



October 29, 2024

New Mexico Energy and Natural Resources Department

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

**Re: Closure Request
Muskie 23 CTB 5
Incident Number nAPP2407561521
Eddy County, New Mexico**

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of Devon Energy Production Company, LP (Devon), has prepared this *Closure Request* summarizing the response efforts, and a liner integrity inspection performed at the Muskie 23 CTB 5 (Site) in Unit A, Section 23, Township 26 South, Range 34 East, in Eddy County, New Mexico (Figure 1). The purpose of the liner integrity inspection was to determine if the lined secondary containment was capable of containing a produced water and crude oil release on March 15, 2024, and whether impacts to soil in the areas immediately surrounding the containment liner were present or absent. Based on field observations during the liner integrity inspection, Devon is submitting this *Closure Request* for Incident Number nAPP2407561521.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Eddy County, New Mexico (32.03314°, -103.43566°) and is associated with oil and gas exploration and production operations on Federal Land managed by the Bureau of Land Management (BLM).

On March 15, 2024, the facility overflow safety devices failed allowing wells to overflow tanks, which resulted in the release of 45 barrels (bbls) of produced water and 2 bbls of crude oil inside the lined secondary containment. A vacuum truck successfully recovered all 47 bbls of produced water and crude oil. Devon reported the release to the New Mexico Oil Conservation Division (NMOCD) via web portal on March 15, 2024, and the release was assigned Incident Number nAPP2407561521. A 48-hour advance notice of liner inspection was provided via web portal to the NMOCD on April 12, 2024. A liner integrity inspection was conducted by Ensolum personnel following fluid recovery and upon inspection, the liner was determined to be insufficient and had the potential for contaminants to migrate outside of containment into soil and the subsurface.

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. Potential Site receptors are identified on Figure 1.

The closest permitted groundwater well with depth to groundwater data is New Mexico Office of the State Engineer (NMOSE) well C-4856 POD1 with a depth to water measurement greater than 105 feet below ground surface (bgs). The well was a soil boring drilled to assess depth to groundwater beneath the Site and was advanced approximately 789 feet southwest of the spill area and measured on July 29, 2024, following more than 72 hours to allow the boring to stabilize in the event slow infill of groundwater needed time to flow in. All wells used for depth to groundwater determinations are depicted on Figure 1 and the referenced well records are included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is an intermittent dry wash, located approximately 0.9 miles northwest 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 (low potential karst designation area). 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) and TPH-diesel range organics (DRO): 1,000 mg/kg
- TPH: 2,500 mg/kg
- Chloride: 20,000 mg/kg

LINER INTEGRITY INSPECTION AND DELEINATION SOIL SAMPLING ACTIVITES

On April 18, 2024, Ensolum personnel arrived onsite to visually inspect the integrity of the secondary containment liner and to conduct lateral delineation sampling activities. A 48-hour liner inspection notification was submitted to NMOCD on April 12, 2024. Ensolum personnel competent in performing liner inspections, identified one hole in the floor of the lined secondary containment. Four discrete delineation soil samples (SS01A through SS04A) were collected on all sides of tank battery containment at ground surface to verify the lateral extent of the release. Delineation soil samples were field screened for chloride and TPH utilizing QuanTab® chlorine test strips and a PetroFLAG® Soil Analyzer System, respectively. The delineation sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. Photographs taken during the liner integrity inspection and delineation sampling activities are included in Appendix B.

On July 3, 2024, Ensolum returned to the Site to advance one borehole (BH06) in the hole identified during the April 2024 liner inspection. Borehole BH06 was advanced via hand auger to a depth of 5 feet bgs. Discrete delineation soil samples were collected from the ground surface and from 4 feet bgs beneath the hole in the lined secondary containment and field screened for chloride and TPH. Field screening results and observations from the borehole were logged on lithologic/soil sampling log, and are included in Appendix C.

All 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, Inc. (Envirotech) in Farmington, New Mexico, for analysis of the following contaminants of concern (COCs): BTEX following United States

Environmental Protection Agency (EPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

LABORATORY ANALYTICAL RESULTS

Laboratory analytical results for lateral delineation soil samples (SS01A through SS04A), collected at ground surface, indicated all COC concentrations were in compliance with strictest Closure Criteria per NMOCD Table I and with the Site Closure Criteria. Laboratory analytical results from borehole BH06 indicated all COC concentrations were all in compliance with the Site Closure Criteria and with the strictest Closure Criteria per NMOCD Table I at ground surface and 4 feet bgs. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included in Appendix D.

CLOSURE REQUEST

Following a liner integrity inspection at the Site, it was determined the release was contained laterally and vertically by the lined secondary containment. Lateral delineation soil samples (SS01A through SS04A) collected at ground surface verified the release did not breach the containment walls during the release. Vertical delineation soil samples collected from borehole BH06 at ground surface and 4 feet bgs indicated contamination beneath the lined secondary containment does not exceed the Site Closure Criteria or the strictest Closure Criteria per NMOCD Table I. Remedial actions completed at the Site following the March 2024 produced water and crude oil release appear to have been protective of human health, the environment, and groundwater. Based on initial response efforts, and a reported depth to groundwater of greater than 105 feet bgs, Devon respectfully requests closure for Incident Number nAPP2407561521.

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

Appendices:

Figure 1	Site Receptor Map
Figure 2	Delineation Soil Sample Locations
Table 1	Soil Sample Analytical Results (Delineation Soil Samples)
Appendix A	Referenced Well Records
Appendix B	Photographic Log
Appendix C	Lithologic Soil Sampling Logs
Appendix D	Laboratory Analytical Reports & Chain-of-Custody Documentation
Appendix E	NMOCD Notifications



FIGURES

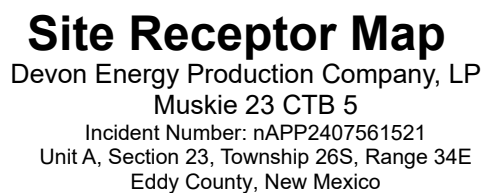
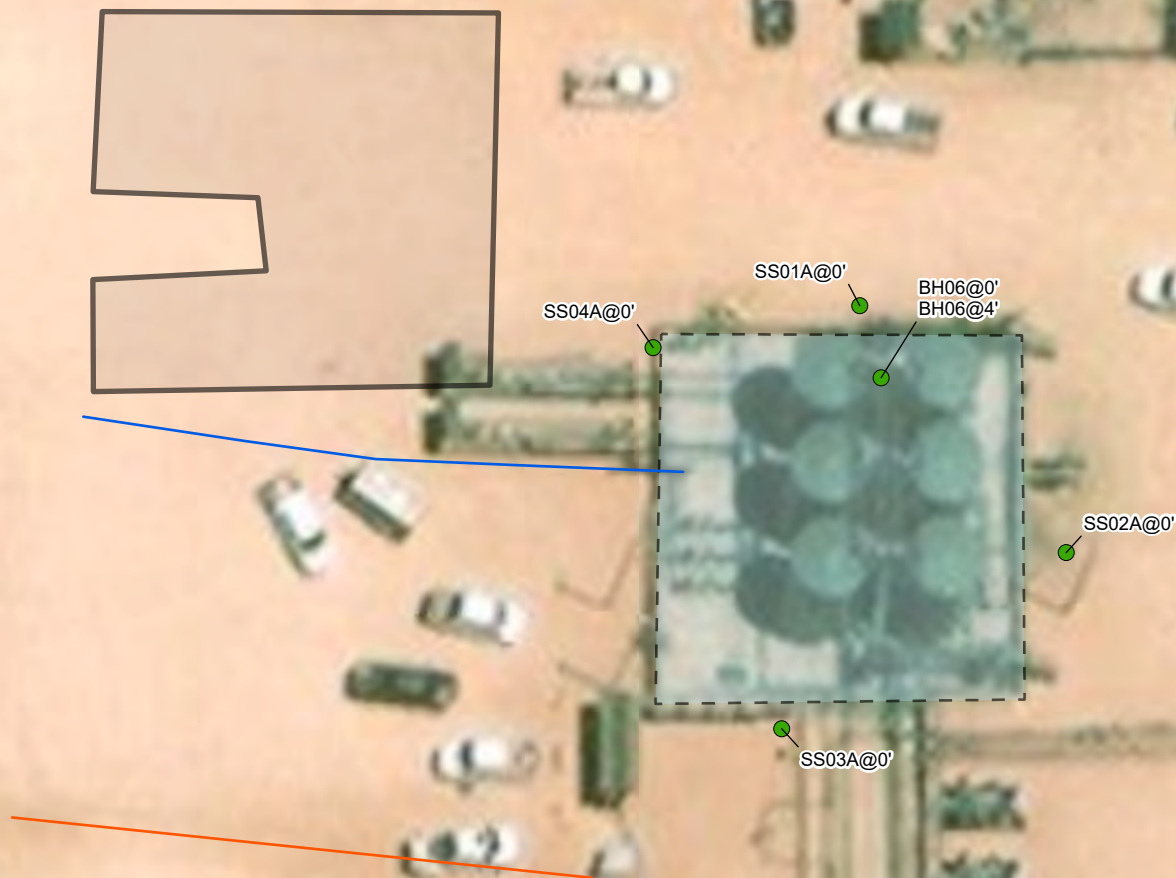


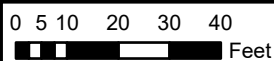
FIGURE 1

Legend

- Delineation Soil Sample in Compliance with NMOCD Closure Criteria
- Electric Utility Line
- Water Utility Line
- Containment
- Production Equipment



Notes:
Sample ID @ Depth Below Ground Surface.



Sources: Environmental Systems Research Institute (ESRI)



Delineation Soil Sample Locations

Devon Energy Production Company, LP
Muskie 23 CTB 5
Incident Number: nAPP2407561521
Unit A, Section 23, Township 26S, Range 34E
Eddy County, New Mexico

FIGURE
2



TABLES



TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
 Muskie 23 CTB 5
 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	1,000	2,500	20,000
Delineation Soil Samples										
SS01A	4/18/2024	0	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<20.0	286
SS02A	4/18/2024	0	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<20.0	110
SS03A	4/18/2024	0	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<20.0	64.5
SS04A	4/18/2024	0	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<20.0	74.8
BH06	7/3/2024	0	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<20.0	189
BH06	7/3/2024	4	<0.0250	<0.0250	<20.0	<25.0	<50.0	<25.0	<20.0	278

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

1. GENERAL AND WELL LOCATION	OSE POD NO. (WELL NO.) POD 1		WELL TAG ID NO. N/A		OSE FILE NO(S). C-4856 POD 1		
	WELL OWNER NAME(S) Devon Energy Production Company				PHONE (OPTIONAL) 575-748-1838		
	WELL OWNER MAILING ADDRESS 205 E. Bender Road #150				CITY Hobbs	STATE NM	ZIP 88240
	WELL LOCATION (FROM GPS)	DEGREES LATITUDE 32	MINUTES 01	SECONDS 51.64 N	* ACCURACY REQUIRED: ONE TENTH OF A SECOND * DATUM REQUIRED: WGS 84		
		LONGITUDE 103	26	14.78 W			
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE							

2. DRILLING & CASING INFORMATION	LICENSE NO. WD1188		NAME OF LICENSED DRILLER John Scarborough			NAME OF WELL DRILLING COMPANY John Scarborough Drilling Inc.		
	DRILLING STARTED 07/25/2024	DRILLING ENDED 07/25/2024	DEPTH OF COMPLETED WELL (FT) 105	BORE HOLE DEPTH (FT) 105	DEPTH WATER FIRST ENCOUNTERED (FT) N/A			
	COMPLETED WELL IS: <input type="checkbox"/> ARTESIAN <input checked="" type="checkbox"/> DRY HOLE <input type="checkbox"/> SHALLOW (UNCONFINED)				STATIC WATER LEVEL IN COMPLETED WELL (FT) N/A			
	DRILLING FLUID: <input checked="" type="checkbox"/> AIR <input type="checkbox"/> MUD ADDITIVES - SPECIFY:							
	DRILLING METHOD: <input checked="" type="checkbox"/> ROTARY <input type="checkbox"/> HAMMER <input type="checkbox"/> CABLE TOOL <input type="checkbox"/> OTHER - SPECIFY:							
	DEPTH (feet bgl) FROM TO		BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
	0	105	5	Soil Boring	-	-	-	-

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

WR-20 WELL RECORD & LOG (Version 04/30/19)

FOR OSE INTERNAL USE

FILE NO.	POD NO.	TRN NO.
LOCATION	WELL TAG ID NO.	PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL	DEPTH (feet bgl)		THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER- BEARING ZONES (gpm)
	FROM	TO				
	0	10	10	Silty Sand, Medium Brown to tan, Medium to fine grained	Y ✓ N	
	10	20	10	Silty Sand, Medium brown to red, Medium to fine grained	Y ✓ N	
	20	30	10	Sand with Gravel, light brown to white, fine to medium with some caliche gravel	Y ✓ N	
	30	35	5	Sand with Gravel, light brown to white, fine to medium with some caliche gravel	Y ✓ N	
	35	40	5	Sand with clay, light brown to white, fine to medium with some red clay	Y ✓ N	
	40	48	4	Sand with Gravel, light brown to white, fine to medium with some caliche gravel	Y ✓ N	
	48	55	8	Sandstone, Light brown to white, fine to coarse grained	Y ✓ N	
	55	58	3	Sand with clay, light brown to yellow, very fine to medium with some grey clay	Y ✓ N	
	58	60	2	Sand with clay, light brown to grey, very fine to medium with some grey clay	Y ✓ N	
	60	68	8	Clay with sand, medium brown to red, with some medium brown sand	Y ✓ N	
	68	70	2	Sand with clay, light to medium brown, very fine to medium with some grey clay	Y N	
	70	74	4	Sand with clay medium brown to red, with some red clay	Y N	
	74	80	6	Sand with clay, light brown to grey, very fine to medium with some grey clay	Y N	
	80	90	10	Sand with clay, light brown to yellow, very fine to medium with some grey clay	Y N	
	90	100	10	Silty Sand, light to medium brown, medium to fine grained	Y N	
	100	105	5	Sand with Gravel, light brown to white, fine to medium with some caliche gravel	Y N	
	105	105	0	Sand with Gravel, light brown to white, fine to medium with some caliche gravel	Y N	
					Y N	
					Y N	
					Y N	
					Y N	
METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:					TOTAL ESTIMATED WELL YIELD (gpm): 0.00	
<input type="checkbox"/> PUMP <input type="checkbox"/> AIR LIFT <input type="checkbox"/> BAILER <input type="checkbox"/> OTHER - SPECIFY:						
5. TEST; RIG SUPERVISION	WELL TEST	TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.				
	MISCELLANEOUS INFORMATION: Temporary well material removed and soil boring backfilled using drill cuttings from total depth to 10 ft below ground surface (bgs), then hydrated bentonite chips 10 ft bgs to ground surface.					
	PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:					
6. SIGNATURE	BY SIGNING BELOW, I CERTIFY THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED WELL. I ALSO CERTIFY THAT THE WELL TAG, IF REQUIRED, HAS BEEN INSTALLED AND THAT THIS WELL RECORD WILL ALSO BE FILED WITH THE PERMIT HOLDER WITHIN 30 DAYS AFTER THE COMPLETION OF WELL DRILLING.					
	SIGNATURE OF DRILLER / PRINT SIGNED NAME					DATE

FOR USE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 04/30/2019)

FILE NO.	POD NO.	TRN NO.
LOCATION	WELL TAG ID NO.	PAGE 2 OF 2



APPENDIX B

Photographic Log



Photographic Log

Devon Energy Production Company, LP

Muskie 23 CTB 5

nAPP2407561521



Photograph 1

Date: 03/15/2024

Description: Release Extent

View: West

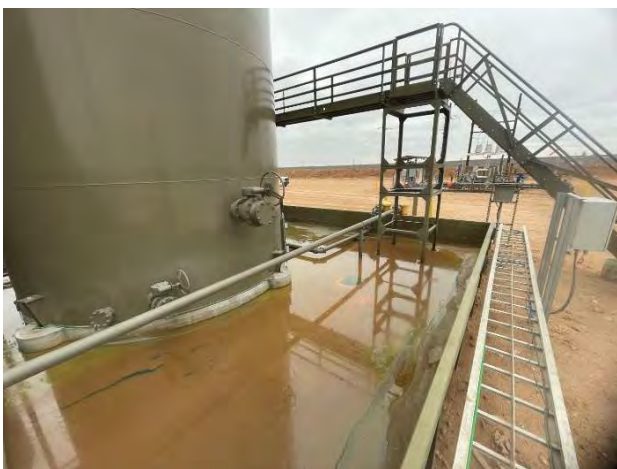


Photograph 2

Date: 03/15/2024

Description: Release Extent

View: East



Photograph 3

Date: 03/15/2024

Description: Release Extent

View: North



Photograph 4

Date: 04/18/2024

Description: Liner Integrity Inspection

View: Southeast



Photographic Log

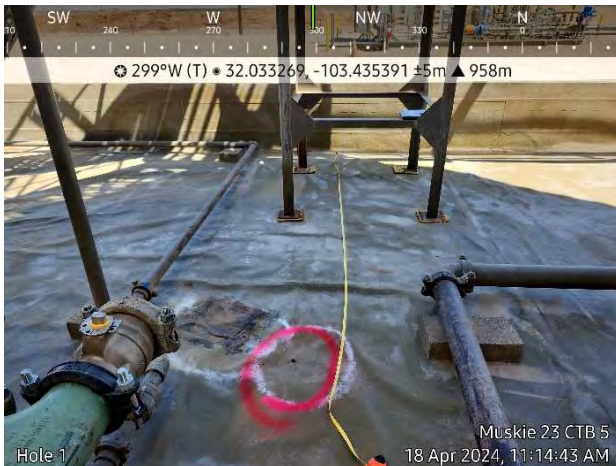
Devon Energy Production Company, LP
Muskie 23 CTB 5
nAPP2407561521



Photograph 5 Date: 04/18/2024
Description: Liner Integrity Inspection
View: Southeast



Photograph 6 Date: 04/18/2024
Description: Liner Integrity Inspection
View: Southwest



Photograph 7 Date: 04/18/2024
Description: Liner Integrity Inspection
View: West



Photograph 8 Date: 04/18/2024
Description: Liner Integrity Inspection
View: North



Photographic Log

Devon Energy Production Company, LP

Muskie 23 CTB 5

nAPP2407561521



Photograph 9 Date: 04/18/2024
Description: Liner Integrity Inspection
View: Southeast



Photograph 10 Date: 04/18/2024
Description: Liner Integrity Inspection
View: East



Photograph 11 Date: 04/18/2024
Description: Liner Integrity Inspection
View: Northwest



Photograph 12 Date: 04/18/2024
Description: Liner Integrity Inspection
View: East



Photographic Log

Devon Energy Production Company, LP
Muskie 23 CTB 5
nAPP2407561521



Photograph 13 Date: 04/18/2024
Description: Liner Integrity Inspection
View: Northeast



Photograph 14 Date: 04/18/2024
Description: Delineation Sampling
View: Southeast



Photograph 15 Date: 04/18/2024
Description: Delineation Sampling
View: Northwest



Photograph 16 Date: 07/03/2024
Description: Vertical Delineation Sampling (BH06)
View: South



Photographic Log

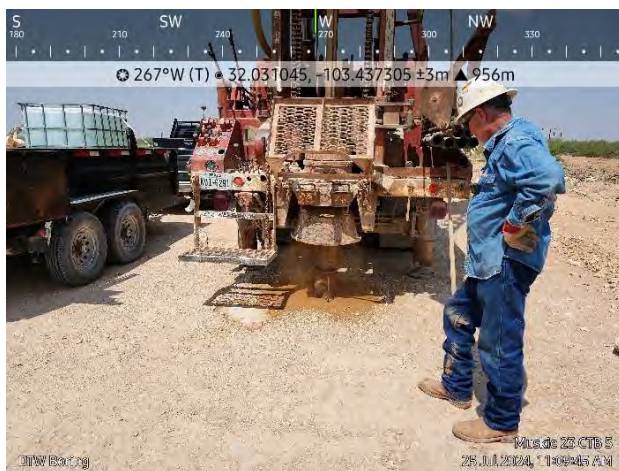
Devon Energy Production Company, LP
Muskie 23 CTB 5
nAPP2407561521



Photograph 9 Date: 07/03/2024
Description: Liner Patch (BH06)
View: Southeast



Photograph 10 Date: 07/25/2024
Description: DTW Boring
View: West



Photograph 11 Date: 07/25/2024
Description: DTW Boring
View: West




Photograph 12 Date: 07/29/2024
Description: DTW Measurement
View: Northeast



APPENDIX C

Lithologic Soil Sampling Logs

								Sample Name: BH06		Date: 7/3/2024	
								Site Name: Muskie 23 CTB 5			
								Incident Number: nAPP2407561521			
								Job Number: 03A1987128			
LITHOLOGIC / SOIL SAMPLING LOG								Logged By: Cole Burton		Method: Hand Auger	
Coordinates: 32.03321, -103.43545								Hole Diameter: 3"		Total Depth: 5'	
Comments: Field screening conducted with 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)	TPH (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions			
D			Y	BH06	0	0	CCHE	Caliche - Slight staining, No odor			
D			N	BH06	1	1	SP-SM	Sand with silt - Dark brown, No odor			
D			N	BH06	2	2	SP-SM	Sand with silt - Medium brown, No odor			
D	600		N	BH06	3	3					
D	350		N	BH06	4	4					
D	200		N	BH06	5	5					
Total Depth = 5'											



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: Muskie 23 CTB 5

Work Order: E404223

Job Number: 01058-0007

Received: 4/22/2024

Revision: 2

Report Reviewed By:

Walter Hinchman
Laboratory Director
10/16/24

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: 10/16/24



Ashley Giovengo
6488 7 Rivers Hwy
Artesia, NM 88210

Project Name: Muskie 23 CTB 5
Workorder: E404223
Date Received: 4/22/2024 8:30:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 4/22/2024 8:30:00AM, under the Project Name: Muskie 23 CTB 5.

The analytical test results summarized in this report with the Project Name: Muskie 23 CTB 5 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

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Sample Summary

Devon Energy - Carlsbad	Project Name:	Muskie 23 CTB 5	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	10/16/24 13:09

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SS01A -0'	E404223-01A	Soil	04/18/24	04/22/24	Glass Jar, 2 oz.
SS02A -0'	E404223-02A	Soil	04/18/24	04/22/24	Glass Jar, 2 oz.
SS03A -0'	E404223-03A	Soil	04/18/24	04/22/24	Glass Jar, 2 oz.
SS04A -0'	E404223-04A	Soil	04/18/24	04/22/24	Glass Jar, 2 oz.



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Muskie 23 CTB 5 Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 10/16/2024 1:09:38PM
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SS01A -0'

E404223-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2417013	
Benzene	ND	0.0250	1	04/22/24	04/23/24	
Ethylbenzene	ND	0.0250	1	04/22/24	04/23/24	
Toluene	ND	0.0250	1	04/22/24	04/23/24	
o-Xylene	ND	0.0250	1	04/22/24	04/23/24	
p,m-Xylene	ND	0.0500	1	04/22/24	04/23/24	
Total Xylenes	ND	0.0250	1	04/22/24	04/23/24	
Surrogate: 4-Bromochlorobenzene-PID	94.0 %	70-130		04/22/24	04/23/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2417013	
Gasoline Range Organics (C6-C10)	ND	20.0	1	04/22/24	04/23/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	90.6 %	70-130		04/22/24	04/23/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV		Batch: 2417018	
Diesel Range Organics (C10-C28)	ND	25.0	1	04/22/24	04/24/24	
Oil Range Organics (C28-C36)	ND	50.0	1	04/22/24	04/24/24	
Surrogate: n-Nonane	113 %	50-200		04/22/24	04/24/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY		Batch: 2417010	
Chloride	286	20.0	1	04/22/24	04/22/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Muskie 23 CTB 5 Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 10/16/2024 1:09:38PM
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SS02A -0'

E404223-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg	Analyst: BA		Batch: 2417013	
Benzene	ND	0.0250	1	04/22/24	04/23/24	
Ethylbenzene	ND	0.0250	1	04/22/24	04/23/24	
Toluene	ND	0.0250	1	04/22/24	04/23/24	
o-Xylene	ND	0.0250	1	04/22/24	04/23/24	
p,m-Xylene	ND	0.0500	1	04/22/24	04/23/24	
Total Xylenes	ND	0.0250	1	04/22/24	04/23/24	
Surrogate: 4-Bromochlorobenzene-PID	94.1 %	70-130		04/22/24	04/23/24	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: BA		Batch: 2417013	
Gasoline Range Organics (C6-C10)	ND	20.0	1	04/22/24	04/23/24	
Surrogate: 1-Chloro-4-fluorobenzene-FID	90.0 %	70-130		04/22/24	04/23/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV		Batch: 2417018	
Diesel Range Organics (C10-C28)	ND	25.0	1	04/22/24	04/24/24	
Oil Range Organics (C28-C36)	ND	50.0	1	04/22/24	04/24/24	
Surrogate: n-Nonane	113 %	50-200		04/22/24	04/24/24	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: IY		Batch: 2417010	
Chloride	110	20.0	1	04/22/24	04/22/24	



Sample Data

Devon Energy - Carlsbad	Project Name:	Muskie 23 CTB 5	Reported: 10/16/2024 1:09:38PM
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	

SS03A -0'

E404223-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: BA		Batch: 2417013	
Benzene	ND	0.0250	1	04/22/24	04/23/24	
Ethylbenzene	ND	0.0250	1	04/22/24	04/23/24	
Toluene	ND	0.0250	1	04/22/24	04/23/24	
o-Xylene	ND	0.0250	1	04/22/24	04/23/24	
p,m-Xylene	ND	0.0500	1	04/22/24	04/23/24	
Total Xylenes	ND	0.0250	1	04/22/24	04/23/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	96.2 %	70-130		04/22/24	04/23/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: BA		Batch: 2417013	
Gasoline Range Organics (C6-C10)	ND	20.0	1	04/22/24	04/23/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	89.2 %	70-130		04/22/24	04/23/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: NV		Batch: 2417018	
Diesel Range Organics (C10-C28)	ND	25.0	1	04/22/24	04/24/24	
Oil Range Organics (C28-C36)	ND	50.0	1	04/22/24	04/24/24	
<i>Surrogate: n-Nonane</i>						
	108 %	50-200		04/22/24	04/24/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: IY		Batch: 2417010	
Chloride	64.5	20.0	1	04/22/24	04/22/24	



Sample Data

Devon Energy - Carlsbad 6488 7 Rivers Hwy Artesia NM, 88210	Project Name: Muskie 23 CTB 5 Project Number: 01058-0007 Project Manager: Ashley Giovengo	Reported: 10/16/2024 1:09:38PM
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SS04A -0'

E404223-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg	Analyst: BA		Batch: 2417013	
Benzene	ND	0.0250	1	04/22/24	04/23/24	
Ethylbenzene	ND	0.0250	1	04/22/24	04/23/24	
Toluene	ND	0.0250	1	04/22/24	04/23/24	
o-Xylene	ND	0.0250	1	04/22/24	04/23/24	
p,m-Xylene	ND	0.0500	1	04/22/24	04/23/24	
Total Xylenes	ND	0.0250	1	04/22/24	04/23/24	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
	94.7 %	70-130		04/22/24	04/23/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg	Analyst: BA		Batch: 2417013	
Gasoline Range Organics (C6-C10)	ND	20.0	1	04/22/24	04/23/24	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
	90.2 %	70-130		04/22/24	04/23/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg	Analyst: NV		Batch: 2417018	
Diesel Range Organics (C10-C28)	ND	25.0	1	04/22/24	04/24/24	
Oil Range Organics (C28-C36)	ND	50.0	1	04/22/24	04/24/24	
<i>Surrogate: n-Nonane</i>						
	112 %	50-200		04/22/24	04/24/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg	Analyst: IY		Batch: 2417010	
Chloride	74.8	20.0	1	04/22/24	04/22/24	



Devon Energy - Carlsbad	Project Name:	Muskie 23 CTB 5	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	10/16/2024 1:09:38PM

Volatile Organics by EPA 8021B

Analyst: BA

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

Blank (2417013-BLK1)Prepared: 04/22/24 Analyzed: 04/23/24

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	7.55		8.00		94.4	70-130			

LCS (2417013-BS1)Prepared: 04/22/24 Analyzed: 04/23/24

Benzene	4.91	0.0250	5.00		98.3	70-130			
Ethylbenzene	4.78	0.0250	5.00		95.7	70-130			
Toluene	4.91	0.0250	5.00		98.1	70-130			
o-Xylene	4.84	0.0250	5.00		96.8	70-130			
p,m-Xylene	9.79	0.0500	10.0		97.9	70-130			
Total Xylenes	14.6	0.0250	15.0		97.5	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.57		8.00		94.7	70-130			

Matrix Spike (2417013-MS1)Source: E404219-01Prepared: 04/22/24 Analyzed: 04/23/24

Benzene	5.72	0.0250	5.00	ND	114	54-133			
Ethylbenzene	5.56	0.0250	5.00	ND	111	61-133			
Toluene	5.71	0.0250	5.00	ND	114	61-130			
o-Xylene	5.65	0.0250	5.00	ND	113	63-131			
p,m-Xylene	11.3	0.0500	10.0	ND	113	63-131			
Total Xylenes	17.0	0.0250	15.0	ND	113	63-131			
Surrogate: 4-Bromochlorobenzene-PID	7.57		8.00		94.6	70-130			

Matrix Spike Dup (2417013-MSD1)Source: E404219-01Prepared: 04/22/24 Analyzed: 04/23/24

Benzene	5.05	0.0250	5.00	ND	101	54-133	12.5	20	
Ethylbenzene	4.91	0.0250	5.00	ND	98.2	61-133	12.4	20	
Toluene	5.03	0.0250	5.00	ND	101	61-130	12.6	20	
o-Xylene	4.97	0.0250	5.00	ND	99.4	63-131	12.7	20	
p,m-Xylene	10.0	0.0500	10.0	ND	100	63-131	12.2	20	
Total Xylenes	15.0	0.0250	15.0	ND	100	63-131	12.4	20	
Surrogate: 4-Bromochlorobenzene-PID	7.50		8.00		93.8	70-130			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Muskie 23 CTB 5	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	10/16/2024 1:09:38PM

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
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Blank (2417013-BLK1) Prepared: 04/22/24 Analyzed: 04/23/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.23		8.00		90.4	70-130			

LCS (2417013-BS2) Prepared: 04/22/24 Analyzed: 04/23/24

Gasoline Range Organics (C6-C10)	42.9	20.0	50.0		85.8	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.21		8.00		90.1	70-130			

Matrix Spike (2417013-MS2) Source: E404219-01 Prepared: 04/22/24 Analyzed: 04/23/24

Gasoline Range Organics (C6-C10)	44.4	20.0	50.0	ND	88.7	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.32		8.00		91.5	70-130			

Matrix Spike Dup (2417013-MSD2) Source: E404219-01 Prepared: 04/22/24 Analyzed: 04/23/24

Gasoline Range Organics (C6-C10)	44.6	20.0	50.0	ND	89.2	70-130	0.517	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.36		8.00		92.0	70-130			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Muskie 23 CTB 5	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	10/16/2024 1:09:38PM

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
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Blank (2417018-BLK1) Prepared: 04/22/24 Analyzed: 04/23/24

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	55.4		50.0		111	50-200			

LCS (2417018-BS1) Prepared: 04/22/24 Analyzed: 04/23/24

Diesel Range Organics (C10-C28)	313	25.0	250		125	38-132			
Surrogate: n-Nonane	56.7		50.0		113	50-200			

Matrix Spike (2417018-MS1) Source: E404220-01 Prepared: 04/22/24 Analyzed: 04/23/24

Diesel Range Organics (C10-C28)	314	25.0	250	ND	126	38-132			
Surrogate: n-Nonane	56.8		50.0		114	50-200			

Matrix Spike Dup (2417018-MSD1) Source: E404220-01 Prepared: 04/22/24 Analyzed: 04/23/24

Diesel Range Organics (C10-C28)	309	25.0	250	ND	124	38-132	1.50	20	
Surrogate: n-Nonane	54.9		50.0		110	50-200			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Muskie 23 CTB 5	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	10/16/2024 1:09:38PM

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 (2417010-BLK1)					Prepared: 04/22/24 Analyzed: 04/22/24				
Chloride	ND	20.0							
LCS (2417010-BS1)					Prepared: 04/22/24 Analyzed: 04/22/24				
Chloride	252	20.0	250		101	90-110			
Matrix Spike (2417010-MS1)					Source: E404222-02		Prepared: 04/22/24 Analyzed: 04/22/24		
Chloride	561	200	250	324	94.7	80-120			
Matrix Spike Dup (2417010-MSD1)					Source: E404222-02		Prepared: 04/22/24 Analyzed: 04/22/24		
Chloride	571	200	250	324	98.7	80-120	1.75	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:	Muskie 23 CTB 5	
6488 7 Rivers Hwy	Project Number:	01058-0007	Reported:
Artesia NM, 88210	Project Manager:	Ashley Giovengo	10/16/24 13:09

- 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.


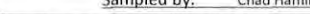

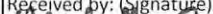


Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Client: Devon Energy	<div> <div>Bill To</div> <div>Attention: Dale Woodall</div> <div>Address: 205 E Bender Rd #150</div> <div>City, State, Zip: Hobbs NM, 88240</div> <div>Phone: (575) 748-1838</div> <div>Email: Dale.woodall@dvn.com</div> </div>	Lab Use Only				TAT				EPA Program				
Project: Muskie 23 CTB 5		Lab WO#	Job Number			1D	2D	3D	Standard	CWA	SDWA			
Project Manager: Ashley Giovengo		E 404223	0105B-0007						X					
Address: 3122 National Parks Hwy		Analysis and Method									RCRA			
City, State, Zip: Carlsbad NM, 88220		<div> <div>/DRO/DRO by</div> <div>8021</div> <div>4260</div> <div>010</div> <div>300.0</div> <div>NM</div> <div>TX</div> </div>								State				
Phone: 575-988-0055										NM	CO	UT	AZ	TX
Email: agiovengo@ensolum.com														
Report due by:														

[illegible]

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 4/19/24		Time 1030		Received by: (Signature) 		Date 4-19-24		Time 1030		Lab Use Only Received on ice: <input checked="" type="radio"/> Y <input type="radio"/> N	
Relinquished by: (Signature) 						Date 4-19-24		Time 1700		Received by: (Signature) 		Date 4.19.24		Time 1800		T1 _____ T2 _____ T3 _____	
Relinquished by: (Signature) 						Date 4.19.24		Time 2400		Received by: (Signature) 		Date 4/22/24		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: 4/22/2024 12:43:16PM

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:	04/22/24 08:30	Work Order ID:	E404223
Phone:	(505) 382-1211	Date Logged In:	04/22/24 09:22	Logged In By:	Angelina Pineda
Email:	ashley.giovengo@wescominc.com	Due Date:	04/26/24 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: 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.

Page 1 of 1

Report to:
Ashley Giovengo



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Devon Energy - Carlsbad

Project Name: Muskie 23 CTB 5

Work Order: E407042

Job Number: 01058-0007

Received: 7/9/2024

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
7/11/24

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: 7/11/24



Ashley Giovengo
6488 7 Rivers Hwy
Artesia, NM 88210

Project Name: Muskie 23 CTB 5
Workorder: E407042
Date Received: 7/9/2024 11:20:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 7/9/2024 11:20:00AM, under the Project Name: Muskie 23 CTB 5.

The analytical test results summarized in this report with the Project Name: Muskie 23 CTB 5 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

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Sample Summary

Devon Energy - Carlsbad	Project Name:	Muskie 23 CTB 5	Reported: 07/11/24 15:42
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
BH06-0'	E407042-01A	Soil	07/03/24	07/09/24	Glass Jar, 2 oz.
BH06-4'	E407042-02A	Soil	07/03/24	07/09/24	Glass Jar, 2 oz.
BH07-0'	E407042-03A	Soil	07/03/24	07/09/24	Glass Jar, 2 oz.
BH07-1'	E407042-04A	Soil	07/03/24	07/09/24	Glass Jar, 2 oz.



Sample Data

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

Project Name: Muskie 23 CTB 5
Project Number: 01058-0007
Project Manager: Ashley Giovengo

Reported:
7/11/2024 3:42:31PM

BH06-0'

E407042-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2428035
Benzene	ND	0.0250	1	07/09/24	07/10/24	
Ethylbenzene	ND	0.0250	1	07/09/24	07/10/24	
Toluene	ND	0.0250	1	07/09/24	07/10/24	
o-Xylene	ND	0.0250	1	07/09/24	07/10/24	
p,m-Xylene	ND	0.0500	1	07/09/24	07/10/24	
Total Xylenes	ND	0.0250	1	07/09/24	07/10/24	
<i>Surrogate: Bromofluorobenzene</i>		96.9 %	70-130	07/09/24	07/10/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		98.5 %	70-130	07/09/24	07/10/24	
<i>Surrogate: Toluene-d8</i>		92.2 %	70-130	07/09/24	07/10/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2428035
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/09/24	07/10/24	
<i>Surrogate: Bromofluorobenzene</i>		96.9 %	70-130	07/09/24	07/10/24	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		98.5 %	70-130	07/09/24	07/10/24	
<i>Surrogate: Toluene-d8</i>		92.2 %	70-130	07/09/24	07/10/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2428028
Diesel Range Organics (C10-C28)	ND	25.0	1	07/09/24	07/10/24	
Oil Range Organics (C28-C36)	ND	50.0	1	07/09/24	07/10/24	
<i>Surrogate: n-Nonane</i>		102 %	50-200	07/09/24	07/10/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2428037
Chloride	189	20.0	1	07/09/24	07/09/24	



Sample Data

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

Project Name: Muskie 23 CTB 5
Project Number: 01058-0007
Project Manager: Ashley Giovengo

Reported:
7/11/2024 3:42:31PM

BH06-4'

E407042-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2428035
Benzene	ND	0.0250	1	07/09/24	07/10/24	
Ethylbenzene	ND	0.0250	1	07/09/24	07/10/24	
Toluene	ND	0.0250	1	07/09/24	07/10/24	
o-Xylene	ND	0.0250	1	07/09/24	07/10/24	
p,m-Xylene	ND	0.0500	1	07/09/24	07/10/24	
Total Xylenes	ND	0.0250	1	07/09/24	07/10/24	
Surrogate: Bromofluorobenzene	95.9 %	70-130		07/09/24	07/10/24	
Surrogate: 1,2-Dichloroethane-d4	96.2 %	70-130		07/09/24	07/10/24	
Surrogate: Toluene-d8	90.9 %	70-130		07/09/24	07/10/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2428035
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/09/24	07/10/24	
Surrogate: Bromofluorobenzene	95.9 %	70-130		07/09/24	07/10/24	
Surrogate: 1,2-Dichloroethane-d4	96.2 %	70-130		07/09/24	07/10/24	
Surrogate: Toluene-d8	90.9 %	70-130		07/09/24	07/10/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2428028
Diesel Range Organics (C10-C28)	ND	25.0	1	07/09/24	07/10/24	
Oil Range Organics (C28-C36)	ND	50.0	1	07/09/24	07/10/24	
Surrogate: n-Nonane	96.6 %	50-200		07/09/24	07/10/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2428037
Chloride	278	20.0	1	07/09/24	07/09/24	



Sample Data

Devon Energy - Carlsbad	Project Name:	Muskie 23 CTB 5	Reported: 7/11/2024 3:42:31PM
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	

BH07-0'

E407042-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B		mg/kg	mg/kg	Analyst: RKS		Batch: 2428035
Benzene	ND	0.0250	1	07/09/24	07/10/24	
Ethylbenzene	ND	0.0250	1	07/09/24	07/10/24	
Toluene	ND	0.0250	1	07/09/24	07/10/24	
o-Xylene	ND	0.0250	1	07/09/24	07/10/24	
p,m-Xylene	ND	0.0500	1	07/09/24	07/10/24	
Total Xylenes	ND	0.0250	1	07/09/24	07/10/24	
Surrogate: Bromofluorobenzene	95.6 %	70-130		07/09/24	07/10/24	
Surrogate: 1,2-Dichloroethane-d4	97.8 %	70-130		07/09/24	07/10/24	
Surrogate: Toluene-d8	92.8 %	70-130		07/09/24	07/10/24	
Nonhalogenated Organics by EPA 8015D - GRO		mg/kg	mg/kg	Analyst: RKS		Batch: 2428035
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/09/24	07/10/24	
Surrogate: Bromofluorobenzene	95.6 %	70-130		07/09/24	07/10/24	
Surrogate: 1,2-Dichloroethane-d4	97.8 %	70-130		07/09/24	07/10/24	
Surrogate: Toluene-d8	92.8 %	70-130		07/09/24	07/10/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO		mg/kg	mg/kg	Analyst: KM		Batch: 2428028
Diesel Range Organics (C10-C28)	ND	25.0	1	07/09/24	07/10/24	
Oil Range Organics (C28-C36)	ND	50.0	1	07/09/24	07/10/24	
Surrogate: n-Nonane	90.9 %	50-200		07/09/24	07/10/24	
Anions by EPA 300.0/9056A		mg/kg	mg/kg	Analyst: DT		Batch: 2428037
Chloride	1110	20.0	1	07/09/24	07/10/24	



Sample Data

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

Project Name: Muskie 23 CTB 5
Project Number: 01058-0007
Project Manager: Ashley Giovengo

Reported:
7/11/2024 3:42:31PM

BH07-1'

E407042-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2428035
Benzene	ND	0.0250	1	07/09/24	07/10/24	
Ethylbenzene	ND	0.0250	1	07/09/24	07/10/24	
Toluene	ND	0.0250	1	07/09/24	07/10/24	
o-Xylene	ND	0.0250	1	07/09/24	07/10/24	
p,m-Xylene	ND	0.0500	1	07/09/24	07/10/24	
Total Xylenes	ND	0.0250	1	07/09/24	07/10/24	
Surrogate: Bromofluorobenzene	97.0 %	70-130		07/09/24	07/10/24	
Surrogate: 1,2-Dichloroethane-d4	103 %	70-130		07/09/24	07/10/24	
Surrogate: Toluene-d8	90.2 %	70-130		07/09/24	07/10/24	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2428035
Gasoline Range Organics (C6-C10)	ND	20.0	1	07/09/24	07/10/24	
Surrogate: Bromofluorobenzene	97.0 %	70-130		07/09/24	07/10/24	
Surrogate: 1,2-Dichloroethane-d4	103 %	70-130		07/09/24	07/10/24	
Surrogate: Toluene-d8	90.2 %	70-130		07/09/24	07/10/24	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: KM		Batch: 2428028
Diesel Range Organics (C10-C28)	ND	25.0	1	07/09/24	07/10/24	
Oil Range Organics (C28-C36)	ND	50.0	1	07/09/24	07/10/24	
Surrogate: n-Nonane	102 %	50-200		07/09/24	07/10/24	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: DT		Batch: 2428037
Chloride	21.5	20.0	1	07/09/24	07/10/24	



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Muskie 23 CTB 5	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	7/11/2024 3:42:31PM

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 (2428035-BLK1)Prepared: 07/09/24 Analyzed: 07/09/24

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: Bromofluorobenzene	0.498		0.500		99.5	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.475		0.500		94.9	70-130			
Surrogate: Toluene-d8	0.470		0.500		93.9	70-130			

LCS (2428035-BS1)Prepared: 07/09/24 Analyzed: 07/09/24

Benzene	2.66	0.0250	2.50		106	70-130			
Ethylbenzene	2.50	0.0250	2.50		100	70-130			
Toluene	2.36	0.0250	2.50		94.6	70-130			
o-Xylene	2.45	0.0250	2.50		97.9	70-130			
p,m-Xylene	4.91	0.0500	5.00		98.3	70-130			
Total Xylenes	7.36	0.0250	7.50		98.2	70-130			
Surrogate: Bromofluorobenzene	0.493		0.500		98.6	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.474		0.500		94.8	70-130			
Surrogate: Toluene-d8	0.480		0.500		95.9	70-130			

Matrix Spike (2428035-MS1)Source: E407038-04Prepared: 07/09/24 Analyzed: 07/09/24

Benzene	2.75	0.0250	2.50	ND	110	48-131			
Ethylbenzene	2.54	0.0250	2.50	ND	102	45-135			
Toluene	2.42	0.0250	2.50	ND	96.7	48-130			
o-Xylene	2.51	0.0250	2.50	ND	100	43-135			
p,m-Xylene	5.03	0.0500	5.00	ND	101	43-135			
Total Xylenes	7.53	0.0250	7.50	ND	100	43-135			
Surrogate: Bromofluorobenzene	0.499		0.500		99.7	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.480		0.500		96.0	70-130			
Surrogate: Toluene-d8	0.475		0.500		95.0	70-130			

Matrix Spike Dup (2428035-MSD1)Source: E407038-04Prepared: 07/09/24 Analyzed: 07/09/24

Benzene	2.80	0.0250	2.50	ND	112	48-131	1.50	23	
Ethylbenzene	2.65	0.0250	2.50	ND	106	45-135	3.91	27	
Toluene	2.49	0.0250	2.50	ND	99.7	48-130	3.06	24	
o-Xylene	2.65	0.0250	2.50	ND	106	43-135	5.62	27	
p,m-Xylene	5.32	0.0500	5.00	ND	106	43-135	5.59	27	
Total Xylenes	7.97	0.0250	7.50	ND	106	43-135	5.60	27	
Surrogate: Bromofluorobenzene	0.504		0.500		101	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.482		0.500		96.3	70-130			
Surrogate: Toluene-d8	0.476		0.500		95.2	70-130			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Muskie 23 CTB 5	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	7/11/2024 3:42:31PM

Nonhalogenated Organics by EPA 8015D - GRO

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 (2428035-BLK1) Prepared: 07/09/24 Analyzed: 07/09/24

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.498		0.500		99.5	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.475		0.500		94.9	70-130			
Surrogate: Toluene-d8	0.470		0.500		93.9	70-130			

LCS (2428035-BS2) Prepared: 07/09/24 Analyzed: 07/09/24

Gasoline Range Organics (C6-C10)	52.9	20.0	50.0		106	70-130			
Surrogate: Bromofluorobenzene	0.510		0.500		102	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.458		0.500		91.5	70-130			
Surrogate: Toluene-d8	0.485		0.500		96.9	70-130			

Matrix Spike (2428035-MS2) Source: E407038-04 Prepared: 07/09/24 Analyzed: 07/09/24

Gasoline Range Organics (C6-C10)	49.7	20.0	50.0	ND	99.4	70-130			
Surrogate: Bromofluorobenzene	0.512		0.500		102	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.489		0.500		97.7	70-130			
Surrogate: Toluene-d8	0.478		0.500		95.5	70-130			

Matrix Spike Dup (2428035-MSD2) Source: E407038-04 Prepared: 07/09/24 Analyzed: 07/09/24

Gasoline Range Organics (C6-C10)	51.5	20.0	50.0	ND	103	70-130	3.45	20	
Surrogate: Bromofluorobenzene	0.503		0.500		101	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.485		0.500		97.0	70-130			
Surrogate: Toluene-d8	0.483		0.500		96.5	70-130			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Muskie 23 CTB 5	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	7/11/2024 3:42:31PM

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
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Blank (2428028-BLK1)					Prepared: 07/09/24 Analyzed: 07/10/24				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	49.3		50.0		98.6	50-200			

LCS (2428028-BS1)					Prepared: 07/09/24 Analyzed: 07/10/24				
Diesel Range Organics (C10-C28)	296	25.0	250		118	38-132			
Surrogate: n-Nonane	63.5		50.0		127	50-200			

Matrix Spike (2428028-MS1)					Source: E407038-04		Prepared: 07/09/24 Analyzed: 07/10/24		
Diesel Range Organics (C10-C28)	298	25.0	250	ND	119	38-132			
Surrogate: n-Nonane	55.1		50.0		110	50-200			

Matrix Spike Dup (2428028-MSD1)					Source: E407038-04		Prepared: 07/09/24 Analyzed: 07/10/24		
Diesel Range Organics (C10-C28)	296	25.0	250	ND	119	38-132	0.669	20	
Surrogate: n-Nonane	58.3		50.0		117	50-200			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Muskie 23 CTB 5	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	7/11/2024 3:42:31PM

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 (2428037-BLK1)					Prepared: 07/09/24 Analyzed: 07/09/24				
Chloride	ND	20.0							
LCS (2428037-BS1)					Prepared: 07/09/24 Analyzed: 07/09/24				
Chloride	247	20.0	250		98.9	90-110			
Matrix Spike (2428037-MS1)					Source: E407038-04		Prepared: 07/09/24 Analyzed: 07/09/24		
Chloride	373	20.0	250	120	101	80-120			
Matrix Spike Dup (2428037-MSD1)					Source: E407038-04		Prepared: 07/09/24 Analyzed: 07/09/24		
Chloride	377	20.0	250	120	103	80-120	0.933	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:	Muskie 23 CTB 5	
6488 7 Rivers Hwy	Project Number:	01058-0007	Reported:
Artesia NM, 88210	Project Manager:	Ashley Giovengo	07/11/24 15:42

- 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.



[illegible]

Envirotech Analytical Laboratory

Printed: 7/9/2024 4:55:51PM

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:	07/09/24 11:20	Work Order ID:	E407042
Phone:	(505) 382-1211	Date Logged In:	07/08/24 16:47	Logged In By:	Alexa Michaels
Email:	ashley.giovengo@wescominc.com	Due Date:	07/15/24 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.



APPENDIX E

NMOCD Notification

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 332890

QUESTIONS

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID:
	6137
	Action Number:
	332890
Action Type:	
[NOTIFY] Notification Of Liner Inspection (C-141L)	

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2407561521
Incident Name	NAPP2407561521 MUSKIE 23 CTB 5 @ 0
Incident Type	Produced Water Release
Incident Status	Initial C-141 Approved
Incident Facility	[fAPP2317134046] MUSKIE 23 CTB 5

Location of Release Source	
Site Name	MUSKIE 23 CTB 5
Date Release Discovered	03/15/2024
Surface Owner	Federal

Liner Inspection Event Information	
Please answer all the questions in this group.	
What is the liner inspection surface area in square feet	9,000
Have all the impacted materials been removed from the liner	Yes
Liner inspection date pursuant to Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC	04/18/2024
Time liner inspection will commence	09:00 AM
Please provide any information necessary for observers to liner inspection	Ensolum 575-988-0055
Please provide any information necessary for navigation to liner inspection site	32.0331535 -103.4354694

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CONDITIONS

Action 332890

CONDITIONS

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 332890
	Action Type: [NOTIFY] Notification Of Liner Inspection (C-141L)

CONDITIONS

Created By	Condition	Condition Date
wdale	Failure to notify the OCD of liner inspections including any changes in date/time per the requirements of 19.15.29.11.A(5)(a)(ii) NMAC, may result in the inspection not being accepted.	4/12/2024

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QUESTIONS

Action 397788

QUESTIONS

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 397788
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2407561521
Incident Name	NAPP2407561521 MUSKIE 23 CTB 5 @ 0
Incident Type	Produced Water Release
Incident Status	Remediation Closure Report Received
Incident Facility	[fAPP2317134046] MUSKIE 23 CTB 5

Location of Release Source	
Please answer all the questions in this group.	
Site Name	MUSKIE 23 CTB 5
Date Release Discovered	03/15/2024
Surface Owner	Federal

Incident Details	
Please answer all the questions in this group.	
Incident Type	Produced Water 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 Other (Specify) Crude Oil Released: 2 BBL Recovered: 2 BBL Lost: 0 BBL.
Produced Water Released (bbls) Details	Cause: Equipment Failure Other (Specify) Produced Water Released: 48 BBL Recovered: 48 BBL Lost: 0 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	No
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)	At the Muskie 23 CTB 5, the facility ESD'd around 5 am 3/15/24 on hi oil tanks due to Marathon LACT issues. Wells supplying the location failed to close and continued to fill up the tanks which caused the oil to eventually make its way out of the Enardo valves. This was caught relatively quickly but due to rain water in the containment, the spill is much larger than it would have been. 48 bbls produced water and 2 bbls of oil were spilled into a lined containment. 48 bbls produced water and 2 bbls of oil were recovered. LO, Lead, & OO S/I all wells manually. Function tested all ESD's and found the 6H to not work. 6H was left down and M1 submitted for repairs. Swamped out lines were drained. Amount released was 50 bbls but most was contaminated rain water. Only about 2 bbls of it was oil.

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QUESTIONS, Page 2

Action 397788

QUESTIONS (continued)

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 397788
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

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	Yes
Reasons why this would be considered a submission for a notification of a major release	From paragraph A. "Major release" determine using: (1) an unauthorized release of a volume, excluding gases, of 25 barrels or more.
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	Not answered.

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@dvn.com Date: 03/19/2024
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QUESTIONS, Page 3

Action 397788

QUESTIONS (continued)

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 397788
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

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 100 and 500 (ft.)
What method was used to determine the depth to ground water	Direct Measurement
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)	Greater than 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Greater than 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Greater than 5 (mi.)
Any other fresh water well or spring	Greater than 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 1 and 5 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Low
A 100-year floodplain	Greater than 5 (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)	286
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	0
GRO+DRO (EPA SW-846 Method 8015M)	0
BTEX (EPA SW-846 Method 8021B or 8260B)	0
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	01/01/2070
On what date will (or did) the final sampling or liner inspection occur	04/18/2024
On what date will (or was) the remediation complete(d)	01/01/2070
What is the estimated surface area (in square feet) that will be reclaimed	0
What is the estimated volume (in cubic yards) that will be reclaimed	0
What is the estimated surface area (in square feet) that will be remediated	0
What is the estimated volume (in cubic yards) that will be remediated	0

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.

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QUESTIONS, Page 4

Action 397788

QUESTIONS (continued)

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 397788
	Action Type:
	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Remediation Plan (continued)	
<i>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.</i>	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
<i>(Select all answers below that apply.)</i>	
(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	HALFWAY DISPOSAL AND LANDFILL [fEEM0112334510]
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.
<i>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>	
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: James Raley Title: EHS Professional Email: jim.raley@dvsn.com Date: 10/31/2024
<i>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.</i>	

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QUESTIONS, Page 5

Action 397788

QUESTIONS (continued)

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 397788
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

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	No

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QUESTIONS, Page 6

Action 397788

QUESTIONS (continued)

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID:	6137
	Action Number:	397788
	Action Type:	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	392421
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	10/17/2024
What was the (estimated) number of samples that were to be gathered	3
What was the sampling surface area in square feet	4796

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	Yes
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
All areas reasonably needed for production or subsequent drilling operations have been stabilized, returned to the sites existing grade, and have a soil cover that prevents ponding of water, minimizing dust and erosion	Yes
What was the total surface area (in square feet) remediated	0
What was the total volume (cubic yards) remediated	0
All areas not reasonably needed for production or subsequent drilling operations have been reclaimed to contain a minimum of four feet of non-waste contain earthen material with concentrations less than 600 mg/kg chlorides, 100 mg/kg TPH, 50 mg/kg BTEX, and 10 mg/kg Benzene	Yes
What was the total surface area (in square feet) reclaimed	0
What was the total volume (in cubic yards) reclaimed	0
Summarize any additional remediation activities not included by answers (above)	N/A

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (in .pdf format) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

I hereby agree and sign off to the above statement	Name: James Raley Title: EHS Professional Email: jim.raley@dmn.com Date: 10/31/2024
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QUESTIONS, Page 7

Action 397788

QUESTIONS (continued)

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID:	6137
	Action Number:	397788
	Action Type:	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Reclamation Report	
Only answer the questions in this group if all reclamation steps have been completed.	
Requesting a reclamation approval with this submission	No

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CONDITIONS

Action 397788

CONDITIONS

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID:
	6137
	Action Number:
	397788
Action Type:	
[C-141] Remediation Closure Request C-141 (C-141-v-Closure)	

CONDITIONS

Created By	Condition	Condition Date
rhamlet	We have received your Remediation Closure Report for Incident #NAPP2407561521 MUSKIE 23 CTB 5, thank you. This Remediation Closure Report is approved.	11/12/2024