

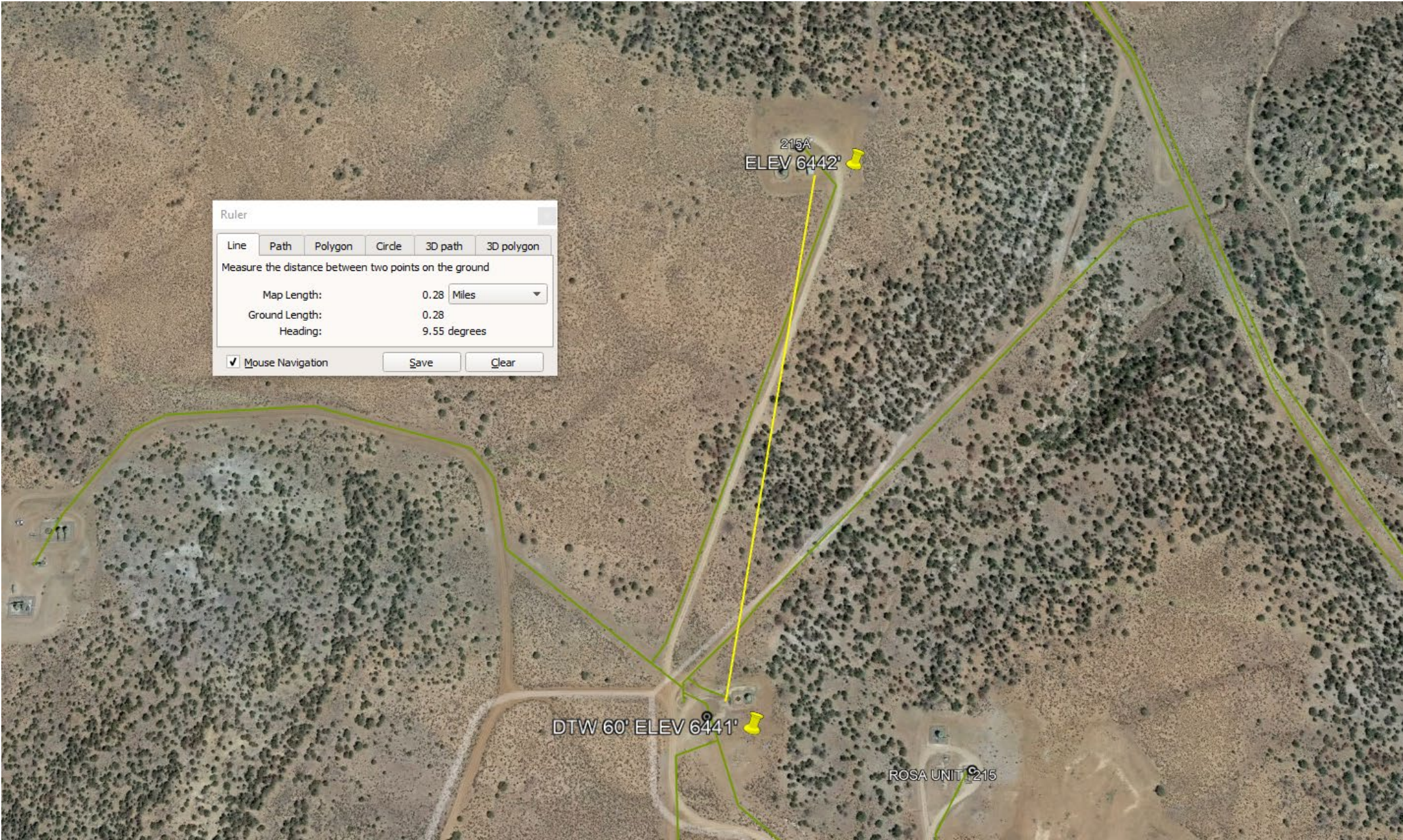


Volume Calculation determination of water made.

LOGOS determined the amount released based on water volumes made by well and production detlas.

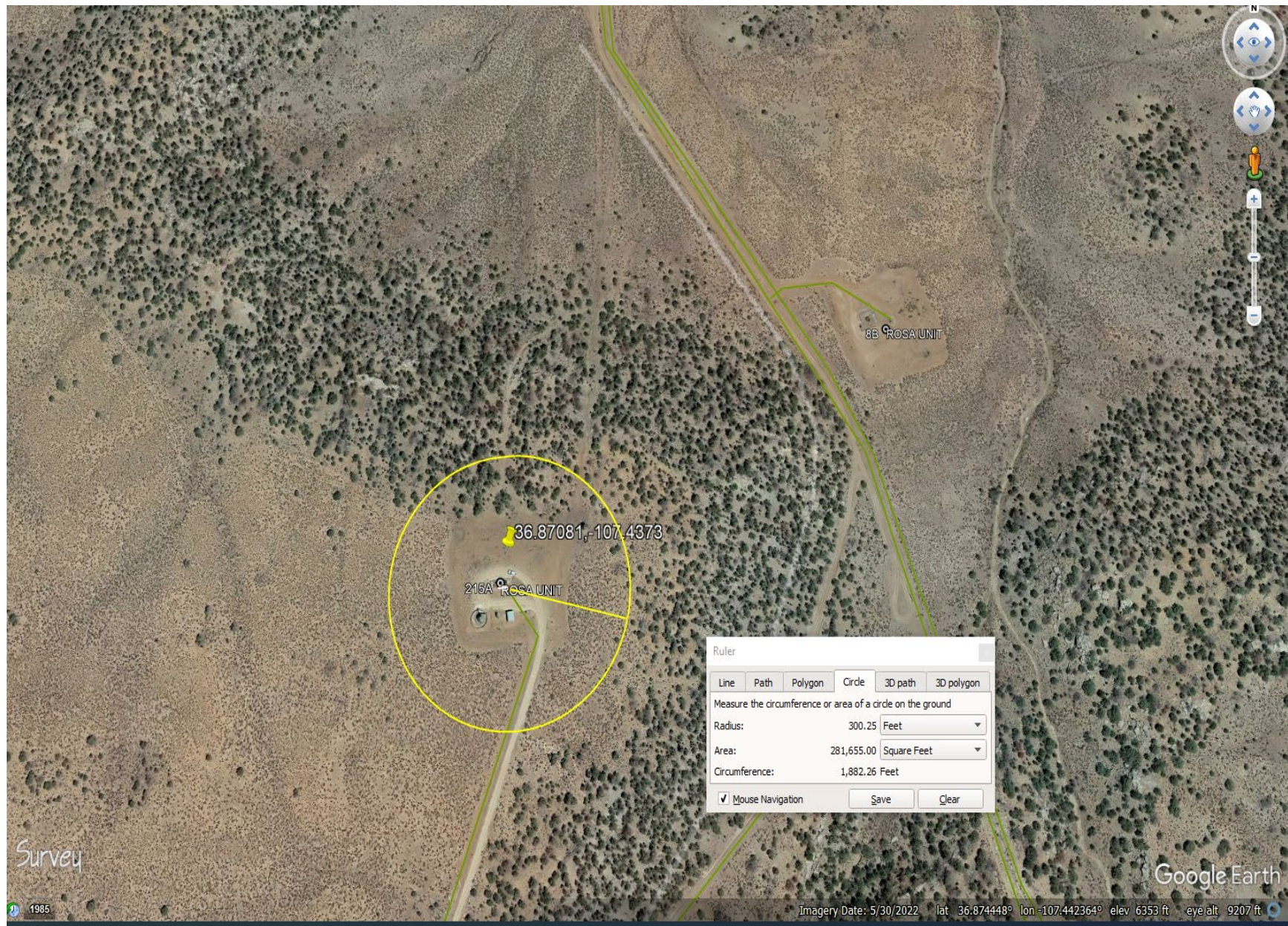


Rosa Unit #215A DTW @ 161" based off Cathodic Well on the Rosa Unit #008





## Rosa Unit # 215A Sitting Criteria







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

Incident # **nAPP2325135212**


**RE: The cause of the release is due to the packing having been backed out substantially by an unknown cause. The estimated release volume was 8 BBLs and 4 BBLs were recovered. The Rosa Unit #215A is in Unit E, Section 26, Township 31 North, Range 6 West, Rio Arriba County, New Mexico.**

Dear Mr. Velez,

When the release was discovered, it was determined that the packing had been backed out substantially by an unknown cause. The release size was 12'x10'x.5"x1". All standing liquid has been removed and the area impacted has been remediated by removing the impacted soil. LOGOS will follow 19.15.29 when remediation occurs.

On December 9, 2023, LOGOS notified BLM and NMOCD for final confirmation sample to be taken. A representative from the NMOCD nor the BLM were present at the confirmation sampling. 1 (5)- point confirmation samples were collected from excavated areas. No odor or staining was observed during the sampling event. All confirmation samples were below closure standards.

12/11/2023 Analytical Results								
Sample Description	Date 12/11/2023	Sample Depth See below	EPA Method 8015		EPA Method 8021		EPA Method 300.0	
			GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Benzene (mg/kg)	Total BTEX (mg/kg)	Chlorides (mg/kg)
19.15.29.13 (D) NMAC			1000 mg/kg			10 mg/kg	50 mg/kg	600 mg/kg
19.15.29.12 NMAC			1000 mg/kg					10,000 mg/kg
			2500 mg/kg					
SB-1 @ 1'	12/11/2023	1 'bgs	ND	ND	ND	ND	ND	ND

Closure Criteria for Soils Impacted by a Release			
Minimum depth below any point within the horizontal boundary of the release to ground water less than 10,000 mg/l TDS	Constituent	Method*	Limit**
≤ 50 feet	Chloride***	EPA 300.0 or SM4500 Cl B	600 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	100 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg
51 feet-100 feet	Chloride***	EPA 300.0 or SM4500 Cl B	10,000 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	2,500 mg/kg
	GRO+DRO	EPA SW-846 Method 8015M	1,000 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg
<div><div>&gt;100 feet</div><div></div></div>	Chloride***	EPA 300.0 or SM4500 Cl B	20,000 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	2,500 mg/kg
	GRO+DRO	EPA SW-846 Method 8015M	1,000 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg

The samples that were collected were placed into individual laboratory 4-ounce jars, capped head space free and transported on ice to Envirotech. The samples were analyzed for TPH (GRO/DRO/ORO) using EPA Method 8015D; benzene, Toluene, ethylbenzene and total xylenes (BTEX) using EPA Method 8021B and chlorides using EPA Method 300.0.

All final confirmation sampling that was collected was below NMOCD 19.15.29 closure standard.

Therefore, based on the site activities and the laboratory analytical results confirms that concentrations of contaminants are below the applicable release, remediation/reclamation limits and no further action is required. LOGOS request a release and remediation. Reclamation will occur when the site is P&A and will meet BLM Onshore Order 1.





Sample area of Remediation Area





Sample area of Remediation Area



Sample area of Remediation Area



LOGOS Resources will

Sincerely,

Vanessa Fields  
Regulatory Manager  
Cell: 505-320-1243



DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS IN  
NORTHWEST NEW MEXICO

OPERATOR: Williams Production Company LOCATION: M 26 31 6 LEASE NUMBER: SF-078771

NAME OF WELL/WELLS OR PIPELINE SERVICED: ROSA UNIT #008 MV  
DUALWELL N/A

30-039-07944

ELEVATION: 5428' GR COMPLETION DATE: 11/21/77 TOTAL DEPTH: 300 ft. LAND TYPE: FED

CASING: 7-5/8" 26.4# K-55 Set @ N/A ft. Casing is not cemented.

CEMENT PLUG---Top: N/A' Bottom: N/A' Used 0 sx. Class "B" (1.18 cu.ft./sk).

WATER DEPTH: 60 ' Water zone thickness not available. WATER DESCRIPTION: Fresh

DEPTH OF GAS: N/A '

COKE: 5670 lbs. of Metallurgical coke breeze used.

NUMBER &amp; TYPE OF ANODES: 10CD TOP ANODE @ 140 ft. BOTTOM ANODE @ 240 ft.

VENT PIPE: 1" PVC Set @ 300 ft. Vent pipe perforated from 120 ft. to 300 ft.

REMARKS:

Top of Cement @ N/A'

Casing @ N/A'

**RECEIVED**  
DEC 11 1991  
OIL CON. DIV.  
DIST. 3

Bottom of Cement @ N/A'

----- Perforated Vent Pipe

Top Anode @ 140'

10CD Anodes -----

Bottom Anode @ 240'

6-3/4" Hole to 300'

Rosa Unit #215A Topo Map





Report to:

Vanessa Fields



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

### Logos Resources

Project Name: Rosa Unit 215A

Work Order: E312070

Job Number: 12035-0114

Received: 12/11/2023

Revision: 2

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
12/13/23

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: 12/13/23

Vanessa Fields  
2010 Afton Place  
Farmington, NM 87401



Project Name: Rosa Unit 215A  
Workorder: E312070  
Date Received: 12/11/2023 3:09:00PM

Vanessa Fields,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 12/11/2023 3:09:00PM, under the Project Name: Rosa Unit 215A.

The analytical test results summarized in this report with the Project Name: Rosa Unit 215A apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

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

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

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

Respectfully,

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

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

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

Field Offices:

**Southern New Mexico Area**

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

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

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



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Sample Summary

Logos Resources	Project Name:	Rosa Unit 215A	Reported:
2010 Afton Place	Project Number:	12035-0114	
Farmington NM, 87401	Project Manager:	Vanessa Fields	12/13/23 15:18

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SB00#1 Rosa Unit 215A	E312070-01A	Soil	12/11/23	12/11/23	Glass Jar, 4 oz.





Sample Data

Logos Resources 2010 Afton Place Farmington NM, 87401	Project Name: Rosa Unit 215A Project Number: 12035-0114 Project Manager: Vanessa Fields	Reported: 12/13/2023 3:18:06PM
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SB00#1 Rosa Unit 215A  
E312070-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>	mg/kg	mg/kg	Analyst: RAS		Batch: 2350012	
Benzene	ND	0.0250	1	12/12/23	12/12/23	
Ethylbenzene	ND	0.0250	1	12/12/23	12/12/23	
Toluene	ND	0.0250	1	12/12/23	12/12/23	
o-Xylene	ND	0.0250	1	12/12/23	12/12/23	
p,m-Xylene	ND	0.0500	1	12/12/23	12/12/23	
Total Xylenes	ND	0.0250	1	12/12/23	12/12/23	
Surrogate: 4-Bromochlorobenzene-PID	92.9 %	70-130		12/12/23	12/12/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg	Analyst: RAS		Batch: 2350012	
Gasoline Range Organics (C6-C10)	ND	20.0	1	12/12/23	12/12/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID	91.8 %	70-130		12/12/23	12/12/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg	Analyst: RAS		Batch: 2350029	
Diesel Range Organics (C10-C28)	ND	25.0	1	12/12/23	12/12/23	
Oil Range Organics (C28-C36)	ND	50.0	1	12/12/23	12/12/23	
Surrogate: n-Nonane	81.3 %	50-200		12/12/23	12/12/23	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg	Analyst: BA		Batch: 2350034	
Chloride	ND	20.0	1	12/12/23	12/13/23	



QC Summary Data

Logos Resources	Project Name:	Rosa Unit 215A	Reported:
2010 Afton Place	Project Number:	12035-0114	
Farmington NM, 87401	Project Manager:	Vanessa Fields	12/13/2023 3:18:06PM

Volatile Organics by EPA 8021B

Analyst: RAS

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2350012-BLK1) Prepared: 12/11/23 Analyzed: 12/11/23

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	7.28		8.00		91.0	70-130			

LCS (2350012-BS1) Prepared: 12/11/23 Analyzed: 12/11/23

Benzene	4.87	0.0250	5.00		97.4	70-130			
Ethylbenzene	5.16	0.0250	5.00		103	70-130			
Toluene	5.11	0.0250	5.00		102	70-130			
o-Xylene	5.16	0.0250	5.00		103	70-130			
p,m-Xylene	10.5	0.0500	10.0		105	70-130			
Total Xylenes	15.7	0.0250	15.0		105	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.28		8.00		91.0	70-130			

Matrix Spike (2350012-MS1) Source: E312059-01 Prepared: 12/11/23 Analyzed: 12/11/23

Benzene	4.64	0.0250	5.00	ND	92.9	54-133			
Ethylbenzene	4.99	0.0250	5.00	ND	99.8	61-133			
Toluene	4.92	0.0250	5.00	ND	98.4	61-130			
o-Xylene	5.02	0.0250	5.00	ND	100	63-131			
p,m-Xylene	10.2	0.0500	10.0	ND	102	63-131			
Total Xylenes	15.2	0.0250	15.0	ND	101	63-131			
Surrogate: 4-Bromochlorobenzene-PID	7.45		8.00		93.2	70-130			

Matrix Spike Dup (2350012-MSD1) Source: E312059-01 Prepared: 12/11/23 Analyzed: 12/11/23

Benzene	4.87	0.0250	5.00	ND	97.4	54-133	4.77	20	
Ethylbenzene	5.25	0.0250	5.00	ND	105	61-133	5.02	20	
Toluene	5.16	0.0250	5.00	ND	103	61-130	4.79	20	
o-Xylene	5.27	0.0250	5.00	ND	105	63-131	4.86	20	
p,m-Xylene	10.7	0.0500	10.0	ND	107	63-131	4.92	20	
Total Xylenes	16.0	0.0250	15.0	ND	106	63-131	4.90	20	
Surrogate: 4-Bromochlorobenzene-PID	7.49		8.00		93.7	70-130			





QC Summary Data

Logos Resources	Project Name:	Rosa Unit 215A	Reported:
2010 Afton Place	Project Number:	12035-0114	
Farmington NM, 87401	Project Manager:	Vanessa Fields	12/13/2023 3:18:06PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RAS

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2350012-BLK1) Prepared: 12/11/23 Analyzed: 12/11/23

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.20		8.00		90.0	70-130			

LCS (2350012-BS2) Prepared: 12/11/23 Analyzed: 12/11/23

Gasoline Range Organics (C6-C10)	47.9	20.0	50.0		95.8	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.19		8.00		89.9	70-130			

Matrix Spike (2350012-MS2) Source: E312059-01 Prepared: 12/11/23 Analyzed: 12/11/23

Gasoline Range Organics (C6-C10)	49.4	20.0	50.0	ND	98.9	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.15		8.00		89.3	70-130			

Matrix Spike Dup (2350012-MSD2) Source: E312059-01 Prepared: 12/11/23 Analyzed: 12/11/23

Gasoline Range Organics (C6-C10)	49.7	20.0	50.0	ND	99.3	70-130	0.450	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.18		8.00		89.8	70-130			



QC Summary Data

Logos Resources	Project Name:	Rosa Unit 215A	Reported:
2010 Afton Place	Project Number:	12035-0114	
Farmington NM, 87401	Project Manager:	Vanessa Fields	12/13/2023 3:18:06PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: RAS

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2350029-BLK1)					Prepared: 12/12/23 Analyzed: 12/12/23				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	41.9		50.0		83.9	50-200			

LCS (2350029-BS1)					Prepared: 12/12/23 Analyzed: 12/12/23				
Diesel Range Organics (C10-C28)	210	25.0	250		84.0	38-132			
Surrogate: n-Nonane	42.7		50.0		85.3	50-200			

Matrix Spike (2350029-MS1)					Source: E312044-26		Prepared: 12/12/23 Analyzed: 12/12/23		
Diesel Range Organics (C10-C28)	229	25.0	250	ND	91.6	38-132			
Surrogate: n-Nonane	44.5		50.0		89.0	50-200			

Matrix Spike Dup (2350029-MSD1)					Source: E312044-26		Prepared: 12/12/23 Analyzed: 12/12/23		
Diesel Range Organics (C10-C28)	246	25.0	250	ND	98.5	38-132	7.30	20	
Surrogate: n-Nonane	45.3		50.0		90.5	50-200			





QC Summary Data

Logos Resources	Project Name:	Rosa Unit 215A	Reported:
2010 Afton Place	Project Number:	12035-0114	
Farmington NM, 87401	Project Manager:	Vanessa Fields	12/13/2023 3:18:06PM

Anions by EPA 300.0/9056A

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 (2350034-BLK1)					Prepared: 12/12/23 Analyzed: 12/13/23				
Chloride	ND	20.0							
LCS (2350034-BS1)					Prepared: 12/12/23 Analyzed: 12/13/23				
Chloride	248	20.0	250		99.2	90-110			
Matrix Spike (2350034-MS1)					Source: E312067-03		Prepared: 12/12/23 Analyzed: 12/13/23		
Chloride	18200	200	250	18000	55.3	80-120			M4
Matrix Spike Dup (2350034-MSD1)					Source: E312067-03		Prepared: 12/12/23 Analyzed: 12/13/23		
Chloride	18500	200	250	18000	203	80-120	2.01	20	M4

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



Definitions and Notes

Logos Resources	Project Name:	Rosa Unit 215A	
2010 Afton Place	Project Number:	12035-0114	Reported:
Farmington NM, 87401	Project Manager:	Vanessa Fields	12/13/23 15:18

- 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 Analytical Laboratory

Printed: 12/11/2023 3:17:27PM

## 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:	Logos Resources	Date Received:	12/11/23 15:09	Work Order ID:	E312070
Phone:	(505) 787-9100	Date Logged In:	12/11/23 15:14	Logged In By:	Jordan Montano
Email:	vfields@logosresourcesllc.com	Due Date:	12/12/23 17:00 (1 day TAT)		

Chain of Custody (COC)

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

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: Vanessa FieldsComments/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.









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

Incident # **nAPP2325135212**


**RE: The cause of the release is due to the packing having been backed out substantially by an unknown cause. The estimated release volume was 8 BBLs and 4 BBLs were recovered. The Rosa Unit #215A is in Unit E, Section 26, Township 31 North, Range 6 West, Rio Arriba County, New Mexico.**

Dear Mr. Velez,

When the release was discovered, it was determined that the packing had been backed out substantially by an unknown cause. The release size was 12'x10'x.5"x1". All standing liquid has been removed and the area impacted has been remediated by removing the impacted soil. LOGOS will follow 19.15.29 when remediation occurs.

On December 9, 2023, LOGOS notified BLM and NMOCD for final confirmation sample to be taken. A representative from the NMOCD nor the BLM were present at the confirmation sampling. 1 (5)- point confirmation samples were collected from excavated areas. No odor or staining was observed during the sampling event. All confirmation samples were below closure standards.

12/11/2023 Analytical Results								
Sample Description	Date 12/11/2023	Sample Depth See below	EPA Method 8015		EPA Method 8021		EPA Method 300.0	
			GRO (mg/kg)	DRO (mg/kg)	ORO (mg/kg)	Benzene (mg/kg)	Total BTEX (mg/kg)	Chlorides (mg/kg)
19.15.29.13 (D) NMAC			1000 mg/kg			10 mg/kg	50 mg/kg	600 mg/kg
19.15.29.12 NMAC			1000 mg/kg					10,000 mg/kg
			2500 mg/kg					
SB-1 @ 1'	12/11/2023	1 'bgs	ND	ND	ND	ND	ND	ND

Closure Criteria for Soils Impacted by a Release			
Minimum depth below any point within the horizontal boundary of the release to ground water less than 10,000 mg/l TDS	Constituent	Method*	Limit**
≤ 50 feet	Chloride***	EPA 300.0 or SM4500 Cl B	600 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	100 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg
51 feet-100 feet	Chloride***	EPA 300.0 or SM4500 Cl B	10,000 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	2,500 mg/kg
	GRO+DRO	EPA SW-846 Method 8015M	1,000 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg
<div><div>&gt;100 feet</div><div></div></div>	Chloride***	EPA 300.0 or SM4500 Cl B	20,000 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	2,500 mg/kg
	GRO+DRO	EPA SW-846 Method 8015M	1,000 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg

The samples that were collected were placed into individual laboratory 4-ounce jars, capped head space free and transported on ice to Envirotech. The samples were analyzed for TPH (GRO/DRO/ORO) using EPA Method 8015D; benzene, Toluene, ethylbenzene and total xylenes (BTEX) using EPA Method 8021B and chlorides using EPA Method 300.0.

All final confirmation sampling that was collected was below NMOCD 19.15.29 closure standard.

Therefore, based on the site activities and the laboratory analytical results confirms that concentrations of contaminants are below the applicable release, remediation/reclamation limits and no further action is required. LOGOS request a release and remediation. Reclamation will occur when the site is P&A and will meet BLM Onshore Order 1.





Sample area of Remediation Area





Sample area of Remediation Area



Sample area of Remediation Area



LOGOS Resources will

Sincerely,

Vanessa Fields  
Regulatory Manager  
Cell: 505-320-1243

**District I**  
1625 N. French Dr., Hobbs, NM 88240  
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1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

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**Santa Fe, NM 87505**

QUESTIONS

Action 350020

**QUESTIONS**

Operator: LOGOS OPERATING, LLC 2010 Afton Place Farmington, NM 87401	OGRID: 289408
	Action Number: 350020
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

<b>Prerequisites</b>	
Incident ID (n#)	nAPP2325135212
Incident Name	NAPP2325135212 ROSA UNIT #215A @ 30-039-27422
Incident Type	Produced Water Release
Incident Status	Remediation Closure Report Received
Incident Well	[30-039-27422] ROSA UNIT #215A

<b>Location of Release Source</b>	
<i>Please answer all the questions in this group.</i>	
Site Name	ROSA UNIT #215A
Date Release Discovered	09/07/2023
Surface Owner	Federal

<b>Incident Details</b>	
<i>Please answer all the questions in this group.</i>	
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

<b>Nature and Volume of Release</b>	
<i>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.</i>	
Crude Oil Released (bbls) Details	Not answered.
Produced Water Released (bbls) Details	Cause: Other   Well   Produced Water   Released: 8 BBL   Recovered: 4 BBL   Lost: 4 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)	When the release was discovered it was determined that the packing had been backed out substantially by an unknown cause. The release size was 12'x10'x.5. All standing liquid has been removed and the area impacted has been remediated by removing the impacted soil.



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QUESTIONS, Page 2  
  
Action 350020

**QUESTIONS (continued)**

Operator: LOGOS OPERATING, LLC 2010 Afton Place Farmington, NM 87401	OGRID:	289408
	Action Number:	350020
	Action Type:	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

<b>Nature and Volume of Release (continued)</b>	
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.	

<b>Initial Response</b>	
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: Vanessa Fields Title: Regulatory Manager Email: vfields@logosresourcesllc.com Date: 06/02/2024

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QUESTIONS, Page 3

Action 350020

**QUESTIONS (continued)**

Operator: LOGOS OPERATING, LLC 2010 Afton Place Farmington, NM 87401	OGRID:
	289408
	Action Number:
	350020
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	OCD Imaging Records Lookup
Did this release impact groundwater or surface water	No
<b>What is the minimum distance, between the closest lateral extents of the release and the following surface areas:</b>	
A continuously flowing watercourse or any other significant watercourse	Between 300 and 500 (ft.)
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	Greater than 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	None
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)	0
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	09/07/2023
On what date will (or did) the final sampling or liner inspection occur	12/11/2023
On what date will (or was) the remediation complete(d)	09/25/2023
What is the estimated surface area (in square feet) that will be reclaimed	200
What is the estimated volume (in cubic yards) that will be reclaimed	2
What is the estimated surface area (in square feet) that will be remediated	200
What is the estimated volume (in cubic yards) that will be remediated	2

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  
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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 350020

QUESTIONS (continued)

Operator: LOGOS OPERATING, LLC 2010 Afton Place Farmington, NM 87401	OGRID:	289408
	Action Number:	350020
	Action Type:	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

<b>Remediation Plan (continued)</b>	
<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>	
<b>This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:</b>	
<i>(Select all answers below that apply.)</i>	
(Ex Situ) Excavation and <b>off-site</b> disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for <b>off-site</b> disposal	ENVIROTECH [fSC00000000048]
<b>OR</b> which OCD approved well (API) will be used for <b>off-site</b> disposal	Not answered.
<b>OR</b> is the <b>off-site</b> disposal site, to be used, out-of-state	Not answered.
<b>OR</b> is the <b>off-site</b> disposal site, to be used, an NMED facility	Not answered.
(Ex Situ) Excavation and <b>on-site</b> 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: Vanessa Fields Title: Regulatory Manager Email: vfields@logosresourcesllc.com Date: 06/02/2024
<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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1220 S. St Francis Dr., Santa Fe, NM 87505  
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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 350020

QUESTIONS (continued)

Operator:  LOGOS OPERATING, LLC 2010 Afton Place Farmington, NM 87401	OGRID:  289408
	Action Number:  350020
	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 350020

**QUESTIONS (continued)**

Operator: LOGOS OPERATING, LLC 2010 Afton Place Farmington, NM 87401	OGRID:	289408
	Action Number:	350020
	Action Type:	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

Sampling Event Information	
Last sampling notification (C-141N) recorded	291983
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	12/11/2023
What was the (estimated) number of samples that were to be gathered	1
What was the sampling surface area in square feet	200

**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	200
What was the total volume (cubic yards) remediated	2
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	200
What was the total volume (in cubic yards) reclaimed	2
Summarize any additional remediation activities not included by answers (above)	see attached summary in closure report

*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: Vanessa Fields Title: Regulatory Manager Email: vfields@logosresourcesllc.com Date: 06/02/2024
--	---

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Action 350020

**QUESTIONS (continued)**

Operator:  LOGOS OPERATING, LLC 2010 Afton Place Farmington, NM 87401	OGRID:  289408
	Action Number:  350020
	Action Type:  [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

<b>Reclamation Report</b>	
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 350020

CONDITIONS

Operator: LOGOS OPERATING, LLC 2010 Afton Place Farmington, NM 87401	OGRID: 289408
	Action Number: 350020
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

CONDITIONS

Created By	Condition	Condition Date
nvelez	None	7/2/2024