

1R - 427-159

APPROVALS

YEAR(S):

2013

Hansen, Edward J., EMNRD

From: Hansen, Edward J., EMNRD
Sent: Monday, June 17, 2013 5:56 PM
To: Hack Conder (hconder@riceswd.com)
Cc: Leking, Geoffrey R, EMNRD; Laura Pena (lpena@riceswd.com); Katie Jones <kjones@riceswd.com> (kjones@riceswd.com); Scott Curtis (scurtis@riceswd.com)
Subject: Remediation Plan (1R427-159) Termination - ROC EME H-27-1 Site

**RE: Termination Request
for the Rice Operating Company's
EME H-27-1 Site
Unit Letter H, Section 27, T19S, R36E, NMPM, Lea County, New Mexico
Remediation Plan (1R427-159) Termination**

Dear Mr. Conder:

The New Mexico Oil Conservation Division (OCD) has received Rice Operating Company's report and request to close the above-referenced site, dated June 12, 2013 (received June 14, 2013). The reports are acceptable to the OCD.

The above-referenced report, submitted in accordance with 19.15.29 NMAC (Rule 29; formally, Rule 116), indicates that Rice Operating Company has met the requirements of 19.15.29 NMAC; therefore, the OCD approves the report and hereby notifies you that the remediation plan (1R427-159) is terminated in accordance with 19.15.29 NMAC.

Please be advised that OCD approval of this report does not relieve the owner/operator of responsibility should operations pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the owner/operator of responsibility for compliance with any OCD, federal, state, or local laws and/or regulations.

If you have any questions regarding this matter, please contact me at 505-476-3489.

Edward J. Hansen
Hydrologist
Environmental Bureau

RICE *Operating Company*

122 West Taylor • Hobbs, New Mexico 88240
Phone: (575) 393-9174 • Fax: (575) 397-1471

RECEIVED OCD

2013 JUN 14 P 2: 07

CERTIFIED MAIL

RETURN RECEIPT NO. 7007 2560 0000 4569 8876

June 12, 2013

Mr. Edward Hansen
New Mexico Energy, Minerals, & Natural Resources
Oil Conservation Division, Environmental Bureau
1220 S. St. Francis Drive
Santa Fe, New Mexico 87505

RE: Termination Request
EME H-27-1 (1R427-159): UL/H, Sec. 27, T19S, R36E
RICE Operating Company – Eunice Monument Eumont SWD System

Mr. Hansen:

Rice Operating Company (ROC) is the service provider (agent) for the EME Saltwater Disposal (SWD) System and has no ownership of any portion of the pipeline, well, or facility. The System is owned by a consortium of oil producers, System Parties, who provide all operating capital on a percentage ownership/usage basis.

Background

In 2004, ROC initiated work on the former H-27-1 junction box. The site is located in UL/H, Sec. 27, T19S, R36E. NM OSE records indicate that groundwater would likely be encountered at +/- 59 ft. The site was delineated using a backhoe to collect soil samples at regular intervals, creating a 20x10x13 ft deep excavation. Each sample was field titrated for chlorides and field screened using a PID for hydrocarbons, resulting in chloride concentrations that decreased with depth and low PID readings. Representative samples of the sidewalls and bottom were collected and sent to a commercial laboratory for analysis of chloride and TPH, resulting in a sidewall chloride concentration of 542 mg/kg and a gasoline range organics (GRO) and a diesel range organics (DRO) concentration below detectable limits. The bottom sample resulted in a chloride concentration of 1,000 mg/kg and concentrations of GRO and DRO below detectable limits. The excavation was backfilled to 6 ft bgs with remediated excavated soil. A sample of the remediated backfill was sent to a commercial laboratory for analysis of chloride and TPH, resulting in a chloride concentration of 287 mg/kg, a GRO concentration below detectable limits and a DRO concentration of 52.9 mg/kg. At 6 ft bgs, a 1 ft thick compacted clay layer was installed. The clay layer will provide a barrier that will inhibit the downward migration of chlorides to groundwater. The remaining

excavation was backfilled with the remediated backfill to ground surface and contoured to the surrounding area. On October 10/7/04, the site was seeded with a blend of native vegetation.

To further investigate the depth of chloride presence, a soil bore was initiated on November 12, 2004 at 5 ft east of the former junction box site. The boring was advanced to a depth of 45 ft BGS with soil samples collected every 5 ft between 20 and 45 ft. Each sample was field titrated for chlorides and field screened using a PID for hydrocarbons, resulting in concentrations that decreased with depth. The 45 ft sample was sent to a commercial laboratory for analysis, resulting in a chloride, GRO, and DRO concentration below detectable limits.

Vegetation has rebounded at the site so no re-vegetation efforts are needed. A junction box is no longer required.

The junction box site location map, area map, final report, photodocumentation, cross-section diagram, laboratory analysis, PID sheet and current photodocumentation are attached.

Recommendations

Site investigation demonstrates that residual chloride and hydrocarbons in the vadose zone will not with reasonable probability contaminate groundwater in excess of NMOCD standards. This site meets the requirements of the NMOCD-approved Revised Junction Box Upgrade Work Plan (July 16, 2003). As such, ROC request termination of the regulatory file, or similar closure status.

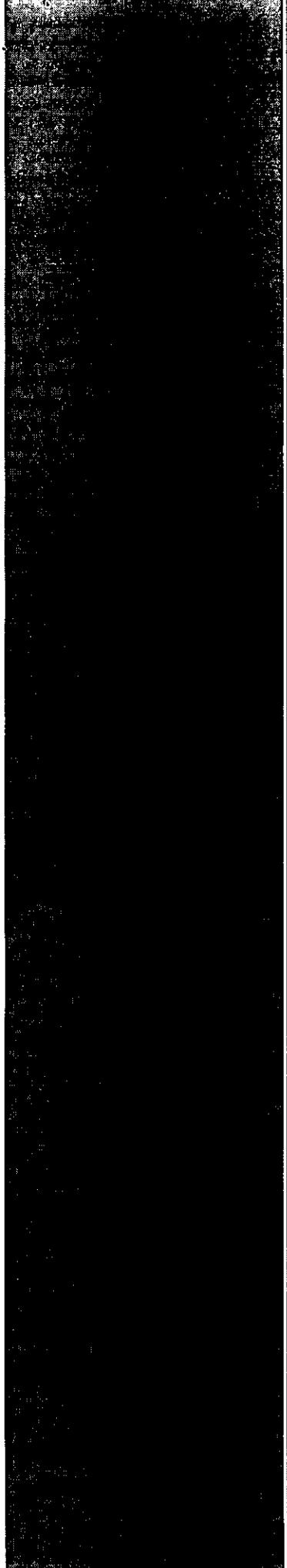
Please contact me at (575)393-9174 if you have any questions or wish to discuss this site. Thank you for your time and consideration.

Sincerely,
RICE Operating Company

A handwritten signature in black ink, appearing to read "H. Conder", written in a cursive style.

Hack Conder
Environmental Manager

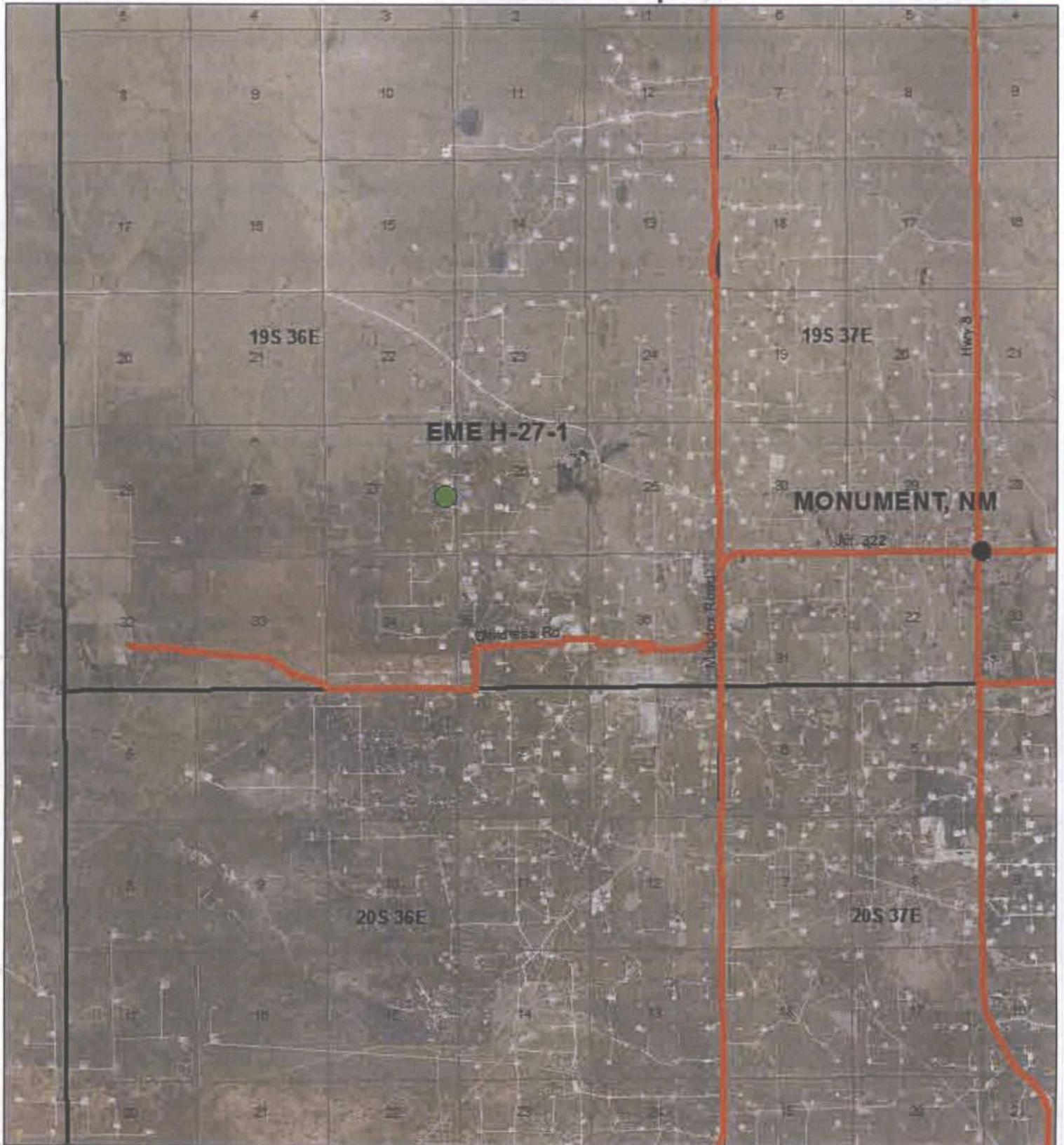
enclosures



Site Maps

RICE *Operating Company* (ROC)
112 West Taylor Hobbs, NM 88240
Phone: (575) 393-9174 Fax: (575) 397-1471

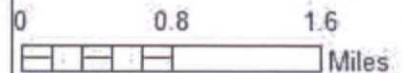
Site Location Map



EME H-27-1

UL/H, SECTION 27,
T19S, R36E
LEA COUNTY, NM

NMOCD #: 1R427-159



Drawing date: 8/12/13

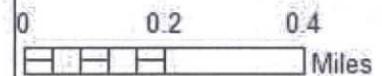
Area Map



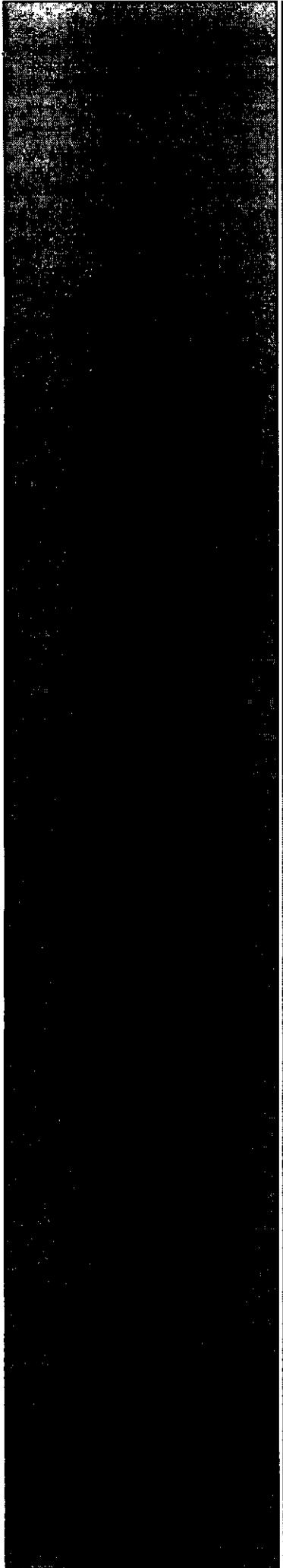
EME H-27-1

UL/H, SECTION 27,
T19S, R36E
LEA COUNTY, NM

NMOCD #: 1R427-159



Drawing date: 8/12/13



Junction Box Report

RICE *Operating Company* (ROC)
112 West Taylor Hobbs, NM 88240
Phone: (575) 393-9174 Fax: (575) 397-1471

**RICE OPERATING COMPANY
JUNCTION BOX FINAL REPORT**

BOX LOCATION

SWD SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE	COUNTY	BOX DIMENSIONS - FEET		
							Length	Width	Depth
EME	H-27-1	H	27	19S	36E	Lea	eliminated--no box		

LAND TYPE: BLM _____ STATE X FEE LANDOWNER _____ OTHER _____

Depth to Groundwater 59 feet NMOCD SITE ASSESSMENT RANKING SCORE: 10

Date Started 9/3/2004 Date Completed 11/12/2004 NMOCD Witness no

Soil Excavated 96 cubic yards Excavation Length 20 Width 10 Depth 13 feet

Soil Disposed 0 cubic yards Offsite Facility n/a Location n/a

FINAL ANALYTICAL RESULTS: Sample Date 9/9/2004, 11/12/2004 Sample Depth 12, 45 ft

Procure 5-point composite sample of bottom and 4-point composite sample of excavation sidewalls. TPH and chloride laboratory test results completed by using an approved lab and testing procedures pursuant to NMOCD guidelines.

CHLORIDE FIELD TESTS

Sample Location	PID ppm	GRO mg/kg	DRO mg/kg	Chloride mg/kg
4-WALL COMP.	0.0	<10.0	<10.0	542
BOTTOM COMP.	0.0	<10.0	<10.0	1000
REMED. BACKFILL	0.0	<10.0	52.9	287
SOIL BORE @ 45 ft	1.7	<10.0	<10.0	<20

LOCATION	DEPTH (ft)	ppm
5 ft WEST of junction	3	509
	4	810
	5	449
	6	510
	7	449
15 ft WEST of junction	13	779
	3	629
	4	599
	5	570
	6	509
	7	539
	8	480
	9	539
	10	390
	11	239
Soil Bore 5 ft EAST of junction	12	210
	20	827
	25	1183
	30	393
	41	90
	42	47
	43	52
	45	56

General Description of Remedial Action: This junction box site was located just east of a lease road. The junction was eliminated with the pipeline replacement project. The box lumber was removed and the site was delineated using a backhoe while PID readings and chloride field tests were conducted at regular intervals. Samples were taken from the 10 x 10 x 12-ft-deep excavation for lab confirmation (results listed above). The bottom composite result was incongruent with chloride field tests so the excavation was extended to more accurately characterize chloride impact. 5 ft west of the junction exhibited elevated chloride levels so the excavation was extended to 15 ft west where a conclusive decline with depth and breadth was established (see graph). The final 10 x 20 x 13-ft-deep excavation yield elevated chloride on the east side of the excavation at 13 ft BGS. A soil bore was initiated on 11/12/04 to further characterize chloride concerns east of the box site. A conclusive trend of decline was observed, indicative of non-saturated vadose conditions. The bore was aborted at 45 ft BGS where lab results yielded non-detect chloride levels (<20 ppm) in the sample. The 10 x 20 x 13 ft excavation was backfilled to 6 ft BGS with the excavated soil that was remediated on site. At 6 ft, a 1-ft-thick compacted clay barrier was installed to inhibit further downward migration of chloride. The remaining spoils were backfilled on top of the clay and leveled to the surface. On 10/7/04 the disturbed surface was seeded with a blend of native vegetation. An identification plate has been placed on the surface to mark the clay below. A junction box is no longer required at this site.

enclosures: chloride graphs, photos, lab results, PID field screenings, clay test, bore log, cross-section

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

SITE SUPERVISOR Rob Elam SIGNATURE not available COMPANY Curt's Environmental—Odessa, TX

REPORT ASSEMBLED BY Kristin Farris Pope SIGNATURE Kristin Farris Pope

DATE 12/17/2004 TITLE Project Scientist

EME jct. H-27

unit 'H', sec. 27, T19S, R36E



undisturbed junction box before excavation

8/20/2004



excavation & delineation 10 x 10 x 7-ft

9/7/2004



testing clay barrier at 6 ft BGS

10/6/2004



seeding disturbed area at backfilled site; clay ID plate at feet 10/7/2004



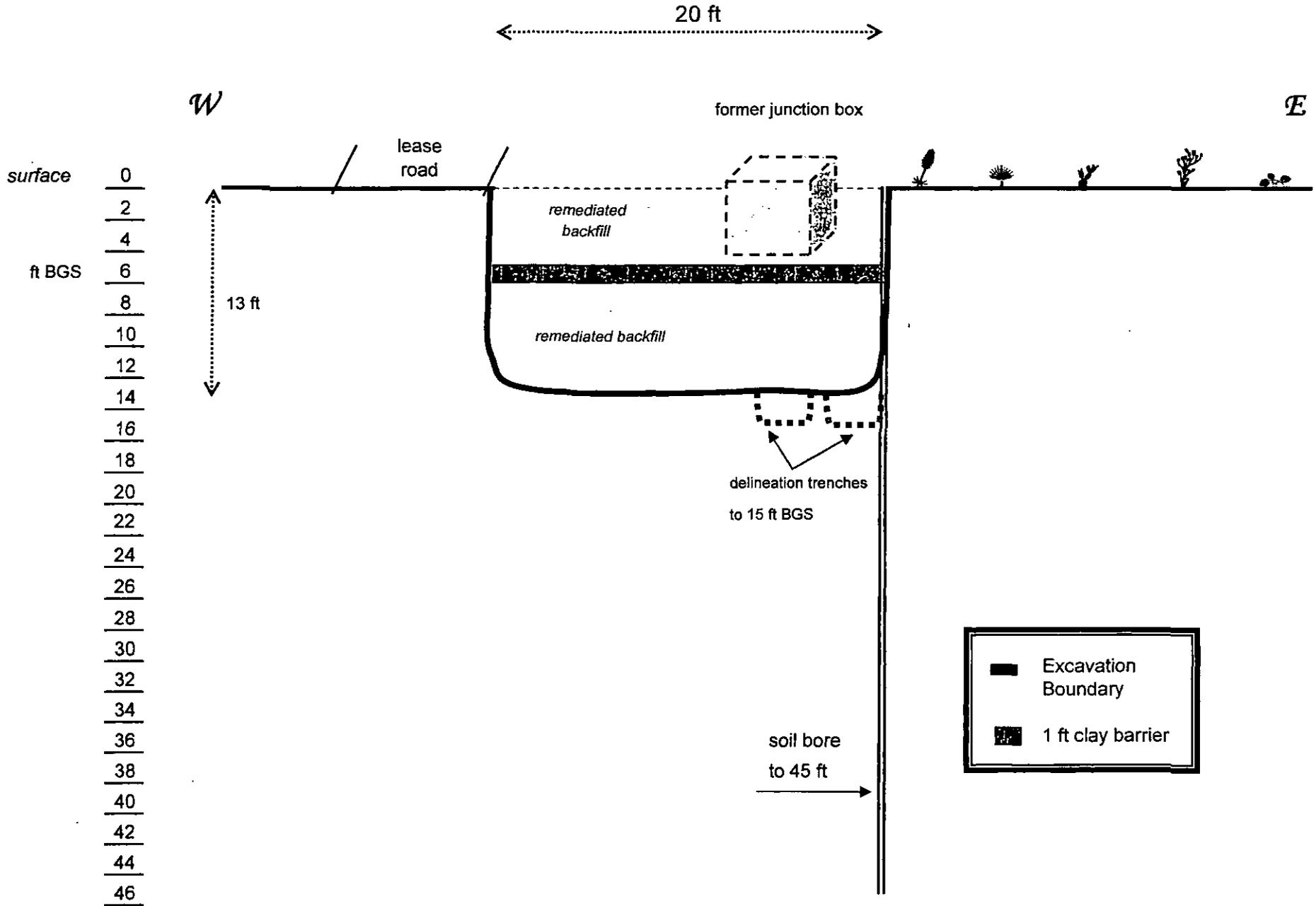
delineation drilling

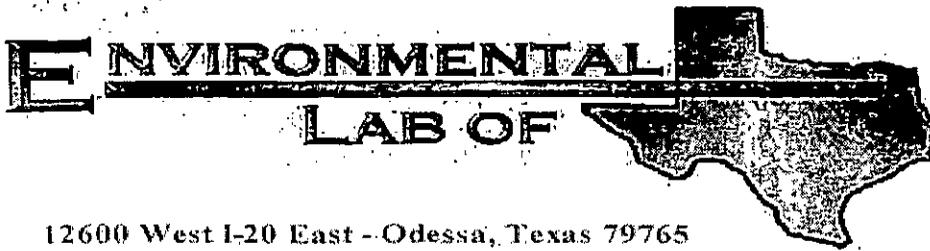
11/12/2004

EME jct. H-27-1

20 x 10 x 13 ft

Excavation Cross-Section





12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Roy Rascon

Rice Operating Co.

122 W. Taylor

Hobbs, NM 88240

Project: EME Jct. H-27-1 S.B.

Project Number: None Given

Location: EME

Lab Order Number: 4K15006

Report Date: 11/22/04

Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: EME Jct. H-27-1
Project Number: None Given
Project Manager: Roy Rascon

Fax: (505) 397-1471

Reported:
11/22/04 11:08

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB @ 45' on East Wall	4K15006-01	Soil	11/12/04 14:45	11/15/04 07:25

Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB @ 45' on East Wall (4K15006-01) Soil									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EK41509	11/15/04	11/16/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		77.3 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		87.4 %	70-130		"	"	"	"	

Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: EME Jct. H-27-1
Project Number: None Given
Project Manager: Roy Rascon

Fax: (505) 397-1471

Reported:
11/22/04 11:08

General Chemistry Parameters by EPA / Standard Methods
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SB @ 45' on East Wall (4K15006-01) Soil									
Chloride	ND	20.0	mg/kg Wet	2	EK41905	11/15/04	11/19/04	SW 846 9253	
% Moisture	3.0		%	1	EK41601	11/15/04	11/16/04	% calculation	

Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: EME Jct. H-27-1
Project Number: None Given
Project Manager: Roy Rascon

Fax: (505) 397-1471

Reported:
11/22/04 11:08

Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EK41509 - Solvent Extraction (GC)

Blank (EK41509-BLK1)

Prepared: 11/15/04 Analyzed: 11/16/04

Gasoline Range Organics C6-C12	ND	10.0	mg/kg wet							
Diesel Range Organics >C12-C35	ND	10.0	"							
Total Hydrocarbon C6-C35	ND	10.0	"							
Surrogate: 1-Chlorooctane	37.0		"	50.0		74.0	70-130			
Surrogate: 1-Chlorooctadecane	40.6		"	50.0		81.2	70-130			

LCS (EK41509-BS1)

Prepared: 11/15/04 Analyzed: 11/16/04

Gasoline Range Organics C6-C12	536	10.0	mg/kg wet	500		107	75-125			
Diesel Range Organics >C12-C35	624	10.0	"	500		125	75-125			
Total Hydrocarbon C6-C35	1160	10.0	"	1000		116	75-125			
Surrogate: 1-Chlorooctane	54.8		"	50.0		110	70-130			
Surrogate: 1-Chlorooctadecane	52.1		"	50.0		104	70-130			

Calibration Check (EK41509-CCV1)

Prepared: 11/15/04 Analyzed: 11/17/04

Gasoline Range Organics C6-C12	465		mg/kg	500		93.0	80-120			
Diesel Range Organics >C12-C35	600		"	500		120	80-120			
Total Hydrocarbon C6-C35	1060		"	1000		106	80-120			
Surrogate: 1-Chlorooctane	53.8		mg/kg wet	50.0		108	70-130			
Surrogate: 1-Chlorooctadecane	53.9		"	50.0		108	70-130			

Matrix Spike (EK41509-MS1)

Source: 4K15003-02

Prepared: 11/15/04 Analyzed: 11/16/04

Gasoline Range Organics C6-C12	477	10.0	mg/kg dry	538	ND	88.7	75-125			
Diesel Range Organics >C12-C35	628	10.0	"	538	ND	117	75-125			
Total Hydrocarbon C6-C35	1100	10.0	"	1080	ND	102	75-125			
Surrogate: 1-Chlorooctane	53.8		"	53.8		100	70-130			
Surrogate: 1-Chlorooctadecane	50.1		"	53.8		93.1	70-130			

Matrix Spike Dup (EK41509-MSD1)

Source: 4K15003-02

Prepared: 11/15/04 Analyzed: 11/16/04

Gasoline Range Organics C6-C12	446	10.0	mg/kg dry	538	ND	82.9	75-125	6.72	20	
Diesel Range Organics >C12-C35	596	10.0	"	538	ND	111	75-125	5.23	20	
Total Hydrocarbon C6-C35	1040	10.0	"	1080	ND	96.3	75-125	5.61	20	
Surrogate: 1-Chlorooctane	51.5		"	53.8		95.7	70-130			
Surrogate: 1-Chlorooctadecane	48.3		"	53.8		89.8	70-130			

Rice Operating Co.
 122 W. Taylor
 Hobbs NM, 88240

Project: EME Jct. H-27-1
 Project Number: None Given
 Project Manager: Roy Rascon

Fax: (505) 397-1471
 Reported:
 11/22/04 11:08

General Chemistry Parameters by EPA / Standard Methods - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EK41601 - General Preparation (Prep)										
Blank (EK41601-BLK1) Prepared: 11/15/04 Analyzed: 11/16/04										
% Moisture	0.0		%							
Duplicate (EK41601-DUP1) Source: 4K12010-01 Prepared: 11/15/04 Analyzed: 11/16/04										
% Moisture	8.0		%		8.0			0.00	20	
Batch EK41905 - Water Extraction										
Blank (EK41905-BLK1) Prepared: 11/15/04 Analyzed: 11/19/04										
Chloride	ND	20.0	mg/kg Wet							
Matrix Spike (EK41905-MS1) Source: 4K12018-01 Prepared: 11/15/04 Analyzed: 11/19/04										
Chloride	574	20.0	mg/kg Wet	500	106	93.6	80-120			
Matrix Spike Dup (EK41905-MSD1) Source: 4K12018-01 Prepared: 11/15/04 Analyzed: 11/19/04										
Chloride	584	20.0	mg/kg Wet	500	106	95.6	80-120	1.73	20	
Reference (EK41905-SRM1) Prepared & Analyzed: 11/19/04										
Chloride	5000		mg/kg	5000		100	80-120			

Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: EME Jct. H-27-1
Project Number: None Given
Project Manager: Roy Rascon

Fax: (505) 397-1471

Reported:
11/22/04 11:08

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference
LCS Laboratory Control Spike
MS Matrix Spike
Dup Duplicate

Report Approved By: Raland K Tuttle Date: 11-22-04

Raland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer

Jeanne Mc Murrey, Inorg. Tech Director
James L. Hawkins, Chemist/Geologist
Sandra Sanchez, Lab Tech.

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-563-1800.

Environmental Lab of Texas Variance / Corrective Action Report – Sample Log-In

Client: Rice Operating

Date/Time: 11-15-04 @ 0930

Order #: 4K15006

Initials: JMM

Sample Receipt Checklist

Temperature of container/cooler?	<input checked="" type="radio"/> Yes	No	4.0	C
Shipping container/cooler in good condition?	<input checked="" type="radio"/> Yes	No		
Custody Seals intact on shipping container/cooler?	Yes	No	Not present	
Custody Seals intact on sample bottles?	Yes	No	Not present	
Chain of custody present?	<input checked="" type="radio"/> Yes	No		
Sample Instructions complete on Chain of Custody?	<input checked="" type="radio"/> Yes	No		
Chain of Custody signed when relinquished and received?	<input checked="" type="radio"/> Yes	No		
Chain of custody agrees with sample label(s)	<input checked="" type="radio"/> Yes	No		
Container labels legible and intact?	<input checked="" type="radio"/> Yes	No		
Sample Matrix and properties same as on chain of custody?	<input checked="" type="radio"/> Yes	No		
Samples in proper container/bottle?	<input checked="" type="radio"/> Yes	No		
Samples properly preserved?	<input checked="" type="radio"/> Yes	No		
Sample bottles intact?	<input checked="" type="radio"/> Yes	No		
Preservations documented on Chain of Custody?	<input checked="" type="radio"/> Yes	No		
Containers documented on Chain of Custody?	<input checked="" type="radio"/> Yes	No		
Sufficient sample amount for indicated test?	<input checked="" type="radio"/> Yes	No		
All samples received within sufficient hold time?	<input checked="" type="radio"/> Yes	No		
VOC samples have zero headspace?	<input checked="" type="radio"/> Yes	No	Not Applicable	

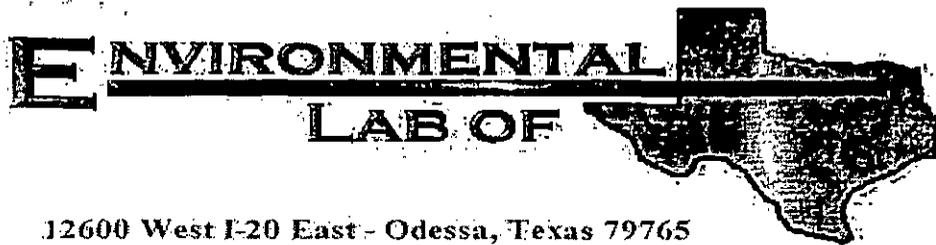
Other observations:

Variance Documentation:

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

Regarding:

Corrective Action Taken:



12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Roy Rascon
Rice Operating Co.
122 W. Taylor
Hobbs, NM 88240

Project: Jct. H-27-1
Project Number: None Given
Location: EME

Lab Order Number: 4I10008

Report Date: 09/15/04

Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: Jct. H-27-1
Project Number: None Given
Project Manager: Roy Rascon

Fax: (505) 397-1471

Reported:
09/15/04 07:59

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
12' Bottom Comp.	4I10008-01	Soil	09/09/04 15:00	09/09/04 19:20
Wall Comp.	4I10008-02	Soil	09/09/04 15:00	09/09/04 19:20
Backfill Comp.	4I10008-03	Soil	09/09/04 15:00	09/09/04 19:20

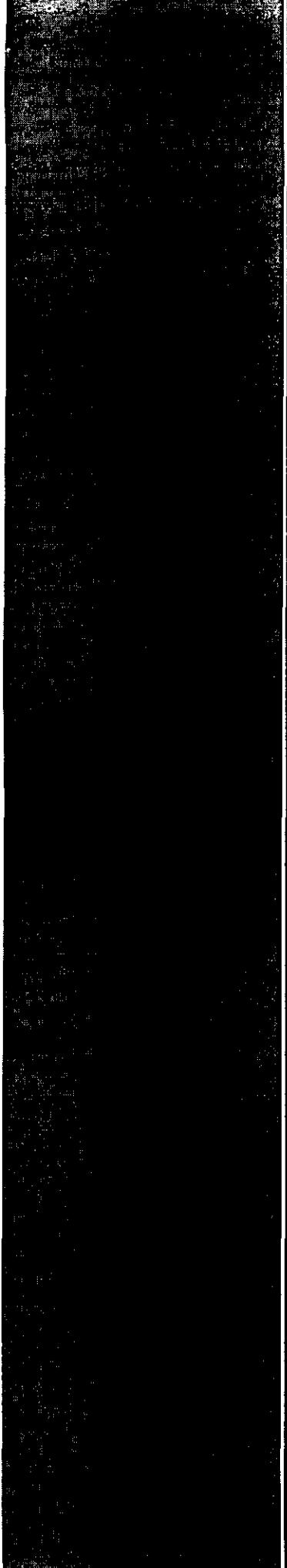
Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: Jct. H-27-1
Project Number: None Given
Project Manager: Roy Rascon

Fax: (505) 397-1471
Reported:
09/15/04 07:59

Organics by GC
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
12' Bottom Comp. (4I10008-01) Soil									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EI41006	09/10/04	09/13/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		85.2 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		72.6 %	70-130		"	"	"	"	
Wall Comp. (4I10008-02) Soil									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EI41006	09/10/04	09/13/04	EPA 8015M	
Diesel Range Organics >C12-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	ND	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		96.8 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		72.4 %	70-130		"	"	"	"	
Backfill Comp. (4I10008-03) Soil									
Gasoline Range Organics C6-C12	ND	10.0	mg/kg dry	1	EI41006	09/10/04	09/13/04	EPA 8015M	
Diesel Range Organics >C12-C35	52.9	10.0	"	"	"	"	"	"	
Total Hydrocarbon C6-C35	52.9	10.0	"	"	"	"	"	"	
<i>Surrogate: 1-Chlorooctane</i>		101 %	70-130		"	"	"	"	
<i>Surrogate: 1-Chlorooctadecane</i>		78.8 %	70-130		"	"	"	"	



Current Photodocumentation

RICE *Operating Company* (ROC)
112 West Taylor Hobbs, NM 88240
Phone: (575) 393-9174 Fax: (575) 397-1471

EME H-27-1 (1R427-159)

UL/H, Section 27, T19S, R36E



Facing NW

5/16/2013



Facing West

5/16/2013