

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

For temporary pits, closed-loop systems, and below-grade tanks, submit to the appropriate NMOCD District Office.  
For permanent pits and exceptions submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

12245

Pit, Closed-Loop System, Below-Grade Tank, or **RCUD OCT 1 '14**  
Proposed Alternative Method Permit or Closure Plan Application **Dist 3**  
**CONS. DIV.**

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

43-21135

Amended

Instructions: Please submit one application (Form C-144) per individual pit, closed-loop system, 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: 4001 North Butler Avenue, Building 7101 Farmington, NM 87401  
Facility or well name: LOGOS #3  
API Number: 30-043-21135 OCD Permit Number: 10667  
U/L or Qtr/Qtr P Section 5 Township 22N Range 6W County: SANDOVAL  
Center of Proposed Design: Latitude 36.16254° N Longitude 107.48633° W NAD:  1927  1983  
Surface Owner:  Federal  State  Private  Tribal Trust or Indian Allotment

2.

Pit: Subsection F or G of 19.15.17.11 NMAC  
Temporary:  Drilling  Workover  
 Permanent  Emergency  Cavitation  P&A  
 Lined  Unlined Liner type: Thickness 20 mil  LLDPE  HDPE  PVC  Other  
 String-Reinforced  
Liner Seams:  Welded  Factory  Other Volume: 8,000 bbl Dimensions: L 130 x W 60 x D 10

3.

Closed-loop System: Subsection H of 19.15.17.11 NMAC  
Type of Operation:  P&A  Drilling a new well  Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent)  
 Drying Pad  Above Ground Steel Tanks  Haul-off Bins  Other  
 Lined  Unlined Liner type: Thickness mil  LLDPE  HDPE  PVC  Other  
Liner Seams:  Welded  Factory  Other

4.

Below-grade tank: Subsection I of 19.15.17.11 NMAC  
Volume: bbl Type of fluid:  
Tank Construction material:  
 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

5.

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

6. **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 \_\_\_ 4' hog wire with one strand of barbed wire on top \_\_\_\_\_

7. **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)

8. **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

9. **Administrative Approvals 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:**

Administrative approval(s): Requests must be submitted to the appropriate division district or the Santa Fe Environmental Bureau office for consideration of approval.

Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

10. **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. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. Siting criteria does not apply to drying pads or above-grade tanks associated with a closed-loop system.*

|  |   |
|--|---|
| Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank.<br>- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells   | <input type="checkbox"/> Yes <input type="checkbox"/> No                                |
| 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).<br>- 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.<br>( <i>Applies to temporary, emergency, or cavitation pits and below-grade tanks</i> )<br>- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image   | <input type="checkbox"/> Yes <input type="checkbox"/> No<br><input type="checkbox"/> NA |
| Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.<br>( <i>Applies to permanent pits</i> )<br>- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image  | <input type="checkbox"/> Yes <input type="checkbox"/> No<br><input type="checkbox"/> NA |
| Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application.<br>- 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 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.<br>- Written confirmation or verification from the municipality; Written approval obtained from the municipality  | <input type="checkbox"/> Yes <input type="checkbox"/> No                                |
| Within 500 feet of a wetland.<br>- 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 the area overlying a subsurface mine.<br>- 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.<br>- 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.<br>- FEMA map  | <input type="checkbox"/> Yes <input type="checkbox"/> No                                |

11.

**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: \_\_\_\_\_

12.

**Closed-loop Systems 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.

- Geologic and Hydrogeologic Data (only for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9
- Siting Criteria Compliance Demonstrations (only for on-site closure) - 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: \_\_\_\_\_

Previously Approved Operating and Maintenance Plan API Number: \_\_\_\_\_ (Applies only to closed-loop system that use above ground steel tanks or haul-off bins and propose to implement waste removal for closure)

13.

**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 H<sub>2</sub>S, 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

14.

**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  Closed-loop System  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 (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)

15.

**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 F 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 I of 19.15.17.13 NMAC
- Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

16.

**Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:** (19.15.17.13.D NMAC)

**Instructions:** Please indentify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment if more than two facilities are required.

Disposal Facility Name: \_\_\_\_\_ Disposal Facility Permit Number: \_\_\_\_\_

Disposal Facility Name: \_\_\_\_\_ Disposal Facility Permit Number: \_\_\_\_\_

Will any of the proposed closed-loop system operations and associated activities occur on or in areas that *will not* be used for future service and operations?

Yes (If yes, please provide the information below)  No

Required for impacted areas which will not be used for future service and operations:

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 I of 19.15.17.13 NMAC

Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

17.

**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 may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for guidance.

|   |   |
|---|---|
| Ground water is less than 50 feet below the bottom of the buried waste.<br>- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells   | <input type="checkbox"/> Yes <input type="checkbox"/> No<br><input type="checkbox"/> NA |
| Ground water is between 50 and 100 feet below the bottom of the buried waste<br>- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells  | <input type="checkbox"/> Yes <input type="checkbox"/> No<br><input type="checkbox"/> NA |
| Ground water is more than 100 feet below the bottom of the buried waste.<br>- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells  | <input type="checkbox"/> Yes <input type="checkbox"/> No<br><input type="checkbox"/> NA |
| 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).<br>- 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.<br>- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image  | <input type="checkbox"/> Yes <input type="checkbox"/> No                                |
| Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application.<br>- NM Office of the State Engineer - iWATERS database; 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 adopted pursuant to NMSA 1978, Section 3-27-3, as amended.<br>- Written confirmation or verification from the municipality; Written approval obtained from the municipality   | <input type="checkbox"/> Yes <input type="checkbox"/> No                                |
| Within 500 feet of a wetland.<br>- 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 the area overlying a subsurface mine.<br>- 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.<br>- 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.<br>- FEMA map   | <input type="checkbox"/> Yes <input type="checkbox"/> No                                |

18.

**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 F of 19.15.17.13 NMAC
- Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements 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 Subsection F of 19.15.17.13 NMAC
- Waste Material Sampling Plan - based upon the appropriate requirements of Subsection F 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 I of 19.15.17.13 NMAC
- Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

19.

**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: \_\_\_\_\_

20.

**OCD Approval:**  Permit Application (including closure plan)  Closure Plan (only)  OCD Conditions (see attachment)

OCD Representative Signature: Jennifer D. Kelly Approval Date: 10/30/2014

Title: Compliance Officer OCD Permit Number: \_\_\_\_\_

21.

**Closure Report (required within 60 days of closure completion):** Subsection K of 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: 8/23/13

22.

**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.

23.

**Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:**

**Instructions:** Please indentify the facility or facilities for where the liquids, drilling fluids and drill cuttings were disposed. Use attachment if more than two facilities were utilized.

Disposal Facility Name: \_\_\_\_\_ Disposal Facility Permit Number: \_\_\_\_\_

Disposal Facility Name: \_\_\_\_\_ Disposal Facility Permit Number: \_\_\_\_\_

Were the closed-loop system operations and associated activities performed on or in areas that will not be used for future service and operations?

Yes (If yes, please demonstrate compliance to the items below)  No

Required for impacted areas which will not be used for future service and operations:

- Site Reclamation (Photo Documentation)
- Soil Backfilling and Cover Installation
- Re-vegetation Application Rates and Seeding Technique

24.

**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)
- 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 36.16254N Longitude 107.48633W NAD:  1927  1983

25.

**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): Tamra Sessions Title: Operations Technician

Signature: Tamra Sessions Date: 9-30-14

e-mail address: tsessions@logosresourcesllc.com Telephone: 505-330-9333

Logos Operating, LLC  
San Juan Basin  
Closure Report

Lease Name: LOGOS 3  
API NO: 30-043-21135

In accordance with Rule 19.15.17.12 NMAC the following information describes the closure requirements of temporary pits on Logos Operating, LLC (Logos) locations. This is Logos' standard procedure for all temporary pits. A Separate plan will be submitted for any temporary pit that does not conform to this plan.

All closure activities will include proper documentation and be available for review upon request and will be submitted to OCD within 60 days of the pit closure. Closure report will be filed on C-144 and incorporated the following:

- Detail on Capping and Covering, where applicable (See report)
- Plot Plan (Pit diagram) (Included as an attachment)
- Inspection reports (Included as an attachment)
- Sampling Results (Included as an attachment)
- C-105 (Included as an attachment)
- Copy of Deed Notice will be filed with County Clerk (Not required on Federal, State or Tribal land as stated by FAQ dated October 30, 2008)

General Plan

- 1 All free standing liquids will be removed at the start of the pit closure process from the pit and disposed of in a division-approved facility or recycle, reuse or reclaim the liquids in a manner that the appropriate division district office approves.

All recovered liquids were disposed of at Basin Disposal (Permit #NM-01-005) and any sludge or soil required to be removed to facilitate closure was hauled to Envirotech Land Farm (Permit #NM-01-011) and JFO Landfarm % IEI (Permit #NM-01-0010B).

- 2 The preferred method of closure for all temporary pits will be on-site burial, assuming that all criteria listed in sub-section (B) of 19.15.17.13 are met.

The Pit was closed using onsite burial.

- 3 The surface owner shall be notified of Logos' proposed closure plan using a means that provides proof of notice i.e., certified mail, return receipt requested.

The closure process notification to the landowner was sent via certified mail. (See attached). Well located on Tribal Land.

- 4 Within 6 months of the Rig Off status occurring Logos will ensure that temporary pits are closed, re-contoured, and reseeded.

The closure plan requirements were met due to rig move off date as noted on C-105.

Pit closure extension to 7/2/13 was requested of the BLM per sundry dated 5/29/13 and approved.

Pit closure extension to 8/2/13 was requested of the BLM per sundry dated 6/21/13 and approved

- 5 Notice of Closure will be given to the Aztec Division office between 72 hours and one week of closure via email, or verbally, The notification of closure will include the following:

- i. Operator's name
- ii. Location by Unit Letter, Section, Township, and Range. Well name and API Number

- 6 Liner of temporary pit shall be removed above "mud level" after stabilization. Removal of liner will consist of manually or mechanically cutting liner at mud level and removing all remaining liner. Care will be taken or remove "All" of the liner i.e., edges of liner entrenched or buried. All excessive liver will be disposed of at a licensed disposal facility.

Liner of temporary pit was removed above "mud level" after stabilization. Removal of the liner consisted of manually cutting liner at mud level and removing all remaining liner. Care was taken to remove "ALL" of the liner i.e., edges of liner entrenched or buried. All excessive liner was disposed of at a licensed disposal facility. (San Juan County Landfill).

- 7 Pit contents shall be mixed with non-waste containing, earthen material in order to achieve the solidification process. The solidification process will be accomplished using a combination of natural drying and mechanically mixing. Pit contents will be mixed with non-waste, earthen material to a consistency that is deemed a safe and stable. The mixing ratio shall not exceed 3 parts clean soil to 1 part pit contents.

**Logos mixed the pit contents with non-waste containing, earthen material in order to achieve the solidification process. The solidification process was accomplished by using a combination of natural drying and mechanically mixing. Pit contents were mixed with non-waste, earthen material to a consistency that is deemed as safe and stable. The mixing ratio consisted of not more than approximately 3 parts clean soil to 1 part pit contents.**

- 8 A five point composite sample will be taken of the pit using sampling tools and all samples rested per Subsection B of 19.15.17.13(B)(1)(b). In the event that the criteria are not met, all contents will be handled per Subparagraph (a) of Paragraph (1) of Subsection B of 19.15.17.13 i.e., Dig and haul

**A five composite sample was taken of the pit using sampling tools and all samples tested per Subsection B of 19.15.17.1 3(B)(1)(b). (Sample results attached).**

| Components | Tests Method                 | Limit (mg/Kg) | Results (ppm) |
|------------|------------------------------|---------------|---------------|
| Benzene    | EPA SW-846 8021B<br>or 8260B | 0.2           | ND            |
| BTEX       | EPA SW-846 8021B<br>or 8260B | 50            | .39           |
| TPH        | EPA SW-846 418.1             | 2500          | 483           |
| GRO/DRO    | EPA SW-846 8015M             | 500           | ND            |
| Chlorides  | EPA 300.1                    | 1000          | 834           |

- 9 Upon completion of solidification and testing, the pit area will be backfilled with compacted, non-waste containing, earthen material. A minimum of four feet of cover shall be achieved and the cover shall include one foot of suitable material to establish vegetation at the site, or the background thickness of topsoil, whichever is greater.

**The pit material passed solidification and testing standards. The pit area was then backfilled with compacted, non-waste containing, earthen material. More than four feet of cover was achieved and the cover included one foot of suitable material to establish vegetation at the site.**

- 10 Re-contouring of location will match fit, shape, line, form and texture of the surrounding area. Re-shaping will include drainage control, prevent ponding, and prevent erosion. Natural drainages will be unimpeded and water bars and/or silt traps will be placed in areas where needed to prevent erosion on a large scale. Final re-contour shall have a uniform appearance with smooth surface, fitting the natural landscape.

**The pit area was re-contoured to match fit, shape, line, form and texture of the surrounding area. Reshaping included drainage control, to prevent ponding and erosion. Natural drainages were unimpeded and water bars and/or silt traps were placed in areas where needed to prevent erosion on a large scale. Final re-contour has a uniform appearance with smooth surface, fitting the natural landscape.**

- 11 Notification will be sent to OCD when the reclaimed area is seeded.

**Provision 11 was accomplished in accordance with NMOCD 19.15.17.13(5)(d) Notification will be sent to the OCD when re-vegetation is established.**

- 12 Logos shall seed the distributed areas the first growing season after the operator closes the pit. Seeding will be accomplished via drilling on the contour whenever practical or by other division-approved methods. BLM or Forest Service stipulated seed mixed will be used on federal lands. Vegetative cover will equal 70% of the native perennial vegetative cover (un-impacted) consisting of at least three native plant species, including at least one grass, but not including noxious weeds, and maintain that cover thorough twp successive growing seasons. Repeat seeding or planting will be continued until successful vegetative growth occurs.

**Provision 12 was accomplished in accordance with NMOCD 19.15.17.13(5)(d) Notification will be sent to the OCD when re-vegetation is established.**

- 13 The temporary pit will be located with a steel marker, no less than four inches in diameter, cemented in a hole three feet deep in the center of the onsite burial upon the abandonment of all the wells on the pad. The marker will be flush with the ground to allow access of the active well pad and for safety concerns. The

marker will include a threaded collar to be used for future abandonment. The top of the marker will contain a welded steel 12" square plate that indicates the onsite burial of the temporary pit. The plate will be easily removable and a four foot tall riser will be threaded into the top of the collar marker and welded around the base with the operator's information at the time of all wells on the pad are abandoned. The operator's information will include the following: Operator Name, Lease Name, Well Name and number, Unit Number, Section, Township, Range and an indicator that the marker is an onsite burial location.

**Provision 13 was accomplished by installing a steel marker in the temporary pit, no less than four inches in diameter, cemented in a hole three feet deep in the center of the onsite burial. The marker is flush with the ground to allow access of the active well pad and for safety concerns. The top of the marker contains a welded steel 12" square plate that indicates the onsite burial of the temporary pit. The plate contains the following: Operator's name, Lease Name and Well Number, Unit Letter, Section, Township, Range and an indicator that the marker is an onsite burial location.**

The plate will be easily removable and a four foot tall riser will be threaded into the top of the collar marker and welded around the base with the following operator's information at the time of all wells on the pad are abandoned. The riser will also indicate that the marker is for an onsite burial location.

**Operator Name: LOGO  
Lease Name & Well Number: LOGOS 3  
Unit Letter: p  
Section: 5  
Township: T22N  
Range: R06W  
API #: 30-043-21135  
OBL**

- 14 Logos inspected the temporary pit but no physical logs were kept. Logos directed their people to inspect, but no logs were filled out. Logos monitored and closed the pit in coordination and under the supervision of the BLM. The sampling results of the pit contents were within the required thresholds. In the future Logos will maintain logs in accordance with OCD ruling 19.15.17.12(B)(3).

**DISTRICT I**  
1626 N. French Dr., Hobbs, N.M. 88240  
Phone: (575) 593-6181 Fax: (575) 593-0720

**DISTRICT II**  
611 E. First Pl., Artesia, N.M. 88210  
Phone: (575) 745-1253 Fax: (575) 745-9780

**DISTRICT III**  
1000 Rio Grande Rd., Artesia, N.M. 87410  
Phone: (505) 334-6178 Fax: (505) 334-6170

**DISTRICT IV**  
1820 E. St. Francis Dr., Santa Fe, NM 87506  
Phone: (505) 476-8400 Fax: (505) 476-8468

State of New Mexico  
Energy, Minerals & Natural Resources Department

Form C-102  
Revised August 1, 2011

Submit one copy to appropriate  
District Office

**OIL CONSERVATION DIVISION**  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

AMENDED REPORT

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

|                             |  |                     |  |
|-----------------------------|--|---------------------|--|
| *API Number<br>30-043-21135 |  | *Pool Code<br>97997 | *Pool Name<br>W.C. 22N12W5; Dakota (6) |
| *Property Code<br>3119103   | *Property Name<br>LOGOS                |                     | *Well Number<br>3                      |
| *GRID No.<br>289408         | *Operator Name<br>LOGOS OPERATING, LLC |                     | *Elevation<br>7181'                    |

**10 Surface Location**

| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County   |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|----------|
| P             | 5       | 22N      | 6W    |         | 741'          | SOUTH            | 1263'         | EAST           | SANDOVAL |

**11 Bottom Hole Location If Different From Surface**

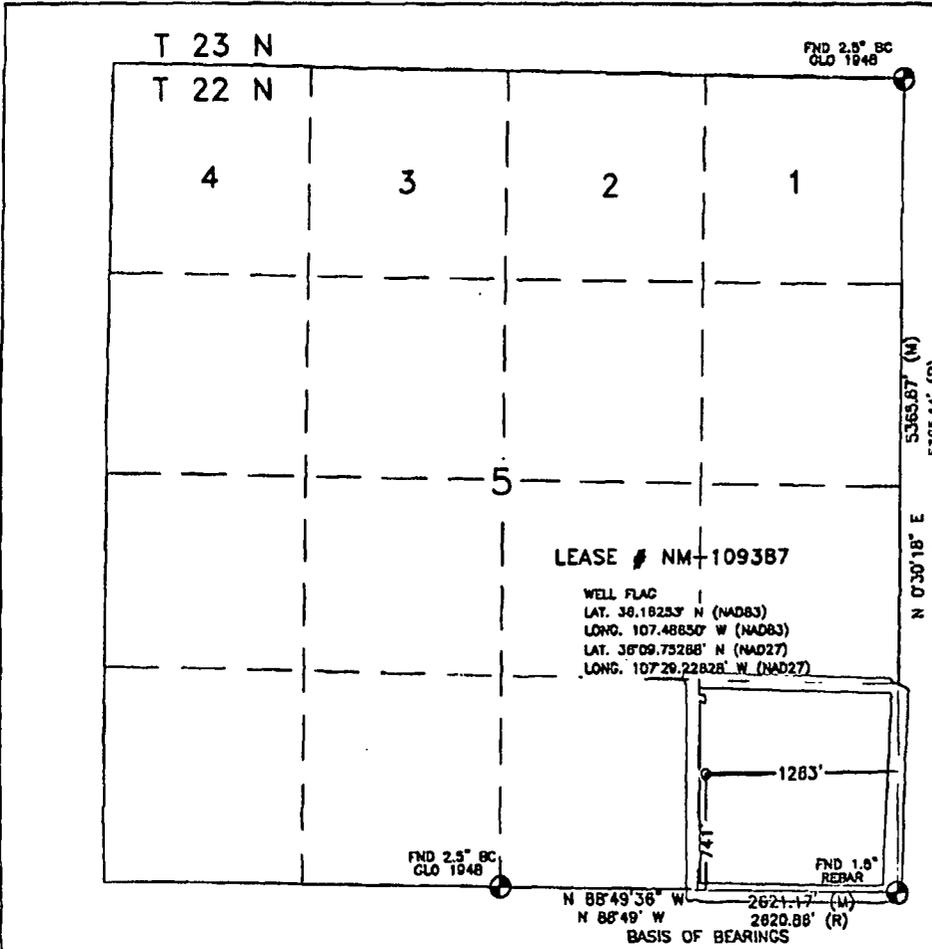
| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
|               |         |          |       |         |               |                  |               |                |        |

RCVD JAN 15 '13  
OIL CONS. DIV.  
DIST. 3

|                                     |                   |                      |             |
|-------------------------------------|-------------------|----------------------|-------------|
| **Dedicated Acres<br>40 : SE/4 SE/4 | **Joint or Infill | **Consolidation Code | **Order No. |
|-------------------------------------|-------------------|----------------------|-------------|

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

16



**17 OPERATOR CERTIFICATION**

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

*Kristy Graham* 1/11/13  
Signature Date

Kristy Graham  
Printed Name

Kgraham@logosresourcesllc.com  
E-mail Address

**18 SURVEYOR CERTIFICATION**

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

OCTOBER 1, 2012  
Date of Survey

*David B. Russell*  
Signature of Registered Professional Surveyor

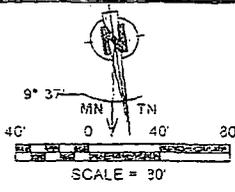


DAVID RUSSELL  
Certificate Number 10201

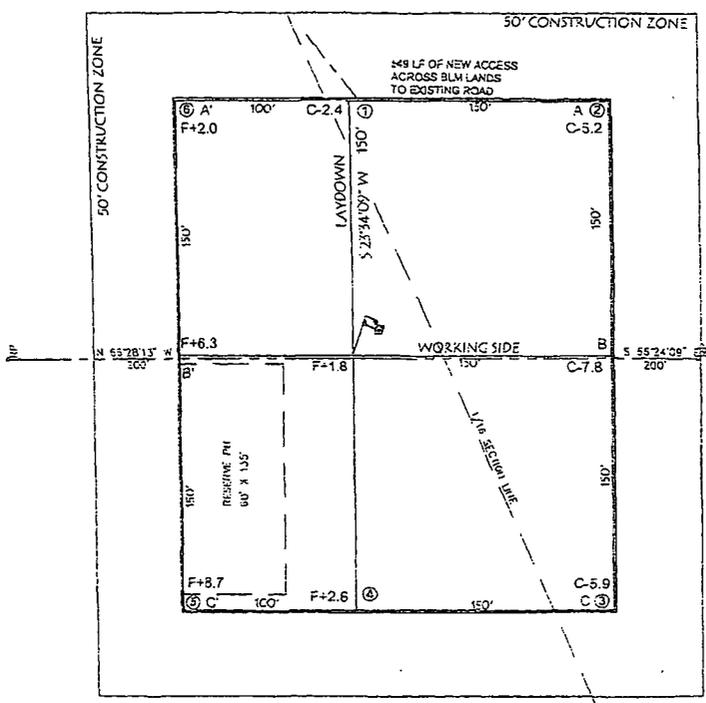
**WELL FLAG**  
 LATITUDE: 36.16253° N  
 LONGITUDE: 107.48650° W  
 CENTER OF PIT  
 LATITUDE: 36.16254° N  
 LONGITUDE: 107.48633° W  
 ELEVATION: 7171.0'  
 DATUM: NAD83 & NAVD88

**LOGOS OPERATING, LLC**  
 LOGOS #3  
 741' FSL & 1263' FEL  
 LOCATED IN THE SE/4 SE/4 OF SECTION 5,  
 T22N, R6W, N.M.P.M.,  
 SANDOVAL COUNTY, NEW MEXICO  
 GROUND ELEVATION: 7181', NAVD 88  
 FINISHED PAD ELEVATION: 7183.0', NAVD 88

Plat #2



- NOTES:**
- 1.) BASIS OF BEARING: BETWEEN FOUND MONUMENTS AT THE SOUTHEAST CORNER AND THE SOUTH QUARTER CORNER OF SECTION 5, TOWNSHIP 22 NORTH, RANGE 6 WEST, N.M.P.M., SANDOVAL COUNTY, NEW MEXICO. LINE BEARS: N 28°49'26" W A DISTANCE OF 1627.17 FEET AS MEASURED BY G.P.S.
  - 2.) LATITUDE, LONGITUDE AND ELLIPSOIDAL HEIGHT BASED ON AZTEC CORN L1 PHASE CENTER. DISTANCES SHOWN ARE GROUND DISTANCES USING A TRAYVERSE MERCATOR PROJECTION FROM A NAD83 UTM ZONE, CONVERTED TO NAD83. NAVD88 ELEVATIONS AS PREDICTED BY GEODOS.
  - 3.) LOCATION OF UNDERGROUND UTILITIES DEPICTED ARE APPROXIMATE PRIOR TO EXCAVATION. UNDERGROUND UTILITIES SHOULD BE FIELD VERIFIED. ALL CONSTRUCTION ACTIVITIES SHOULD BE FIELD VERIFIED WITH NEW MEXICO ONE-CALL AUTHORITY AT LEAST 48 HOURS PRIOR TO CONSTRUCTION.



SLOPES TO BE CONSTRUCTED TO MATCH THE ORIGINAL CONTOURS AS CLOSE AS POSSIBLE.

TOTAL PERMITTED AREA  
 350' x 400' = 3.21 ACRES  
 SCALE: 1" = 80'  
 JOB No.: LGS006  
 DATE: 10/03/12  
 DRAWN BY: TWT

**NOTE:**  
 Scorpion Survey & Consulting, L.L.C., INC. IS NOT LIABLE FOR UNDERGROUND UTILITIES OR PIPELINES. CONTRACTOR SHOULD CALL ONE-CALL FOR LOCATION OF ANY MARKED OR UNMARKED, BURIED PIPELINES OR CABLES ON WELL PAD, IN CONSTRUCTION ZONE AND/OR ACCESS ROAD AT LEAST TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION.

**Scorpion Survey & Consulting, L.L.C.**  
 55 County Road 3312  
 Aztec, New Mexico 87410  
 (505) 333-2945



## Analytical Report

### Report Summary

Client: Logos Operating, LLC  
Chain Of Custody Number: 15528  
Samples Received: 6/11/2013 1:40:00PM  
Job Number: 12035-0017  
Work Order: P306047  
Project Name/Location: Logos #3 Drill Pit  
Sampling

Entire Report Reviewed By:

A handwritten signature in black ink, appearing to read "Tim Cain", is written over a horizontal line.

Date: 6/19/13

Tim Cain, Laboratory Manager

The results in this report apply to the samples submitted to Envirotech's Analytical Laboratory and were analyzed in accordance with the chain of custody document supplied by you, the client, and as such are for your exclusive use only. The results in this report are based on the sample as received unless otherwise noted. Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc. If you have any questions regarding this analytical report, please don't hesitate to contact Envirotech's Laboratory Staff.



|  |  |                              |
|--|--|------------------------------|
| Logos Operating, LLC<br>PO Box 18<br>Flora Vista NM, 87415 | Project Name: Logos #3 Drill Pit Sampling<br>Project Number: 12035-0017<br>Project Manager: Tiffany McIntosh | Reported:<br>19-Jun-13 09:58 |
|--|--|------------------------------|

**Analytical Report for Samples**

| Client Sample ID    | Lab Sample ID | Matrix | Sampled  | Received | Container        |
|---------------------|---------------|--------|----------|----------|------------------|
| Drill Pit Composite | P306047-01A   | Solid  | 06/10/13 | 06/11/13 | Glass Jar, 4 oz. |

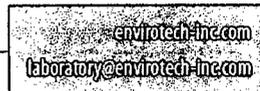
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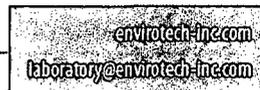


|  |  |                              |
|--|--|------------------------------|
| Logos Operating, LLC<br>PO Box 18<br>Flora Vista NM, 87415 | Project Name: Logos #3 Drill Pit Sampling<br>Project Number: 12035-0017<br>Project Manager: Tiffany McIntosh | Reported:<br>19-Jun-13 09:58 |
|--|--|------------------------------|

**Drill Pit Composite  
P306047-01 (Solid)**

| Analyte                                      | Result      | Reporting   |              |          | Batch          | Prepared         | Analyzed         | Method           | Notes |
|--|-------------|-------------|--------------|----------|----------------|------------------|------------------|------------------|-------|
|  |             | Limit       | Units        | Dilution |                |                  |                  |                  |       |
| <b>Volatile Organics by EPA 8021</b>         |             |             |              |          |                |                  |                  |                  |       |
| Benzene                                      | ND          | 0.05        | mg/kg        | 1        | 1324037        | 14-Jun-13        | 19-Jun-13        | EPA 8021B        |       |
| Toluene                                      | 0.09        | 0.05        | mg/kg        | 1        | 1324037        | 14-Jun-13        | 19-Jun-13        | EPA 8021B        |       |
| Ethylbenzene                                 | 0.07        | 0.05        | mg/kg        | 1        | 1324037        | 14-Jun-13        | 19-Jun-13        | EPA 8021B        |       |
| p,m-Xylene                                   | 0.17        | 0.05        | mg/kg        | 1        | 1324037        | 14-Jun-13        | 19-Jun-13        | EPA 8021B        |       |
| o-Xylene                                     | 0.06        | 0.05        | mg/kg        | 1        | 1324037        | 14-Jun-13        | 19-Jun-13        | EPA 8021B        |       |
| Total Xylenes                                | 0.23        | 0.05        | mg/kg        | 1        | 1324037        | 14-Jun-13        | 19-Jun-13        | EPA 8021B        |       |
| <b>Total BTEX</b>                            | <b>0.39</b> | <b>0.05</b> | <b>mg/kg</b> | <b>1</b> | <b>1324037</b> | <b>14-Jun-13</b> | <b>19-Jun-13</b> | <b>EPA 8021B</b> |       |
| Surrogate: Bromochlorobenzene                |             | 91.4 %      | 80-120       |          | 1324037        | 14-Jun-13        | 19-Jun-13        | EPA 8021B        |       |
| Surrogate: 1,4-Difluorobenzene               |             | 91.0 %      | 80-120       |          | 1324037        | 14-Jun-13        | 19-Jun-13        | EPA 8021B        |       |
| Surrogate: Fluorobenzene                     |             | 90.6 %      | 80-120       |          | 1324037        | 14-Jun-13        | 19-Jun-13        | EPA 8021B        |       |
| <b>Nonhalogenated Organics by 8015</b>       |             |             |              |          |                |                  |                  |                  |       |
| Gasoline Range Organics (C6-C10)             | ND          | 4.99        | mg/kg        | 1        | 1324031        | 14-Jun-13        | 18-Jun-13        | EPA 8015D        |       |
| Diesel Range Organics (C10-C28)              | ND          | 4.99        | mg/kg        | 1        | 1324031        | 14-Jun-13        | 18-Jun-13        | EPA 8015D        |       |
| GRO and DRO Combined Fractions               | ND          | 4.99        | mg/kg        | 1        | 1324031        | 14-Jun-13        | 18-Jun-13        | EPA 8015D        |       |
| <b>Total Petroleum Hydrocarbons by 418.1</b> |             |             |              |          |                |                  |                  |                  |       |
| <b>Total Petroleum Hydrocarbons</b>          | <b>483</b>  | <b>20.0</b> | <b>mg/kg</b> | <b>1</b> | <b>1324038</b> | <b>14-Jun-13</b> | <b>14-Jun-13</b> | <b>EPA 418.1</b> |       |
| <b>Cation/Anion Analysis</b>                 |             |             |              |          |                |                  |                  |                  |       |
| Chloride                                     | 1540        | 9.92        | mg/kg        | 1        | 1324026        | 12-Jun-13        | 12-Jun-13        | EPA 300.0        |       |

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|  |  |                              |
|--|--|------------------------------|
| Logos Operating, LLC<br>PO Box 18<br>Flora Vista NM, 87415 | Project Name: Logos #3 Drill Pit Sampling<br>Project Number: 12035-0017<br>Project Manager: Tiffany McIntosh | Reported:<br>19-Jun-13 09:58 |
|--|--|------------------------------|

**Volatile Organics by EPA 8021 - Quality Control**  
**Envirotech Analytical Laboratory**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

**Batch 1324037 - Purge and Trap EPA 5030A**

| <b>Blank (1324037-BLK1)</b>    |      |      | Prepared: 14-Jun-13 Analyzed: 18-Jun-13 |      |  |      |        |  |  |  |
|--------------------------------|------|------|---|------|--|------|--------|--|--|--|
| Benzene                        | ND   | 0.05 | mg/kg                                   |      |  |      |        |  |  |  |
| Toluene                        | ND   | 0.05 | "                                       |      |  |      |        |  |  |  |
| Ethylbenzene                   | ND   | 0.05 | "                                       |      |  |      |        |  |  |  |
| p,m-Xylene                     | ND   | 0.05 | "                                       |      |  |      |        |  |  |  |
| o-Xylene                       | ND   | 0.05 | "                                       |      |  |      |        |  |  |  |
| Total Xylenes                  | ND   | 0.05 | "                                       |      |  |      |        |  |  |  |
| Total BTEX                     | ND   | 0.05 | "                                       |      |  |      |        |  |  |  |
| Surrogate: Bromochlorobenzene  | 47.1 |      | ug/L                                    | 50.0 |  | 94.2 | 80-120 |  |  |  |
| Surrogate: 1,4-Difluorobenzene | 50.2 |      | "                                       | 50.0 |  | 100  | 80-120 |  |  |  |
| Surrogate: Fluorobenzene       | 49.3 |      | "                                       | 50.0 |  | 98.5 | 80-120 |  |  |  |

| <b>Duplicate (1324037-DUP1)</b> |      |      | Source: P306042-01 |      | Prepared: 14-Jun-13 Analyzed: 18-Jun-13 |      |        |  |  |    |
|---------------------------------|------|------|--------------------|------|---|------|--------|--|--|----|
| Benzene                         | ND   | 0.05 | mg/kg              |      | ND                                      |      |        |  |  | 30 |
| Toluene                         | ND   | 0.05 | "                  |      | ND                                      |      |        |  |  | 30 |
| Ethylbenzene                    | ND   | 0.05 | "                  |      | ND                                      |      |        |  |  | 30 |
| p,m-Xylene                      | ND   | 0.05 | "                  |      | ND                                      |      |        |  |  | 30 |
| o-Xylene                        | ND   | 0.05 | "                  |      | ND                                      |      |        |  |  | 30 |
| Surrogate: Bromochlorobenzene   | 48.6 |      | ug/L               | 50.0 |   | 97.3 | 80-120 |  |  |    |
| Surrogate: 1,4-Difluorobenzene  | 49.7 |      | "                  | 50.0 |   | 99.4 | 80-120 |  |  |    |
| Surrogate: Fluorobenzene        | 49.2 |      | "                  | 50.0 |   | 98.4 | 80-120 |  |  |    |

| <b>Matrix Spike (1324037-MS1)</b> |      |  | Source: P306042-01 |      | Prepared: 14-Jun-13 Analyzed: 18-Jun-13 |      |        |  |  |  |
|-----------------------------------|------|--|--------------------|------|---|------|--------|--|--|--|
| Benzene                           | 50.2 |  | ug/L               | 50.0 | 0.32                                    | 99.7 | 39-150 |  |  |  |
| Toluene                           | 50.1 |  | "                  | 50.0 | 0.68                                    | 98.9 | 46-148 |  |  |  |
| Ethylbenzene                      | 49.7 |  | "                  | 50.0 | 0.31                                    | 98.8 | 32-160 |  |  |  |
| p,m-Xylene                        | 99.2 |  | "                  | 100  | 0.57                                    | 98.7 | 46-148 |  |  |  |
| o-Xylene                          | 49.6 |  | "                  | 50.0 | 0.55                                    | 98.1 | 46-148 |  |  |  |
| Surrogate: Bromochlorobenzene     | 48.3 |  | "                  | 50.0 |   | 96.5 | 80-120 |  |  |  |
| Surrogate: 1,4-Difluorobenzene    | 49.5 |  | "                  | 50.0 |   | 98.9 | 80-120 |  |  |  |
| Surrogate: Fluorobenzene          | 49.3 |  | "                  | 50.0 |   | 98.6 | 80-120 |  |  |  |

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|  |  |                              |
|--|--|------------------------------|
| Logos Operating, LLC<br>PO Box 18<br>Flora Vista NM, 87415 | Project Name: Logos #3 Drill Pit Sampling<br>Project Number: 12035-0017<br>Project Manager: Tiffany McIntosh | Reported:<br>19-Jun-13 09:58 |
|--|--|------------------------------|

**Nonhalogenated Organics by 8015 - Quality Control**

**Envirotech Analytical Laboratory**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

**Batch 1324031 - GRO/DRO Extraction EPA 3550C**

| <b>Blank (1324031-BLK1)</b>       |     | Prepared & Analyzed: 13-Jun-13 |       |                                |    |     |        |  |  |    |
|-----------------------------------|-----|--------------------------------|-------|--------------------------------|----|-----|--------|--|--|----|
| Gasoline Range Organics (C6-C10)  | ND  | 5.00                           | mg/kg |                                |    |     |        |  |  |    |
| Diesel Range Organics (C10-C28)   | ND  | 5.00                           | "     |                                |    |     |        |  |  |    |
| GRO and DRO Combined Fractions    | ND  | 5.00                           | "     |                                |    |     |        |  |  |    |
| <b>Duplicate (1324031-DUP1)</b>   |     | <b>Source: P306061-01</b>      |       | Prepared & Analyzed: 13-Jun-13 |    |     |        |  |  |    |
| Gasoline Range Organics (C6-C10)  | ND  | 5.00                           | mg/kg |                                | ND |     |        |  |  | 30 |
| Diesel Range Organics (C10-C28)   | ND  | 5.00                           | "     |                                | ND |     |        |  |  | 30 |
| <b>Matrix Spike (1324031-MS1)</b> |     | <b>Source: P306061-01</b>      |       | Prepared & Analyzed: 13-Jun-13 |    |     |        |  |  |    |
| Gasoline Range Organics (C6-C10)  | 303 | 5.26                           | mg/kg | 263                            | ND | 115 | 75-125 |  |  |    |
| Diesel Range Organics (C10-C28)   | 286 | 5.26                           | "     | 263                            | ND | 109 | 75-125 |  |  |    |

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# envirotech

Analytical Laboratory

|                       |                  |                             |                                     |
|-----------------------|------------------|-----------------------------|-------------------------------------|
| Logos Operating, LLC  | Project Name:    | Logos #3 Drill Pit Sampling | <b>Reported:</b><br>19-Jun-13 09:58 |
| PO Box 18             | Project Number:  | 12035-0017                  |                                     |
| Flora Vista NM, 87415 | Project Manager: | Tiffany McIntosh            |                                     |

**Total Petroleum Hydrocarbons by 418.1 - Quality Control**

**Envirotech Analytical Laboratory**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

**Batch 1324038 - 418 Freon Extraction**

|                                   |       |      |   |      |       |     |        |       |    |  |
|-----------------------------------|-------|------|---|------|-------|-----|--------|-------|----|--|
| <b>Blank (1324038-BLK1)</b>       |       |      | Prepared & Analyzed: 14-Jun-13                    |      |       |     |        |       |    |  |
| Total Petroleum Hydrocarbons      | ND    | 19.9 | mg/kg   |      |       |     |        |       |    |  |
| <b>Duplicate (1324038-DUP1)</b>   |       |      | Source: P306040-01 Prepared & Analyzed: 14-Jun-13 |      |       |     |        |       |    |  |
| Total Petroleum Hydrocarbons      | 17000 | 160  | mg/kg   |      | 17100 |     |        | 0.543 | 30 |  |
| <b>Matrix Spike (1324038-MS1)</b> |       |      | Source: P306040-01 Prepared & Analyzed: 14-Jun-13 |      |       |     |        |       |    |  |
| Total Petroleum Hydrocarbons      | 19400 | 160  | mg/kg   | 2000 | 17100 | 115 | 80-120 |       |    |  |

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|  |  |                              |
|--|--|------------------------------|
| Logos Operating, LLC<br>PO Box 18<br>Flora Vista NM, 87415 | Project Name: Logos #3 Drill Pit Sampling<br>Project Number: 12035-0017<br>Project Manager: Tiffany McIntosh | Reported:<br>19-Jun-13 09:58 |
|--|--|------------------------------|

**Cation/Anion Analysis - Quality Control**  
**Envirotech Analytical Laboratory**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

**Batch 1324026 - Anion Extraction EPA 300.0**

**Blank (1324026-BLK1)** Prepared & Analyzed: 12-Jun-13

|          |    |      |       |  |  |  |  |  |  |  |
|----------|----|------|-------|--|--|--|--|--|--|--|
| Chloride | ND | 9.99 | mg/kg |  |  |  |  |  |  |  |
|----------|----|------|-------|--|--|--|--|--|--|--|

**Duplicate (1324026-DUP1)** Source: P306047-01 Prepared & Analyzed: 12-Jun-13

|          |      |      |       |  |      |  |  |      |    |  |
|----------|------|------|-------|--|------|--|--|------|----|--|
| Chloride | 1280 | 9.99 | mg/kg |  | 1540 |  |  | 18.7 | 30 |  |
|----------|------|------|-------|--|------|--|--|------|----|--|

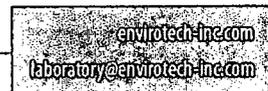
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Three Springs - 65 Mercado Street, Suite 115, Durango, CO 81301

Ph (970) 259-0615 Fr (800) 362-1879





|                       |                  |                             |                                     |
|-----------------------|------------------|-----------------------------|-------------------------------------|
| Logos Operating, LLC  | Project Name:    | Logos #3 Drill Pit Sampling | <b>Reported:</b><br>19-Jun-13 09:58 |
| PO Box 18             | Project Number:  | 12035-0017                  |                                     |
| Flora Vista NM, 87415 | Project Manager: | Tiffany McIntosh            |                                     |

**Notes and Definitions**

- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

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# CHAIN OF CUSTODY RECORD

15528

|   |  |  |  |                       |                    |                   |               |                |     |               |                |             |          |             |               |
|---|--|--|--|-----------------------|--------------------|-------------------|---------------|----------------|-----|---------------|----------------|-------------|----------|-------------|---------------|
| Client:<br><b>Logos Operating</b>       |  | Project Name / Location:<br><b>Logos #3 Drill Pit Sampling</b> |  | ANALYSIS / PARAMETERS |                    |                   |               |                |     |               |                |             |          |             |               |
| Email results to:<br><b>T. McIntosh</b> |  | Sampler Name:<br><b>T. McIntosh</b>                            |  | TPH (Method 8015)     | BTEX (Method 8021) | VOC (Method 8260) | RCRA 8 Metals | Cation / Anion | RCI | TCLP with H/P | CO Table 910-1 | TPH (418.1) | CHLORIDE | Sample Cool | Sample Intact |
| Client Phone No.:                       |  | Client No.:  |  |                       |                    |                   |               |                |     |               |                |             |          |             |               |

| Sample No./ Identification | Sample Date | Sample Time | Lab No.    | No./Volume of Containers | Preservative     |     |      | TPH (Method 8015) | BTEX (Method 8021) | VOC (Method 8260) | RCRA 8 Metals | Cation / Anion | RCI | TCLP with H/P | CO Table 910-1 | TPH (418.1) | CHLORIDE | Sample Cool | Sample Intact |   |
|----------------------------|-------------|-------------|------------|--------------------------|------------------|-----|------|-------------------|--------------------|-------------------|---------------|----------------|-----|---------------|----------------|-------------|----------|-------------|---------------|---|
|                            |             |             |            |                          | HNO <sub>3</sub> | HCl | cool |                   |                    |                   |               |                |     |               |                |             |          |             |               |   |
| Drill Pit Composite        | 6/10/13     | 1300        | P306047-01 | 1-4 oz jar               |                  |     | X    | X                 | X                  |                   |               |                |     |               |                | X           | X        |             | ✓             | ✓ |
|                            |             |             |            |                          |                  |     |      |                   |                    |                   |               |                |     |               |                |             |          |             |               |   |
|                            |             |             |            |                          |                  |     |      |                   |                    |                   |               |                |     |               |                |             |          |             |               |   |
|                            |             |             |            |                          |                  |     |      |                   |                    |                   |               |                |     |               |                |             |          |             |               |   |
|                            |             |             |            |                          |                  |     |      |                   |                    |                   |               |                |     |               |                |             |          |             |               |   |
|                            |             |             |            |                          |                  |     |      |                   |                    |                   |               |                |     |               |                |             |          |             |               |   |
|                            |             |             |            |                          |                  |     |      |                   |                    |                   |               |                |     |               |                |             |          |             |               |   |
|                            |             |             |            |                          |                  |     |      |                   |                    |                   |               |                |     |               |                |             |          |             |               |   |
|                            |             |             |            |                          |                  |     |      |                   |                    |                   |               |                |     |               |                |             |          |             |               |   |

|  |                 |              |  |                 |              |
|--|-----------------|--------------|--|-----------------|--------------|
| Relinquished by: (Signature)<br><i>Tiffany Madantosh</i> | Date<br>6/11/13 | Time<br>1340 | Received by: (Signature)<br><i>[Signature]</i> | Date<br>6/11/13 | Time<br>1340 |
|--|-----------------|--------------|--|-----------------|--------------|

|  |      |      |  |      |      |
|--|------|------|--|------|------|
| Relinquished by: (Signature)<br><i>[Signature]</i> | Date | Time | Received by: (Signature)<br><i>[Signature]</i> | Date | Time |
|--|------|------|--|------|------|

Sample Matrix  
 Soil  Solid  Sludge  Aqueous  Other

Sample(s) dropped off after hours to secure drop off area.





# envirotech

Analytical Laboratory

## Analytical Report

### Report Summary

Client: Logos Operating, LLC

Chain Of Custody Number: 15970

Samples Received: 8/14/2013 7:00:00AM

Job Number: 12035-0017

Work Order: P308036

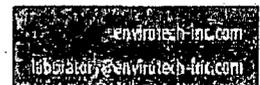
Project Name/Location: Logos #3

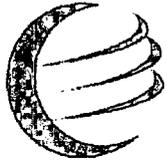
Entire Report Reviewed By:

Date: 8/15/13

Tim Cain, Laboratory Manager

The results in this report apply to the samples submitted to Envirotech's Analytical Laboratory and were analyzed in accordance with the chain of custody document supplied by you, the client, and as such are for your exclusive use only. The results in this report are based on the sample as received unless otherwise noted. Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc. If you have any questions regarding this analytical report, please don't hesitate to contact Envirotech's Laboratory Staff.





# envirotech

Analytical Laboratory

|                       |                  |                  |                 |
|-----------------------|------------------|------------------|-----------------|
| Logos Operating, LLC  | Project Name:    | Logos #3         |                 |
| PO Box 18             | Project Number:  | 12035-0017       | Reported:       |
| Flora Vista NM, 87415 | Project Manager: | Tiffany McIntosh | 15-Aug-13 13:51 |

## Analytical Report for Samples

| Client Sample ID    | Lab Sample ID | Matrix | Sampled  | Received | Container      |
|---------------------|---------------|--------|----------|----------|----------------|
| drill pit composite | P308036-01A   | Soil   | 08/13/13 | 08/14/13 | Plastic Baggie |

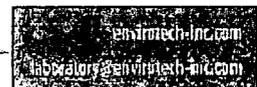
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|                       |                  |                  |                 |
|-----------------------|------------------|------------------|-----------------|
| Logos Operating, LLC  | Project Name:    | Logos #3         |                 |
| PO Box 18             | Project Number:  | 12035-0017       | Reported:       |
| Flora Vista NM, 87415 | Project Manager: | Tiffany McIntosh | 15-Aug-13 13:51 |

**drill pit composite**  
**P308036-01 (Solid)**

| Analyte                      | Result | Reporting |  | Units | Dilution | Batch   | Prepared  | Analyzed  | Method    | Notes |
|------------------------------|--------|-----------|--|-------|----------|---------|-----------|-----------|-----------|-------|
|                              |        | Limit     |  |       |          |         |           |           |           |       |
| <b>Cation/Anion Analysis</b> |        |           |  |       |          |         |           |           |           |       |
| Chloride                     | 834    | 10.0      |  | mg/kg | 1        | 1333014 | 14-Aug-13 | 14-Aug-13 | EPA 300.0 |       |

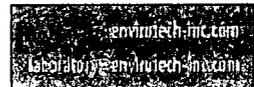
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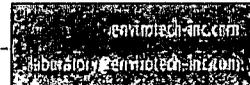


|                       |                                   |                           |
|-----------------------|-----------------------------------|---------------------------|
| Logos Operating, LLC  | Project Name: Logos #3            |                           |
| PO Box 18             | Project Number: 12035-0017        | Reported: 15-Aug-13 13:51 |
| Flora Vista NM, 87415 | Project Manager: Tiffany McIntosh |                           |

**Cation/Anion Analysis - Quality Control**  
**Envirotech Analytical Laboratory**

| Analyte   | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD   | RPD Limit | Notes                          |
|---|--------|-----------------|-------|-------------|---------------|------|-------------|-------|-----------|--------------------------------|
| <b>Batch 1333014 - Anion Extraction EPA 300.0</b> |        |                 |       |             |               |      |             |       |           |                                |
| <b>Blank (1333014-BLK1)</b>                       |        |                 |       |             |               |      |             |       |           |                                |
| Chloride  | ND     | 10.0            | mg/kg |             |               |      |             |       |           | Prepared & Analyzed: 14-Aug-13 |
| <b>Duplicate (1333014-DUPL)</b>                   |        |                 |       |             |               |      |             |       |           |                                |
| Chloride  | 842    | 9.99            | mg/kg |             | 834           |      |             | 0.953 | 30        | Source: P308036-01             |

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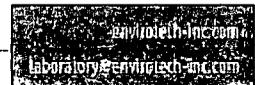
Analytical Laboratory

|                       |                  |                  |                              |
|-----------------------|------------------|------------------|------------------------------|
| Logos Operating, LLC  | Project Name:    | Logos #3         | Reported:<br>15-Aug-13 13:51 |
| PO Box 18             | Project Number:  | 12035-0017       |                              |
| Flora Vista NM, 87415 | Project Manager: | Tiffany McIntosh |                              |

### Notes and Definitions

- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

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1-day RUSH

# CHAIN OF CUSTODY RECORD

15970

|   |  |  |  |                       |                    |                   |               |                |     |               |                |             |          |  |  |             |               |
|---|--|--|--|-----------------------|--------------------|-------------------|---------------|----------------|-----|---------------|----------------|-------------|----------|--|--|-------------|---------------|
| Client: <b>Loyos Operating</b>                  |  | Project Name / Location: <b>Logos #3</b> |  | ANALYSIS / PARAMETERS |                    |                   |               |                |     |               |                |             |          |  |  |             |               |
| Email results to: <b>F. Aragon, T. McIntosh</b> |  | Sampler Name: <b>T. McIntosh</b>         |  | TPH (Method 8015)     | BTEX (Method 8021) | VOC (Method 8260) | RCRA 8 Metals | Cation / Anion | RCI | TCLP with H/P | CO Table 910-1 | TPH (418.1) | CHLORIDE |  |  | Sample Cool | Sample Intact |
| Client Phone No.:                               |  | Client No.: <b>12035-0017</b>            |  |                       |                    |                   |               |                |     |               |                |             |          |  |  |             |               |

| Sample No./ Identification | Sample Date | Sample Time | Lab No.    | No./Volume of Containers | Preservative     |     |      | TPH (Method 8015) | BTEX (Method 8021) | VOC (Method 8260) | RCRA 8 Metals | Cation / Anion | RCI | TCLP with H/P | CO Table 910-1 | TPH (418.1) | CHLORIDE |  |  | Sample Cool | Sample Intact |
|----------------------------|-------------|-------------|------------|--------------------------|------------------|-----|------|-------------------|--------------------|-------------------|---------------|----------------|-----|---------------|----------------|-------------|----------|--|--|-------------|---------------|
|                            |             |             |            |                          | HNO <sub>3</sub> | HCl | cool |                   |                    |                   |               |                |     |               |                |             |          |  |  |             |               |
| drill pit composite        | 8/13/13     | 1515        | P308030-01 | ziplock bag              |                  |     | X    |                   |                    |                   |               |                |     |               |                |             | X        |  |  | X           | X             |
|                            |             |             |            |                          |                  |     |      |                   |                    |                   |               |                |     |               |                |             |          |  |  |             |               |
|                            |             |             |            |                          |                  |     |      |                   |                    |                   |               |                |     |               |                |             |          |  |  |             |               |
|                            |             |             |            |                          |                  |     |      |                   |                    |                   |               |                |     |               |                |             |          |  |  |             |               |
|                            |             |             |            |                          |                  |     |      |                   |                    |                   |               |                |     |               |                |             |          |  |  |             |               |
|                            |             |             |            |                          |                  |     |      |                   |                    |                   |               |                |     |               |                |             |          |  |  |             |               |
|                            |             |             |            |                          |                  |     |      |                   |                    |                   |               |                |     |               |                |             |          |  |  |             |               |
|                            |             |             |            |                          |                  |     |      |                   |                    |                   |               |                |     |               |                |             |          |  |  |             |               |
|                            |             |             |            |                          |                  |     |      |                   |                    |                   |               |                |     |               |                |             |          |  |  |             |               |

|   |                 |              |   |                 |               |
|---|-----------------|--------------|---|-----------------|---------------|
| Relinquished by: (Signature)<br><i>Tiffany McIntosh</i> | Date<br>8/14/13 | Time<br>1710 | Received by: (Signature)<br><i>Miriam Jre</i> | Date<br>8/14/13 | Time<br>17:00 |
| Relinquished by: (Signature)                            |                 |              | Received by: (Signature)                      |                 |               |

Sample Matrix  
 Soil  Solid  Sludge  Aqueous  Other

Sample(s) dropped off after hours to secure drop off area.

**1-day RUSH**



5795 US Highway 64 • Farmington, NM 87401 • 505-632-0615 • Three Springs • 65 Mercado Street, Suite 115, Durango, CO 81301 • laboratory@envirotech-inc.com

State of New Mexico  
Energy, Minerals and Natural Resources

Form C-105  
Revised August 1, 2011

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

Submit To Appropriate District Office  
Two Copies  
District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

1. WELL API NO.  
30-043-21135  
2. Type of Lease  
 STATE  FEE  FED/INDIAN  
3. State Oil & Gas Lease No. NMNM 109387

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

4. Reason for filing:  
 COMPLETION REPORT (Fill in boxes #1 through #31 for State and Fee wells only)  
 C-144 CLOSURE ATTACHMENT (Fill in boxes #1 through #9, #15 Date Rig Released and #32 and/or #33; attach this and the plat to the C-144 closure report in accordance with 19.15.17.13.K NMAC)

5. Lease Name or Unit Agreement Name  
LOGOS  
6. Well Number: #3

7. Type of Completion:  
 NEW WELL  WORKOVER  DEEPENING  PLUGBACK  DIFFERENT RESERVOIR  OTHER

8. Name of Operator  
LOGOS OPERATING LLC

9. OGRID  
289408

10. Address of Operator  
4001 North Butler Avenue, Building 7101 Farmington, NM 87401

11. Pool name or Wildcat

| 12. Location | Unit Ltr | Section | Township | Range | Lot | Feet from the | N/S Line | Feet from the | E/W Line | County |
|--------------|----------|---------|----------|-------|-----|---------------|----------|---------------|----------|--------|
| Surface:     |          |         |          |       |     |               |          |               |          |        |
| BH:          |          |         |          |       |     |               |          |               |          |        |

13. Date Spudded  
14. Date T.D. Reached  
15. Date Rig Released  
2/11/2013  
16. Date Completed (Ready to Produce)  
17. Elevations (DF and RKB, RT, GR, etc.)

18. Total Measured Depth of Well  
19. Plug Back Measured Depth  
20. Was Directional Survey Made?  
21. Type Electric and Other Logs Run

22. Producing Interval(s), of this completion - Top, Bottom, Name

CASING RECORD (Report all strings set in well)

| CASING SIZE | WEIGHT LB./FT. | DEPTH SET | HOLE SIZE | CEMENTING RECORD | AMOUNT PULLED |
|-------------|----------------|-----------|-----------|------------------|---------------|
|             |                |           |           |                  |               |
|             |                |           |           |                  |               |
|             |                |           |           |                  |               |
|             |                |           |           |                  |               |
|             |                |           |           |                  |               |

| 24. LINER RECORD |     |        |              | 25. TUBING RECORD |      |           |            |
|------------------|-----|--------|--------------|-------------------|------|-----------|------------|
| SIZE             | TOP | BOTTOM | SACKS CEMENT | SCREEN            | SIZE | DEPTH SET | PACKER SET |
|                  |     |        |              |                   |      |           |            |
|                  |     |        |              |                   |      |           |            |
|                  |     |        |              |                   |      |           |            |

26. Perforation record (interval, size, and number)  
27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC.  
DEPTH INTERVAL  
AMOUNT AND KIND MATERIAL USED

PRODUCTION

28. Date First Production  
Production Method (Flowing, gas lift, pumping - Size and type pump)  
Well Status (Prod. or Shut-in)

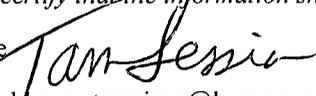
| Date of Test       | Hours Tested    | Choke Size              | Prod'n For Test Period | Oil - Bbl | Gas - MCF    | Water - Bbl.                | Gas - Oil Ratio |
|--------------------|-----------------|-------------------------|------------------------|-----------|--------------|-----------------------------|-----------------|
|                    |                 |                         |                        |           |              |                             |                 |
| Flow Tubing Press. | Casing Pressure | Calculated 24-Hour Rate | Oil - Bbl.             | Gas - MCF | Water - Bbl. | Oil Gravity - API - (Corr.) |                 |

29. Disposition of Gas (Sold, used for fuel, vented, etc.)  
30. Test Witnessed By

31. List Attachments

32. If a temporary pit was used at the well, attach a plat with the location of the temporary pit. SEE ATTACHED

33. If an on-site burial was used at the well, report the exact location of the on-site burial:  
Latitude 36.16254 N Longitude 107.48633 W NAD 1927 1983 x

I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief  
Signature:  Printed Name: Tamra Sessions Title: Operations Technician Date: 9/26/14  
E-mail Address: tsessions@logosresourcesllc.com



**Pit Closure Form:**

Date: 8-14-13

Well Name: Logos #3

Footages: 741' FSL, 1263' FEL Unit Letter: P

Section: 5, T-22 -N, R- 6 -W, County: Sandoval State: NM

Contractor Closing Pit: Detrick

Construction Inspector: Wayne Ritter

Inspector Signature: Wayne Ritter

Date: 8-14-13

## Kristina Graham

---

**From:** Kelly, Jonathan, EMNRD <Jonathan.Kelly@state.nm.us>  
**Sent:** Thursday, May 30, 2013 7:04 AM  
**To:** Kristina Graham  
**Cc:** david mcwilliams (davemacado@yahoo.com); David Gonzales  
**Subject:** RE: Logos #3 Pit Closure Notification

Kristy,

Thank you for the update on this, since the pit is fixing to be closed, fence repair will not be necessary. As for the procedure to follow for the closure, follow the approved closure plan that was included with the pit permit. When submitting the Closure Permit, please include a copy of the as drilled plat, sample results, photo of the well sign, pit marker and closed and re-contoured pit, a copy of the inspection logs, closure notification to both the landowner and OCD, and a detailed closure report which is a direct walk through the approved closure plan with details included behind each portion noting how each portion had been met during the closure. As per your request, I will also call your cell with the same information.

Jonathan D. Kelly  
Compliance Officer  
Oil Conservation Division  
Energy, Minerals, & Natural Resources  
1000 Rio Brazos, Aztec, NM 87410  
(505)334-6178 ext 122  
[jonathan.kelly@state.nm.us](mailto:jonathan.kelly@state.nm.us)

---

**From:** Kristina Graham [<mailto:kgraham@logosresourcesllc.com>]  
**Sent:** Wednesday, May 29, 2013 4:38 PM  
**To:** Kelly, Jonathan, EMNRD  
**Cc:** david mcwilliams ([davemacado@yahoo.com](mailto:davemacado@yahoo.com)); David Gonzales  
**Subject:** Logos #3 Pit Closure Notification  
**Importance:** High

Hi Jonathan,

This is our 72 hour notification for pit closure on the Logos #3. Could you please give me a call regarding the procedure to follow? I will be out of the office, but will be available by cell phone (505-402-6361).

Regarding the email below; all staining issues have been resolved and an onsite with Mark Kelly with the BLM was conducted last Friday 5/24/13. Since we are in the process of closing the pit, is it necessary to repair the fence?

We are working on the permit for the below grade tank and will have it to you early next week.

Thank you,

Kristy Graham  
Production Engineer  
505-436-2627 Office  
505-402-6361 Cell  
[kgraham@logosresourcesllc.com](mailto:kgraham@logosresourcesllc.com)



4001 N. Butler Ave  
Farmington, NM 87401  
Phone: (505) 215-8215  
Fax: (303) 974-1767

---

Date: August 13, 2013

To: Robert Switzer

CC: Mark Kelly

Re: Logos #3 Reserve Pit Closure Plan

---

Mr. Switzer,

Logos Operating, LLC proposes the following closure plan for the Logos #3 reserve pit (30-043-21135). Please see the attached Figures 1 through 6 (pit cross sections and calculations) and Exhibits 1-3 (soil tests on reserve pit).

Logos will close the reserve pit in a manner that will ensure:

- The pit will have a minimum of 4' of cover
- The location will be re-contoured to meet the natural contours as close as possible
- The soil in the pit will meet the closure specifications required by the NMOCD

Logos Operating and its selected contractors will haul off the cuttings in the reserve pit so that contouring can be completed to BLM specifications. The attached diagrams show a cross section of the proposed contour "Natural Ground" against the as built pit cross section. There are four (4) cross section segments across the pit, A-A', B-B', C-C', D-D'. Each cross section segment has been analyzed so that the appropriate amounts of pit cuttings are hauled off to ensure 4.5' of cover across the entire reserve pit.

Figure 1 – This is a cross section of the pit that shows the proposed contour "Natural Ground" against the as built pit. The sketched points A1, A2, B1, B2, C1, C2, D1, and D2 refer to the calculations of how much cuttings must be hauled off to ensure proper closure of the pit.

Figure 2 – This is an overhead view of the "as built" reserve pit.

Figure 3 – This is a cross section of segment A-A' of the reserve pit showing the calculations used to determine the amount of cuttings that must be hauled off to obtain proper coverage of the reserve pit.

Figure 4 – This is a cross section of segment B-B' of the reserve pit showing the calculations used to determine the amount of cuttings that must be hauled off to obtain proper coverage of the reserve pit.

Figure 5 – This is a cross section of segment C-C' of the reserve pit showing the calculations used to determine the amount of cuttings that must be hauled off to obtain proper coverage of the reserve pit.

Figure 6 – This is a cross section of segment D-D' of the reserve pit showing the calculations used to determine the amount of cuttings that must be hauled off to obtain proper coverage of the reserve pit.

Exhibit 1 – Logos #3 soil testing conducted on June 11, 2013.

Exhibit 2 – Logos #3 soil testing conducted on June 25th after mixing and hauling off free standing water.

Exhibit 3 – Logos #3 soil testing conducted on August 8th after hauling off rain water.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

RECEIVED

MAY 22 2013

FORM APPROVED  
OMB No. 1004-0137  
Expires: October 31, 2014

**SUNDRY NOTICES AND REPORTS ON WELLS**  
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.*

5. Lease Serial No.  
NM 109387

6. If Indian, Allottee or Tribe Name

**SUBMIT IN TRIPLICATE** - Other instructions on page 2.

1. Type of Well  
 Oil Well     Gas Well     Other

2. Name of Operator  
Logos Operating, LLC

3a. Address  
4001 North Butler Avenue, Building 7101  
Farmington, NM 87401

3b. Phone No. (include area code)  
505-436-2627

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
741' FSL, 1263' FEL  
Section 5, T22N, R6W, UL P

7. If Unit of CA/Agreement, Name and/or No.

8. Well Name and No.  
Logos #3

9. API Well No.  
30-043-21135

10. Field and Pool or Exploratory Area  
WC;Dakota(O) 97997, WC;Gallup(O) 98013

11. County or Parish, State  
Sandoval County, NM

**12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA**

| TYPE OF SUBMISSION                                   | TYPE OF ACTION                                |   |  |  |
|--|---|---|--|--|
| <input checked="" type="checkbox"/> Notice of Intent | <input type="checkbox"/> Acidize              | <input type="checkbox"/> Deepen           | <input type="checkbox"/> Production (Start/Resume) | <input type="checkbox"/> Water Shut-Off                      |
| <input type="checkbox"/> Subsequent Report           | <input type="checkbox"/> Alter Casing         | <input type="checkbox"/> Fracture Treat   | <input checked="" type="checkbox"/> Reclamation    | <input type="checkbox"/> Well Integrity                      |
| <input type="checkbox"/> Final Abandonment Notice    | <input type="checkbox"/> Casing Repair        | <input type="checkbox"/> New Construction | <input type="checkbox"/> Recomplete                | <input checked="" type="checkbox"/> Other <u>Reclamation</u> |
|  | <input type="checkbox"/> Change Plans         | <input type="checkbox"/> Plug and Abandon | <input type="checkbox"/> Temporarily Abandon       |  |
|  | <input type="checkbox"/> Convert to Injection | <input type="checkbox"/> Plug Back        | <input type="checkbox"/> Water Disposal            |  |

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

Logos Operating proposes the following corrective measure for remediation on the Logos # 3 per the meeting with BLM on 4/23/2013.

- Logos will use an excavator with a modified bucket to pull the dirt at corner number 5 back onto the pad. The excavator will stay on the location pad and will pull the dirt back toward the pad. This remediation will be supervised by the BLM and will be conducted during the pit closure process. Pit closure will be completed approximately 90 days after completion (completion date 3/14/2013) and pit closure estimated date of (6/2/2013). Based on the EA and Arch reports, there area at corner 5 that was passed the edge of disturbance was evaluated in the EA and Arch survey and does not fall on an environmentally or archaeologically sensitive area, therefore, the remediation will consist of re-contouring and re-seeding the area.
- Logos Operating will re-contour, properly rip, and re-seed the location per the requirements of the APD. Logos proposes to complete re-contouring, ripping, and re-seeding in the fall of 2013 to allow for maximum vegetation growth opportunity, unless otherwise requested by BLM.
- Logos has skimmed all of the oil on the reserve pit and continues to inspect the pit for any new oil skim.
- All trash, liners, and oil staining has been cleaned from location and will continue to be monitored and cleaned. The gravel has been cleaned up and hand-picked as requested. The flowback tanks have been removed from location and all production is going into the approved battery. Proper fencing will be installed around the tank battery, fencing to be made of hog-wire and steel posts with top railing for enhanced stability.
- Please see the attachments that are directly related to the remediation proposal:
  - Location Plat with highlighted area of disturbance
  - Pictures of area of disturbance
  - EA and Archaeological Report References
  - Land farm ticket - verifying disposal of any stained soil
  - Re-seeding and contouring requirements per the APD

**SEE ATTACHED  
FOR CONDITIONS  
OF APPROVAL**

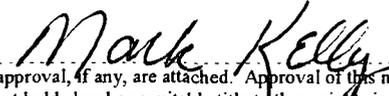
14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)  
Kristy Graham

Title Production Engineer

Signature 

Date 05/06/2013

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by 

Title ENVIRONMENTAL COMPLIANCE TEAM LEAD

Office

Date MAY 28 2013

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

**OPERATOR**



**Reclamation Form:**

Date: 9/1/13

Well Name: Logos #3

Footages: 741 'FSL, 1263' FEL Unit Letter: P

Section: 5, T-22-N, R-6-W, County: Sandoval State: NM

Reclamation Contractor: Detrick

Reclamation Start Date: 5/29/13<sup>th</sup>

Reclamation Complete Date: 8/23/13

Road Completion Date: 8/23/13

Seeding Date: 9/1/13

**PIT MARKER STATUS**

(When Required) Picture of Marker set needed

Date Marker Placed: 11-26-13

Latitude: 36.16254N

Longitude: 107.48633W

Date Pit Manifold Removed: N/A

Construction Inspector Signature: Wayne [Signature]

Date Inspected: 9-1-13

LOGOS OPERATING, LLC.

LOGOS #3

API #30-043-21135

741' FSL 1263' FEL

P-SEC. 5-T22N, R6W

SANDOVAL COUNTY, NM

OFFICE # 505-436-2627

AFTER HRS # 866-598-6220

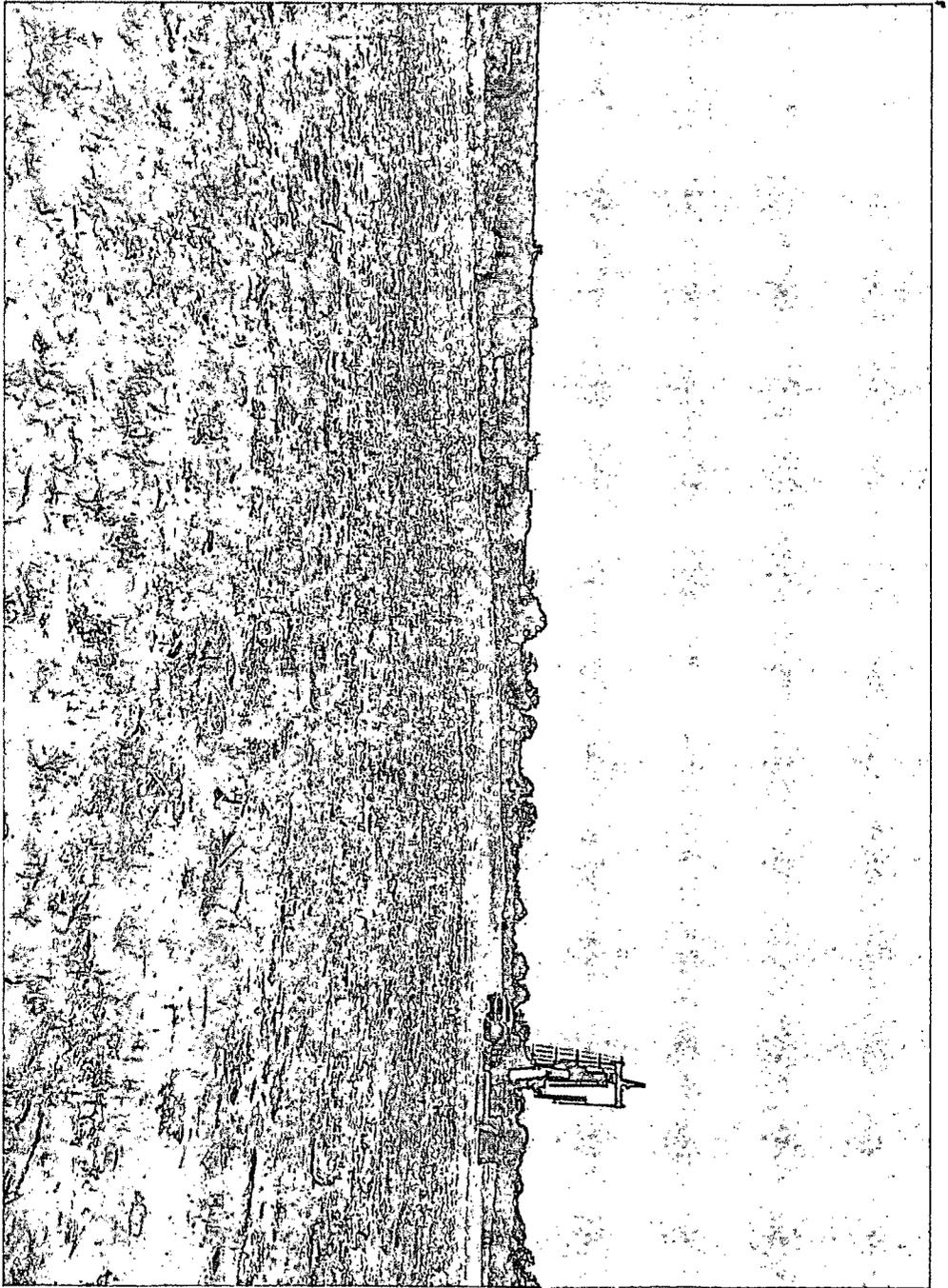
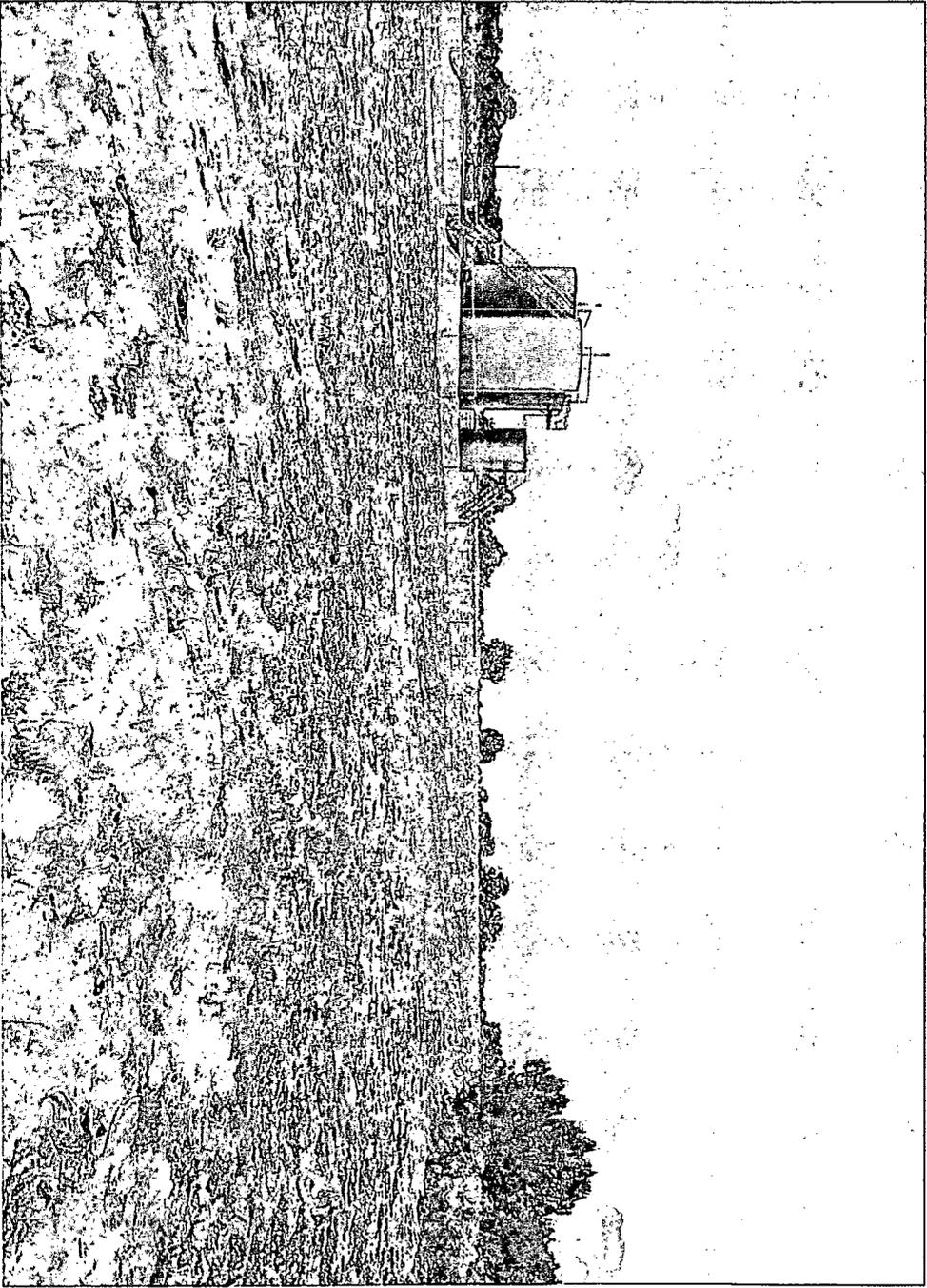
ICATION  
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EO  
LLANCE

LOGOS-OPER.

LOGOS #3

P-SEC. 5 T22 N.

R6W. OBL.





4001 N. Butler Ave  
Farmington, NM 87401  
Phone: (505) 436-2627  
Fax: (505) 832-3095

---

Date: September 30, 2014

To: NMOCD

Re: Pit Closure Filings for WPX

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Dear NMOCD,

Logos Operating, LLC (289408) is filing this pit closure report on behalf of the new operator, WPX Energy Production, LLC (120782), as part of a transition service agreement between Logos and WPX.

Regards,

  
Jamie Goodwin  
Regulatory Technician



4001 N. Butler Ave  
Farmington, NM 87401  
Phone: (505) 436-2627  
Fax: (505) 832-3095

---

Date: October 23, 2014

To: NMOCD

Re: Closure Permit #12245  
Logos 3  
API 30-043-21135

OIL CONS. DIV DIST. 3

OCT 27 2014

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Dear NMOCD,

Logos Operating, LLC (289408) has reviewed their information regarding your email request dated 10/20/14 for general issues encountered on our submitted closure report.

- Copy of Pit Closure Extension was sent to the NMOCD for approval.
  - Please find attached Pit Extension dated 5/29/2013 to 7/02/2013.
  - 2<sup>nd</sup> extension request dated 6/21/2013 to 8/02/2013.
  - Please find explanation of pit closure delay on closure report.

Regards,

A handwritten signature in black ink that reads "Jamie Goodwin". The signature is written in a cursive, flowing style.

Jamie Goodwin  
Regulatory Technician

RECEIVED

Form 3160-5  
(March 2012)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

JUN 21 2013

FORM APPROVED  
OMB No. 1004-0137  
Expires: October 31, 2014

Farmington Field Office  
Bureau of Land Management

5. Lease Serial No.  
NM 109387

6. If Indian, Allotment or Trust Land  
OIL CONS. DIV. DIST. 3

**SUNDRY NOTICES AND REPORTS ON WELLS**  
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.*

OCT 27 2014

SUBMIT IN TRIPLICATE - Other instructions on page 2.

1. Type of Well

Oil Well     Gas Well     Other

2. Name of Operator  
Logos Operating, LLC

7. If Unit of CA/Agreement, Name and/or No.

8. Well Name and No.  
Logos #3

9. API Well No.  
30-043-21135

3a. Address  
4001 North Butler Avenue, Building 7101  
Farmington, NM 87401

3b. Phone No. (include area code)  
505-436-2627

10. Field and Pool or Exploratory Area  
DAKOTA (O) 97997; GALLUP (O) 98013

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
741' FSL, 1263' FEL  
Section 5, T22N, R6W, UL P

11. County or Parish, State  
Sandoval County, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

| TYPE OF SUBMISSION                                   | TYPE OF ACTION                                |   |  |  |
|--|---|---|--|--|
| <input checked="" type="checkbox"/> Notice of Intent | <input type="checkbox"/> Acidize              | <input type="checkbox"/> Deepen           | <input type="checkbox"/> Production (Start/Resume) | <input type="checkbox"/> Water Shut-Off                                |
| <input type="checkbox"/> Subsequent Report           | <input type="checkbox"/> Alter Casing         | <input type="checkbox"/> Fracture Treat   | <input type="checkbox"/> Reclamation               | <input type="checkbox"/> Well Integrity                                |
| <input type="checkbox"/> Final Abandonment Notice    | <input type="checkbox"/> Casing Repair        | <input type="checkbox"/> New Construction | <input type="checkbox"/> Recomplete                | <input checked="" type="checkbox"/> Other <u>pit closure extension</u> |
|  | <input type="checkbox"/> Change Plans         | <input type="checkbox"/> Plug and Abandon | <input type="checkbox"/> Temporarily Abandon       |  |
|  | <input type="checkbox"/> Convert to Injection | <input type="checkbox"/> Plug Back        | <input type="checkbox"/> Water Disposal            |  |

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

Logos Operating, LLC politely requests a pit closure extension of an additional 30 days to allow for the chloride levels to be reduced by blending clean soil with the pit materials (3:1 ratio). The pit closure extension ends on 7/2/2013 and this request would extend the closure date to 8/2/2013. It is likely that the reduction in chloride levels will be reached before the end of the 30 day extension, and if that is the case, Logos will accelerate the pit closure accordingly.

RCVD JUN 26 '13  
OIL CONS. DIV.  
DIST. 3

Accepted for Record JK 8/1/2013

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)

Kristy Graham

Title Production Engineer

Signature

Date 06/21/2013

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title  
Office

ENVIRONMENTAL  
COMPLIANCE TEAM LEAD

Date

JUN 24 2013

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

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(Instructions on page 2)

NMOCDD

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

RECEIVED

MAY 29 2013

FORM APPROVED  
OMB No. 1004-0137  
Expires: October 31, 2014

5. Lease Serial No. **OIL CONS. DIV DIST. 3**  
NM 109387

6. Indian, Allottee or Tribe Name **OCT 27 2014**

**SUNDRY NOTICES AND REPORTS ON WELLS**  
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.*

SUBMIT IN TRIPLICATE - Other instructions on page 2.

1. Type of Well

Oil Well  Gas Well  Other

7. If Unit of CA/Agreement, Name and/or No.

**RCVD JUN 4 '13**

8. Well Name and No. Logos #3

**OIL CONS. DIV.**

2. Name of Operator  
Logos Operating, LLC

9. API Well No.  
30-043-21135

**DIST. 3**

3a. Address  
4001 North Butler Avenue, Building 7101  
Farmington, NM 87401

3b. Phone No. (include area code)  
505-436-2627

10. Field and Pool or Exploratory Area  
DAKOTA (O) 97997; GALLUP (O) 98013

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
741' FSL, 1263' FEL  
Section 5, T22N, R6W, UL P

11. County or Parish, State  
Sandoval County, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

| TYPE OF SUBMISSION                                   | TYPE OF ACTION                                |   |  |  |
|--|---|---|--|--|
| <input checked="" type="checkbox"/> Notice of Intent | <input type="checkbox"/> Acidize              | <input type="checkbox"/> Deepen           | <input type="checkbox"/> Production (Start/Resume) | <input type="checkbox"/> Water Shut-Off                                |
| <input type="checkbox"/> Subsequent Report           | <input type="checkbox"/> Alter Casing         | <input type="checkbox"/> Fracture Treat   | <input type="checkbox"/> Reclamation               | <input type="checkbox"/> Well Integrity                                |
| <input type="checkbox"/> Final Abandonment Notice    | <input type="checkbox"/> Casing Repair        | <input type="checkbox"/> New Construction | <input type="checkbox"/> Recomplete                | <input checked="" type="checkbox"/> Other <u>pit closure extension</u> |
|  | <input type="checkbox"/> Change Plans         | <input type="checkbox"/> Plug and Abandon | <input type="checkbox"/> Temporarily Abandon       |  |
|  | <input type="checkbox"/> Convert to Injection | <input type="checkbox"/> Plug Back        | <input type="checkbox"/> Water Disposal            |  |

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Logos Operating, LLC politely requests a pit closure extension of 30 days to allow for the remaining liquids in the reserve pit to evaporate. Currently, the remaining fluids in the pit are in the form of a thick mud which would be difficult and expensive to remove from the pit. Logos requests an extension to let the muddy fluid continue to evaporate which will eliminate the need for trucking and filtering of fluids from the reserve pit. Per the APD: the reserve pit must be closed within 90 days of the date of completion (completion date of 3/4/2013) and (pit closure date of 6/2/2013). The pit closure extension will end on 7/2/2013 which Logos expects to be sufficient time to eliminate the need for filtering the water from the mud and hauling the water to disposal.

Logos request for variance of onshore order #7 is based on the following:

- The well was completed in March, 2013 and therefore daily temperatures were not high enough to evaporate all of the fluids from the pit. The 30 day extension will allow the pit to fully evaporate during much higher daily temperatures.
- The evaporation will cut back on the oilfield traffic that would otherwise be needed to filter the water and haul it off to an approved disposal facility.

It is likely that the evaporation will be complete before the end of the 30 day extension, and if that is the case, Logos will accelerate the pit closure accordingly.

**NMOGD Accepted For Record BP**

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)

Kristy Graham

Title: Production Engineer

Signature

Date: 05/29/2013

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

*Mark Kelly*

Title: **ENVIRONMENTAL COMPLIANCE TEAM LEAD**

Date: **MAY 30 2013**

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

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(Instructions on page 2)

**NMOGD**

**Logos Operating, LLC  
San Juan Basin  
Closure Report**

**Lease Name: LOGOS 3  
API NO: 30-043-21135**

In accordance with Rule 19.15.17.12 NMAC the following information describes the closure requirements of temporary pits on Logos Operating, LLC (Logos) locations. This is Logos' standard procedure for all temporary pits. A Separate plan will be submitted for any temporary pit that does not conform to this plan.

All closure activities will include proper documentation and be available for review upon request and will be submitted to OCD within 60 days of the pit closure. Closure report will be filed on C-144 and incorporated the following:

- Detail on Capping and Covering, where applicable **(See report)**
- Plot Plan (Pit diagram) **(Included as an attachment)**
- Inspection reports **(Included as an attachment)**
- Sampling Results **(Included as an attachment)**
- C-105 **(Included as an attachment)**
- Copy of Deed Notice will be filed with County Clerk **(Not required on Federal, State or Tribal land as stated by FAQ dated October 30, 2008)**

**General Plan**

- 1 All free standing liquids will be removed at the start of the pit closure process from the pit and disposed of in a division-approved facility or recycle, reuse or reclaim the liquids in a manner that the appropriate division district office approves.

**All recovered liquids were disposed of at Basin Disposal (Permit #NM-01-005) and any sludge or soil required to be removed to facilitate closure was hauled to Envirotech Land Farm (Permit #NM-01-011) and JFJ Landfarm % IEI (Permit #NM-01-0010B).**

- 2 The preferred method of closure for all temporary pits will be on-site burial, assuming that all criteria listed in sub-section (B) of 19.15.17.13 are met.

**The Pit was closed using onsite burial.**

- 3 The surface owner shall be notified of Logos' proposed closure plan using a means that provides proof of notice i.e., certified mail, return receipt requested.

**The closure process notification to the landowner was sent via certified mail. (See attached). Well located on Tribal Land.**

- 4 Within 6 months of the Rig Off status occurring Logos will ensure that temporary pits are closed, re-contoured, and reseeded.

**The closure plan requirements were not met due to rig move off date as noted on C-105. Pit closure extension to 7/2/13 was requested of the BLM per sundry dated 5/29/13 and approved. Pit closure extension to 8/2/13 was requested of the BLM per sundry dated 6/21/13 and approved. Logos was waiting on the reduction of chloride levels to be reached and in the confusion at the time Logos did not sent a notice of extension to the NMOCD. In the future Logos will comply with NMOCD Ruling 19.15.17.13 (E) (2).**

- 5 Notice of Closure will be given to the Aztec Division office between 72 hours and one week of closure via email, or verbally, The notification of closure will include the following:

- i. Operator's name
- ii. Location by Unit Letter, Section, Township, and Range. Well name and API Number

- 6 Liner of temporary pit shall be removed above "mud level" after stabilization. Removal of liner will consist of manually or mechanically cutting liner at mud level and removing all remaining liner. Care will be taken or remove "All" of the liner i.e., edges of liner entrenched or buried. All excessive liver will be disposed of at a licensed disposal facility.

**Liner of temporary pit was removed above "mud level" after stabilization. Removal of the liner consisted of manually cutting liner at mud level and removing all remaining liner. Care was taken to**

remove "ALL" of the liner i.e., edges of liner entrenched or buried. All excessive liner was disposed of at a licensed disposal facility. (San Juan County Landfill).

- 7 Pit contents shall be mixed with non-waste containing, earthen material in order to achieve the solidification process. The solidification process will be accomplished using a combination of natural drying and mechanically mixing. Pit contents will be mixed with non-waste, earthen material to a consistency that is deemed a safe and stable. The mixing ratio shall not exceed 3 parts clean soil to 1 part pit contents.

**Logos mixed the pit contents with non-waste containing, earthen material in order to achieve the solidification process. The solidification process was accomplished by using a combination of natural drying and mechanically mixing. Pit contents were mixed with non-waste, earthen material to a consistency that is deemed as safe and stable. The mixing ratio consisted of not more than approximately 3 parts clean soil to 1 part pit contents.**

- 8 A five point composite sample will be taken of the pit using sampling tools and all samples rested per Subsection B of 19.15.17.13(B)(1)(b). In the event that the criteria are not met, all contents will be handled per Subparagraph (a) of Paragraph (1) of Subsection B of 19.15.17.13 i.e., Dig and haul

**A five composite sample was taken of the pit using sampling tools and all samples tested per Subsection B of 19.15.17.1 3(B)(1)(b). (Sample results attached).**

| Components | Tests Method                 | Limit (mg/Kg) | Results (ppm) |
|------------|------------------------------|---------------|---------------|
| Benzene    | EPA SW-846 8021B<br>or 8260B | 0.2           | ND            |
| BTEX       | EPA SW-846 8021B<br>or 8260B | 50            | .39           |
| TPH        | EPA SW-846 418.1             | 2500          | 483           |
| GRO/DRO    | EPA SW-846 8015M             | 500           | ND            |
| Chlorides  | EPA 300.1                    | 1000          | 834           |

- 9 Upon completion of solidification and testing, the pit area will be backfilled with compacted, non-waste containing, earthen material. A minimum of four feet of cover shall be achieved and the cover shall include one foot of suitable material to establish vegetation at the site, or the background thickness of topsoil, whichever is greater.

**The pit material passed solidification and testing standards. The pit area was then backfilled with compacted, non-waste containing, earthen material. More than four feet of cover was achieved and the cover included one foot of suitable material to establish vegetation at the site.**

- 10 Re-contouring of location will match fit, shape, line, form and texture of the surrounding area. Re-shaping will include drainage control, prevent ponding, and prevent erosion. Natural drainages will be unimpeded and water bars and/or silt traps will be placed in areas where needed to prevent erosion on a large scale. Final re-contour shall have a uniform appearance with smooth surface, fitting the natural landscape.

**The pit area was re-contoured to match fit, shape, line, form and texture of the surrounding area. Reshaping included drainage control, to prevent ponding and erosion. Natural drainages were unimpeded and water bars and/or silt traps were placed in areas where needed to prevent erosion on a large scale. Final re-contour has a uniform appearance with smooth surface, fitting the natural landscape.**

- 11 Notification will be sent to OCD when the reclaimed area is seeded.

**Provision 11 was accomplished in accordance with NMOCD 19.15.17.13(5)(d) Notification will be sent to the OCD when re-vegetation is established.**

- 12 Logos shall seed the distributed areas the first growing season after the operator closes the pit. Seeding will be accomplished via drilling on the contour whenever practical or by other division-approved methods. BLM or Forest Service stipulated seed mixed will be used on federal lands. Vegetative cover will equal 70% of the native perennial vegetative cover (un-impacted) consisting of at least three native plant species, including at least one grass, but not including noxious weeds, and maintain that cover thorough twp successive growing seasons. Repeat seeding or planting will be continued until successful vegetative growth occurs.

**Provision 12 was accomplished in accordance with NMOCD 19.15.17.13(5)(d) Notification will be sent to the OCD when re-vegetation is established.**

- 13 The temporary pit will be located with a steel marker, no less than four inches in diameter, cemented in a hole three feet deep in the center of the onsite burial upon the abandonment of all the wells on the pad. The marker will be flush with the ground to allow access of the active well pad and for safety concerns. The marker will include a threaded collar to be used for future abandonment. The top of the marker will contain a welded steel 12" square plate that indicates the onsite burial of the temporary pit. The plate will be easily removable and a four foot tall riser will be threaded into the top of the collar marker and welded around the base with the operator's information at the time of all wells on the pad are abandoned. The operator's information will include the following: Operator Name, Lease Name, Well Name and number, Unit Number, Section, Township, Range and an indicator that the marker is an onsite burial location.

**Provision 13 was accomplished by installing a steel marker in the temporary pit, no less than four inches in diameter, cemented in a hole three feet deep in the center of the onsite burial. The marker is flush with the ground to allow access of the active well pad and for safety concerns. The top of the marker contains a welded steel 12" square plate that indicates the onsite burial of the temporary pit. The plate contains the following: Operator's name, Lease Name and Well Number, Unit Letter, Section, Township, Range and an indicator that the marker is an onsite burial location.**

**The plate will be easily removable and a four foot tall riser will be threaded into the top of the collar marker and welded around the base with the following operator's information at the time of all wells on the pad are abandoned. The riser will also indicate that the marker is for an onsite burial location.**

**Operator Name: LOGO  
Lease Name & Well Number: LOGOS 3  
Unit Letter: p  
Section: 5  
Township: T22N  
Range: R06W  
API #: 30-043-21135  
OBL**

- 14 Logos inspected the temporary pit but no physical logs were kept. Logos directed their people to inspect, but no logs were filled out. Logos monitored and closed the pit in coordination and under the supervision of the BLM. The sampling results of the pit contents were within the required thresholds. In the future Logos will maintain logs in accordance with OCD ruling 19.15.17.12(B)(3).