

## Bratcher, Mike, EMNRD

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**From:** Nguyen, Andy [Andy.Nguyen@meritenergy.com]  
**Sent:** Tuesday, April 14, 2009 10:01 AM  
**To:** Bratcher, Mike, EMNRD  
**Subject:** Merit Energy Lotsa Luck 29 Fed Com #3  
**Attachments:** Pit findings.pdf; Pictures.pdf; Lotsa Luck pit closure.pdf

Mr. Bratcher-

As per our conversation this morning, attached, please find a pit closure plan, pictures, and pit findings for the Lotsa Luck 29 Fed Com # 3. We have been in the process of closing this pit for over one month, and after removing the pit liner and contents of the pit and testing for chlorides, we are in the process of considering our options as we plan to move forward.

As stated in the pit findings document, chloride levels ranged from 1280 – 2470 mg/kg on the bottom of the pit just above the gypsum rock layer and from 2640 – 4210 mg/kg on some of the side walls of the pit. The following account was given by Jim Hollon of Jim Hollon Consulting in an e-mail regarding pit removal activities and tests:

*I have not received the land fill totals yet to complete the report for the pit removal, so here is an informal findings and recommendations. The bottom of the pit appears to solid gypsum rock; however it may be fractured, especially if they used dynamite to blast out the pit when it was dug. The samples collected off of the bottom were of the soil immediately above the rock layer, the dozer could not get into the rock. The samples had chloride concentrations ranging from 2,470 to 1,280 mg/kg. The side wall samples were collected from the red clay, in between the gypsum boulders. The side wall samples had chloride concentrations ranging from 4,210 to 2,640 mg/kg. The sample results and rock layer make me believe that any chloride migration would be horizontal.*

I understand that delineation of contamination is generally performed, though in this instance, I do not know how much information will be acquired by such activity. As mentioned in the same e-mail from Jim Hollon:

*There are some naturally occurring salt outcrops in the area.*

If there are naturally occurring salt outcrops, I do not know how accurate delineation of the contaminated area will be. Furthermore, if delineation is performed, there is a chance that due to naturally occurring chloride levels from the salt outcrops, Merit will be forced to continue the delineation process while making very little progress in actually filling the pit. Coupling this salt outcrop with the gypsum boulders that were recovered from the pit and the gypsum layer at the bottom of the pit, I do not know how much of a threat even 4,210 mg/kg chlorides will be to the environment. It is our understanding that in this area, protecting fresh groundwater is not an issue (as it does not exist in this area), though we are looking to confirm this.

I would appreciate any help you could provide in helping us finally resolve this issue and get the pit filled. If you have any questions or if I can be of any assistance, please let me know.

Thank you,

Andy Nguyen

**Andrew Nguyen** | Operations Engineer  
Permian Region  
Merit Energy Company | 13727 Noel Rd., Suite 500 | Dallas, TX 75240  
Direct: 972.628.1616 | Mobile: 281.202.8178  
Fax: 972.628.1916  
[andrew.nguyen@meritenergy.com](mailto:andrew.nguyen@meritenergy.com)

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This inbound email has been scanned by the MessageLabs Email Security System.

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Table 1

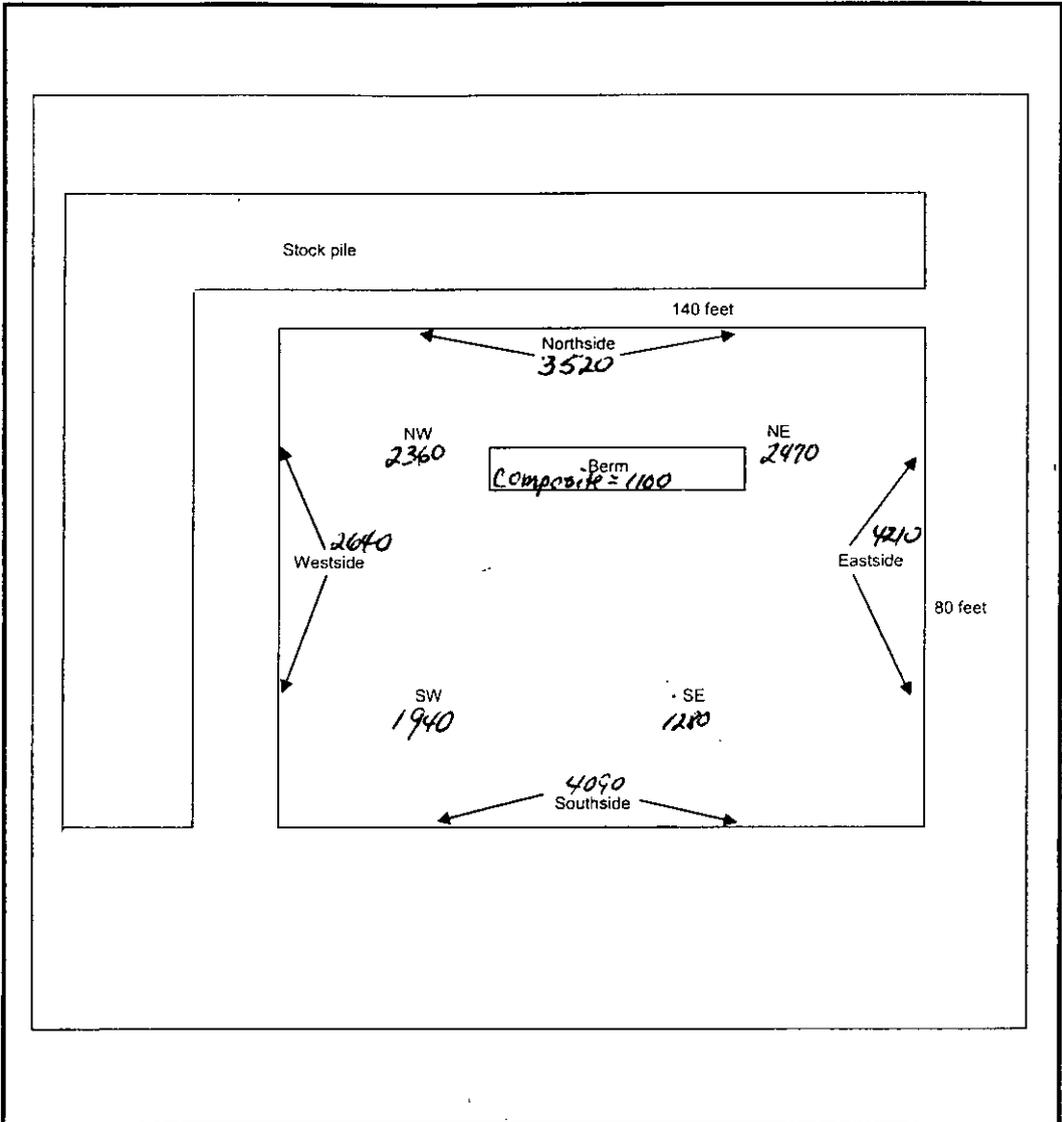
CONCENTRATIONS OF CHEMICALS OF CONCERN IN SOIL

Merit Energy  
 Lotsa Luck Fed 29 #3  
 Eddy County, New Mexico

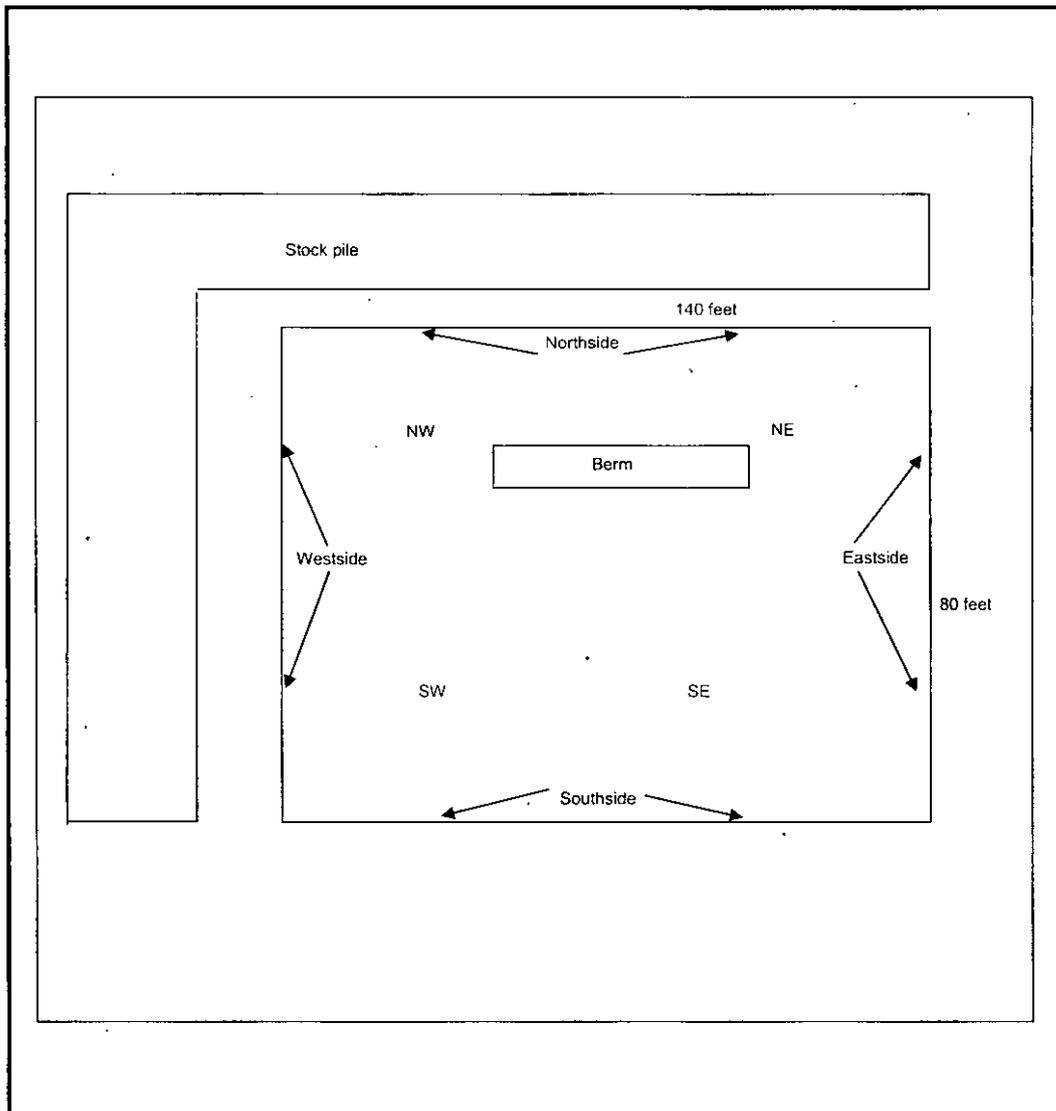
*All concentrations are in mg/kg*

SAMPLE DATE	SAMPLE LOCATION	SAMPLE DEPTH	EPA 325.3
			TOTAL CHLORIDE
3/15/2009	Northwest	Pit bottom	<b>2,360</b>
	Southwest	Pit bottom	<b>1,940</b>
	Northeast	Pit bottom	<b>2,470</b>
	Southeast	Pit bottom	<b>1,280</b>
	South side	Sidewall	<b>4,090</b>
	North side	Sidewall	<b>3,520</b>
	East side	Sidewall	<b>4,210</b>
	West side	Sidewall	<b>2,640</b>
	Berm	Composite	<b>1,100</b>

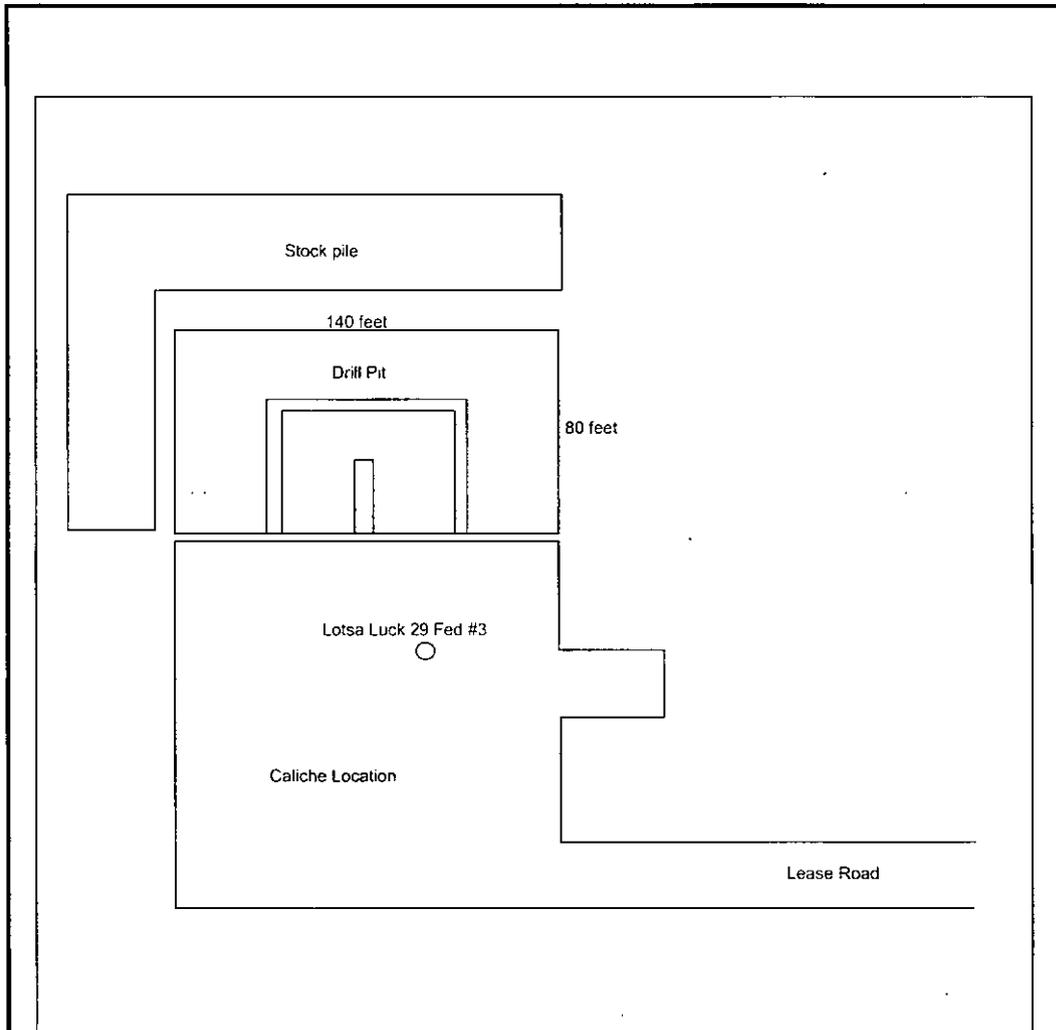
CONCENTRATIONS IN BOLD ARE ABOVE REGULATORY GUIDELINES



		<b>Merit Energy Company</b>	Figure 5 Site Map
Not to Scale		Lotsa Luck 29 Fed #3	Prepared By: Jim Hollon Consulting
↑ N		4 miles north of Riverside Eddy County, New Mexico	



		<b>Merit Energy Company</b>	Figure 5 Site Map
Not to Scale		Lotsa Luck 29 Fed #3	Prepared By: Jim Hollon Consulting
↑ <b>N</b>		4 miles north of Riverside Eddy County, New Mexico	



		<b>Merit Energy Company</b>	<b>Figure 3 Site Map</b>
Not to Scale		Lotsa Luck 29 Fed #3	Prepared By: Jim Hollon Consulting
↑ N		4 miles north of Riverside Eddy County, New Mexico	

# **Pit Closure Proposal**

*Project:*

**Lotsa Luck 29 Fed #3  
Section 29, T16S, R27E  
Eddy County, New Mexico**

**January 20, 2009**

*Prepared for:*

**Merit Energy Company  
13727 Noel Rd. Ste 500  
Dallas, Texas 75240**

## **Jim Hollon Consulting**

14034 W. Co. Rd. 123, Odessa, Texas 79765  
(432)631-5768 Fax (432)563-1166  
Jim@JHCon.net

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January 20, 2009

Merit Energy Company  
13727 Noel Rd. Ste 500  
Dallas, Texas 75240

Attn: Mr. Jackie Williams

Phone: (575) 677-2327  
Fax: (575) 677-2162

Re: Pit Closure Proposal  
Lotsa Luck 29 Fed #3  
Section 29, T16S, R27E  
Eddy County, New Mexico

Dear Mr. Williams:

Jim Hollon Consulting is pleased to submit four copies of the Pit Closure Proposal for the above referenced site.

I appreciate the opportunity to participate in this project at the Lotsa Luck 29 Fed #3 site for Merit Energy Company. Please contact me at (432) 631-5768 if you have questions regarding the information provided in the report.

Sincerely,

Jim Hollon

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- Figure 2 – Aerial Photograph
- Figure 3 – Site Map
- Figure 4 – Driving Directions
- Appendix B: Regulatory Report

## Pit Closure Proposal

**Lotsa Luck 29 Fed #3  
Section 29, T16S, R27E  
Eddy County, New Mexico**

### 1.0 INTRODUCTION

This site is located in Eddy County, New Mexico approximately four miles north of Riverside, New Mexico and approximately one and one quarter miles east of County Road 200 (Figure 1). The surrounding area is native rangeland in a grassland prairie region which is overseen by the Bureau of Land Management (BLM). The facility includes a temporarily abandoned wellhead and the drilling pit. The facility was acquired by Merit Energy Company (Merit) on November 1, 2005. Following acquisition by Merit, the well was recompleted prior to being again temporarily abandoned.

On January 8, 2009, Jim Hollon Consulting (JHCon) was requested by Merit to perform a site visit and develop a pit closure proposal. The pit closure proposal is to follow the requirements of 19.15.17 NMAC. The depth to ground water has not been clearly established for the area. No water wells were found near the site, and the State Engineer's web site did not have any record of nearby water wells. Contact was made with a water well drilling company familiar with the area who stated that fresh water generally did not exist in the area.

### 1.1 Site Description

<b>Site Name</b>	Lotsa Luck 29 Fed #3
<b>Site Location/GPS</b>	Eddy County, New Mexico / 32.89551° N, 104.29876° W
<b>General Site Description</b>	The site consists of the wellhead and drilling pit. The surrounding area is sandy clay rangeland with grass cover and gypsum bedrock outcrops.

A topographic map (Figure 1), aerial photograph (Figure 2), site map (Figure 3) and driving directions (Figure 4) are included in Appendix A.

### 1.2 Scope of Services

The Scope of Services for JHC as requested by Merit included:

- Visual inspection and research of the site, including collection of pit and background soil samples;
- Collection of a water samples and gauge water depth of nearby windmills or water wells

(if any found); and

- Submittal of a Pit Closure Proposal detailing the proposed field activities and analytical results if any.

### **1.3 Regulatory Framework**

Crude oil facilities in New Mexico are generally regulated by the New Mexico Oil Conservation Division (NMOCD). Temporary drilling pits are regulated by the New Mexico Administrative Code (NMAC) Title 19, Chapter 15, Part 17- Pits, Closed-loop Systems, Below Grade Tanks and Sumps.

### **1.4 Standard of Care**

Services were performed in a manner consistent with generally accepted practices of the profession undertaken in similar studies in the same geographical area during the same time period. JHCon makes no warranties, either express or implied, regarding the findings, conclusions or recommendations. Please note that JHCon can not warrant the work of laboratories, regulatory agencies or other third parties supplying information used in the preparation of the report.

## **2.0 PROPOSED ACTIVITIES**

### **Closure Method**

It is proposed to completely excavate and remove the contents of the pit, including the synthetic liner. The pit contents will be solidified with caliche from the well location if necessary. The pit contents and liner will be delivered to Lea Land LLC. NMOCD permit # WM-1-035 for disposal.

### **Confirmation Sampling Plan**

Following the removal of the pit contents and liner, a five point composite sample will be collected from the sidewalls and bottom of the pit area. A grab sample will also be collected from any area which appears to be wet, discolored or shows any evidence of a release. A background sample will also be collected from an undisturbed area away from the pit at the same depth as the bottom of the pit.

The soil samples will be placed in laboratory prepared glassware and sealed with the identification label and placed on ice in a cooler. The samples and completed chain-of-custody forms will be relinquished to Environmental Lab of Texas in Odessa, Texas for analysis.

**Analytical Methods**

The soil samples will be analyzed using the following methods:

- Chlorides - EPA Method 300.1
- BTEX – EPA Method 8021B
- TPH – EPA Method 8015M

**Analysis of the Laboratory Results**

Following receipt of the laboratory report it will be reviewed to determine if any of the constituents of concern are above the following limits for each:

Benzene.....	0.2 mg/kg
Total BTEX.....	50 mg/kg
TPH.....	2500 mg/kg
GRO and DRO combined fraction.....	500 mg/kg
Chloride.....	1000 mg/kg

The results will be reported to the NMOCD and BLM and if any of the above constituents exceed the above limits, they will be reported to the NMOCD with form C-141.

**Reclamation of the Pit Location**

If the soil sampling results indicate concentrations below the required limits, the pit will be backfilled with the stockpiled material from the original excavation of the pit. The material will be segregated, separating the rock from the topsoil. The rock will be placed in the excavation and compacted prior to covering with a minimum of one foot of topsoil. The pit area will be contoured to match the surrounding grade with a slight crown to prevent the ponding of storm water. The area will be cross ripped to help prevent or slow erosion and planted with the BLM requested seed mix at their prescribed seeding rates.

**Notification of the NMOCD and BLM**

The NMOCD and/or BLM will be notified, as requested, at the following times:

- Three days prior to beginning pit reclamation;
- Three days prior to sample collection;
- Following grading of the surface, prior to planting;
- Within 60 days of completion, with a Closure Report, and;
- Following two successive growing seasons.

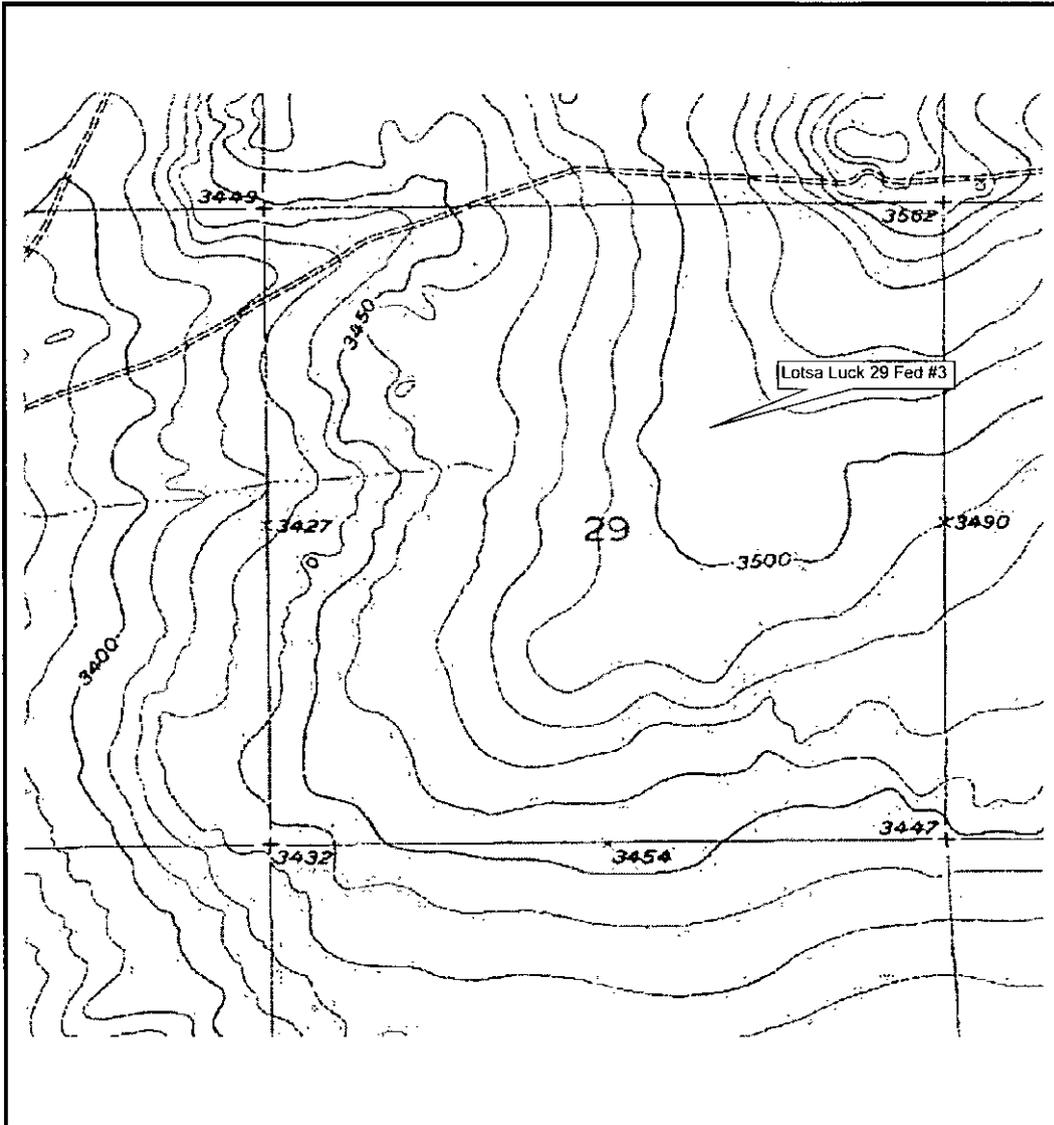
**APPENDIX A**

**Figure 1 – Topographic Map**

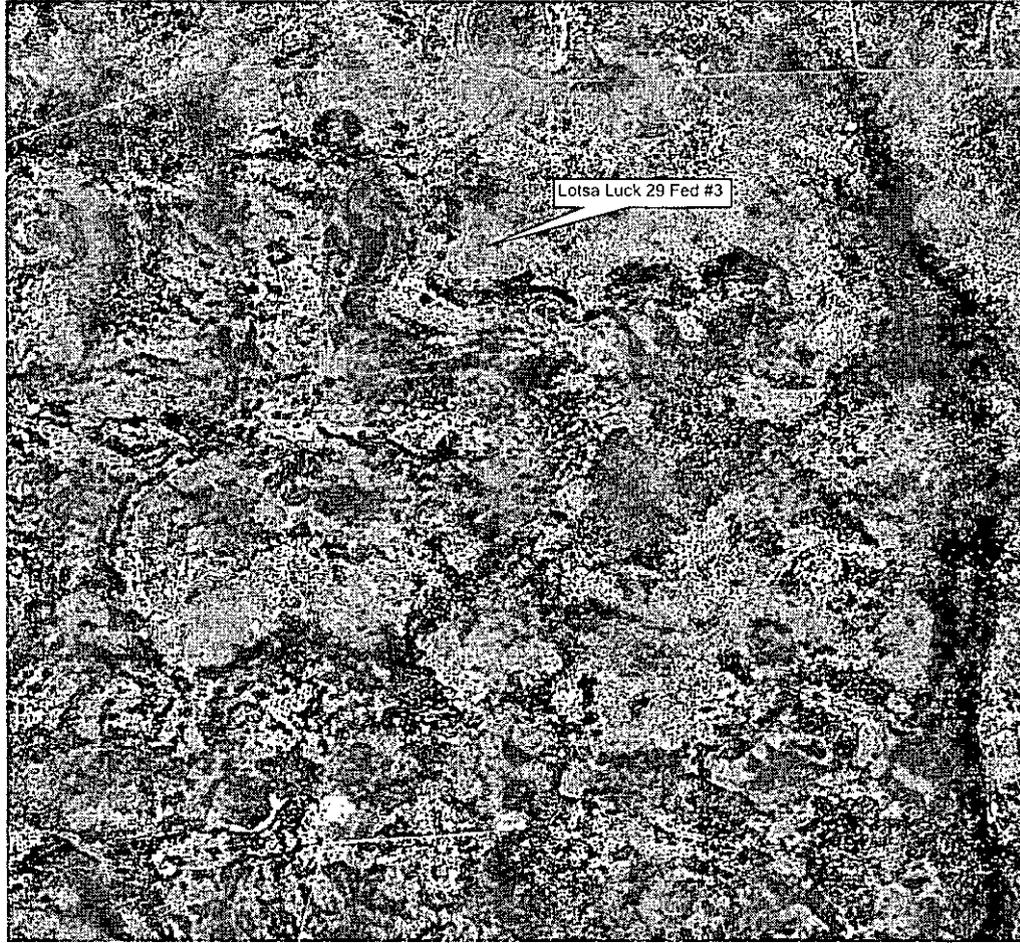
**Figure 2 – Aerial Photograph**

**Figure 3 – Site Map**

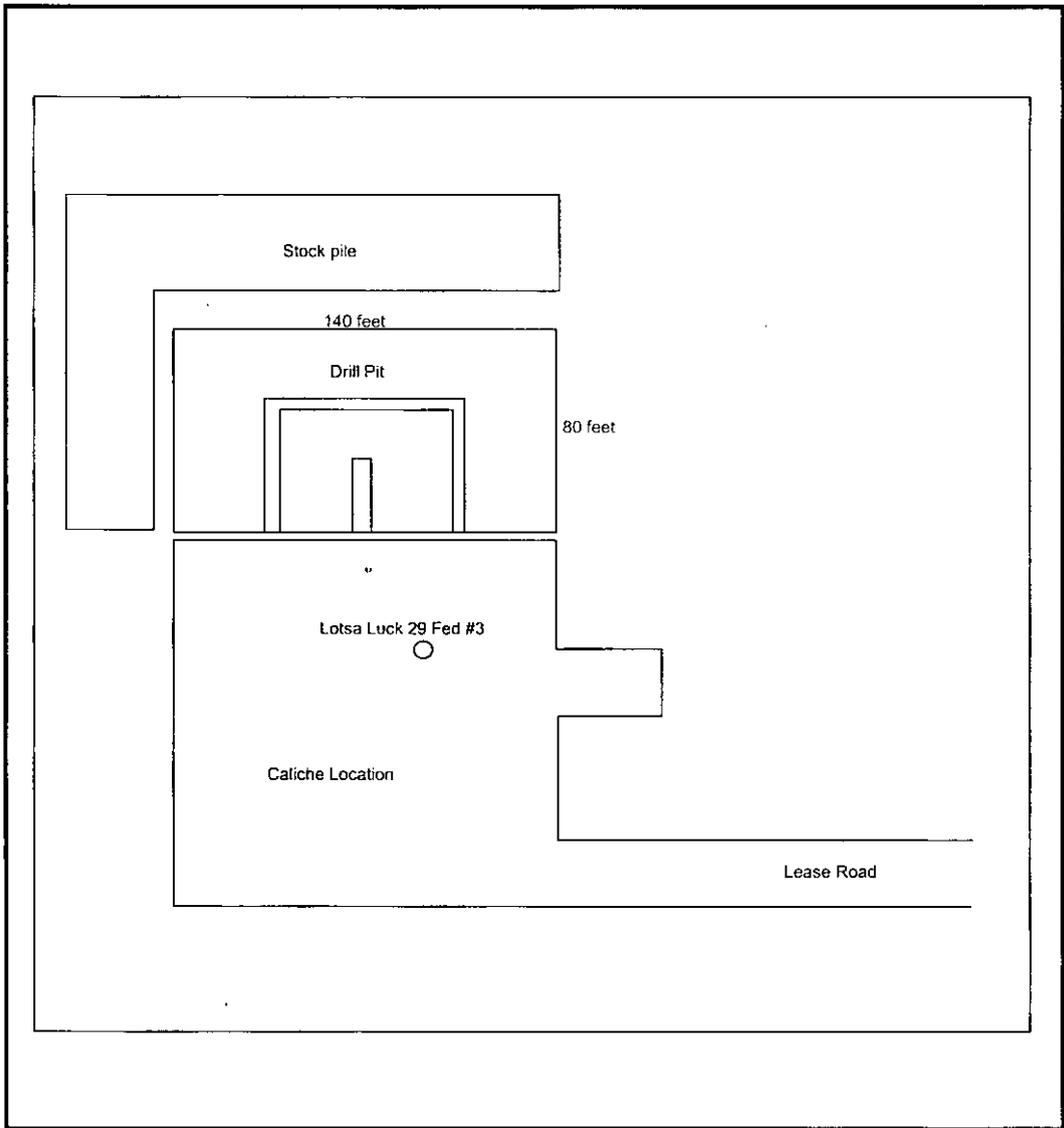
**Figure 4 – Driving Directions**



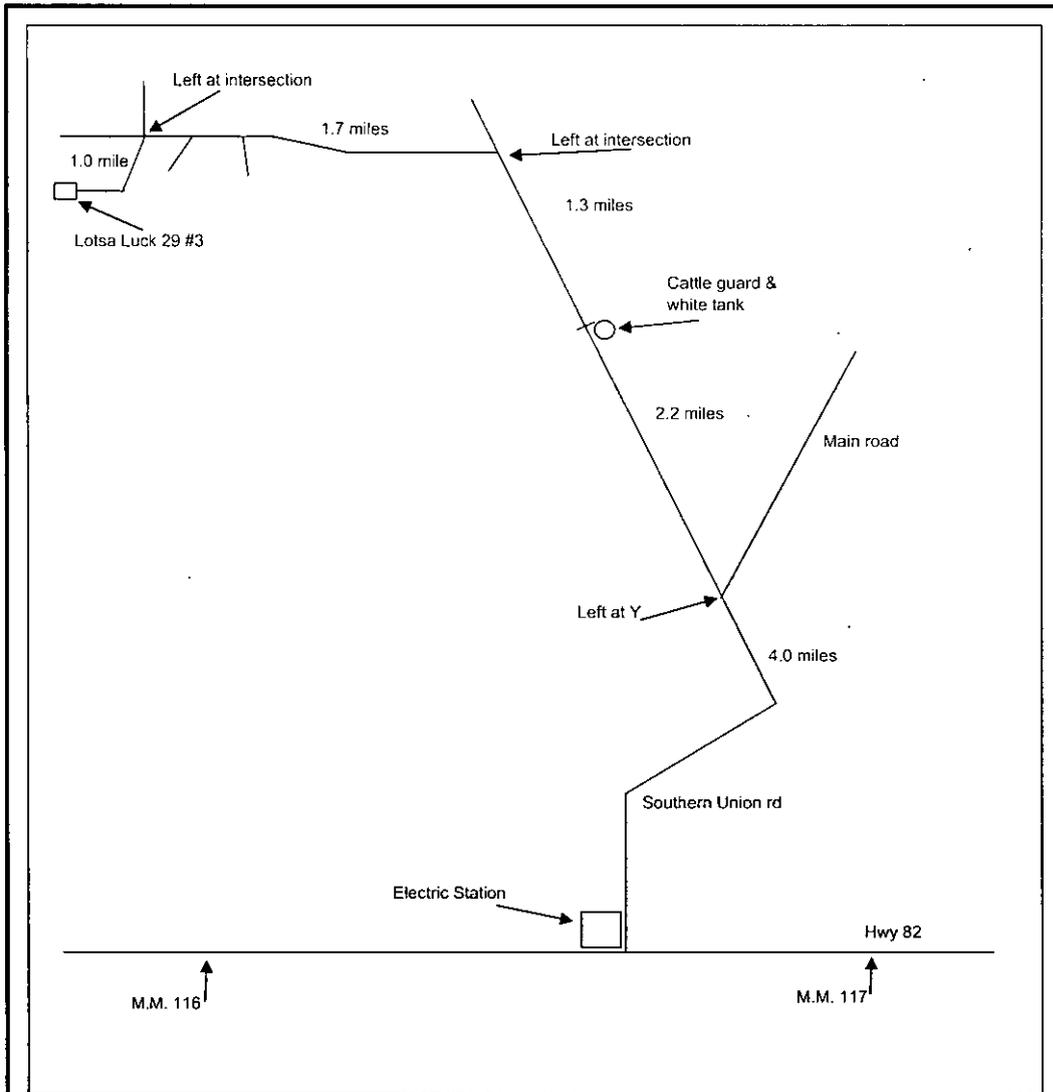
Source: Terraserver	<b>Merit Energy Company</b>	Figure 1
Dated: July 1, 1991		Topographic Map
Scale: 1" = 400 yards	Lotsa Luck 29 Fed #3	Prepared By: Jim Hollon Consulting
	4 miles north of Riverside Eddy County, New Mexico	



Source: Terraserver	<b>Merit Energy Company</b>	Figure 2
Dated October 19, 1997		Aerial Photograph
Scale: 1" = 400 yards	Lotsa Luck 29 Fed #3	Prepared By: Jim Hollon Consulting
↑ N	4 miles north of Riverside County, New Mexico      Eddy	



		<b>Merit Energy Company</b>	<b>Figure 3 Site Map</b>
Not to Scale		Lotsa Luck 29 Fed #3	Prepared By: Jim Hollon Consulting
↑ N		4 miles north of Riverside Eddy County, New Mexico	



		<b>Merit Energy Company</b>	Figure 4 Driving Directions
Not to Scale		Lotsa Luck 29 Fed #3	Prepared By: Jim Holton Consulting
↑ N		4 miles north of Riverside Eddy County, New Mexico	

**APPENDIX B**

**Regulatory Report**

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Form C-144  
July 21, 2008

**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, Closed-Loop System, Below-Grade Tank, or  
Proposed Alternative Method Permit or Closure Plan Application

- 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

*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: Merit Energy Company OGRID #: 14591  
Address: 13727 Noel Rd. Ste 500, Dallas Tx, 75240  
Facility or well name: Lotsa Luck 29 Fed, #3  
API Number: 30-015-33742 OCD Permit Number: \_\_\_\_\_  
U/L or Qtr/Qtr SWNE Section 29 Township 16S Range 27E County: Eddy  
Center of Proposed Design: Latitude 32.89551516 Longitude -104.2987667 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 12 mil  LLDPE  HDPE  PVC  Other \_\_\_\_\_  
 String-Reinforced  
Liner Seams:  Welded  Factory  Other \_\_\_\_\_ Volume: 10,000 bbl Dimensions: L 140 x W 80 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 \_\_\_\_\_

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 19.15.3.103 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. - 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). - 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. ( <i>Applies to temporary, emergency, or cavitation pits and below-grade tanks</i> ) - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. ( <i>Applies to permanent pits</i> ) - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	<input type="checkbox"/> Yes <input type="checkbox"/> No <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. - 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. - 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. - 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. - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within a 100-year floodplain. - FEMA map	<input type="checkbox"/> Yes <input type="checkbox"/> No

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 identify 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: Lea Land LLC Disposal Facility Permit Number: WM-1-035

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.
  - 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 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: \_\_\_\_\_ Approval Date: \_\_\_\_\_

Title: \_\_\_\_\_ 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: \_\_\_\_\_

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 \_\_\_\_\_ Longitude \_\_\_\_\_ 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): \_\_\_\_\_ Title: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

e-mail address: \_\_\_\_\_ Telephone: \_\_\_\_\_

