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<u>District 1</u> 1625 N. French Dr., Hobbs, NM 88240 <u>District 11</u> 811 S. First St., Artesia, NM 88210 <u>District 111</u> 1000 Rio Brazos Road, Aztec, NM 87410 <u>District IV</u> 1220 S. St. Francis Dr., Santa Fe, NM 87505	State of New Mexico Energy Minerals and Natural Resources Department Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505	Form C-144 Revised August 1, 2011 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.
Pit Cl	osed-Loon System Below-Grade 7	RCVD DCT 1'14
12247 Proposed Alter	mative Method Permit or Closure I	Plan Application
Type of action: Permit 45 - 35422 Closure 1000000000000000000000000000000000000	of a pit, closed-loop system, below-grade tank, o of a pit, closed-loop system, below-grade tank, o cation to an existing permit plan only submitted for an existing permitted or od alternative method	or proposed alternative method or proposed alternative method r non-permitted pit, closed-loop system,
Instructions: Please submit one applicati	ion (Form C-144) per individual pit, closed-loop syst	em, below-grade tank or alternative request
Please be advised that approval of this request does not environment. Nor does approval relieve the operator of	relieve the operator of liability should operations result i	in pollution of surface water, ground water or the
	r its responsibility to comply with any other applicable ge	Sverimental autority's rules, regulations or ordinances
Operator: Logos Operating, LLC	OGRID #:	289408
Address: 4001 North Butler Avenue, Building 710	1 Farmington, NM 87401	
Facility or well name: LOGOS 6		
API Number: 30-045-35422	OCD Permit Number: 11372	
U/L or Otr/Otr G Section 8	Township 23N Bange 8W (County: SAN IIIAN
Center of Proposed Design: Latitude 36 24430 °N		$NAD: \Box 1027 \Box 1022$
Surface Owner: X Federal C State C Private	Tribal Trust or Indian Allatmont	W NAD. [] 1927 [] 1983
2. \mathbf{N} D ⁱ \mathbf{A} . Subsection F on C of 10.15.17.11 NMAA	2	
E PIE: Subsection F of G of 19.15.17.11 NMAC	~	
Temporary: X Drilling Vorkover		
Permanent Emergency Cavitation P	&A	
Lined Unlined Liner type: Thickness	20 mil 🛛 LLDPE 🗌 HDPE 🗋 PVC 🔲	Other
String-Reinforced		
Liner Seams: 🛛 Welded 🏹 Factory 🔲 Other _	Volume:8,000bb	Dimensions: L_130_x W_60_x D_10_
3.		
<u>Closed-loop System</u> : Subsection H of 19.15.	17.11 NMAC	
Type of Operation: P&A Drilling a new we	ell 🔲 Workover or Drilling (Applies to activities whi	ich require prior approval of a permit or notice of
intent)		·
Drying Pad Above Ground Steel Tanks	Haul-off Bins U 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 flu	ıid:	·
Tank Construction material:		
Secondary containment with leak detection	Visible sidewalls, liner, 6-inch lift and automatic ov	erflow shut-off
□ Visible sidewalls and liner □ Visible sidewa	Ils only 🔲 Other	
Liner type: Thicknessmil	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.

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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__

Netting: Subsection E of 19.15.17.1	NMAC (Applies to permanent	pits and permanent open top tanks)
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Screen Netting Other_

Monthly inspections (If netting or screening is not physically feasible)

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

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

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 accel material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appro office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of a Applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. Siting criteria does not apply to dry above-grade tanks associated with a closed-loop system.	ptable source opriate district upproval. ving pads or
 Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank. NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells 	🗌 Yes 🗌 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). Topographic map; Visual inspection (certification) of the proposed site 	Yes 🗌 No
 Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. (Applies to temporary, emergency, or cavitation pits and below-grade tanks) Visual inspection (certification) of the proposed site; Aerial photo; Satellite image 	☐ Yes ☐ No ☐ NA
 Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. (Applies to permanent pits) Visual inspection (certification) of the proposed site; Aerial photo; Satellite image 	☐ Yes ☐ No ☐ 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. NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site 	Yes 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. Written confirmation or verification from the municipality; Written approval obtained from the municipality 	🗋 Yes 🗌 No
 Within 500 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site 	🗌 Yes 🗌 No
 Within the area overlying a subsurface mine. Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division 	🗌 Yes 🗌 No
 Within an unstable area. Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map 	Yes 🗌 No
Within a 100-year floodplain.	Yes No

- FEMA map

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 19.15.17.12 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
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.
13. <u>Permanent Pits Permit Application Checklist</u> : 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 Leak Detection 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 19.15.17.11 NMAC Nuisance or Hazardous Odors, including H₂S, Prevention Plan Emergency Response Plan Oil Field Waste Stream Characterization Monitoring and Inspection Plan Erosion Control Plan Closure Plan - based upon the appropriate requirements of 19.15.17.9 NMAC and 19.15.17.13 NMAC
14. <u>Proposed Closure</u> : 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

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^{16.} <u>Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only</u> : (19.15.17.13. Instructions: Please indentify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment if facilities are required.	D NMAC) <i>more than two</i>
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 <i>will not</i> be used for future set \Box Yes (If yes, please provide the information below) \Box No	vice and operations?
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	C
^{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 sou provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate dis considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Just demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for guidance.	rce material are trict office or may be ifications and/or
Ground water is less than 50 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	□ Yes □ No □ NA
 Ground water is between 50 and 100 feet below the bottom of the buried waste NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells 	☐ Yes ☐ No ☐ NA
 Ground water is more than 100 feet below the bottom of the buried waste. NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells 	□ Yes □ No □ 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). Topographic map; Visual inspection (certification) of the proposed site 	🗌 Yes 🗌 No
 Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. Visual inspection (certification) of the proposed site; Aerial photo; Satellite image 	🗋 Yes 🗌 No
Within 500 horizontal feet of a 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. - NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site	🗋 Yes 🗌 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. Written confirmation or verification from the municipality; Written approval obtained from the municipality 	🗌 Yes 🗌 No
 Within 500 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site 	🗌 Yes 🗌 No
 Within the area overlying a subsurface mine. Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division 	🗌 Yes 🗌 No
 Within an unstable area. Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map 	Yes No
Within a 100-year floodplain. - FEMA map	🗌 Yes 🗌 No
 18. On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure plot of 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 19.15.17.13 NMAC Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - 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 Confirmation 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 canned) 	an. Please indicate, 15.17.11 NMAC ot 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

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 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 fosure plan) OCD Representative Signature: OCD Representative Signature: Image: Complete
21. <u>Closure Report (required within 60 days of closure completion)</u> : 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. X Closure Completion Date: 8/14/13
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Closure Method: Waste Excavation and Removal Ø On-Site Closure Method ☐ Alternative Closure Method ☐ Waste Removal (Closed-loop systems only) If different from approved plan, please explain.
^{23.} <u>Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:</u> 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 <i>will not</i> be used for future service and operations? Yes (If yes, please demonstrate compliance to the items below) No
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
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
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 Closure Notice (required for on-site closure) Plot Plan (for on-site closures and temporary pits) Confirmation Sampling Analytical Results (frequired 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 _36.24430°N Longitude _107.70231°W NAD: [1927 [1927] 1983
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: No 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 (required for on-site closure) Disposal Facility Name and Permit Number Soil Backfilling and Cover Installation R e-vegetation Application Rates and Seeding Technique Site Reclamation (Photo Documentation) Operator Closure Certification:
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) Beta 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 Closure Notice (surface owner and division) Proof of Closure Notice (surface owner and division) Proof of Deed Notice (required for on-site closure) Object of a facility Name and Permit Number Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technique Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technique Soil Backfilling and Cover Installation Re-vegetation (Photo Documentation) On-site Closure Location: Latitude _36:24430°N Longitude _107.70231°W NAD: □1927 ⊠ 1983 25. Operator Closure Certification: Ihereby certify that the information and attachments submitted with this closure report is tr
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 (required for on-site closure) Disposal Facility Name and Permit Number Soil Backfilling and Cover Installation Soil Backfilling and Cover Installation Re-vegetation Application: Latitude _36.24430°N Longitude _107.70231°W NAD: _1927 ⊠ 1983 25. Operator Closure Certification: Interfactore: 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. 1 also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan. Name (Print):Tamra Sessions
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: No 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. Meric of Closure Notice (surface owner and division) Proof of Deed Notice (required for on-site closure) Disposal Facility Name and Permit Number Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technique Waste Material Sampling Analytical Results (frequired for on-site closure) Disposal Facility Name and Permit Number Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technique Stie Reclamation (Photo Documentation) On-site Closure Location: Latitude _36.24430°N

Logos Operating, LLC San Juan Basin Closure Report

Lease Name: LOGOS 6 API NO: 30-045-35422

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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 email 72 hours prior to closure operations. Notification is included with the 72 hour notice to OCD. (Well located on Federal Land, certified mail is not required for Federal Land per BLM/OCD).

*Variance Explanation: Rule 19.15.17.13 E. If the surface owner is a public entity (BLM/State/Tribal) then an email notification will be sent, of plans to close the temporary pit at least 72 hours, but no more than 1 week, prior to any closure operation. The notice will include the well name, API number, and location.

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

The closure plan requirements were met due to rig move off date as noted on C-105. Pit closure extension to 9/1/13 was requested of the BLM per sundry dated 7/29/13 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

Notification is attached.

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.

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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 or 8260B	0.2	.06
BTEX	EPA SW-846 8021B or 8260B	50	11.7
TPH	EPA SW-846 418.1	2500	120
GRO/DRO	EPA SW-846 8015M	500	37.7
Chlorides	EPA 300.1	1000	146

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 6 Unit Letter: G Section: 8 Township: T23N Range: R08W API #: 30-045-35422 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. In the future Logos will maintain logs in accordance with OCD ruling 19.15.17.12(B)(3).

DISTRICT 1 1685 N. French Dr. Phone: (675) 998-4	, Robbs, N.M. 5161 Pazz (61	66840 76) 995-0720	State of New Mexico For Energy, Minerals & Natural Resources Department Revised Augu							Form C-102 August 1, 2011	
DISTRICT_II All B. Fret Bt. Ar Phone: (670) 748-1 DISTRICT_III 1000 Elo Brasma Ex Phone: (508) 334-0 DISTRICT_IV	taxia, N.H. 88 1883: Pax: (5) 1., Arteo, N.H. 5178: Pax: (5)	810 76)748-9780 87410 26)334-6170	OIL CONSERVATION DIVISION 1220 South St. Francis Dr.				Su	bmit one	сору	to appropriate District Office	
1820 8. 81. Francis Phone: (808) 476-:	Dr., Santa F 3460 Fax: (5	n, NH 07506 36) 476-3468			ounte r	•••				AMEN	NDED REPORT
			WELL	LOCATI	ON ANI) A(CREAGE DEI	DICATION	PLAT		
'API	Number			*Pool Code				*Pool Net	ne		
							BASI	N DAKOTA-NA	GEEZI GA	LLUP	
⁴ Property C	ode				*Pro	perty	Name			•	Well Number
					LO	GOS					6
OGRID No	».				⁸ Ope	rator	Name				* Elevation
				LC	GOS OP	ERA	TING, LLC				6893'
					¹⁰ Surf	ace	Location				
VL or lot no.	Section	Township	Range	lot Idn	Feet from	the	North/South line	Feet from the	Rast/We	st line	County
G	8	23N	₩8		1662		NORTH	1973'	EA	ST	SAN JUAN
			¹¹ Bott	om Hole	Locati	on I	f Different Fr	om Surface			
UL or lot no.	Section	Township	Range	Lot Idn	Feet from	the	North/South line	Feet from the	Past/Ve	et line	County
Dedicated Acre E/2 SEC. E	• • 3 - 320	.0 Acres	¹⁹ Joint or	[] Infill	¹⁴ Consolide	ation C	L Code	¹⁸ Order No.			





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Table 1, Summary of Analytical Results Logos Operating, LLC Logos #6 Site Assessment Report San Juan County, New Mexico Project Number 12035-0019

Sample Description	Sample Number	Date	TPH 418.1 (ppm)	TPH USEPA Method 8015 (ppm)	Benzene USEPA Method 8021 (ppm)	BTEX USEPA Method 8021 (ppm)	Chlorides USEPA Method 4500 (ppm)	Field Chloride Strip (ppm)
NMOCD/RCRA Standards	⁻ NA	NA	2500	500	0.2	50	1000	1000
Drill Pit Composite	1	6/10/2013	4030	37.7	0.26	11.6	2180	NS
Drill Pit Composite	1	8/5/2013	5550	NS	0.06	11.7	1220	NS
Drill Pit Composite	1	8/14/2013	120	NS	NS	NS	146	175

NS = Not Sampled

- 2

ND = Non-Detect at Stated Method's Detection Limit

* Values in **BOLD** above regulatory standards



Analytical Report

Report Summary

Client: Logos Operating, LLC Chain Of Custody Number: 15530 Samples Received: 6/11/2013 1:40:00PM Job Number: 12035-0019 Work Order: P306049 Project Name/Location: Logos #6 Drill Pit Sampling

Entire Report Reviewed By:

Tim Cain, Laboratory Manager

6/19/13

Date:

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.

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Logos Operating, LLC	Project Name:	Logos #6 Drill Pit Sampling	4
PO Box 18	Project Number:	12035-0019	Reported:
Flora Vista NM, 87415	Project Manager:	Tiffany McIntosh	19-Jun-13 10:21

Analyical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Drill Pit Composite	P306049-01A	Sludge	06/10/13	06/11/13	Glass Jar, 4 oz.

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Logos Operating, LLC PO Box 18 Flora Vista NM, 87415	Projec Projec Projec	ct Name: ct Number: ct Manager:	Logo 1203 Tiffar	s #6 Drill Pit 5-0019 1y McIntosh	t Sampling			Reported 19-Jun-13 1	d: 0:21
		Drill P	it Comp	osite					
		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	0.26	0.05	mg/kg	1	1324037	14-Jun-13	19-Jun-13	EPA 8021B	
Toluene	2.32	0.05	mg/kg	1	1324037	14-Jun-13	19-Jun-13	EPA 8021B	
Ethylbenzene	0.97	0.05	mg/kg	1	1324037	14-Jun-13	19-Jun-13	EPA 8021B	
p,m-Xylene	6.32	0.05	mg/kg	1	1324037	14-Jun-13	19-Jun-13	EPA 8021B	
o-Xylene	1.73	0.05	mg/kg	1	1324037	14-Jun-13	19-Jun-13	EPA 8021B	
Total Xylenes	8.06	0.05	mg/kg	1	1324037	14-Jun-13	19-Jun-13	EPA 8021B	
Total BTEX	11.6	0.05	mg/kg	1	1324037	14-Jun-13	19-Jun-13	EPA 8021B	
Surrogate: Bromochlorobenzene		112 %	80	120	1324037	14-Jun-13	19-Jun-13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		91.5 %	80	120	1324037	14-Jun-13	19-Jun-13	EPA 8021B	
Surrogate: Fluorobenzene		95.9 %	80	120	1324037	14-Jun-13	19-Jun-13	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	5.83	4.99	mg/kg	1	1324031	14-Jun-13	18-Jun-13	EPA 8015D	
Diesel Range Organics (C10-C28)	31.8	4.99	mg/kg	1	1324031	14-Jun-13	18-Jun-13	EPA 8015D	
GRO and DRO Combined Fractions	37.7	4.99	mg/kg	1	1324031	14-Jun-13	18-Jun-13	EPA 8015D	
Total Petroleum Hydrocarbons by 418.1									
Total Petroleum Hydrocarbons	4030	40.0	mg/kg	2	1324038	14-Jun-13	14-Jun-13	EPA 418.1	
Cation/Anion Analysis									
Chloride	2180	9.99	mg/kg	1	1324026	12-Jun-13	12-Jun-13	EPA 300.0	

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Logos Operating, LLC	Project Name:	Logos #6 Drill Pit Sampling	
PO Box 18	Project Number:	12035-0019	Reported:
Flora Vista NM, 87415	Project Manager:	Tiffany McIntosh	19-Jun-13 10:21

Volatile Organics by EPA 8021 - Quality Control

Envirotech Analytical Laboratory

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1324037 - Purge and Trap EPA 5030A										
Blank (1324037-BLK1)				Prepared: 1	4-Jun-13 A	Analyzed: 1	18-Jun-13			
Benzene	ND	0.05	mg/kg							
Toluene	ND	0.05	۳							
Ethylbenzene	ND	0.05								
p,m-Xylene	ND	0.05	"							
o-Xylene	ND	0.05	"							
Total Xylenes	ND	0.05	11							
Total BTEX	ND	0.05	u							
Surrogate: Bromochlorobenzene	47.1		ug/L	50.0		94.2	80-120			
Surrogate: 1,4-Difluorobenzene	50.2		"	50.Q		100	80-120			
Surrogate: Fluorobenzene	49.3		"	50.0		98.5	80-120			
Duplicate (1324037-DUP1)	So	urce: P306042-	01	Prepared: 1	4-Jun-13 A	Analyzed: 1	8-Jun-13			
Benzene	ND	0.05	mg/kg		ND				30	
Toluene	ND	0.05	Ħ		ND				30	
Ethylbenzene	ND	0.05	P		ND				30	
p.m-Xylene	ND	0.05	*		ND				30	
o-Xylene	ND	0.05	ų		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: Fluorohenzene	49.2		"	50.0		98.4	80-120			
Matrix Spike (1324037-MS1)	So	urce: P306042-	01	Prepared: 1	4-Jun-13 A	nalyzed: 1	8-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	Project Name:	Logos #6 Drill Pit Sampling	
PO Box 18	Project Number:	12035-0019	Reported:
Flora Vista NM, 87415	Project Manager:	Tiffany McIntosh	19-Jun-13 10:21

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1324031 - GRO/DRO Extraction	on EPA 3550C									
Blank (1324031-BLK1)				Prepared &	Analyzed	13-Jun-13				
Gasoline Range Organics (C6-C10)	ND	5.00	mg/kg							
Diesel Range Organics (C10-C28)	ND	5.00	н							
GRO and DRO Combined Fractions	ND	5.00	W							
Duplicate (1324031-DUP1)	Sour	ce: P306061-	01	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	
Matrix Spike (1324031-MS1)	Sour	ce: P306061-	01	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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Logos Operating, LLC	Pro	ject Name:	L	ogos #6 Drill	Pit Sampli	ng				
PO Box 18	Pro	ject Number:	1	2035-0019			Reported:			
Flora Vista NM, 87415	Project Manager: Tiffany McIntosh								19-Jun-13	3 10:21
	Total Petrole	um Hydro	carbons	by 418.1 -	Quality	Control				
	Er	virotech .	Anałyti	cal Labor	atory					
		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1324038 - 418 Freon Extraction										
Blank (1324038-BLK1)				Prepared & Analyzed: 14-Jun-13						
Total Petroleum Hydrocarbons	ND	19.9	mg/kg							
Duplicate (1324038-DUP1)	Sou	rce: P306040-	-01	Prepared &	Analyzed:	14-Jun-13				
Total Petroleum Hydrocarbons	17000	160	mg/kg		17100			0.543	30	
Matrix Spike (1324038-MS1)	Sou	rce: 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	Pro	ject Name:	L	ogos #6 Drill	Pit Samplin					
PO Box 18	Pro	ject Number:	1	2035-0019			Reported:			
Flora Vista NM, 87415	Pro	ject Manager:	Т	iffany McInto	osh	19-Jun-13 10:21				
	Cat	ion/Anion A	Analysis	- Quality	Control					
	Eı	nvirotech /	Analyti	cal Labor	atory					
		Reporting Spike Source %REC						RPD		
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	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)	Sou	rce: P306047-	01	Prepared &	Analyzed:	12-Jun-13				
Chloride	1280	9.99	mg/kg		1540			18.7	30	

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Logos Operating, LLC	Project Name:	Logos #6 Drill Pit Sampling	
PO Box 18	Project Number:	12035-0019	Reported:
Flora Vista NM, 87415	Project Manager:	Tiffany McIntosh	19-Jun-13 10:21

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

	CH		F CUS	ГО	D	Y	R	E	C	DF	RC) *			1	55	30			of 9
Client: Logos Operation	a Lo	ject Name / Locati 9 05 #6 Dr	on: ill Pit San	poli	na	<u> </u>	-				A	NALY	/SIS	/ Paf	RAME	ETER	S			Page 9
Email results to: T, MC Intosh		mpler Name: T. McI	intosh	1	5	<u></u>	8015)	8021)	8260)					+						
Client Phone No.:	Clie	ent No.: 12035 -	0019				Aethod 8	(Method	Method	8 Metal:	/ Anion		with H/P	ble 910-	418.1)	RIDE			e Cool	e Intact
Sample No./ Identification Sample Date	Sample Time	Lab No.	No./Volume of Containers	Рл нно _з	eserva HCI	tive Cool	TPH (BTEX	VOC (I	RCRA	Cation	RCI	TCLP	со та	трн (⁄	CHLO			Sampl	Sampl
Drill Pit Composite G/10/13	1603	P306049-01	1-4 oz jar	<u> </u>		X	X	\times							Х	imes			V	
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Relinquished by: (Signature)	6		Date Time 6/11/13 (340	Recei	ved t	oy: (S	ignat	ure)		/ 	Ī	3		>				Date	ז וּ ג'צ	me ? 40
Relin q uished by (Signature)				Recei	ved b	oy:(s	ignat	ure					(J	۰.					
Sample Matrix Soil 🗋 Solid 🔲 Sludge 🗹 Aqueous 🗋	Other 🗌																			
Sample(s) dropped off after hours to secu	ure drop of	farea.	env	ir c)†	ec	c h) y												

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Analytical Report

Report Summary

Client: Logos Operating, LLC Chain Of Custody Number: 15926 Samples Received: 8/5/2013 3:30:00PM Job Number: 12035-0019 Work Order: P308015 Project Name/Location: Conf. Sampling- Logos #6 Pit Closure

Entire Report Reviewed By:

Tim Cain, Laboratory Manager

8/12/13

Date:

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.

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Logos Operating, LLC	Project Name:	Conf. Sampling- Logos #6 Pit Closure	
PO Box 18	Project Number:	12035-0019	Reported:
Flora Vista NM, 87415	Project Manager:	Tiffany McIntosh	12-Aug-13 12:02

Analyical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
6	P308015-01A	Sludge	08/05/13	08/05/13	Glass Jar, 4 oz.

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Logos Operating, LLC PO Box 18 Flora Vista NM, 87415	Projec Projec Projec	et Name: et Number: et Manager:	Conf. 12035 Tiffar	Sampling- 1 5-0019 1y McIntosh	Logos #6 Pi	it Closure	.,	Reported 12-Aug-13	J: 12:02
		P3080	6 15-01 (So	lia)					
		Reporting	13-01 (30	<u></u>					
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	0.06	0.05	mg/kg	1	1332006	06-Aug-13	08-Aug-13	EPA 8021B	
Toluene	1.06	0.05	mg/kg	J	1332006	06-Aug-13	08-Aug-13	EPA 8021B	
Ethylbenzene	1.10	0.05	mg/kg	1	1332006	06-Aug-13	08-Aug-13	EPA 8021B	
p,m-Xylene	7.40	0.05	mg/kg	1	1332006	06-Aug-13	08-Aug-13	EPA 8021B	
o-Xylene	2.12	0.05	mg/kg	1	1332006	06-Aug-13	08-Aug-13	EPA 8021B	
Total Xylenes	9.52	0.05	mg/kg	1	1332006	06-Aug-13	08-Aug-13	EPA 8021B	
Total BTEX	11.7	0.05	mg/kg	1	1332006	06-Aug-13	08-Aug-13	EPA 8021B	
Surrogate: Bromochlorobenzene		105 %	80-1	120	1332006	06-Aug-13	08-Aug-13	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		101 %	80-,	120	1332006	06-Aug-13	08-Aug-13	EPA 8021B	
Surrogate: Fluorobenzene	<u> </u>	103 %	80-1	120	1332006	06-Aug-13	08-Aug-13	EPA 8021B	
Total Petroleum Hydrocarbons by 418.1									
Total Petroleum Hydrocarbons	5550	200	mg/kg	10	1332010	06-Aug-13	06-Aug-13	EPA 418.1	
Cation/Anion Analysis	<u></u>				•				
Chloride	1220	9.99	mg/kg	1	1332008	06-Aug-13	06-Aug-13	EPA 300.0	

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Logos Operating, LLC	Project Name:	Conf. Sampling- Logos #6 Pit Closure	
PO Box 18	Project Number:	12035-0019	Reported:
Flora Vista NM, 87415	Project Manager:	Tiffany McIntosh	12-Aug-13 12:02

Volatile Organics by EPA 8021 - Quality Control

Envirotech Analytical Laboratory

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1332006 - Purge and Trap EPA 5030A								-		
Blank (1332006-BLK1)				Prepared: (06-Aug-13	Analyzed:	08-Aug-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	0							
Total BTEX	ND	0.05								
Surrogate: Bromochlorobenzene	41.0		ng/L	50.0		82.1	80-120			
Surrogate: 1,4-Difluorobenzene	.50.2		"	50.0		100	80-120			
Surrogate: Fluorobenzene	49.3		n	50.0		98.6	80-120			
Duplicate (1332006-DUP1)	Sou	irce: P308013-	01	Prepared: ()6-Aug-13	Analyzed:	08-Aug-13			
Benzene	ND	0.05	mg/kg		ND				30	
Toluene	0.07	0.05	11		0.07			9.08	30	
Ethylbenzene	ND	0.05	"		ND				30	
p.m-Xylene	0.12	0.05	'n		0.10			15.3	30	
o-Xylene	0.05	0.05	U.		0.05			6.20	30	
Surrogate: Bromochlorobenzene	46.6		ug/L	50.0		93.1	80-120			
Surrogate: 1,4-Difluorohenzene	52.2		"	50.0		104	80-120			
Surrogate: Fluorobenzenc	53.3		**	50.0		107	80-120			
Matrix Spike (1332006-MS1)	Sou	rce: P308013-	01	Prepared: 0	6-Aug-13	Analyzed:	08-Aug-13			
Benzene	48.8		ug/L	50.0	0.73	96.1	39-150		· · ·	
Toluene	49.4		"	50.0	1.37	96.0	46-148			
Ethylbenzene	48.9		"	50.0	0.63	96.6	32-160			
p.m-Xylene	98.6			100	2.02	96.6	46-148			
o-Xylene	47.8			50.0	1.03	93.5	46-148			
Surrogate: Bromochlorobenzene	47.0		"	50.0		94.1	80-120			,
Surrogate: 1,4-Difluorohenzene	52.9		"	50.0		106	80-120			
Surrogate: Fluorobenzene	53.1		"	50.0		106	80-120			

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Page 4 of 8



Logos Operating, LLC	Project Name:	Conf. Sampling- Logos #6 Pit Closure			
PO Box 18	Project Number:	12035-0019	Reported:		
Flora Vista NM, 87415	Project Manager:	Tiffany McIntosh	12-Aug-13 12:02		

Total Petroleum Hydrocarbons by 418.1 - Quality Control

Envirotech Analytical Laboratory

Analista	Pogult	Reporting	Elmito	Spike	Source	%DEC	%REC	PPD	RPD Limit	Notas
Analyte	Kesun	Linn	Units	Level	Resurt	70KLC	Linius	KrD	Linin	INDICS
Batch 1332010 - 418 Freen Extraction										
Blank (1332010-BLK1)				Prepared &	Analyzed:	06-Aug-13		_		
Total Petroleum Hydrocarbons	ND	20.0	mg/kg							
Duplicate (1332010-DUP1)	Sour	ce: P308013-	01	Prepared &	Analyzed:	06-Aug-13				
Total Petroleum Hydrocarbons	152	20.0	mg/kg		156			2.43	30	
Matrix Spike (1332010-M\$1)	Sour	ce: P308013-	01	Prepared &	Analyzed:	06-Aug-13				
Total Petroleum Hydrocarbons	1900	19.9	mg/kg	1990	156	87.6	80-120			

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Page 5 of 8



Logos Operating, LLC	Pro	ject Name:	C	Conf. Samplin	g- Logos #6	6 Pit Closure	е			
PO Box 18	Pro	ject Number:	1	2035-0019					Repor	ed:
Flora Vista NM, 87415	Pro	ject Manager:	Т	iffany McInte	osh				12-Aug-1	3 12:02
	Cat	ion/Anion /	Analysis	s - Quality	Control					
	E	nvirotech .	Analyti	ical Laboi	ratory					
		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1332008 - Anion Extraction EPA 300.0										
Blank (1332008-BLK1)				Prepared &	Analyzed:	06-Aug-13				
Chloride	ND	9.99	mg/kg							
Duplicate (1332008-DUP1)	Sou	rce: P308013-	-01	Prepared &	Analyzed:	06-Aug-13				
Chloride	128	0.00	ma/ka		120			6.02	30	

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Three Springs - 65 Mercado Street, Suite 115, Durango, CO 81301	Ph (970) 259-0615	Fr (800) 362-1879	leboretory, denviroled)-line.com

Page 6 of 8



Logos Operating, LLC	Project Name:	Conf. Sampling- Logos #6 Pit Closure				
PO Box 18	Project Number:	12035-0019	Reported:			
Flora Vista NM, 87415	Project Manager:	Tiffany McIntosh	12-Aug-13 12:02			

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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Three Springs - 65 Mercado Street, Suite 115, Durango, CO 81301	Ph (970) 259-0615	Fr (800) 362-1879	kborelog/201101040-104.0010

Page 7 of 8

		Cŀ	ain oi	FC	US	TQ	D	Y	R	E(C()F	?D)			1	59	26				of 8
Client: Logo Operating	lient: Logo Ogerating				Project Name / Location: Lages # Eart. Sampling - Pit Closure 6								AI	VALY	′SIS ,	/ PAF	RAME	TER	8				Page 8
Email results to: <u>T. Horny</u> / <u>asa</u>	ec	Sa	Impler Namé: <u> </u>						8015)	d 8021)	8260)	ls			0	.							Ц
Client Phone No.:		Cli	ient No.: /2035-0	0019	L				Method	(Metho	Method	B Meta	Anion /		with H/F	ible 910	418.1)	RIDE					
Sample No./ Identification	Sample Date	Sample Time	Lab No.	No./ of Co	Volume Intainers	Pr HNO3	HC1	tive cccl	ТРН (втех	voc (RCRA	Catior	RCI	TCLP	со та	трн (СНГО					111100
66	815	7-30	P308015-01	1-4	loc			X		X							X	χ				1	1
•						-																_	
					<i></i>																		_
						-																	
Relinquished by: (Signature)				Date	Time	Rece	ived	by: (S	lignat	ure)										 P	ate	Time	e e
Relinquished by: (Signature)	Li			8/5	3:30	Rece	ived	by: (9	lignat				6	ze j	Ľ	-				<u>r/s</u>		15	:70 (E
Sample Matrix								<u> </u>	6				n										
Soil Solid Sludge X	Aqueous [U Other	off area.	3		/ Å / (ilytic	0 1 al La) 9 abor	C ator	า y													
5795 US Highway 6	64 • Farming	ton, NM 874	01 • 505-632-0615 •	Three Spi	rings • 65	Merca	do St	reet, S	suite 1	115, C)uran	go, C	O 81:	301 •	labo	orator	y@en	virote	ch-ind	c.com			

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EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	Logos Operating, LLC	Project #:	12035-0019
Sample No.:	1	Date Reported:	11/4/2013
Sample ID:	Drill Pit Composite	Date Sampled:	8/14/2013
Sample Matrix:	Soil	Date Analyzed:	8/14/2013
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

		Det.
	Concentration	Limit
Parameter	(mg/kg)	(mg/kg)
		· · · · ·

Total Petroleum Hydrocarbons1205.0

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: Logos #6

Instrument calibrated to 200 ppm standard and zeroed before each sample.

Midnitch

Tiffany McIntosh Printed

on Review

Toni McKnight, EIT Printed

Ph (505) 632-0615 Fx (505) 632-1865 Ph (970) 259-0615 Fr (800) 362-1879



Cal. Date:	14-Aug-13		
Parameter	Standard Concentration mg/L	Concentration Reading mg/L	
ТРН	100 200 500 1000	199	

The accepted percent relative deviation (%RSD) of the calibration factor is less than 20% over the working range.

Tiffany McIntosh Print Name

Review

11/4/2013 Date

11/4/2013

Date

Toni McKnight, EIT Print Name

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 Fr (800) 362-1879

anoni=dontation anoni=dontation@ahai

N



Analytical Report

Report Summary

Client: Logos Operating, LLC Chain Of Custody Number: 15974 Samples Received: 8/14/2013 4:35:00PM Job Number: 12035-0019 Work Order: P308039 Project Name/Location: Logos #6 Drill Pit Sampling

Date: 8/15/13

Entire Report Reviewed By:

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	Project Name:	Logos #6 Drill Pit Sampling	
PO Box 18	Project Number:	12035-0019	Reported:
Flora Vista NM, 87415	Project Manager:	Tiffany McIntosh	15-Aug-13 13:54

Analyical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Drill Pit Compsoite	P308039-01A	Soil	08/14/13	08/14/13	Plastic Baggie

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Logos Operating, LLC PO Box 18 Flora Vista NM, 87415	Project Project Project	Name: Number: Manager:	Logo 12035 Tíffar	s #6 Drill Pit 5-0019 ny McIntosh	Sampling			Reporte 15-Aug-13	d: 13:54
		Drill P P3080	it Comps 39-01 (So	soite lid)					
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<u>Cation/Anion Analysis</u> Chloride	146	10.0	mg/kg	1	1333022	15-Aug-13	15-Aug-13	EPA 300.0	

S796 US Highway 64, Farmington, NM 87401	Ph (505) 632-0615	Fx (505) 632-1865	annposaryara
Three Springs - 65 Mercado Street, Suite 115, Durango, CO 81301	Ph (970) 259-0615	Fr (800) 362-1879	lebonloy/2011019ch-lac.com



Logos Operating, LLC PO Box 18 Flora Vista NM, 87415	Proj Proj Proj	ect Name: ect Number: ect Manager:	L 1 T	ogos #6 Drill 2035-0019 Tiffany McInte	Pit Sampli osh	ng			Report 15-Aug-1	ted: 3 13:54			
	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 1333022 - Anion Extraction EPA 300	0.0												
Blank (1333022-BLK1)				Prepared &	Analyzed:	15-Aug-13							
Chloride	ND	9.99	mg/kg										
Duplicate (1333022-DUP1)	Sour	ce: P308039-	01	Prepared &	: Analyzed:	15-Aug-13							
Chloride	190	9.99	mg/kg		146			26.0	30				

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Three Springs - 65 Mercado Street, Suite 115, Durango, CO 81301	Ph (970) 259-0615	Fr (800) 362-1879	hbortory,cenviroted-fuc.com



Logos (PO Box Flora V	Operating, LLC 18 ista NM, 87415	Project Name: Project Number: Project Manager:	Logos #6 Drill Pit Sampling 12035-0019 Tiffany McIntosh	Reported: 15-Aug-13 13:54							
	Notes and Definitions										
DET	Analyte DETECTED										
ND	Analyte NOT DETECTED at or above the repo	rting limit									
NR	Not Reported										

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dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

Γ

5796 US Highway 64, Farmington, NM 87401	Ph (505) 632-0615	Fx (505) 632-1865	envirotedi-hiscom
Three Springs - 65 Mercado Street, Suite 115, Durango, CO 81301	Ph (970) 259-0615	Fr (800) 362-1879	leboretery@enviretedb-lac.com

CHAIN OF CUSTODY RECORD

15974

Client: Logos Operat	ect Name / Location	n: 1 Pit	Pit Sampling ANALYSIS/PARAMETERS																				
Email results to: T. McIntos	sh		San	npler Name: T. McIn	tosh					8015)	1 8021)	8260)	S				.						
Client Phone No.:			Clie	nt No.: 12035 - 0	019	<u></u>				Method ((Method	(Method	Netal	ı / Anion		with H/F	tble 910-	418.1)	RIDE			le Cool	le Intact
Sample No./ Identification	Sample Date	Samp Tim	ole e	Lab No.	No./\ of Cor	/olume ntainers	Pri HNO3	eserva HCI	live Cool	TPH (I	BTEX	VOC	RCRA	Catior	RCI	TCLP	CO Ta	TPH (СНГО			Samp	Samp
Drill Pit Composite	8/14/13	145	55	P308039-01	ziploi	ск 29			Х										Х			8	¥
						<u></u>		<u>, , , , , , , , , , , , , , , , , , , </u>															
				- 																			
Relinquished by: (Signature)					Date	Time	Recei	ved I	by: (S	lignal	ture)											Tin	me
Tippany Mis	Particle	/			8/14/13	1635					2		2		1	<u> </u>					8/14/1	16	35
Comple Metric	<u></u>		6-11-12 ⁻					veu i		ignal	lure)		<u> </u>				<u>.</u>						
Soil Solid Sludge	Aqueous 🗌) Othe	er 🗆 .																				
Sample(s) dropped off after	hours to set	cure dro G/{Z	Tin	tarea. Afany 3 TE			Î [() † 11 L c	e (C ator	Ĵ												
Sample(s) dropped off after 5795 US Highway 6	Hours to see	cure dro f f f g / (2 on, NM	50 Off	area. AANY 3 TC 1 · 505-632-0615 ·	Three Spri	Anal	Î [(Iytico Merca		eet, S	C ator Suite	ן) י ץ)uran	go, C	C 81	301 •	labo	orator	y@er	virote	ech-inc	.com		

Submit To Appropria Two Copies District 1	ate District O	Office		State of New Mexico Energy, Minerals and Natural Resources							Form C-105 Revised August 1, 2011						
District II 811 S. First St., Artes District III	nodos, NM 8 sia, NM 8821	0024U 10		Oil Conservation Division						1. WELL API NO. 30-045-35422 2. Type of Lease							
1000 Rio Brazos Rd. District IV	, Aztec, NM	87410		12:	20 South St	: Fran	cis I	Dr.			ΓE	FEE	🛛 🖾 FE	D/INDI	AN		
1220 S. St. Francis D	or., Santa Fe,	NM 87505			Santa Fe, N	M 87:	505			3. State Oil & NM109399	: Gas	Lease No).				
WELL C	OMPLE	TION	OR R	ECOMPL	ETION REI	PORT	AN	D LOG					ui,				
4. Reason for filin	g:									5. Lease Name	e or L	Unit Agree	ement Nan	ne			
COMPLETIC	ON REPOR	RT (Fill in ACHMEN the C-144	boxes # T (Fill i closure	1 through #31 in boxes #1 thr report in acco	for State and Fee ough #9, #15 Da rdance with 19.1	wells on te Rig Re 5.17.13.K	ly) leased NMA	and #32 an .C)	d/or	6. Well Numb	er: 6						
7. Type of Comple NEW W	ELL	WORKOV	ER 🔲 I	DEEPENING		DIF	FERE	NT RESER	VOIR	OTHER_							
8. Name of Operat	or				•					9. OGRID							
10. Address of Ope 4001 North Butler	erator Avenue, B	uilding 71	01 Farmi	ington, NM 87	401					11. Pool name	or W	ildcat					
12.Location	Unit Ltr	Section		Township	Range	Lot		Feet from	the	N/S Line	Feet	from the	E/W Li	ne	County		
Surface:																	
BH:													1				
13. Date Spudded 14. Date T.D. Reached 15. Date Rig Released 3/4/13 3/4/13							16	Date Comp	oleted	(Ready to Prod	uce)	I R	7. Elevatio T, GR, etc	ons (DF 2.)	and RKB,		
18. Total Measured Depth of Well 19. Plug Back Measured Depth							20	Was Direc	ctiona	l Survey Made?		21. Ty	be Electric	and Otl	ter Logs Run		
23. CASING SIZ	E	WEIGH'	T LB./FT		ER RECORD		Rep	ort all st	25.	zs set in we CEMENTING		CORD NG REC	AM(2ULLED		
SIZE			BOT		SACKS CEME		KEE	<u> </u>	312	<u>ن</u> ا،		5111315	1	IACKL			
												_					
26. Perforation r	ecord (inter	val, size, a	ınd numl	ber)		27	AC	ID, SHOT	, FR/	ACTURE, CE	MEN	IT, SQU	EEZE, E	TC.			
							crin	INTERVAL		AMOUNTA	ND N		TERIAL	0360			
										<u> </u>							
28.						PROD	UC	TION			(1)	1 01					
Date First Producti	on	ľ	roductio	on Method (Fic	wing, gas lift, pu	mping - S	size an	а туре ритр	り	well Status	(Proc	a. or snut	-inj				
Date of Test	Hours Te	ested	Chok	e Size	Prod'n For Test Period	Oi	il - Bb		Gas	- MCF	Wa	ater - Bbl		Gas - O	il Ratio		
Flow Tubing Press.	Casing P	ressure	Calcı Hour	ulated 24- Rate	Oil - Bbl.		Gas	- MCF	, 	Water - Bbl.		Oil Gra	wity - API	- (Corr	.)		
29. Disposition of 0	Gas (Sold, 1	used for fu	el, vente	d, etc.)			I				30. T	est Witne	essed By				
31. List Attachmen	ts					<u> </u>											
32. If a temporary	oit was used	d at the we	ll, attach	a plat with the	e location of the t	emporary	/ pit. S	SEE ATTAC	CHEL)							
33. If an on-site bu	rial was use	ed at the w	ell, repo	rt the exact loc	ation of the on-si	ite burial:			tuda	107 7022 1911		\	AD 1027	10832			
<i>Thereby certify</i> Signature	that the	informat less	tion she	own on both F 1	<i>sides of this</i> Printed Name Tami	form is ra Sessi	<i>true</i>	and comp	lete	to the best of Operations T	f <i>my</i> Techi	knowled nician	$\frac{1921}{\text{dge and}}$	telief	6/14		
E-mail Address	tsessio	ns@loge	osresou	ircesllc.com													



Pit Closure Form:

Date: <u>8-14-13</u>

Well Name: LOGOS #6

Footages: 1662' FNL & 1973 FEL Unit Letter: G

Section: <u>08</u>, T-<u>23</u>N, R-<u>08</u>W, County: <u>SAN JUAN</u> State: <u>NM</u>

Contractor Closing Pit: <u>JD Ritter</u>

Construction Inspector:	
Inspector Signature: Wayn fan	
Date: 8-14-13	

Tamra Sessions

From: Sent: To: Subject: Kristina Graham Monday, August 25, 2014 2:08 PM Tamra Sessions FW: FW: Logos #6 - Reserve Pit Closure Notification

Kristy Graham Production Engineer 505-436-2627 Office 505-402-6361 Cell kgraham@logosresourcesllc.com



From: Switzer, Robert [mailto:rswitzer@blm.gov]
Sent: Monday, August 12, 2013 7:13 AM
To: Kristina Graham
Subject: Re: FW: Logos #6 - Reserve Pit Closure Notification

Kristy,

Thanks for the notification. In the future, would you please send all notices for all reclamation activities to Mark Kelly. This would help get the notices to the appropriate individuals. Mike Flaniken is responsible for the Notice of Stakings and subsequent APD Processing and not the reclamation activities.

Thanks Bob

On Fri, Aug 9, 2013 at 2:00 PM, Kristina Graham <<u>kgraham@logosresourcesllc.com</u>> wrote:

Bob,

Please see the message below. I apologize, for not copying you on the request earlier this week.

Thank you,

Kristy Graham

1 hr 6

Production Engineer

505-436-2627 Office

505-402-6361 Cell

kgraham@logosresourcesllc.com

From: Kristina Graham
Sent: Wednesday, August 07, 2013 12:10 PM
To: Jonathan.Kelly@state.nm.us; 'mflanike@blm.gov'
Cc: Tamra Sessions; writter@logosresourcesllc.com; david mcwilliams (davemacado@yahoo.com)
Subject: Logos #6 - Reserve Pit Closure Notification
Importance: High

This is our 48 hour notification to begin closure on the reserve pit on the Logos #6 in section 8, T23N, R8W in San Juan County, NM. We would like to begin closure operations on Friday, August 9, 2013. Please let me know if you have any questions.

Thank you,

Kristy Graham

Production Engineer

505-436-2627 Office

505-402-6361 Cell

kgraham@logosresourcesllc.com

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Reclamation Form:

1

Date: 8/19/13
Well Name: LOGOS #6
Footages: <u>1662' FNL & 1973' FEL</u> Unit Letter: <u>G</u>
Section: <u>08</u> , T- <u>23N</u> , R- <u>08W</u> , County: <u>SAN JUAN</u> State: <u>NM</u>
Reclamation Contractor: JD Riffer
Reclamation Start Date: <u>819/13</u>
Reclamation Complete Date: <u>8/19/13</u>
Road Completion Date: $8 19 13$
Seeding Date: <u>8/24/13</u>
PIT MARKER STATUS
(When Required) Picture of Marker set needed
Date Marker Placed: 11-26-13
Latitude: 36. 34430
Longitude: 107.70731
Date Pit Manifold Removed: <u>N/A</u>
Construction Inspector Signature: Warne At-
Date Inspected: 8-19-13







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

Date: September 30, 2014

To: NMOCD

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Re: Pit Closure Filings for WPX

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, modulu

Jayhie Goodwin Regulatory Technician