	4.95	0.0250	5.00	ND	98.9	54-133	2.14	20	
Ethylbenzene	5.11	0.0250	5.00	0.0413	101	61-133	1.93	20	
Toluene	5.06	0.0250	5.00	ND	101	61-130	1.78	20	
o-Xylene	5.17	0.0250	5.00	ND	103	63-131	2.01	20	
p,m-Xylene	10.2	0.0500	10.0	0.0602	101	63-131	1.98	20	
Total Xylenes	15.4	0.0250	15.0	0.0602	102	63-131	1.99	20	
Surrogate: 4-Bromochlorobenzene-PID	7.42		8.00		92.8	70-130			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	3/22/2024 10:48:43AM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: EG

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

Blank (2412008-BLK1) Prepared: 03/18/24 Analyzed: 03/19/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.51		8.00		93.9	70-130			

LCS (2412008-BS2) Prepared: 03/18/24 Analyzed: 03/19/24

Gasoline Range Organics (C6-C10)	49.5	20.0	50.0		99.0	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.67		8.00		95.8	70-130			

Matrix Spike (2412008-MS2) Source: E403155-01 Prepared: 03/18/24 Analyzed: 03/20/24

Gasoline Range Organics (C6-C10)	58.4	20.0	50.0	ND	117	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.35		8.00		91.9	70-130			

Matrix Spike Dup (2412008-MSD2) Source: E403155-01 Prepared: 03/18/24 Analyzed: 03/20/24

Gasoline Range Organics (C6-C10)	60.8	20.0	50.0	ND	122	70-130	4.05	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.27		8.00		90.8	70-130			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	3/22/2024 10:48:43AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

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

Blank (2412017-BLK1) Prepared: 03/18/24 Analyzed: 03/19/24

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	45.1		50.0		90.1	50-200			

LCS (2412017-BS1) Prepared: 03/18/24 Analyzed: 03/19/24

Diesel Range Organics (C10-C28)	275	25.0	250		110	38-132			
Surrogate: n-Nonane	44.7		50.0		89.3	50-200			

Matrix Spike (2412017-MS1) Source: E403153-01 Prepared: 03/18/24 Analyzed: 03/19/24

Diesel Range Organics (C10-C28)	287	25.0	250	ND	115	38-132			
Surrogate: n-Nonane	44.1		50.0		88.1	50-200			

Matrix Spike Dup (2412017-MSD1) Source: E403153-01 Prepared: 03/18/24 Analyzed: 03/19/24

Diesel Range Organics (C10-C28)	278	25.0	250	ND	111	38-132	3.22	20	
Surrogate: n-Nonane	42.2		50.0		84.3	50-200			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	3/22/2024 10:48:43AM

Anions by EPA 300.0/9056A

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 (2412054-BLK1)					Prepared: 03/20/24 Analyzed: 03/20/24				
Chloride	ND	20.0							
LCS (2412054-BS1)					Prepared: 03/20/24 Analyzed: 03/20/24				
Chloride	251	20.0	250		100	90-110			
LCS Dup (2412054-BSD1)					Prepared: 03/20/24 Analyzed: 03/20/24				
Chloride	255	20.0	250		102	90-110	1.38	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

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	
6488 7 Rivers Hwy	Project Number:	01058-0007	Reported:
Artesia NM, 88210	Project Manager:	Ashley Giovengo	03/22/24 10:48

- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite
- DNR Did not react with the addition of acid or base.
- 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: Devon						Bill To							Lab Use Only								TAT				EPA Program				
Project: Spud Muffin 31 30 334H						Attention: Dale Woodall							Lab WO# E 403154				Job Number 0105B-0007				1D	2D	3D	Standard	CWA	SDWA			
Project Manager: Ashley Giovengo						Address: 205 E Bender Road #150																		x					
Address: 3122 National Parks Hwy						City, State, Zip: Hobbs NM, 88240							Analysis and Method												RCRA				
City, State, Zip: Carlsbad NM, 88220						Phone: (575)748-1838																							
Phone: 575-988-0055						Email: dale.woodall@dvn.com																							
Email: agiovengo@ensolum.com																													
Report due by:																													
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0					BGDOC NM	GDOC TX		NM	CO	UT	AZ	TX	Remarks						
10:14	3/14/2024	Soil	1	SS03 - 0'	1										X														
Additional Instructions: Please CC: cburton@ensolum.com, agiovengo@ensolum.com, dale.woodall@dvn.com, chamilton@ensolum.com, iestrella@ensolum.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.																		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) [Signature] Date 3-15-24 Time 7:30																		Received by: (Signature) [Signature] Date 3-15-24 Time 0730						Lab Use Only Received on ice: Y N					
Relinquished by: (Signature) [Signature] Date 3-15-24 Time 1300																		Received by: (Signature) [Signature] Date 3-15-24 Time 1700						T1 T2 T3					
Relinquished by: (Signature) [Signature] Date 3-15-24 Time 2400																		Received by: (Signature) [Signature] Date 3/18/24 Time 0830						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.																													

**envirotech**

Envirotech Analytical Laboratory

Printed: 3/19/2024 10:16:24AM

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:	Devon Energy - Carlsbad	Date Received:	03/18/24 08:30	Work Order ID:	E403154
Phone:	(505) 382-1211	Date Logged In:	03/18/24 08:45	Logged In By:	Angelina Pineda
Email:	ashley.giovengo@wescominc.com	Due Date:	03/22/24 17:00 (4 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: Courier**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? Yes

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 Giovengo



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Devon Energy - Carlsbad

Project Name: Spud Muffin 31 30 335H

Work Order: E403284

Job Number: 01058-0007

Received: 3/29/2024

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
4/4/24

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.

Date Reported: 4/4/24



Ashley Giovengo
6488 7 Rivers Hwy
Artesia, NM 88210

Project Name: Spud Muffin 31 30 335H
Workorder: E403284
Date Received: 3/29/2024 7:15:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 3/29/2024 7:15:00AM, under the Project Name: Spud Muffin 31 30 335H.

The analytical test results summarized in this report with the Project Name: Spud Muffin 31 30 335H 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

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Alexa Michaels
Sample Custody Officer
Office: 505-632-1881
labadmin@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Golzaes
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

Table of Contents

Title Page	1
Cover Page	2
Table of Contents	3
Sample Summary	4
Sample Data	5
BH01 -0'	5
BH01 -1'	6
BH01 -2'	7
BH02 -0'	8
BH02 -0.5'	9
QC Summary Data	10
QC - Volatile Organics by EPA 8021B	10
QC - Nonhalogenated Organics by EPA 8015D - GRO	11
QC - Nonhalogenated Organics by EPA 8015D - DRO/ORO	12
QC - Anions by EPA 300.0/9056A	13
Definitions and Notes	14
Chain of Custody etc.	15

Sample Summary

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 335H	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	04/04/24 13:31

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
BH01 -0'	E403284-01A	Soil	03/27/24	03/29/24	Glass Jar, 2 oz.
BH01 -1'	E403284-02A	Soil	03/27/24	03/29/24	Glass Jar, 2 oz.
BH01 -2'	E403284-03A	Soil	03/27/24	03/29/24	Glass Jar, 2 oz.
BH01 -3'	E403284-04A	Soil	03/27/24	03/29/24	Glass Jar, 2 oz.
BH02 -0'	E403284-05A	Soil	03/27/24	03/29/24	Glass Jar, 2 oz.
BH02 -0.5'	E403284-06A	Soil	03/27/24	03/29/24	Glass Jar, 2 oz.
BH02 -1'	E403284-07A	Soil	03/27/24	03/29/24	Glass Jar, 2 oz.



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Spud Muffin 31 30 335H Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 4/4/2024 1:31:15PM
---	--	---------------------------------

BH01 -0'

E403284-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2413120	
Benzene	ND	0.0250	1	03/29/24	04/02/24	
Ethylbenzene	0.393	0.0250	1	03/29/24	04/02/24	
Toluene	0.646	0.0250	1	03/29/24	04/02/24	
o-Xylene	1.30	0.0250	1	03/29/24	04/02/24	
p,m-Xylene	3.88	0.0500	1	03/29/24	04/02/24	
Total Xylenes	5.18	0.0250	1	03/29/24	04/02/24	
Surrogate: 4-Bromochlorobenzene-PID	122 %	70-130		03/29/24	04/02/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2413120	
Gasoline Range Organics (C6-C10)	75.5	20.0	1	03/29/24	04/02/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	91.2 %	70-130		03/29/24	04/02/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM		Batch: 2414003	
Diesel Range Organics (C10-C28)	24200	250	10	04/01/24	04/02/24	
Oil Range Organics (C28-C36)	7540	500	10	04/01/24	04/02/24	
Surrogate: n-Nonane	112 %	50-200		04/01/24	04/02/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2413126	
Chloride	6750	100	5	03/29/24	03/29/24	



Sample Data

Devon Energy - Carlsbad
6488 7 Rivers Hwy
Artesia NM, 88210

Project Name: Spud Muffin 31 30 335H
Project Number: 01058-0007
Project Manager: Ashley Giovengo

Reported:
4/4/2024 1:31:15PM

BH01 -1'

E403284-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2413120	
Benzene	ND	0.0250	1	03/29/24	04/02/24	
Ethylbenzene	ND	0.0250	1	03/29/24	04/02/24	
Toluene	ND	0.0250	1	03/29/24	04/02/24	
o-Xylene	ND	0.0250	1	03/29/24	04/02/24	
p,m-Xylene	ND	0.0500	1	03/29/24	04/02/24	
Total Xylenes	ND	0.0250	1	03/29/24	04/02/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		101 %	70-130	03/29/24	04/02/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2413120	
Gasoline Range Organics (C6-C10)	ND	20.0	1	03/29/24	04/02/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		89.3 %	70-130	03/29/24	04/02/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM		Batch: 2414003	
Diesel Range Organics (C10-C28)	132	25.0	1	04/01/24	04/02/24	
Oil Range Organics (C28-C36)	52.4	50.0	1	04/01/24	04/02/24	
<i>Surrogate: n-Nonane</i>		76.0 %	50-200	04/01/24	04/02/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2413126	
Chloride	1490	20.0	1	03/29/24	03/29/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Spud Muffin 31 30 335H Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 4/4/2024 1:31:15PM
---	--	---------------------------------

BH01 -2'

E403284-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2413120	
Benzene	ND	0.0250	1	03/29/24	04/02/24	
Ethylbenzene	ND	0.0250	1	03/29/24	04/02/24	
Toluene	ND	0.0250	1	03/29/24	04/02/24	
o-Xylene	ND	0.0250	1	03/29/24	04/02/24	
p,m-Xylene	ND	0.0500	1	03/29/24	04/02/24	
Total Xylenes	ND	0.0250	1	03/29/24	04/02/24	
Surrogate: 4-Bromochlorobenzene-PID	98.2 %	70-130		03/29/24	04/02/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2413120	
Gasoline Range Organics (C6-C10)	ND	20.0	1	03/29/24	04/02/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	90.2 %	70-130		03/29/24	04/02/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM		Batch: 2414003	
Diesel Range Organics (C10-C28)	ND	25.0	1	04/01/24	04/02/24	
Oil Range Organics (C28-C36)	ND	50.0	1	04/01/24	04/02/24	
Surrogate: n-Nonane	70.9 %	50-200		04/01/24	04/02/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2413126	
Chloride	536	20.0	1	03/29/24	03/29/24	



Sample Data

Devon Energy - Carlsbad
6488 7 Rivers Hwy
Artesia NM, 88210

Project Name: Spud Muffin 31 30 335H
Project Number: 01058-0007
Project Manager: Ashley Giovengo

Reported:
4/4/2024 1:31:15PM

BH02 -0'

E403284-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2413120	
Benzene	ND	0.0250	1	03/29/24	04/03/24	
Ethylbenzene	ND	0.0250	1	03/29/24	04/03/24	
Toluene	ND	0.0250	1	03/29/24	04/03/24	
o-Xylene	ND	0.0250	1	03/29/24	04/03/24	
p,m-Xylene	ND	0.0500	1	03/29/24	04/03/24	
Total Xylenes	ND	0.0250	1	03/29/24	04/03/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>	95.8 %	70-130		03/29/24	04/03/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2413120	
Gasoline Range Organics (C6-C10)	ND	20.0	1	03/29/24	04/03/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>	90.7 %	70-130		03/29/24	04/03/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM		Batch: 2414003	
Diesel Range Organics (C10-C28)	954	25.0	1	04/01/24	04/02/24	
Oil Range Organics (C28-C36)	458	50.0	1	04/01/24	04/02/24	
<i>Surrogate: n-Nonane</i>	76.5 %	50-200		04/01/24	04/02/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2413126	
Chloride	1040	20.0	1	03/29/24	03/30/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Spud Muffin 31 30 335H Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 4/4/2024 1:31:15PM
---	--	---------------------------------

BH02 -0.5'
E403284-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2413120	
Benzene	ND	0.0250	1	03/29/24	04/03/24	
Ethylbenzene	ND	0.0250	1	03/29/24	04/03/24	
Toluene	ND	0.0250	1	03/29/24	04/03/24	
o-Xylene	ND	0.0250	1	03/29/24	04/03/24	
p,m-Xylene	ND	0.0500	1	03/29/24	04/03/24	
Total Xylenes	ND	0.0250	1	03/29/24	04/03/24	
Surrogate: 4-Bromochlorobenzene-PID	95.6 %	70-130		03/29/24	04/03/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2413120	
Gasoline Range Organics (C6-C10)	ND	20.0	1	03/29/24	04/03/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	89.8 %	70-130		03/29/24	04/03/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM		Batch: 2414003	
Diesel Range Organics (C10-C28)	ND	25.0	1	04/01/24	04/02/24	
Oil Range Organics (C28-C36)	ND	50.0	1	04/01/24	04/02/24	
Surrogate: n-Nonane	74.2 %	50-200		04/01/24	04/02/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2413126	
Chloride	297	20.0	1	03/29/24	03/30/24	



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 335H	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	4/4/2024 1:31:15PM

Volatile Organics by EPA 8021B

Analyst: BA

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

Blank (2413120-BLK1) Prepared: 03/29/24 Analyzed: 04/02/24

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	7.70		8.00		96.3	70-130			

LCS (2413120-BS1) Prepared: 03/29/24 Analyzed: 04/02/24

Benzene	4.73	0.0250	5.00		94.6	70-130			
Ethylbenzene	4.59	0.0250	5.00		91.8	70-130			
Toluene	4.72	0.0250	5.00		94.3	70-130			
o-Xylene	4.66	0.0250	5.00		93.2	70-130			
p,m-Xylene	9.41	0.0500	10.0		94.1	70-130			
Total Xylenes	14.1	0.0250	15.0		93.8	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.76		8.00		97.0	70-130			

Matrix Spike (2413120-MS1) Source: E403275-11 Prepared: 03/29/24 Analyzed: 04/02/24

Benzene	5.33	0.0250	5.00	ND	107	54-133			
Ethylbenzene	5.16	0.0250	5.00	ND	103	61-133			
Toluene	5.32	0.0250	5.00	ND	106	61-130			
o-Xylene	5.26	0.0250	5.00	ND	105	63-131			
p,m-Xylene	10.6	0.0500	10.0	ND	106	63-131			
Total Xylenes	15.8	0.0250	15.0	ND	105	63-131			
Surrogate: 4-Bromochlorobenzene-PID	7.68		8.00		96.0	70-130			

Matrix Spike Dup (2413120-MSD1) Source: E403275-11 Prepared: 03/29/24 Analyzed: 04/02/24

Benzene	5.24	0.0250	5.00	ND	105	54-133	1.73	20	
Ethylbenzene	5.07	0.0250	5.00	ND	101	61-133	1.81	20	
Toluene	5.22	0.0250	5.00	ND	104	61-130	1.94	20	
o-Xylene	5.15	0.0250	5.00	ND	103	63-131	2.08	20	
p,m-Xylene	10.4	0.0500	10.0	ND	104	63-131	1.79	20	
Total Xylenes	15.5	0.0250	15.0	ND	103	63-131	1.89	20	
Surrogate: 4-Bromochlorobenzene-PID	7.66		8.00		95.8	70-130			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 335H	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	4/4/2024 1:31:15PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: BA

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

Blank (2413120-BLK1) Prepared: 03/29/24 Analyzed: 04/02/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.32		8.00		91.5	70-130			

LCS (2413120-BS2) Prepared: 03/29/24 Analyzed: 04/02/24

Gasoline Range Organics (C6-C10)	47.2	20.0	50.0		94.5	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.46		8.00		93.2	70-130			

Matrix Spike (2413120-MS2) Source: E403275-11 Prepared: 03/29/24 Analyzed: 04/02/24

Gasoline Range Organics (C6-C10)	45.7	20.0	50.0	ND	91.3	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.39		8.00		92.3	70-130			

Matrix Spike Dup (2413120-MSD2) Source: E403275-11 Prepared: 03/29/24 Analyzed: 04/02/24

Gasoline Range Organics (C6-C10)	48.2	20.0	50.0	ND	96.3	70-130	5.30	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.41		8.00		92.6	70-130			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 335H	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	4/4/2024 1:31:15PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

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

Blank (2414003-BLK1)					Prepared: 04/01/24 Analyzed: 04/02/24				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	37.2		50.0		74.3	50-200			

LCS (2414003-BS1)					Prepared: 04/01/24 Analyzed: 04/02/24				
Diesel Range Organics (C10-C28)	263	25.0	250		105	38-132			
Surrogate: n-Nonane	38.6		50.0		77.2	50-200			

Matrix Spike (2414003-MS1)					Source: E403262-04		Prepared: 04/01/24 Analyzed: 04/02/24		
Diesel Range Organics (C10-C28)	3090	500	250	2710	149	38-132			M4
Surrogate: n-Nonane	36.0		50.0		72.1	50-200			

Matrix Spike Dup (2414003-MSD1)					Source: E403262-04		Prepared: 04/01/24 Analyzed: 04/02/24		
Diesel Range Organics (C10-C28)	3010	500	250	2710	120	38-132	2.37	20	
Surrogate: n-Nonane	35.2		50.0		70.4	50-200			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 335H	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	4/4/2024 1:31:15PM

Anions by EPA 300.0/9056A

Analyst: DT

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

Blank (2413126-BLK1)					Prepared: 03/29/24 Analyzed: 03/29/24				
Chloride	ND	20.0							
LCS (2413126-BS1)					Prepared: 03/29/24 Analyzed: 03/29/24				
Chloride	253	20.0	250		101	90-110			
Matrix Spike (2413126-MS1)					Source: E403279-05		Prepared: 03/29/24 Analyzed: 03/29/24		
Chloride	647	20.0	250	319	131	80-120			M1
Matrix Spike Dup (2413126-MSD1)					Source: E403279-05		Prepared: 03/29/24 Analyzed: 03/29/24		
Chloride	634	20.0	250	319	126	80-120	2.03	20	M1

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

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 335H	
6488 7 Rivers Hwy	Project Number:	01058-0007	Reported:
Artesia NM, 88210	Project Manager:	Ashley Giovengo	04/04/24 13:31

- M1 Matrix spike recovery was above acceptance 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
- DNR Did not react with the addition of acid or base.

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

Page 1 of 1

Client: Devon					Bill To		Lab Use Only						TAT				EPA Program		
Project: Spud Muffin 31 30 335H					Attention: Dale Woodall		Lab WO#		Job Number				1D	2D	3D	Standard	CWA	SDWA	
Project Manager: Ashley Giovengo					Address: 205 E Bender Road #150		E 403284		0058-0007							x			
Address: 3122 National Parks Hwy					City, State, Zip: Hobbs NM, 88240		Analysis and Method											RCRA	
City, State, Zip: Carlsbad NM, 88220					Phone: (575)748-1838		TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC NM	GDOC TX	State					
Phone: 575-988-0055					Email: dale.woodall@dvn.com									NM	CO	UT	AZ	TX	
Email: agiovengo@ensolum.com																			
Report due by:																			
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number													Remarks	
9:08	3/27/2024	Soil	1	BH01 - 0'	1														
9:15	3/27/2024	Soil	1	BH01 - 1'	2														
9:21	3/27/2024	Soil	1	BH01 - 2'	3														
9:25	3/27/2024	Soil	1	BH01 - 3'	4														
9:36	3/27/2024	Soil	1	BH02 - 0'	5														
9:40	3/27/2024	Soil	1	BH02 - 0.5'	6														
9:55	3/27/2024	Soil	1	BH02 - 1'	7														
Additional Instructions: Please CC: cburton@ensolum.com, agiovengo@ensolum.com, dale.woodall@dvn.com, chamilton@ensolum.com, iestrella@ensolum.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.												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	Lab Use Only											
[Signature]		3-28-24	7:30	[Signature]		3-28-24	1436	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 _____											
[Signature]		3-28-24	1700	[Signature]		3-28-24	1915												
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	AVG Temp °C 4											
[Signature]		3-28-24	2400	[Signature]		3/29/24	0715												
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: 4/2/2024 12:24:36PM

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:	Devon Energy - Carlsbad	Date Received:	03/29/24 07:15	Work Order ID:	E403284
Phone:	(505) 382-1211	Date Logged In:	03/29/24 10:04	Logged In By:	Angelina Pineda
Email:	ashley.giovengo@wescominc.com	Due Date:	04/04/24 17:00 (4 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: CourierSample 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? | Yes |

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 InstructionComments/Resolution

WO remarks states: Do not run for BGDOC for Sample 4 unless BH01 -2 is >600 CL or 100 TPH. Do not run for BGDOC for Sample 7 unless BH02 -0.5 is > 600 CL or 100 TPH

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

Date



envirotech Inc.

Report to:

Ashley Giovengo



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Devon Energy - Carlsbad

Project Name: Spud Muffin 31 30 334H

Work Order: E408035

Job Number: 01058-0007

Received: 8/6/2024

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
8/8/24

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.

Date Reported: 8/8/24

Ashley Giovengo
6488 7 Rivers Hwy
Artesia, NM 88210



Project Name: Spud Muffin 31 30 334H
Workorder: E408035
Date Received: 8/6/2024 6:30:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 8/6/2024 6:30:00AM, under the Project Name: Spud Muffin 31 30 334H.

The analytical test results summarized in this report with the Project Name: Spud Muffin 31 30 334H 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

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Gonzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzaless@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

Table of Contents

Title Page	1
Cover Page	2
Table of Contents	3
Sample Summary	4
Sample Data	5
FS01 - 1'	5
FS02 - 1'	6
FS03 - 1'	7
QC Summary Data	8
QC - Volatile Organics by EPA 8021B	8
QC - Nonhalogenated Organics by EPA 8015D - GRO	9
QC - Nonhalogenated Organics by EPA 8015D - DRO/ORO	10
QC - Anions by EPA 300.0/9056A	11
Definitions and Notes	12
Chain of Custody etc.	13

Sample Summary

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	08/08/24 11:38

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
FS01 - 1'	E408035-01A	Soil	08/02/24	08/06/24	Glass Jar, 2 oz.
FS02 - 1'	E408035-02A	Soil	08/02/24	08/06/24	Glass Jar, 2 oz.
FS03 - 1'	E408035-03A	Soil	08/02/24	08/06/24	Glass Jar, 2 oz.



Sample Data

Devon Energy - Carlsbad
6488 7 Rivers Hwy
Artesia NM, 88210

Project Name: Spud Muffin 31 30 334H
Project Number: 01058-0007
Project Manager: Ashley Giovengo

Reported:
8/8/2024 11:38:10AM

FS01 - 1'

E408035-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2432019	
Benzene	ND	0.0250	1	08/06/24	08/06/24	
Ethylbenzene	ND	0.0250	1	08/06/24	08/06/24	
Toluene	ND	0.0250	1	08/06/24	08/06/24	
o-Xylene	ND	0.0250	1	08/06/24	08/06/24	
p,m-Xylene	ND	0.0500	1	08/06/24	08/06/24	
Total Xylenes	ND	0.0250	1	08/06/24	08/06/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	88.5 %	70-130		08/06/24	08/06/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2432019	
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/06/24	08/06/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	109 %	70-130		08/06/24	08/06/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV		Batch: 2432047	
Diesel Range Organics (C10-C28)	ND	25.0	1	08/07/24	08/07/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/07/24	08/07/24	
<i>Surrogate: n-Nonane</i>						
	116 %	50-200		08/07/24	08/07/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: JM		Batch: 2432015	
Chloride	85.9	20.0	1	08/06/24	08/06/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Spud Muffin 31 30 334H Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 8/8/2024 11:38:10AM
---	--	----------------------------------

FS02 - 1'

E408035-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2432019	
Benzene	ND	0.0250	1	08/06/24	08/06/24	
Ethylbenzene	ND	0.0250	1	08/06/24	08/06/24	
Toluene	ND	0.0250	1	08/06/24	08/06/24	
o-Xylene	ND	0.0250	1	08/06/24	08/06/24	
p,m-Xylene	ND	0.0500	1	08/06/24	08/06/24	
Total Xylenes	ND	0.0250	1	08/06/24	08/06/24	
Surrogate: 4-Bromochlorobenzene-PID	88.1 %	70-130		08/06/24	08/06/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2432019	
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/06/24	08/06/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	108 %	70-130		08/06/24	08/06/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV		Batch: 2432047	
Diesel Range Organics (C10-C28)	ND	25.0	1	08/07/24	08/07/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/07/24	08/07/24	
Surrogate: n-Nonane	107 %	50-200		08/07/24	08/07/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: JM		Batch: 2432015	
Chloride	151	20.0	1	08/06/24	08/06/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Spud Muffin 31 30 334H Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 8/8/2024 11:38:10AM
---	--	----------------------------------

FS03 - 1'

E408035-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2432019	
Benzene	ND	0.0250	1	08/06/24	08/06/24	
Ethylbenzene	ND	0.0250	1	08/06/24	08/06/24	
Toluene	ND	0.0250	1	08/06/24	08/06/24	
o-Xylene	ND	0.0250	1	08/06/24	08/06/24	
p,m-Xylene	ND	0.0500	1	08/06/24	08/06/24	
Total Xylenes	ND	0.0250	1	08/06/24	08/06/24	
Surrogate: 4-Bromochlorobenzene-PID	88.1 %	70-130		08/06/24	08/06/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2432019	
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/06/24	08/06/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	108 %	70-130		08/06/24	08/06/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV		Batch: 2432047	
Diesel Range Organics (C10-C28)	ND	25.0	1	08/07/24	08/07/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/07/24	08/07/24	
Surrogate: n-Nonane	115 %	50-200		08/07/24	08/07/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: JM		Batch: 2432015	
Chloride	140	20.0	1	08/06/24	08/06/24	



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	8/8/2024 11:38:10AM

Volatile Organics by EPA 8021B

Analyst: BA

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

Blank (2432019-BLK1) Prepared: 08/06/24 Analyzed: 08/06/24

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	7.10		8.00		88.8	70-130			

LCS (2432019-BS1) Prepared: 08/06/24 Analyzed: 08/06/24

Benzene	4.85	0.0250	5.00		97.1	70-130			
Ethylbenzene	4.57	0.0250	5.00		91.4	70-130			
Toluene	4.79	0.0250	5.00		95.7	70-130			
o-Xylene	4.63	0.0250	5.00		92.6	70-130			
p,m-Xylene	9.41	0.0500	10.0		94.1	70-130			
Total Xylenes	14.0	0.0250	15.0		93.6	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.14		8.00		89.2	70-130			

Matrix Spike (2432019-MS1) Source: E408031-06 Prepared: 08/06/24 Analyzed: 08/06/24

Benzene	5.40	0.0250	5.00	ND	108	54-133			
Ethylbenzene	5.06	0.0250	5.00	ND	101	61-133			
Toluene	5.31	0.0250	5.00	ND	106	61-130			
o-Xylene	5.14	0.0250	5.00	ND	103	63-131			
p,m-Xylene	10.4	0.0500	10.0	ND	104	63-131			
Total Xylenes	15.5	0.0250	15.0	ND	104	63-131			
Surrogate: 4-Bromochlorobenzene-PID	7.07		8.00		88.4	70-130			

Matrix Spike Dup (2432019-MSD1) Source: E408031-06 Prepared: 08/06/24 Analyzed: 08/06/24

Benzene	5.49	0.0250	5.00	ND	110	54-133	1.67	20	
Ethylbenzene	5.17	0.0250	5.00	ND	103	61-133	2.17	20	
Toluene	5.42	0.0250	5.00	ND	108	61-130	1.93	20	
o-Xylene	5.25	0.0250	5.00	ND	105	63-131	2.13	20	
p,m-Xylene	10.6	0.0500	10.0	ND	106	63-131	2.24	20	
Total Xylenes	15.9	0.0250	15.0	ND	106	63-131	2.21	20	
Surrogate: 4-Bromochlorobenzene-PID	7.11		8.00		88.9	70-130			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	8/8/2024 11:38:10AM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: BA

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

Blank (2432019-BLK1) Prepared: 08/06/24 Analyzed: 08/06/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.55		8.00		107	70-130			

LCS (2432019-BS2) Prepared: 08/06/24 Analyzed: 08/06/24

Gasoline Range Organics (C6-C10)	48.7	20.0	50.0		97.4	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.50		8.00		106	70-130			

Matrix Spike (2432019-MS2) Source: E408031-06 Prepared: 08/06/24 Analyzed: 08/06/24

Gasoline Range Organics (C6-C10)	48.7	20.0	50.0	ND	97.4	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.58		8.00		107	70-130			

Matrix Spike Dup (2432019-MSD2) Source: E408031-06 Prepared: 08/06/24 Analyzed: 08/06/24

Gasoline Range Organics (C6-C10)	44.7	20.0	50.0	ND	89.3	70-130	8.69	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.52		8.00		106	70-130			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	8/8/2024 11:38:10AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

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

Blank (2432047-BLK1) Prepared: 08/07/24 Analyzed: 08/07/24

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	57.5		50.0		115	50-200			

LCS (2432047-BS1) Prepared: 08/07/24 Analyzed: 08/08/24

Diesel Range Organics (C10-C28)	293	25.0	250		117	38-132			
Surrogate: n-Nonane	58.0		50.0		116	50-200			

Matrix Spike (2432047-MS1) Source: E408050-05 Prepared: 08/07/24 Analyzed: 08/08/24

Diesel Range Organics (C10-C28)	294	25.0	250	ND	117	38-132			
Surrogate: n-Nonane	60.4		50.0		121	50-200			

Matrix Spike Dup (2432047-MSD1) Source: E408050-05 Prepared: 08/07/24 Analyzed: 08/08/24

Diesel Range Organics (C10-C28)	291	25.0	250	ND	117	38-132	0.803	20	
Surrogate: n-Nonane	60.3		50.0		121	50-200			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	8/8/2024 11:38:10AM

Anions by EPA 300.0/9056A

Analyst: JM

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

Blank (2432015-BLK1)					Prepared: 08/05/24 Analyzed: 08/05/24				
Chloride	ND	20.0							
LCS (2432015-BS1)					Prepared: 08/05/24 Analyzed: 08/05/24				
Chloride	250	20.0	250		99.8	90-110			
Matrix Spike (2432015-MS1)					Source: E408028-08		Prepared: 08/05/24 Analyzed: 08/05/24		
Chloride	262	20.0	250	ND	105	80-120			
Matrix Spike Dup (2432015-MSD1)					Source: E408028-08		Prepared: 08/05/24 Analyzed: 08/05/24		
Chloride	262	20.0	250	ND	105	80-120	0.112	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

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	
6488 7 Rivers Hwy	Project Number:	01058-0007	Reported:
Artesia NM, 88210	Project Manager:	Ashley Giovengo	08/08/24 11:38

- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite
- DNR Did not react with the addition of acid or base.
- Note (1): Methods marked with ** are non-accredited methods.
- Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Page 13 of 14



envirotech

Envirotech Analytical Laboratory

Printed: 8/6/2024 9:31:23AM

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:	Devon Energy - Carlsbad	Date Received:	08/06/24 06:30	Work Order ID:	E408035
Phone:	(505) 382-1211	Date Logged In:	08/05/24 16:53	Logged In By:	Noe Soto
Email:	ashley.giovengo@wescominc.com	Due Date:	08/12/24 17:00 (4 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: CourierComments/ResolutionSample 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 Giovengo



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Devon Energy - Carlsbad

Project Name: Spud Muffin 31 30 334H

Work Order: E408062

Job Number: 01058-0007

Received: 8/7/2024

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
8/12/24

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.

Date Reported: 8/12/24



Ashley Giovengo
6488 7 Rivers Hwy
Artesia, NM 88210

Project Name: Spud Muffin 31 30 334H
Workorder: E408062
Date Received: 8/7/2024 11:20:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 8/7/2024 11:20:00AM, under the Project Name: Spud Muffin 31 30 334H.

The analytical test results summarized in this report with the Project Name: Spud Muffin 31 30 334H 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

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Gonzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzaless@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

Table of Contents

Title Page	1
Cover Page	2
Table of Contents	3
Sample Summary	4
Sample Data	5
FS04-1'	5
FS05-2'	6
FS06-1'	7
FS07-2'	8
FS08-1'	9
FS09-1'	10
FS10-1'	11
FS11-1'	12
FS12-1'	13
QC Summary Data	14
QC - Volatile Organic Compounds by EPA8260B	14
QC - Nonhalogenated Organics by EPA 8015D - GRO	15
QC - Nonhalogenated Organics by EPA 8015D - DRO/ORO	16
QC - Anions by EPA 300.0/9056A	17
Definitions and Notes	18
Chain of Custody etc.	19

Sample Summary

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	08/12/24 09:36

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
FS04-1'	E408062-01A	Soil	08/05/24	08/07/24	Glass Jar, 2 oz.
FS05-2'	E408062-02A	Soil	08/05/24	08/07/24	Glass Jar, 2 oz.
FS06-1'	E408062-03A	Soil	08/05/24	08/07/24	Glass Jar, 2 oz.
FS07-2'	E408062-04A	Soil	08/05/24	08/07/24	Glass Jar, 2 oz.
FS08-1'	E408062-05A	Soil	08/05/24	08/07/24	Glass Jar, 2 oz.
FS09-1'	E408062-06A	Soil	08/05/24	08/07/24	Glass Jar, 2 oz.
FS10-1'	E408062-07A	Soil	08/05/24	08/07/24	Glass Jar, 2 oz.
FS11-1'	E408062-08A	Soil	08/05/24	08/07/24	Glass Jar, 2 oz.
FS12-1'	E408062-09A	Soil	08/05/24	08/07/24	Glass Jar, 2 oz.

Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Spud Muffin 31 30 334H Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 8/12/2024 9:36:49AM
---	--	----------------------------------

FS04-1'
E408062-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: IY		Batch: 2432074	
Benzene	ND	0.0250	1	08/07/24	08/09/24	
Ethylbenzene	ND	0.0250	1	08/07/24	08/09/24	
Toluene	ND	0.0250	1	08/07/24	08/09/24	
o-Xylene	ND	0.0250	1	08/07/24	08/09/24	
p,m-Xylene	ND	0.0500	1	08/07/24	08/09/24	
Total Xylenes	ND	0.0250	1	08/07/24	08/09/24	
Surrogate: Bromofluorobenzene		114 %	70-130	08/07/24	08/09/24	
Surrogate: 1,2-Dichloroethane-d4		92.2 %	70-130	08/07/24	08/09/24	
Surrogate: Toluene-d8		108 %	70-130	08/07/24	08/09/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: IY		Batch: 2432074	
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/07/24	08/09/24	
Surrogate: Bromofluorobenzene		114 %	70-130	08/07/24	08/09/24	
Surrogate: 1,2-Dichloroethane-d4		92.2 %	70-130	08/07/24	08/09/24	
Surrogate: Toluene-d8		108 %	70-130	08/07/24	08/09/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM		Batch: 2432072	
Diesel Range Organics (C10-C28)	ND	25.0	1	08/07/24	08/09/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/07/24	08/09/24	
Surrogate: n-Nonane		109 %	50-200	08/07/24	08/09/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2432109	
Chloride	241	20.0	1	08/08/24	08/08/24	



Sample Data

Devon Energy - Carlsbad
6488 7 Rivers Hwy
Artesia NM, 88210

Project Name: Spud Muffin 31 30 334H
Project Number: 01058-0007
Project Manager: Ashley Giovengo

Reported:
8/12/2024 9:36:49AM

FS05-2'

E408062-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2432074
Benzene	ND	0.0250	1	08/07/24	08/09/24	
Ethylbenzene	ND	0.0250	1	08/07/24	08/09/24	
Toluene	ND	0.0250	1	08/07/24	08/09/24	
o-Xylene	ND	0.0250	1	08/07/24	08/09/24	
p,m-Xylene	ND	0.0500	1	08/07/24	08/09/24	
Total Xylenes	ND	0.0250	1	08/07/24	08/09/24	
Surrogate: Bromofluorobenzene		116 %	70-130	08/07/24	08/09/24	
Surrogate: 1,2-Dichloroethane-d4		87.0 %	70-130	08/07/24	08/09/24	
Surrogate: Toluene-d8		109 %	70-130	08/07/24	08/09/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2432074
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/07/24	08/09/24	
Surrogate: Bromofluorobenzene		116 %	70-130	08/07/24	08/09/24	
Surrogate: 1,2-Dichloroethane-d4		87.0 %	70-130	08/07/24	08/09/24	
Surrogate: Toluene-d8		109 %	70-130	08/07/24	08/09/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2432072
Diesel Range Organics (C10-C28)	ND	25.0	1	08/07/24	08/09/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/07/24	08/09/24	
Surrogate: n-Nonane		107 %	50-200	08/07/24	08/09/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2432109
Chloride	95.8	20.0	1	08/08/24	08/08/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Spud Muffin 31 30 334H Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 8/12/2024 9:36:49AM
---	--	----------------------------------

FS06-1'
E408062-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg	Analyst: IY		Batch: 2432074	
Benzene	ND	0.0250	1	08/07/24	08/09/24	
Ethylbenzene	ND	0.0250	1	08/07/24	08/09/24	
Toluene	ND	0.0250	1	08/07/24	08/09/24	
o-Xylene	ND	0.0250	1	08/07/24	08/09/24	
p,m-Xylene	ND	0.0500	1	08/07/24	08/09/24	
Total Xylenes	ND	0.0250	1	08/07/24	08/09/24	
Surrogate: Bromofluorobenzene		114 %	70-130	08/07/24	08/09/24	
Surrogate: 1,2-Dichloroethane-d4		90.7 %	70-130	08/07/24	08/09/24	
Surrogate: Toluene-d8		107 %	70-130	08/07/24	08/09/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: IY		Batch: 2432074	
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/07/24	08/09/24	
Surrogate: Bromofluorobenzene		114 %	70-130	08/07/24	08/09/24	
Surrogate: 1,2-Dichloroethane-d4		90.7 %	70-130	08/07/24	08/09/24	
Surrogate: Toluene-d8		107 %	70-130	08/07/24	08/09/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: KM		Batch: 2432072	
Diesel Range Organics (C10-C28)	ND	25.0	1	08/07/24	08/09/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/07/24	08/09/24	
Surrogate: n-Nonane		99.6 %	50-200	08/07/24	08/09/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: DT		Batch: 2432109	
Chloride	297	20.0	1	08/08/24	08/08/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Spud Muffin 31 30 334H Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 8/12/2024 9:36:49AM
---	--	----------------------------------

FS07-2'
E408062-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg	Analyst: IY		Batch: 2432074	
Benzene	ND	0.0250	1	08/07/24	08/09/24	
Ethylbenzene	ND	0.0250	1	08/07/24	08/09/24	
Toluene	ND	0.0250	1	08/07/24	08/09/24	
o-Xylene	ND	0.0250	1	08/07/24	08/09/24	
p,m-Xylene	ND	0.0500	1	08/07/24	08/09/24	
Total Xylenes	ND	0.0250	1	08/07/24	08/09/24	
Surrogate: Bromofluorobenzene		115 %	70-130	08/07/24	08/09/24	
Surrogate: 1,2-Dichloroethane-d4		90.8 %	70-130	08/07/24	08/09/24	
Surrogate: Toluene-d8		108 %	70-130	08/07/24	08/09/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: IY		Batch: 2432074	
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/07/24	08/09/24	
Surrogate: Bromofluorobenzene		115 %	70-130	08/07/24	08/09/24	
Surrogate: 1,2-Dichloroethane-d4		90.8 %	70-130	08/07/24	08/09/24	
Surrogate: Toluene-d8		108 %	70-130	08/07/24	08/09/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: KM		Batch: 2432072	
Diesel Range Organics (C10-C28)	ND	25.0	1	08/07/24	08/09/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/07/24	08/09/24	
Surrogate: n-Nonane		102 %	50-200	08/07/24	08/09/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: DT		Batch: 2432109	
Chloride	140	20.0	1	08/08/24	08/08/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Spud Muffin 31 30 334H Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 8/12/2024 9:36:49AM
---	--	----------------------------------

FS08-1'
E408062-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2432074
Benzene	ND	0.0250	1	08/07/24	08/09/24	
Ethylbenzene	ND	0.0250	1	08/07/24	08/09/24	
Toluene	ND	0.0250	1	08/07/24	08/09/24	
o-Xylene	ND	0.0250	1	08/07/24	08/09/24	
p,m-Xylene	ND	0.0500	1	08/07/24	08/09/24	
Total Xylenes	ND	0.0250	1	08/07/24	08/09/24	
Surrogate: Bromofluorobenzene		116 %	70-130	08/07/24	08/09/24	
Surrogate: 1,2-Dichloroethane-d4		88.4 %	70-130	08/07/24	08/09/24	
Surrogate: Toluene-d8		108 %	70-130	08/07/24	08/09/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2432074
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/07/24	08/09/24	
Surrogate: Bromofluorobenzene		116 %	70-130	08/07/24	08/09/24	
Surrogate: 1,2-Dichloroethane-d4		88.4 %	70-130	08/07/24	08/09/24	
Surrogate: Toluene-d8		108 %	70-130	08/07/24	08/09/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2432072
Diesel Range Organics (C10-C28)	ND	25.0	1	08/07/24	08/09/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/07/24	08/09/24	
Surrogate: n-Nonane		108 %	50-200	08/07/24	08/09/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2432109
Chloride	441	20.0	1	08/08/24	08/08/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Spud Muffin 31 30 334H Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 8/12/2024 9:36:49AM
---	--	----------------------------------

FS09-1'
E408062-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2432074
Benzene	ND	0.0250	1	08/07/24	08/09/24	
Ethylbenzene	ND	0.0250	1	08/07/24	08/09/24	
Toluene	ND	0.0250	1	08/07/24	08/09/24	
o-Xylene	ND	0.0250	1	08/07/24	08/09/24	
p,m-Xylene	ND	0.0500	1	08/07/24	08/09/24	
Total Xylenes	ND	0.0250	1	08/07/24	08/09/24	
Surrogate: Bromofluorobenzene		114 %	70-130	08/07/24	08/09/24	
Surrogate: 1,2-Dichloroethane-d4		88.4 %	70-130	08/07/24	08/09/24	
Surrogate: Toluene-d8		110 %	70-130	08/07/24	08/09/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2432074
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/07/24	08/09/24	
Surrogate: Bromofluorobenzene		114 %	70-130	08/07/24	08/09/24	
Surrogate: 1,2-Dichloroethane-d4		88.4 %	70-130	08/07/24	08/09/24	
Surrogate: Toluene-d8		110 %	70-130	08/07/24	08/09/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2432072
Diesel Range Organics (C10-C28)	ND	25.0	1	08/07/24	08/09/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/07/24	08/09/24	
Surrogate: n-Nonane		108 %	50-200	08/07/24	08/09/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2432109
Chloride	338	20.0	1	08/08/24	08/08/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Spud Muffin 31 30 334H Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 8/12/2024 9:36:49AM
---	--	----------------------------------

FS10-1'
E408062-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2432074
Benzene	ND	0.0250	1	08/07/24	08/09/24	
Ethylbenzene	ND	0.0250	1	08/07/24	08/09/24	
Toluene	ND	0.0250	1	08/07/24	08/09/24	
o-Xylene	ND	0.0250	1	08/07/24	08/09/24	
p,m-Xylene	ND	0.0500	1	08/07/24	08/09/24	
Total Xylenes	ND	0.0250	1	08/07/24	08/09/24	
Surrogate: Bromofluorobenzene		115 %	70-130	08/07/24	08/09/24	
Surrogate: 1,2-Dichloroethane-d4		89.5 %	70-130	08/07/24	08/09/24	
Surrogate: Toluene-d8		110 %	70-130	08/07/24	08/09/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2432074
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/07/24	08/09/24	
Surrogate: Bromofluorobenzene		115 %	70-130	08/07/24	08/09/24	
Surrogate: 1,2-Dichloroethane-d4		89.5 %	70-130	08/07/24	08/09/24	
Surrogate: Toluene-d8		110 %	70-130	08/07/24	08/09/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2432072
Diesel Range Organics (C10-C28)	28.8	25.0	1	08/07/24	08/09/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/07/24	08/09/24	
Surrogate: n-Nonane		105 %	50-200	08/07/24	08/09/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2432109
Chloride	403	20.0	1	08/08/24	08/08/24	



Sample Data

Devon Energy - Carlsbad
6488 7 Rivers Hwy
Artesia NM, 88210

Project Name: Spud Muffin 31 30 334H
Project Number: 01058-0007
Project Manager: Ashley Giovengo

Reported:
8/12/2024 9:36:49AM

FS11-1'

E408062-08

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2432074
Benzene	ND	0.0250	1	08/07/24	08/09/24	
Ethylbenzene	ND	0.0250	1	08/07/24	08/09/24	
Toluene	ND	0.0250	1	08/07/24	08/09/24	
o-Xylene	ND	0.0250	1	08/07/24	08/09/24	
p,m-Xylene	ND	0.0500	1	08/07/24	08/09/24	
Total Xylenes	ND	0.0250	1	08/07/24	08/09/24	
Surrogate: Bromofluorobenzene		116 %	70-130	08/07/24	08/09/24	
Surrogate: 1,2-Dichloroethane-d4		91.9 %	70-130	08/07/24	08/09/24	
Surrogate: Toluene-d8		108 %	70-130	08/07/24	08/09/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2432074
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/07/24	08/09/24	
Surrogate: Bromofluorobenzene		116 %	70-130	08/07/24	08/09/24	
Surrogate: 1,2-Dichloroethane-d4		91.9 %	70-130	08/07/24	08/09/24	
Surrogate: Toluene-d8		108 %	70-130	08/07/24	08/09/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2432072
Diesel Range Organics (C10-C28)	63.4	25.0	1	08/07/24	08/09/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/07/24	08/09/24	
Surrogate: n-Nonane		106 %	50-200	08/07/24	08/09/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2432109
Chloride	276	20.0	1	08/08/24	08/08/24	



Sample Data

Devon Energy - Carlsbad
6488 7 Rivers Hwy
Artesia NM, 88210

Project Name: Spud Muffin 31 30 334H
Project Number: 01058-0007
Project Manager: Ashley Giovengo

Reported:
8/12/2024 9:36:49AM

FS12-1'

E408062-09

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2432074
Benzene	ND	0.0250	1	08/07/24	08/09/24	
Ethylbenzene	ND	0.0250	1	08/07/24	08/09/24	
Toluene	ND	0.0250	1	08/07/24	08/09/24	
o-Xylene	ND	0.0250	1	08/07/24	08/09/24	
p,m-Xylene	ND	0.0500	1	08/07/24	08/09/24	
Total Xylenes	ND	0.0250	1	08/07/24	08/09/24	
Surrogate: Bromofluorobenzene		116 %	70-130	08/07/24	08/09/24	
Surrogate: 1,2-Dichloroethane-d4		91.4 %	70-130	08/07/24	08/09/24	
Surrogate: Toluene-d8		107 %	70-130	08/07/24	08/09/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2432074
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/07/24	08/09/24	
Surrogate: Bromofluorobenzene		116 %	70-130	08/07/24	08/09/24	
Surrogate: 1,2-Dichloroethane-d4		91.4 %	70-130	08/07/24	08/09/24	
Surrogate: Toluene-d8		107 %	70-130	08/07/24	08/09/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2432072
Diesel Range Organics (C10-C28)	ND	25.0	1	08/07/24	08/09/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/07/24	08/09/24	
Surrogate: n-Nonane		111 %	50-200	08/07/24	08/09/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2432109
Chloride	261	20.0	1	08/08/24	08/08/24	



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	8/12/2024 9:36:49AM

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 (2432074-BLK1) Prepared: 08/07/24 Analyzed: 08/08/24

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	0.581		0.500		116	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.439		0.500		87.7	70-130			
Surrogate: Toluene-d8	0.541		0.500		108	70-130			

LCS (2432074-BS1) Prepared: 08/07/24 Analyzed: 08/08/24

Benzene	2.22	0.0250	2.50		89.0	70-130			
Ethylbenzene	2.37	0.0250	2.50		94.7	70-130			
Toluene	2.42	0.0250	2.50		96.8	70-130			
o-Xylene	2.52	0.0250	2.50		101	70-130			
p,m-Xylene	5.04	0.0500	5.00		101	70-130			
Total Xylenes	7.56	0.0250	7.50		101	70-130			
Surrogate: Bromofluorobenzene	0.577		0.500		115	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.440		0.500		88.0	70-130			
Surrogate: Toluene-d8	0.546		0.500		109	70-130			

Matrix Spike (2432074-MS1) Source: E408037-23 Prepared: 08/07/24 Analyzed: 08/08/24

Benzene	2.28	0.0250	2.50	ND	91.1	48-131			
Ethylbenzene	2.34	0.0250	2.50	ND	93.6	45-135			
Toluene	2.42	0.0250	2.50	ND	96.9	48-130			
o-Xylene	2.64	0.0250	2.50	ND	105	43-135			
p,m-Xylene	5.22	0.0500	5.00	ND	104	43-135			
Total Xylenes	7.86	0.0250	7.50	ND	105	43-135			
Surrogate: Bromofluorobenzene	0.585		0.500		117	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.449		0.500		89.7	70-130			
Surrogate: Toluene-d8	0.536		0.500		107	70-130			

Matrix Spike Dup (2432074-MSD1) Source: E408037-23 Prepared: 08/07/24 Analyzed: 08/08/24

Benzene	2.36	0.0250	2.50	ND	94.5	48-131	3.66	23	
Ethylbenzene	2.46	0.0250	2.50	ND	98.4	45-135	5.00	27	
Toluene	2.53	0.0250	2.50	ND	101	48-130	4.44	24	
o-Xylene	2.76	0.0250	2.50	ND	110	43-135	4.49	27	
p,m-Xylene	5.44	0.0500	5.00	ND	109	43-135	4.05	27	
Total Xylenes	8.19	0.0250	7.50	ND	109	43-135	4.20	27	
Surrogate: Bromofluorobenzene	0.589		0.500		118	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.455		0.500		91.0	70-130			
Surrogate: Toluene-d8	0.538		0.500		108	70-130			

QC Summary Data

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	8/12/2024 9:36:49AM

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
---------	-----------------	-----------------------------	-------------------------	---------------------------	----------	--------------------	----------	-------------------	-------

Blank (2432074-BLK1) Prepared: 08/07/24 Analyzed: 08/08/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.581		0.500		116	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.439		0.500		87.7	70-130			
Surrogate: Toluene-d8	0.541		0.500		108	70-130			

LCS (2432074-BS2) Prepared: 08/07/24 Analyzed: 08/08/24

Gasoline Range Organics (C6-C10)	52.6	20.0	50.0		105	70-130			
Surrogate: Bromofluorobenzene	0.599		0.500		120	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.439		0.500		87.8	70-130			
Surrogate: Toluene-d8	0.551		0.500		110	70-130			

Matrix Spike (2432074-MS2) Source: E408037-23 Prepared: 08/07/24 Analyzed: 08/08/24

Gasoline Range Organics (C6-C10)	52.3	20.0	50.0	ND	105	70-130			
Surrogate: Bromofluorobenzene	0.587		0.500		117	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.447		0.500		89.3	70-130			
Surrogate: Toluene-d8	0.557		0.500		111	70-130			

Matrix Spike Dup (2432074-MSD2) Source: E408037-23 Prepared: 08/07/24 Analyzed: 08/08/24

Gasoline Range Organics (C6-C10)	53.6	20.0	50.0	ND	107	70-130	2.35	20	
Surrogate: Bromofluorobenzene	0.591		0.500		118	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.456		0.500		91.2	70-130			
Surrogate: Toluene-d8	0.549		0.500		110	70-130			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	8/12/2024 9:36:49AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

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

Blank (2432072-BLK1) Prepared: 08/07/24 Analyzed: 08/09/24

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	53.5		50.0		107	50-200			

LCS (2432072-BS1) Prepared: 08/07/24 Analyzed: 08/09/24

Diesel Range Organics (C10-C28)	254	25.0	250		102	38-132			
Surrogate: n-Nonane	55.2		50.0		110	50-200			

Matrix Spike (2432072-MS1) Source: E408062-02 Prepared: 08/07/24 Analyzed: 08/09/24

Diesel Range Organics (C10-C28)	249	25.0	250	ND	99.7	38-132			
Surrogate: n-Nonane	53.8		50.0		108	50-200			

Matrix Spike Dup (2432072-MSD1) Source: E408062-02 Prepared: 08/07/24 Analyzed: 08/09/24

Diesel Range Organics (C10-C28)	260	25.0	250	ND	104	38-132	4.17	20	
Surrogate: n-Nonane	55.9		50.0		112	50-200			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	8/12/2024 9:36:49AM

Anions by EPA 300.0/9056A

Analyst: DT

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

Blank (2432109-BLK1)					Prepared: 08/08/24 Analyzed: 08/08/24				
Chloride	ND	20.0							
LCS (2432109-BS1)					Prepared: 08/08/24 Analyzed: 08/08/24				
Chloride	252	20.0	250		101	90-110			
Matrix Spike (2432109-MS1)					Source: E408062-02		Prepared: 08/08/24 Analyzed: 08/08/24		
Chloride	356	20.0	250	95.8	104	80-120			
Matrix Spike Dup (2432109-MSD1)					Source: E408062-02		Prepared: 08/08/24 Analyzed: 08/08/24		
Chloride	352	20.0	250	95.8	103	80-120	0.996	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

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	
6488 7 Rivers Hwy	Project Number:	01058-0007	Reported:
Artesia NM, 88210	Project Manager:	Ashley Giovengo	08/12/24 09:36

- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite
- DNR Did not react with the addition of acid or base.
- 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

Page 1 of 1

Client Information				Invoice Information		Lab Use Only		TAT				State					
Client: Devon				Company: Devon		Lab WO#	Job Number	1D	2D	3D	Std	NM	CO	UT	TX		
Project: Spud Muffin 31-30 334H				Address: 205 E Bender Road #150		E408062	01058-0007				x	x					
Project Manager: Ashley Giovengo				City, State, Zip: Hobbs NM, 88240													
Address: 3122 National Parks Hwy				Phone: (575)748-1838													
City, State, Zip: Carlsbad NM, 88220				Email: dale.woodall@dvn.com													
Phone: 575-988-0055				Miscellaneous: Dale Woodall													
Email: agiovengo@ensolum.com																	
Sample Information							Analysis and Method					EPA Program					
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ 1005 - TX	RCRA 8 Metals	SDWA	CWA	RCRA
12:32	8/5/2024	Soil	1	FS04 - 1'		1						x					
15:02	8/5/2024	Soil	1	FS05 - 2'		2						x					
12:35	8/5/2024	Soil	1	FS06 - 1'		3						x					
15:15	8/5/2024	Soil	1	FS07 - 2'		4						x					
12:37	8/5/2024	Soil	1	FS08 - 1'		5						x					
14:59	8/5/2024	Soil	1	FS09 - 1'		6						x					
14:06	8/5/2024	Soil	1	FS10 - 1'		7						x					
14:08	8/5/2024	Soil	1	FS11 - 1'		8						x					
14:09	8/5/2024	Soil	1	FS12 - 1'		9						x					
Additional Instructions: Please CC: cburton@ensolum.com, agiovengo@ensolum.com, dale.woodall@dvn.com, chamilton@ensolum.com, iestrella@ensolum.com																	
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: Cole Burton																	
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	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.					
Michelle Gonzales		8/5/24	8:01	Michelle Gonzales		8-6-24	0730	Michelle Gonzales		8-6-24	1705	Lab Use Only					
Michelle Gonzales		8-6-24	1705	Michelle Gonzales		8-6-24	1705	Michelle Gonzales		8-6-24	1705	Received on ice: Y / N					
Michelle Gonzales		8-6-24	2330	Michelle Gonzales		8-6-24	2330	Michelle Gonzales		8-6-24	2330	T1 T2 T3					
Michelle Gonzales		8-6-24	2330	Michelle Gonzales		8-6-24	2330	Michelle Gonzales		8-6-24	2330	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 14 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: 8/7/2024 2:34:27PM

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:	Devon Energy - Carlsbad	Date Received:	08/07/24 11:20	Work Order ID:	E408062
Phone:	(505) 382-1211	Date Logged In:	08/07/24 11:14	Logged In By:	Keyliegh Hall
Email:	ashley.giovengo@wescominc.com	Due Date:	08/13/24 17:00 (4 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: CourierComments/ResolutionSample 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? Yes

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 Giovengo



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Devon Energy - Carlsbad

Project Name: Spud Muffin 31 30 334H

Work Order: E408072

Job Number: 01058-0007

Received: 8/8/2024

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
8/14/24

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.

Date Reported: 8/14/24

Ashley Giovengo
6488 7 Rivers Hwy
Artesia, NM 88210



Project Name: Spud Muffin 31 30 334H
Workorder: E408072
Date Received: 8/8/2024 8:30:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 8/8/2024 8:30:00AM, under the Project Name: Spud Muffin 31 30 334H.

The analytical test results summarized in this report with the Project Name: Spud Muffin 31 30 334H 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

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Gonzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

Table of Contents

Title Page	1
Cover Page	2
Table of Contents	3
Sample Summary	5
Sample Data	6
FS13 - 1'	6
FS14 - 2'	7
FS15 - 1'	8
FS16 - 2'	9
FS17 - 1'	10
FS18 - 1'	11
FS19 - 1'	12
FS20 - 1'	13
FS21 - 1'	14
FS22 - 1'	15
FS23 - 1'	16
FS24 - 1'	17
FS25 - 1'	18
FS26 - 1'	19
FS27 - 1'	20
FS28 - 1'	21
QC Summary Data	22
QC - Volatile Organic Compounds by EPA8260B	22
QC - Nonhalogenated Organics by EPA 8015D - GRO	23
QC - Nonhalogenated Organics by EPA 8015D - DRO/ORO	24

Table of Contents (continued)

QC - Anions by EPA 300.0/9056A	25
Definitions and Notes	26
Chain of Custody etc.	27

Sample Summary

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Spud Muffin 31 30 334H Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 08/14/24 09:19
---	--	-----------------------------

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
FS13 - 1'	E408072-01A	Soil	08/06/24	08/08/24	Glass Jar, 2 oz.
FS14 - 2'	E408072-02A	Soil	08/06/24	08/08/24	Glass Jar, 2 oz.
FS15 - 1'	E408072-03A	Soil	08/06/24	08/08/24	Glass Jar, 2 oz.
FS16 - 2'	E408072-04A	Soil	08/06/24	08/08/24	Glass Jar, 2 oz.
FS17 - 1'	E408072-05A	Soil	08/06/24	08/08/24	Glass Jar, 2 oz.
FS18 - 1'	E408072-06A	Soil	08/06/24	08/08/24	Glass Jar, 2 oz.
FS19 - 1'	E408072-07A	Soil	08/06/24	08/08/24	Glass Jar, 2 oz.
FS20 - 1'	E408072-08A	Soil	08/06/24	08/08/24	Glass Jar, 2 oz.
FS21 - 1'	E408072-09A	Soil	08/06/24	08/08/24	Glass Jar, 2 oz.
FS22 - 1'	E408072-10A	Soil	08/06/24	08/08/24	Glass Jar, 2 oz.
FS23 - 1'	E408072-11A	Soil	08/06/24	08/08/24	Glass Jar, 2 oz.
FS24 - 1'	E408072-12A	Soil	08/06/24	08/08/24	Glass Jar, 2 oz.
FS25 - 1'	E408072-13A	Soil	08/06/24	08/08/24	Glass Jar, 2 oz.
FS26 - 1'	E408072-14A	Soil	08/06/24	08/08/24	Glass Jar, 2 oz.
FS27 - 1'	E408072-15A	Soil	08/06/24	08/08/24	Glass Jar, 2 oz.
FS28 - 1'	E408072-16A	Soil	08/06/24	08/08/24	Glass Jar, 2 oz.



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Spud Muffin 31 30 334H Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 8/14/2024 9:19:18AM
---	--	----------------------------------

FS13 - 1'

E408072-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: IY		Batch: 2432098	
Benzene	ND	0.0250	1	08/08/24	08/12/24	
Ethylbenzene	ND	0.0250	1	08/08/24	08/12/24	
Toluene	ND	0.0250	1	08/08/24	08/12/24	
o-Xylene	ND	0.0250	1	08/08/24	08/12/24	
p,m-Xylene	ND	0.0500	1	08/08/24	08/12/24	
Total Xylenes	ND	0.0250	1	08/08/24	08/12/24	
Surrogate: Bromofluorobenzene		99.0 %	70-130	08/08/24	08/12/24	
Surrogate: 1,2-Dichloroethane-d4		98.8 %	70-130	08/08/24	08/12/24	
Surrogate: Toluene-d8		106 %	70-130	08/08/24	08/12/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: IY		Batch: 2432098	
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/08/24	08/12/24	
Surrogate: Bromofluorobenzene		99.0 %	70-130	08/08/24	08/12/24	
Surrogate: 1,2-Dichloroethane-d4		98.8 %	70-130	08/08/24	08/12/24	
Surrogate: Toluene-d8		106 %	70-130	08/08/24	08/12/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM		Batch: 2432085	
Diesel Range Organics (C10-C28)	ND	25.0	1	08/08/24	08/09/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/08/24	08/09/24	
Surrogate: n-Nonane		106 %	50-200	08/08/24	08/09/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2432111	
Chloride	229	20.0	1	08/08/24	08/09/24	



Sample Data

Devon Energy - Carlsbad
6488 7 Rivers Hwy
Artesia NM, 88210

Project Name: Spud Muffin 31 30 334H
Project Number: 01058-0007
Project Manager: Ashley Giovengo

Reported:
8/14/2024 9:19:18AM

FS14 - 2'

E408072-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2432098
Benzene	ND	0.0250	1	08/08/24	08/12/24	
Ethylbenzene	ND	0.0250	1	08/08/24	08/12/24	
Toluene	ND	0.0250	1	08/08/24	08/12/24	
o-Xylene	ND	0.0250	1	08/08/24	08/12/24	
p,m-Xylene	ND	0.0500	1	08/08/24	08/12/24	
Total Xylenes	ND	0.0250	1	08/08/24	08/12/24	
Surrogate: Bromofluorobenzene	98.1 %	70-130		08/08/24	08/12/24	
Surrogate: 1,2-Dichloroethane-d4	98.0 %	70-130		08/08/24	08/12/24	
Surrogate: Toluene-d8	104 %	70-130		08/08/24	08/12/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2432098
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/08/24	08/12/24	
Surrogate: Bromofluorobenzene	98.1 %	70-130		08/08/24	08/12/24	
Surrogate: 1,2-Dichloroethane-d4	98.0 %	70-130		08/08/24	08/12/24	
Surrogate: Toluene-d8	104 %	70-130		08/08/24	08/12/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2432085
Diesel Range Organics (C10-C28)	181	25.0	1	08/08/24	08/09/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/08/24	08/09/24	
Surrogate: n-Nonane	101 %	50-200		08/08/24	08/09/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2432111
Chloride	156	20.0	1	08/08/24	08/09/24	



Sample Data

Devon Energy - Carlsbad
6488 7 Rivers Hwy
Artesia NM, 88210

Project Name: Spud Muffin 31 30 334H
Project Number: 01058-0007
Project Manager: Ashley Giovengo

Reported:
8/14/2024 9:19:18AM

FS15 - 1'

E408072-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2432098
Benzene	ND	0.0250	1	08/08/24	08/12/24	
Ethylbenzene	ND	0.0250	1	08/08/24	08/12/24	
Toluene	0.0415	0.0250	1	08/08/24	08/12/24	
o-Xylene	ND	0.0250	1	08/08/24	08/12/24	
p,m-Xylene	ND	0.0500	1	08/08/24	08/12/24	
Total Xylenes	ND	0.0250	1	08/08/24	08/12/24	
Surrogate: Bromofluorobenzene	99.5 %	70-130		08/08/24	08/12/24	
Surrogate: 1,2-Dichloroethane-d4	97.6 %	70-130		08/08/24	08/12/24	
Surrogate: Toluene-d8	105 %	70-130		08/08/24	08/12/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2432098
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/08/24	08/12/24	
Surrogate: Bromofluorobenzene	99.5 %	70-130		08/08/24	08/12/24	
Surrogate: 1,2-Dichloroethane-d4	97.6 %	70-130		08/08/24	08/12/24	
Surrogate: Toluene-d8	105 %	70-130		08/08/24	08/12/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2432085
Diesel Range Organics (C10-C28)	2580	25.0	1	08/08/24	08/09/24	
Oil Range Organics (C28-C36)	108	50.0	1	08/08/24	08/09/24	
Surrogate: n-Nonane	108 %	50-200		08/08/24	08/09/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2432111
Chloride	559	20.0	1	08/08/24	08/09/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Spud Muffin 31 30 334H Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 8/14/2024 9:19:18AM
---	--	----------------------------------

FS16 - 2'

E408072-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg	Analyst: IY		Batch: 2432098	
Benzene	ND	0.0250	1	08/08/24	08/12/24	
Ethylbenzene	ND	0.0250	1	08/08/24	08/12/24	
Toluene	ND	0.0250	1	08/08/24	08/12/24	
o-Xylene	ND	0.0250	1	08/08/24	08/12/24	
p,m-Xylene	ND	0.0500	1	08/08/24	08/12/24	
Total Xylenes	ND	0.0250	1	08/08/24	08/12/24	
Surrogate: Bromofluorobenzene	98.7 %	70-130		08/08/24	08/12/24	
Surrogate: 1,2-Dichloroethane-d4	97.4 %	70-130		08/08/24	08/12/24	
Surrogate: Toluene-d8	105 %	70-130		08/08/24	08/12/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: IY		Batch: 2432098	
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/08/24	08/12/24	
Surrogate: Bromofluorobenzene	98.7 %	70-130		08/08/24	08/12/24	
Surrogate: 1,2-Dichloroethane-d4	97.4 %	70-130		08/08/24	08/12/24	
Surrogate: Toluene-d8	105 %	70-130		08/08/24	08/12/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: KM		Batch: 2432085	
Diesel Range Organics (C10-C28)	ND	25.0	1	08/08/24	08/09/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/08/24	08/09/24	
Surrogate: n-Nonane	109 %	50-200		08/08/24	08/09/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: DT		Batch: 2432111	
Chloride	301	20.0	1	08/08/24	08/09/24	



Sample Data

Devon Energy - Carlsbad
6488 7 Rivers Hwy
Artesia NM, 88210

Project Name: Spud Muffin 31 30 334H
Project Number: 01058-0007
Project Manager: Ashley Giovengo

Reported:
8/14/2024 9:19:18AM

FS17 - 1'

E408072-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2432098
Benzene	ND	0.0250	1	08/08/24	08/12/24	
Ethylbenzene	ND	0.0250	1	08/08/24	08/12/24	
Toluene	ND	0.0250	1	08/08/24	08/12/24	
o-Xylene	ND	0.0250	1	08/08/24	08/12/24	
p,m-Xylene	ND	0.0500	1	08/08/24	08/12/24	
Total Xylenes	ND	0.0250	1	08/08/24	08/12/24	
Surrogate: Bromofluorobenzene	96.4 %	70-130		08/08/24	08/12/24	
Surrogate: 1,2-Dichloroethane-d4	97.2 %	70-130		08/08/24	08/12/24	
Surrogate: Toluene-d8	105 %	70-130		08/08/24	08/12/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2432098
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/08/24	08/12/24	
Surrogate: Bromofluorobenzene	96.4 %	70-130		08/08/24	08/12/24	
Surrogate: 1,2-Dichloroethane-d4	97.2 %	70-130		08/08/24	08/12/24	
Surrogate: Toluene-d8	105 %	70-130		08/08/24	08/12/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2432085
Diesel Range Organics (C10-C28)	ND	25.0	1	08/08/24	08/09/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/08/24	08/09/24	
Surrogate: n-Nonane	111 %	50-200		08/08/24	08/09/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2432111
Chloride	305	20.0	1	08/08/24	08/09/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Spud Muffin 31 30 334H Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 8/14/2024 9:19:18AM
---	--	----------------------------------

FS18 - 1'

E408072-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2432098
Benzene	ND	0.0250	1	08/08/24	08/12/24	
Ethylbenzene	ND	0.0250	1	08/08/24	08/12/24	
Toluene	ND	0.0250	1	08/08/24	08/12/24	
o-Xylene	ND	0.0250	1	08/08/24	08/12/24	
p,m-Xylene	ND	0.0500	1	08/08/24	08/12/24	
Total Xylenes	ND	0.0250	1	08/08/24	08/12/24	
Surrogate: Bromofluorobenzene	96.4 %	70-130		08/08/24	08/12/24	
Surrogate: 1,2-Dichloroethane-d4	99.4 %	70-130		08/08/24	08/12/24	
Surrogate: Toluene-d8	105 %	70-130		08/08/24	08/12/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2432098
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/08/24	08/12/24	
Surrogate: Bromofluorobenzene	96.4 %	70-130		08/08/24	08/12/24	
Surrogate: 1,2-Dichloroethane-d4	99.4 %	70-130		08/08/24	08/12/24	
Surrogate: Toluene-d8	105 %	70-130		08/08/24	08/12/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2432085
Diesel Range Organics (C10-C28)	ND	25.0	1	08/08/24	08/09/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/08/24	08/09/24	
Surrogate: n-Nonane	110 %	50-200		08/08/24	08/09/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2432111
Chloride	171	20.0	1	08/08/24	08/09/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Spud Muffin 31 30 334H Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 8/14/2024 9:19:18AM
---	--	----------------------------------

FS19 - 1'

E408072-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2432098
Benzene	ND	0.0250	1	08/08/24	08/12/24	
Ethylbenzene	ND	0.0250	1	08/08/24	08/12/24	
Toluene	ND	0.0250	1	08/08/24	08/12/24	
o-Xylene	ND	0.0250	1	08/08/24	08/12/24	
p,m-Xylene	ND	0.0500	1	08/08/24	08/12/24	
Total Xylenes	ND	0.0250	1	08/08/24	08/12/24	
Surrogate: Bromofluorobenzene	97.2 %	70-130		08/08/24	08/12/24	
Surrogate: 1,2-Dichloroethane-d4	94.0 %	70-130		08/08/24	08/12/24	
Surrogate: Toluene-d8	106 %	70-130		08/08/24	08/12/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2432098
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/08/24	08/12/24	
Surrogate: Bromofluorobenzene	97.2 %	70-130		08/08/24	08/12/24	
Surrogate: 1,2-Dichloroethane-d4	94.0 %	70-130		08/08/24	08/12/24	
Surrogate: Toluene-d8	106 %	70-130		08/08/24	08/12/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2432085
Diesel Range Organics (C10-C28)	ND	25.0	1	08/08/24	08/09/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/08/24	08/09/24	
Surrogate: n-Nonane	108 %	50-200		08/08/24	08/09/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2432111
Chloride	285	20.0	1	08/08/24	08/09/24	



Sample Data

Devon Energy - Carlsbad
6488 7 Rivers Hwy
Artesia NM, 88210

Project Name: Spud Muffin 31 30 334H
Project Number: 01058-0007
Project Manager: Ashley Giovengo

Reported:
8/14/2024 9:19:18AM

FS20 - 1'

E408072-08

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2432098
Benzene	ND	0.0250	1	08/08/24	08/12/24	
Ethylbenzene	ND	0.0250	1	08/08/24	08/12/24	
Toluene	0.0370	0.0250	1	08/08/24	08/12/24	
o-Xylene	ND	0.0250	1	08/08/24	08/12/24	
p,m-Xylene	ND	0.0500	1	08/08/24	08/12/24	
Total Xylenes	ND	0.0250	1	08/08/24	08/12/24	
Surrogate: Bromofluorobenzene	97.1 %	70-130		08/08/24	08/12/24	
Surrogate: 1,2-Dichloroethane-d4	100 %	70-130		08/08/24	08/12/24	
Surrogate: Toluene-d8	104 %	70-130		08/08/24	08/12/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2432098
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/08/24	08/12/24	
Surrogate: Bromofluorobenzene	97.1 %	70-130		08/08/24	08/12/24	
Surrogate: 1,2-Dichloroethane-d4	100 %	70-130		08/08/24	08/12/24	
Surrogate: Toluene-d8	104 %	70-130		08/08/24	08/12/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2432085
Diesel Range Organics (C10-C28)	ND	25.0	1	08/08/24	08/09/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/08/24	08/09/24	
Surrogate: n-Nonane	101 %	50-200		08/08/24	08/09/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2432111
Chloride	291	20.0	1	08/08/24	08/09/24	



Sample Data

Devon Energy - Carlsbad
6488 7 Rivers Hwy
Artesia NM, 88210

Project Name: Spud Muffin 31 30 334H
Project Number: 01058-0007
Project Manager: Ashley Giovengo

Reported:
8/14/2024 9:19:18AM

FS21 - 1'

E408072-09

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2432098
Benzene	ND	0.0250	1	08/08/24	08/12/24	
Ethylbenzene	ND	0.0250	1	08/08/24	08/12/24	
Toluene	ND	0.0250	1	08/08/24	08/12/24	
o-Xylene	ND	0.0250	1	08/08/24	08/12/24	
p,m-Xylene	ND	0.0500	1	08/08/24	08/12/24	
Total Xylenes	ND	0.0250	1	08/08/24	08/12/24	
Surrogate: Bromofluorobenzene	97.7 %	70-130		08/08/24	08/12/24	
Surrogate: 1,2-Dichloroethane-d4	102 %	70-130		08/08/24	08/12/24	
Surrogate: Toluene-d8	105 %	70-130		08/08/24	08/12/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2432098
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/08/24	08/12/24	
Surrogate: Bromofluorobenzene	97.7 %	70-130		08/08/24	08/12/24	
Surrogate: 1,2-Dichloroethane-d4	102 %	70-130		08/08/24	08/12/24	
Surrogate: Toluene-d8	105 %	70-130		08/08/24	08/12/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2432085
Diesel Range Organics (C10-C28)	ND	25.0	1	08/08/24	08/09/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/08/24	08/09/24	
Surrogate: n-Nonane	105 %	50-200		08/08/24	08/09/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2432111
Chloride	216	20.0	1	08/08/24	08/09/24	



Sample Data

Devon Energy - Carlsbad
6488 7 Rivers Hwy
Artesia NM, 88210

Project Name: Spud Muffin 31 30 334H
Project Number: 01058-0007
Project Manager: Ashley Giovengo

Reported:
8/14/2024 9:19:18AM

FS22 - 1'

E408072-10

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2432098
Benzene	ND	0.0250	1	08/08/24	08/12/24	
Ethylbenzene	ND	0.0250	1	08/08/24	08/12/24	
Toluene	ND	0.0250	1	08/08/24	08/12/24	
o-Xylene	ND	0.0250	1	08/08/24	08/12/24	
p,m-Xylene	ND	0.0500	1	08/08/24	08/12/24	
Total Xylenes	ND	0.0250	1	08/08/24	08/12/24	
Surrogate: Bromofluorobenzene	98.8 %	70-130		08/08/24	08/12/24	
Surrogate: 1,2-Dichloroethane-d4	101 %	70-130		08/08/24	08/12/24	
Surrogate: Toluene-d8	105 %	70-130		08/08/24	08/12/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2432098
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/08/24	08/12/24	
Surrogate: Bromofluorobenzene	98.8 %	70-130		08/08/24	08/12/24	
Surrogate: 1,2-Dichloroethane-d4	101 %	70-130		08/08/24	08/12/24	
Surrogate: Toluene-d8	105 %	70-130		08/08/24	08/12/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2432085
Diesel Range Organics (C10-C28)	ND	25.0	1	08/08/24	08/09/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/08/24	08/09/24	
Surrogate: n-Nonane	99.5 %	50-200		08/08/24	08/09/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2432111
Chloride	214	20.0	1	08/08/24	08/09/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Spud Muffin 31 30 334H Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 8/14/2024 9:19:18AM
---	--	----------------------------------

FS23 - 1'

E408072-11

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg	Analyst: IY		Batch: 2432098	
Benzene	ND	0.0250	1	08/08/24	08/12/24	
Ethylbenzene	ND	0.0250	1	08/08/24	08/12/24	
Toluene	ND	0.0250	1	08/08/24	08/12/24	
o-Xylene	ND	0.0250	1	08/08/24	08/12/24	
p,m-Xylene	ND	0.0500	1	08/08/24	08/12/24	
Total Xylenes	ND	0.0250	1	08/08/24	08/12/24	
Surrogate: Bromofluorobenzene	98.1 %	70-130		08/08/24	08/12/24	
Surrogate: 1,2-Dichloroethane-d4	97.7 %	70-130		08/08/24	08/12/24	
Surrogate: Toluene-d8	105 %	70-130		08/08/24	08/12/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: IY		Batch: 2432098	
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/08/24	08/12/24	
Surrogate: Bromofluorobenzene	98.1 %	70-130		08/08/24	08/12/24	
Surrogate: 1,2-Dichloroethane-d4	97.7 %	70-130		08/08/24	08/12/24	
Surrogate: Toluene-d8	105 %	70-130		08/08/24	08/12/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: KM		Batch: 2432085	
Diesel Range Organics (C10-C28)	34.2	25.0	1	08/08/24	08/10/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/08/24	08/10/24	
Surrogate: n-Nonane	97.8 %	50-200		08/08/24	08/10/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: DT		Batch: 2432111	
Chloride	293	20.0	1	08/08/24	08/09/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Spud Muffin 31 30 334H Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 8/14/2024 9:19:18AM
---	--	----------------------------------

FS24 - 1'

E408072-12

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg	Analyst: IY		Batch: 2432098	
Benzene	ND	0.0250	1	08/08/24	08/12/24	
Ethylbenzene	ND	0.0250	1	08/08/24	08/12/24	
Toluene	ND	0.0250	1	08/08/24	08/12/24	
o-Xylene	ND	0.0250	1	08/08/24	08/12/24	
p,m-Xylene	ND	0.0500	1	08/08/24	08/12/24	
Total Xylenes	ND	0.0250	1	08/08/24	08/12/24	
Surrogate: Bromofluorobenzene	99.0 %	70-130		08/08/24	08/12/24	
Surrogate: 1,2-Dichloroethane-d4	99.3 %	70-130		08/08/24	08/12/24	
Surrogate: Toluene-d8	106 %	70-130		08/08/24	08/12/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: IY		Batch: 2432098	
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/08/24	08/12/24	
Surrogate: Bromofluorobenzene	99.0 %	70-130		08/08/24	08/12/24	
Surrogate: 1,2-Dichloroethane-d4	99.3 %	70-130		08/08/24	08/12/24	
Surrogate: Toluene-d8	106 %	70-130		08/08/24	08/12/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: KM		Batch: 2432085	
Diesel Range Organics (C10-C28)	ND	25.0	1	08/08/24	08/10/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/08/24	08/10/24	
Surrogate: n-Nonane	109 %	50-200		08/08/24	08/10/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: DT		Batch: 2432111	
Chloride	238	20.0	1	08/08/24	08/09/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Spud Muffin 31 30 334H Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 8/14/2024 9:19:18AM
---	--	----------------------------------

FS25 - 1'

E408072-13

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2432098
Benzene	ND	0.0250	1	08/08/24	08/12/24	
Ethylbenzene	ND	0.0250	1	08/08/24	08/12/24	
Toluene	ND	0.0250	1	08/08/24	08/12/24	
o-Xylene	ND	0.0250	1	08/08/24	08/12/24	
p,m-Xylene	ND	0.0500	1	08/08/24	08/12/24	
Total Xylenes	ND	0.0250	1	08/08/24	08/12/24	
Surrogate: Bromofluorobenzene	96.7 %	70-130		08/08/24	08/12/24	
Surrogate: 1,2-Dichloroethane-d4	102 %	70-130		08/08/24	08/12/24	
Surrogate: Toluene-d8	105 %	70-130		08/08/24	08/12/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2432098
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/08/24	08/12/24	
Surrogate: Bromofluorobenzene	96.7 %	70-130		08/08/24	08/12/24	
Surrogate: 1,2-Dichloroethane-d4	102 %	70-130		08/08/24	08/12/24	
Surrogate: Toluene-d8	105 %	70-130		08/08/24	08/12/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2432085
Diesel Range Organics (C10-C28)	ND	25.0	1	08/08/24	08/10/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/08/24	08/10/24	
Surrogate: n-Nonane	103 %	50-200		08/08/24	08/10/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2432111
Chloride	273	20.0	1	08/08/24	08/09/24	



Sample Data

Devon Energy - Carlsbad
6488 7 Rivers Hwy
Artesia NM, 88210

Project Name: Spud Muffin 31 30 334H
Project Number: 01058-0007
Project Manager: Ashley Giovengo

Reported:
8/14/2024 9:19:18AM

FS26 - 1'

E408072-14

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2432098
Benzene	ND	0.0250	1	08/08/24	08/12/24	
Ethylbenzene	ND	0.0250	1	08/08/24	08/12/24	
Toluene	ND	0.0250	1	08/08/24	08/12/24	
o-Xylene	ND	0.0250	1	08/08/24	08/12/24	
p,m-Xylene	ND	0.0500	1	08/08/24	08/12/24	
Total Xylenes	ND	0.0250	1	08/08/24	08/12/24	
Surrogate: Bromofluorobenzene	95.9 %	70-130		08/08/24	08/12/24	
Surrogate: 1,2-Dichloroethane-d4	97.1 %	70-130		08/08/24	08/12/24	
Surrogate: Toluene-d8	104 %	70-130		08/08/24	08/12/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2432098
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/08/24	08/12/24	
Surrogate: Bromofluorobenzene	95.9 %	70-130		08/08/24	08/12/24	
Surrogate: 1,2-Dichloroethane-d4	97.1 %	70-130		08/08/24	08/12/24	
Surrogate: Toluene-d8	104 %	70-130		08/08/24	08/12/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2432085
Diesel Range Organics (C10-C28)	44.6	25.0	1	08/08/24	08/10/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/08/24	08/10/24	
Surrogate: n-Nonane	110 %	50-200		08/08/24	08/10/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2432111
Chloride	272	20.0	1	08/08/24	08/09/24	



Sample Data

Devon Energy - Carlsbad
6488 7 Rivers Hwy
Artesia NM, 88210

Project Name: Spud Muffin 31 30 334H
Project Number: 01058-0007
Project Manager: Ashley Giovengo

Reported:
8/14/2024 9:19:18AM

FS27 - 1'

E408072-15

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2432098
Benzene	ND	0.0250	1	08/08/24	08/12/24	
Ethylbenzene	ND	0.0250	1	08/08/24	08/12/24	
Toluene	ND	0.0250	1	08/08/24	08/12/24	
o-Xylene	ND	0.0250	1	08/08/24	08/12/24	
p,m-Xylene	ND	0.0500	1	08/08/24	08/12/24	
Total Xylenes	ND	0.0250	1	08/08/24	08/12/24	
Surrogate: Bromofluorobenzene	96.3 %	70-130		08/08/24	08/12/24	
Surrogate: 1,2-Dichloroethane-d4	102 %	70-130		08/08/24	08/12/24	
Surrogate: Toluene-d8	105 %	70-130		08/08/24	08/12/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2432098
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/08/24	08/12/24	
Surrogate: Bromofluorobenzene	96.3 %	70-130		08/08/24	08/12/24	
Surrogate: 1,2-Dichloroethane-d4	102 %	70-130		08/08/24	08/12/24	
Surrogate: Toluene-d8	105 %	70-130		08/08/24	08/12/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2432085
Diesel Range Organics (C10-C28)	59.1	25.0	1	08/08/24	08/10/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/08/24	08/10/24	
Surrogate: n-Nonane	108 %	50-200		08/08/24	08/10/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2432111
Chloride	206	20.0	1	08/08/24	08/09/24	



Sample Data

Devon Energy - Carlsbad
6488 7 Rivers Hwy
Artesia NM, 88210

Project Name: Spud Muffin 31 30 334H
Project Number: 01058-0007
Project Manager: Ashley Giovengo

Reported:
8/14/2024 9:19:18AM

FS28 - 1'

E408072-16

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2432098
Benzene	ND	0.0250	1	08/08/24	08/12/24	
Ethylbenzene	ND	0.0250	1	08/08/24	08/12/24	
Toluene	ND	0.0250	1	08/08/24	08/12/24	
o-Xylene	ND	0.0250	1	08/08/24	08/12/24	
p,m-Xylene	ND	0.0500	1	08/08/24	08/12/24	
Total Xylenes	ND	0.0250	1	08/08/24	08/12/24	
Surrogate: Bromofluorobenzene	95.4 %	70-130		08/08/24	08/12/24	
Surrogate: 1,2-Dichloroethane-d4	98.4 %	70-130		08/08/24	08/12/24	
Surrogate: Toluene-d8	105 %	70-130		08/08/24	08/12/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2432098
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/08/24	08/12/24	
Surrogate: Bromofluorobenzene	95.4 %	70-130		08/08/24	08/12/24	
Surrogate: 1,2-Dichloroethane-d4	98.4 %	70-130		08/08/24	08/12/24	
Surrogate: Toluene-d8	105 %	70-130		08/08/24	08/12/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2432085
Diesel Range Organics (C10-C28)	68.0	25.0	1	08/08/24	08/10/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/08/24	08/10/24	
Surrogate: n-Nonane	110 %	50-200		08/08/24	08/10/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2432111
Chloride	272	20.0	1	08/08/24	08/09/24	



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	8/14/2024 9:19:18AM

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 (2432098-BLK1) Prepared: 08/08/24 Analyzed: 08/12/24

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	0.484		0.500		96.8	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.500		0.500		100	70-130			
Surrogate: Toluene-d8	0.518		0.500		104	70-130			

LCS (2432098-BS1) Prepared: 08/08/24 Analyzed: 08/12/24

Benzene	2.27	0.0250	2.50		90.7	70-130			
Ethylbenzene	2.32	0.0250	2.50		92.9	70-130			
Toluene	2.34	0.0250	2.50		93.6	70-130			
o-Xylene	2.24	0.0250	2.50		89.6	70-130			
p,m-Xylene	4.53	0.0500	5.00		90.6	70-130			
Total Xylenes	6.77	0.0250	7.50		90.3	70-130			
Surrogate: Bromofluorobenzene	0.489		0.500		97.7	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.487		0.500		97.3	70-130			
Surrogate: Toluene-d8	0.528		0.500		106	70-130			

Matrix Spike (2432098-MS1) Source: E408072-08 Prepared: 08/08/24 Analyzed: 08/12/24

Benzene	2.37	0.0250	2.50	ND	94.6	48-131			
Ethylbenzene	2.42	0.0250	2.50	ND	97.0	45-135			
Toluene	2.46	0.0250	2.50	0.0370	97.0	48-130			
o-Xylene	2.33	0.0250	2.50	ND	93.4	43-135			
p,m-Xylene	4.71	0.0500	5.00	ND	94.3	43-135			
Total Xylenes	7.05	0.0250	7.50	ND	94.0	43-135			
Surrogate: Bromofluorobenzene	0.499		0.500		99.7	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.504		0.500		101	70-130			
Surrogate: Toluene-d8	0.518		0.500		104	70-130			

Matrix Spike Dup (2432098-MSD1) Source: E408072-08 Prepared: 08/08/24 Analyzed: 08/12/24

Benzene	2.32	0.0250	2.50	ND	93.0	48-131	1.75	23	
Ethylbenzene	2.35	0.0250	2.50	ND	94.1	45-135	2.97	27	
Toluene	2.40	0.0250	2.50	0.0370	94.5	48-130	2.57	24	
o-Xylene	2.32	0.0250	2.50	ND	92.7	43-135	0.688	27	
p,m-Xylene	4.66	0.0500	5.00	ND	93.2	43-135	1.10	27	
Total Xylenes	6.98	0.0250	7.50	ND	93.1	43-135	0.962	27	
Surrogate: Bromofluorobenzene	0.487		0.500		97.4	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.498		0.500		99.5	70-130			
Surrogate: Toluene-d8	0.512		0.500		102	70-130			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	8/14/2024 9:19:18AM

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
---------	-----------------	-----------------------------	-------------------------	---------------------------	----------	--------------------	----------	-------------------	-------

Blank (2432098-BLK1) Prepared: 08/08/24 Analyzed: 08/12/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.484		0.500		96.8	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.500		0.500		100	70-130			
Surrogate: Toluene-d8	0.518		0.500		104	70-130			

LCS (2432098-BS2) Prepared: 08/08/24 Analyzed: 08/12/24

Gasoline Range Organics (C6-C10)	49.0	20.0	50.0		98.0	70-130			
Surrogate: Bromofluorobenzene	0.501		0.500		100	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.490		0.500		98.0	70-130			
Surrogate: Toluene-d8	0.520		0.500		104	70-130			

Matrix Spike (2432098-MS2) Source: E408072-08 Prepared: 08/08/24 Analyzed: 08/12/24

Gasoline Range Organics (C6-C10)	51.8	20.0	50.0	ND	103	70-130			
Surrogate: Bromofluorobenzene	0.503		0.500		101	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.476		0.500		95.2	70-130			
Surrogate: Toluene-d8	0.529		0.500		106	70-130			

Matrix Spike Dup (2432098-MSD2) Source: E408072-08 Prepared: 08/08/24 Analyzed: 08/12/24

Gasoline Range Organics (C6-C10)	48.7	20.0	50.0	ND	97.4	70-130	6.09	20	
Surrogate: Bromofluorobenzene	0.496		0.500		99.1	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.493		0.500		98.5	70-130			
Surrogate: Toluene-d8	0.539		0.500		108	70-130			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	8/14/2024 9:19:18AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

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

Blank (2432085-BLK1) Prepared: 08/08/24 Analyzed: 08/09/24

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	51.8		50.0		104	50-200			

LCS (2432085-BS1) Prepared: 08/08/24 Analyzed: 08/09/24

Diesel Range Organics (C10-C28)	269	25.0	250		108	38-132			
Surrogate: n-Nonane	56.1		50.0		112	50-200			

Matrix Spike (2432085-MS1) Source: E408072-08 Prepared: 08/08/24 Analyzed: 08/09/24

Diesel Range Organics (C10-C28)	293	25.0	250	ND	117	38-132			
Surrogate: n-Nonane	56.3		50.0		113	50-200			

Matrix Spike Dup (2432085-MSD1) Source: E408072-08 Prepared: 08/08/24 Analyzed: 08/09/24

Diesel Range Organics (C10-C28)	303	25.0	250	ND	121	38-132	3.51	20	
Surrogate: n-Nonane	52.8		50.0		106	50-200			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	8/14/2024 9:19:18AM

Anions by EPA 300.0/9056A

Analyst: DT

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

Blank (2432111-BLK1)					Prepared: 08/08/24 Analyzed: 08/09/24				
Chloride	ND	20.0							
LCS (2432111-BS1)					Prepared: 08/08/24 Analyzed: 08/09/24				
Chloride	249	20.0	250		99.8	90-110			
Matrix Spike (2432111-MS1)					Source: E408072-03		Prepared: 08/08/24 Analyzed: 08/09/24		
Chloride	820	20.0	250	559	104	80-120			
Matrix Spike Dup (2432111-MSD1)					Source: E408072-03		Prepared: 08/08/24 Analyzed: 08/09/24		
Chloride	847	20.0	250	559	115	80-120	3.22	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

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	
6488 7 Rivers Hwy	Project Number:	01058-0007	Reported:
Artesia NM, 88210	Project Manager:	Ashley Giovengo	08/14/24 09:19

- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite
- DNR Did not react with the addition of acid or base.
- 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

Page 1 of 2

Client Information				Invoice Information		Lab Use Only		TAT				State					
Client: Devon				Company: Devon		Lab WO#		Job Number				NM CO UT TX					
Project: Spud Muffin 31-30 334H				Address: 205 E Bender Road #150		E408072		01058-0007				X					
Project Manager: Ashley Giovengo				City, State, Zip: Hobbs NM, 88240													
Address: 3122 National Parks Hwy				Phone: (575)748-1838													
City, State, Zip: Carlsbad NM, 88220				Email: dale.woodall@dnv.com													
Phone: 575-988-0055				Miscellaneous: Dale Woodall													
Email: agiovengo@ensolum.com																	
Sample Information						Analysis and Method								EPA Program			
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ 1005 - TX	RCRA 8 Metals	SDWA	CWA	RCRA
10:35	8/6/2024	Soil	1	FS13 - 1'		1						X					
13:09	8/6/2024	Soil	1	FS14 - 2'		2						X					
11:03	8/6/2024	Soil	1	FS15 - 1'		3						X					
13:11	8/6/2024	Soil	1	FS16 - 2'		4						X					
14:04	8/6/2024	Soil	1	FS17 - 1'		5						X					
14:05	8/6/2024	Soil	1	FS18 - 1'		6						X					
14:06	8/6/2024	Soil	1	FS19 - 1'		7						X					
14:09	8/6/2024	Soil	1	FS20 - 1'		8						X					
14:10	8/6/2024	Soil	1	FS21 - 1'		9						X					
14:11	8/6/2024	S	1	FS22 - 1'		10						X					
Additional Instructions: Please CC: cburton@ensolum.com, agiovengo@ensolum.com, dale.woodall@dnv.com, chamilton@ensolum.com, iestrella@ensolum.com																	
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: Cole Burton																	
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	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. Lab Use Only Received on ice: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N T1 _____ T2 _____ T3 _____ AVG Temp °C 4									
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time										
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 14 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.																	

8/13/24
NSPer A. Giovengo
run test for BGDOC.

envirotech

envirotech

Chain of Custody

Page 1 of 2

Client Information				Invoice Information		Lab Use Only		TAT				State					
Client: Devon				Company: Devon		Lab WO#		Job Number				NM CO UT TX					
Project: Spud Muffin 31-30 334H				Address: 205 E Bender Road #150		E408072		01058-0007				x					
Project Manager: Ashley Giovengo				City, State, Zip: Hobbs NM, 88240													
Address: 3122 National Parks Hwy				Phone: (575)748-1838													
City, State, Zip: Carlsbad NM, 88220				Email: dale.woodall@dvn.com													
Phone: 575-988-0055				Miscellaneous: Dale Woodall													
Email: agiovengo@ensolum.com																	
Sample Information										Analysis and Method				EPA Program			
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/ORO by 8015	GRQ/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ 1005 - TX	RCRA 8 Metals	SDWA	CWA	RCRA
10:35	8/6/2024	Soil	1	FS13 - 1'		1						X					
13:09	8/6/2024	Soil	1	FS14 - 2'		2						X					
11:03	8/6/2024	Soil	1	FS15 - 1'		3						X					
13:11	8/6/2024	Soil	1	FS16 - 2'		4						X					
14:04	8/6/2024	Soil	1	FS17 - 1'		5						X					
14:05	8/6/2024	Soil	1	FS18 - 1'		6						X					
14:06	8/6/2024	Soil	1	FS19 - 1'		7						X					
14:09	8/6/2024	Soil	1	FS20 - 1'		8						X					
14:10	8/6/2024	Soil	1	FS21 - 1'		9						X					
14:11	8/6/2024			FS22 - 1'		10											
Additional Instructions: Please CC: cburton@ensolum.com, agiovengo@ensolum.com, dale.woodall@dvn.com, chamilton@ensolum.com, iestrella@ensolum.com																	
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: Cole Burton																	
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	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. Lab Use Only Received on ice: <input checked="" type="radio"/> Y <input type="radio"/> N T1 _____ T2 _____ T3 _____ AVG Temp °C 4									
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time										
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 14 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

Page 2 of 2

Client Information				Invoice Information				Lab Use Only				TAT				State			
Client: Devon				Company: Devon				Lab WO#		Job Number		1D	2D	3D	Std	NM	CO	UT	TX
Project: Spud Muffin 31-30 334H				Address: 205 E Bender Road #150				E408072		01058-0007					x	x			
Project Manager: Ashley Giovengo				City, State, Zip: Hobbs NM, 88240															
Address: 3122 National Parks Hwy				Phone: (575)748-1838															
City, State, Zip: Carlsbad NM, 88220				Email: dale.woodall@dvn.com															
Phone: 575-988-0055				Miscellaneous: Dale Woodall															
Email: agiovengo@ensolum.com																			
Sample Information												Analysis and Method				EPA Program			
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ 1005 - TX	RCRA 8 Metals	SDWA	CWA	RCRA		
14:12	8/6/2024	Soil	1	FS23 - 1'		11						x							
14:15	8/6/2024	Soil	1	FS24 - 1'		12						x							
14:25	8/6/2024	Soil	1	FS25 - 1'		13						x							
14:21	8/6/2024	Soil	1	FS26 - 1'		14						x							
14:20	8/6/2024	Soil	1	FS27 - 1'		15						x							
14:16	8/6/2024	Soil	1	FS28 - 1'		16						x							
Additional Instructions: Please CC: cburton@ensolum.com, agiovengo@ensolum.com, dale.woodall@dvn.com, chamilton@ensolum.com, iestrella@ensolum.com																			
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: Cole Burton																			
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	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. Lab Use Only Received on ice: <input checked="" type="radio"/> Y / <input type="radio"/> N T1 _____ T2 _____ T3 _____ AVG Temp °C 4											
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time												
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 14 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: 8/13/2024 8:39:25AM

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:	Devon Energy - Carlsbad	Date Received:	08/08/24 08:30	Work Order ID:	E408072
Phone:	(505) 382-1211	Date Logged In:	08/07/24 16:15	Logged In By:	Alexa Michaels
Email:	ashley.giovengo@wescominc.com	Due Date:	08/14/24 17:00 (4 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? No
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: CourierComments/Resolution

Sample matrix and No. of Containers on sample -10 are missing from the COC by client. Per A. Giovengo run sample 10 with BGDOC analysis.

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 Giovengo



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Devon Energy - Carlsbad

Project Name: Spud Muffin 31 30 334H

Work Order: E408088

Job Number: 01058-0007

Received: 8/9/2024

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
8/14/24

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.

Date Reported: 8/14/24



Ashley Giovengo
6488 7 Rivers Hwy
Artesia, NM 88210

Project Name: Spud Muffin 31 30 334H
Workorder: E408088
Date Received: 8/9/2024 6:30:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 8/9/2024 6:30:00AM, under the Project Name: Spud Muffin 31 30 334H.

The analytical test results summarized in this report with the Project Name: Spud Muffin 31 30 334H 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

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Gonzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

Table of Contents

Title Page	1
Cover Page	2
Table of Contents	3
Sample Summary	5
Sample Data	6
FS29 - 1'	6
FS30 - 1'	7
FS31 - 1'	8
FS32 - 1'	9
FS33 - 1'	10
FS34 - 1'	11
FS35 - 1'	12
FS36 - 1'	13
FS37 - 1'	14
FS38 - 1'	15
FS39 - 1'	16
FS40 - 1'	17
FS41 - 1'	18
FS42 - 1'	19
FS43 - 1'	20
FS44 - 1'	21
FS45 - 1'	22
FS46 - 1'	23
FS47 - 1'	24
FS48 - 1'	25

Table of Contents (continued)

FS49 - 1'	26
FS50 - 1'	27
FS52 - 1'	28
FS53 - 1'	29
FS54 - 1'	30
FS58 - 1'	31
FS59 - 1'	32
QC Summary Data	33
QC - Volatile Organic Compounds by EPA8260B	33
QC - Volatile Organics by EPA 8021B	34
QC - Nonhalogenated Organics by EPA 8015D - GRO	35
QC - Nonhalogenated Organics by EPA 8015D - DRO/ORO	37
QC - Anions by EPA 300.0/9056A	39
Definitions and Notes	41
Chain of Custody etc.	42

Sample Summary

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Spud Muffin 31 30 334H Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 08/14/24 16:44
---	--	-----------------------------

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
FS29 - 1'	E408088-01A	Soil	08/07/24	08/09/24	Glass Jar, 2 oz.
FS30 - 1'	E408088-02A	Soil	08/07/24	08/09/24	Glass Jar, 2 oz.
FS31 - 1'	E408088-03A	Soil	08/07/24	08/09/24	Glass Jar, 2 oz.
FS32 - 1'	E408088-04A	Soil	08/07/24	08/09/24	Glass Jar, 2 oz.
FS33 - 1'	E408088-05A	Soil	08/07/24	08/09/24	Glass Jar, 2 oz.
FS34 - 1'	E408088-06A	Soil	08/07/24	08/09/24	Glass Jar, 2 oz.
FS35 - 1'	E408088-07A	Soil	08/07/24	08/09/24	Glass Jar, 2 oz.
FS36 - 1'	E408088-08A	Soil	08/07/24	08/09/24	Glass Jar, 2 oz.
FS37 - 1'	E408088-09A	Soil	08/07/24	08/09/24	Glass Jar, 2 oz.
FS38 - 1'	E408088-10A	Soil	08/07/24	08/09/24	Glass Jar, 2 oz.
FS39 - 1'	E408088-11A	Soil	08/07/24	08/09/24	Glass Jar, 2 oz.
FS40 - 1'	E408088-12A	Soil	08/07/24	08/09/24	Glass Jar, 2 oz.
FS41 - 1'	E408088-13A	Soil	08/07/24	08/09/24	Glass Jar, 2 oz.
FS42 - 1'	E408088-14A	Soil	08/07/24	08/09/24	Glass Jar, 2 oz.
FS43 - 1'	E408088-15A	Soil	08/07/24	08/09/24	Glass Jar, 2 oz.
FS44 - 1'	E408088-16A	Soil	08/07/24	08/09/24	Glass Jar, 2 oz.
FS45 - 1'	E408088-17A	Soil	08/07/24	08/09/24	Glass Jar, 2 oz.
FS46 - 1'	E408088-18A	Soil	08/07/24	08/09/24	Glass Jar, 2 oz.
FS47 - 1'	E408088-19A	Soil	08/07/24	08/09/24	Glass Jar, 2 oz.
FS48 - 1'	E408088-20A	Soil	08/07/24	08/09/24	Glass Jar, 2 oz.
FS49 - 1'	E408088-21A	Soil	08/07/24	08/09/24	Glass Jar, 2 oz.
FS50 - 1'	E408088-22A	Soil	08/07/24	08/09/24	Glass Jar, 2 oz.
FS52 - 1'	E408088-23A	Soil	08/07/24	08/09/24	Glass Jar, 2 oz.
FS53 - 1'	E408088-24A	Soil	08/07/24	08/09/24	Glass Jar, 2 oz.
FS54 - 1'	E408088-25A	Soil	08/07/24	08/09/24	Glass Jar, 2 oz.
FS58 - 1'	E408088-26A	Soil	08/07/24	08/09/24	Glass Jar, 2 oz.
FS59 - 1'	E408088-27A	Soil	08/07/24	08/09/24	Glass Jar, 2 oz.



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Spud Muffin 31 30 334H Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 8/14/2024 4:44:13PM
---	--	----------------------------------

FS29 - 1'

E408088-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: RKS		Batch: 2432121	
Benzene	ND	0.0250	1	08/09/24	08/12/24	
Ethylbenzene	ND	0.0250	1	08/09/24	08/12/24	
Toluene	ND	0.0250	1	08/09/24	08/12/24	
o-Xylene	ND	0.0250	1	08/09/24	08/12/24	
p,m-Xylene	ND	0.0500	1	08/09/24	08/12/24	
Total Xylenes	ND	0.0250	1	08/09/24	08/12/24	
Surrogate: Bromofluorobenzene		103 %	70-130	08/09/24	08/12/24	
Surrogate: 1,2-Dichloroethane-d4		97.1 %	70-130	08/09/24	08/12/24	
Surrogate: Toluene-d8		99.9 %	70-130	08/09/24	08/12/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS		Batch: 2432121	
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/09/24	08/12/24	
Surrogate: Bromofluorobenzene		103 %	70-130	08/09/24	08/12/24	
Surrogate: 1,2-Dichloroethane-d4		97.1 %	70-130	08/09/24	08/12/24	
Surrogate: Toluene-d8		99.9 %	70-130	08/09/24	08/12/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV		Batch: 2432132	
Diesel Range Organics (C10-C28)	ND	25.0	1	08/09/24	08/11/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/09/24	08/11/24	
Surrogate: n-Nonane		98.2 %	50-200	08/09/24	08/11/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2432137	
Chloride	221	20.0	1	08/09/24	08/10/24	



Sample Data

Devon Energy - Carlsbad
6488 7 Rivers Hwy
Artesia NM, 88210

Project Name: Spud Muffin 31 30 334H
Project Number: 01058-0007
Project Manager: Ashley Giovengo

Reported:
8/14/2024 4:44:13PM

FS30 - 1'

E408088-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2432121
Benzene	ND	0.0250	1	08/09/24	08/12/24	
Ethylbenzene	ND	0.0250	1	08/09/24	08/12/24	
Toluene	ND	0.0250	1	08/09/24	08/12/24	
o-Xylene	ND	0.0250	1	08/09/24	08/12/24	
p,m-Xylene	ND	0.0500	1	08/09/24	08/12/24	
Total Xylenes	ND	0.0250	1	08/09/24	08/12/24	
Surrogate: Bromofluorobenzene		101 %	70-130	08/09/24	08/12/24	
Surrogate: 1,2-Dichloroethane-d4		95.6 %	70-130	08/09/24	08/12/24	
Surrogate: Toluene-d8		99.2 %	70-130	08/09/24	08/12/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2432121
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/09/24	08/12/24	
Surrogate: Bromofluorobenzene		101 %	70-130	08/09/24	08/12/24	
Surrogate: 1,2-Dichloroethane-d4		95.6 %	70-130	08/09/24	08/12/24	
Surrogate: Toluene-d8		99.2 %	70-130	08/09/24	08/12/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: NV		Batch: 2432132
Diesel Range Organics (C10-C28)	ND	25.0	1	08/09/24	08/11/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/09/24	08/11/24	
Surrogate: n-Nonane		94.1 %	50-200	08/09/24	08/11/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2432137
Chloride	222	20.0	1	08/09/24	08/10/24	



Sample Data

Devon Energy - Carlsbad
6488 7 Rivers Hwy
Artesia NM, 88210

Project Name: Spud Muffin 31 30 334H
Project Number: 01058-0007
Project Manager: Ashley Giovengo

Reported:
8/14/2024 4:44:13PM

FS31 - 1'

E408088-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2432121
Benzene	ND	0.0250	1	08/09/24	08/12/24	
Ethylbenzene	ND	0.0250	1	08/09/24	08/12/24	
Toluene	ND	0.0250	1	08/09/24	08/12/24	
o-Xylene	ND	0.0250	1	08/09/24	08/12/24	
p,m-Xylene	ND	0.0500	1	08/09/24	08/12/24	
Total Xylenes	ND	0.0250	1	08/09/24	08/12/24	
Surrogate: Bromofluorobenzene		104 %	70-130	08/09/24	08/12/24	
Surrogate: 1,2-Dichloroethane-d4		98.9 %	70-130	08/09/24	08/12/24	
Surrogate: Toluene-d8		98.6 %	70-130	08/09/24	08/12/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2432121
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/09/24	08/12/24	
Surrogate: Bromofluorobenzene		104 %	70-130	08/09/24	08/12/24	
Surrogate: 1,2-Dichloroethane-d4		98.9 %	70-130	08/09/24	08/12/24	
Surrogate: Toluene-d8		98.6 %	70-130	08/09/24	08/12/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: NV		Batch: 2432132
Diesel Range Organics (C10-C28)	ND	25.0	1	08/09/24	08/11/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/09/24	08/11/24	
Surrogate: n-Nonane		91.9 %	50-200	08/09/24	08/11/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2432137
Chloride	196	20.0	1	08/09/24	08/10/24	



Sample Data

Devon Energy - Carlsbad
6488 7 Rivers Hwy
Artesia NM, 88210

Project Name: Spud Muffin 31 30 334H
Project Number: 01058-0007
Project Manager: Ashley Giovengo

Reported:
8/14/2024 4:44:13PM

FS32 - 1'

E408088-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2432121
Benzene	ND	0.0250	1	08/09/24	08/12/24	
Ethylbenzene	ND	0.0250	1	08/09/24	08/12/24	
Toluene	ND	0.0250	1	08/09/24	08/12/24	
o-Xylene	ND	0.0250	1	08/09/24	08/12/24	
p,m-Xylene	ND	0.0500	1	08/09/24	08/12/24	
Total Xylenes	ND	0.0250	1	08/09/24	08/12/24	
Surrogate: Bromofluorobenzene		103 %	70-130	08/09/24	08/12/24	
Surrogate: 1,2-Dichloroethane-d4		100 %	70-130	08/09/24	08/12/24	
Surrogate: Toluene-d8		101 %	70-130	08/09/24	08/12/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2432121
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/09/24	08/12/24	
Surrogate: Bromofluorobenzene		103 %	70-130	08/09/24	08/12/24	
Surrogate: 1,2-Dichloroethane-d4		100 %	70-130	08/09/24	08/12/24	
Surrogate: Toluene-d8		101 %	70-130	08/09/24	08/12/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: NV		Batch: 2432132
Diesel Range Organics (C10-C28)	ND	25.0	1	08/09/24	08/12/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/09/24	08/12/24	
Surrogate: n-Nonane		100 %	50-200	08/09/24	08/12/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2432137
Chloride	189	20.0	1	08/09/24	08/10/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Spud Muffin 31 30 334H Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 8/14/2024 4:44:13PM
---	--	----------------------------------

FS33 - 1'

E408088-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2432121
Benzene	ND	0.0250	1	08/09/24	08/12/24	
Ethylbenzene	ND	0.0250	1	08/09/24	08/12/24	
Toluene	ND	0.0250	1	08/09/24	08/12/24	
o-Xylene	ND	0.0250	1	08/09/24	08/12/24	
p,m-Xylene	ND	0.0500	1	08/09/24	08/12/24	
Total Xylenes	ND	0.0250	1	08/09/24	08/12/24	
Surrogate: Bromofluorobenzene		103 %	70-130	08/09/24	08/12/24	
Surrogate: 1,2-Dichloroethane-d4		97.7 %	70-130	08/09/24	08/12/24	
Surrogate: Toluene-d8		99.4 %	70-130	08/09/24	08/12/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2432121
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/09/24	08/12/24	
Surrogate: Bromofluorobenzene		103 %	70-130	08/09/24	08/12/24	
Surrogate: 1,2-Dichloroethane-d4		97.7 %	70-130	08/09/24	08/12/24	
Surrogate: Toluene-d8		99.4 %	70-130	08/09/24	08/12/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: NV		Batch: 2432132
Diesel Range Organics (C10-C28)	101	25.0	1	08/09/24	08/12/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/09/24	08/12/24	
Surrogate: n-Nonane		105 %	50-200	08/09/24	08/12/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2432137
Chloride	327	20.0	1	08/09/24	08/10/24	



Sample Data

Devon Energy - Carlsbad
6488 7 Rivers Hwy
Artesia NM, 88210

Project Name: Spud Muffin 31 30 334H
Project Number: 01058-0007
Project Manager: Ashley Giovengo

Reported:
8/14/2024 4:44:13PM

FS34 - 1'

E408088-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2432121
Benzene	ND	0.0250	1	08/09/24	08/12/24	
Ethylbenzene	ND	0.0250	1	08/09/24	08/12/24	
Toluene	ND	0.0250	1	08/09/24	08/12/24	
o-Xylene	ND	0.0250	1	08/09/24	08/12/24	
p,m-Xylene	ND	0.0500	1	08/09/24	08/12/24	
Total Xylenes	ND	0.0250	1	08/09/24	08/12/24	
Surrogate: Bromofluorobenzene		103 %	70-130	08/09/24	08/12/24	
Surrogate: 1,2-Dichloroethane-d4		96.9 %	70-130	08/09/24	08/12/24	
Surrogate: Toluene-d8		98.3 %	70-130	08/09/24	08/12/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2432121
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/09/24	08/12/24	
Surrogate: Bromofluorobenzene		103 %	70-130	08/09/24	08/12/24	
Surrogate: 1,2-Dichloroethane-d4		96.9 %	70-130	08/09/24	08/12/24	
Surrogate: Toluene-d8		98.3 %	70-130	08/09/24	08/12/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: NV		Batch: 2432132
Diesel Range Organics (C10-C28)	122	25.0	1	08/09/24	08/12/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/09/24	08/12/24	
Surrogate: n-Nonane		109 %	50-200	08/09/24	08/12/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2432137
Chloride	369	20.0	1	08/09/24	08/10/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Spud Muffin 31 30 334H Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 8/14/2024 4:44:13PM
---	--	----------------------------------

FS35 - 1'

E408088-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2432121
Benzene	ND	0.0250	1	08/09/24	08/12/24	
Ethylbenzene	ND	0.0250	1	08/09/24	08/12/24	
Toluene	ND	0.0250	1	08/09/24	08/12/24	
o-Xylene	ND	0.0250	1	08/09/24	08/12/24	
p,m-Xylene	ND	0.0500	1	08/09/24	08/12/24	
Total Xylenes	ND	0.0250	1	08/09/24	08/12/24	
Surrogate: Bromofluorobenzene		103 %	70-130	08/09/24	08/12/24	
Surrogate: 1,2-Dichloroethane-d4		97.2 %	70-130	08/09/24	08/12/24	
Surrogate: Toluene-d8		98.9 %	70-130	08/09/24	08/12/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2432121
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/09/24	08/12/24	
Surrogate: Bromofluorobenzene		103 %	70-130	08/09/24	08/12/24	
Surrogate: 1,2-Dichloroethane-d4		97.2 %	70-130	08/09/24	08/12/24	
Surrogate: Toluene-d8		98.9 %	70-130	08/09/24	08/12/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: NV		Batch: 2432132
Diesel Range Organics (C10-C28)	92.5	25.0	1	08/09/24	08/12/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/09/24	08/12/24	
Surrogate: n-Nonane		102 %	50-200	08/09/24	08/12/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2432137
Chloride	353	20.0	1	08/09/24	08/10/24	



Sample Data

Devon Energy - Carlsbad
6488 7 Rivers Hwy
Artesia NM, 88210

Project Name: Spud Muffin 31 30 334H
Project Number: 01058-0007
Project Manager: Ashley Giovengo

Reported:
8/14/2024 4:44:13PM

FS36 - 1'

E408088-08

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2432121
Benzene	ND	0.0250	1	08/09/24	08/12/24	
Ethylbenzene	ND	0.0250	1	08/09/24	08/12/24	
Toluene	ND	0.0250	1	08/09/24	08/12/24	
o-Xylene	ND	0.0250	1	08/09/24	08/12/24	
p,m-Xylene	ND	0.0500	1	08/09/24	08/12/24	
Total Xylenes	ND	0.0250	1	08/09/24	08/12/24	
Surrogate: Bromofluorobenzene		104 %	70-130	08/09/24	08/12/24	
Surrogate: 1,2-Dichloroethane-d4		101 %	70-130	08/09/24	08/12/24	
Surrogate: Toluene-d8		98.9 %	70-130	08/09/24	08/12/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2432121
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/09/24	08/12/24	
Surrogate: Bromofluorobenzene		104 %	70-130	08/09/24	08/12/24	
Surrogate: 1,2-Dichloroethane-d4		101 %	70-130	08/09/24	08/12/24	
Surrogate: Toluene-d8		98.9 %	70-130	08/09/24	08/12/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: NV		Batch: 2432132
Diesel Range Organics (C10-C28)	34.4	25.0	1	08/09/24	08/12/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/09/24	08/12/24	
Surrogate: n-Nonane		101 %	50-200	08/09/24	08/12/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2432137
Chloride	119	20.0	1	08/09/24	08/10/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Spud Muffin 31 30 334H Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 8/14/2024 4:44:13PM
---	--	----------------------------------

FS37 - 1'

E408088-09

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2432121
Benzene	ND	0.0250	1	08/09/24	08/12/24	
Ethylbenzene	ND	0.0250	1	08/09/24	08/12/24	
Toluene	ND	0.0250	1	08/09/24	08/12/24	
o-Xylene	ND	0.0250	1	08/09/24	08/12/24	
p,m-Xylene	ND	0.0500	1	08/09/24	08/12/24	
Total Xylenes	ND	0.0250	1	08/09/24	08/12/24	
Surrogate: Bromofluorobenzene		103 %	70-130	08/09/24	08/12/24	
Surrogate: 1,2-Dichloroethane-d4		97.4 %	70-130	08/09/24	08/12/24	
Surrogate: Toluene-d8		99.1 %	70-130	08/09/24	08/12/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2432121
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/09/24	08/12/24	
Surrogate: Bromofluorobenzene		103 %	70-130	08/09/24	08/12/24	
Surrogate: 1,2-Dichloroethane-d4		97.4 %	70-130	08/09/24	08/12/24	
Surrogate: Toluene-d8		99.1 %	70-130	08/09/24	08/12/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: NV		Batch: 2432132
Diesel Range Organics (C10-C28)	52.6	25.0	1	08/09/24	08/12/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/09/24	08/12/24	
Surrogate: n-Nonane		99.4 %	50-200	08/09/24	08/12/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2432137
Chloride	104	20.0	1	08/09/24	08/10/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Spud Muffin 31 30 334H Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 8/14/2024 4:44:13PM
---	--	----------------------------------

FS38 - 1'

E408088-10

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2432121
Benzene	ND	0.0250	1	08/09/24	08/13/24	
Ethylbenzene	ND	0.0250	1	08/09/24	08/13/24	
Toluene	ND	0.0250	1	08/09/24	08/13/24	
o-Xylene	ND	0.0250	1	08/09/24	08/13/24	
p,m-Xylene	ND	0.0500	1	08/09/24	08/13/24	
Total Xylenes	ND	0.0250	1	08/09/24	08/13/24	
Surrogate: Bromofluorobenzene		103 %	70-130	08/09/24	08/13/24	
Surrogate: 1,2-Dichloroethane-d4		95.5 %	70-130	08/09/24	08/13/24	
Surrogate: Toluene-d8		97.9 %	70-130	08/09/24	08/13/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2432121
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/09/24	08/13/24	
Surrogate: Bromofluorobenzene		103 %	70-130	08/09/24	08/13/24	
Surrogate: 1,2-Dichloroethane-d4		95.5 %	70-130	08/09/24	08/13/24	
Surrogate: Toluene-d8		97.9 %	70-130	08/09/24	08/13/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: NV		Batch: 2432132
Diesel Range Organics (C10-C28)	50.4	25.0	1	08/09/24	08/12/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/09/24	08/12/24	
Surrogate: n-Nonane		100 %	50-200	08/09/24	08/12/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2432137
Chloride	137	20.0	1	08/09/24	08/10/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Spud Muffin 31 30 334H Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 8/14/2024 4:44:13PM
---	--	----------------------------------

FS39 - 1'

E408088-11

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2432121
Benzene	ND	0.0250	1	08/09/24	08/13/24	
Ethylbenzene	ND	0.0250	1	08/09/24	08/13/24	
Toluene	ND	0.0250	1	08/09/24	08/13/24	
o-Xylene	ND	0.0250	1	08/09/24	08/13/24	
p,m-Xylene	ND	0.0500	1	08/09/24	08/13/24	
Total Xylenes	ND	0.0250	1	08/09/24	08/13/24	
Surrogate: Bromofluorobenzene	99.8 %	70-130		08/09/24	08/13/24	
Surrogate: 1,2-Dichloroethane-d4	97.3 %	70-130		08/09/24	08/13/24	
Surrogate: Toluene-d8	97.9 %	70-130		08/09/24	08/13/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2432121
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/09/24	08/13/24	
Surrogate: Bromofluorobenzene	99.8 %	70-130		08/09/24	08/13/24	
Surrogate: 1,2-Dichloroethane-d4	97.3 %	70-130		08/09/24	08/13/24	
Surrogate: Toluene-d8	97.9 %	70-130		08/09/24	08/13/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: NV		Batch: 2432132
Diesel Range Organics (C10-C28)	34.1	25.0	1	08/09/24	08/12/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/09/24	08/12/24	
Surrogate: n-Nonane	103 %	50-200		08/09/24	08/12/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2432137
Chloride	143	20.0	1	08/09/24	08/10/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Spud Muffin 31 30 334H Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 8/14/2024 4:44:13PM
---	--	----------------------------------

FS40 - 1'

E408088-12

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2432121
Benzene	ND	0.0250	1	08/09/24	08/13/24	
Ethylbenzene	ND	0.0250	1	08/09/24	08/13/24	
Toluene	ND	0.0250	1	08/09/24	08/13/24	
o-Xylene	ND	0.0250	1	08/09/24	08/13/24	
p,m-Xylene	ND	0.0500	1	08/09/24	08/13/24	
Total Xylenes	ND	0.0250	1	08/09/24	08/13/24	
Surrogate: Bromofluorobenzene		101 %	70-130	08/09/24	08/13/24	
Surrogate: 1,2-Dichloroethane-d4		95.5 %	70-130	08/09/24	08/13/24	
Surrogate: Toluene-d8		98.0 %	70-130	08/09/24	08/13/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2432121
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/09/24	08/13/24	
Surrogate: Bromofluorobenzene		101 %	70-130	08/09/24	08/13/24	
Surrogate: 1,2-Dichloroethane-d4		95.5 %	70-130	08/09/24	08/13/24	
Surrogate: Toluene-d8		98.0 %	70-130	08/09/24	08/13/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: NV		Batch: 2432132
Diesel Range Organics (C10-C28)	28.2	25.0	1	08/09/24	08/12/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/09/24	08/12/24	
Surrogate: n-Nonane		103 %	50-200	08/09/24	08/12/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2432137
Chloride	414	20.0	1	08/09/24	08/10/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Spud Muffin 31 30 334H Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 8/14/2024 4:44:13PM
---	--	----------------------------------

FS41 - 1'

E408088-13

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2432121
Benzene	ND	0.0250	1	08/09/24	08/13/24	
Ethylbenzene	ND	0.0250	1	08/09/24	08/13/24	
Toluene	ND	0.0250	1	08/09/24	08/13/24	
o-Xylene	ND	0.0250	1	08/09/24	08/13/24	
p,m-Xylene	ND	0.0500	1	08/09/24	08/13/24	
Total Xylenes	ND	0.0250	1	08/09/24	08/13/24	
Surrogate: Bromofluorobenzene		101 %	70-130	08/09/24	08/13/24	
Surrogate: 1,2-Dichloroethane-d4		94.8 %	70-130	08/09/24	08/13/24	
Surrogate: Toluene-d8		99.9 %	70-130	08/09/24	08/13/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2432121
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/09/24	08/13/24	
Surrogate: Bromofluorobenzene		101 %	70-130	08/09/24	08/13/24	
Surrogate: 1,2-Dichloroethane-d4		94.8 %	70-130	08/09/24	08/13/24	
Surrogate: Toluene-d8		99.9 %	70-130	08/09/24	08/13/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: NV		Batch: 2432132
Diesel Range Organics (C10-C28)	29.4	25.0	1	08/09/24	08/12/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/09/24	08/12/24	
Surrogate: n-Nonane		99.5 %	50-200	08/09/24	08/12/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2432137
Chloride	322	20.0	1	08/09/24	08/10/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Spud Muffin 31 30 334H Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 8/14/2024 4:44:13PM
---	--	----------------------------------

FS42 - 1'

E408088-14

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2432121
Benzene	ND	0.0250	1	08/09/24	08/13/24	
Ethylbenzene	ND	0.0250	1	08/09/24	08/13/24	
Toluene	ND	0.0250	1	08/09/24	08/13/24	
o-Xylene	ND	0.0250	1	08/09/24	08/13/24	
p,m-Xylene	ND	0.0500	1	08/09/24	08/13/24	
Total Xylenes	ND	0.0250	1	08/09/24	08/13/24	
Surrogate: Bromofluorobenzene		103 %	70-130	08/09/24	08/13/24	
Surrogate: 1,2-Dichloroethane-d4		97.9 %	70-130	08/09/24	08/13/24	
Surrogate: Toluene-d8		99.2 %	70-130	08/09/24	08/13/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2432121
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/09/24	08/13/24	
Surrogate: Bromofluorobenzene		103 %	70-130	08/09/24	08/13/24	
Surrogate: 1,2-Dichloroethane-d4		97.9 %	70-130	08/09/24	08/13/24	
Surrogate: Toluene-d8		99.2 %	70-130	08/09/24	08/13/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: NV		Batch: 2432132
Diesel Range Organics (C10-C28)	58.4	25.0	1	08/09/24	08/12/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/09/24	08/12/24	
Surrogate: n-Nonane		102 %	50-200	08/09/24	08/12/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2432137
Chloride	318	20.0	1	08/09/24	08/10/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Spud Muffin 31 30 334H Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 8/14/2024 4:44:13PM
---	--	----------------------------------

FS43 - 1'

E408088-15

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2432121
Benzene	ND	0.0250	1	08/09/24	08/13/24	
Ethylbenzene	ND	0.0250	1	08/09/24	08/13/24	
Toluene	ND	0.0250	1	08/09/24	08/13/24	
o-Xylene	ND	0.0250	1	08/09/24	08/13/24	
p,m-Xylene	ND	0.0500	1	08/09/24	08/13/24	
Total Xylenes	ND	0.0250	1	08/09/24	08/13/24	
Surrogate: Bromofluorobenzene	98.6 %	70-130		08/09/24	08/13/24	
Surrogate: 1,2-Dichloroethane-d4	95.4 %	70-130		08/09/24	08/13/24	
Surrogate: Toluene-d8	96.4 %	70-130		08/09/24	08/13/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2432121
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/09/24	08/13/24	
Surrogate: Bromofluorobenzene	98.6 %	70-130		08/09/24	08/13/24	
Surrogate: 1,2-Dichloroethane-d4	95.4 %	70-130		08/09/24	08/13/24	
Surrogate: Toluene-d8	96.4 %	70-130		08/09/24	08/13/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: NV		Batch: 2432132
Diesel Range Organics (C10-C28)	69.1	25.0	1	08/09/24	08/12/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/09/24	08/12/24	
Surrogate: n-Nonane	97.6 %	50-200		08/09/24	08/12/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2432137
Chloride	374	20.0	1	08/09/24	08/10/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Spud Muffin 31 30 334H Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 8/14/2024 4:44:13PM
---	--	----------------------------------

FS44 - 1'

E408088-16

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2432121
Benzene	ND	0.0250	1	08/09/24	08/13/24	
Ethylbenzene	ND	0.0250	1	08/09/24	08/13/24	
Toluene	ND	0.0250	1	08/09/24	08/13/24	
o-Xylene	ND	0.0250	1	08/09/24	08/13/24	
p,m-Xylene	ND	0.0500	1	08/09/24	08/13/24	
Total Xylenes	ND	0.0250	1	08/09/24	08/13/24	
Surrogate: Bromofluorobenzene		103 %	70-130	08/09/24	08/13/24	
Surrogate: 1,2-Dichloroethane-d4		95.2 %	70-130	08/09/24	08/13/24	
Surrogate: Toluene-d8		98.8 %	70-130	08/09/24	08/13/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2432121
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/09/24	08/13/24	
Surrogate: Bromofluorobenzene		103 %	70-130	08/09/24	08/13/24	
Surrogate: 1,2-Dichloroethane-d4		95.2 %	70-130	08/09/24	08/13/24	
Surrogate: Toluene-d8		98.8 %	70-130	08/09/24	08/13/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: NV		Batch: 2432132
Diesel Range Organics (C10-C28)	44.8	25.0	1	08/09/24	08/12/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/09/24	08/12/24	
Surrogate: n-Nonane		98.0 %	50-200	08/09/24	08/12/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2432137
Chloride	283	20.0	1	08/09/24	08/10/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Spud Muffin 31 30 334H Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 8/14/2024 4:44:13PM
---	--	----------------------------------

FS45 - 1'

E408088-17

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2432121
Benzene	ND	0.0250	1	08/09/24	08/13/24	
Ethylbenzene	ND	0.0250	1	08/09/24	08/13/24	
Toluene	ND	0.0250	1	08/09/24	08/13/24	
o-Xylene	ND	0.0250	1	08/09/24	08/13/24	
p,m-Xylene	ND	0.0500	1	08/09/24	08/13/24	
Total Xylenes	ND	0.0250	1	08/09/24	08/13/24	
Surrogate: Bromofluorobenzene		103 %	70-130	08/09/24	08/13/24	
Surrogate: 1,2-Dichloroethane-d4		96.1 %	70-130	08/09/24	08/13/24	
Surrogate: Toluene-d8		98.7 %	70-130	08/09/24	08/13/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2432121
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/09/24	08/13/24	
Surrogate: Bromofluorobenzene		103 %	70-130	08/09/24	08/13/24	
Surrogate: 1,2-Dichloroethane-d4		96.1 %	70-130	08/09/24	08/13/24	
Surrogate: Toluene-d8		98.7 %	70-130	08/09/24	08/13/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: NV		Batch: 2432132
Diesel Range Organics (C10-C28)	48.7	25.0	1	08/09/24	08/12/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/09/24	08/12/24	
Surrogate: n-Nonane		103 %	50-200	08/09/24	08/12/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2432137
Chloride	286	20.0	1	08/09/24	08/10/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Spud Muffin 31 30 334H Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 8/14/2024 4:44:13PM
---	--	----------------------------------

FS46 - 1'

E408088-18

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2432121
Benzene	ND	0.0250	1	08/09/24	08/13/24	
Ethylbenzene	ND	0.0250	1	08/09/24	08/13/24	
Toluene	ND	0.0250	1	08/09/24	08/13/24	
o-Xylene	ND	0.0250	1	08/09/24	08/13/24	
p,m-Xylene	ND	0.0500	1	08/09/24	08/13/24	
Total Xylenes	ND	0.0250	1	08/09/24	08/13/24	
Surrogate: Bromofluorobenzene		102 %	70-130	08/09/24	08/13/24	
Surrogate: 1,2-Dichloroethane-d4		93.6 %	70-130	08/09/24	08/13/24	
Surrogate: Toluene-d8		97.7 %	70-130	08/09/24	08/13/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2432121
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/09/24	08/13/24	
Surrogate: Bromofluorobenzene		102 %	70-130	08/09/24	08/13/24	
Surrogate: 1,2-Dichloroethane-d4		93.6 %	70-130	08/09/24	08/13/24	
Surrogate: Toluene-d8		97.7 %	70-130	08/09/24	08/13/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: NV		Batch: 2432132
Diesel Range Organics (C10-C28)	42.8	25.0	1	08/09/24	08/12/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/09/24	08/12/24	
Surrogate: n-Nonane		101 %	50-200	08/09/24	08/12/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2432137
Chloride	263	20.0	1	08/09/24	08/10/24	



Sample Data

Devon Energy - Carlsbad
6488 7 Rivers Hwy
Artesia NM, 88210

Project Name: Spud Muffin 31 30 334H
Project Number: 01058-0007
Project Manager: Ashley Giovengo

Reported:
8/14/2024 4:44:13PM

FS47 - 1'

E408088-19

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2432121
Benzene	ND	0.0250	1	08/09/24	08/13/24	
Ethylbenzene	ND	0.0250	1	08/09/24	08/13/24	
Toluene	ND	0.0250	1	08/09/24	08/13/24	
o-Xylene	ND	0.0250	1	08/09/24	08/13/24	
p,m-Xylene	ND	0.0500	1	08/09/24	08/13/24	
Total Xylenes	ND	0.0250	1	08/09/24	08/13/24	
Surrogate: Bromofluorobenzene		102 %	70-130	08/09/24	08/13/24	
Surrogate: 1,2-Dichloroethane-d4		95.0 %	70-130	08/09/24	08/13/24	
Surrogate: Toluene-d8		98.6 %	70-130	08/09/24	08/13/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2432121
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/09/24	08/13/24	
Surrogate: Bromofluorobenzene		102 %	70-130	08/09/24	08/13/24	
Surrogate: 1,2-Dichloroethane-d4		95.0 %	70-130	08/09/24	08/13/24	
Surrogate: Toluene-d8		98.6 %	70-130	08/09/24	08/13/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: NV		Batch: 2432132
Diesel Range Organics (C10-C28)	ND	25.0	1	08/09/24	08/12/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/09/24	08/12/24	
Surrogate: n-Nonane		96.7 %	50-200	08/09/24	08/12/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2432137
Chloride	253	20.0	1	08/09/24	08/10/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Spud Muffin 31 30 334H Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 8/14/2024 4:44:13PM
---	--	----------------------------------

FS48 - 1'

E408088-20

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2432121
Benzene	ND	0.0250	1	08/09/24	08/13/24	
Ethylbenzene	ND	0.0250	1	08/09/24	08/13/24	
Toluene	ND	0.0250	1	08/09/24	08/13/24	
o-Xylene	ND	0.0250	1	08/09/24	08/13/24	
p,m-Xylene	ND	0.0500	1	08/09/24	08/13/24	
Total Xylenes	ND	0.0250	1	08/09/24	08/13/24	
Surrogate: Bromofluorobenzene		102 %	70-130	08/09/24	08/13/24	
Surrogate: 1,2-Dichloroethane-d4		96.5 %	70-130	08/09/24	08/13/24	
Surrogate: Toluene-d8		98.7 %	70-130	08/09/24	08/13/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2432121
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/09/24	08/13/24	
Surrogate: Bromofluorobenzene		102 %	70-130	08/09/24	08/13/24	
Surrogate: 1,2-Dichloroethane-d4		96.5 %	70-130	08/09/24	08/13/24	
Surrogate: Toluene-d8		98.7 %	70-130	08/09/24	08/13/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: NV		Batch: 2432132
Diesel Range Organics (C10-C28)	ND	25.0	1	08/09/24	08/12/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/09/24	08/12/24	
Surrogate: n-Nonane		97.6 %	50-200	08/09/24	08/12/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2432137
Chloride	443	20.0	1	08/09/24	08/10/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Spud Muffin 31 30 334H Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 8/14/2024 4:44:13PM
---	--	----------------------------------

FS49 - 1'

E408088-21

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2432120	
Benzene	ND	0.0250	1	08/09/24	08/10/24	
Ethylbenzene	ND	0.0250	1	08/09/24	08/10/24	
Toluene	ND	0.0250	1	08/09/24	08/10/24	
o-Xylene	ND	0.0250	1	08/09/24	08/10/24	
p,m-Xylene	ND	0.0500	1	08/09/24	08/10/24	
Total Xylenes	ND	0.0250	1	08/09/24	08/10/24	
Surrogate: 4-Bromochlorobenzene-PID	91.8 %	70-130		08/09/24	08/10/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2432120	
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/09/24	08/10/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	105 %	70-130		08/09/24	08/10/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM		Batch: 2432138	
Diesel Range Organics (C10-C28)	102	25.0	1	08/09/24	08/09/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/09/24	08/09/24	
Surrogate: n-Nonane	92.8 %	50-200		08/09/24	08/09/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: JM		Batch: 2432129	
Chloride	152	20.0	1	08/09/24	08/09/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Spud Muffin 31 30 334H Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 8/14/2024 4:44:13PM
---	--	----------------------------------

FS50 - 1'

E408088-22

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2432120	
Benzene	ND	0.0250	1	08/09/24	08/10/24	
Ethylbenzene	ND	0.0250	1	08/09/24	08/10/24	
Toluene	ND	0.0250	1	08/09/24	08/10/24	
o-Xylene	ND	0.0250	1	08/09/24	08/10/24	
p,m-Xylene	ND	0.0500	1	08/09/24	08/10/24	
Total Xylenes	ND	0.0250	1	08/09/24	08/10/24	
Surrogate: 4-Bromochlorobenzene-PID	91.1 %	70-130		08/09/24	08/10/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2432120	
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/09/24	08/10/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	105 %	70-130		08/09/24	08/10/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM		Batch: 2432138	
Diesel Range Organics (C10-C28)	610	25.0	1	08/09/24	08/09/24	
Oil Range Organics (C28-C36)	1580	50.0	1	08/09/24	08/09/24	
Surrogate: n-Nonane	96.0 %	50-200		08/09/24	08/09/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: JM		Batch: 2432129	
Chloride	262	20.0	1	08/09/24	08/09/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Spud Muffin 31 30 334H Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 8/14/2024 4:44:13PM
---	--	----------------------------------

FS52 - 1'

E408088-23

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2432120	
Benzene	ND	0.0250	1	08/09/24	08/10/24	
Ethylbenzene	ND	0.0250	1	08/09/24	08/10/24	
Toluene	ND	0.0250	1	08/09/24	08/10/24	
o-Xylene	ND	0.0250	1	08/09/24	08/10/24	
p,m-Xylene	ND	0.0500	1	08/09/24	08/10/24	
Total Xylenes	ND	0.0250	1	08/09/24	08/10/24	
Surrogate: 4-Bromochlorobenzene-PID	91.8 %	70-130		08/09/24	08/10/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2432120	
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/09/24	08/10/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	105 %	70-130		08/09/24	08/10/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM		Batch: 2432138	
Diesel Range Organics (C10-C28)	105	25.0	1	08/09/24	08/09/24	
Oil Range Organics (C28-C36)	52.5	50.0	1	08/09/24	08/09/24	
Surrogate: n-Nonane	95.2 %	50-200		08/09/24	08/09/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: JM		Batch: 2432129	
Chloride	283	20.0	1	08/09/24	08/09/24	



Sample Data

Devon Energy - Carlsbad
6488 7 Rivers Hwy
Artesia NM, 88210

Project Name: Spud Muffin 31 30 334H
Project Number: 01058-0007
Project Manager: Ashley Giovengo

Reported:
8/14/2024 4:44:13PM

FS53 - 1'

E408088-24

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2432120	
Benzene	ND	0.0250	1	08/09/24	08/10/24	
Ethylbenzene	ND	0.0250	1	08/09/24	08/10/24	
Toluene	ND	0.0250	1	08/09/24	08/10/24	
o-Xylene	ND	0.0250	1	08/09/24	08/10/24	
p,m-Xylene	ND	0.0500	1	08/09/24	08/10/24	
Total Xylenes	ND	0.0250	1	08/09/24	08/10/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>	93.3 %	70-130		08/09/24	08/10/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2432120	
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/09/24	08/10/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>	104 %	70-130		08/09/24	08/10/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM		Batch: 2432138	
Diesel Range Organics (C10-C28)	91.6	25.0	1	08/09/24	08/10/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/09/24	08/10/24	
<i>Surrogate: n-Nonane</i>	93.0 %	50-200		08/09/24	08/10/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: JM		Batch: 2432129	
Chloride	286	20.0	1	08/09/24	08/09/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Spud Muffin 31 30 334H Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 8/14/2024 4:44:13PM
---	--	----------------------------------

FS54 - 1'

E408088-25

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2432120	
Benzene	ND	0.0250	1	08/09/24	08/10/24	
Ethylbenzene	ND	0.0250	1	08/09/24	08/10/24	
Toluene	ND	0.0250	1	08/09/24	08/10/24	
o-Xylene	ND	0.0250	1	08/09/24	08/10/24	
p,m-Xylene	ND	0.0500	1	08/09/24	08/10/24	
Total Xylenes	ND	0.0250	1	08/09/24	08/10/24	
Surrogate: 4-Bromochlorobenzene-PID	91.9 %	70-130		08/09/24	08/10/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2432120	
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/09/24	08/10/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	105 %	70-130		08/09/24	08/10/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM		Batch: 2432138	
Diesel Range Organics (C10-C28)	ND	25.0	1	08/09/24	08/10/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/09/24	08/10/24	
Surrogate: n-Nonane	92.0 %	50-200		08/09/24	08/10/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: JM		Batch: 2432129	
Chloride	237	20.0	1	08/09/24	08/09/24	



Sample Data

Devon Energy - Carlsbad
6488 7 Rivers Hwy
Artesia NM, 88210

Project Name: Spud Muffin 31 30 334H
Project Number: 01058-0007
Project Manager: Ashley Giovengo

Reported:
8/14/2024 4:44:13PM

FS58 - 1'

E408088-26

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2432120	
Benzene	ND	0.0250	1	08/09/24	08/10/24	
Ethylbenzene	ND	0.0250	1	08/09/24	08/10/24	
Toluene	ND	0.0250	1	08/09/24	08/10/24	
o-Xylene	ND	0.0250	1	08/09/24	08/10/24	
p,m-Xylene	ND	0.0500	1	08/09/24	08/10/24	
Total Xylenes	ND	0.0250	1	08/09/24	08/10/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	91.4 %	70-130		08/09/24	08/10/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2432120	
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/09/24	08/10/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	104 %	70-130		08/09/24	08/10/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM		Batch: 2432138	
Diesel Range Organics (C10-C28)	ND	25.0	1	08/09/24	08/10/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/09/24	08/10/24	
<i>Surrogate: n-Nonane</i>						
	92.2 %	50-200		08/09/24	08/10/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: JM		Batch: 2432129	
Chloride	266	20.0	1	08/09/24	08/10/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Spud Muffin 31 30 334H Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 8/14/2024 4:44:13PM
---	--	----------------------------------

FS59 - 1'

E408088-27

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2432120	
Benzene	ND	0.0250	1	08/09/24	08/10/24	
Ethylbenzene	ND	0.0250	1	08/09/24	08/10/24	
Toluene	ND	0.0250	1	08/09/24	08/10/24	
o-Xylene	ND	0.0250	1	08/09/24	08/10/24	
p,m-Xylene	ND	0.0500	1	08/09/24	08/10/24	
Total Xylenes	ND	0.0250	1	08/09/24	08/10/24	
Surrogate: 4-Bromochlorobenzene-PID	92.1 %	70-130		08/09/24	08/10/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2432120	
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/09/24	08/10/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	104 %	70-130		08/09/24	08/10/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: KM		Batch: 2432138	
Diesel Range Organics (C10-C28)	ND	25.0	1	08/09/24	08/10/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/09/24	08/10/24	
Surrogate: n-Nonane	94.5 %	50-200		08/09/24	08/10/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: JM		Batch: 2432129	
Chloride	339	20.0	1	08/09/24	08/10/24	



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	8/14/2024 4:44:13PM

Volatile Organic Compounds by EPA 8260B

Analyst: RKS

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

Blank (2432121-BLK1) Prepared: 08/09/24 Analyzed: 08/12/24

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	0.505		0.500		101	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.481		0.500		96.1	70-130			
Surrogate: Toluene-d8	0.499		0.500		99.8	70-130			

LCS (2432121-BS1) Prepared: 08/09/24 Analyzed: 08/12/24

Benzene	2.28	0.0250	2.50		91.3	70-130			
Ethylbenzene	2.27	0.0250	2.50		90.8	70-130			
Toluene	2.14	0.0250	2.50		85.4	70-130			
o-Xylene	2.21	0.0250	2.50		88.3	70-130			
p,m-Xylene	4.42	0.0500	5.00		88.5	70-130			
Total Xylenes	6.63	0.0250	7.50		88.4	70-130			
Surrogate: Bromofluorobenzene	0.501		0.500		100	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.485		0.500		97.0	70-130			
Surrogate: Toluene-d8	0.498		0.500		99.6	70-130			

Matrix Spike (2432121-MS1) Source: E408088-04 Prepared: 08/09/24 Analyzed: 08/12/24

Benzene	2.35	0.0250	2.50	ND	94.1	48-131			
Ethylbenzene	2.34	0.0250	2.50	ND	93.6	45-135			
Toluene	2.20	0.0250	2.50	ND	88.0	48-130			
o-Xylene	2.35	0.0250	2.50	ND	93.8	43-135			
p,m-Xylene	4.71	0.0500	5.00	ND	94.1	43-135			
Total Xylenes	7.05	0.0250	7.50	ND	94.0	43-135			
Surrogate: Bromofluorobenzene	0.522		0.500		104	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.469		0.500		93.7	70-130			
Surrogate: Toluene-d8	0.496		0.500		99.2	70-130			

Matrix Spike Dup (2432121-MSD1) Source: E408088-04 Prepared: 08/09/24 Analyzed: 08/12/24

Benzene	2.57	0.0250	2.50	ND	103	48-131	8.84	23	
Ethylbenzene	2.62	0.0250	2.50	ND	105	45-135	11.1	27	
Toluene	2.47	0.0250	2.50	ND	98.9	48-130	11.6	24	
o-Xylene	2.63	0.0250	2.50	ND	105	43-135	11.5	27	
p,m-Xylene	5.26	0.0500	5.00	ND	105	43-135	11.1	27	
Total Xylenes	7.89	0.0250	7.50	ND	105	43-135	11.2	27	
Surrogate: Bromofluorobenzene	0.522		0.500		104	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.492		0.500		98.3	70-130			
Surrogate: Toluene-d8	0.503		0.500		101	70-130			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	8/14/2024 4:44:13PM

Volatile Organics by EPA 8021B

Analyst: BA

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

Blank (2432120-BLK1) Prepared: 08/09/24 Analyzed: 08/09/24

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	7.06		8.00		88.3	70-130			

LCS (2432120-BS1) Prepared: 08/09/24 Analyzed: 08/09/24

Benzene	4.81	0.0250	5.00		96.2	70-130			
Ethylbenzene	4.64	0.0250	5.00		92.8	70-130			
Toluene	4.82	0.0250	5.00		96.4	70-130			
o-Xylene	4.74	0.0250	5.00		94.7	70-130			
p,m-Xylene	9.54	0.0500	10.0		95.4	70-130			
Total Xylenes	14.3	0.0250	15.0		95.2	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.12		8.00		89.0	70-130			

Matrix Spike (2432120-MS1) Source: E408083-07 Prepared: 08/09/24 Analyzed: 08/09/24

Benzene	4.78	0.0250	5.00	ND	95.6	54-133			
Ethylbenzene	4.57	0.0250	5.00	ND	91.4	61-133			
Toluene	4.77	0.0250	5.00	ND	95.5	61-130			
o-Xylene	4.67	0.0250	5.00	ND	93.4	63-131			
p,m-Xylene	9.37	0.0500	10.0	ND	93.7	63-131			
Total Xylenes	14.0	0.0250	15.0	ND	93.6	63-131			
Surrogate: 4-Bromochlorobenzene-PID	7.23		8.00		90.4	70-130			

Matrix Spike Dup (2432120-MSD1) Source: E408083-07 Prepared: 08/09/24 Analyzed: 08/09/24

Benzene	4.24	0.0250	5.00	ND	84.8	54-133	11.9	20	
Ethylbenzene	4.08	0.0250	5.00	ND	81.6	61-133	11.3	20	
Toluene	4.25	0.0250	5.00	ND	85.0	61-130	11.6	20	
o-Xylene	4.16	0.0250	5.00	ND	83.2	63-131	11.5	20	
p,m-Xylene	8.39	0.0500	10.0	ND	83.9	63-131	11.0	20	
Total Xylenes	12.6	0.0250	15.0	ND	83.7	63-131	11.2	20	
Surrogate: 4-Bromochlorobenzene-PID	7.24		8.00		90.5	70-130			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	8/14/2024 4:44:13PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: BA

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

Blank (2432120-BLK1) Prepared: 08/09/24 Analyzed: 08/09/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.44		8.00		105	70-130			

LCS (2432120-BS2) Prepared: 08/09/24 Analyzed: 08/09/24

Gasoline Range Organics (C6-C10)	46.1	20.0	50.0		92.2	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.52		8.00		107	70-130			

Matrix Spike (2432120-MS2) Source: E408083-07 Prepared: 08/09/24 Analyzed: 08/10/24

Gasoline Range Organics (C6-C10)	46.6	20.0	50.0	ND	93.2	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.39		8.00		105	70-130			

Matrix Spike Dup (2432120-MSD2) Source: E408083-07 Prepared: 08/09/24 Analyzed: 08/10/24

Gasoline Range Organics (C6-C10)	45.3	20.0	50.0	ND	90.6	70-130	2.89	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.48		8.00		106	70-130			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	8/14/2024 4:44:13PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

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

Blank (2432121-BLK1) Prepared: 08/09/24 Analyzed: 08/12/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.505		0.500		101	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.481		0.500		96.1	70-130			
Surrogate: Toluene-d8	0.499		0.500		99.8	70-130			

LCS (2432121-BS2) Prepared: 08/09/24 Analyzed: 08/13/24

Gasoline Range Organics (C6-C10)	43.9	20.0	50.0		87.7	70-130			
Surrogate: Bromofluorobenzene	0.523		0.500		105	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.481		0.500		96.2	70-130			
Surrogate: Toluene-d8	0.498		0.500		99.6	70-130			

Matrix Spike (2432121-MS2) Source: E408088-04 Prepared: 08/09/24 Analyzed: 08/12/24

Gasoline Range Organics (C6-C10)	51.7	20.0	50.0	ND	103	70-130			
Surrogate: Bromofluorobenzene	0.540		0.500		108	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.479		0.500		95.8	70-130			
Surrogate: Toluene-d8	0.507		0.500		101	70-130			

Matrix Spike Dup (2432121-MSD2) Source: E408088-04 Prepared: 08/09/24 Analyzed: 08/12/24

Gasoline Range Organics (C6-C10)	49.8	20.0	50.0	ND	99.5	70-130	3.73	20	
Surrogate: Bromofluorobenzene	0.526		0.500		105	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.485		0.500		96.9	70-130			
Surrogate: Toluene-d8	0.510		0.500		102	70-130			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	8/14/2024 4:44:13PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

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

Blank (2432132-BLK1) Prepared: 08/09/24 Analyzed: 08/11/24

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	45.6		50.0		91.2	50-200			

LCS (2432132-BS1) Prepared: 08/09/24 Analyzed: 08/11/24

Diesel Range Organics (C10-C28)	236	25.0	250		94.3	38-132			
Surrogate: n-Nonane	51.8		50.0		104	50-200			

Matrix Spike (2432132-MS1) Source: E408088-03 Prepared: 08/09/24 Analyzed: 08/11/24

Diesel Range Organics (C10-C28)	301	25.0	250	ND	121	38-132			
Surrogate: n-Nonane	48.3		50.0		96.5	50-200			

Matrix Spike Dup (2432132-MSD1) Source: E408088-03 Prepared: 08/09/24 Analyzed: 08/11/24

Diesel Range Organics (C10-C28)	252	25.0	250	ND	101	38-132	17.8	20	
Surrogate: n-Nonane	48.8		50.0		97.5	50-200			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	8/14/2024 4:44:13PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: KM

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

Blank (2432138-BLK1) Prepared: 08/09/24 Analyzed: 08/09/24

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	46.4		50.0		92.7	50-200			

LCS (2432138-BS1) Prepared: 08/09/24 Analyzed: 08/09/24

Diesel Range Organics (C10-C28)	271	25.0	250		108	38-132			
Surrogate: n-Nonane	48.8		50.0		97.6	50-200			

Matrix Spike (2432138-MS1) Source: E408082-12 Prepared: 08/09/24 Analyzed: 08/09/24

Diesel Range Organics (C10-C28)	273	25.0	250	ND	109	38-132			
Surrogate: n-Nonane	48.5		50.0		97.1	50-200			

Matrix Spike Dup (2432138-MSD1) Source: E408082-12 Prepared: 08/09/24 Analyzed: 08/09/24

Diesel Range Organics (C10-C28)	282	25.0	250	ND	113	38-132	2.96	20	
Surrogate: n-Nonane	49.3		50.0		98.5	50-200			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	8/14/2024 4:44:13PM

Anions by EPA 300.0/9056A

Analyst: JM

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

Blank (2432129-BLK1)					Prepared: 08/09/24 Analyzed: 08/09/24				
Chloride	ND	20.0							
LCS (2432129-BS1)					Prepared: 08/09/24 Analyzed: 08/09/24				
Chloride	250	20.0	250		100	90-110			
Matrix Spike (2432129-MS1)					Source: E408085-05		Prepared: 08/09/24 Analyzed: 08/09/24		
Chloride	273	20.0	250	21.4	101	80-120			
Matrix Spike Dup (2432129-MSD1)					Source: E408085-05		Prepared: 08/09/24 Analyzed: 08/09/24		
Chloride	275	20.0	250	21.4	101	80-120	0.680	20	



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	8/14/2024 4:44:13PM

Anions by EPA 300.0/9056A

Analyst: DT

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

Blank (2432137-BLK1)					Prepared: 08/09/24 Analyzed: 08/10/24				
Chloride	ND	20.0							
LCS (2432137-BS1)					Prepared: 08/09/24 Analyzed: 08/10/24				
Chloride	249	20.0	250		99.5	90-110			
Matrix Spike (2432137-MS1)					Source: E408088-07		Prepared: 08/09/24 Analyzed: 08/10/24		
Chloride	594	20.0	250	353	96.1	80-120			
Matrix Spike Dup (2432137-MSD1)					Source: E408088-07		Prepared: 08/09/24 Analyzed: 08/10/24		
Chloride	604	20.0	250	353	100	80-120	1.78	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

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	
6488 7 Rivers Hwy	Project Number:	01058-0007	Reported:
Artesia NM, 88210	Project Manager:	Ashley Giovengo	08/14/24 16:44

- ND Analyte NOT DETECTED at or above the reporting limit
 - NR Not Reported
 - RPD Relative Percent Difference
 - DNI Did Not Ignite
 - DNR Did not react with the addition of acid or base.
- 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 Information				Invoice Information		Lab Use Only		TAT				State					
Client: Devon				Company: Devon		Lab WO#		Job Number		1D	2D	3D	Std	NM	CO	UT	TX
Project: Spud Muffin 31-30 334H				Address: 205 E Bender Road #150		E408088		01058-0007					X	X			
Project Manager: Ashley Giovengo				City, State, Zip: Hobbs NM, 88240													
Address: 3122 National Parks Hwy				Phone: (575)748-1838													
City, State, Zip: Carlsbad NM, 88220				Email: dale.woodall@dv.com													
Phone: 575-988-0055				Miscellaneous: Dale Woodall													
Email: agiovengo@ensolum.com																	
Sample Information										Analysis and Method				EPA Program			
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ 1005 - TX	RCRA 8 Metals	SDWA	CWA	RCRA
10:20	8/7/2024	Soil	1	FS29 - 1'		1						X					
9:32	8/7/2024	Soil	1	FS30 - 1'		2						X					
9:33	8/7/2024	Soil	1	FS31 - 1'		3						X					
9:35	8/7/2024	Soil	1	FS32 - 1'		4						X					
9:36	8/7/2024	Soil	1	FS33 - 1'		5						X					
9:38	8/7/2024	Soil	1	FS34 - 1'		6						X					
10:21	8/7/2024	Soil	1	FS35 - 1'		7						X					
10:22	8/7/2024	Soil	1	FS36 - 1'		8						X					
9:40	8/7/2024	Soil	1	FS37 - 1'		9						X					
11:10	8/7/2024	Soil	1	FS38 - 1'		10						X					
Additional Instructions: Please CC: cburton@ensolum.com, agiovengo@ensolum.com, dale.woodall@dv.com, chamilton@ensolum.com, iestrella@ensolum.com																	
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: Cole Burton																	
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	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. Lab Use Only Received on ice: <input checked="" type="checkbox"/> Y / <input type="checkbox"/> N T1 _____ T2 _____ T3 _____ AVG Temp °C 4									
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time										
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 14 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

Page 2 of 3

Client Information				Invoice Information		Lab Use Only		TAT				State			
Client: Devon				Company: Devon		Lab WO#	Job Number	1D	2D	3D	Std	NM	CO	UT	TX
Project: Spud Muffin 31-30 334H				Address: 205 E Bender Road #150		E408088	01058-0007				x	x			
Project Manager: Ashley Giovengo				City, State, Zip: Hobbs NM, 88240											
Address: 3122 National Parks Hwy				Phone: (575)748-1838											
City, State, Zip: Carlsbad NM, 88220				Email: dale.woodall@dvn.com											
Phone: 575-988-0055				Miscellaneous: Dale Woodall											
Email: agiovengo@ensolum.com															
Sample Information															
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ 1005 - TX	RCRA 8 Metals	Remarks
11:11	8/7/2024	Soil	1	FS39 - 1'		11						X			
9:42	8/7/2024	Soil	1	FS40 - 1'		12						X			
11:12	8/7/2024	Soil	1	FS41 - 1'		13						X			
9:44	8/7/2024	Soil	1	FS42 - 1'		14						X			
11:13	8/7/2024	Soil	1	FS43 - 1'		15						X			
11:15	8/7/2024	Soil	1	FS44 - 1'		16						X			
9:48	8/7/2024	Soil	1	FS45 - 1'		17						X			
9:48	8/7/2024	Soil	1	FS46 - 1'		18						X			
10:05	8/7/2024	Soil	1	FS47 - 1'		19						X			
10:06	8/7/2024	Soil	1	FS48 - 1'		20						X			
Additional Instructions: Please CC: cburton@ensolum.com, agiovengo@ensolum.com, dale.woodall@dvn.com, chamilton@ensolum.com, iestrella@ensolum.com															
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: Cole Burton															
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	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. Lab Use Only Received on ice: <input checked="" type="radio"/> Y <input type="radio"/> N T1 _____ T2 _____ T3 _____ AVG Temp °C 4							
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time								
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 14 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

Page 3 of 3

Client Information				Invoice Information		Lab Use Only		TAT				State					
Client: Devon				Company: Devon		Lab WO#		1D 2D 3D Std				NM CO UT TX					
Project: Spud Muffin 31-30 334H				Address: 205 E Bender Road #150		E 408088		Job Number				01058-0007					
Project Manager: Ashley Giovengo				City, State, Zip: Hobbs NM, 88240													
Address: 3122 National Parks Hwy				Phone: (575)748-1838													
City, State, Zip: Carlsbad NM, 88220				Email: dale.woodall@dvn.com													
Phone: 575-988-0055				Miscellaneous: Dale Woodall													
Email: agiovengo@ensolum.com																	
Sample Information										Analysis and Method				EPA Program			
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ 1005 - TX	RCRA 8 Metals	SDWA	CWA	RCRA
10:06	8/7/2024	Soil	1	FS49 - 1'		21						X					
10:07	8/7/2024	Soil	1	FS50 - 1'		22						X					
13:01	8/7/2024	Soil	1	FS52 - 1'		23						X					
10:08	8/7/2024	Soil	1	FS53 - 1'		24						X					
13:02	8/7/2024	Soil	1	FS54 - 1'		25						X					
10:11	8/7/2024	Soil	1	FS58 - 1'		26						X					
13:04	8/7/2024	Soil	1	FS59 - 1'		27						X					
Additional Instructions: Please CC: cburton@ensolum.com, agiovengo@ensolum.com, dale.woodall@dvn.com, chamilton@ensolum.com, iestrella@ensolum.com																	
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: Cole Burton																	
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	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. Lab Use Only Received on ice: <input checked="" type="radio"/> Y <input type="radio"/> N T1 _____ T2 _____ T3 _____ AVG Temp °C 4									
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time										
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 14 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: 8/9/2024 8:17:45AM

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:	Devon Energy - Carlsbad	Date Received:	08/09/24 06:30	Work Order ID:	E408088
Phone:	(505) 382-1211	Date Logged In:	08/09/24 07:09	Logged In By:	Noe Soto
Email:	ashley.giovengo@wescominc.com	Due Date:	08/15/24 17:00 (4 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: CourierComments/ResolutionSample 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? Yes

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 Giovengo



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Devon Energy - Carlsbad

Project Name: Spud Muffin 31 30 334H

Work Order: E408111

Job Number: 01058-0007

Received: 8/12/2024

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
8/15/24

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.

Date Reported: 8/15/24

Ashley Giovengo
6488 7 Rivers Hwy
Artesia, NM 88210



Project Name: Spud Muffin 31 30 334H
Workorder: E408111
Date Received: 8/12/2024 8:15:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 8/12/2024 8:15:00AM, under the Project Name: Spud Muffin 31 30 334H.

The analytical test results summarized in this report with the Project Name: Spud Muffin 31 30 334H 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

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Gonzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzaless@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

Table of Contents

Title Page	1
Cover Page	2
Table of Contents	3
Sample Summary	4
Sample Data	5
SW01 - 0-2'	5
SW02 - 0-1'	6
SW03 - 0-1'	7
FS58 - 2'	8
FS66 - 3'	9
QC Summary Data	10
QC - Volatile Organic Compounds by EPA8260B	10
QC - Nonhalogenated Organics by EPA 8015D - GRO	11
QC - Nonhalogenated Organics by EPA 8015D - DRO/ORO	12
QC - Anions by EPA 300.0/9056A	13
Definitions and Notes	14
Chain of Custody etc.	15

Sample Summary

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	08/15/24 15:36

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SW01 - 0-2'	E408111-01A	Soil	08/08/24	08/12/24	Glass Jar, 2 oz.
SW02 - 0-1'	E408111-02A	Soil	08/08/24	08/12/24	Glass Jar, 2 oz.
SW03 - 0-1'	E408111-03A	Soil	08/08/24	08/12/24	Glass Jar, 2 oz.
FS58 - 2'	E408111-04A	Soil	08/08/24	08/12/24	Glass Jar, 2 oz.
FS66 - 3'	E408111-05A	Soil	08/08/24	08/12/24	Glass Jar, 2 oz.



Sample Data

Devon Energy - Carlsbad
6488 7 Rivers Hwy
Artesia NM, 88210

Project Name: Spud Muffin 31 30 334H
Project Number: 01058-0007
Project Manager: Ashley Giovengo

Reported:
8/15/2024 3:36:50PM

SW01 - 0-2'

E408111-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2433016
Benzene	ND	0.0250	1	08/12/24	08/13/24	
Ethylbenzene	ND	0.0250	1	08/12/24	08/13/24	
Toluene	ND	0.0250	1	08/12/24	08/13/24	
o-Xylene	ND	0.0250	1	08/12/24	08/13/24	
p,m-Xylene	ND	0.0500	1	08/12/24	08/13/24	
Total Xylenes	ND	0.0250	1	08/12/24	08/13/24	
Surrogate: Bromofluorobenzene		98.2 %	70-130	08/12/24	08/13/24	
Surrogate: 1,2-Dichloroethane-d4		100 %	70-130	08/12/24	08/13/24	
Surrogate: Toluene-d8		105 %	70-130	08/12/24	08/13/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2433016
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/12/24	08/13/24	
Surrogate: Bromofluorobenzene		98.2 %	70-130	08/12/24	08/13/24	
Surrogate: 1,2-Dichloroethane-d4		100 %	70-130	08/12/24	08/13/24	
Surrogate: Toluene-d8		105 %	70-130	08/12/24	08/13/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: NV		Batch: 2433014
Diesel Range Organics (C10-C28)	ND	25.0	1	08/12/24	08/12/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/12/24	08/12/24	
Surrogate: n-Nonane		84.0 %	50-200	08/12/24	08/12/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: WF		Batch: 2433048
Chloride	67.5	20.0	1	08/13/24	08/13/24	



Sample Data

Devon Energy - Carlsbad
6488 7 Rivers Hwy
Artesia NM, 88210

Project Name: Spud Muffin 31 30 334H
Project Number: 01058-0007
Project Manager: Ashley Giovengo

Reported:
8/15/2024 3:36:50PM

SW02 - 0-1'

E408111-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2433016
Benzene	ND	0.0250	1	08/12/24	08/13/24	
Ethylbenzene	ND	0.0250	1	08/12/24	08/13/24	
Toluene	ND	0.0250	1	08/12/24	08/13/24	
o-Xylene	ND	0.0250	1	08/12/24	08/13/24	
p,m-Xylene	ND	0.0500	1	08/12/24	08/13/24	
Total Xylenes	ND	0.0250	1	08/12/24	08/13/24	
Surrogate: Bromofluorobenzene	97.4 %	70-130		08/12/24	08/13/24	
Surrogate: 1,2-Dichloroethane-d4	102 %	70-130		08/12/24	08/13/24	
Surrogate: Toluene-d8	106 %	70-130		08/12/24	08/13/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2433016
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/12/24	08/13/24	
Surrogate: Bromofluorobenzene	97.4 %	70-130		08/12/24	08/13/24	
Surrogate: 1,2-Dichloroethane-d4	102 %	70-130		08/12/24	08/13/24	
Surrogate: Toluene-d8	106 %	70-130		08/12/24	08/13/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: NV		Batch: 2433014
Diesel Range Organics (C10-C28)	ND	25.0	1	08/12/24	08/12/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/12/24	08/12/24	
Surrogate: n-Nonane	93.9 %	50-200		08/12/24	08/12/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: WF		Batch: 2433048
Chloride	296	20.0	1	08/13/24	08/13/24	



Sample Data

Devon Energy - Carlsbad
6488 7 Rivers Hwy
Artesia NM, 88210

Project Name: Spud Muffin 31 30 334H
Project Number: 01058-0007
Project Manager: Ashley Giovengo

Reported:
8/15/2024 3:36:50PM

SW03 - 0-1'

E408111-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2433016
Benzene	ND	0.0250	1	08/12/24	08/13/24	
Ethylbenzene	ND	0.0250	1	08/12/24	08/13/24	
Toluene	ND	0.0250	1	08/12/24	08/13/24	
o-Xylene	ND	0.0250	1	08/12/24	08/13/24	
p,m-Xylene	ND	0.0500	1	08/12/24	08/13/24	
Total Xylenes	ND	0.0250	1	08/12/24	08/13/24	
Surrogate: Bromofluorobenzene	97.7 %	70-130		08/12/24	08/13/24	
Surrogate: 1,2-Dichloroethane-d4	99.9 %	70-130		08/12/24	08/13/24	
Surrogate: Toluene-d8	105 %	70-130		08/12/24	08/13/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2433016
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/12/24	08/13/24	
Surrogate: Bromofluorobenzene	97.7 %	70-130		08/12/24	08/13/24	
Surrogate: 1,2-Dichloroethane-d4	99.9 %	70-130		08/12/24	08/13/24	
Surrogate: Toluene-d8	105 %	70-130		08/12/24	08/13/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: NV		Batch: 2433014
Diesel Range Organics (C10-C28)	43.0	25.0	1	08/12/24	08/12/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/12/24	08/12/24	
Surrogate: n-Nonane	90.7 %	50-200		08/12/24	08/12/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: WF		Batch: 2433048
Chloride	466	20.0	1	08/13/24	08/13/24	



Sample Data

Devon Energy - Carlsbad
6488 7 Rivers Hwy
Artesia NM, 88210

Project Name: Spud Muffin 31 30 334H
Project Number: 01058-0007
Project Manager: Ashley Giovengo

Reported:
8/15/2024 3:36:50PM

FS58 - 2'

E408111-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2433016
Benzene	ND	0.0250	1	08/12/24	08/13/24	
Ethylbenzene	ND	0.0250	1	08/12/24	08/13/24	
Toluene	ND	0.0250	1	08/12/24	08/13/24	
o-Xylene	ND	0.0250	1	08/12/24	08/13/24	
p,m-Xylene	ND	0.0500	1	08/12/24	08/13/24	
Total Xylenes	ND	0.0250	1	08/12/24	08/13/24	
Surrogate: Bromofluorobenzene	97.4 %	70-130		08/12/24	08/13/24	
Surrogate: 1,2-Dichloroethane-d4	98.4 %	70-130		08/12/24	08/13/24	
Surrogate: Toluene-d8	103 %	70-130		08/12/24	08/13/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2433016
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/12/24	08/13/24	
Surrogate: Bromofluorobenzene	97.4 %	70-130		08/12/24	08/13/24	
Surrogate: 1,2-Dichloroethane-d4	98.4 %	70-130		08/12/24	08/13/24	
Surrogate: Toluene-d8	103 %	70-130		08/12/24	08/13/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: NV		Batch: 2433014
Diesel Range Organics (C10-C28)	ND	25.0	1	08/12/24	08/12/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/12/24	08/12/24	
Surrogate: n-Nonane	93.0 %	50-200		08/12/24	08/12/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: WF		Batch: 2433048
Chloride	184	20.0	1	08/13/24	08/13/24	



Sample Data

Devon Energy - Carlsbad
6488 7 Rivers Hwy
Artesia NM, 88210

Project Name: Spud Muffin 31 30 334H
Project Number: 01058-0007
Project Manager: Ashley Giovengo

Reported:
8/15/2024 3:36:50PM

FS66 - 3'

E408111-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2433016
Benzene	ND	0.0250	1	08/12/24	08/13/24	
Ethylbenzene	ND	0.0250	1	08/12/24	08/13/24	
Toluene	ND	0.0250	1	08/12/24	08/13/24	
o-Xylene	ND	0.0250	1	08/12/24	08/13/24	
p,m-Xylene	ND	0.0500	1	08/12/24	08/13/24	
Total Xylenes	ND	0.0250	1	08/12/24	08/13/24	
Surrogate: Bromofluorobenzene	97.6 %	70-130		08/12/24	08/13/24	
Surrogate: 1,2-Dichloroethane-d4	99.9 %	70-130		08/12/24	08/13/24	
Surrogate: Toluene-d8	104 %	70-130		08/12/24	08/13/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2433016
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/12/24	08/13/24	
Surrogate: Bromofluorobenzene	97.6 %	70-130		08/12/24	08/13/24	
Surrogate: 1,2-Dichloroethane-d4	99.9 %	70-130		08/12/24	08/13/24	
Surrogate: Toluene-d8	104 %	70-130		08/12/24	08/13/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: NV		Batch: 2433014
Diesel Range Organics (C10-C28)	ND	25.0	1	08/12/24	08/12/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/12/24	08/12/24	
Surrogate: n-Nonane	81.3 %	50-200		08/12/24	08/12/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: WF		Batch: 2433048
Chloride	563	20.0	1	08/13/24	08/13/24	



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	8/15/2024 3:36:50PM

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 (2433016-BLK1) Prepared: 08/12/24 Analyzed: 08/12/24

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	0.481		0.500		96.2	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.498		0.500		99.5	70-130			
Surrogate: Toluene-d8	0.524		0.500		105	70-130			

LCS (2433016-BS1) Prepared: 08/12/24 Analyzed: 08/12/24

Benzene	2.45	0.0250	2.50		98.2	70-130			
Ethylbenzene	2.51	0.0250	2.50		100	70-130			
Toluene	2.52	0.0250	2.50		101	70-130			
o-Xylene	2.41	0.0250	2.50		96.5	70-130			
p,m-Xylene	4.82	0.0500	5.00		96.4	70-130			
Total Xylenes	7.23	0.0250	7.50		96.5	70-130			
Surrogate: Bromofluorobenzene	0.487		0.500		97.3	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.486		0.500		97.1	70-130			
Surrogate: Toluene-d8	0.521		0.500		104	70-130			

Matrix Spike (2433016-MS1) Source: E408112-21 Prepared: 08/12/24 Analyzed: 08/13/24

Benzene	2.51	0.0250	2.50	ND	100	48-131			
Ethylbenzene	2.50	0.0250	2.50	ND	100	45-135			
Toluene	2.54	0.0250	2.50	ND	101	48-130			
o-Xylene	2.44	0.0250	2.50	ND	97.6	43-135			
p,m-Xylene	4.87	0.0500	5.00	ND	97.3	43-135			
Total Xylenes	7.31	0.0250	7.50	ND	97.4	43-135			
Surrogate: Bromofluorobenzene	0.491		0.500		98.2	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.516		0.500		103	70-130			
Surrogate: Toluene-d8	0.515		0.500		103	70-130			

Matrix Spike Dup (2433016-MSD1) Source: E408112-21 Prepared: 08/12/24 Analyzed: 08/13/24

Benzene	2.45	0.0250	2.50	ND	98.1	48-131	2.40	23	
Ethylbenzene	2.49	0.0250	2.50	ND	99.7	45-135	0.461	27	
Toluene	2.53	0.0250	2.50	ND	101	48-130	0.0592	24	
o-Xylene	2.43	0.0250	2.50	ND	97.4	43-135	0.185	27	
p,m-Xylene	4.90	0.0500	5.00	ND	98.0	43-135	0.696	27	
Total Xylenes	7.34	0.0250	7.50	ND	97.8	43-135	0.403	27	
Surrogate: Bromofluorobenzene	0.484		0.500		96.8	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.510		0.500		102	70-130			
Surrogate: Toluene-d8	0.523		0.500		105	70-130			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	8/15/2024 3:36:50PM

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
---------	-----------------	-----------------------------	-------------------------	---------------------------	----------	--------------------	----------	-------------------	-------

Blank (2433016-BLK1) Prepared: 08/12/24 Analyzed: 08/12/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.481		0.500		96.2	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.498		0.500		99.5	70-130			
Surrogate: Toluene-d8	0.524		0.500		105	70-130			

LCS (2433016-BS2) Prepared: 08/12/24 Analyzed: 08/13/24

Gasoline Range Organics (C6-C10)	51.0	20.0	50.0		102	70-130			
Surrogate: Bromofluorobenzene	0.489		0.500		97.8	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.492		0.500		98.4	70-130			
Surrogate: Toluene-d8	0.539		0.500		108	70-130			

Matrix Spike (2433016-MS2) Source: E408112-21 Prepared: 08/12/24 Analyzed: 08/13/24

Gasoline Range Organics (C6-C10)	51.7	20.0	50.0	ND	103	70-130			
Surrogate: Bromofluorobenzene	0.498		0.500		99.5	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.498		0.500		99.5	70-130			
Surrogate: Toluene-d8	0.534		0.500		107	70-130			

Matrix Spike Dup (2433016-MSD2) Source: E408112-21 Prepared: 08/12/24 Analyzed: 08/13/24

Gasoline Range Organics (C6-C10)	50.3	20.0	50.0	ND	101	70-130	2.60	20	
Surrogate: Bromofluorobenzene	0.496		0.500		99.1	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.506		0.500		101	70-130			
Surrogate: Toluene-d8	0.528		0.500		106	70-130			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	8/15/2024 3:36:50PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

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

Blank (2433014-BLK1) Prepared: 08/12/24 Analyzed: 08/12/24

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	48.4		50.0		96.7	50-200			

LCS (2433014-BS1) Prepared: 08/12/24 Analyzed: 08/12/24

Diesel Range Organics (C10-C28)	238	25.0	250		95.3	38-132			
Surrogate: n-Nonane	46.4		50.0		92.8	50-200			

Matrix Spike (2433014-MS1) Source: E408110-02 Prepared: 08/12/24 Analyzed: 08/13/24

Diesel Range Organics (C10-C28)	320	25.0	250	89.3	92.2	38-132			
Surrogate: n-Nonane	50.3		50.0		101	50-200			

Matrix Spike Dup (2433014-MSD1) Source: E408110-02 Prepared: 08/12/24 Analyzed: 08/13/24

Diesel Range Organics (C10-C28)	318	25.0	250	89.3	91.6	38-132	0.455	20	
Surrogate: n-Nonane	47.9		50.0		95.8	50-200			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	8/15/2024 3:36:50PM

Anions by EPA 300.0/9056A

Analyst: WF

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

Blank (2433048-BLK1)					Prepared: 08/13/24 Analyzed: 08/13/24				
Chloride	ND	20.0							
LCS (2433048-BS1)					Prepared: 08/13/24 Analyzed: 08/13/24				
Chloride	251	20.0	250		100	90-110			
Matrix Spike (2433048-MS1)					Source: E408111-01		Prepared: 08/13/24 Analyzed: 08/13/24		
Chloride	340	20.0	250	67.5	109	80-120			
Matrix Spike Dup (2433048-MSD1)					Source: E408111-01		Prepared: 08/13/24 Analyzed: 08/13/24		
Chloride	322	20.0	250	67.5	102	80-120	5.38	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

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	
6488 7 Rivers Hwy	Project Number:	01058-0007	Reported:
Artesia NM, 88210	Project Manager:	Ashley Giovengo	08/15/24 15:36

- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite
- DNR Did not react with the addition of acid or base.
- 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

Page 1 of 1

Received by OCD: 9/17/2024 3:54:22 PM

Page 15 of 16

Client Information				Invoice Information		Lab Use Only		TAT				State					
Client: Devon				Company: Devon		Lab WO#		Job Number		1D	2D	3D	Std	NM	CO	UT	TX
Project: Spud Muffin 31 30 #334H				Address: 205 E Bender Road #150		E408111		01058-0007					X	X			
Project Manager: Ashley Giovengo				City, State, Zip: Hobbs NM, 88240													
Address: 3122 National Parks Hwy				Phone: (575)748-1838													
City, State, Zip: Carlsbad NM, 88220				Email: dale.woodall@dvn.com													
Phone: 575-988-0055				Miscellaneous: Dale Woodall													
Email: agiovengo@ensolum.com																	
Sample Information						Analysis and Method								EPA Program			
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ 1005 - TX	RCRA 8 Metals	SDWA	CWA	RCRA
16:30	8/8/2024	Soil	1	SW01 - 0-2'		1						X					
15:38	8/8/2024	Soil	1	SW02 - 0-1'		2						X					
16:35	8/8/2024	Soil	1	SW03 - 0-1'		3						X					
17:00	8/8/2024	Soil	1	FS58 - 2'		4						X					
17:13	8/8/2024	Soil	1	FS66 - 3'		5						X					
Additional Instructions: Please CC: cburton@ensolum.com, agiovengo@ensolum.com, dale.woodall@dvn.com, iestrella@ensolum.com, bdeal@ensolum.com, chamilton@ensolum.com, bsimmons@ensolum.com																	
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: Brandon Deal																	
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	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. Lab Use Only Received on ice: <input checked="" type="radio"/> Y <input type="radio"/> N T1 _____ T2 _____ T3 _____ AVG Temp °C 4									
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time										
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 14 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

Page 210 of 298

Envirotech Analytical Laboratory

Printed: 8/12/2024 8:43:25AM

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:	Devon Energy - Carlsbad	Date Received:	08/12/24 08:15	Work Order ID:	E408111
Phone:	(505) 382-1211	Date Logged In:	08/12/24 08:38	Logged In By:	Alexa Michaels
Email:	ashley.giovengo@wescominc.com	Due Date:	08/16/24 17:00 (4 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: Couier**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? Yes

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: NA4

Client Instruction

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

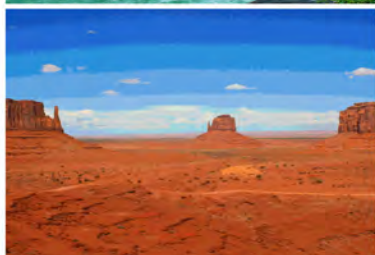
Date



envirotech Inc.

Report to:

Ashley Giovengo



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Devon Energy - Carlsbad

Project Name: Spud Muffin 31 30 334H

Work Order: E408119

Job Number: 01058-0007

Received: 8/13/2024

Revision: 2

Report Reviewed By:

Walter Hinchman
Laboratory Director
8/16/24

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.

Date Reported: 8/16/24

Ashley Giovengo
6488 7 Rivers Hwy
Artesia, NM 88210



Project Name: Spud Muffin 31 30 334H
Workorder: E408119
Date Received: 8/13/2024 10:00:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 8/13/2024 10:00:00AM, under the Project Name: Spud Muffin 31 30 334H.

The analytical test results summarized in this report with the Project Name: Spud Muffin 31 30 334H 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

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Gonzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzaless@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

Table of Contents

Title Page	1
Cover Page	2
Table of Contents	3
Sample Summary	5
Sample Data	6
FS56-2'	6
FS57-2'	7
FS64-3'	8
FS63-4'	9
FS51-3'	10
FS60-5'	11
FS65-5'	12
FS55-3'	13
FS61-3'	14
FS62-4'	15
FS67-4'	16
FS68-4'	17
FS69-4'	18
FS70-4'	19
FS71-4'	20
QC Summary Data	21
QC - Volatile Organic Compounds by EPA8260B	21
QC - Nonhalogenated Organics by EPA 8015D - GRO	22
QC - Nonhalogenated Organics by EPA 8015D - DRO/ORO	23
QC - Anions by EPA 300.0/9056A	24

Table of Contents (continued)

Definitions and Notes	25
Chain of Custody etc.	26

Sample Summary

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	08/16/24 14:57

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
FS56-2'	E408119-01A	Soil	08/09/24	08/13/24	Glass Jar, 2 oz.
FS57-2'	E408119-02A	Soil	08/09/24	08/13/24	Glass Jar, 2 oz.
FS64-3'	E408119-03A	Soil	08/09/24	08/13/24	Glass Jar, 2 oz.
FS63-4'	E408119-04A	Soil	08/09/24	08/13/24	Glass Jar, 2 oz.
FS51-3'	E408119-05A	Soil	08/09/24	08/13/24	Glass Jar, 2 oz.
FS60-5'	E408119-06A	Soil	08/09/24	08/13/24	Glass Jar, 2 oz.
FS65-5'	E408119-07A	Soil	08/09/24	08/13/24	Glass Jar, 2 oz.
FS55-3'	E408119-08A	Soil	08/09/24	08/13/24	Glass Jar, 2 oz.
FS61-3'	E408119-09A	Soil	08/09/24	08/13/24	Glass Jar, 2 oz.
FS62-4'	E408119-10A	Soil	08/09/24	08/13/24	Glass Jar, 2 oz.
FS67-4'	E408119-11A	Soil	08/09/24	08/13/24	Glass Jar, 2 oz.
FS68-4'	E408119-12A	Soil	08/09/24	08/13/24	Glass Jar, 2 oz.
FS69-4'	E408119-13A	Soil	08/09/24	08/13/24	Glass Jar, 2 oz.
FS70-4'	E408119-14A	Soil	08/09/24	08/13/24	Glass Jar, 2 oz.
FS71-4'	E408119-15A	Soil	08/09/24	08/13/24	Glass Jar, 2 oz.

Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Spud Muffin 31 30 334H Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 8/16/2024 2:57:00PM
---	--	----------------------------------

FS56-2'
E408119-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: RKS		Batch: 2433038	
Benzene	ND	0.0250	1	08/13/24	08/13/24	
Ethylbenzene	ND	0.0250	1	08/13/24	08/13/24	
Toluene	ND	0.0250	1	08/13/24	08/13/24	
o-Xylene	ND	0.0250	1	08/13/24	08/13/24	
p,m-Xylene	ND	0.0500	1	08/13/24	08/13/24	
Total Xylenes	ND	0.0250	1	08/13/24	08/13/24	
Surrogate: Bromofluorobenzene		107 %	70-130	08/13/24	08/13/24	
Surrogate: 1,2-Dichloroethane-d4		94.1 %	70-130	08/13/24	08/13/24	
Surrogate: Toluene-d8		99.4 %	70-130	08/13/24	08/13/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: RKS		Batch: 2433038	
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/13/24	08/13/24	
Surrogate: Bromofluorobenzene		107 %	70-130	08/13/24	08/13/24	
Surrogate: 1,2-Dichloroethane-d4		94.1 %	70-130	08/13/24	08/13/24	
Surrogate: Toluene-d8		99.4 %	70-130	08/13/24	08/13/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV		Batch: 2433042	
Diesel Range Organics (C10-C28)	49.9	25.0	1	08/13/24	08/13/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/13/24	08/13/24	
Surrogate: n-Nonane		105 %	50-200	08/13/24	08/13/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: JM		Batch: 2433049	
Chloride	237	20.0	1	08/13/24	08/13/24	



Sample Data

Devon Energy - Carlsbad
6488 7 Rivers Hwy
Artesia NM, 88210

Project Name: Spud Muffin 31 30 334H
Project Number: 01058-0007
Project Manager: Ashley Giovengo

Reported:
8/16/2024 2:57:00PM

FS57-2'

E408119-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2433038
Benzene	ND	0.0250	1	08/13/24	08/13/24	
Ethylbenzene	ND	0.0250	1	08/13/24	08/13/24	
Toluene	ND	0.0250	1	08/13/24	08/13/24	
o-Xylene	ND	0.0250	1	08/13/24	08/13/24	
p,m-Xylene	ND	0.0500	1	08/13/24	08/13/24	
Total Xylenes	ND	0.0250	1	08/13/24	08/13/24	
Surrogate: Bromofluorobenzene		105 %	70-130	08/13/24	08/13/24	
Surrogate: 1,2-Dichloroethane-d4		95.2 %	70-130	08/13/24	08/13/24	
Surrogate: Toluene-d8		97.5 %	70-130	08/13/24	08/13/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2433038
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/13/24	08/13/24	
Surrogate: Bromofluorobenzene		105 %	70-130	08/13/24	08/13/24	
Surrogate: 1,2-Dichloroethane-d4		95.2 %	70-130	08/13/24	08/13/24	
Surrogate: Toluene-d8		97.5 %	70-130	08/13/24	08/13/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: NV		Batch: 2433042
Diesel Range Organics (C10-C28)	144	25.0	1	08/13/24	08/13/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/13/24	08/13/24	
Surrogate: n-Nonane		95.5 %	50-200	08/13/24	08/13/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: JM		Batch: 2433049
Chloride	273	20.0	1	08/13/24	08/13/24	



Sample Data

Devon Energy - Carlsbad
6488 7 Rivers Hwy
Artesia NM, 88210

Project Name: Spud Muffin 31 30 334H
Project Number: 01058-0007
Project Manager: Ashley Giovengo

Reported:
8/16/2024 2:57:00PM

FS64-3'

E408119-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2433038
Benzene	ND	0.0250	1	08/13/24	08/13/24	
Ethylbenzene	ND	0.0250	1	08/13/24	08/13/24	
Toluene	ND	0.0250	1	08/13/24	08/13/24	
o-Xylene	ND	0.0250	1	08/13/24	08/13/24	
p,m-Xylene	ND	0.0500	1	08/13/24	08/13/24	
Total Xylenes	ND	0.0250	1	08/13/24	08/13/24	
Surrogate: Bromofluorobenzene		107 %	70-130	08/13/24	08/13/24	
Surrogate: 1,2-Dichloroethane-d4		98.3 %	70-130	08/13/24	08/13/24	
Surrogate: Toluene-d8		98.4 %	70-130	08/13/24	08/13/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2433038
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/13/24	08/13/24	
Surrogate: Bromofluorobenzene		107 %	70-130	08/13/24	08/13/24	
Surrogate: 1,2-Dichloroethane-d4		98.3 %	70-130	08/13/24	08/13/24	
Surrogate: Toluene-d8		98.4 %	70-130	08/13/24	08/13/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: NV		Batch: 2433042
Diesel Range Organics (C10-C28)	42.5	25.0	1	08/13/24	08/13/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/13/24	08/13/24	
Surrogate: n-Nonane		108 %	50-200	08/13/24	08/13/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: JM		Batch: 2433049
Chloride	253	20.0	1	08/13/24	08/13/24	



Sample Data

Devon Energy - Carlsbad
6488 7 Rivers Hwy
Artesia NM, 88210

Project Name: Spud Muffin 31 30 334H
Project Number: 01058-0007
Project Manager: Ashley Giovengo

Reported:
8/16/2024 2:57:00PM

FS63-4'

E408119-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2433038
Benzene	ND	0.0250	1	08/13/24	08/13/24	
Ethylbenzene	ND	0.0250	1	08/13/24	08/13/24	
Toluene	ND	0.0250	1	08/13/24	08/13/24	
o-Xylene	ND	0.0250	1	08/13/24	08/13/24	
p,m-Xylene	ND	0.0500	1	08/13/24	08/13/24	
Total Xylenes	ND	0.0250	1	08/13/24	08/13/24	
Surrogate: Bromofluorobenzene		103 %	70-130	08/13/24	08/13/24	
Surrogate: 1,2-Dichloroethane-d4		96.6 %	70-130	08/13/24	08/13/24	
Surrogate: Toluene-d8		97.7 %	70-130	08/13/24	08/13/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2433038
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/13/24	08/13/24	
Surrogate: Bromofluorobenzene		103 %	70-130	08/13/24	08/13/24	
Surrogate: 1,2-Dichloroethane-d4		96.6 %	70-130	08/13/24	08/13/24	
Surrogate: Toluene-d8		97.7 %	70-130	08/13/24	08/13/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: NV		Batch: 2433042
Diesel Range Organics (C10-C28)	468	25.0	1	08/13/24	08/13/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/13/24	08/13/24	
Surrogate: n-Nonane		100 %	50-200	08/13/24	08/13/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: JM		Batch: 2433049
Chloride	374	20.0	1	08/13/24	08/13/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Spud Muffin 31 30 334H Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 8/16/2024 2:57:00PM
---	--	----------------------------------

FS51-3'

E408119-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2433038
Benzene	ND	0.0250	1	08/13/24	08/13/24	
Ethylbenzene	ND	0.0250	1	08/13/24	08/13/24	
Toluene	ND	0.0250	1	08/13/24	08/13/24	
o-Xylene	ND	0.0250	1	08/13/24	08/13/24	
p,m-Xylene	ND	0.0500	1	08/13/24	08/13/24	
Total Xylenes	ND	0.0250	1	08/13/24	08/13/24	
Surrogate: Bromofluorobenzene		104 %	70-130	08/13/24	08/13/24	
Surrogate: 1,2-Dichloroethane-d4		97.4 %	70-130	08/13/24	08/13/24	
Surrogate: Toluene-d8		99.0 %	70-130	08/13/24	08/13/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2433038
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/13/24	08/13/24	
Surrogate: Bromofluorobenzene		104 %	70-130	08/13/24	08/13/24	
Surrogate: 1,2-Dichloroethane-d4		97.4 %	70-130	08/13/24	08/13/24	
Surrogate: Toluene-d8		99.0 %	70-130	08/13/24	08/13/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: NV		Batch: 2433042
Diesel Range Organics (C10-C28)	481	25.0	1	08/13/24	08/13/24	
Oil Range Organics (C28-C36)	105	50.0	1	08/13/24	08/13/24	
Surrogate: n-Nonane		99.6 %	50-200	08/13/24	08/13/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: JM		Batch: 2433049
Chloride	465	20.0	1	08/13/24	08/13/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Spud Muffin 31 30 334H Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 8/16/2024 2:57:00PM
---	--	----------------------------------

FS60-5'

E408119-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2433038
Benzene	ND	0.0250	1	08/13/24	08/13/24	
Ethylbenzene	ND	0.0250	1	08/13/24	08/13/24	
Toluene	ND	0.0250	1	08/13/24	08/13/24	
o-Xylene	ND	0.0250	1	08/13/24	08/13/24	
p,m-Xylene	ND	0.0500	1	08/13/24	08/13/24	
Total Xylenes	ND	0.0250	1	08/13/24	08/13/24	
Surrogate: Bromofluorobenzene		102 %	70-130	08/13/24	08/13/24	
Surrogate: 1,2-Dichloroethane-d4		94.7 %	70-130	08/13/24	08/13/24	
Surrogate: Toluene-d8		96.6 %	70-130	08/13/24	08/13/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2433038
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/13/24	08/13/24	
Surrogate: Bromofluorobenzene		102 %	70-130	08/13/24	08/13/24	
Surrogate: 1,2-Dichloroethane-d4		94.7 %	70-130	08/13/24	08/13/24	
Surrogate: Toluene-d8		96.6 %	70-130	08/13/24	08/13/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: NV		Batch: 2433042
Diesel Range Organics (C10-C28)	ND	25.0	1	08/13/24	08/13/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/13/24	08/13/24	
Surrogate: n-Nonane		97.2 %	50-200	08/13/24	08/13/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: JM		Batch: 2433049
Chloride	362	20.0	1	08/13/24	08/13/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Spud Muffin 31 30 334H Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 8/16/2024 2:57:00PM
---	--	----------------------------------

FS65-5'
E408119-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2433038
Benzene	ND	0.0250	1	08/13/24	08/13/24	
Ethylbenzene	ND	0.0250	1	08/13/24	08/13/24	
Toluene	ND	0.0250	1	08/13/24	08/13/24	
o-Xylene	ND	0.0250	1	08/13/24	08/13/24	
p,m-Xylene	ND	0.0500	1	08/13/24	08/13/24	
Total Xylenes	ND	0.0250	1	08/13/24	08/13/24	
Surrogate: Bromofluorobenzene		100 %	70-130	08/13/24	08/13/24	
Surrogate: 1,2-Dichloroethane-d4		95.0 %	70-130	08/13/24	08/13/24	
Surrogate: Toluene-d8		98.7 %	70-130	08/13/24	08/13/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2433038
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/13/24	08/13/24	
Surrogate: Bromofluorobenzene		100 %	70-130	08/13/24	08/13/24	
Surrogate: 1,2-Dichloroethane-d4		95.0 %	70-130	08/13/24	08/13/24	
Surrogate: Toluene-d8		98.7 %	70-130	08/13/24	08/13/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: NV		Batch: 2433042
Diesel Range Organics (C10-C28)	ND	25.0	1	08/13/24	08/13/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/13/24	08/13/24	
Surrogate: n-Nonane		89.9 %	50-200	08/13/24	08/13/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: JM		Batch: 2433049
Chloride	272	20.0	1	08/13/24	08/13/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Spud Muffin 31 30 334H Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 8/16/2024 2:57:00PM
---	--	----------------------------------

FS55-3'

E408119-08

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2433038
Benzene	ND	0.0250	1	08/13/24	08/13/24	
Ethylbenzene	ND	0.0250	1	08/13/24	08/13/24	
Toluene	ND	0.0250	1	08/13/24	08/13/24	
o-Xylene	ND	0.0250	1	08/13/24	08/13/24	
p,m-Xylene	ND	0.0500	1	08/13/24	08/13/24	
Total Xylenes	ND	0.0250	1	08/13/24	08/13/24	
Surrogate: Bromofluorobenzene		101 %	70-130	08/13/24	08/13/24	
Surrogate: 1,2-Dichloroethane-d4		93.7 %	70-130	08/13/24	08/13/24	
Surrogate: Toluene-d8		96.5 %	70-130	08/13/24	08/13/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2433038
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/13/24	08/13/24	
Surrogate: Bromofluorobenzene		101 %	70-130	08/13/24	08/13/24	
Surrogate: 1,2-Dichloroethane-d4		93.7 %	70-130	08/13/24	08/13/24	
Surrogate: Toluene-d8		96.5 %	70-130	08/13/24	08/13/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: NV		Batch: 2433042
Diesel Range Organics (C10-C28)	419	25.0	1	08/13/24	08/15/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/13/24	08/15/24	
Surrogate: n-Nonane		121 %	50-200	08/13/24	08/15/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: JM		Batch: 2433049
Chloride	534	20.0	1	08/13/24	08/13/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Spud Muffin 31 30 334H Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 8/16/2024 2:57:00PM
---	--	----------------------------------

FS61-3'

E408119-09

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2433038
Benzene	ND	0.0250	1	08/13/24	08/13/24	
Ethylbenzene	ND	0.0250	1	08/13/24	08/13/24	
Toluene	ND	0.0250	1	08/13/24	08/13/24	
o-Xylene	ND	0.0250	1	08/13/24	08/13/24	
p,m-Xylene	ND	0.0500	1	08/13/24	08/13/24	
Total Xylenes	ND	0.0250	1	08/13/24	08/13/24	
Surrogate: Bromofluorobenzene		101 %	70-130	08/13/24	08/13/24	
Surrogate: 1,2-Dichloroethane-d4		95.5 %	70-130	08/13/24	08/13/24	
Surrogate: Toluene-d8		100 %	70-130	08/13/24	08/13/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2433038
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/13/24	08/13/24	
Surrogate: Bromofluorobenzene		101 %	70-130	08/13/24	08/13/24	
Surrogate: 1,2-Dichloroethane-d4		95.5 %	70-130	08/13/24	08/13/24	
Surrogate: Toluene-d8		100 %	70-130	08/13/24	08/13/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: NV		Batch: 2433042
Diesel Range Organics (C10-C28)	8170	500	20	08/13/24	08/15/24	
Oil Range Organics (C28-C36)	4180	1000	20	08/13/24	08/15/24	
Surrogate: n-Nonane		123 %	50-200	08/13/24	08/15/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: JM		Batch: 2433049
Chloride	8970	200	10	08/13/24	08/13/24	



Sample Data

Devon Energy - Carlsbad
6488 7 Rivers Hwy
Artesia NM, 88210

Project Name: Spud Muffin 31 30 334H
Project Number: 01058-0007
Project Manager: Ashley Giovengo

Reported:
8/16/2024 2:57:00PM

FS62-4'

E408119-10

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2433038
Benzene	ND	0.0250	1	08/13/24	08/13/24	
Ethylbenzene	ND	0.0250	1	08/13/24	08/13/24	
Toluene	ND	0.0250	1	08/13/24	08/13/24	
o-Xylene	ND	0.0250	1	08/13/24	08/13/24	
p,m-Xylene	ND	0.0500	1	08/13/24	08/13/24	
Total Xylenes	ND	0.0250	1	08/13/24	08/13/24	
Surrogate: Bromofluorobenzene		104 %	70-130	08/13/24	08/13/24	
Surrogate: 1,2-Dichloroethane-d4		95.1 %	70-130	08/13/24	08/13/24	
Surrogate: Toluene-d8		98.0 %	70-130	08/13/24	08/13/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2433038
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/13/24	08/13/24	
Surrogate: Bromofluorobenzene		104 %	70-130	08/13/24	08/13/24	
Surrogate: 1,2-Dichloroethane-d4		95.1 %	70-130	08/13/24	08/13/24	
Surrogate: Toluene-d8		98.0 %	70-130	08/13/24	08/13/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: NV		Batch: 2433042
Diesel Range Organics (C10-C28)	402	25.0	1	08/13/24	08/15/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/13/24	08/15/24	
Surrogate: n-Nonane		117 %	50-200	08/13/24	08/15/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: JM		Batch: 2433049
Chloride	368	20.0	1	08/13/24	08/13/24	



Sample Data

Devon Energy - Carlsbad
6488 7 Rivers Hwy
Artesia NM, 88210

Project Name: Spud Muffin 31 30 334H
Project Number: 01058-0007
Project Manager: Ashley Giovengo

Reported:
8/16/2024 2:57:00PM

FS67-4'

E408119-11

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2433038
Benzene	ND	0.0250	1	08/13/24	08/13/24	
Ethylbenzene	ND	0.0250	1	08/13/24	08/13/24	
Toluene	ND	0.0250	1	08/13/24	08/13/24	
o-Xylene	ND	0.0250	1	08/13/24	08/13/24	
p,m-Xylene	ND	0.0500	1	08/13/24	08/13/24	
Total Xylenes	ND	0.0250	1	08/13/24	08/13/24	
Surrogate: Bromofluorobenzene		104 %	70-130	08/13/24	08/13/24	
Surrogate: 1,2-Dichloroethane-d4		96.6 %	70-130	08/13/24	08/13/24	
Surrogate: Toluene-d8		97.1 %	70-130	08/13/24	08/13/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2433038
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/13/24	08/13/24	
Surrogate: Bromofluorobenzene		104 %	70-130	08/13/24	08/13/24	
Surrogate: 1,2-Dichloroethane-d4		96.6 %	70-130	08/13/24	08/13/24	
Surrogate: Toluene-d8		97.1 %	70-130	08/13/24	08/13/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: NV		Batch: 2433042
Diesel Range Organics (C10-C28)	ND	25.0	1	08/13/24	08/13/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/13/24	08/13/24	
Surrogate: n-Nonane		103 %	50-200	08/13/24	08/13/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: JM		Batch: 2433049
Chloride	838	20.0	1	08/13/24	08/13/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Spud Muffin 31 30 334H Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 8/16/2024 2:57:00PM
---	--	----------------------------------

FS68-4'

E408119-12

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2433038
Benzene	ND	0.0250	1	08/13/24	08/13/24	
Ethylbenzene	ND	0.0250	1	08/13/24	08/13/24	
Toluene	ND	0.0250	1	08/13/24	08/13/24	
o-Xylene	ND	0.0250	1	08/13/24	08/13/24	
p,m-Xylene	ND	0.0500	1	08/13/24	08/13/24	
Total Xylenes	ND	0.0250	1	08/13/24	08/13/24	
Surrogate: Bromofluorobenzene		104 %	70-130	08/13/24	08/13/24	
Surrogate: 1,2-Dichloroethane-d4		94.3 %	70-130	08/13/24	08/13/24	
Surrogate: Toluene-d8		98.3 %	70-130	08/13/24	08/13/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2433038
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/13/24	08/13/24	
Surrogate: Bromofluorobenzene		104 %	70-130	08/13/24	08/13/24	
Surrogate: 1,2-Dichloroethane-d4		94.3 %	70-130	08/13/24	08/13/24	
Surrogate: Toluene-d8		98.3 %	70-130	08/13/24	08/13/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: NV		Batch: 2433042
Diesel Range Organics (C10-C28)	ND	25.0	1	08/13/24	08/13/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/13/24	08/13/24	
Surrogate: n-Nonane		107 %	50-200	08/13/24	08/13/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: JM		Batch: 2433049
Chloride	232	20.0	1	08/13/24	08/13/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Spud Muffin 31 30 334H Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 8/16/2024 2:57:00PM
---	--	----------------------------------

FS69-4'

E408119-13

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2433038
Benzene	ND	0.0250	1	08/13/24	08/13/24	
Ethylbenzene	ND	0.0250	1	08/13/24	08/13/24	
Toluene	ND	0.0250	1	08/13/24	08/13/24	
o-Xylene	ND	0.0250	1	08/13/24	08/13/24	
p,m-Xylene	ND	0.0500	1	08/13/24	08/13/24	
Total Xylenes	ND	0.0250	1	08/13/24	08/13/24	
Surrogate: Bromofluorobenzene		103 %	70-130	08/13/24	08/13/24	
Surrogate: 1,2-Dichloroethane-d4		96.4 %	70-130	08/13/24	08/13/24	
Surrogate: Toluene-d8		99.4 %	70-130	08/13/24	08/13/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2433038
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/13/24	08/13/24	
Surrogate: Bromofluorobenzene		103 %	70-130	08/13/24	08/13/24	
Surrogate: 1,2-Dichloroethane-d4		96.4 %	70-130	08/13/24	08/13/24	
Surrogate: Toluene-d8		99.4 %	70-130	08/13/24	08/13/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: NV		Batch: 2433042
Diesel Range Organics (C10-C28)	117	25.0	1	08/13/24	08/14/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/13/24	08/14/24	
Surrogate: n-Nonane		104 %	50-200	08/13/24	08/14/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: JM		Batch: 2433049
Chloride	733	20.0	1	08/13/24	08/13/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Spud Muffin 31 30 334H Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 8/16/2024 2:57:00PM
---	--	----------------------------------

FS70-4'

E408119-14

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2433038
Benzene	ND	0.0250	1	08/13/24	08/13/24	
Ethylbenzene	ND	0.0250	1	08/13/24	08/13/24	
Toluene	ND	0.0250	1	08/13/24	08/13/24	
o-Xylene	ND	0.0250	1	08/13/24	08/13/24	
p,m-Xylene	ND	0.0500	1	08/13/24	08/13/24	
Total Xylenes	ND	0.0250	1	08/13/24	08/13/24	
Surrogate: Bromofluorobenzene		102 %	70-130	08/13/24	08/13/24	
Surrogate: 1,2-Dichloroethane-d4		92.0 %	70-130	08/13/24	08/13/24	
Surrogate: Toluene-d8		98.9 %	70-130	08/13/24	08/13/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2433038
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/13/24	08/13/24	
Surrogate: Bromofluorobenzene		102 %	70-130	08/13/24	08/13/24	
Surrogate: 1,2-Dichloroethane-d4		92.0 %	70-130	08/13/24	08/13/24	
Surrogate: Toluene-d8		98.9 %	70-130	08/13/24	08/13/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: NV		Batch: 2433042
Diesel Range Organics (C10-C28)	193	25.0	1	08/13/24	08/14/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/13/24	08/14/24	
Surrogate: n-Nonane		102 %	50-200	08/13/24	08/14/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: JM		Batch: 2433049
Chloride	1680	40.0	2	08/13/24	08/13/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Spud Muffin 31 30 334H Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 8/16/2024 2:57:00PM
---	--	----------------------------------

FS71-4'

E408119-15

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2433038
Benzene	ND	0.0250	1	08/13/24	08/13/24	
Ethylbenzene	ND	0.0250	1	08/13/24	08/13/24	
Toluene	ND	0.0250	1	08/13/24	08/13/24	
o-Xylene	ND	0.0250	1	08/13/24	08/13/24	
p,m-Xylene	ND	0.0500	1	08/13/24	08/13/24	
Total Xylenes	ND	0.0250	1	08/13/24	08/13/24	
Surrogate: Bromofluorobenzene		103 %	70-130	08/13/24	08/13/24	
Surrogate: 1,2-Dichloroethane-d4		95.5 %	70-130	08/13/24	08/13/24	
Surrogate: Toluene-d8		97.6 %	70-130	08/13/24	08/13/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2433038
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/13/24	08/13/24	
Surrogate: Bromofluorobenzene		103 %	70-130	08/13/24	08/13/24	
Surrogate: 1,2-Dichloroethane-d4		95.5 %	70-130	08/13/24	08/13/24	
Surrogate: Toluene-d8		97.6 %	70-130	08/13/24	08/13/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: NV		Batch: 2433042
Diesel Range Organics (C10-C28)	392	25.0	1	08/13/24	08/14/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/13/24	08/14/24	
Surrogate: n-Nonane		103 %	50-200	08/13/24	08/14/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: JM		Batch: 2433049
Chloride	338	20.0	1	08/13/24	08/13/24	



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	8/16/2024 2:57:00PM

Volatile Organic Compounds by EPA 8260B

Analyst: RKS

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

Blank (2433038-BLK1) Prepared: 08/13/24 Analyzed: 08/13/24

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	0.517		0.500		103	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.487		0.500		97.3	70-130			
Surrogate: Toluene-d8	0.490		0.500		97.9	70-130			

LCS (2433038-BS1) Prepared: 08/13/24 Analyzed: 08/13/24

Benzene	2.31	0.0250	2.50		92.4	70-130			
Ethylbenzene	2.46	0.0250	2.50		98.3	70-130			
Toluene	2.28	0.0250	2.50		91.3	70-130			
o-Xylene	2.40	0.0250	2.50		96.0	70-130			
p,m-Xylene	4.83	0.0500	5.00		96.6	70-130			
Total Xylenes	7.23	0.0250	7.50		96.4	70-130			
Surrogate: Bromofluorobenzene	0.508		0.500		102	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.479		0.500		95.8	70-130			
Surrogate: Toluene-d8	0.500		0.500		99.9	70-130			

Matrix Spike (2433038-MS1) Source: E408119-09 Prepared: 08/13/24 Analyzed: 08/13/24

Benzene	2.28	0.0250	2.50	ND	91.2	48-131			
Ethylbenzene	2.45	0.0250	2.50	ND	97.8	45-135			
Toluene	2.24	0.0250	2.50	ND	89.7	48-130			
o-Xylene	2.48	0.0250	2.50	ND	99.3	43-135			
p,m-Xylene	4.98	0.0500	5.00	ND	99.6	43-135			
Total Xylenes	7.46	0.0250	7.50	ND	99.5	43-135			
Surrogate: Bromofluorobenzene	0.528		0.500		106	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.464		0.500		92.8	70-130			
Surrogate: Toluene-d8	0.490		0.500		98.0	70-130			

Matrix Spike Dup (2433038-MSD1) Source: E408119-09 Prepared: 08/13/24 Analyzed: 08/13/24

Benzene	2.49	0.0250	2.50	ND	99.8	48-131	8.97	23	
Ethylbenzene	2.48	0.0250	2.50	ND	99.2	45-135	1.38	27	
Toluene	2.33	0.0250	2.50	ND	93.3	48-130	3.93	24	
o-Xylene	2.56	0.0250	2.50	ND	102	43-135	2.86	27	
p,m-Xylene	5.11	0.0500	5.00	ND	102	43-135	2.49	27	
Total Xylenes	7.66	0.0250	7.50	ND	102	43-135	2.61	27	
Surrogate: Bromofluorobenzene	0.521		0.500		104	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.471		0.500		94.1	70-130			
Surrogate: Toluene-d8	0.487		0.500		97.4	70-130			

QC Summary Data

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	8/16/2024 2:57:00PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

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

Blank (2433038-BLK1) Prepared: 08/13/24 Analyzed: 08/13/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.517		0.500		103	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.487		0.500		97.3	70-130			
Surrogate: Toluene-d8	0.490		0.500		97.9	70-130			

LCS (2433038-BS2) Prepared: 08/13/24 Analyzed: 08/13/24

Gasoline Range Organics (C6-C10)	46.5	20.0	50.0		93.1	70-130			
Surrogate: Bromofluorobenzene	0.519		0.500		104	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.483		0.500		96.6	70-130			
Surrogate: Toluene-d8	0.500		0.500		100	70-130			

Matrix Spike (2433038-MS2) Source: E408119-09 Prepared: 08/13/24 Analyzed: 08/13/24

Gasoline Range Organics (C6-C10)	51.2	20.0	50.0	ND	102	70-130			
Surrogate: Bromofluorobenzene	0.530		0.500		106	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.480		0.500		96.0	70-130			
Surrogate: Toluene-d8	0.494		0.500		98.8	70-130			

Matrix Spike Dup (2433038-MSD2) Source: E408119-09 Prepared: 08/13/24 Analyzed: 08/13/24

Gasoline Range Organics (C6-C10)	48.4	20.0	50.0	ND	96.8	70-130	5.68	20	
Surrogate: Bromofluorobenzene	0.527		0.500		105	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.478		0.500		95.5	70-130			
Surrogate: Toluene-d8	0.501		0.500		100	70-130			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	8/16/2024 2:57:00PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

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

Blank (2433042-BLK1) Prepared: 08/13/24 Analyzed: 08/13/24

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	55.9		50.0		112	50-200			

LCS (2433042-BS1) Prepared: 08/13/24 Analyzed: 08/13/24

Diesel Range Organics (C10-C28)	308	25.0	250		123	38-132			
Surrogate: n-Nonane	57.6		50.0		115	50-200			

Matrix Spike (2433042-MS1) Source: E408119-08 Prepared: 08/13/24 Analyzed: 08/15/24

Diesel Range Organics (C10-C28)	787	25.0	250	419	147	38-132			M4
Surrogate: n-Nonane	61.4		50.0		123	50-200			

Matrix Spike Dup (2433042-MSD1) Source: E408119-08 Prepared: 08/13/24 Analyzed: 08/15/24

Diesel Range Organics (C10-C28)	677	25.0	250	419	103	38-132	15.1	20	
Surrogate: n-Nonane	61.7		50.0		123	50-200			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	8/16/2024 2:57:00PM

Anions by EPA 300.0/9056A

Analyst: JM

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

Blank (2433049-BLK1)					Prepared: 08/13/24 Analyzed: 08/13/24				
Chloride	ND	20.0							
LCS (2433049-BS1)					Prepared: 08/13/24 Analyzed: 08/13/24				
Chloride	252	20.0	250		101	90-110			
Matrix Spike (2433049-MS1)					Source: E408119-09		Prepared: 08/13/24 Analyzed: 08/13/24		
Chloride	8130	200	250	8970	NR	80-120			M4
Matrix Spike Dup (2433049-MSD1)					Source: E408119-09		Prepared: 08/13/24 Analyzed: 08/13/24		
Chloride	10200	200	250	8970	481	80-120	22.3	20	M4, R3

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

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	
6488 7 Rivers Hwy	Project Number:	01058-0007	Reported:
Artesia NM, 88210	Project Manager:	Ashley Giovengo	08/16/24 14:57

- 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
- DNR Did not react with the addition of acid or base.

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

Page 1 of 2

Client Information				Invoice Information		Lab Use Only		TAT				State					
Client: Devon				Company: Devon		Lab WO# E408119		Job Number 01058-0007		1D	2D	3D	Std	NM	CO	UT	TX
Project: Spud Muffin 31 30 #334H				Address: 205 E Bender Road #150										x			
Project Manager: Ashley Giovengo				City, State, Zip: Hobbs NM, 88240													
Address: 3122 National Parks Hwy				Phone: (575)748-1838													
City, State, Zip: Carlsbad NM, 88220				Email: dale.woodall@dvn.com													
Phone: 575-988-0055				Miscellaneous: Dale Woodall													
Email: agiovengo@ensolum.com																	
Sample Information										Analysis and Method				EPA Program			
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ 1005 - TX	RCRA 8 Metals	SDWA	CWA	RCRA
10:00	8/9/2024	Soil	1	FS56 - 2'		1						X					
10:02	8/9/2024	Soil	1	FS57 - 2'		2						X					
11:50	8/9/2024	Soil	1	FS64 - 3'		3						X					
13:37	8/9/2024	Soil	1	FS63 - 4'		4						X					
14:49	8/9/2024	Soil	1	FS51 - 3'		5						X					
14:47	8/9/2024	Soil	1	FS60 - 5'		6						X					
14:50	8/9/2024	Soil	1	FS65 - 5'		7						X					
16:40	8/9/2024	Soil	1	FS55 - 3'		8						X					
15:43	8/9/2024	Soil	1	FS61 - 3'		9						X					
17:22	8/9/2024	Soil	1	FS62 - 4'		10						X					
Additional Instructions: Please CC: cburton@ensolum.com, agiovengo@ensolum.com, dale.woodall@dvn.com, iestrella@ensolum.com, bdeal@ensolum.com, chamilton@ensolum.com, bsimmons@ensolum.com																	
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: Brandon Deal																	
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	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. Lab Use Only Received on ice: <input checked="" type="radio"/> Y / N T1 _____ T2 _____ T3 _____ AVG Temp °C 4									
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time										
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 14 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 Information				Invoice Information				Lab Use Only				TAT				State																				
Client: Devon				Company: Devon				Lab WO#		Job Number		1D	2D	3D	Std	NM	CO	UT	TX																	
Project: Spud Muffin 31 30 #334H				Address: 205 E Bender Road #150				E408119		01058-0007					x	x																				
Project Manager: Ashley Gioveno				City, State, Zip: Hobbs NM, 88240				<div>Analysis and Method</div> <table><tr><td rowspan="3">DRO/ORO by 8015</td><td rowspan="3">GRO/DRO by 8015</td><td rowspan="3">BTEX by 8021</td><td rowspan="3">VOC by 8260</td><td rowspan="3">Chloride 300.0</td><td rowspan="3">BGDOC - NM</td><td rowspan="3">TCEQ 1005 - TX</td><td rowspan="3">RCRA 8 Metals</td><td colspan="4">EPA Program</td></tr><tr><td>SDWA</td><td>CWA</td><td>RCRA</td></tr><tr><td>Compliance</td><td>Y</td><td>or</td><td>N</td></tr></table>										DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ 1005 - TX	RCRA 8 Metals	EPA Program				SDWA	CWA	RCRA	Compliance	Y	or	N
DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ 1005 - TX	RCRA 8 Metals																			EPA Program										
																										SDWA	CWA	RCRA								
								Compliance	Y	or	N																									
Address: 3122 National Parks Hwy				Phone: (575)748-1838				PWSID #																												
City, State, Zip: Carlsbad NM, 88220				Email: dale.woodall@dv.com				Remarks																												
Phone: 575-988-0055				Miscellaneous: Dale Woodall																																
Email: agioveno@ensolum.com																																				
Sample Information																																				
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field	Filter	Lab Number																													
15:34	8/9/2024	Soil	1	FS67 - 4'			11																													
15:32	8/9/2024	Soil	1	FS68 - 4'			12																													
15:38	8/9/2024	Soil	1	FS69 - 4'			13																													
15:36	8/9/2024	Soil	1	FS70 - 4'			14																													
15:54	8/9/2024	Soil	1	FS71 - 4'			15																													
Additional Instructions: Please CC: cburton@ensolum.com, agioveno@ensolum.com, dale.woodall@dv.com, iestrella@ensolum.com, bdeal@ensolum.com, chamilton@ensolum.com, bsimmons@ensolum.com																																				
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: Brandon Deal																																				
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	<div>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</div> <div>Lab Use Only</div> <div>Received on ice: Y/ N</div> <div>T1 T2 T3</div> <div>AVG Temp °C 4</div>																												
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time																													
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 14 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: 8/13/2024 10:04:30AM

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:	Devon Energy - Carlsbad	Date Received:	08/13/24 10:00	Work Order ID:	E408119
Phone:	(505) 382-1211	Date Logged In:	08/12/24 15:43	Logged In By:	Alexa Michaels
Email:	ashley.giovengo@wescominc.com	Due Date:	08/19/24 17:00 (4 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: CourierComments/ResolutionSample 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? Yes

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 Giovengo



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Devon Energy - Carlsbad

Project Name: Spud Muffin 31 30 334H

Work Order: E408167

Job Number: 01058-0007

Received: 8/20/2024

Revision: 3

Report Reviewed By:

Walter Hinchman
Laboratory Director
9/13/24

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.

Date Reported: 9/13/24

Ashley Giovengo
6488 7 Rivers Hwy
Artesia, NM 88210



Project Name: Spud Muffin 31 30 334H
Workorder: E408167
Date Received: 8/20/2024 5:00:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 8/20/2024 5:00:00AM, under the Project Name: Spud Muffin 31 30 334H.

The analytical test results summarized in this report with the Project Name: Spud Muffin 31 30 334H 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

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Gonzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

Table of Contents

Title Page	1
Cover Page	2
Table of Contents	3
Sample Summary	4
Sample Data	5
FS15 - 2'	5
FS33 - 1.5'	6
FS34 - 1.5'	7
FS49 - 1.5'	8
FS50 - 1.5'	9
FS52 - 1.5'	10
SW04 - 0-1'	11
SW05 - 0-4'	12
BH04 - 0'	13
BH04 - 2'	14
BH04 - 4'	15
QC Summary Data	16
QC - Volatile Organic Compounds by EPA8260B	16
QC - Nonhalogenated Organics by EPA 8015D - GRO	17
QC - Nonhalogenated Organics by EPA 8015D - DRO/ORO	18
QC - Anions by EPA 300.0/9056A	19
Definitions and Notes	20
Chain of Custody etc.	21

Sample Summary

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	09/13/24 10:06

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
FS15 - 2'	E408167-01A	Soil	08/16/24	08/20/24	Glass Jar, 2 oz.
FS33 - 1.5'	E408167-02A	Soil	08/16/24	08/20/24	Glass Jar, 2 oz.
FS34 - 1.5'	E408167-03A	Soil	08/16/24	08/20/24	Glass Jar, 2 oz.
FS49 - 1.5'	E408167-04A	Soil	08/16/24	08/20/24	Glass Jar, 2 oz.
FS50 - 1.5'	E408167-05A	Soil	08/16/24	08/20/24	Glass Jar, 2 oz.
FS52 - 1.5'	E408167-06A	Soil	08/16/24	08/20/24	Glass Jar, 2 oz.
SW04 - 0-1'	E408167-07A	Soil	08/16/24	08/20/24	Glass Jar, 2 oz.
SW05 - 0-4'	E408167-08A	Soil	08/16/24	08/20/24	Glass Jar, 2 oz.
BH04 - 0'	E408167-09A	Soil	08/16/24	08/20/24	Glass Jar, 2 oz.
BH04 - 2'	E408167-10A	Soil	08/16/24	08/20/24	Glass Jar, 2 oz.
BH04 - 4'	E408167-11A	Soil	08/16/24	08/20/24	Glass Jar, 2 oz.

Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Spud Muffin 31 30 334H Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 9/13/2024 10:06:19AM
---	--	-----------------------------------

FS15 - 2'

E408167-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: IY		Batch: 2434023	
Benzene	ND	0.0250	1	08/20/24	08/20/24	
Ethylbenzene	ND	0.0250	1	08/20/24	08/20/24	
Toluene	ND	0.0250	1	08/20/24	08/20/24	
o-Xylene	ND	0.0250	1	08/20/24	08/20/24	
p,m-Xylene	ND	0.0500	1	08/20/24	08/20/24	
Total Xylenes	ND	0.0250	1	08/20/24	08/20/24	
Surrogate: Bromofluorobenzene		97.6 %	70-130	08/20/24	08/20/24	
Surrogate: 1,2-Dichloroethane-d4		94.2 %	70-130	08/20/24	08/20/24	
Surrogate: Toluene-d8		103 %	70-130	08/20/24	08/20/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: IY		Batch: 2434023	
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/20/24	08/20/24	
Surrogate: Bromofluorobenzene		97.6 %	70-130	08/20/24	08/20/24	
Surrogate: 1,2-Dichloroethane-d4		94.2 %	70-130	08/20/24	08/20/24	
Surrogate: Toluene-d8		103 %	70-130	08/20/24	08/20/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV		Batch: 2434028	
Diesel Range Organics (C10-C28)	ND	25.0	1	08/20/24	08/20/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/20/24	08/20/24	
Surrogate: n-Nonane		104 %	50-200	08/20/24	08/20/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT		Batch: 2434034	
Chloride	20.4	20.0	1	08/20/24	08/20/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Spud Muffin 31 30 334H Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 9/13/2024 10:06:19AM
---	--	-----------------------------------

FS33 - 1.5'
E408167-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg	Analyst: IY		Batch: 2434023	
Benzene	ND	0.0250	1	08/20/24	08/20/24	
Ethylbenzene	ND	0.0250	1	08/20/24	08/20/24	
Toluene	ND	0.0250	1	08/20/24	08/20/24	
o-Xylene	ND	0.0250	1	08/20/24	08/20/24	
p,m-Xylene	ND	0.0500	1	08/20/24	08/20/24	
Total Xylenes	ND	0.0250	1	08/20/24	08/20/24	
Surrogate: Bromofluorobenzene	97.8 %	70-130		08/20/24	08/20/24	
Surrogate: 1,2-Dichloroethane-d4	97.2 %	70-130		08/20/24	08/20/24	
Surrogate: Toluene-d8	104 %	70-130		08/20/24	08/20/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: IY		Batch: 2434023	
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/20/24	08/20/24	
Surrogate: Bromofluorobenzene	97.8 %	70-130		08/20/24	08/20/24	
Surrogate: 1,2-Dichloroethane-d4	97.2 %	70-130		08/20/24	08/20/24	
Surrogate: Toluene-d8	104 %	70-130		08/20/24	08/20/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: NV		Batch: 2434028	
Diesel Range Organics (C10-C28)	ND	25.0	1	08/20/24	08/20/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/20/24	08/20/24	
Surrogate: n-Nonane	113 %	50-200		08/20/24	08/20/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: DT		Batch: 2434034	
Chloride	227	20.0	1	08/20/24	08/20/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Spud Muffin 31 30 334H Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 9/13/2024 10:06:19AM
---	--	-----------------------------------

FS34 - 1.5'
E408167-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg	Analyst: IY		Batch: 2434023	
Benzene	ND	0.0250	1	08/20/24	08/20/24	
Ethylbenzene	ND	0.0250	1	08/20/24	08/20/24	
Toluene	ND	0.0250	1	08/20/24	08/20/24	
o-Xylene	ND	0.0250	1	08/20/24	08/20/24	
p,m-Xylene	ND	0.0500	1	08/20/24	08/20/24	
Total Xylenes	ND	0.0250	1	08/20/24	08/20/24	
Surrogate: Bromofluorobenzene	97.9 %	70-130		08/20/24	08/20/24	
Surrogate: 1,2-Dichloroethane-d4	98.6 %	70-130		08/20/24	08/20/24	
Surrogate: Toluene-d8	105 %	70-130		08/20/24	08/20/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: IY		Batch: 2434023	
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/20/24	08/20/24	
Surrogate: Bromofluorobenzene	97.9 %	70-130		08/20/24	08/20/24	
Surrogate: 1,2-Dichloroethane-d4	98.6 %	70-130		08/20/24	08/20/24	
Surrogate: Toluene-d8	105 %	70-130		08/20/24	08/20/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: NV		Batch: 2434028	
Diesel Range Organics (C10-C28)	ND	25.0	1	08/20/24	08/20/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/20/24	08/20/24	
Surrogate: n-Nonane	114 %	50-200		08/20/24	08/20/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: DT		Batch: 2434034	
Chloride	175	20.0	1	08/20/24	08/20/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Spud Muffin 31 30 334H Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 9/13/2024 10:06:19AM
---	--	-----------------------------------

FS49 - 1.5'
E408167-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2434023
Benzene	ND	0.0250	1	08/20/24	08/20/24	
Ethylbenzene	ND	0.0250	1	08/20/24	08/20/24	
Toluene	ND	0.0250	1	08/20/24	08/20/24	
o-Xylene	ND	0.0250	1	08/20/24	08/20/24	
p,m-Xylene	ND	0.0500	1	08/20/24	08/20/24	
Total Xylenes	ND	0.0250	1	08/20/24	08/20/24	
Surrogate: Bromofluorobenzene	94.3 %	70-130		08/20/24	08/20/24	
Surrogate: 1,2-Dichloroethane-d4	93.5 %	70-130		08/20/24	08/20/24	
Surrogate: Toluene-d8	106 %	70-130		08/20/24	08/20/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2434023
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/20/24	08/20/24	
Surrogate: Bromofluorobenzene	94.3 %	70-130		08/20/24	08/20/24	
Surrogate: 1,2-Dichloroethane-d4	93.5 %	70-130		08/20/24	08/20/24	
Surrogate: Toluene-d8	106 %	70-130		08/20/24	08/20/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: NV		Batch: 2434028
Diesel Range Organics (C10-C28)	ND	25.0	1	08/20/24	08/20/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/20/24	08/20/24	
Surrogate: n-Nonane	111 %	50-200		08/20/24	08/20/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2434034
Chloride	204	20.0	1	08/20/24	08/20/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Spud Muffin 31 30 334H Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 9/13/2024 10:06:19AM
---	--	-----------------------------------

FS50 - 1.5'
E408167-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg	Analyst: IY		Batch: 2434023	
Benzene	ND	0.0250	1	08/20/24	08/20/24	
Ethylbenzene	ND	0.0250	1	08/20/24	08/20/24	
Toluene	ND	0.0250	1	08/20/24	08/20/24	
o-Xylene	ND	0.0250	1	08/20/24	08/20/24	
p,m-Xylene	ND	0.0500	1	08/20/24	08/20/24	
Total Xylenes	ND	0.0250	1	08/20/24	08/20/24	
Surrogate: Bromofluorobenzene	98.0 %	70-130		08/20/24	08/20/24	
Surrogate: 1,2-Dichloroethane-d4	94.0 %	70-130		08/20/24	08/20/24	
Surrogate: Toluene-d8	105 %	70-130		08/20/24	08/20/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: IY		Batch: 2434023	
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/20/24	08/20/24	
Surrogate: Bromofluorobenzene	98.0 %	70-130		08/20/24	08/20/24	
Surrogate: 1,2-Dichloroethane-d4	94.0 %	70-130		08/20/24	08/20/24	
Surrogate: Toluene-d8	105 %	70-130		08/20/24	08/20/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: NV		Batch: 2434028	
Diesel Range Organics (C10-C28)	ND	25.0	1	08/20/24	08/20/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/20/24	08/20/24	
Surrogate: n-Nonane	111 %	50-200		08/20/24	08/20/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: DT		Batch: 2434034	
Chloride	150	20.0	1	08/20/24	08/20/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Spud Muffin 31 30 334H Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 9/13/2024 10:06:19AM
---	--	-----------------------------------

FS52 - 1.5'
E408167-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2434023
Benzene	ND	0.0250	1	08/20/24	08/20/24	
Ethylbenzene	ND	0.0250	1	08/20/24	08/20/24	
Toluene	ND	0.0250	1	08/20/24	08/20/24	
o-Xylene	ND	0.0250	1	08/20/24	08/20/24	
p,m-Xylene	ND	0.0500	1	08/20/24	08/20/24	
Total Xylenes	ND	0.0250	1	08/20/24	08/20/24	
Surrogate: Bromofluorobenzene	97.8 %	70-130		08/20/24	08/20/24	
Surrogate: 1,2-Dichloroethane-d4	100 %	70-130		08/20/24	08/20/24	
Surrogate: Toluene-d8	106 %	70-130		08/20/24	08/20/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2434023
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/20/24	08/20/24	
Surrogate: Bromofluorobenzene	97.8 %	70-130		08/20/24	08/20/24	
Surrogate: 1,2-Dichloroethane-d4	100 %	70-130		08/20/24	08/20/24	
Surrogate: Toluene-d8	106 %	70-130		08/20/24	08/20/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: NV		Batch: 2434028
Diesel Range Organics (C10-C28)	ND	25.0	1	08/20/24	08/20/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/20/24	08/20/24	
Surrogate: n-Nonane	108 %	50-200		08/20/24	08/20/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2434034
Chloride	20.1	20.0	1	08/20/24	08/20/24	



Sample Data

Devon Energy - Carlsbad
6488 7 Rivers Hwy
Artesia NM, 88210

Project Name: Spud Muffin 31 30 334H
Project Number: 01058-0007
Project Manager: Ashley Giovengo

Reported:
9/13/2024 10:06:19AM

SW04 - 0-1'

E408167-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2434023
Benzene	ND	0.0250	1	08/20/24	08/20/24	
Ethylbenzene	ND	0.0250	1	08/20/24	08/20/24	
Toluene	ND	0.0250	1	08/20/24	08/20/24	
o-Xylene	ND	0.0250	1	08/20/24	08/20/24	
p,m-Xylene	ND	0.0500	1	08/20/24	08/20/24	
Total Xylenes	ND	0.0250	1	08/20/24	08/20/24	
Surrogate: Bromofluorobenzene	95.9 %	70-130		08/20/24	08/20/24	
Surrogate: 1,2-Dichloroethane-d4	94.6 %	70-130		08/20/24	08/20/24	
Surrogate: Toluene-d8	104 %	70-130		08/20/24	08/20/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2434023
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/20/24	08/20/24	
Surrogate: Bromofluorobenzene	95.9 %	70-130		08/20/24	08/20/24	
Surrogate: 1,2-Dichloroethane-d4	94.6 %	70-130		08/20/24	08/20/24	
Surrogate: Toluene-d8	104 %	70-130		08/20/24	08/20/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: NV		Batch: 2434028
Diesel Range Organics (C10-C28)	ND	25.0	1	08/20/24	08/20/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/20/24	08/20/24	
Surrogate: n-Nonane	105 %	50-200		08/20/24	08/20/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2434034
Chloride	44.9	20.0	1	08/20/24	08/20/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Spud Muffin 31 30 334H Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 9/13/2024 10:06:19AM
---	--	-----------------------------------

SW05 - 0-4'
E408167-08

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg	Analyst: IY		Batch: 2434023	
Benzene	ND	0.0250	1	08/20/24	08/20/24	
Ethylbenzene	ND	0.0250	1	08/20/24	08/20/24	
Toluene	ND	0.0250	1	08/20/24	08/20/24	
o-Xylene	ND	0.0250	1	08/20/24	08/20/24	
p,m-Xylene	ND	0.0500	1	08/20/24	08/20/24	
Total Xylenes	ND	0.0250	1	08/20/24	08/20/24	
Surrogate: Bromofluorobenzene	97.6 %	70-130		08/20/24	08/20/24	
Surrogate: 1,2-Dichloroethane-d4	98.2 %	70-130		08/20/24	08/20/24	
Surrogate: Toluene-d8	103 %	70-130		08/20/24	08/20/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: IY		Batch: 2434023	
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/20/24	08/20/24	
Surrogate: Bromofluorobenzene	97.6 %	70-130		08/20/24	08/20/24	
Surrogate: 1,2-Dichloroethane-d4	98.2 %	70-130		08/20/24	08/20/24	
Surrogate: Toluene-d8	103 %	70-130		08/20/24	08/20/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: NV		Batch: 2434028	
Diesel Range Organics (C10-C28)	ND	25.0	1	08/20/24	08/20/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/20/24	08/20/24	
Surrogate: n-Nonane	101 %	50-200		08/20/24	08/20/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: DT		Batch: 2434034	
Chloride	ND	20.0	1	08/20/24	08/20/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Spud Muffin 31 30 334H Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 9/13/2024 10:06:19AM
---	--	-----------------------------------

BH04 - 0'

E408167-09

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg	Analyst: IY		Batch: 2434023	
Benzene	ND	0.0250	1	08/20/24	08/20/24	
Ethylbenzene	ND	0.0250	1	08/20/24	08/20/24	
Toluene	ND	0.0250	1	08/20/24	08/20/24	
o-Xylene	ND	0.0250	1	08/20/24	08/20/24	
p,m-Xylene	ND	0.0500	1	08/20/24	08/20/24	
Total Xylenes	ND	0.0250	1	08/20/24	08/20/24	
Surrogate: Bromofluorobenzene	96.9 %	70-130		08/20/24	08/20/24	
Surrogate: 1,2-Dichloroethane-d4	96.9 %	70-130		08/20/24	08/20/24	
Surrogate: Toluene-d8	106 %	70-130		08/20/24	08/20/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: IY		Batch: 2434023	
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/20/24	08/20/24	
Surrogate: Bromofluorobenzene	96.9 %	70-130		08/20/24	08/20/24	
Surrogate: 1,2-Dichloroethane-d4	96.9 %	70-130		08/20/24	08/20/24	
Surrogate: Toluene-d8	106 %	70-130		08/20/24	08/20/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: NV		Batch: 2434028	
Diesel Range Organics (C10-C28)	1500	50.0	2	08/20/24	08/21/24	
Oil Range Organics (C28-C36)	987	100	2	08/20/24	08/21/24	
Surrogate: n-Nonane	113 %	50-200		08/20/24	08/21/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: DT		Batch: 2434034	
Chloride	5020	200	10	08/20/24	08/20/24	



Sample Data

Devon Energy - Carlsbad
6488 7 Rivers Hwy
Artesia NM, 88210

Project Name: Spud Muffin 31 30 334H
Project Number: 01058-0007
Project Manager: Ashley Giovengo

Reported:
9/13/2024 10:06:19AM

BH04 - 2'

E408167-10

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2434023
Benzene	ND	0.0250	1	08/20/24	08/20/24	
Ethylbenzene	ND	0.0250	1	08/20/24	08/20/24	
Toluene	ND	0.0250	1	08/20/24	08/20/24	
o-Xylene	ND	0.0250	1	08/20/24	08/20/24	
p,m-Xylene	ND	0.0500	1	08/20/24	08/20/24	
Total Xylenes	ND	0.0250	1	08/20/24	08/20/24	
Surrogate: Bromofluorobenzene	97.9 %	70-130		08/20/24	08/20/24	
Surrogate: 1,2-Dichloroethane-d4	99.4 %	70-130		08/20/24	08/20/24	
Surrogate: Toluene-d8	107 %	70-130		08/20/24	08/20/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2434023
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/20/24	08/20/24	
Surrogate: Bromofluorobenzene	97.9 %	70-130		08/20/24	08/20/24	
Surrogate: 1,2-Dichloroethane-d4	99.4 %	70-130		08/20/24	08/20/24	
Surrogate: Toluene-d8	107 %	70-130		08/20/24	08/20/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: NV		Batch: 2434028
Diesel Range Organics (C10-C28)	39.4	25.0	1	08/20/24	08/21/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/20/24	08/21/24	
Surrogate: n-Nonane	116 %	50-200		08/20/24	08/21/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2434034
Chloride	301	20.0	1	08/20/24	08/20/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Spud Muffin 31 30 334H Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 9/13/2024 10:06:19AM
---	--	-----------------------------------

BH04 - 4'

E408167-11

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg	Analyst: IY		Batch: 2434023	
Benzene	ND	0.0250	1	08/20/24	08/20/24	
Ethylbenzene	ND	0.0250	1	08/20/24	08/20/24	
Toluene	ND	0.0250	1	08/20/24	08/20/24	
o-Xylene	ND	0.0250	1	08/20/24	08/20/24	
p,m-Xylene	ND	0.0500	1	08/20/24	08/20/24	
Total Xylenes	ND	0.0250	1	08/20/24	08/20/24	
Surrogate: Bromofluorobenzene	97.2 %	70-130		08/20/24	08/20/24	
Surrogate: 1,2-Dichloroethane-d4	95.9 %	70-130		08/20/24	08/20/24	
Surrogate: Toluene-d8	107 %	70-130		08/20/24	08/20/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: IY		Batch: 2434023	
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/20/24	08/20/24	
Surrogate: Bromofluorobenzene	97.2 %	70-130		08/20/24	08/20/24	
Surrogate: 1,2-Dichloroethane-d4	95.9 %	70-130		08/20/24	08/20/24	
Surrogate: Toluene-d8	107 %	70-130		08/20/24	08/20/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: NV		Batch: 2434028	
Diesel Range Organics (C10-C28)	ND	25.0	1	08/20/24	08/21/24	
Oil Range Organics (C28-C36)	ND	50.0	1	08/20/24	08/21/24	
Surrogate: n-Nonane	116 %	50-200		08/20/24	08/21/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: DT		Batch: 2434034	
Chloride	158	20.0	1	08/20/24	08/20/24	



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	9/13/2024 10:06:19AM

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 (2434023-BLK1) Prepared: 08/20/24 Analyzed: 08/20/24

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	0.481		0.500		96.1	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.467		0.500		93.3	70-130			
Surrogate: Toluene-d8	0.528		0.500		106	70-130			

LCS (2434023-BS1) Prepared: 08/20/24 Analyzed: 08/20/24

Benzene	2.36	0.0250	2.50		94.5	70-130			
Ethylbenzene	2.38	0.0250	2.50		95.1	70-130			
Toluene	2.40	0.0250	2.50		96.0	70-130			
o-Xylene	2.28	0.0250	2.50		91.4	70-130			
p,m-Xylene	4.59	0.0500	5.00		91.9	70-130			
Total Xylenes	6.88	0.0250	7.50		91.7	70-130			
Surrogate: Bromofluorobenzene	0.485		0.500		97.0	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.492		0.500		98.3	70-130			
Surrogate: Toluene-d8	0.512		0.500		102	70-130			

Matrix Spike (2434023-MS1) Source: E408164-01 Prepared: 08/20/24 Analyzed: 08/20/24

Benzene	2.25	0.0250	2.50	ND	90.0	48-131			
Ethylbenzene	2.31	0.0250	2.50	ND	92.3	45-135			
Toluene	2.29	0.0250	2.50	ND	91.6	48-130			
o-Xylene	2.18	0.0250	2.50	ND	87.1	43-135			
p,m-Xylene	4.45	0.0500	5.00	ND	89.1	43-135			
Total Xylenes	6.63	0.0250	7.50	ND	88.4	43-135			
Surrogate: Bromofluorobenzene	0.513		0.500		103	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.511		0.500		102	70-130			
Surrogate: Toluene-d8	0.521		0.500		104	70-130			

Matrix Spike Dup (2434023-MSD1) Source: E408164-01 Prepared: 08/20/24 Analyzed: 08/20/24

Benzene	2.35	0.0250	2.50	ND	94.0	48-131	4.35	23	
Ethylbenzene	2.36	0.0250	2.50	ND	94.4	45-135	2.34	27	
Toluene	2.35	0.0250	2.50	ND	94.0	48-130	2.56	24	
o-Xylene	2.21	0.0250	2.50	ND	88.3	43-135	1.39	27	
p,m-Xylene	4.49	0.0500	5.00	ND	89.9	43-135	0.883	27	
Total Xylenes	6.70	0.0250	7.50	ND	89.4	43-135	1.05	27	
Surrogate: Bromofluorobenzene	0.495		0.500		99.0	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.484		0.500		96.7	70-130			
Surrogate: Toluene-d8	0.520		0.500		104	70-130			

QC Summary Data

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	9/13/2024 10:06:19AM

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
---------	-----------------	-----------------------------	-------------------------	---------------------------	----------	--------------------	----------	-------------------	-------

Blank (2434023-BLK1) Prepared: 08/20/24 Analyzed: 08/20/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.481		0.500		96.1	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.467		0.500		93.3	70-130			
Surrogate: Toluene-d8	0.528		0.500		106	70-130			

LCS (2434023-BS2) Prepared: 08/20/24 Analyzed: 08/20/24

Gasoline Range Organics (C6-C10)	46.6	20.0	50.0		93.3	70-130			
Surrogate: Bromofluorobenzene	0.485		0.500		97.0	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.485		0.500		97.0	70-130			
Surrogate: Toluene-d8	0.531		0.500		106	70-130			

Matrix Spike (2434023-MS2) Source: E408164-01 Prepared: 08/20/24 Analyzed: 08/20/24

Gasoline Range Organics (C6-C10)	44.5	20.0	50.0	ND	89.1	70-130			
Surrogate: Bromofluorobenzene	0.472		0.500		94.4	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.493		0.500		98.6	70-130			
Surrogate: Toluene-d8	0.529		0.500		106	70-130			

Matrix Spike Dup (2434023-MSD2) Source: E408164-01 Prepared: 08/20/24 Analyzed: 08/20/24

Gasoline Range Organics (C6-C10)	48.3	20.0	50.0	ND	96.6	70-130	8.07	20	
Surrogate: Bromofluorobenzene	0.494		0.500		98.7	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.485		0.500		96.9	70-130			
Surrogate: Toluene-d8	0.529		0.500		106	70-130			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	9/13/2024 10:06:19AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

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

Blank (2434028-BLK1) Prepared: 08/20/24 Analyzed: 08/20/24

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	55.5		50.0		111	50-200			

LCS (2434028-BS1) Prepared: 08/20/24 Analyzed: 08/20/24

Diesel Range Organics (C10-C28)	210	25.0	250		83.9	38-132			
Surrogate: n-Nonane	54.2		50.0		108	50-200			

Matrix Spike (2434028-MS1) Source: E408167-02 Prepared: 08/20/24 Analyzed: 08/20/24

Diesel Range Organics (C10-C28)	218	25.0	250	ND	87.1	38-132			
Surrogate: n-Nonane	56.6		50.0		113	50-200			

Matrix Spike Dup (2434028-MSD1) Source: E408167-02 Prepared: 08/20/24 Analyzed: 08/20/24

Diesel Range Organics (C10-C28)	217	25.0	250	ND	86.8	38-132	0.313	20	
Surrogate: n-Nonane	57.1		50.0		114	50-200			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	9/13/2024 10:06:19AM

Anions by EPA 300.0/9056A

Analyst: DT

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

Blank (2434034-BLK1)					Prepared: 08/20/24 Analyzed: 08/20/24				
Chloride	ND	20.0							
LCS (2434034-BS1)					Prepared: 08/20/24 Analyzed: 08/20/24				
Chloride	253	20.0	250		101	90-110			
Matrix Spike (2434034-MS1)					Source: E408164-09		Prepared: 08/20/24 Analyzed: 08/20/24		
Chloride	293	20.0	250	38.5	102	80-120			
Matrix Spike Dup (2434034-MSD1)					Source: E408164-09		Prepared: 08/20/24 Analyzed: 08/20/24		
Chloride	298	20.0	250	38.5	104	80-120	1.58	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

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	
6488 7 Rivers Hwy	Project Number:	01058-0007	Reported:
Artesia NM, 88210	Project Manager:	Ashley Giovengo	09/13/24 10:06

- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite
- DNR Did not react with the addition of acid or base.
- 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

Page 1 of 2

Client Information				Invoice Information		Lab Use Only		TAT				State						
Client: Devon				Company: Devon		Lab WO#	Job Number	1D	2D	3D	Std	NM	CO	UT	TX			
Project: Spud Muffin 31-30 334H				Address: 205 E Bender Road #150		E408167	01058-0007				X	X						
Project Manager: Ashley Giovengo				City, State, Zip: Hobbs NM, 88240														
Address: 3122 National Parks Hwy				Phone: (575)748-1838														
City, State, Zip: Carlsbad NM, 88220				Email: dale.woodall@dvn.com														
Phone: 575-988-0055				Miscellaneous: Dale Woodall														
Email: agiovengo@ensolum.com																		
Sample Information						Analysis and Method						EPA Program						
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ 1005 - TX	RCRA 8 Metals	SDWA	CWA	RCRA	
10:25	8/16/2024	Soil	1	FS15 - 2'		1						X						
11:33	8/16/2024	Soil	1	FS33 - 1.5'		2						X						
11:34	8/16/2024	Soil	1	FS34 - 1.5'		3						X						
12:00	8/16/2024	Soil	1	FS49 - 1.5'		4						X						
12:01	8/16/2024	Soil	1	FS50 - 1.5'		5						X						
12:03	8/16/2024	Soil	1	FS52 - 1.5'		6						X						
10:30	8/16/2024	Soil	1	SW04 - 1'		7						X						
9:28	8/16/2024	Soil	1	SW05 - 0-4'		8						X						
10:30	8/16/2024	Soil	1	BH04 - 0'		9						X						
10:35	8/16/2024	Soil	1	BH04 - 2'		10						X						
Additional Instructions: Please CC: cburton@ensolum.com, agiovengo@ensolum.com, dale.woodall@dvn.com, chamilton@ensolum.com, iestrella@ensolum.com																		
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: Cole Burton																		
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	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. Lab Use Only Received on ice: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N T1 _____ T2 _____ T3 _____ AVG Temp °C 4										
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time											
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 14 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.																		



Page 2 of 2

envirotech

Envirotech Analytical Laboratory

Printed: 8/20/2024 9:30:49AM

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:	Devon Energy - Carlsbad	Date Received:	08/20/24 05:00	Work Order ID:	E408167
Phone:	(505) 382-1211	Date Logged In:	08/19/24 17:08	Logged In By:	Noe Soto
Email:	ashley.giovengo@wescominc.com	Due Date:	08/26/24 17:00 (4 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: CourierComments/ResolutionSample 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.

Chain of Custody

Page 1 of 2

Client Information				Invoice Information				Lab Use Only				TAT				State			
Client: Devon				Company: Devon				Lab WO#		Job Number		1D	2D	3D	Std	NM	CO	UT	TX
Project: Spud Muffin 31-30 334H				Address: 205 E Bender Road #150				E408167		01058-0007					x	x			
Project Manager: Ashley Giovengo				City, State, Zip: Hobbs NM, 88240															
Address: 3122 National Parks Hwy				Phone: (575)748-1838															
City, State, Zip: Carlsbad NM, 88220				Email: dale.woodall@dyn.com															
Phone: 575-988-0055				Miscellaneous: Dale Woodall															
Email: agiovengo@ensolum.com																			
Sample Information												Analysis and Method				EPA Program			
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field	Filter	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TEQ 1005 - TX	RCRA 8 Metals	SDWA	CWA	RCRA	
10:25	8/16/2024	Soil	1	FS15 - 2'			1						X						
11:33	8/16/2024	Soil	1	FS33 - 1.5'			2						X						
11:34	8/16/2024	Soil	1	FS34 - 1.5'			3						X						
12:00	8/16/2024	Soil	1	FS49 - 1.5'			4						X						
12:01	8/16/2024	Soil	1	FS50 - 1.5'			5						X						
12:03	8/16/2024	Soil	1	FS52 - 1.5'			6						X						
10:30	8/16/2024	Soil	1	SW04 - 1' SW04 - 0-1'			7						X				Name changed per A. Giovengo 9/13/24 - RAR		
9:28	8/16/2024	Soil	1	SW05 - 0-4'			8						X						
10:30	8/16/2024	Soil	1	BH04 - 0'			9						X				Name changes per A. Giovengo 9/13/24 - RAR		
10:35	8/16/2024	Soil	1	BH04 - 2'			10						X						
Additional Instructions: Please CC: cburton@ensolum.com, agiovengo@ensolum.com, dale.woodall@dyn.com, chamilton@ensolum.com, iestrella@ensolum.com																			
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: Cole Burton																			
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	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. Lab Use Only Received on ice: Y / N T1 _____ T2 _____ T3 _____ AVG Temp °C 4											
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time												
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 14 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

[illegible]

Report to:
Ashley Giovengo



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Devon Energy - Carlsbad

Project Name: Spud Muffin 31 30 334H

Work Order: E409014

Job Number: 01058-0007

Received: 9/5/2024

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
9/6/24

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.

Date Reported: 9/6/24

Ashley Giovengo
6488 7 Rivers Hwy
Artesia, NM 88210



Project Name: Spud Muffin 31 30 334H
Workorder: E409014
Date Received: 9/5/2024 6:00:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 9/5/2024 6:00:00AM, under the Project Name: Spud Muffin 31 30 334H.

The analytical test results summarized in this report with the Project Name: Spud Muffin 31 30 334H 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

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

Field Offices:

Southern New Mexico Area

Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

Michelle Gonzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

Table of Contents

Title Page	1
Cover Page	2
Table of Contents	3
Sample Summary	4
Sample Data	5
BH04 - 6'	5
QC Summary Data	6
QC - Volatile Organics by EPA 8021B	6
QC - Nonhalogenated Organics by EPA 8015D - GRO	7
QC - Nonhalogenated Organics by EPA 8015D - DRO/ORO	8
QC - Anions by EPA 300.0/9056A	9
Definitions and Notes	10
Chain of Custody etc.	11

Sample Summary

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	09/06/24 14:46

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
BH04 - 6'	E409014-01A	Soil	09/04/24	09/05/24	Glass Jar, 2 oz.



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Spud Muffin 31 30 334H Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 9/6/2024 2:46:05PM
---	--	---------------------------------

BH04 - 6'

E409014-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: CG		Batch: 2436038	
Benzene	ND	0.0250	1	09/05/24	09/05/24	
Ethylbenzene	ND	0.0250	1	09/05/24	09/05/24	
Toluene	ND	0.0250	1	09/05/24	09/05/24	
o-Xylene	ND	0.0250	1	09/05/24	09/05/24	
p,m-Xylene	ND	0.0500	1	09/05/24	09/05/24	
Total Xylenes	ND	0.0250	1	09/05/24	09/05/24	
Surrogate: 4-Bromochlorobenzene-PID	99.2 %	70-130		09/05/24	09/05/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: CG		Batch: 2436038	
Gasoline Range Organics (C6-C10)	ND	20.0	1	09/05/24	09/05/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	95.4 %	70-130		09/05/24	09/05/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV		Batch: 2436036	
Diesel Range Organics (C10-C28)	ND	25.0	1	09/05/24	09/05/24	
Oil Range Organics (C28-C36)	ND	50.0	1	09/05/24	09/05/24	
Surrogate: n-Nonane	85.2 %	50-200		09/05/24	09/05/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: WF		Batch: 2436037	
Chloride	163	20.0	1	09/05/24	09/05/24	



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	9/6/2024 2:46:05PM

Volatile Organics by EPA 8021B

Analyst: CG

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

Blank (2436038-BLK1) Prepared: 09/05/24 Analyzed: 09/05/24

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	7.88		8.00		98.5	70-130			

LCS (2436038-BS1) Prepared: 09/05/24 Analyzed: 09/06/24

Benzene	5.19	0.0250	5.00		104	70-130			
Ethylbenzene	5.04	0.0250	5.00		101	70-130			
Toluene	5.13	0.0250	5.00		103	70-130			
o-Xylene	5.01	0.0250	5.00		100	70-130			
p,m-Xylene	10.3	0.0500	10.0		103	70-130			
Total Xylenes	15.3	0.0250	15.0		102	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.86		8.00		98.2	70-130			

Matrix Spike (2436038-MS1) Source: E409009-02 Prepared: 09/05/24 Analyzed: 09/06/24

Benzene	4.99	0.0250	5.00	ND	99.8	54-133			
Ethylbenzene	4.86	0.0250	5.00	ND	97.1	61-133			
Toluene	4.94	0.0250	5.00	ND	98.8	61-130			
o-Xylene	4.86	0.0250	5.00	ND	97.2	63-131			
p,m-Xylene	9.93	0.0500	10.0	ND	99.3	63-131			
Total Xylenes	14.8	0.0250	15.0	ND	98.6	63-131			
Surrogate: 4-Bromochlorobenzene-PID	8.18		8.00		102	70-130			

Matrix Spike Dup (2436038-MSD1) Source: E409009-02 Prepared: 09/05/24 Analyzed: 09/06/24

Benzene	5.22	0.0250	5.00	ND	104	54-133	4.41	20	
Ethylbenzene	5.07	0.0250	5.00	ND	101	61-133	4.41	20	
Toluene	5.15	0.0250	5.00	ND	103	61-130	4.22	20	
o-Xylene	5.07	0.0250	5.00	ND	101	63-131	4.23	20	
p,m-Xylene	10.4	0.0500	10.0	ND	104	63-131	4.19	20	
Total Xylenes	15.4	0.0250	15.0	ND	103	63-131	4.20	20	
Surrogate: 4-Bromochlorobenzene-PID	8.19		8.00		102	70-130			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	9/6/2024 2:46:05PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: CG

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

Blank (2436038-BLK1) Prepared: 09/05/24 Analyzed: 09/05/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.66		8.00		95.8	70-130			

LCS (2436038-BS2) Prepared: 09/05/24 Analyzed: 09/06/24

Gasoline Range Organics (C6-C10)	46.1	20.0	50.0		92.1	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.69		8.00		96.2	70-130			

Matrix Spike (2436038-MS2) Source: E409009-02 Prepared: 09/05/24 Analyzed: 09/06/24

Gasoline Range Organics (C6-C10)	48.4	20.0	50.0	ND	96.9	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.73		8.00		96.6	70-130			

Matrix Spike Dup (2436038-MSD2) Source: E409009-02 Prepared: 09/05/24 Analyzed: 09/06/24

Gasoline Range Organics (C6-C10)	47.9	20.0	50.0	ND	95.7	70-130	1.21	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.68		8.00		96.0	70-130			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	9/6/2024 2:46:05PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

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

Blank (2436036-BLK1) Prepared: 09/05/24 Analyzed: 09/05/24

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	41.2		50.0		82.4	50-200			

LCS (2436036-BS1) Prepared: 09/05/24 Analyzed: 09/05/24

Diesel Range Organics (C10-C28)	198	25.0	250		79.3	38-132			
Surrogate: n-Nonane	40.7		50.0		81.3	50-200			

Matrix Spike (2436036-MS1) Source: E409009-01 Prepared: 09/05/24 Analyzed: 09/05/24

Diesel Range Organics (C10-C28)	781	25.0	250	709	29.0	38-132			M4
Surrogate: n-Nonane	42.4		50.0		84.9	50-200			M4

Matrix Spike Dup (2436036-MSD1) Source: E409009-01 Prepared: 09/05/24 Analyzed: 09/05/24

Diesel Range Organics (C10-C28)	824	25.0	250	709	46.3	38-132	5.38	20	
Surrogate: n-Nonane	40.3		50.0		80.7	50-200			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	9/6/2024 2:46:05PM

Anions by EPA 300.0/9056A

Analyst: WF

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

Blank (2436037-BLK1)					Prepared: 09/05/24 Analyzed: 09/05/24				
Chloride	ND	20.0							
LCS (2436037-BS1)					Prepared: 09/05/24 Analyzed: 09/05/24				
Chloride	250	20.0	250		99.9	90-110			
Matrix Spike (2436037-MS1)					Source: E409013-04		Prepared: 09/05/24 Analyzed: 09/05/24		
Chloride	386	20.0	250	129	103	80-120			
Matrix Spike Dup (2436037-MSD1)					Source: E409013-04		Prepared: 09/05/24 Analyzed: 09/05/24		
Chloride	382	20.0	250	129	101	80-120	0.980	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

Devon Energy - Carlsbad	Project Name:	Spud Muffin 31 30 334H	
6488 7 Rivers Hwy	Project Number:	01058-0007	Reported:
Artesia NM, 88210	Project Manager:	Ashley Giovengo	09/06/24 14:46

- 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
- DNR Did not react with the addition of acid or base.

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

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



Page 11 of 12



envirotech

Envirotech Analytical Laboratory

Printed: 9/5/2024 7:56:22AM

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:	Devon Energy - Carlsbad	Date Received:	09/05/24 06:00	Work Order ID:	E409014
Phone:	(505) 382-1211	Date Logged In:	09/04/24 17:14	Logged In By:	Noe Soto
Email:	ashley.giovengo@wescominc.com	Due Date:	09/05/24 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

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: CourierComments/ResolutionSample 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? Yes

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.



APPENDIX E

Email Correspondence

From: [Hamlet, Robert, EMNRD](#)
To: [Ashley Giovengo](#); [Woodall, Dale](#)
Cc: [Cole Burton](#); [Chad Hamilton](#); [Israel Estrella](#); [Brandon Deal](#); [Bratcher, Michael, EMNRD](#); [Wells, Shelly, EMNRD](#); [Velez, Nelson, EMNRD](#)
Subject: Extension Request - Spud Muffin 31-30 334H - Incident Number nAPP2406734751
Date: Thursday, May 30, 2024 10:02:34 AM
Attachments: [image006.png](#)
[image007.png](#)
[image008.png](#)

[**EXTERNAL EMAIL**]

RE: Incident #NAPP2406734751

Ashley,

Your request for a 90 day extension to **August 28th, 2024** is approved. Please include this e-mail correspondence in the remediation and/or closure report.

Robert Hamlet • Environmental Specialist - Advanced
Environmental Bureau
EMNRD - Oil Conservation Division
506 W. Texas Ave. | Artesia, NM 88210
575.909.0302 | robert.hamlet@state.nm.us
<http://www.emnrd.state.nm.us/OCD/>



From: Ashley Giovengo <agiovengo@ensolum.com>
Sent: Thursday, May 30, 2024 9:21 AM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>; Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>; Woodall, Dale <Dale.Woodall@dvn.com>
Cc: Cole Burton <cburton@ensolum.com>; Chad Hamilton <chamilton@ensolum.com>; Israel Estrella <iestrella@ensolum.com>; Brandon Deal <bdeal@ensolum.com>
Subject: [EXTERNAL] Extension Request - Spud Muffin 31-30 334H - Incident Number nAPP2406734751

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

All,

Devon Energy Production Company, LP (Devon) is requesting an extension for the current

deadline of June 04, 2024, for submitting a remediation work plan or closure report required in 19.15.29.12.B.(1) NMAC at the Spud Muffin 31 30 #334H, Site (Incident Number nAPP2406734751). The release occurred on March 06, 2024, and approximately 7 barrels (bbls) of crude oil was released onto the caliche pad; 5 bbls of crude oil was recovered. Lateral and vertical delineation sampling to the strictest closure criteria per NMOCD Table I has been completed at the Site and Devon is currently in the process of selecting a sub-contractor to complete the excavation. Devon respectfully requests a 90-day extension until September 02, 2024, to complete remediation and confirmation sampling at the Site. Devon will submit a remediation work plan or closure report following remediation efforts and confirmation sampling. This release remained entirely on-pad and did not impact any sensitive Site receptors. Please let me know if you have any additional questions regarding this site.

Thanks,



Ashley Giovengo

Senior Scientist

575-988-0055

Ensolum, LLC

in f X

“Your authenticity is your superpower.” – Unknown

From: [Hamlet, Robert, EMNRD](#)
To: [Ashley Giovengo](#)
Cc: [Brandon Deal](#); [Cole Burton](#); [Chad Hamilton](#)
Subject: 48 Hour Confirmation Sampling Notification - Spud Muffin 31-30 334H - nAPP2406734751
Date: Friday, August 9, 2024 11:03:03 AM
Attachments: [image006.png](#)
[image007.png](#)
[image008.png](#)

[**EXTERNAL EMAIL**]

Ashley,

Please, finish collecting confirmation samples. The variance to extend the collection of confirmation samples past the estimated completion date (one additional day) is approved.

Regards,

Robert Hamlet • Environmental Specialist - Advanced
Environmental Bureau
EMNRD - Oil Conservation Division
506 W. Texas Ave. | Artesia, NM 88210
575.909.0302 | robert.hamlet@state.nm.us
<http://www.emnrd.state.nm.us/OCD/>



From: Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>
Sent: Friday, August 9, 2024 10:51 AM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Cc: Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>
Subject: FW: [EXTERNAL] 48 Hour Confirmation Sampling Notification - Spud Muffin 31-30 334H - nAPP2406734751

Here ya go Rob!

From: Ashley Giovengo <agiovengo@ensolum.com>
Sent: Friday, August 9, 2024 10:19 AM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>; Woodall, Dale <Dale.Woodall@dvn.com>
Cc: Brandon Deal <bdeal@ensolum.com>; Cole Burton <cburton@ensolum.com>; Chad Hamilton <chamilton@ensolum.com>
Subject: [EXTERNAL] 48 Hour Confirmation Sampling Notification - Spud Muffin 31-30 334H - nAPP2406734751

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

Good Morning,

Can we extend the 48-hour confirmation sampling notification at the Spud Muffin 31-30 334H (Site) to include confirmation samples collected today (08/09/2024)? There is an existing confirmation sampling notification that was submitted to the NMOCD website that is valid through 08/08/2024. Devon respectfully requests this additional day in order to complete additional hand digging around the wellheads at the Site.

Best Regards,



Ashley Giovengo

Senior Scientist

575-988-0055

Ensolum, LLC

in f X

"Your authenticity is your superpower." – Unknown

From: [Hamlet, Robert, EMNRD](#)
To: [Ashley Giovengo](#); [Woodall, Dale](#)
Cc: [Cole Burton](#); [Chad Hamilton](#); [Bratcher, Michael, EMNRD](#); [Wells, Shelly, EMNRD](#)
Subject: (Final Extension) - Spud Muffin 31-30 334H - Incident Number nAPP2406734751
Date: Tuesday, August 27, 2024 9:53:03 AM
Attachments: [image006.png](#)
[image007.png](#)
[image008.png](#)

[**EXTERNAL EMAIL**]

RE: Incident #**NAPP2406734751**

Ashley,

Your request for a 90 day extension to **November 25th, 2024** is approved. This will be the **final extension** for this release. Please include this e-mail correspondence in the remediation and/or closure report.

Robert Hamlet • Environmental Specialist - Advanced
Environmental Bureau
EMNRD - Oil Conservation Division
506 W. Texas Ave. | Artesia, NM 88210
575.909.0302 | robert.hamlet@state.nm.us
<http://www.emnrd.state.nm.us/OCD/>



From: Ashley Giovengo <agiovengo@ensolum.com>
Sent: Tuesday, August 27, 2024 8:53 AM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>; Woodall, Dale <Dale.Woodall@dvn.com>
Cc: Cole Burton <cburton@ensolum.com>; Chad Hamilton <chamilton@ensolum.com>; Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>
Subject: RE: [EXTERNAL] Extension Request - Spud Muffin 31-30 334H - Incident Number nAPP2406734751

Good Morning Robert,

Please see the attached Site Characterization pdf. I have also included the Well Log and Record for the closest NMOSE water well to the Site. Please let me know if you need any

additional information.

Thanks,



Ashley Giovengo

Senior Scientist

575-988-0055

Ensolum, LLC

in f X

“Your authenticity is your superpower.” – Unknown

From: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>

Sent: Monday, August 26, 2024 11:40 AM

To: Ashley Giovengo <agiovengo@ensolum.com>; Woodall, Dale <Dale.Woodall@dmv.com>

Cc: Cole Burton <cburton@ensolum.com>; Chad Hamilton <chamilton@ensolum.com>; Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>

Subject: RE: [EXTERNAL] Extension Request - Spud Muffin 31-30 334H - Incident Number nAPP2406734751

[**EXTERNAL EMAIL**]

RE: Incident #**NAPP2406734751**

Ashley,

An extension for this incident has already been granted. The OCD will need to see the full Site Assessment/Characterization before another extension can be granted. The OCD needs to know if there are any receptors or possibility of groundwater contamination. Please include depth to groundwater determination, either through a known water source within half mile or drilling of a borehole. Please include attachment, so we can review.

Regards,

Robert Hamlet • Environmental Specialist - Advanced

Environmental Bureau

EMNRD - Oil Conservation Division

506 W. Texas Ave. | Artesia, NM 88210

575.909.0302 | robert.hamlet@state.nm.us

<http://www.emnrd.state.nm.us/OCD/>



From: Ashley Giovengo <agiovengo@ensolum.com>
Sent: Monday, August 26, 2024 11:09 AM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>; Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>; Woodall, Dale <Dale.Woodall@dmv.com>
Cc: Cole Burton <cburton@ensolum.com>; Chad Hamilton <chamilton@ensolum.com>
Subject: [EXTERNAL] Extension Request - Spud Muffin 31-30 334H - Incident Number nAPP2406734751

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

All,

Devon Energy Production Company, LP (Devon) is requesting an extension of the current deadline of August 28, 2024, for submitting a remediation work plan or closure report required in 19.15.29.12.B.(1) NMAC at the Spud Muffin 31-30 334H (Site) (Incident Number nAPP2406734751). The release occurred on March 06, 2024, and approximately 7 barrels (bbls) of crude oil was released onto the caliche pad; 5 bbls of crude oil was recovered. Lateral and vertical delineation sampling to the strictest closure criteria per NMOCD Table I has been completed at the Site. Ensolum personnel oversaw the excavation of the on-pad release area beginning on July 31, 2024, through August 16, 2024. Following excavation activities, Ensolum personnel collected a total of 71 confirmation samples from the floor of the excavation; A total of 8 confirmation samples exceeded the Site Closure Criteria. All 8 confirmation floor samples lie within and around pipelines, wellheads and other associated production equipment. Ensolum personnel will need to return to the Site in order to complete vertical delineation sampling inside the Area of Requested Deferral (the 8 failing confirmation sample areas) in accordance with the strictest Closure Criteria per NMOCD Table I. Devon intends to submit a remediation work plan or closure report, upon receiving final laboratory analytical results from the additional delineation sampling activities. Devon respectfully requests an extension until November 26, 2024.

Thanks,



Ashley Giovengo
Senior Scientist
575-988-0055
Ensolum, LLC



“Your authenticity is your superpower.” – Unknown

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

QUESTIONS

Action 367971

QUESTIONS

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 367971
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2406734751
Incident Name	NAPP2406734751 SPUD MUFFIN 31 30 #334H @ 30-015-45303
Incident Type	Oil Release
Incident Status	Initial C-141 Approved
Incident Well	[30-015-45303] SPUD MUFFIN 31 30 #334H

Location of Release Source	
Site Name	SPUD MUFFIN 31 30 #334H
Date Release Discovered	03/06/2024
Surface Owner	Private

Sampling Event General Information	
Please answer all the questions in this group.	
What is the sampling surface area in square feet	13,917
What is the estimated number of samples that will be gathered	75
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	07/31/2024
Time sampling will commence	09:00 AM
Please provide any information necessary for observers to contact samplers	Ensolum 575-706-3585. Will sample 8/1-2/2024 too
Please provide any information necessary for navigation to sampling site	32.2555182 -104.0161698

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 367971

CONDITIONS

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 367971
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

CONDITIONS

Created By	Condition	Condition Date
wdale	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	7/29/2024

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

QUESTIONS

Action 370723

QUESTIONS

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 370723
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2406734751
Incident Name	NAPP2406734751 SPUD MUFFIN 31 30 #334H @ 30-015-45303
Incident Type	Oil Release
Incident Status	Initial C-141 Approved
Incident Well	[30-015-45303] SPUD MUFFIN 31 30 #334H

Location of Release Source	
Site Name	SPUD MUFFIN 31 30 #334H
Date Release Discovered	03/06/2024
Surface Owner	Private

Sampling Event General Information	
Please answer all the questions in this group.	
What is the sampling surface area in square feet	13,917
What is the estimated number of samples that will be gathered	75
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	08/08/2024
Time sampling will commence	08:10 AM
Please provide any information necessary for observers to contact samplers	Ensolum. Sampling through 08/09/2024
Please provide any information necessary for navigation to sampling site	32.2555182 -104.0161698

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 370723

CONDITIONS

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 370723
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

CONDITIONS

Created By	Condition	Condition Date
wdale	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	8/6/2024

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

QUESTIONS

Action 373487

QUESTIONS

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 373487
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2406734751
Incident Name	NAPP2406734751 SPUD MUFFIN 31 30 #334H @ 30-015-45303
Incident Type	Oil Release
Incident Status	Initial C-141 Approved
Incident Well	[30-015-45303] SPUD MUFFIN 31 30 #334H

Location of Release Source	
Site Name	SPUD MUFFIN 31 30 #334H
Date Release Discovered	03/06/2024
Surface Owner	Private

Sampling Event General Information	
Please answer all the questions in this group.	
What is the sampling surface area in square feet	13,917
What is the estimated number of samples that will be gathered	75
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	08/16/2024
Time sampling will commence	09:00 AM
Please provide any information necessary for observers to contact samplers	08/16 to 08/19 will be the sampling dates Ashley Giovengo Senior Scientist 575-988-0055 Ensolum, LLC
Please provide any information necessary for navigation to sampling site	32.2555182,-104.0161698

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 373487

CONDITIONS

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 373487
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

CONDITIONS

Created By	Condition	Condition Date
wdale	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	8/13/2024

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

QUESTIONS

Action 384361

QUESTIONS

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 384361
	Action Type: [C-141] Deferral Request C-141 (C-141-v-Deferral)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2406734751
Incident Name	NAPP2406734751 SPUD MUFFIN 31 30 #334H @ 30-015-45303
Incident Type	Oil Release
Incident Status	Deferral Request Received
Incident Well	[30-015-45303] SPUD MUFFIN 31 30 #334H

Location of Release Source	
Please answer all the questions in this group.	
Site Name	SPUD MUFFIN 31 30 #334H
Date Release Discovered	03/06/2024
Surface Owner	Private

Incident Details	
Please answer all the questions in this group.	
Incident Type	Oil Release
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

Nature and Volume of Release	
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.	
Crude Oil Released (bbls) Details	Cause: Equipment Failure Well Crude Oil Released: 7 BBL Recovered: 5 BBL Lost: 2 BBL.
Produced Water Released (bbls) Details	Not answered.
Is the concentration of chloride in the produced water >10,000 mg/l	Not answered.
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	pinhole leak found at choke on 3" line. Well was shut in to stop leak. Estimated 6.5 bbls oil released onto pad. 4.5 bbls recovered

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

QUESTIONS, Page 2
Action 384361

QUESTIONS (continued)

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID:
	6137
	Action Number: 384361
	Action Type: [C-141] Deferral Request C-141 (C-141-v-Deferral)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	No, according to supplied volumes this does not appear to be a "gas only" report.
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	No
Reasons why this would be considered a submission for a notification of a major release	Unavailable.
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

Initial Response

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

The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	4.5 bbls recovered

Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.

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.

I hereby agree and sign off to the above statement	Name: Dale Woodall Title: EHS Professional Email: Dale.Woodall@dmn.com Date: 09/17/2024
--	--

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

QUESTIONS, Page 3

Action 384361

QUESTIONS (continued)

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID:
	6137
	Action Number: 384361
	Action Type: [C-141] Deferral Request C-141 (C-141-v-Deferral)

QUESTIONS**Site Characterization**

Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). 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 in feet below ground surface (ft bgs)	Between 26 and 50 (ft.)
What method was used to determine the depth to ground water	NM OSE iWaters Database Search
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Between ½ and 1 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 1 and 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Between 1 and 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between ½ and 1 (mi.)
Any other fresh water well or spring	Between ½ and 1 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between ½ and 1 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Between 1 and 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Medium
A 100-year floodplain	Between ½ and 1 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	No

Remediation Plan

Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

Requesting a remediation plan approval with this submission	Yes
Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No

Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)

Chloride	(EPA 300.0 or SM4500 Cl B)	8970
TPH (GRO+DRO+MRO)	(EPA SW-846 Method 8015M)	31815.5
GRO+DRO	(EPA SW-846 Method 8015M)	24275.5
BTEX	(EPA SW-846 Method 8021B or 8260B)	6.2
Benzene	(EPA SW-846 Method 8021B or 8260B)	0

Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.

On what estimated date will the remediation commence	07/31/2024
On what date will (or did) the final sampling or liner inspection occur	08/16/2024
On what date will (or was) the remediation complete(d)	06/18/2024
What is the estimated surface area (in square feet) that will be reclaimed	13909
What is the estimated volume (in cubic yards) that will be reclaimed	742
What is the estimated surface area (in square feet) that will be remediated	13909
What is the estimated volume (in cubic yards) that will be remediated	742

These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.

The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.

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

QUESTIONS, Page 4

Action 384361

QUESTIONS (continued)

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID:	6137
	Action Number:	384361
	Action Type:	[C-141] Deferral Request C-141 (C-141-v-Deferral)

QUESTIONS**Remediation Plan (continued)**

Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:

(Select all answers below that apply.)

(Ex Situ) Excavation and off-site disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for off-site disposal	R360 ARTESIA LLC LANDFARM [FEEM0112340644]
OR which OCD approved well (API) will be used for off-site disposal	Not answered.
OR is the off-site disposal site, to be used, out-of-state	Not answered.
OR is the off-site disposal site, to be used, an NMED facility	Not answered.
(Ex Situ) Excavation and on-site remediation (i.e. On-Site Land Farms)	Not answered.
(In Situ) Soil Vapor Extraction	Not answered.
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	Not answered.
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	Not answered.
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	Not answered.
Ground Water Abatement pursuant to 19.15.30 NMAC	Not answered.
OTHER (Non-listed remedial process)	Not answered.

Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.

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.

I hereby agree and sign off to the above statement	Name: Dale Woodall Title: EHS Professional Email: Dale.Woodall@dmn.com Date: 09/17/2024
--	--

The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.

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

QUESTIONS, Page 5

Action 384361

QUESTIONS (continued)

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID:	6137
	Action Number:	384361
	Action Type:	[C-141] Deferral Request C-141 (C-141-v-Deferral)

QUESTIONS**Deferral Requests Only**

Only answer the questions in this group if seeking a deferral upon approval this submission. Each of the following items must be confirmed as part of any request for deferral of remediation.

Requesting a deferral of the remediation closure due date with the approval of this submission	Yes
Have the lateral and vertical extents of contamination been fully delineated	Yes
Is the remaining contamination in areas immediately under or around production equipment where remediation could cause a major facility deconstruction	Yes
Please list or describe the production equipment and how (re)moving the equipment would cause major facility deconstruction	Wellheads, chemical containments, electrical lines and production lines
What is the remaining surface area (in square feet) that will still need to be remediated if a deferral is granted	1460
What is the remaining volume (in cubic yards) that will still need to be remediated if a deferral is granted	325
Per Paragraph (2) of Subsection C of 19.15.29.12 NMAC if contamination is located in areas immediately under or around production equipment such as production tanks, wellheads and pipelines where remediation could cause a major facility deconstruction, the remediation, restoration and reclamation may be deferred with division written approval until the equipment is removed during other operations, or when the well or facility is plugged or abandoned, whichever comes first.	
Enter the facility ID (f#) on which this deferral should be granted	Not answered.
Enter the well API (30-) on which this deferral should be granted	30-015-45303 SPUD MUFFIN 31 30 #334H
Contamination does not cause an imminent risk to human health, the environment, or groundwater	True
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
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.	
I hereby agree and sign off to the above statement	Name: Dale Woodall Title: EHS Professional Email: Dale.Woodall@dmv.com Date: 09/17/2024

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

QUESTIONS, Page 6

Action 384361

QUESTIONS (continued)

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID:	6137
	Action Number:	384361
	Action Type:	[C-141] Deferral Request C-141 (C-141-v-Deferral)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	373487
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	08/16/2024
What was the (estimated) number of samples that were to be gathered	75
What was the sampling surface area in square feet	13917

Remediation Closure Request	
Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.	
Requesting a remediation closure approval with this submission	No

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 384361

CONDITIONS

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID:
	6137
	Action Number: 384361
	Action Type: [C-141] Deferral Request C-141 (C-141-v-Deferral)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	Devon's deferral requests final remediation for (Incident Number NAPP2406734751) until final reclamation of the well pad or major construction, whichever comes first. Ensolum and Devon do not believe deferment will result in imminent risk to human health, the environment, or groundwater. The impacted soil is the area in blue on figure 4 that is limited to the area beneath active production equipment and surface piping, where remediation would require a major facility deconstruction. At this time, OCD approves this request. 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.	10/17/2024