Pit Closure Proposal
(Revised)

Project:

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

May 26, 2009

Prepared for:

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

Jim Hollon Consulting

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May 26, 2009

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

Attn: Mr. Andy Nguyen

Phone: (972) 628-1616

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

Dear Mr. Nguyen:

Jim Hollon Consulting is pleased to submit four copies of the Revised 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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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. January 15, 2009, a background soil sample was collected from a salty outcrop near the site, which was labeled Background.

On March 12, 2009, the contents of the pit, including the liner material, were completely excavated and delivered to Lea Land, LLC. (NMOCD permit # WM-1-035) for disposal. Approximately 2,300 cubic yards of material were excavated and disposed. The well bore was plugged on May 12, 2009.

1.1 Site Description

Site Name	Lotsa Luck 29 Fed #3
Site Location/GPS	Eddy County, New Mexico / 32.89551° N, 104.29876° W
General Site Description	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:

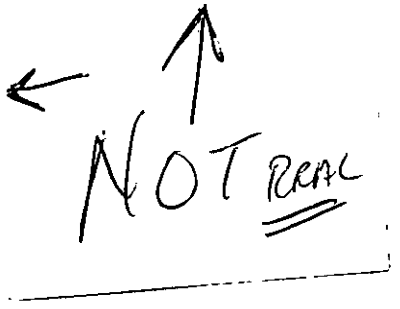
- Visual inspection and research of the site, including collection of pit and background soil samples;
- Project oversight of the pit excavation and collection of confirmation samples;
- Collection of a water samples and gauge water depth of nearby windmills or water wells (if any found); and
- Submittal 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.

Based on the above rule and the site specific conditions, the following remediation levels apply:

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



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 FIELD ACTIVITIES

On March 12, 2009, vacuum trucks were utilized to remove the liquid portion of the pit, delivering it to CRI for disposal. The remaining contents were solidified with the berm material from the pit and completely excavated, including the synthetic liner, and were disposed. Approximately 2,300 cubic yards of pit contents and liner were delivered to Lea Land LLC. NMOCD permit # WM-1-035 for disposal. The pit was excavated down to a hard gypsum layer and/or a hard cemented clay layer. The sidewalls were also a gypsum rock layer overlaying a softer red clay layer.

Following the removal of the pit contents and liner, nine soil samples were collected from the sidewalls and bottom of the pit area. The samples from the bottom were labeled as follows: NW, SW, NE and SE. The bottom samples were collected as grab samples due to the hardness of the pit bottom, the corner of the dozer's blade had to be used to break loose enough sample to collect. The side wall samples were collected as composite samples from the clay layer between the pit bottom and the overlaying gypsum layer. The sidewall samples were labeled as follows: South Side, North Side, East Side and West Side. One additional sample was collected from a portion of the remaining berm material and was labeled Berm.

Following the review of the samples collected on March 15, 2009, a second sampling event was scheduled for May 12, 2009. During the May 12 sampling event, a trench was excavated on the northwest corner of the pit. Because of the difficulty breaking through the gypsum layer, the trench was only extended approximately four feet beyond the existing pit sidewall. A grab sample was collected from the clay layer between the pit bottom and the gypsum layer and labeled NW 4'. A trench was also excavated on the southwest corner of the pit, which extended approximately 20 feet beyond the existing pit sidewall. A grab sample was collected the end of the trench at the same depth, near the level of the pit bottom. A sample was collected from near the center of the pit bottom from the hard clay material. The track-hoe hammered on an area for approximately one hour to excavate an area approximately 18-24 inches deeper than the pit bottom. A grab sample was collected and labeled Bottom.

Additional background samples were also collected from two undisturbed areas away from the pit at the same depth as the bottom of the pit. The first sample was collected from approximately 100 feet northeast of the pit, and was labeled NE Background. The sample was from an area of gypsum rock which became less consolidated at approximately eight feet bgs. Because of the soil type, the sample is not considered to be representative of the soils found in the pit area. A second sample was collected from approximately 100 yards south of the pit, and was labeled S Background. The sample was collected at approximately eight feet bgs and was from clayey soils which appear to be similar to the soils found in the pit area.

Was Material excavated between the March Sampling & May Sampling

Merit Energy Company
Lotsa Luck 29 Fed #3
May 26, 2009

Jir

Soil Sampling

The soil samples were placed in laboratory prepare identification label. The samples and completed chain-of Xenco Laboratories in Odessa, Texas for analysis. The laboratory data sheets are provided in Appendix B.

Analytical Methods

The soil samples were analyzed using the following methods:

Chlorides - EPA Method 300.1

3.0 DATA EVALUATION

The soil sample collected on January 15, 2009, from the salt outcrop, labeled Background, had a chloride concentration of 5,370 mg/kg.

The soil samples collected on March 15, 2009, from the pit bottom, had chloride concentrations as follows: the sample labeled Northwest- 2,360 mg/kg, Southwest- 1,940 mg/kg, Northeast- 2,470 mg/kg and Southeast- 1,280 mg/kg. The soil samples collected from the pit sidewalls had chloride concentrations as follows: the sample labeled North Side- 3,520 mg/kg, South Side- 4,090 mg/kg, West Side- 2,640 mg/kg and East Side- 4,210 mg/kg. The soil sample collected from the berm had a chloride concentration of 1,100 mg/kg.

The soil samples collected on May 12, 2009, labeled NW 4' and SW 20' had chloride concentrations of 596 mg/kg and 826 mg/kg, respectively. The sample collected from 18-24 inches below the pit bottom and labeled Bottom had a chloride concentration of 123 mg/kg. The background samples had chloride concentrations of 58 mg/kg in the sample labeled NE Background and 421 mg/kg in the sample labeled S Background.

The lithology of the site, as compiled from the excavations, is as follows: gypsum rock approximately six feet thick, with a sandy unconsolidated gypsum underneath in the northeast corner and the gypsum rock layer begins to pinch out near the surface, to non-existant, with a soft red clay layer underneath. The red clay layer appears to be above a very hard, cemented red clay layer.

4.0 FINDINGS AND RECOMMENDATIONS

JHCon submits this pit closure to Merit which documents the field activities, findings and recommendations for the project. Based on results of the field activities and laboratory analysis the findings are as follows:

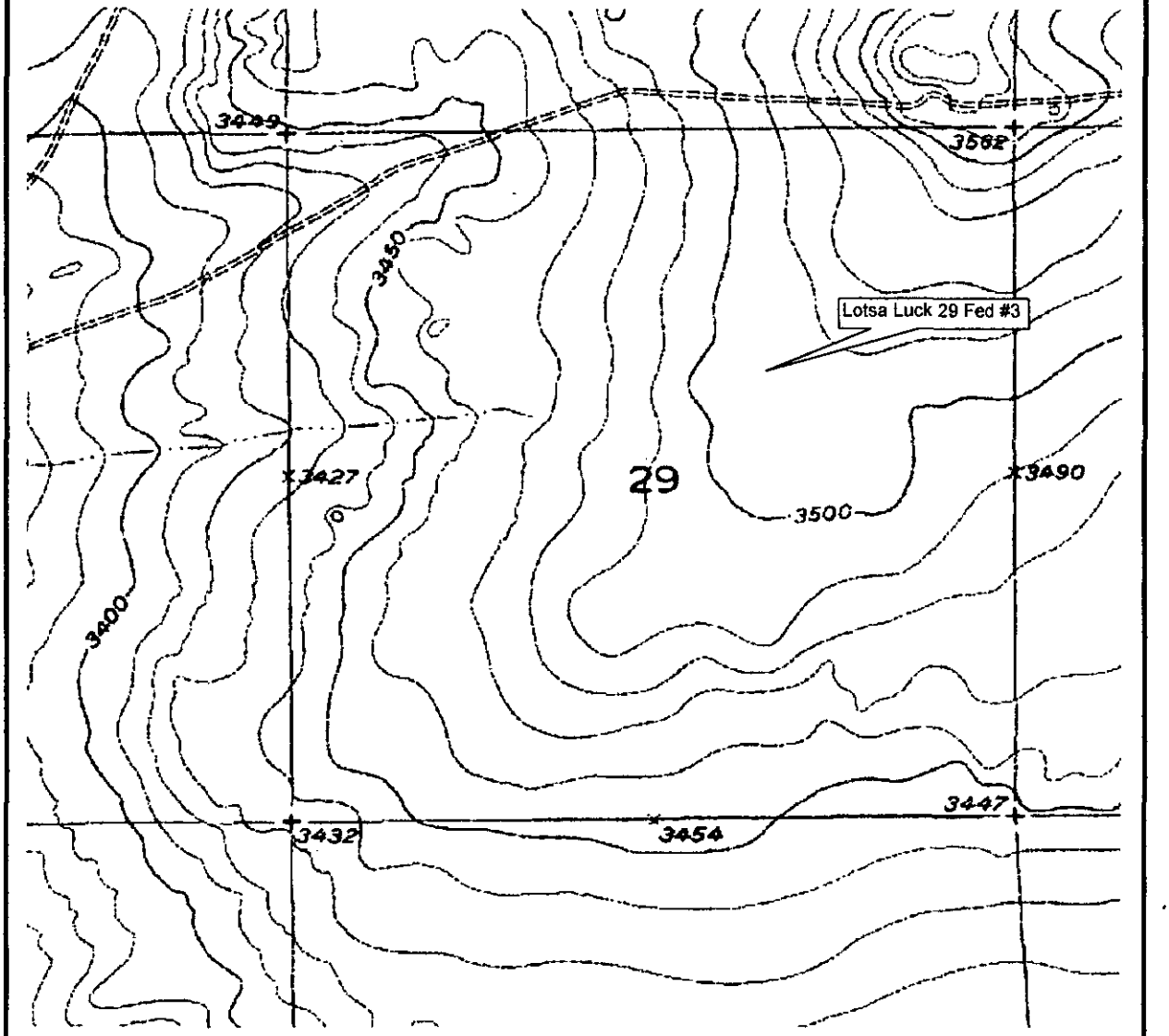
- The entire pit contents and liner, totaling 2,300 cubic yards, have been completely excavated and disposed at an NMOCD approved facility;
- A background soil sample was collected from approximately 2,000 feet from the well site which had a chloride concentration of 5,370 mg/kg;
- The affected soils are high clay content soils, which are layered between a solid gypsum rock layer above and a hard cemented clay layer below;
- The soil sample collected from 18-24 inches below the pit bottom, in the cemented clay had a chloride concentration of 123 mg/kg;
- The soil sample collected just four feet from the pit sidewall had a chloride concentration of 596 mg/kg; and,
- A background sample was collected from the same clay layer 100 yards from the pit sidewall which had a chloride concentration of 421 mg/kg.

Based on the above mentioned findings, the recommendations for the site are as follows:

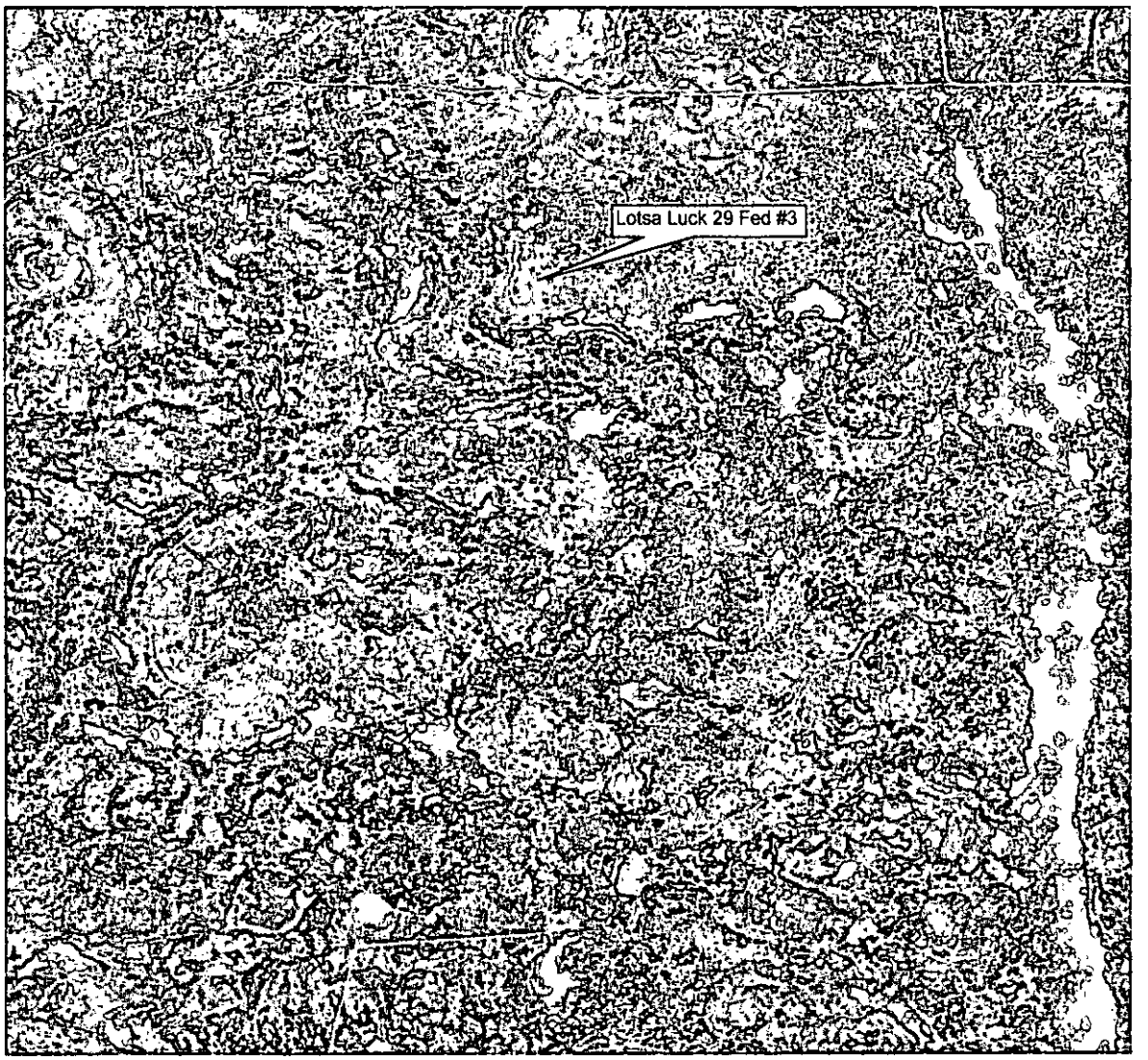
- Backfill the pit with the gypsum boulders first, placing them on the bottom of the pit;
- Cover the gypsum with the caliche from the well location and road then compact it to form a cap;
- Cover the caliche with a minimum of one foot of topsoil, contour to match the surrounding grade with a slight crown to prevent the ponding of storm water; and,
- Prepare the surface to prevent runoff and for a seed bed, prior to planting with the BLM requested seed mix at their prescribed seeding rates.

APPENDIX A

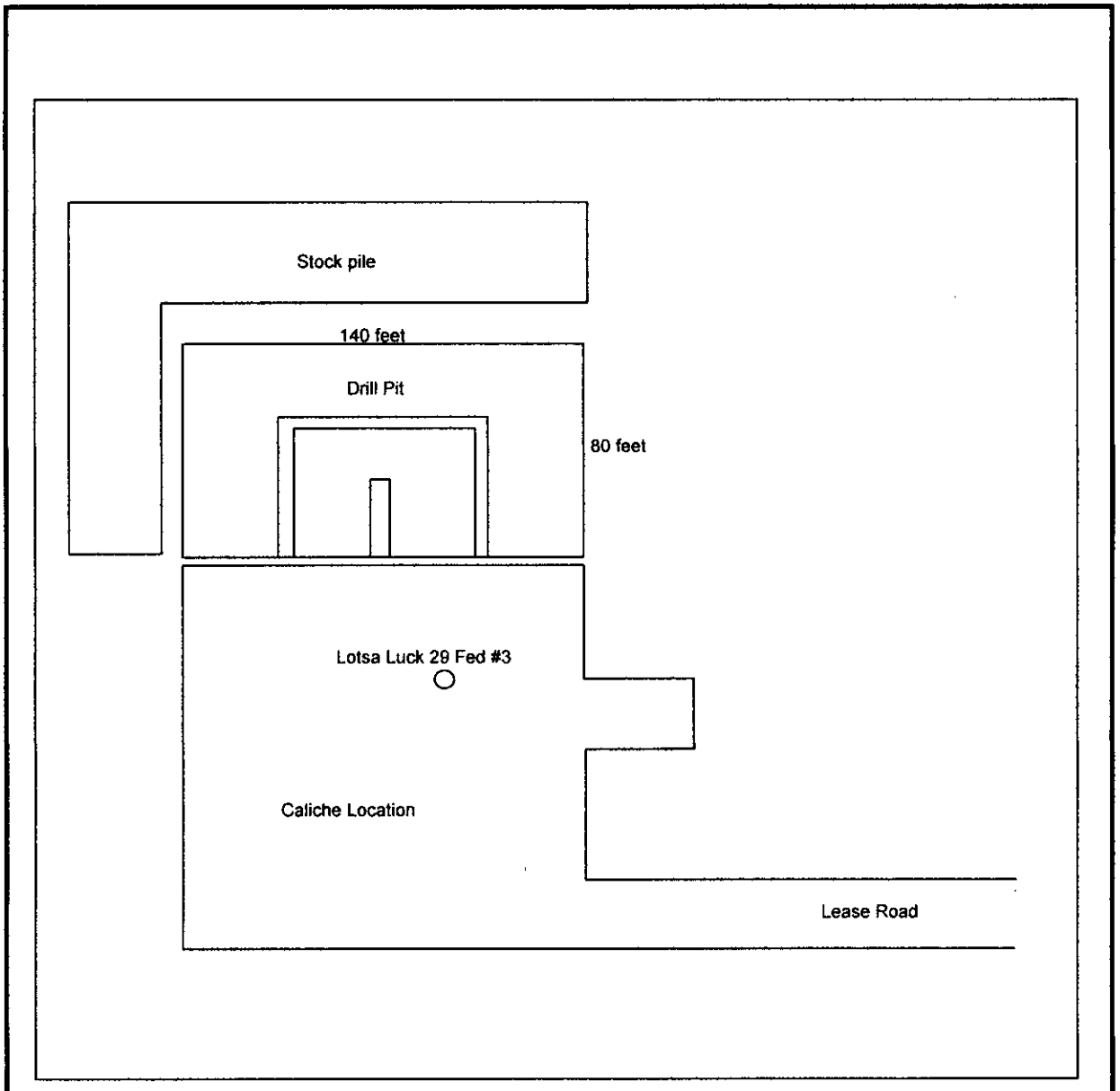
Figure 1 – Topographic Map
Figure 2 – Aerial Photograph
Figure 3 – Site Map
Figure 4 – Driving Directions



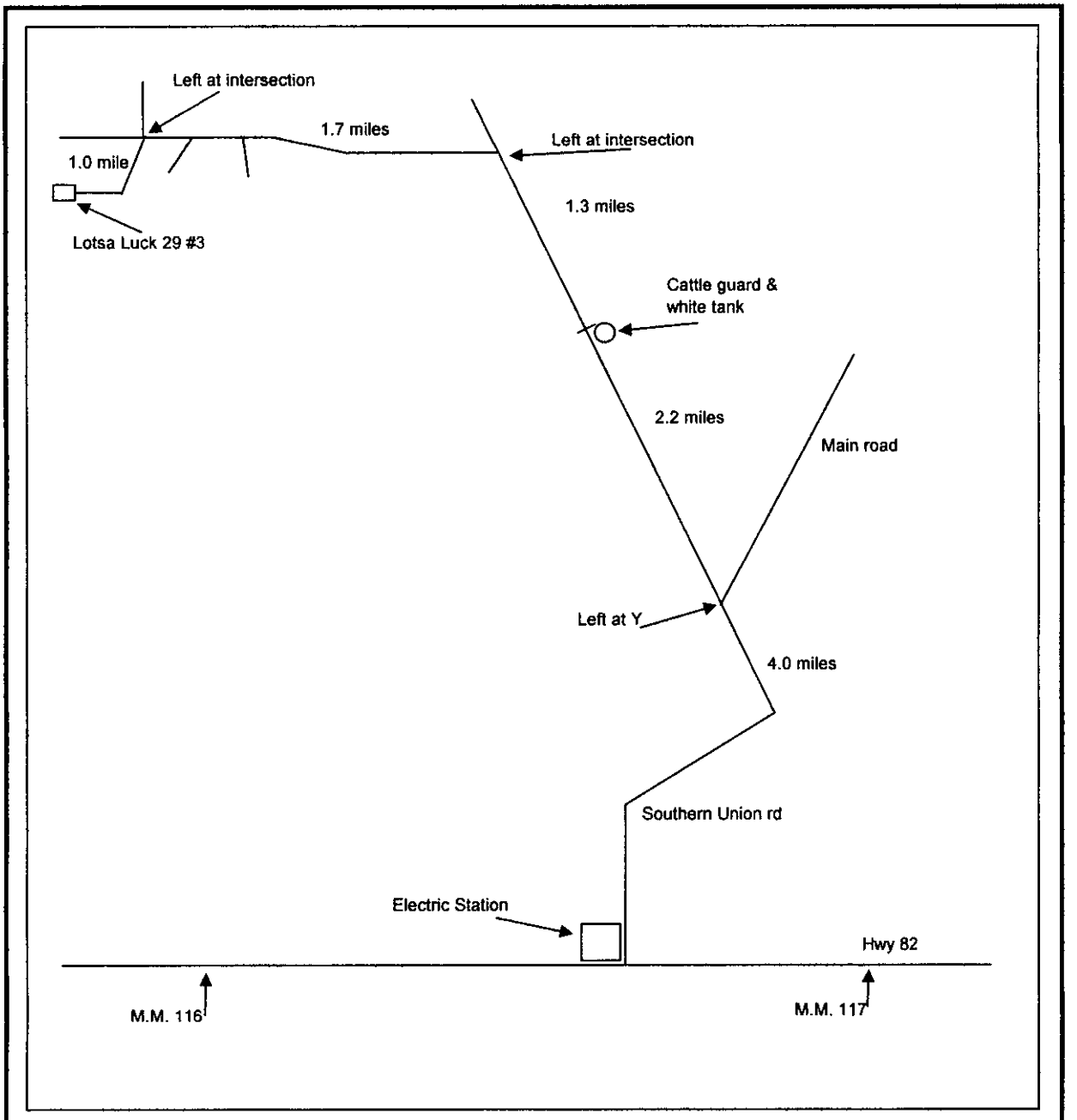
Source: Terraserver	**Merit Energy Company**	Figure 1
Dated: July 1, 1991		Topographic Map
Scale: 1" = 400 yards	Lotsa Luck 29 Fed #3	
N	4 miles north of Riverside Eddy County, New Mexico	Prepared By: Jim Hollon Consulting



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



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



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

APPENDIX B

Analytical Summary Table
Laboratory Data Sheets
Chain-of-Custody

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	**2,360**
	Southwest	Pit bottom	**1,940**
	Northeast	Pit bottom	**2,470**
	Southeast	Pit bottom	**1,280**
	South side	Sidewall	**4,090**
	North side	Sidewall	**3,520**
	East side	Sidewall	**4,210**
	West side	Sidewall	**2,640**
	Berm	Composite	**1,100**
5/12/2009	NW 4'	8 ft	596
	SW 20'	8 ft	826
	NE Background	8 ft	58
	S Background	8 ft	421
	Bottom	10 ft	123
1/15/2009	Background	Surface	**5,370**

CONCENTRATIONS IN BOLD ARE ABOVE REGULATORY GUIDELINES

Analytical Report 322664

for

Merit Energy

Project Manager: Jim Hollon

Lotsa Luck

19-JAN-09

12600 West I-20 East Odessa, Texas 79765

Texas certification numbers:
Houston, TX T104704215-08B-TX - Odessa/Midland, TX T104704400-08-TX

Florida certification numbers:
Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675
Norcross(Atlanta), GA E87429

South Carolina certification numbers:
Norcross(Atlanta), GA 98015

North Carolina certification numbers:
Norcross(Atlanta), GA 483

Houston - Dallas - San Antonio - Tampa - Miami - Latin America
Midland - Corpus Christi - Atlanta

19-JAN-09

Project Manager: **Jim Hollon**
Merit Energy
P.O. Box 300
Whiteface, TX 79379

Reference: XENCO Report No: **322664**
Lotsa Luck
Project Address:

Jim Hollon:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 322664. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 322664 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron, II
Odessa Laboratory Manager

Sample Cross Reference 322664

Merit Energy, Whiteface, TX

Lotsa Luck

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Inside	S	Jan-15-09 00:00		322664-001
Outside	S	Jan-15-09 00:00		322664-002
Rock	S	Jan-15-09 00:00		322664-003
Background	S	Jan-15-09 00:00		322664-004

XENCO Laboratories

Certificate of Analysis Summary 322664

Merit Energy, Whiteface, TX

Project Name: Lotsa Luck

Project Id:

Contact: Jim Hollon

Project Location:

Date Received in Lab: Fri Jan-16-09 10:20 am

Report Date: 19-JAN-09

Project Manager: Brent Barron, II

Analysis Requested	*Lab Id:*	322664-001		322664-002		322664-003		322664-004			
	Field Id:	Inside		Outside		Rock		Background			
	Depth:										
	Matrix:	SOIL		SLUDGE		SOIL		SOIL			
	Sampled:	Jan-15-09 00:00		Jan-15-09 00:00		Jan-15-09 00:00		Jan-15-09 00:00			
Anions by EPA 300	*Extracted:*										
	Analyzed:	Jan-16-09 14:37		Jan-16-09 14:37		Jan-16-09 14:37		Jan-16-09 14:37			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Chloride		19100	255	44600	754	ND	23.5	5370	245		
BTEX by EPA 8021B	*Extracted:*	Jan-17-09 07:00		Jan-17-09 07:00							
	Analyzed:	Jan-17-09 10:21		Jan-17-09 11:48							
	Units/RL:	mg/kg	RL	mg/kg	RL						
Benzene		ND	0.0013	ND	0.0754						
Toluene		ND	0.0026	ND	0.1508						
Ethylbenzene		ND	0.0013	0.1297	0.0754						
m,p-Xylenes		ND	0.0026	0.5587	0.1508						
o-Xylene		ND	0.0013	0.1877	0.0754						
Total Xylenes		ND	0.0026	0.7464	0.1508						
Total BTEX		ND	0.0013	0.8761	0.0754						
Percent Moisture	*Extracted:*										
	Analyzed:	Jan-16-09 17:00		Jan-16-09 17:00		Jan-16-09 17:00		Jan-16-09 17:00			
	Units/RL:	%	RL	%	RL	%	RL	%	RL		
Percent Moisture		21.71	1.00	33.68	1.00	15.05	1.00	18.29	1.00		
TPH By SW8015 Mod	*Extracted:*	Jan-16-09 14:15		Jan-16-09 14:15							
	Analyzed:	Jan-19-09 05:54		Jan-19-09 09:22							
	Units/RL:	mg/kg	RL	mg/kg	RL						
C6-C12 Gasoline Range Hydrocarbons		26.5	19.2	58.8	22.6						
C12-C28 Diesel Range Hydrocarbons		286	19.2	216	22.6						
C28-C35 Oil Range Hydrocarbons		83.7	19.2	22.9	22.6						
Total TPH		396.2	19.2	297.7	22.6						

Brent Barron
Odessa Laboratory Director

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the MQL and above the SQL.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

* Outside XENCO's scope of NELAC Accreditation.

XENCO Laboratories

Form 2 - Surrogate Recoveries

Project Name: Lotsa Luck

Work Orders : 322664,

Project ID:

Lab Batch #: 746804 **Sample:** 322664-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0309	0.0300	103	80-120	
4-Bromofluorobenzene	0.0335	0.0300	112	80-120	

Lab Batch #: 746804 **Sample:** 322664-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0299	0.0300	100	80-120	
4-Bromofluorobenzene	0.0305	0.0300	102	80-120	

Lab Batch #: 746804 **Sample:** 322664-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0288	0.0300	96	80-120	
4-Bromofluorobenzene	0.0310	0.0300	103	80-120	

Lab Batch #: 746804 **Sample:** 322664-002 / SMP **Batch:** 1 **Matrix:** Sludge

Units: mg/kg

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0362	0.0300	121	80-120	**
4-Bromofluorobenzene	0.0352	0.0300	117	80-120	

Lab Batch #: 746804 **Sample:** 523063-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0296	0.0300	99	80-120	
4-Bromofluorobenzene	0.0281	0.0300	94	80-120	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

XENCO Laboratories

Form 2 - Surrogate Recoveries

Project Name: Lotsa Luck

Work Orders : 322664, **Project ID:**

Lab Batch #: 746804 **Sample:** 523063-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0322	0.0300	107	80-120	
4-Bromofluorobenzene	0.0307	0.0300	102	80-120	

Lab Batch #: 746804 **Sample:** 523063-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0295	0.0300	98	80-120	
4-Bromofluorobenzene	0.0282	0.0300	94	80-120	

Lab Batch #: 746816 **Sample:** 322641-003 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	126	100	126	70-135	
o-Terphenyl	64.3	50.0	129	70-135	

Lab Batch #: 746816 **Sample:** 322641-003 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	127	100	127	70-135	
o-Terphenyl	63.1	50.0	126	70-135	

Lab Batch #: 746816 **Sample:** 322664-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg

TPH By SW8015 Mod	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	110	100	110	70-135	
o-Terphenyl	56.3	50.0	113	70-135	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

XENCO Laboratories

Form 2 - Surrogate Recoveries

Project Name: Lotsa Luck

Work Orders : 322664,

Project ID:

Lab Batch #: 746816 **Sample:** 322664-002 / SMP **Batch:** 1 **Matrix:** Sludge

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	117	100	117	70-135	
o-Terphenyl	60.1	50.0	120	70-135	

Lab Batch #: 746816 **Sample:** 523072-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	130	100	130	70-135	
o-Terphenyl	62.1	50.0	124	70-135	

Lab Batch #: 746816 **Sample:** 523072-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	114	100	114	70-135	
o-Terphenyl	57.6	50.0	115	70-135	

Lab Batch #: 746816 **Sample:** 523072-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	127	100	127	70-135	
o-Terphenyl	63.4	50.0	127	70-135	

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

XENCO Laboratories

Blank Spike Recovery

Project Name: Lotsa Luck

Work Order #: 322664 **Project ID:**

Lab Batch #: 746789 **Sample:** 746789-1-BKS **Matrix:** Solid

Date Analyzed: 01/16/2009 **Date Prepared:** 01/16/2009 **Analyst:** LATCOR

Reporting Units: mg/kg **Batch #:** 1

	BLANK /BLANK SPIKE RECOVERY STUDY					
Anions by EPA 300 **Analytes**	**Blank Result [A]**	**Spike Added [B]**	**Blank Spike Result [C]**	**Blank Spike %R [D]**	**Control Limits %R**	**Flags**
Chloride	ND	10.0	10.2	102	90-110	

Blank Spike Recovery [D] = 100*[C]/[B]
All results are based on MDL and validated for QC purposes.

XENCO Laboratories

BS / BSD Recoveries

Project Name: Lotsa Luck

Work Order #: 322664 **Project ID:**

Analyst: ASA **Date Prepared:** 01/17/2009 **Date Analyzed:** 01/17/2009

Lab Batch ID: 746804 **Sample:** 523063-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BTEX by EPA 8021B	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY										
Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	ND	0.1000	0.1062	106	0.1	0.1054	105	1	70-130	35	
Toluene	ND	0.1000	0.0992	99	0.1	0.0986	99	1	70-130	35	
Ethylbenzene	ND	0.1000	0.1013	101	0.1	0.1008	101	0	71-129	35	
m,p-Xylenes	ND	0.2000	0.2002	100	0.2	0.1991	100	1	70-135	35	
o-Xylene	ND	0.1000	0.0957	96	0.1	0.0953	95	0	71-133	35	

Analyst: BHW **Date Prepared:** 01/16/2009 **Date Analyzed:** 01/17/2009

Lab Batch ID: 746816 **Sample:** 523072-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

TPH By SW8015 Mod	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY										
Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	ND	1000	928	93	1000	918	92	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1000	974	97	1000	957	96	2	70-135	35	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

Form 3 - MS Recoveries

Project Name: Lotsa Luck

Work Order #: 322664
Lab Batch #: 746789
Project ID:
Date Analyzed: 01/16/2009 **Date Prepared:** 01/16/2009 **Analyst:** LATCOR
QC- Sample ID: 322664-001 S **Batch #:** 1 **Matrix:** Soil
Reporting Units: mg/kg

Inorganic Anions by EPA 300	MATRIX / MATRIX SPIKE RECOVERY STUDY					
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	19100	5110	11400	0	80-120	X

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference [E] = 200*(C-A)/(C+B)
All Results are based on MDL and Validated for QC Purposes

Form 3 - MS / MSD Recoveries

Project Name: Lotsa Luck

Work Order # : 322664 **Project ID:**

Lab Batch ID: 746804 **QC- Sample ID:** 322664-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 01/17/2009 **Date Prepared:** 01/17/2009 **Analyst:** ASA

Reporting Units: mg/kg

BTEX by EPA 8021B Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	ND	0.1277	0.0791	62	0.1277	0.0809	63	2	70-130	35	X
Toluene	ND	0.1277	0.0638	50	0.1277	0.0660	52	4	70-130	35	X
Ethylbenzene	ND	0.1277	0.0523	41	0.1277	0.0552	43	5	71-129	35	X
m,p-Xylenes	ND	0.2555	0.1016	40	0.2555	0.1080	42	5	70-135	35	X
o-Xylene	ND	0.1277	0.0447	35	0.1277	0.0498	39	11	71-133	35	X

Lab Batch ID: 746816 **QC- Sample ID:** 322641-003 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 01/19/2009 **Date Prepared:** 01/16/2009 **Analyst:** BHW

Reporting Units: mg/kg

TPH By SW8015 Mod Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	ND	1160	1170	101	1160	1100	95	6	70-135	35	
C12-C28 Diesel Range Hydrocarbons	46.7	1160	1220	101	1160	1190	99	2	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit

Sample Duplicate Recovery

Project Name: Lotsa Luck

Work Order #: 322664

Lab Batch #: 746789 **Project ID:**

Date Analyzed: 01/16/2009 **Date Prepared:** 01/16/2009 **Analyst:** LATCOR

QC- Sample ID: 322664-001 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: mg/kg

Anions by EPA 300	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Chloride	19100	19000	1	20	

Lab Batch #: 746793

Date Analyzed: 01/16/2009 **Date Prepared:** 01/16/2009 **Analyst:** ASA

QC- Sample ID: 322657-001 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: %

Percent Moisture	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	7.42	9.66	26	20	F

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes.

Environmental Lab of Texas

12600 West I-20 East
Odessa, Texas 79765

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Phone: 432-563-1800
Fax: 432-563-1713

Project Manager: Jim Holton
Company Name: Merit Energy Company
Company Address: P.O. Box 300
City/State/Zip: Whiteface, Texas 79379
Telephone No: 432-831-5788
Fax No: 432-563-1166
Sampler Signature: [signature]
e-mail: Jim@JHCon.net

Project Name: Lotsa Luck
Project #:
Project Loc:
PO #:
Report Format: ☑ Standard ☐ TRRP ☐ NPDES

(lab use only)
ORDER #: 322664

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	No. of Containers	Ice	HNO_3	HCl	H_2SO_4	NaOH	$Na_2S_2O_3$	None	Other (Specify)	Matrix	TPH 418.1 8015M 1005 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, CO3, HCO3)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	NORM	Chlorides	Elec Conductivity	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
01	Inside			1/15/2009		1	X								S	X							X			X		X	
02	Outside			1/15/2009		1	X								SL	X							X			X		X	
03	Rock			1/15/2009		1	X								S											X		X	
04	Background			1/15/2009		1	X								S											X		X	

Special Instructions:

Relinquished by	Date	Time	Received by	Date	Time
[signature]	1-16-09	10:20			
Relinquished by	Date	Time	Received by	Date	Time
Relinquished by	Date	Time	Received by ELOT: [signature]	1-16-09	10:20

Laboratory Comments:
Sample Containers Intact? (Y) N
VOCs Free of Headspace? (Y) N
Custody seals on container(s) Y (N)
Custody seals on cooler(s) Y (N)
Sample Hand Delivered (Y) N
by Sampler/Client Rep. ? Y N
by Courier? UPS DHL FedEx Lone Star
4oz glass
Temperature Upon Receipt: 4.5 °C

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Merit Energy

Date/ Time: 1.16.09 10:20

Lab ID # : 327064

Initials: AL

Sample Receipt Checklist

					Client Initials
#1	Temperature of container/ cooler?	Yes	No	4.5 °C	
#2	Shipping container in good condition?	Yes	No		
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	<Not Present>	
#4	Custody Seals intact on sample bottles/ container?	Yes	No	Not Present	
#5	Chain of Custody present?	Yes	No		
#6	Sample instructions complete of Chain of Custody?	Yes	No		
#7	Chain of Custody signed when relinquished/ received?	Yes	No		
#8	Chain of Custody agrees with sample label(s)?	Yes	No	ID written on Cont / Lid	
#9	Container label(s) legible and intact?	Yes	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	Yes	No		
#11	Containers supplied by ELOT?	Yes	No		
#12	Samples in proper container/ bottle?	Yes	No	See Below	
#13	Samples properly preserved?	Yes	No	See Below	
#14	Sample bottles intact?	Yes	No		
#15	Preservations documented on Chain of Custody?	Yes	No		
#16	Containers documented on Chain of Custody?	Yes	No		
#17	Sufficient sample amount for indicated test(s)?	Yes	No	See Below	
#18	All samples received within sufficient hold time?	Yes	No	See Below	
#19	Subcontract of sample(s)?	Yes	No	<Not Applicable>	
#20	VOC samples have zero headspace?	Yes	No	Not Applicable	

Variance Documentation

Contact: _____ Contacted by: _____ Date/ Time: _____

Regarding: _____

Corrective Action Taken: _____

Check all that Apply:

- ☐ See attached e-mail/ fax
- ☐ Client understands and would like to proceed with analysis
- ☐ *Cooling process had begun shortly after sampling event*

Analytical Report 327827

for

JHCon

Project Manager: Jim Hollon

LOTSA LUCK #3

—

25-MAR-09

9701 Harry Hines Blvd, Dallas, TX 75220
Ph:(214) 902-0300 Fax:(214) 351-9139

Texas certification numbers:
Houston, TX T104704215-08B-TX - Odessa/Midland, TX T104704400-08-TX

Florida certification numbers:
Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675
Miramar, FL E86349
Norcross(Atlanta), GA E87429

South Carolina certification numbers:
Norcross(Atlanta), GA 98015

North Carolina certification numbers:
Norcross(Atlanta), GA 483

Houston - Dallas - San Antonio - Tampa - Miami - Latin America
Midland - Corpus Christi - Atlanta

XENCO Laboratories

25-MAR-09

Project Manager: **Jim Hollon**
JHCon
14034 W. Rd. 123
Odessa, TX 79765

Reference: XENCO Report No: **327827**
LOTSA LUCK #3
Project Address: --

Jim Hollon:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 327827. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 327827 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron, II
Odessa Laboratory Manager

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
NW	S	Mar-15-09 00:00		327827-001
SW	S	Mar-15-09 00:00		327827-002
NE	S	Mar-15-09 00:00		327827-003
SE	S	Mar-15-09 00:00		327827-004
South Side	S	Mar-15-09 00:00		327827-005
North Side	S	Mar-15-09 00:00		327827-006
East Side	S	Mar-15-09 00:00		327827-007
West Side	S	Mar-15-09 00:00		327827-008
BERM	S	Mar-15-09 00:00		327827-009

XENCO Laboratories

Sample Cross Reference 327827

JHCon. Odessa, TX

Certificate of Analysis Summary 327827

JHCon, Odessa, TX

Project Name: LOTSA LUCK #3

Project Id: --
Contact: Jim Hollon
Project Location: --

Date Received in Lab: Wed Mar-18-09 03:02 pm
Report Date: 25-MAR-09
Project Manager: Brent Barron, II

Analysis Requested	*Lab Id:*	327827-001		327827-002		327827-003		327827-004		327827-005		327827-006	
	Field Id:	NW		SW		NE		SE		South Side		North Side	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Mar-15-09 00:00		Mar-15-09 00:00		Mar-15-09 00:00		Mar-15-09 00:00		Mar-15-09 00:00		Mar-15-09 00:00	
Percent Moisture	*Extracted:*												
	Analyzed:	Mar-25-09 09:30		Mar-25-09 09:30		Mar-25-09 09:30		Mar-25-09 09:30		Mar-25-09 09:30		Mar-25-09 09:30	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		13.51	1.00	14.28	1.00	11.04	1.00	14.28	1.00	19.77	1.00	15.47	1.00
Total Chloride by EPA 325.3	*Extracted:*												
	Analyzed:	Mar-19-09 11:25		Mar-19-09 11:25		Mar-19-09 11:25		Mar-19-09 11:25		Mar-19-09 11:25		Mar-19-09 11:25	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		2360	57.8	1940	117	2470	112	1280	117	4090	125	3520	118

Carlos Castro
Laboratory Manager

Certificate of Analysis Summary 327827

JHCon, Odessa, TX

Project Name: LOTSA LUCK #3

Project Id: –
Contact: Jim Hollon
Project Location: –

Date Received in Lab: Wed Mar-18-09 03:02 pm
Report Date: 25-MAR-09
Project Manager: Brent Barron, II

Analysis Requested	*Lab Id:*	327827-007		327827-008		327827-009				
	Field Id:	East Side		West Side		BERM				
	Depth:									
	Matrix:	SOIL		SOIL		SOIL				
	Sampled:	Mar-15-09 00:00		Mar-15-09 00:00		Mar-15-09 00:00				
Percent Moisture	*Extracted:*									
	Analyzed:	Mar-25-09 09:30		Mar-25-09 09:30		Mar-25-09 09:30				
	Units/RL:	%	RL	%	RL	%	RL			
Percent Moisture		17.32	1.00	16.06	1.00	18.81	1.00			
Total Chloride by EPA 325.3	*Extracted:*									
	Analyzed:	Mar-19-09 11:25		Mar-19-09 11:25		Mar-19-09 11:25				
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL			
Chloride		4210	121	2640	119	1100	123			

Since 1990 Houston - Dallas - San Antonio - Austin - Tampa - Miami - Latin America - Atlanta - Corpus Christi

Carlos Castro
Laboratory Manager

Form 3 - MS / MSD Recoveries

Project Name: LOTSA LUCK #3

Work Order #: 327827 **Project ID:** –

Lab Batch ID: 753063 **QC- Sample ID:** 327827-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 03/19/2009 **Date Prepared:** 03/19/2009 **Analyst:** JOR

Reporting Units: mg/kg

Total Chloride by EPA 325.3 Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	2360	1160	3660	112	1160	3560	103	3	75-125	30	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit

Sample Duplicate Recovery

Project Name: LOTSA LUCK #3

Work Order #: 327827

Lab Batch #: 753775 **Project ID:** -

Date Analyzed: 03/25/2009 **Date Prepared:** 03/25/2009 **Analyst:** JOH

QC- Sample ID: 327827-001 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: %

Percent Moisture Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY				
	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	13.5	13.8	2	20	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes.

XENCO
B&A Laboratories, Inc

- ☐ 5143 Greenbriar Drive, Stafford, Tx 77477
- ☐ 5332 Blackberry Drive, San Antonio, Tx 78238
- ☐ 9701 Harry Hines Blvd, Dallas, Tx 75220 214-902-0300
- ☐ 12600 West I-20 East, Odessa, Tx 79765
- ☐ 842 Cantwell, Corpus Christi, Tx 78408

ANALYSIS REQUEST & CHAIN OF CUSTODY RECORD

Serial #: 240299 Page of

Lab Only: 327827-D

Company-City: JHCON ODESSA Phone: 432-631-5768

Proj Name-Location: LOTSA LUCK #3 ☐ Previously done at XENCO Project ID

Proj State: TX, AL, FL, GA, LA, MS, NC, NJ, PA, SC, TN, UT Other: NM

Proj. Manager (PM): Jim Hollon

e-Mail Results to ☒ PM and: Jim@JHCON.NET Fax No: 432-563-1166

Invoice to ☐ Accounting ☐ Inc. Invoice with Final Report ☐ Invoice must have a P.O.

Bill to:

Quote/Pricing: P.O No: ☐ Call for P.O

Reg Program: UST DRY-CLEAN Land-Fill Waste-Disp NPDES DW TRRP

QAPP Per-Contract CLP AFCEE NAVY DOE DOD USACE OTHER:

Special DLs (GW DW QAPP MDLs RLs See Lab PM Included Call PM)

Sampler Name: Jim Hollon Signature: [signature]

TAT: ASAP 5h 12h 24h 48h 3d 5d 7d 10d 21d Standard TAT is project specific. It is typically 5-7 Working Days for level II and 10 Working days for level III and IV data

	Sample ID	Sampling Date	Time	Depth	Matrix	Composite	Grab	# Containers	Container Size	Container Type	Preservatives	VOCs: Full-List BTEX-MTBE EtOH Oxyg VOHs VOAs	VOCs PP TCL DW Appdx-1 Appdx-2 CALL Other	PAHs	TX-1005 DRO GRO MA EPH MA VPH	SVOCs: Full-List DW BN&AE TCL PP Appdx-2 CALL	OC Pesticides PCBs Herbicides OP Pesticides	Metals: RCRA-8 RCRA-4 Pb 13PP 23TAL Appdx 1 Appdx 2	SPLP TCLP Metals VOCs SVOCs Pest Herb PCBs	EDB / DBCP	Chlorides [illegible]	TAT ASAP 5h 12h 24h 48h 3d 5d 7d 10d 21d	Addn PAH above mg/L W mg/Kg S Highest Hit	Hold Samples (Surcharges will apply and are pre-approved)	Sample Clean-ups are pre-approved as needed
1	NW	3-15-09			S	X		1	4oz	C	ice										X				
2	SW	↓			↓	↓		↓		↓											↓				
3	NE																								
4	SE																								
5	SOUTH SIDE																								
6	NORTH SIDE																								
7	EAST SIDE																								
8	WEST SIDE																								
9																									
10																									

Relinquished by (Initials and Sign)	Date & Time	Relinquished to (Initials and Sign)	Date & Time
1) [signature]	3-18-09 15:02	2)	
3)		4)	
5)		6) Elvia Gonzalez [signature]	3/18/09 15:00

Total Containers per COC: Cooler Temp: 27.3 C

Upon ... this COC ... accept XENCO terms and Conditions unless otherwise agreed ... Report is the Intellectual Property of XENCO until paid. Samples will be held 30 days after final report is emailed unless hereby requested. Rush ... and Collection Fees are pre-approved if needed.

Preservatives: Various (V), HCl pH<2 (H), H2SO4 pH<2 (S), HNO3 pH<2 (N), Asb Acid&NaOH (A), ZnAc&NaOH (Z), Cool <4C (C), None (NA), See Label (L), Other (O)

Cont. Size: 4oz (4), 8oz (8), 32oz (32), 40ml VOA (40), 1L (1), 500ml (5), Tedlar Bag (B), Various (V), Other

Cont. Type: Glass Amb (A), Glass Clear (C), Plastic (P), Various (V)

Matrix: Air (A), Product (P), Solid (S), Water (W), Liquid (L)

Committed to Excellence in Service and Quality www.xenco.com

Notice: Signature of this document and relinquishment of these samples constitutes a valid purchase order from client company to Xenco Laboratories and its affiliates, subcontractors and assigns under Xenco's standard terms and conditions of service unless previously negotiated under a fully executed client contract.

Prelogin / Nonconformance Report - Sample Log-In

Client: JH Com

Date/Time: 03/18/09

Lab ID #: 327827

Initials: fm

Sample Receipt Checklist

1. Samples on ice?	Blue	Water	(No)
2. Shipping container in good condition?	Yes	No	(None)
3. Custody seals intact on shipping container (cooler) and bottles?	Yes	No	(N/A)
4. Chain of Custody present?	(Yes)	No	
5. Sample instructions complete on chain of custody?	(Yes)	No	
6. Any missing / extra samples?	(Yes)	(No) fm	
7. Chain of custody signed when relinquished / received?	(Yes)	No	
8. Chain of custody agrees with sample label(s)?	(Yes)	No	
9. Container labels legible and intact?	(Yes)	No	
10. Sample matrix / properties agree with chain of custody?	(Yes)	No	
11. Samples in proper container / bottle?	(Yes)	No	
12. Samples properly preserved?	(Yes)	No	N/A
13. Sample container intact?	(Yes)	No	
14. Sufficient sample amount for indicated test(s)?	(Yes)	No	
15. All samples received within sufficient hold time?	(Yes)	No	
16. Subcontract of sample(s)?	Yes	No	(N/A)
17. VOC sample have zero head space?	Yes	No	(N/A)

18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.	Cooler 4 No.	Cooler 5 No.
lbs 27.3 °C	lbs °C	lbs °C	lbs °C	lbs °C

Nonconformance Documentation

Contact: _____ Contacted by: _____ Date/Time: _____

Regarding: Received 5x BERM not listed in COC. Temp 27.3 not on ice.

Corrective Action Taken: Client called see attached email. MW

Check all that apply:
- ☐ Client understands and would like to proceed with analysis
- ☐ Cooling process had begun shortly after sampling event

Gmail

Mandy Watkins <mandy.watkins@xenco.com>

Fw: WO 327827 / Lotsa Luck # 3

1 message

Andrea Lam <andrea.lam@xenco.com> **Fri, Mar 20, 2009 at 9:00 AM**
To: Mandy Watkins <mandy.watkins@xenco.com>

----- Original Message -----
From: Jim Hollon
To: 'Andrea Lam'
Sent: Thursday, March 19, 2009 11:18 PM
Subject: RE: WO 327827 / Lotsa Luck # 3

Andrea, please add the Berm sample to the COC and the Method 325 will be fine. Thank you for being on your toes, even when I was in Dallas.

Thanks again, Jim

From: Andrea Lam [mailto:andrea.lam@xenco.com]
Sent: Wednesday, March 18, 2009 4:50 PM
To: jim@jhcon.net
Subject: WO 327827 / Lotsa Luck # 3

Jim- Please respond to this email confirming our phone call that you would like to add the sample Berm to the COC and that it is okay to run the 325.3 Cl method.

Thank You,
Andrea Lam
Sample Receiving / Project Assistant

Environmental Lab of Texas
A Xenco Company
12600 W I-20 E
Odessa, TX 79765
432-563-1800

Analytical Report 332718

for

Merit Energy

Project Manager: Jim Hollon

Lotsa Luck

18-MAY-09

12600 West I-20 East Odessa, Texas 79765

Texas certification numbers:
Houston, TX T104704215-08B-TX - Odessa/Midland, TX T104704400-08-TX

Florida certification numbers:
Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675
Miramar, FL E86349
Norcross(Atlanta), GA E87429

South Carolina certification numbers:
Norcross(Atlanta), GA 98015

North Carolina certification numbers:
Norcross(Atlanta), GA 483

Houston - Dallas - San Antonio - Tampa - Miami - Latin America
Midland - Corpus Christi - Atlanta

XENCO Laboratories

18-MAY-09

Project Manager: **Jim Hollon**
Merit Energy
P.O. Box 300
Whiteface, TX 79379

Reference: XENCO Report No: **332718**
Lotsa Luck
Project Address:

Jim Hollon:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 332718. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 332718 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron, II
Odessa Laboratory Manager

Xenco Laboratories

Sample Cross Reference 332718

nelac

Merit Energy, Whiteface, TX

Lotsa Luck

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
NW 4'	S	May-12-09 00:00		332718-001
SW 20'	S	May-12-09 00:00		332718-002
NE Background	S	May-12-09 00:00		332718-003
S Background	S	May-12-09 00:00		332718-004
Bottom	S	May-12-09 00:00		332718-005

XENCO Laboratories

Certificate of Analysis Summary 332718

Merit Energy, Whiteface, TX

Project Name: Lotsa Luck

Project Id:

Contact: Jim Hollon

Project Location:

Date Received in Lab: Thu May-14-09 09:25 am

Report Date: 18-MAY-09

Project Manager: Brent Barron, II

Analysis Requested	*Lab Id:*	332718-001		332718-002		332718-003		332718-004		332718-005		
	Field Id:	NW 4'		SW 20'		NE Background		S Background		Bottom		
	Depth:											
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		
	Sampled:	May-12-09 00.00		May-12-09 00:00		May-12-09 00:00		May-12-09 00:00		May-12-09 00:00		
Anions by EPA 300	*Extracted:*											
	Analyzed:	*May-14-09 14:10*		*May-14-09 14:10*		*May-14-09 14:10*		*May-14-09 14:10*		*May-14-09 14:10*		
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	
Chloride		596	59.3	826	56.8	58.4	28.7	421	56.0	123	27.2	
Percent Moisture	*Extracted:*											
	Analyzed:	May-15-09 08:50		May-15-09 08:50		May-15-09 08:50		May-15-09 08:50		May-15-09 08:50		
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	
Percent Moisture		15.63	1.00	11.91	1.00	12.87	1.00	10.73	1.00	8.14	1.00	

Brent Barron
Odessa Laboratory Director

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the MQL and above the SQL.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

BRL Below Reporting Limit.

RL Reporting Limit

* Outside XENCO's scope of NELAC Accreditation.

XENCO Laboratories

Blank Spike Recovery

ACCREDITED IN ACCORDANCE WITH nelac

Project Name: Lotsa Luck

Work Order #: 332718 **Project ID:**

Lab Batch #: 759013 **Sample:** 759013-1-BKS **Matrix:** Solid

Date Analyzed: 05/14/2009 **Date Prepared:** 05/14/2009 **Analyst:** BEV

Reporting Units: mg/kg **Batch #:** 1

BLANK /BLANK SPIKE RECOVERY STUDY

Anions by EPA 300 Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Chloride	ND	10.0	9.40	94	90-110	

Blank Spike Recovery [D] = 100*[C]/[B]
All results are based on MDL and validated for QC purposes.
BRL - Below Reporting Limit

Form 3 - MS Recoveries

Project Name: Lotsa Luck

Work Order #: 332718
Lab Batch #: 759013
Date Analyzed: 05/14/2009
QC- Sample ID: 332660-001 S
Reporting Units: mg/kg

Project ID:
Date Prepared: 05/14/2009
Analyst: BEV
Batch #: 1
Matrix: Soil

Inorganic Anions by EPA 300	MATRIX / MATRIX SPIKE RECOVERY STUDY					
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	5290	2190	7270	90	80-120	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference [E] = 200*(C-A)/(C+B)
All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit

Sample Duplicate Recovery

Project Name: Lotsa Luck

Work Order #: 332718

Lab Batch #: 759013 **Project ID:**

Date Analyzed: 05/14/2009 **Date Prepared:** 05/14/2009 **Analyst:** BEV

QC- Sample ID: 332660-001 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: mg/kg

Anions by EPA 300	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Chloride	5290	5070	4	20	

Lab Batch #: 759005

Date Analyzed: 05/15/2009 **Date Prepared:** 05/15/2009 **Analyst:** BEV

QC- Sample ID: 332661-001 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: %

Percent Moisture	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	4.74	5.08	7	20	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes.
BRL - Below Reporting Limit

Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765

Phone: 432-563-1800
Fax: 432-563-1713

Project Manager: Jim Holton
Company Name: Merit Energy Company
Company Address: PO Box 300
City/State/Zip: Whiteface, Texas 79379
Telephone No: 432-631-4788
Fax No: 432-563-1166
Sampler Signature: [signature]
e-mail: Jim@JHCon.net

Project Name: Lotsa Luck
Project #:
Project Loc:
PO #:
Report Format: ☑ Standard ☐ TRRP ☐ NPDES

(lab use only)
ORDER #: 332718

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	No. of Containers	Ice	HNO_3	HCl	H_2SO_4	NaOH	$Na_2S_2O_3$	None	Other (Specify)	Matrix	TPH 418.1 8015M 1005 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, CO3, HCO3)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	Chloride	Specific Conductance	Sodium	RUSH TAT	Standard TAT
01	NW 4'			5/12/2009		1							X		S											X				X
02	SW 20'			5/12/2009		1							X		S											X				X
03	NE background			5/12/2009		1							X		S											X				X
04	S background			5/12/2009		1							X		S											X				X
05	Bottom			5/12/2009		1							X		S											X				X

Special Instructions:

Relinquished by:	Date	Time	Received by:	Date	Time
[signature]	5-14-09	9:25			
			Received by ELOT: [signature]	5.14.09	9:25

Laboratory Comments:
Sample Containers Intact? (Y) N
VOCs Free of Headspace? Y (N/A)
Custody seals on container(s) (Y) N
Custody seals on cooler(s) Y (N)
Sample Hand Delivered (Y) N
by Sampler/Client Rep ? Y N
by Courier? UPS DHL FedEx Lone Star
4029455
Temperature Upon Receipt: 20.5 °C

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Merit Energy

Date/ Time: 5.14.09 9:25

Lab ID #: 332718

Initials: AL

Sample Receipt Checklist

					Client Initials
#1	Temperature of container/ cooler?	(Yes)	No	7.0.5 °C	
#2	Shipping container in good condition?	(Yes)	No		
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	(Not Present)	
#4	Custody Seals intact on sample bottles/ container?	(Yes)	No	Not Present	
#5	Chain of Custody present?	(Yes)	No		
#6	Sample instructions complete of Chain of Custody?	(Yes)	No		
#7	Chain of Custody signed when relinquished/ received?	(Yes)	No		
#8	Chain of Custody agrees with sample label(s)?	(Yes)	No	ID written on Cont./ Lid	
#9	Container label(s) legible and intact?	(Yes)	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	(Yes)	No		
#11	Containers supplied by ELOT?	(Yes)	No		
#12	Samples in proper container/ bottle?	(Yes)	No	See Below	
#13	Samples properly preserved?	(Yes)	No	See Below	
#14	Sample bottles intact?	(Yes)	No		
#15	Preservations documented on Chain of Custody?	(Yes)	No		
#16	Containers documented on Chain of Custody?	(Yes)	No		
#17	Sufficient sample amount for indicated test(s)?	(Yes)	No	See Below	
#18	All samples received within sufficient hold time?	(Yes)	No	See Below	
#19	Subcontract of sample(s)?	Yes	No	(Not Applicable)	
#20	VOC samples have zero headspace?	Yes	No	(Not Applicable)	

Variance Documentation

Contact: _____ Contacted by: _____ Date/ Time: _____

Regarding: _____

Corrective Action Taken: _____

Check all that Apply:

- ☐ See attached e-mail/ fax
- ☐ Client understands and would like to proceed with analysis
- ☐ Cooling process had begun shortly after sampling event

APPENDIX C

Photographs

Figure 1: Pit bottom during excavation

Figure 2: Northeast corner trench, approximately 4 feet beyond pit sidewall

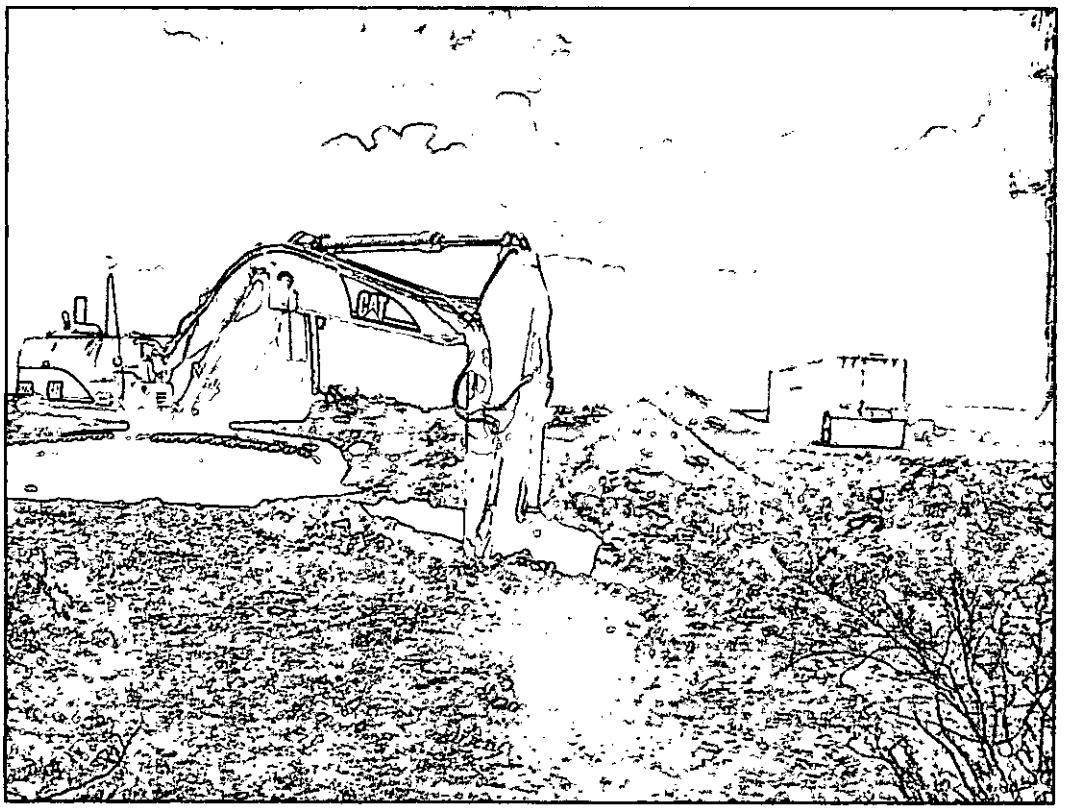


Figure 3: Excavating the south background trench

Figure 4: The 18-24" trench in the pit bottom

APPENDIX D

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	☐ 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. - FEMA map	☐ Yes ☐ 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_2S, Prevention Plan
- ☐ Emergency Response Plan
- ☐ Oil Field Waste Stream Characterization
- ☐ Monitoring and Inspection Plan
- ☐ Erosion Control Plan
- ☐ Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

14.
Proposed Closure: 19.15.17.13 NMAC
Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.

Type: ☒ Drilling ☐ Workover ☐ Emergency ☐ Cavitation ☐ P&A ☐ Permanent Pit ☐ Below-grade Tank ☐ Closed-loop System ☐ Alternative

Proposed Closure Method: ☒ Waste Excavation and Removal
- ☐ Waste Removal (Closed-loop systems only)
- ☐ On-site Closure Method (Only for temporary pits and closed-loop systems)
  - ☐ In-place Burial ☐ On-site Trench Burial
- ☐ Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)

15.
Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) ***Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.***

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

16.
Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: (19.15.17.13.D NMAC)
Instructions: Please indentify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment if more than two facilities are required.

Disposal Facility Name: 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: _____