

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

Form C-141  
Revised October 10, 2003

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

Submit 1 Copy to appropriate District Office in  
accordance with 19.15.29 NMAC

Release Notification and Corrective Action

RECEIVED

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: Linn Operating	Contact: Gary Wink
Address: 2130 W. Bender Hobbs, NM 88240	Telephone No.: 575-738-1739
Facility Name: CMU # 51	Facility Type: Injection

Surface Owner: State	Mineral Owner: State	API No.: 3002501484
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LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
F	19	17S	33E	1980	North	2048	W	Lea

Latitude: 32.8218332714731 Longitude: -103.704635399441

NATURE OF RELEASE

Type of Release: Produced Water	Volume of Release: 150 bbls	Volume Recovered: 100 bbls
Source of Release: Valve	Date and Hour of Occurrence: 11/03/2012 1:15pm	Date and Hour of Discovery: 11/03/2012 1:45pm
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Trish Bad Bear - BLM	
By Whom? Gary Wink	Date and Hour 11/05/2012 10:00am	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*:

Describe Cause of Problem and Remedial Action Taken.\*: Eddie was checking the N. Inj. plant and the pumps went down on low pressure. He si main valves. He looked to the west off the cap and could see a leak at the CMU #51 area. He contacted myself to si all injection wells to prevent any back flow to the leak site. Vac trucks were called. A vac truck was taken to the leak site to pull fluid from a tin horn in which the leak was coming from. Upon removal of fluid an open valve could be seen. The valve was closed stopping the leak. This valve was connected to the CMU #51 injection line which is P&A. The threads on the line gave way and it became disconnected. This valve has been open due to it appears this line is tied into the grid system of injection lines. A gang arrived helping to dig out the area gaining access to the leak. A new 5000# valve and plug was placed on the line coming from the main trunk line. Also 5000# valve and plug was place on the injection line from the #51 to prevent any possible back flow. The flood system was placed back in service with no further problems.

Describe Area Affected and Cleanup Action Taken.\* : The area covered was about 450' from the tin horn to the west. From the west point of the path the fluid stream traveled to the south about 330'. The stream varied in width from about 10' to 50'. The tin horn is north of the CMU#51 about 75'.

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

Signature: <i>Gary W. Wink</i>	OIL CONSERVATION DIVISION	
Printed Name: Gary Wink	ENV SPECIALIST	
Title: Construction Foreman	Approved by District Supervisor: <i>Jeff Lebrun</i>	
E-mail Address: gawink@linenergy.com	Approval Date: 11/6/12	Expiration Date: 01/7/12
Date: 11/6/2012 Phone: 575-390-3477	Conditions of Approval: DELINATE AND REMEDIATE PER NMOCD RRLS	Attached <input type="checkbox"/> 1RP-11-12-2862

\* Attach Additional Sheets If Necessary

SUBMIT FINAL C-141 BY 01/07/12



# **Linn Energy**

## **Remediation Summary**

**CMU#51**

**Lea County, NM**

**GPS N32.82196 W-103 01.98740**

**Start date: 5NOV12**

**Finish date: 30AUG13**

**Prepared By: Oscar Frayre**

Environmental Technician

Hungry Horse, LLC

PO Box 1058

Hobbs, NM 88241

(575)-393-3386





## **1.0 Introduction**

**This report addresses the remediation of an accidental discharge of a flow line at the CMU #51 belonging to Linn Energy. Analytical results, an overhead map, and a sketch are included on this document as attachments. The project manager for Hungry Horse Environmental LLC Services was Oscar Frayre.**

## **2.0 Area Description**

**The top four feet is primarily fine sand. The depth to ground water is presumed to be at 100'-125' based on the Lea County depth to ground water map. There are 6 existing water wells within a half of a mile of this location. This location is in Lea County, New Mexico 0.4 miles North of W-7 and Mescalero road.**

## **3.0 Remediation Process**

**We began to excavate the contaminated area, due to high chloride levels we continued to explore the soil by taking random soil samples and field testing for Chlorides. There are three separate excavations from results of the accidental discharge. Excavation 1: The excavated area is an area of 80'x30'x4' below ground surface. Soil samples were obtained and analyzed for Chlorides, TPH 8015m, and BTEX. Lab analysis was presented to NM OCD (Oil Conservation Division) Geoffry Leking. The Chloride levels were not in the closure limits and an exploratory well was requested. The well was drilled and field tested for chlorides every five feet at the depth of 80' ground water was impacted and immediately a monitor well was installed. Geoffry Leking was notified immediately and requested two more monitor wells north and south of the existing monitor well contouring with the land so it can now be monitored. Approval was given to backfill the affected area using clean material and install a 20ml plastic liner at the depth of 4'. All contaminated soil was transported to a division approved disposal facility, and the area disturbed was seeded using an approved seed mixture.**

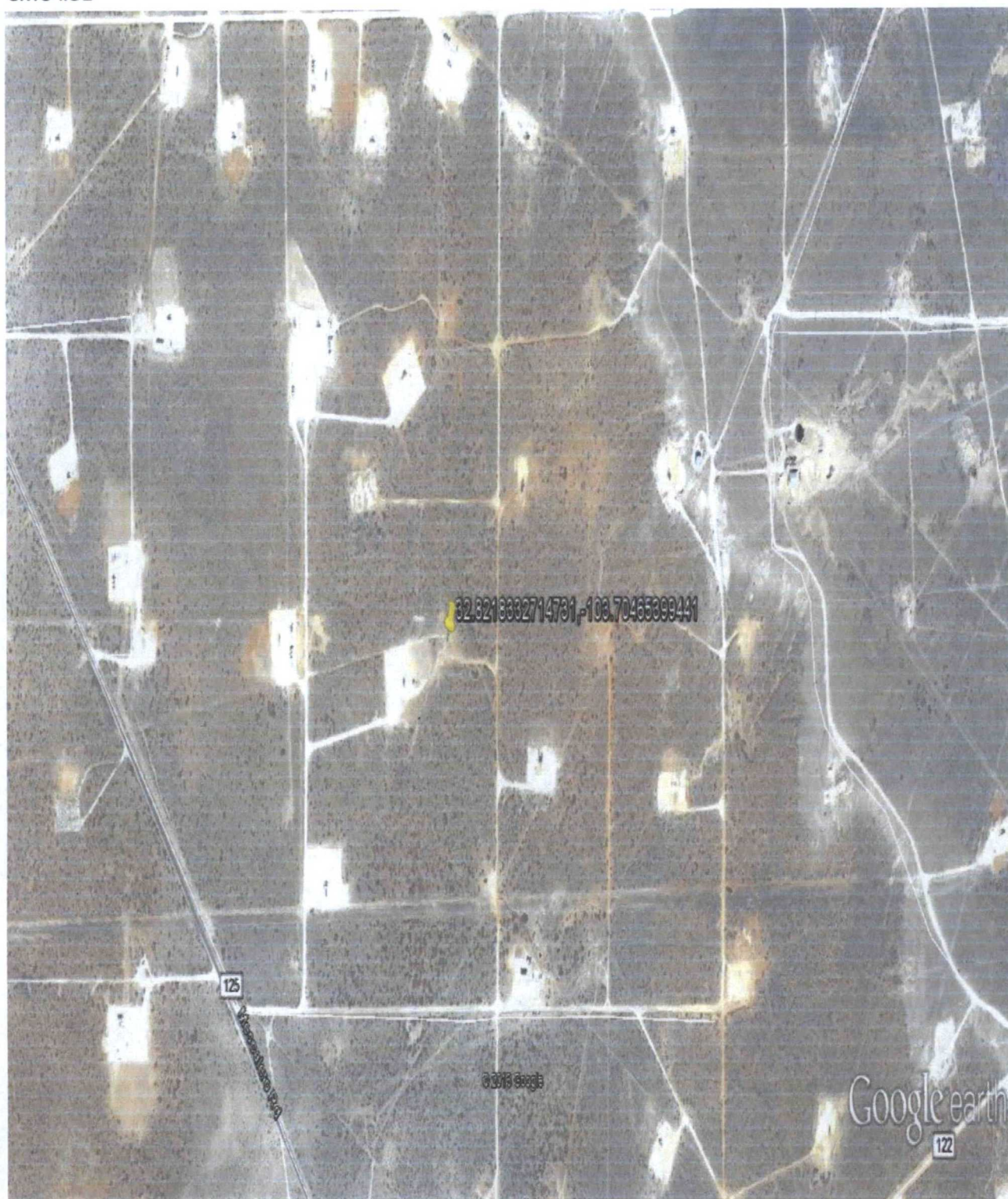
**Excavation 2: The excavated area is an area of 50'x30'x7' below ground surface. Soil samples were obtained and analyzed for Chlorides, TPH 8015m, and BTEX.**

Lab analysis was presented to NM OCD (Oil Conservation Division) Geoffry Leking. The four walls (north, south, west and east) were clean from any contamination the bottom of the excavation was high in chlorides. There was a pre-existing contamination in the area delineated. At 7'BGS an existing liner contained the accidental discharge contamination that was placed from the prior pre-existing contamination delineation. Approval was given to backfill the affected area with clean material. All contaminated soil was transported to a division approved disposal facility, and the area disturbed was seeded using an approved seed mixture.

Excavation 3: The excavated area is an area of 40'x37'x4' below ground surface. Soil samples were obtained and analyzed for Chlorides, TPH 8015m, and BTEX. Lab analysis was presented to NM OCD (Oil Conservation Division) Geoffry Leking. The four walls (north, south, west and east) were clean from any contamination the bottom of the excavation was high in chlorides. The Chloride levels were not in the closure limits and an exploratory well was requested. The well was drilled and field tested for chlorides every five feet at the depth of 50' chloride levels decreased with depth at 48.0 ppm a sample was collected and delivered to the lab for analytical results. Lab analysis was presented to NM OCD (Oil Conservation Division) Geoffry Leking and approval was given to backfill the affected area with clean material. All contaminated soil was transported to a division approved disposal facility, and the area disturbed was seeded using an approved seed mixture.



CMU #51







PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

January 29, 2013

VERNON BLACK

Hungry Horse Environmental

P.O. Box 1058

Hobbs, NM 88240

RE: CMU #266

Enclosed are the results of analyses for samples received by the laboratory on 01/25/13 15:45.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/ga/lab/accred\\_certif.html](http://www.tceq.texas.gov/field/ga/lab/accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



**Analytical Results For:**

 Hungry Horse Environmental  
 VERNON BLACK  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

 Received: 01/25/2013  
 Reported: 01/29/2013  
 Project Name: CMU #266  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

 Sampling Date: 01/25/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: N EXC @ 15' (H300227-01)**

BTEX 8021B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/28/2013	ND	1.76	88.2	2.00	25.1	
Toluene*	<0.050	0.050	01/28/2013	ND	1.89	94.6	2.00	24.5	
Ethylbenzene*	<0.050	0.050	01/28/2013	ND	1.95	97.6	2.00	24.5	
Total Xylenes*	<0.150	0.150	01/28/2013	ND	5.97	99.6	6.00	24.0	
Total BTEX	<0.300	0.300	01/28/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 101 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2560	16.0	01/29/2013	ND	448	112	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/27/2013	ND	198	98.9	200	1.48	
DRO >C10-C28	<10.0	10.0	01/27/2013	ND	177	88.7	200	0.110	

Surrogate: 1-Chlorooctane 65.3 % 65.2-140

Surrogate: 1-Chlorooctadecane 73.6 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



**Analytical Results For:**

 Hungry Horse Environmental  
 VERNON BLACK  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

 Received: 01/25/2013  
 Reported: 01/29/2013  
 Project Name: CMU #266  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

 Sampling Date: 01/25/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: S EXC PT 1 @ 2' (H300227-02)**

BTEX 8021B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/28/2013	ND	1.76	88.2	2.00	25.1		
Toluene*	<0.050	0.050	01/28/2013	ND	1.89	94.6	2.00	24.5		
Ethylbenzene*	<0.050	0.050	01/28/2013	ND	1.95	97.6	2.00	24.5		
Total Xylenes*	<0.150	0.150	01/28/2013	ND	5.97	99.6	6.00	24.0		
Total BTEX	<0.300	0.300	01/28/2013	ND						

Surrogate: 4-Bromofluorobenzene (PII) 101 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	320	16.0	01/29/2013	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/28/2013	ND	198	98.9	200	1.48	
DRO >C10-C28	<10.0	10.0	01/28/2013	ND	177	88.7	200	0.110	

Surrogate: 1-Chlorooctane 95.1 % 65.2-140

Surrogate: 1-Chlorooctadecane 104 % 63.6-154

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



**Analytical Results For:**

 Hungry Horse Environmental  
 VERNON BLACK  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

 Received: 01/25/2013  
 Reported: 01/29/2013  
 Project Name: CMU #266  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

 Sampling Date: 01/25/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: PT. 2 @ 2' (H300227-03)**

BTEX 8021B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/28/2013	ND	1.76	88.2	2.00	25.1		
Toluene*	<0.050	0.050	01/28/2013	ND	1.89	94.6	2.00	24.5		
Ethylbenzene*	<0.050	0.050	01/28/2013	ND	1.95	97.6	2.00	24.5		
Total Xylenes*	<0.150	0.150	01/28/2013	ND	5.97	99.6	6.00	24.0		
Total BTEX	<0.300	0.300	01/28/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 101 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	288	16.0	01/29/2013	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	01/27/2013	ND	198	98.9	200	1.48		
DRO >C10-C28	<10.0	10.0	01/27/2013	ND	177	88.7	200	0.110		

Surrogate: 1-Chlorooctane 88.4 % 65.2-140

Surrogate: 1-Chlorooctadecane 95.3 % 63.6-154

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\* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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Hungry Horse Environmental  
VERNON BLACK  
P.O. Box 1058  
Hobbs NM, 88240  
Fax To: (505) 391-4585

Received: 01/25/2013  
Reported: 01/29/2013  
Project Name: CMU #266  
Project Number: NONE GIVEN  
Project Location: NOT GIVEN

Sampling Date: 01/25/2013  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: PT. 3 @ 2' (H300227-04)**

BTEX 8021B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/28/2013	ND	1.76	88.2	2.00	25.1		
Toluene*	<0.050	0.050	01/28/2013	ND	1.89	94.6	2.00	24.5		
Ethylbenzene*	<0.050	0.050	01/28/2013	ND	1.95	97.6	2.00	24.5		
Total Xylenes*	<0.150	0.150	01/28/2013	ND	5.97	99.6	6.00	24.0		
Total BTEX	<0.300	0.300	01/28/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 102 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	01/29/2013	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	01/28/2013	ND	198	98.9	200	1.48		
DRO >C10-C28	<10.0	10.0	01/28/2013	ND	177	88.7	200	0.110		

Surrogate: 1-Chlorooctane 94.2 % 65.2-140

Surrogate: 1-Chlorooctadecane 107 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

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 Hungry Horse Environmental  
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 Hobbs NM, 88240  
 Fax To: (505) 391-4585

 Received: 01/25/2013  
 Reported: 01/29/2013  
 Project Name: CMU #266  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

 Sampling Date: 01/25/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: PT. 4 @ 2' (H300227-05)**

BTEX 8021B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/28/2013	ND	1.76	88.2	2.00	25.1		
Toluene*	<0.050	0.050	01/28/2013	ND	1.89	94.6	2.00	24.5		
Ethylbenzene*	<0.050	0.050	01/28/2013	ND	1.95	97.6	2.00	24.5		
Total Xylenes*	<0.150	0.150	01/28/2013	ND	5.97	99.6	6.00	24.0		
Total BTEX	<0.300	0.300	01/28/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 102 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	01/29/2013	ND	448	112	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/28/2013	ND	198	98.9	200	1.48	
DRO >C10-C28	<10.0	10.0	01/28/2013	ND	177	88.7	200	0.110	

Surrogate: 1-Chlorooctane 93.7 % 65.2-140

Surrogate: 1-Chlorooctadecane 102 % 63.6-154

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\* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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Hungry Horse Environmental  
VERNON BLACK  
P.O. Box 1058  
Hobbs NM, 88240  
Fax To: (505) 391-4585

Received: 01/25/2013  
Reported: 01/29/2013  
Project Name: CMU #266  
Project Number: NONE GIVEN  
Project Location: NOT GIVEN

Sampling Date: 01/25/2013  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: NORTH WALL (H300227-06)**

BTEX 8021B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/28/2013	ND	1.76	88.2	2.00	25.1		
Toluene*	<0.050	0.050	01/28/2013	ND	1.89	94.6	2.00	24.5		
Ethylbenzene*	<0.050	0.050	01/28/2013	ND	1.95	97.6	2.00	24.5		
Total Xylenes*	<0.150	0.150	01/28/2013	ND	5.97	99.6	6.00	24.0		
Total BTEX	<0.300	0.300	01/28/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 101 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	01/29/2013	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/27/2013	ND	198	98.9	200	1.48	
DRO >C10-C28	<10.0	10.0	01/27/2013	ND	177	88.7	200	0.110	

Surrogate: 1-Chlorooctane 73.6 % 65.2-140

Surrogate: 1-Chlorooctadecane 78.7 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Hungry Horse Environmental  
 VERNON BLACK  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

 Received: 01/25/2013  
 Reported: 01/29/2013  
 Project Name: CMU #266  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

 Sampling Date: 01/25/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SOUTH WALL (H300227-07)**

BTEX 8021B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/28/2013	ND	1.76	88.2	2.00	25.1		
Toluene*	<0.050	0.050	01/28/2013	ND	1.89	94.6	2.00	24.5		
Ethylbenzene*	<0.050	0.050	01/28/2013	ND	1.95	97.6	2.00	24.5		
Total Xylenes*	<0.150	0.150	01/28/2013	ND	5.97	99.6	6.00	24.0		
Total BTEX	<0.300	0.300	01/28/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 101 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	01/29/2013	ND	448	112	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/27/2013	ND	198	98.9	200	1.48	
DRO >C10-C28	<10.0	10.0	01/27/2013	ND	177	88.7	200	0.110	

Surrogate: 1-Chlorooctane 83.8 % 65.2-140

Surrogate: 1-Chlorooctadecane 87.9 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



**Notes and Definitions**

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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\* = Accredited Analyte

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---

Celey D. Keene, Lab Director/Quality Manager

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

**Company Name:**

Project Manager: Seamus Haggan

Address: Cecil Hwy

City: Rockledge State: FL Zip: 32955

Phone #: 626-631-0383 Fax #:

Project #: \_\_\_\_\_ Project Owner: \_\_\_\_\_

Project Name: 1.2.3.4.5.6.7.8.9.10.11.12.13.14.15.16.17.18.19.20.21.22.23.24.25.26.27.28.29.30.31.32.33.34.35.36.37.38.39.40.41.42.43.44.45.46.47.48.49.50.51.52.53.54.55.56.57.58.59.60.61.62.63.64.65.66.67.68.69.70.71.72.73.74.75.76.77.78.79.80.81.82.83.84.85.86.87.88.89.90.91.92.93.94.95.96.97.98.99.100.101.102.103.104.105.106.107.108.109.110.111.112.113.114.115.116.117.118.119.120.121.122.123.124.125.126.127.128.129.130.131.132.133.134.135.136.137.138.139.140.141.142.143.144.145.146.147.148.149.150.151.152.153.154.155.156.157.158.159.160.161.162.163.164.165.166.167.168.169.170.171.172.173.174.175.176.177.178.179.180.181.182.183.184.185.186.187.188.189.190.191.192.193.194.195.196.197.198.199.200.201.202.203.204.205.206.207.208.209.210.211.212.213.214.215.216.217.218.219.220.221.222.223.224.225.226.227.228.229.230.231.232.233.234.235.236.237.238.239.240.241.242.243.244.245.246.247.248.249.250.251.252.253.254.255.256.257.258.259.260.261.262.263.264.265.266.267.268.269.270.271.272.273.274.275.276.277.278.279.280.281.282.283.284.285.286.287.288.289.290.291.292.293.294.295.296.297.298.299.300.301.302.303.304.305.306.307.308.309.310.311.312.313.314.315.316.317.318.319.320.321.322.323.324.325.326.327.328.329.330.331.332.333.334.335.336.337.338.339.340.341.342.343.344.345.346.347.348.349.350.351.352.353.354.355.356.357.358.359.360.361.362.363.364.365.366.367.368.369.370.371.372.373.374.375.376.377.378.379.380.381.382.383.384.385.386.387.388.389.390.391.392.393.394.395.396.397.398.399.400.401.402.403.404.405.406.407.408.409.410.411.412.413.414.415.416.417.418.419.420.421.422.423.424.425.426.427.428.429.430.431.432.433.434.435.436.437.438.439.440.441.442.443.444.445.446.447.448.449.450.451.452.453.454.455.456.457.458.459.460.461.462.463.464.465.466.467.468.469.470.471.472.473.474.475.476.477.478.479.480.481.482.483.484.485.486.487.488.489.490.491.492.493.494.495.496.497.498.499.500.501.502.503.504.505.506.507.508.509.510.511.512.513.514.515.516.517.518.519.520.521.522.523.524.525.526.527.528.529.530.531.532.533.534.535.536.537.538.539.540.541.542.543.544.545.546.547.548.549.550.551.552.553.554.555.556.557.558.559.560.561.562.563.564.565.566.567.568.569.570.571.572.573.574.575.576.577.578.579.580.581.582.583.584.585.586.587.588.589.590.591.592.593.594.595.596.597.598.599.600.601.602.603.604.605.606.607.608.609.610.611.612.613.614.615.616.617.618.619.620.621.622.623.624.625.626.627.628.629.630.631.632.633.634.635.636.637.638.639.640.641.642.643.644.645.646.647.648.649.650.651.652.653.654.655.656.657.658.659.660.661.662.663.664.665.666.667.668.669.670.671.672.673.674.675.676.677.678.679.680.681.682.683.684.685.686.687.688.689.690.691.692.693.694.695.696.697.698.699.700.701.702.703.704.705.706.707.708.709.710.711.712.713.714.715.716.717.718.719.720.721.722.723.724.725.726.727.728.729.730.731.732.733.734.735.736.737.738.739.740.741.742.743.744.745.746.747.748.749.750.751.752.753.754.755.756.757.758.759.760.761.762.763.764.765.766.767.768.769.770.771.772.773.774.775.776.777.778.779.780.781.782.783.784.785.786.787.788.789.790.791.792.793.794.795.796.797.798.799.800.801.802.803.804.805.806.807.808.809.810.811.812.813.814.815.816.817.818.819.820.821.822.823.824.825.826.827.828.829.830.831.832.833.834.835.836.837.838.839.840.841.842.843.844.845.846.847.848.849.850.851.852.853.854.855.856.857.858.859.860.861.862.863.864.865.866.867.868.869.870.871.872.873.874.875.876.877.878.879.880.881.882.883.884.885.886.887.888.889.890.891.892.893.894.895.896.897.898.899.900.901.902.903.904.905.906.907.908.909.910.911.912.913.914.915.916.917.918.919.920.921.922.923.924.925.926.927.928.929.930.931.932.933.934.935.936.937.938.939.940.941.942.943.944.945.946.947.948.949.950.951.952.953.954.955.956.957.958.959.960.961.962.963.964.965.966.967.968.969.970.971.972.973.974.975.976.977.978.979.980.981.982.983.984.985.986.987.988.989.990.991.992.993.994.995.996.997.998.999.1000.1001.1002.1003.1004.1005.1006.1007.1008.1009.1010.1011.1012.1013.1014.1015.1016.1017.1018.1019.1020.1021.1022.1023.1024.1025.1026.1027.1028.1029.1030.1031.1032.1033.1034.1035.1036.1037.1038.1039.10

Project Name: Project 1

Project Location: CH/UM 264

Sampler Name: Scrub Wren

FOR LAP USE ONLY

10

100

**Lab I.D.**

Deben

H. S. D. 1000

157

# Self-Education

$$1001 + 2$$

2-2 @ 21

15. 3 + 4 = 7

Handwritten signature: *[Signature]*

6 Northern will

50436

100

[illegible]

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service. In no event shall Cardinal be liable for incidental or consequential damages or successors arising out of or related to the performance of services by affiliate.

**Relinquished By:** \_\_\_\_\_ **Date:** \_\_\_\_\_

Time: \_\_\_\_\_

Bellevue Hospital Div.

Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_

Time: \_\_\_\_\_

Delivered By: (Circle One)

**Sampler - UPS - Bus - Other:**

[illegible]

† Cardinal cannot accept verbal changes



March 01, 2013

VERNON BLACK

Hungry Horse Environmental

P.O. Box 1058

Hobbs, NM 88240

RE: CAPROCK MALJAMAR UNIT #51

Enclosed are the results of analyses for samples received by the laboratory on 02/28/13 15:25.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

 Hungry Horse Environmental  
 VERNON BLACK  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

 Received: 02/28/2013  
 Reported: 03/01/2013  
 Project Name: CAPROCK MALJAMAR UNIT #51  
 Project Number: 51 CMU  
 Project Location: NONE GIVEN

 Sampling Date: 02/28/2013  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: EXC #2-N WALL (H300530-01)**

BTX 80218			mg/kg		Analyzed By: AP				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/28/2013	ND	1.92	96.0	2.00	1.87	
Toluene*	<0.050	0.050	02/28/2013	ND	1.98	98.8	2.00	1.42	
Ethylbenzene*	<0.050	0.050	02/28/2013	ND	1.94	97.0	2.00	1.39	
Total Xylenes*	<0.150	0.150	02/28/2013	ND	5.96	99.3	6.00	0.638	
Total BTX	<0.300	0.300	02/28/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 111 % 89.4-126

Chloride, SM4500Cl-B			mg/kg		Analyzed By: DW				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	304	16.0	03/01/2013	ND	432	108	400	3.77	

TPH 8015M			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/01/2013	ND	210	105	200	8.16	
DRO >C10-C28	<10.0	10.0	03/01/2013	ND	200	100	200	9.51	

Surrogate: 1-Chlorooctane 95.8 % 65.2-140

Surrogate: 1-Chlorooctadecane 105 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



**Analytical Results For:**

Hungry Horse Environmental  
VERNON BLACK  
P.O. Box 1058  
Hobbs NM, 88240  
Fax To: (505) 391-4585

Received: 02/28/2013  
Reported: 03/01/2013  
Project Name: CAPROCK MALJAMAR UNIT #51  
Project Number: 51 CMU  
Project Location: NONE GIVEN

Sampling Date: 02/28/2013  
Sampling Type: Soil  
Sampling Condition: \*\* (See Notes)  
Sample Received By: Jodi Henson

**Sample ID: EXC #2-S WALL (H300530-02)**

BTX 80218			mg/kg							
			Analyzed By: AP							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/28/2013	ND	1.92	96.0	2.00	1.87		
Toluene*	<0.050	0.050	02/28/2013	ND	1.98	98.8	2.00	1.42		
Ethylbenzene*	<0.050	0.050	02/28/2013	ND	1.94	97.0	2.00	1.39		
Total Xylenes*	<0.150	0.150	02/28/2013	ND	5.96	99.3	6.00	0.638		
Total BTX	<0.300	0.300	02/28/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIC) 111 % 89.4-126

Chloride, SM4500Cl-B			mg/kg							
			Analyzed By: DW							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	384	16.0	03/01/2013	ND	432	108	400	3.77		

TPH 8015M			mg/kg							
			Analyzed By: MS							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	03/01/2013	ND	210	105	200	8.16		
DRO >C10-C28	<10.0	10.0	03/01/2013	ND	200	100	200	9.51		

Surrogate: 1-Chlorooctane 98.2 % 65.2-140

Surrogate: 1-Chlorooctadecane 106 % 63.6-154

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Hungry Horse Environmental  
 VERNON BLACK  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

 Received: 02/28/2013  
 Reported: 03/01/2013  
 Project Name: CAPROCK MALJAMAR UNIT #51  
 Project Number: 51 CMU  
 Project Location: NONE GIVEN

 Sampling Date: 02/28/2013  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: EXC #2-E WALL (H300530-03)**

BTX 8021B			mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/28/2013	ND	1.92	96.0	2.00	1.87		
Toluene*	<0.050	0.050	02/28/2013	ND	1.98	98.8	2.00	1.42		
Ethylbenzene*	<0.050	0.050	02/28/2013	ND	1.94	97.0	2.00	1.39		
Total Xylenes*	<0.150	0.150	02/28/2013	ND	5.96	99.3	6.00	0.638		
Total BTX	<0.300	0.300	02/28/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 111 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	03/01/2013	ND	432	108	400	3.77	
TPH 8015M	mg/kg		Analyzed By: MS						

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/01/2013	ND	210	105	200	8.16	
DRO >C10-C28	<10.0	10.0	03/01/2013	ND	200	100	200	9.51	

Surrogate: 1-Chlorooctane 95.3 % 65.2-140

Surrogate: 1-Chlorooctadecane 107 % 63.6-154

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\*=Accredited Analyte

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Celest D. Keene, Lab Director/Quality Manager



**Analytical Results For:**

 Hungry Horse Environmental  
 VERNON BLACK  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

 Received: 02/28/2013  
 Reported: 03/01/2013  
 Project Name: CAPROCK MALJAMAR UNIT #51  
 Project Number: 51 CMU  
 Project Location: NONE GIVEN

 Sampling Date: 02/28/2013  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: EXC #2-W WALL (H300530-04)**

BTEx 80218		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/28/2013	ND	1.92	96.0	2.00	1.87		
Toluene*	<0.050	0.050	02/28/2013	ND	1.98	98.8	2.00	1.42		
Ethylbenzene*	<0.050	0.050	02/28/2013	ND	1.94	97.0	2.00	1.39		
Total Xylenes*	<0.150	0.150	02/28/2013	ND	5.96	99.3	6.00	0.638		
Total BTEX	<0.300	0.300	02/28/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 112 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	320	16.0	03/01/2013	ND	432	108	400	3.77	
TPH 8015M		mg/kg		Analyzed By: MS					

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/01/2013	ND	210	105	200	8.16	
DRO >C10-C28	<10.0	10.0	03/01/2013	ND	200	100	200	9.51	

Surrogate: 1-Chlorooctane 89.5 % 65.2-140

Surrogate: 1-Chlorooctadecane 104 % 63.6-154

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Hungry Horse Environmental  
 VERNON BLACK  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

 Received: 02/28/2013  
 Reported: 03/01/2013  
 Project Name: CAPROCK MALJAMAR UNIT #51  
 Project Number: 51 CMU  
 Project Location: NONE GIVEN

 Sampling Date: 02/28/2013  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: EXC #2-N/E CNR BTM (H300530-05)**

BTEX 8021B			mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/28/2013	ND	1.92	96.0	2.00	1.87		
Toluene*	<0.050	0.050	02/28/2013	ND	1.98	98.8	2.00	1.42		
Ethylbenzene*	<0.050	0.050	02/28/2013	ND	1.94	97.0	2.00	1.39		
Total Xylenes*	<0.150	0.150	02/28/2013	ND	5.96	99.3	6.00	0.638		
Total BTEX	<0.300	0.300	02/28/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIC) 111 % 89.4-126

Chloride, SM4500Cl-B			mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1420	16.0	03/01/2013	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/01/2013	ND	210	105	200	8.16	
DRO >C10-C28	<10.0	10.0	03/01/2013	ND	200	100	200	9.51	

Surrogate: 1-Chlorooctane 93.7 % 65.2-140

Surrogate: 1-Chlorooctadecane 102 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



**Analytical Results For:**

 Hungry Horse Environmental  
 VERNON BLACK  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

 Received: 02/28/2013  
 Reported: 03/01/2013  
 Project Name: CAPROCK MALJAMAR UNIT #51  
 Project Number: 51 CMU  
 Project Location: NONE GIVEN

 Sampling Date: 02/28/2013  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: EXC #2-N/W CNR BTM (H300530-06)**

BTX 8021B			mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/01/2013	ND	1.92	96.0	2.00	1.87		
Toluene*	<0.050	0.050	03/01/2013	ND	1.98	98.8	2.00	1.42		
Ethylbenzene*	<0.050	0.050	03/01/2013	ND	1.94	97.0	2.00	1.39		
Total Xylenes*	<0.150	0.150	03/01/2013	ND	5.96	99.3	6.00	0.638		
Total BTX	<0.300	0.300	03/01/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 111 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	03/01/2013	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/01/2013	ND	210	105	200	8.16	
DRO >C10-C28	<10.0	10.0	03/01/2013	ND	200	100	200	9.51	

Surrogate: 1-Chlorooctane 92.3 % 65.2-140

Surrogate: 1-Chlorooctadecane 101 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Hungry Horse Environmental  
 VERNON BLACK  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

 Received: 02/28/2013  
 Reported: 03/01/2013  
 Project Name: CAPROCK MALJAMAR UNIT #51  
 Project Number: 51 CMU  
 Project Location: NONE GIVEN

 Sampling Date: 02/28/2013  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: EXC #2-S/W CNR BTM (H300530-07)**

BTX 8021B			mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/01/2013	ND	1.92	96.0	2.00	1.87		
Toluene*	<0.050	0.050	03/01/2013	ND	1.98	98.8	2.00	1.42		
Ethylbenzene*	<0.050	0.050	03/01/2013	ND	1.94	97.0	2.00	1.39		
Total Xylenes*	<0.150	0.150	03/01/2013	ND	5.96	99.3	6.00	0.638		
Total BTX	<0.300	0.300	03/01/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 110 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	5640	16.0	03/01/2013	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/01/2013	ND	210	105	200	8.16	
DRO >C10-C28	<10.0	10.0	03/01/2013	ND	200	100	200	9.51	

Surrogate: 1-Chlorooctane 90.4 % 65.2-140

Surrogate: 1-Chlorooctadecane 99.6 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager



**Analytical Results For:**

 Hungry Horse Environmental  
 VERNON BLACK  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

 Received: 02/28/2013  
 Reported: 03/01/2013  
 Project Name: CAPROCK MALJAMAR UNIT #51  
 Project Number: 51 CMU  
 Project Location: NONE GIVEN

 Sampling Date: 02/28/2013  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Jodi Henson

**Sample ID: EXC #2-SE CNR BTM (H300530-08)**

BTX 8021B			mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/01/2013	ND	1.92	96.0	2.00	1.87		
Toluene*	<0.050	0.050	03/01/2013	ND	1.98	98.8	2.00	1.42		
Ethylbenzene*	<0.050	0.050	03/01/2013	ND	1.94	97.0	2.00	1.39		
Total Xylenes*	<0.150	0.150	03/01/2013	ND	5.96	99.3	6.00	0.638		
Total BTX	<0.300	0.300	03/01/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 110 % 89.4-126

Chloride, SM4500Cl-B			mg/kg								Analyzed By: DW		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier				
Chloride	1150	16.0	03/01/2013	ND	432	108	400	0.00					

TPH 8015M			mg/kg								Analyzed By: MS	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier			
GRO C6-C10	<10.0	10.0	03/01/2013	ND	210	105	200	8.16				
DRO >C10-C28	<10.0	10.0	03/01/2013	ND	200	100	200	9.51				

Surrogate: 1-Chlorooctane 89.4 % 65.2-140

Surrogate: 1-Chlorooctadecane 98.1 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

Hungry Horse Environmental  
VERNON BLACK  
P.O. Box 1058  
Hobbs NM, 88240  
Fax To: (505) 391-4585

Received: 02/28/2013  
Reported: 03/01/2013  
Project Name: CAPROCK MALJAMAR UNIT #51  
Project Number: 51 CMU  
Project Location: NONE GIVEN

Sampling Date: 02/28/2013  
Sampling Type: Soil  
Sampling Condition: \*\* (See Notes)  
Sample Received By: Jodi Henson

**Sample ID: EXC #2-CENTER BTM (H300530-09)**

BTEX 80218			mg/kg		Analyzed By: AP				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/01/2013	ND	1.92	96.0	2.00	1.87	
Toluene*	<0.050	0.050	03/01/2013	ND	1.98	98.8	2.00	1.42	
Ethylbenzene*	<0.050	0.050	03/01/2013	ND	1.94	97.0	2.00	1.39	
Total Xylenes*	<0.150	0.150	03/01/2013	ND	5.96	99.3	6.00	0.638	
Total BTEX	<0.300	0.300	03/01/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 111 % 89.4-126

Chloride, SM4500Cl-B			mg/kg		Analyzed By: DW				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1040	16.0	03/01/2013	ND	432	108	400	0.00	

TPH 8015M			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/01/2013	ND	210	105	200	8.16	
DRO >C10-C28	<10.0	10.0	03/01/2013	ND	200	100	200	9.51	

Surrogate: 1-Chlorooctane 84.0 % 65.2-140

Surrogate: 1-Chlorooctadecane 94.0 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager



**Notes and Definitions**

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500CH-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keene, Lab Director/Quality Manager







PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

March 06, 2013

OSCAR FRAYRE

Hungry Horse Environmental

P.O. Box 1058

Hobbs, NM 88240

RE: CMU #51

Enclosed are the results of analyses for samples received by the laboratory on 03/05/13 14:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in cursive script that reads "Coley D. Keene".

Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

Hungry Horse Environmental  
OSCAR FRAYRE  
P.O. Box 1058  
Hobbs NM, 88240  
Fax To: (505) 391-4585

Received: 03/05/2013  
Reported: 03/06/2013  
Project Name: CMU #51  
Project Number: #3 EXCAVATION  
Project Location: NOT GIVEN

Sampling Date: 03/05/2013  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: TRENCH @ 12' (H300556-01)**

BTX 8021B			mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/06/2013	ND	1.80	90.2	2.00	2.29		
Toluene*	<0.050	0.050	03/06/2013	ND	1.91	95.3	2.00	2.42		
Ethylbenzene*	<0.050	0.050	03/06/2013	ND	1.90	95.2	2.00	2.95		
Total Xylenes*	<0.150	0.150	03/06/2013	ND	5.87	97.8	6.00	2.95		
Total BTX	<0.300	0.300	03/06/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 112 % 89.4-126

Chloride, SM4500Cl-B			mg/kg							Analyzed By: DW	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Chloride	1070	16.0	03/06/2013	ND	432	108	400	0.00			

TPH 8015M			mg/kg							Analyzed By: MS	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
GRO C6-C10	<10.0	10.0	03/05/2013	ND	200	99.8	200	3.91			
DRO >C10-C28	<10.0	10.0	03/05/2013	ND	194	96.9	200	5.69			

Surrogate: 1-Chlorooctane 92.3 % 65.2-140

Surrogate: 1-Chlorooctadecane 102 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



**Analytical Results For:**

Hungry Horse Environmental  
OSCAR FRAYRE  
P.O. Box 1058  
Hobbs NM, 88240  
Fax To: (505) 391-4585

Received: 03/05/2013  
Reported: 03/06/2013  
Project Name: CMU #51  
Project Number: #3 EXCAVATION  
Project Location: NOT GIVEN

Sampling Date: 03/05/2013  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: BACKGROUND @ 6" (H300556-02)**

BTEX 8021B			mg/kg		Analyzed By: AP				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/06/2013	ND	1.80	90.2	2.00	2.29	
Toluene*	<0.050	0.050	03/06/2013	ND	1.91	95.3	2.00	2.42	
Ethylbenzene*	<0.050	0.050	03/06/2013	ND	1.90	95.2	2.00	2.95	
Total Xylenes*	<0.150	0.150	03/06/2013	ND	5.87	97.8	6.00	2.95	
Total BTEX	<0.300	0.300	03/06/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 112 % 89.4-126

Chloride, SM4500Cl-B			mg/kg		Analyzed By: DW				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	03/06/2013	ND	432	108	400	0.00	

TPH 8015M			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/05/2013	ND	200	99.8	200	3.91	
DRO >C10-C28	<10.0	10.0	03/05/2013	ND	194	96.9	200	5.69	

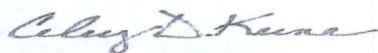
Surrogate: 1-Chlorooctane 90.5 % 65.2-140

Surrogate: 1-Chlorooctadecane 99.1 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

Hungry Horse Environmental  
OSCAR FRAYRE  
P.O. Box 1058  
Hobbs NM, 88240  
Fax To: (505) 391-4585

Received: 03/05/2013  
Reported: 03/06/2013  
Project Name: CMU #51  
Project Number: #3 EXCAVATION  
Project Location: NOT GIVEN

Sampling Date: 03/05/2013  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: NORTH WALL (H300556-03)**

BTX 8021B			mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/06/2013	ND	1.80	90.2	2.00	2.29		
Toluene*	<0.050	0.050	03/06/2013	ND	1.91	95.3	2.00	2.42		
Ethylbenzene*	<0.050	0.050	03/06/2013	ND	1.90	95.2	2.00	2.95		
Total Xylenes*	<0.150	0.150	03/06/2013	ND	5.87	97.8	6.00	2.95		
Total BTX	<0.300	0.300	03/06/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 112 % 89.4-126

Chloride, SM4500Cl-B			mg/kg							Analyzed By: DW	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Chloride	<16.0	16.0	03/06/2013	ND	432	108	400	0.00			

TPH 8015M			mg/kg							Analyzed By: MS	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
GRO C6-C10	<10.0	10.0	03/05/2013	ND	200	99.8	200	3.91			
DRO >C10-C28	<10.0	10.0	03/05/2013	ND	194	96.9	200	5.69			

Surrogate: 1-Chlorooctane 89.1 % 65.2-140

Surrogate: 1-Chlorooctadecane 99.0 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager



**Analytical Results For:**

Hungry Horse Environmental  
OSCAR FRAYRE  
P.O. Box 1058  
Hobbs NM, 88240  
Fax To: (505) 391-4585

Received: 03/05/2013  
Reported: 03/06/2013  
Project Name: CMU #51  
Project Number: #3 EXCAVATION  
Project Location: NOT GIVEN

Sampling Date: 03/05/2013  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: SOUTH WALL (H300556-04)**

BTEx 8021B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/06/2013	ND	1.80	90.2	2.00	2.29	
Toluene*	<0.050	0.050	03/06/2013	ND	1.91	95.3	2.00	2.42	
Ethylbenzene*	<0.050	0.050	03/06/2013	ND	1.90	95.2	2.00	2.95	
Total Xylenes*	<0.150	0.150	03/06/2013	ND	5.87	97.8	6.00	2.95	
Total BTEx	<0.300	0.300	03/06/2013	ND					

Surrogate: 4-Bromofluorobenzene (PII) 113 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	03/06/2013	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/05/2013	ND	200	99.8	200	3.91	
DRO >C10-C28	<10.0	10.0	03/05/2013	ND	194	96.9	200	5.69	

Surrogate: 1-Chlorooctane 91.6 % 65.2-140

Surrogate: 1-Chlorooctadecane 102 % 63.6-154

**Cardinal Laboratories**

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

Hungry Horse Environmental  
OSCAR FRAYRE  
P.O. Box 1058  
Hobbs NM, 88240  
Fax To: (505) 391-4585

Received: 03/05/2013  
Reported: 03/06/2013  
Project Name: CMU #51  
Project Number: #3 EXCAVATION  
Project Location: NOT GIVEN

Sampling Date: 03/05/2013  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: EAST WALL (H300556-05)**

BTX 8021B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/06/2013	ND	1.80	90.2	2.00	2.29	
Toluene*	<0.050	0.050	03/06/2013	ND	1.91	95.3	2.00	2.42	
Ethylbenzene*	<0.050	0.050	03/06/2013	ND	1.90	95.2	2.00	2.95	
Total Xylenes*	<0.150	0.150	03/06/2013	ND	5.87	97.8	6.00	2.95	
Total BTX	<0.300	0.300	03/06/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 113 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	03/06/2013	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/05/2013	ND	200	99.8	200	3.91	
DRO >C10-C28	<10.0	10.0	03/05/2013	ND	194	96.9	200	5.69	

Surrogate: 1-Chlorooctane 86.8 % 65.2-140

Surrogate: 1-Chlorooctadecane 95.4 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

**Analytical Results For:**

Hungry Horse Environmental  
OSCAR FRAYRE  
P.O. Box 1058  
Hobbs NM, 88240  
Fax To: (505) 391-4585

Received: 03/05/2013  
Reported: 03/06/2013  
Project Name: CMU #51  
Project Number: #3 EXCAVATION  
Project Location: NOT GIVEN

Sampling Date: 03/05/2013  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: WEST WALL (H300556-06)**

BTEX 8021B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/06/2013	ND	1.80	90.2	2.00	2.29	
Toluene*	<0.050	0.050	03/06/2013	ND	1.91	95.3	2.00	2.42	
Ethylbenzene*	<0.050	0.050	03/06/2013	ND	1.90	95.2	2.00	2.95	
Total Xylenes*	<0.150	0.150	03/06/2013	ND	5.87	97.8	6.00	2.95	
Total BTEX	<0.300	0.300	03/06/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 112 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	03/06/2013	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/05/2013	ND	200	99.8	200	3.91	
DRO >C10-C28	<10.0	10.0	03/05/2013	ND	194	96.9	200	5.69	

Surrogate: 1-Chlorooctane 89.6 % 65.2-140

Surrogate: 1-Chlorooctadecane 101 % 63.6-154

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keene, Lab Director/Quality Manager







PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

June 13, 2013

OSCAR FRAYRE

Hungry Horse Environmental

P.O. Box 1058

Hobbs, NM 88240

RE: CMU #51 EXCAVATION #3

Enclosed are the results of analyses for samples received by the laboratory on 06/12/13 10:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



**Analytical Results For:**

Hungry Horse Environmental  
OSCAR FRAYRE  
P.O. Box 1058  
Hobbs NM, 88240  
Fax To: (505) 391-4585

Received: 06/12/2013  
Reported: 06/13/2013  
Project Name: CMU #51 EXCAVATION #3  
Project Number: NONE GIVEN  
Project Location: NOT GIVEN

Sampling Date: 06/11/2013  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: S- BONE @ 50' (H301346-01)**

BTEX 8021B			mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/13/2013	ND	1.66	83.1	2.00	9.02		
Toluene*	<0.050	0.050	06/13/2013	ND	1.83	91.7	2.00	8.76		
Ethylbenzene*	<0.050	0.050	06/13/2013	ND	2.00	100	2.00	8.87		
Total Xylenes*	<0.150	0.150	06/13/2013	ND	6.17	103	6.00	8.28		
Total BTEX	<0.300	0.300	06/13/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIC) 107 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	06/13/2013	ND	416	104	400	3.77	
TPH 8015M		mg/kg		Analyzed By: MS					

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/12/2013	ND	204	102	200	5.50	
DRO >C10-C28	<10.0	10.0	06/12/2013	ND	212	106	200	4.22	

Surrogate: 1-Chlorooctane 108 % 65.2-140

Surrogate: 1-Chlorooctadecane 111 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

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RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keene, Lab Director/Quality Manager





## Page 4 of 4

ANALYSIS REQUEST

+ Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326

Linn energy 4"

Surface has been tested at 12,000ppm  
delineation of this excavation begins  
11/26/12 w/Chevron on-site

Excavation#1

Excavation #2 (50'x30'x7')

Linn M/W 80'x30'x4'

CALICHI ROAD AND PAD

Pump  
jack

50'x30'x4'

s-b@30'  
48.0ppm

Excavation #3  
SURFACE  
1FT 8,340PPM

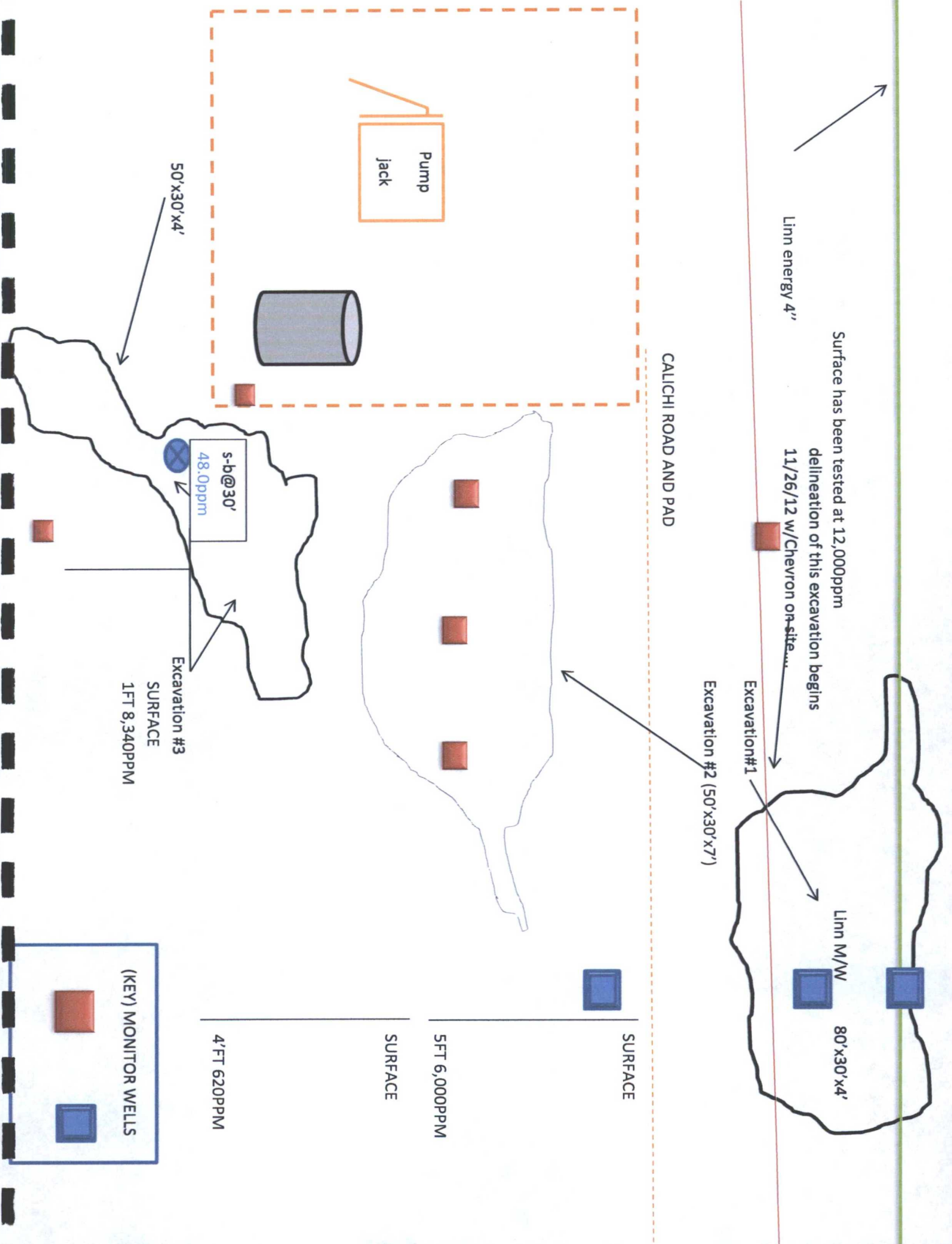
(KEY) MONITOR WELLS

SURFACE

5FT 6,000PPM

SURFACE

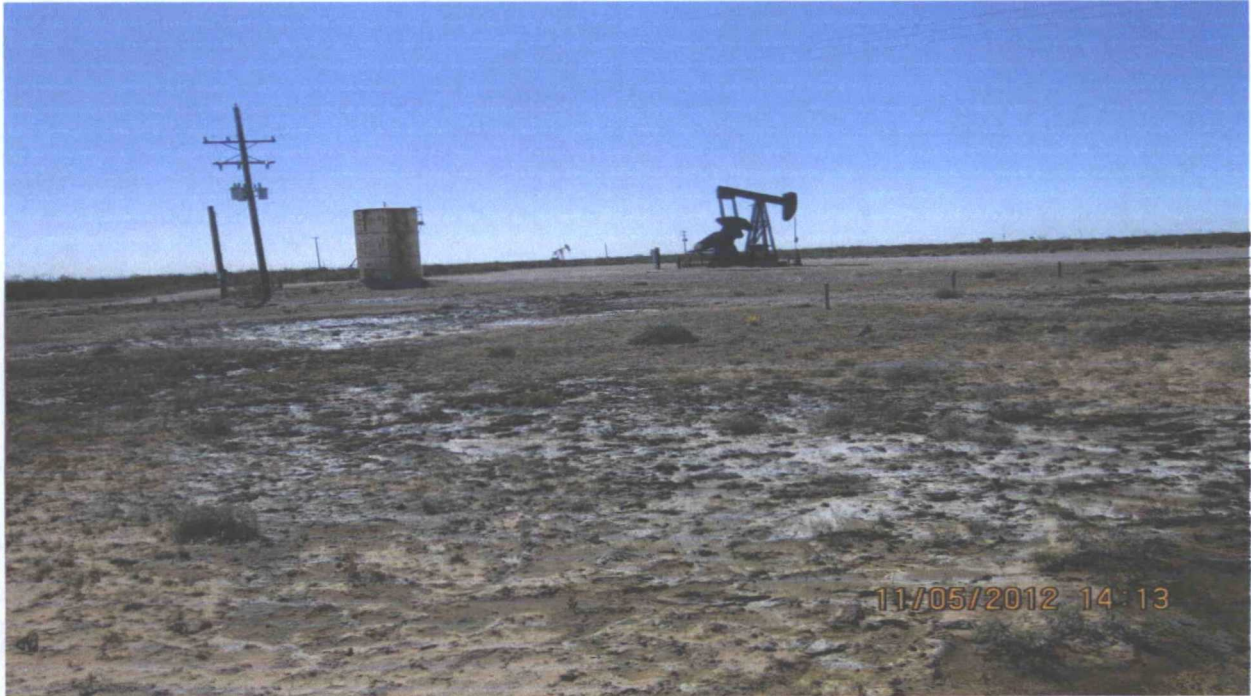
4'FT 620PPM





HUNGRY HORSE LLC,

ENVIORNMENTAL SERVICES



P.O. Box 1058 \* Hobbs New Mexico \* Office 575-393-3386 \* Fax 575-391-4585



HUNGRY HORSE LLC,

ENVIORNMENTAL SERVICES



P.O. Box 1058 \* Hobbs New Mexico \* Office 575-393-3386 \* Fax 575-391-4585



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HUNGRY HORSE LLC,

ENVIRONMENTAL SERVICES



P.O. Box 1058 \* Hobbs New Mexico \* Office 575-393-3386 \* Fax 575-391-4585



CML PADDY  
FOR: LINN CMU #51

HOBBS OCD

FEB 14 2013

RECEIVED



Laying down the first liner



Laying down the double liner



Final surface in 2008

HOBBS OCD

-EB 1 4 2013

RECEIVED





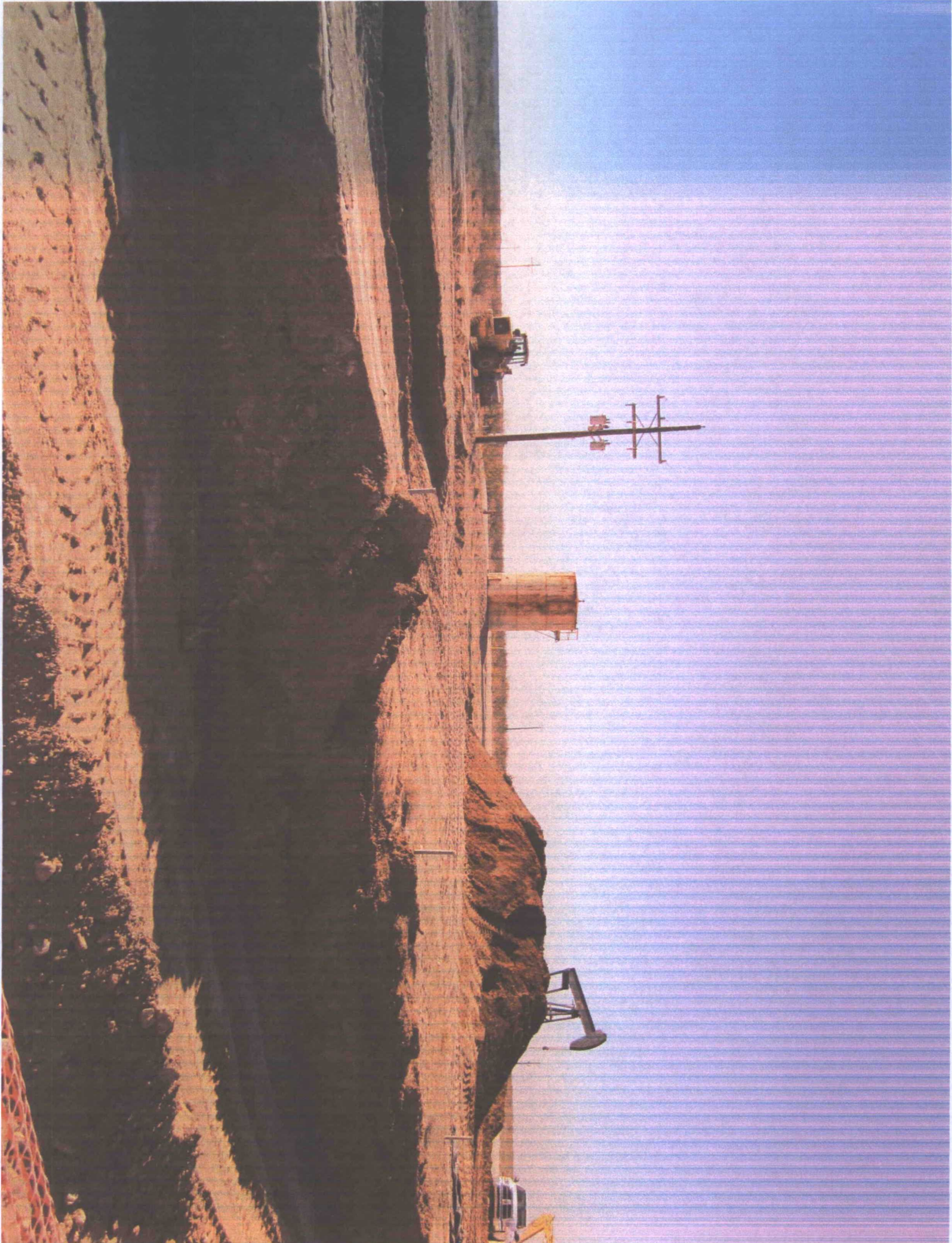








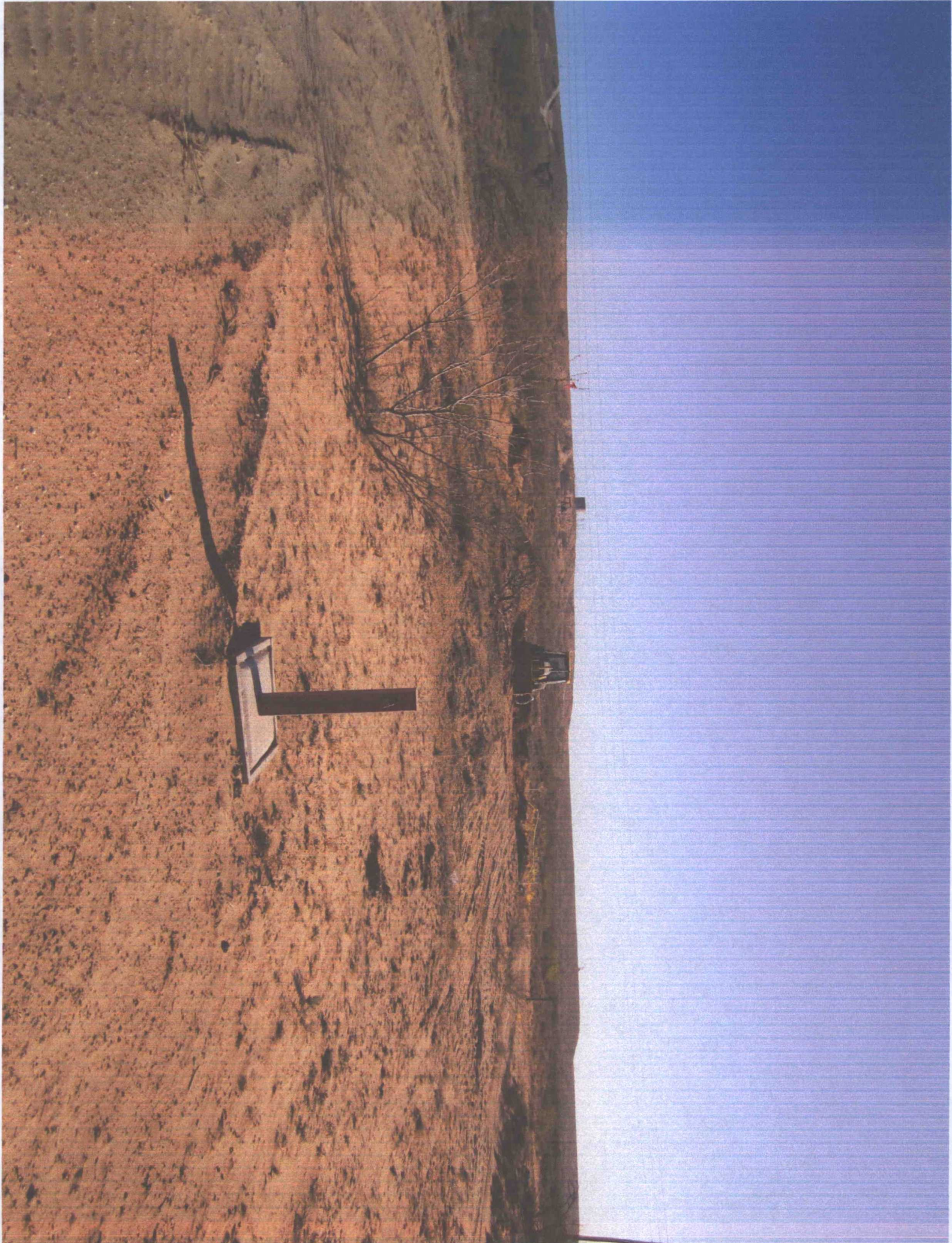




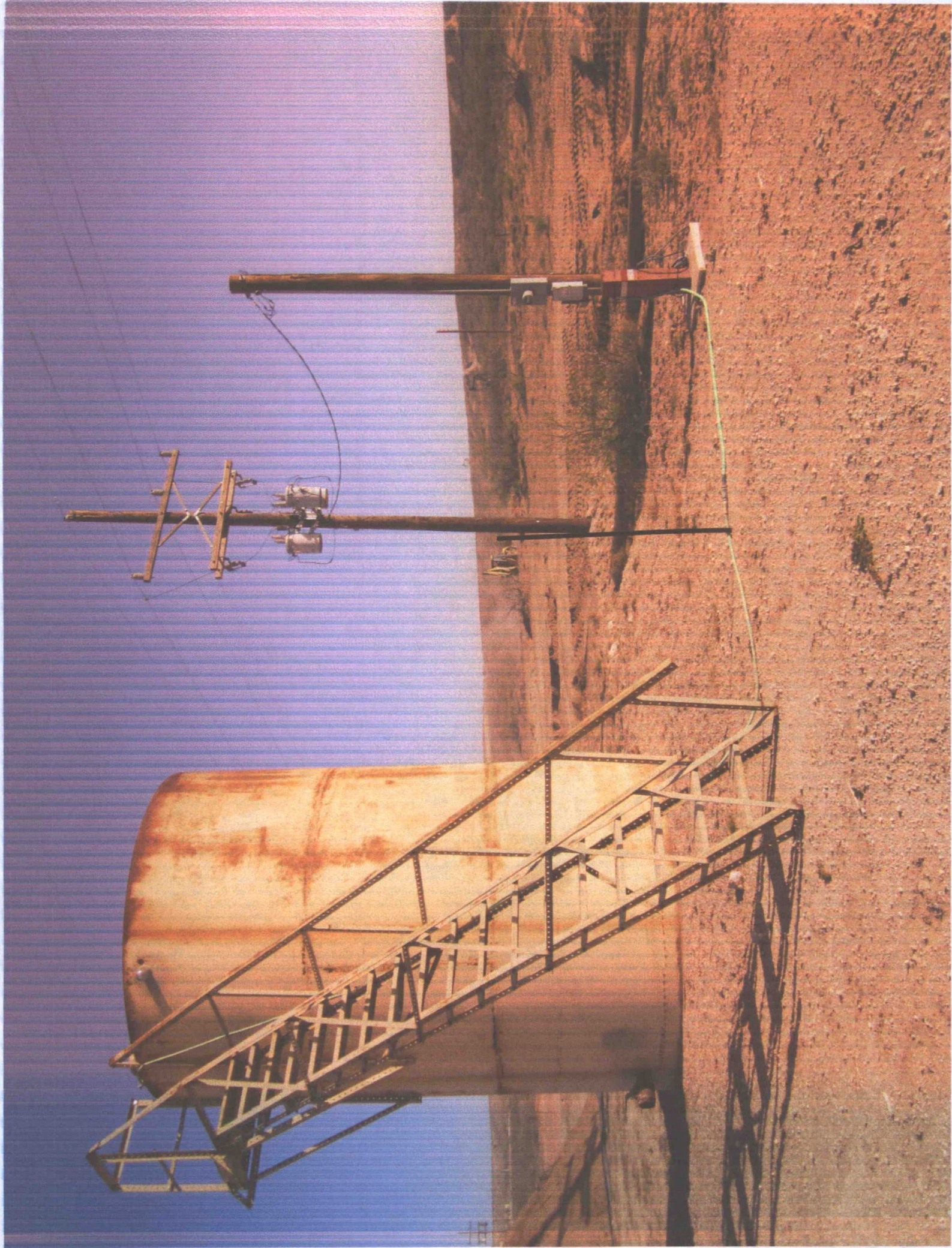






















Scott A. Verhines, P.E.  
State Engineer



Roswell Office  
1900 WEST SECOND STREET  
ROSWELL, NM 88201

**STATE OF NEW MEXICO  
OFFICE OF THE STATE ENGINEER**

Trn Nbr: 527808  
File Nbr: RA 11957 EXPL

May. 16, 2013

OSCAR FRAYRE  
LINN ENERGY  
PO BOX 1058  
HOBBS, NM 88241

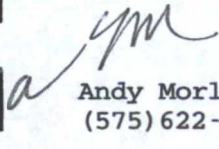
Greetings:

Enclosed is your copy of the above numbered permit that has been approved subject to the conditions set forth on the approval page. In accordance with the conditions of approval, the well can only be tested for 10 cumulative days, and the well is to be plugged on or before 05/31/2014, unless a permit to use the water is acquired from this office.

A Well Record & Log (OSE Form wr-20) shall be filed in this office within twenty (20) days after completion of drilling, but no later than 05/31/2014.

Appropriate forms can be downloaded from the OSE website [www.ose.state.nm.us](http://www.ose.state.nm.us) or will be mailed upon request.

Sincerely,

  
Andy Morley  
(575) 622-6521

Enclosure



## Oscar Frayre

---

**From:** eticket@nm811.org  
**Sent:** Monday, March 25, 2013 3:49 PM  
**To:** Oscar Frayre  
**Subject:** DO NOT REPLY: Request 2013130733

New Mexico One Call

Locate Request Confirmation

Header Code: STANDARD LOCATE

Request Type:

Ticket No: 2013130733 Seq. No: 0

Update of:

Original Call Date: 03/25/2013 Time: 03:39:13 PM OP: 100

Transmit Date: 03/25/2013 Time: 03:48:30 PM

Work to Begin Date: 03/27/2013 Time: 03:39:00 PM

Company: HUNGRY HORSE LLC

Contact Name: OSCAR FRAYRE Contact Phone: (575)631-0983

Alternate Contact: Alternate Phone:

Best Time to Call: Fax No: (575)391-4585

Cell Phone: Pager No:

Email: [ofrayre@hungry-horse.com](mailto:ofrayre@hungry-horse.com)

State: NM County: LEA City: RURAL LEA

Address: , CMU 51 CALICHE PIT

To Address:

Nearest Intersecting Street:

2nd Intersecting Street:

Subdivision:

Latitude: 32.79065000 Longitude: -103.69570500

Zip Code:

Grid:

Location of Work: PUSH UP CALICHE FOR BACKFILLING --- FROM NM-529

N ON DOG LAKE RD 0.4MI - W 0.6MI - S 0.3MI TO  
LOCATION === SPOT 1000FT RADIUS OF STAKE WITH  
RED AND WHITE FLAGGING INSIDE CALICHE PIT OFF SE  
CORNER OF PAD

Remarks: --- OPEN ACCESS / NO HAZARDS

Type of Work: NEW CONSTRUCTION-LOT PREP

Private Property: Street: Overhead Lines: Blasting:

Easement: Mechanical Boring: Premarked: Y

Work Being Done For: LINN ENERGY

The following utility owners have been notified:

SPHB NAVA FFS