

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

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

Form C-144
Revised April 3, 2017

For temporary pits, below-grade tanks, and multi-well fluid management pits, submit to the appropriate NMOCD District Office.
For permanent pits submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

Pit, Below-Grade Tank, or
Proposed Alternative Method Permit or Closure Plan Application

- Type of action: Below grade tank registration
 Permit of a pit or proposed alternative method
BGT1 Closure of a pit, below-grade tank, or proposed alternative method
 Modification to an existing permit/or registration
 Closure plan only submitted for an existing permitted or non-permitted pit, below-grade tank, or proposed alternative method

Instructions: Please submit one application (Form C-144) per individual pit, below-grade tank or alternative request

Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations, or ordinances.

1.
Operator: LOGOS Operating, LLC OGRID #: 289408
Address: 2010 Afton Place, Farmington, NM 87401
Facility or well name: ROSA UNIT 085A
API Number: 30-039-26314 OCD Permit Number: _____
U/L or Qtr/Qtr B Section 20 Township 31N Range 5W County: Rio Arriba
Center of Proposed Design: Latitude 36.8889732 Longitude -107.3829727 NAD83
Surface Owner: Federal State Private Tribal Trust or Indian Allotment

2.
 Pit: Subsection F, G or J of 19.15.17.11 NMAC
Temporary: Drilling Workover
 Permanent Emergency Cavitation P&A Multi-Well Fluid Management Low Chloride Drilling Fluid yes no
 Lined Unlined Liner type: Thickness _____ mil LLDPE HDPE PVC Other _____
 String-Reinforced
Liner Seams: Welded Factory Other _____ Volume: _____ bbl Dimensions: L _____ x W _____ x D _____

3.
 Below-grade tank: Subsection I of 19.15.17.11 NMAC
Volume: 120 bbl Type of fluid: Produced Water
Tank Construction material: Fiberglass tank w/banded 20-mil HDPE Secondary Liner
 Secondary containment with leak detection Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off
 Visible sidewalls and liner Visible sidewalls only Other _____
Liner type: Thickness _____ mil HDPE PVC Other _____

4.
 Alternative Method:
Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

5.
Fencing: Subsection D of 19.15.17.11 NMAC (*Applies to permanent pits, temporary pits, and below-grade tanks*)
 Chain link, six feet in height, two strands of barbed wire at top (*Required if located within 1000 feet of a permanent residence, school, hospital, institution or church*)
 Four foot height, four strands of barbed wire evenly spaced between one and four feet
 Alternate. Please specify _____

6.
Netting: Subsection E of 19.15.17.11 NMAC (*Applies to permanent pits and permanent open top tanks*)
 Screen Netting Other _____
 Monthly inspections (If netting or screening is not physically feasible)

7.
Signs: Subsection C of 19.15.17.11 NMAC
 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers
 Signed in compliance with 19.15.16.8 NMAC

8.
Variations and Exceptions:
 Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.
Please check a box if one or more of the following is requested, if not leave blank:
 Variance(s): Requests must be submitted to the appropriate division district for consideration of approval.
 Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

9.
Siting Criteria (regarding permitting): 19.15.17.10 NMAC
Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of acceptable source material are provided below. Siting criteria does not apply to drying pads or above-grade tanks.

General siting	
Ground water is less than 25 feet below the bottom of a low chloride temporary pit or below-grade tank. - <input checked="" type="checkbox"/> NM Office of the State Engineer - iWATERS database search; <input type="checkbox"/> USGS; <input checked="" type="checkbox"/> Data obtained from nearby wells	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA
Ground water is less than 50 feet below the bottom of a Temporary pit, permanent pit, or Multi-Well Fluid Management pit. NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. (Does not apply to below grade tanks) - Written confirmation or verification from the municipality; Written approval obtained from the municipality	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within the area overlying a subsurface mine. (Does not apply to below grade tanks) - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within an unstable area. (Does not apply to below grade tanks) - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within a 100-year floodplain. (Does not apply to below grade tanks) - FEMA map	<input type="checkbox"/> Yes <input type="checkbox"/> No
<u>Below Grade Tanks</u>	
Within 100 feet of a continuously flowing watercourse, significant watercourse, lake bed, sinkhole, wetland or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Within 200 horizontal feet of a spring or a fresh water well used for public or livestock consumption;. - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<u>Temporary Pit using Low Chloride Drilling Fluid</u> (maximum chloride content 15,000 mg/liter)	
Within 100 feet of a continuously flowing watercourse, or any other significant watercourse or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). (Applies to low chloride temporary pits.) - Topographic map; Visual inspection (certification) of the proposed site	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within 300 feet from a occupied permanent residence, school, hospital, institution, or church in existence at the time of initial application. - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within 200 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 300feet of any other fresh water well or spring, in existence at the time of the initial application. NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	<input type="checkbox"/> Yes <input type="checkbox"/> No

Within 100 feet of a wetland.
 - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site Yes No

Temporary Pit Non-low chloride drilling fluid

Within 300 feet of a continuously flowing watercourse, or any other significant watercourse, or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).
 - Topographic map; Visual inspection (certification) of the proposed site Yes No

Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.
 - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image Yes No

Within 500 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 1000 feet of any other fresh water well or spring, in the existence at the time of the initial application;
 - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site Yes No

Within 300 feet of a wetland.
 - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site Yes No

Permanent Pit or Multi-Well Fluid Management Pit

Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).
 - Topographic map; Visual inspection (certification) of the proposed site Yes No

Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.
 - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image Yes No

Within 500 horizontal feet of a spring or a fresh water well used for domestic or stock watering purposes, in existence at the time of initial application.
 - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site Yes No

Within 500 feet of a wetland.
 - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site Yes No

10.
Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC
- Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC
- Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

Previously Approved Design (attach copy of design) API Number: _____ or Permit Number: _____

11.
Multi-Well Fluid Management Pit Checklist: Subsection B of 19.15.17.9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- A List of wells with approved application for permit to drill associated with the pit.
- Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
- Hydrogeologic Data - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC
- Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC

Previously Approved Design (attach copy of design) API Number: _____ or Permit Number: _____

12. **Permanent Pits Permit Application Checklist:** Subsection B of 19.15.17.9 NMAC

Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC
- Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- Climatological Factors Assessment
- Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC
- Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC
- Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC
- Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC
- Quality Control/Quality Assurance Construction and Installation Plan
- Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- Nuisance or Hazardous Odors, including H₂S, Prevention Plan
- Emergency Response Plan
- Oil Field Waste Stream Characterization
- Monitoring and Inspection Plan
- Erosion Control Plan
- Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

13. **Proposed Closure:** 19.15.17.13 NMAC

Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.

- Type: Drilling Workover Emergency Cavitation P&A Permanent Pit Below-grade Tank Multi-well Fluid Management Pit
 Alternative
- Proposed Closure Method: Waste Excavation and Removal
 Waste Removal (Closed-loop systems only)
 On-site Closure Method (Only for temporary pits and closed-loop systems)
 In-place Burial On-site Trench Burial
 Alternative Closure Method

14. **Waste Excavation and Removal Closure Plan Checklist:** (19.15.17.13 NMAC) **Instructions:** Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.

- Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC
- Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.13 NMAC
- Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings)
- Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- Re-vegetation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

15. **Siting Criteria (regarding on-site closure methods only):** 19.15.17.10 NMAC

Instructions: Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria require justifications and/or demonstrations of equivalency. Please refer to 19.15.17.10 NMAC for guidance.

Ground water is less than 25 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Ground water is between 25-50 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Ground water is more than 100 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Within 100 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within 300 horizontal feet of a private, domestic fresh water well or spring used for domestic or stock watering purposes, in existence at the time of initial application. - NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site	<input type="checkbox"/> Yes <input type="checkbox"/> No
Written confirmation or verification from the municipality; Written approval obtained from the municipality	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within 300 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance	<input type="checkbox"/> Yes <input type="checkbox"/> No

adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written approval obtained from the municipality	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within a 100-year floodplain. - FEMA map	<input type="checkbox"/> Yes <input type="checkbox"/> No

16. **On-Site Closure Plan Checklist:** (19.15.17.13 NMAC) *Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.*

- Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection E of 19.15.17.13 NMAC
- Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of Subsection K of 19.15.17.11 NMAC
- Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19.15.17.11 NMAC
- Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC
- Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of 19.15.17.13 NMAC
- Waste Material Sampling Plan - based upon the appropriate requirements of 19.15.17.13 NMAC
- Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards cannot be achieved)
- Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- Re-vegetation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

17. **Operator Application Certification:**

I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.

Name (Print): _____ Title: _____

Signature: _____ Date: _____

e-mail address: _____ Telephone: _____

18. **OCD Approval:** Permit Application (including closure plan) Closure Plan ^{Report}(only) OCD Conditions (see attachment)

OCD Representative Signature: Jaclyn Burdine **Approval Date:** 10/17/2022

Title: Environmental Specialist-A **OCD Permit Number:** BGT1

19. **Closure Report (required within 60 days of closure completion):** 19.15.17.13 NMAC

Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.

Closure Completion Date: 8/17/2022

20. **Closure Method:**

Waste Excavation and Removal On-Site Closure Method Alternative Closure Method Waste Removal (Closed-loop systems only)

If different from approved plan, please explain.

21. **Closure Report Attachment Checklist:** *Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check mark in the box, that the documents are attached.*

- Proof of Closure Notice (surface owner and division)
- Proof of Deed Notice (required for on-site closure for private land only)
- Plot Plan (for on-site closures and temporary pits)
- Confirmation Sampling Analytical Results (if applicable)
- Waste Material Sampling Analytical Results (required for on-site closure)
- Disposal Facility Name and Permit Number
- Soil Backfilling and Cover Installation
- Re-vegetation Application Rates and Seeding Technique
- Site Reclamation (Photo Documentation)

On-site Closure Location: Latitude 36.8889732 Longitude -107.3829727 NAD: 1927 1983

22.

Operator Closure Certification:

I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.

Name (Print): Etta Trujillo Title: Regulatory Specialist

Signature:  Date: 10/17/2022

e-mail address: etrujillo@logosresourcesllc.com Telephone: 505-324-4154

From: [Vanessa Fields](#)
To: [Burdine, Jaclyn, EMNRD](#); [Adeloye, Abiodun A](#)
Cc: [David Dryer](#); [Tyler Smith](#); [Jason Richardson](#); [Robert Bixler](#); [Etta Trujillo](#); [Marcia Brueggenjohann](#)
Subject: LOGOS 72 Hour Notice BGT Removals Tuesday August 17, 2022 ROSA UNIT
Date: Friday, August 12, 2022 9:54:20 AM
Attachments: [image001.png](#)

Good morning,

LOGOS is providing 72-hour notification for the removal of the referenced below grade tanks. Logos will start at Rosa #163 at 8:00 am Tuesday August 17, 2022, and proceed to the following locations

Rosa Unit #163	API# 30-039-26345
Rosa Unit #85A	API# 30-039-26314
Rosa Unit #153	API# 30-039-25524
Rosa Unit #031C	API# 30-039-26578

Thank you,

Vanessa Fields
Regulatory Manager
Email: vfields@logosresourcesllc.com
Office: 505-787-2218
Cell: 505-320-1243



Report to:
Vanessa Fields



envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Logos Resources

Project Name: Rosa BGT

Work Order: E208093

Job Number: 12035-0114

Received: 8/17/2022

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
8/18/22

5796 U.S. Hwy 64
Farmington, NM 87401

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



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



Date Reported: 8/18/22

Vanessa Fields
2010 Afton Place
Farmington, NM 87401

Project Name: Rosa BGT
Workorder: E208093
Date Received: 8/17/2022 12:26:00PM

Vanessa Fields,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 8/17/2022 12:26:00PM, under the Project Name: Rosa BGT.

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

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

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

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

Respectfully,

Walter Hinchman
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

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

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

Field Offices:

Southern New Mexico Area
Lynn Jarboe
Technical Representative/Client Services
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljjarboe@envirotech-inc.com

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

Envirotech Web Address: www.envirotech-inc.com

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Sample Summary

Logos Resources 2010 Afton Place Farmington NM, 87401	Project Name: Rosa BGT Project Number: 12035-0114 Project Manager: Vanessa Fields	Reported: 08/18/22 15:22
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Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Rosa Unit #163 BGT Removal	E208093-01A	Soil	08/17/22	08/17/22	Glass Jar, 4 oz.
Rosa Unit #85A BGT Removal	E208093-02A	Soil	08/17/22	08/17/22	Glass Jar, 4 oz.
Rosa Unit #031C BGT Removal	E208093-03A	Soil	08/17/22	08/17/22	Glass Jar, 4 oz.
Rosa Unit #153 BGT Removal	E208093-04A	Soil	08/17/22	08/17/22	Glass Jar, 4 oz.



Sample Data

Logos Resources 2010 Afton Place Farmington NM, 87401	Project Name: Rosa BGT Project Number: 12035-0114 Project Manager: Vanessa Fields	Reported: 8/18/2022 3:22:53PM
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Rosa Unit #163 BGT Removal E208093-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B						
	mg/kg	mg/kg		Analyst: IY		Batch: 2234056
Benzene	ND	0.0250	1	08/17/22	08/18/22	
Ethylbenzene	ND	0.0250	1	08/17/22	08/18/22	
Toluene	ND	0.0250	1	08/17/22	08/18/22	
o-Xylene	ND	0.0250	1	08/17/22	08/18/22	
p,m-Xylene	ND	0.0500	1	08/17/22	08/18/22	
Total Xylenes	ND	0.0250	1	08/17/22	08/18/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>						
		103 %	70-130	08/17/22	08/18/22	
Nonhalogenated Organics by EPA 8015D - GRO						
	mg/kg	mg/kg		Analyst: IY		Batch: 2234056
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/17/22	08/18/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>						
		98.6 %	70-130	08/17/22	08/18/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO						
	mg/kg	mg/kg		Analyst: JL		Batch: 2234032
Diesel Range Organics (C10-C28)	ND	25.0	1	08/17/22	08/17/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/17/22	08/17/22	
<i>Surrogate: n-Nonane</i>						
		57.5 %	50-200	08/17/22	08/17/22	
Anions by EPA 300.0/9056A						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2234058
Chloride	ND	20.0	1	08/17/22	08/17/22	



Sample Data

Logos Resources 2010 Afton Place Farmington NM, 87401	Project Name: Rosa BGT Project Number: 12035-0114 Project Manager: Vanessa Fields	Reported: 8/18/2022 3:22:53PM
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Rosa Unit #85A BGT Removal

E208093-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg		Analyst: IY		Batch: 2234056
Benzene	ND	0.0250	1	08/17/22	08/18/22	
Ethylbenzene	ND	0.0250	1	08/17/22	08/18/22	
Toluene	ND	0.0250	1	08/17/22	08/18/22	
o-Xylene	ND	0.0250	1	08/17/22	08/18/22	
p,m-Xylene	ND	0.0500	1	08/17/22	08/18/22	
Total Xylenes	ND	0.0250	1	08/17/22	08/18/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		102 %	70-130	08/17/22	08/18/22	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg		Analyst: IY		Batch: 2234056
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/17/22	08/18/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		98.6 %	70-130	08/17/22	08/18/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg		Analyst: JL		Batch: 2234032
Diesel Range Organics (C10-C28)	ND	25.0	1	08/17/22	08/17/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/17/22	08/17/22	
<i>Surrogate: n-Nonane</i>		70.4 %	50-200	08/17/22	08/17/22	
Anions by EPA 300.0/9056A	mg/kg	mg/kg		Analyst: RAS		Batch: 2234058
Chloride	ND	20.0	1	08/17/22	08/17/22	



Sample Data

Logos Resources 2010 Afton Place Farmington NM, 87401	Project Name: Rosa BGT Project Number: 12035-0114 Project Manager: Vanessa Fields	Reported: 8/18/2022 3:22:53PM
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Rosa Unit #031C BGT Removal

E208093-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg		Analyst: IY		Batch: 2234056
Benzene	ND	0.0250	1	08/17/22	08/18/22	
Ethylbenzene	ND	0.0250	1	08/17/22	08/18/22	
Toluene	ND	0.0250	1	08/17/22	08/18/22	
o-Xylene	ND	0.0250	1	08/17/22	08/18/22	
p,m-Xylene	ND	0.0500	1	08/17/22	08/18/22	
Total Xylenes	ND	0.0250	1	08/17/22	08/18/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		103 %	70-130	08/17/22	08/18/22	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg		Analyst: IY		Batch: 2234056
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/17/22	08/18/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		98.8 %	70-130	08/17/22	08/18/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg		Analyst: JL		Batch: 2234032
Diesel Range Organics (C10-C28)	ND	25.0	1	08/17/22	08/17/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/17/22	08/17/22	
<i>Surrogate: n-Nonane</i>		70.3 %	50-200	08/17/22	08/17/22	
Anions by EPA 300.0/9056A	mg/kg	mg/kg		Analyst: RAS		Batch: 2234058
Chloride	ND	20.0	1	08/17/22	08/17/22	



Sample Data

Logos Resources 2010 Afton Place Farmington NM, 87401	Project Name: Rosa BGT Project Number: 12035-0114 Project Manager: Vanessa Fields	Reported: 8/18/2022 3:22:53PM
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Rosa Unit #153 BGT Removal

E208093-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organics by EPA 8021B	mg/kg	mg/kg		Analyst: IY		Batch: 2234056
Benzene	ND	0.0250	1	08/17/22	08/18/22	
Ethylbenzene	ND	0.0250	1	08/17/22	08/18/22	
Toluene	ND	0.0250	1	08/17/22	08/18/22	
o-Xylene	ND	0.0250	1	08/17/22	08/18/22	
p,m-Xylene	ND	0.0500	1	08/17/22	08/18/22	
Total Xylenes	ND	0.0250	1	08/17/22	08/18/22	
<i>Surrogate: 4-Bromochlorobenzene-PID</i>		103 %	70-130	08/17/22	08/18/22	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg		Analyst: IY		Batch: 2234056
Gasoline Range Organics (C6-C10)	ND	20.0	1	08/17/22	08/18/22	
<i>Surrogate: 1-Chloro-4-fluorobenzene-FID</i>		97.5 %	70-130	08/17/22	08/18/22	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg		Analyst: JL		Batch: 2234032
Diesel Range Organics (C10-C28)	ND	25.0	1	08/17/22	08/17/22	
Oil Range Organics (C28-C36)	ND	50.0	1	08/17/22	08/17/22	
<i>Surrogate: n-Nonane</i>		84.7 %	50-200	08/17/22	08/17/22	
Anions by EPA 300.0/9056A	mg/kg	mg/kg		Analyst: RAS		Batch: 2234058
Chloride	ND	20.0	1	08/17/22	08/17/22	



QC Summary Data

Logos Resources	Project Name: Rosa BGT	Reported: 8/18/2022 3:22:53PM
2010 Afton Place	Project Number: 12035-0114	
Farmington NM, 87401	Project Manager: Vanessa Fields	

Volatile Organics by EPA 8021B

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2234056-BLK1)

Prepared: 08/17/22 Analyzed: 08/18/22

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	8.24		8.00		103	70-130			

LCS (2234056-BS1)

Prepared: 08/17/22 Analyzed: 08/18/22

Benzene	5.20	0.0250	5.00		104	70-130			
Ethylbenzene	5.13	0.0250	5.00		103	70-130			
Toluene	5.26	0.0250	5.00		105	70-130			
o-Xylene	5.24	0.0250	5.00		105	70-130			
p,m-Xylene	10.4	0.0500	10.0		104	70-130			
Total Xylenes	15.6	0.0250	15.0		104	70-130			
Surrogate: 4-Bromochlorobenzene-PID	8.44		8.00		105	70-130			

LCS Dup (2234056-BSD1)

Prepared: 08/17/22 Analyzed: 08/18/22

Benzene	5.22	0.0250	5.00		104	70-130	0.364	20	
Ethylbenzene	5.16	0.0250	5.00		103	70-130	0.565	20	
Toluene	5.30	0.0250	5.00		106	70-130	0.673	20	
o-Xylene	5.29	0.0250	5.00		106	70-130	0.958	20	
p,m-Xylene	10.4	0.0500	10.0		104	70-130	0.571	20	
Total Xylenes	15.7	0.0250	15.0		105	70-130	0.701	20	
Surrogate: 4-Bromochlorobenzene-PID	8.49		8.00		106	70-130			



QC Summary Data

Logos Resources	Project Name:	Rosa BGT	Reported:
2010 Afton Place	Project Number:	12035-0114	
Farmington NM, 87401	Project Manager:	Vanessa Fields	8/18/2022 3:22:53PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2234056-BLK1)

Prepared: 08/17/22 Analyzed: 08/18/22

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.87		8.00		98.4	70-130			

LCS (2234056-BS2)

Prepared: 08/17/22 Analyzed: 08/18/22

Gasoline Range Organics (C6-C10)	45.1	20.0	50.0		90.3	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.90		8.00		98.8	70-130			

LCS Dup (2234056-BSD2)

Prepared: 08/17/22 Analyzed: 08/18/22

Gasoline Range Organics (C6-C10)	43.7	20.0	50.0		87.5	70-130	3.18	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.85		8.00		98.1	70-130			



QC Summary Data

Logos Resources	Project Name:	Rosa BGT	Reported: 8/18/2022 3:22:53PM
2010 Afton Place	Project Number:	12035-0114	
Farmington NM, 87401	Project Manager:	Vanessa Fields	

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: JL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2234032-BLK1)

Prepared: 08/16/22 Analyzed: 08/16/22

Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: <i>n</i> -Nonane	50.1		50.0		100	50-200			

LCS (2234032-BS1)

Prepared: 08/16/22 Analyzed: 08/16/22

Diesel Range Organics (C10-C28)	240	25.0	250		95.8	38-132			
Surrogate: <i>n</i> -Nonane	48.5		50.0		97.1	50-200			

LCS Dup (2234032-BSD1)

Prepared: 08/16/22 Analyzed: 08/16/22

Diesel Range Organics (C10-C28)	240	25.0	250		96.0	38-132	0.164	20	
Surrogate: <i>n</i> -Nonane	48.5		50.0		96.9	50-200			



QC Summary Data

Logos Resources	Project Name:	Rosa BGT	Reported:
2010 Afton Place	Project Number:	12035-0114	
Farmington NM, 87401	Project Manager:	Vanessa Fields	8/18/2022 3:22:53PM

Anions by EPA 300.0/9056A

Analyst: RAS

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

Blank (2234058-BLK1)

Prepared: 08/17/22 Analyzed: 08/17/22

Chloride	ND	20.0							
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LCS (2234058-BS1)

Prepared: 08/17/22 Analyzed: 08/17/22

Chloride	263	20.0	250		105	90-110			
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LCS Dup (2234058-BSD1)

Prepared: 08/17/22 Analyzed: 08/17/22

Chloride	254	20.0	250		101	90-110	3.47	20	
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QC Summary Report Comment:

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



Definitions and Notes

Logos Resources	Project Name:	Rosa BGT	
2010 Afton Place	Project Number:	12035-0114	Reported:
Farmington NM, 87401	Project Manager:	Vanessa Fields	08/18/22 15:22

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

RPD Relative Percent Difference

DNI Did Not Ignite

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

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



Project Information

Chain of Custody

Client: Logos Resources
 Project: Unit BGT
 Project Manager: Vanessa Pardo
 Address: 2015 Arlin Pl
 City, State, Zip: Warminster, PA 18902
 Phone: 610-320-1243
 Email: vfields@logosresources.com
 Report due by: 1 day

Bill To
 Attention: Vanessa
 Address: _____
 City, State, Zip: _____
 Phone: _____
 Email: _____

Lab Use Only
 Lab WO#: E0208093 Job Number: 12035-0114
 Analysis and Method: _____

TAT
 1D 2D 3D Standard

EPA Program
 CWA SDWA
 RCRA

State
 NM CO UT AZ TX

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	DRO/DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8250	Metals 5010	Chloride 300 0	Remarks
8:40	8/17/22	S	402	Rosa Unit # 103 BGT Removal	1	XX	X			X		
10:06	8/17/22	S	402	Rosa Unit # 85A BGT Removal	2	XX	X			X		
9:28	8/17/22	S	402	Rosa Unit # 031C BGT Removal	3	XX	X			X		
10:31	8/17/22	S	402	Rosa Unit # 153 BGT Removal	4	XX	X			X		
	8/17/22	S	402	Rosa Unit #								

Additional Instructions:

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

Relinquished by: (Signature) _____ Date: 8/17/22 Time: 12:22

Received by: (Signature) _____ Date: 8/17/22 Time: 12:26

Relinquished by: (Signature) _____ Date: _____ Time: _____

Received by: (Signature) _____ Date: _____ Time: _____

Relinquished by: (Signature) _____ Date: _____ Time: _____

Received by: (Signature) _____ Date: _____ Time: _____

Received on ice: Y / N

T1 _____ T2 _____ T3 _____

AVG Temp °C 4

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other

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

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



Envirotech Analytical Laboratory

Printed: 8/17/2022 12:39:00PM

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: 08/17/22 12:26 Work Order ID: E208093
Phone: (505) 787-9100 Date Logged In: 08/17/22 12:32 Logged In By: Caitlin Christian
Email: vfields@logosresourcesllc.com Due Date: 08/18/22 17:00 (1 day TAT)

Chain of Custody (COC)

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

Carrier: Vanessa Fields

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

Sample Turn Around Time (TAT)

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

Sample Cooler

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

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

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

Sample Container

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

Field Label

- 20. Were field sample labels filled out with the minimum information:
Sample ID? Yes
Date/Time Collected? Yes
Collectors name? 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

Empty box for client instructions.

Comments/Resolution

Large empty box for comments/resolution.

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

Date



envirotech Inc.

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

State of New Mexico
Energy Minerals and Natural
Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

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

Incident ID	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: LOGOS Operating, LLC	OGRID: 289408
Contact Name: Etta Trujillo	Contact Telephone (505) 324-4154
Contact email: etrujillo@logosresourcesllc.com	Incident # (assigned by OCD) N/A
Contact mailing address: 2010 Afton Pl Farmington, NM 87401	

Location of Release Source

Latitude 36.8889732 Longitude -107.3829727
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Rosa Unit #085A	Site Type: Well Gas
Date Release Discovered N/A	API# (if applicable) 30-039-26314

Unit Letter	Section	Township	Range	County
B	20	31N	05W	Rio Arriba

Surface Owner: State Federal Tribal Private (Name: _____)

Nature and Volume of Release

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

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

Cause of Release: On August 17, 2022, LOGOS Operating LLC. removed the fiberglass below grade tank on the Rosa Unit #085A. When the BGT was removed no visible signs of staining or wet soil was observed. LOGOS collected (1) 5-point composite sample from where the BGT was removed. The closure samples were analyzed by Envirotech Labs, and all constituents analyzed were non-detect. No representative from BLM or NMOCD was onsite to witness all confirmation sampling.

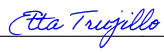
State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

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

Initial Response

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

<input type="checkbox"/> The source of the release has been stopped. <input type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.
If all the actions described above have <u>not</u> been undertaken, explain why:
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.
Printed Name: <u>Etta Trujillo</u> Title: <u>Regulatory Specialist</u> Signature: <u></u> Date: <u>10/17/2022</u> email: <u>etrujillo@logosresourcesllc.com</u> Telephone: <u>505-324-4154</u>
<u>OCD Only</u> Received by: _____ Date: _____

Incident ID	
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

- Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- Field data
- Data table of soil contaminant concentration data
- Depth to water determination
- Determination of water sources and significant watercourses within 1/2-mile of the lateral extents of the release
- Boring or excavation logs
- Photographs including date and GIS information
- Topographic/Aerial maps
- Laboratory data including chain of custody

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

State of New Mexico
Oil Conservation Division

Page 4

Incident ID	
District RP	
Facility ID	
Application ID	

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

Printed Name: Etta Trujillo Title: Regulatory Specialist

Signature: *Etta Trujillo* Date: 10/17/2022

email: etrujillo@logosresourcesllc.com Telephone: 505-324-4154

OCD Only

Received by: _____ Date: _____

Incident ID	
District RP	
Facility ID	
Application ID	

Closure

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

Closure Report Attachment Checklist: *Each of the following items must be included in the closure report.*

- A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- Description of remediation activities

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

Printed Name: Etta Trujillo Title: Regulatory Specialist

Signature:  Date: 10/17/2022

email: etrujillo@logosresourcesllc.com Telephone: 505-324-4154

OCD Only

Received by: _____ Date: _____

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

Logos Operating Below Grade Tank Closure Plan

Lease Name: Rosa Unit # 085A

API# 30-039-26314

Description: Unit B, Section 20, Township, 31N, Range 05W, Rio Arriba County New Mexico

In accordance with NMAC 19.15.17.13, the following information describes the closure plan for below grade tanks (BGT) for Logos Operating, LLC (LOGOS).

General Plan:

1. Logos will notify the surface owner by certified mail, return receipt requested, unless surface owner is a public entity (BLM/State/Tribal) then an email notification will be sent, of plans to close the BGT at least 72 hours, but no more than 1 week, prior to any closure operation. The notice will include the well name, API number, and location.

72 Hour notice was provided to the NMOCD and the Farmington BLM Field Office. Notification provided in Closure Report. No representative from the BLM or NMOCD was onsite to witness confirmation sampling.

2. Logos will notify the appropriate district office verbally and in writing with at least 72 hours of notice but no more than 1 week. The notice will include well name and API number as well as the location containing unit letter, section, township, and range.

72 Hour notice was provided to the NMOCD and the Farmington BLM Field Office. Notification provided in Closure Report. No representative from the BLM or NMOCD was onsite to witness confirmation sampling.

3. Logos will remove liquids and sludge from the BGT within 60 days of cessation of operations and dispose of those at a division approved facility.

All liquids that were in the BGT were removed and sent to an NMOCD Division approved facilities.

4. Within 6 months of cessation of operations, Logos will dispose, reuse/recycle, or reclaim in a division approved manner the BGT, and all unused equipment associated with the BGT.

5. The soils beneath the BGT will be tested as follows:
 - a. A five point composite sample including any obvious staining or wet soils shall be taken under BGT and will be analyzed for constituents listed in Table I (see page 2) of 19.15.17.13 NMAC.

On August 17, 2022, LOGOS Operating LLC. removed the fiberglass below grade tank on the Rosa Unit #085A. When the BGT was removed no visible signs of staining or wet soil was observed. LOGOS collected (1) 5-point composite sample from where the BGT was removed. The closure samples were analyzed by Envirotech Labs, and all constituents analyzed were non-detect. No representative from the BLM or NMOCD was onsite to witness all confirmation sampling.

Analytical Results:

**Benzene: Non-Detect
 BTEX: Non-Detect
 GRO: Non-Detect
 DRO: Non-Detect
 ORO: Non-Detect
 Chloride: Non-Detect**

Components	Tests Method	Limit (mg/kg)
		≤50' bottom of BGT to GW
Benzene	EPA SW-846 8021B or 8015M	10
BTEX	EPA SW-846 8021B or 8260B	50
TPH	EPA SW-846 418.1	100
Chlorides	EPA 300.0	600
GRO/DRO	EPA SW-846 80165M	n/a
		51'-100' bottom of BGT to GW
Benzene	EPA SW-846 8021B or 8015M	10
BTEX	EPA SW-846 8021B or 8260B	50
TPH	EPA SW-846 418.1	2500
Chlorides	EPA 300.0	10,000
GRO/DRO	EPA SW-846 80165M	1000
		>100' bottom of BGT to GW
Benzene	EPA SW-846 8021B or 8015M	10
BTEX	EPA SW-846 8021B or 8260B	50
TPH	EPA SW-846 418.1	2500
Chlorides	EPA 300.0	20,000
GRO/DRO	EPA SW-846 80165M	1000
		1000

6. Within six (6) months of cessation of operations, LOGOS will remove the below-grade tank and dispose of it in a division-approved facility or recycle, reuse, or reclaim it in a manner that is a division approved.

All referenced equipment associated with the BGT removal has been removed and utilized for reuse.

7. Upon closing of the BGT, Logos will reclaim the unused BGT location to a safe and stable condition that blends with the surrounding undisturbed area as provided in Paragraph 2 of subsection H of 19.15.17.13 as well as recontouring the area in accordance with paragraph 5 in subsection H of 19.15.17.13 NMAC. The soil cover will be constructed to prevent ponding of water and erosion of the cover material.

The area of the BGT removal has been returned to grade surface. The area will be reclaimed once the well has been plugged and abandoned.

8. The reclamation of the BGT area will contain a uniform vegetative cover that reflects a life-form ratio of plus or minus fifty (50%) of pre-disturbance levels and a total percent plant cover of at least seventy (70%) of pre-disturbance levels, excluding noxious weeds. The re-vegetation and reclamation obligations imposed by other applicable federal or tribal agencies that manage the lands will supersede these provisions and govern the obligations. Logos will notify the division when reclamation and re-vegetation is complete.

9. Logos will submit a closure report on form C-144 within 60 days of closure completion. The closure report will contain the following:

- Soil Backfilling and Cover Installation (See Report)
- Re-vegetation application rates and seeding techniques (See Report)
- Photo documentation of the site reclamation (Included as an attachment)
- Confirmation Sampling Results (Included as an attachment)
- Proof of closure notice (Included as an attachment)





5- Point Composite Sample





LOGOS OPERATING, LLC.
ROSA UNIT #85 A MV
NMSF-078764
API NO. 30-039-26314
SURFACE 1185' FSL & 1845' FEL
SEC. 20 T31N R5W NMPM
RIO ARRIBA COUNTY, NM
LAT: 36.88916 LONG: 107.38272
EMERGENCY CONTACT # 1-866-598-6220

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

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

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

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

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

CONDITIONS

Action 151362

CONDITIONS

Operator: LOGOS OPERATING, LLC 2010 Afton Place Farmington, NM 87401	OGRID: 289408
	Action Number: 151362
	Action Type: [C-144] Below Grade Tank Plan (C-144B)

CONDITIONS

Created By	Condition	Condition Date
jburdine	None	10/17/2022