

1R - 427-48

**APPROVALS**

**YEAR(S):**

2013

**Hansen, Edward J., EMNRD**

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**From:** Hansen, Edward J., EMNRD  
**Sent:** Monday, September 23, 2013 4:02 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 (1R427-48) Termination - ROC EME H-29 Site

**RE: Termination Request  
for the Rice Operating Company's  
EME H-29 Site  
Unit Letter H, Section 29, T21S, R36E, NMPM, Lea County, New Mexico  
Remediation Plan (1R427-48) 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 September 12, 2013 (received September 16, 2013). The report is 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 (1R427-48) 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 OGD

SEP 16 P 1:45

CERTIFIED MAIL  
RETURN RECEIPT NO. 7007 2560 0000 4569 8944

September 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-29 (1R427-48): UL/H, Sec. 29, T21S, R36E  
RICE Operating Company – Eunice Monument Eumont (EME) 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 and Previous Work**

In 2003, ROC initiated work on the former H-29 junction box. The site is located in UL H, Sec. 29, T21S, R36E. NM OSE records indicate that groundwater would likely be encountered at a depth of approximately 174 +/- feet. The site was delineated using a backhoe to form a 20x20x14-ft deep excavation and soil samples were screened at regular intervals for both hydrocarbons and chlorides. Each sample was field titrated for chlorides, resulting in concentrations that did not decrease with depth. The 14 ft sample was submitted to a commercial laboratory to be analyzed for chloride and DRO, resulting in a chloride concentration of 1,332 mg/kg and a diesel range organics (DRO) concentrations of 27 mg/kg. The excavation was backfilled to ground surface and contoured to the surrounding area. A new, watertight junction box was installed 50 ft east of the site and has since been upgraded to a concrete box; therefore, no seeding is required.

To further investigate the depth of chloride presence, a soil bore was initiated on December 30, 2003 at the former junction box site. The boring was advanced to a depth of 46 ft bgs. Soil samples collected every 5 ft. Each sample was field titrated for chlorides, resulting in concentrations that did relent with depth. The 46 ft sample was sent to a commercial laboratory

for analysis, resulting in a chloride concentration of 192 mg/kg. The entire bore hole was plugged to ground surface.

The junction box site map, area map, final report, photodocumentation, chloride graph, soil bore log, laboratory analysis, vertical notes, 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.

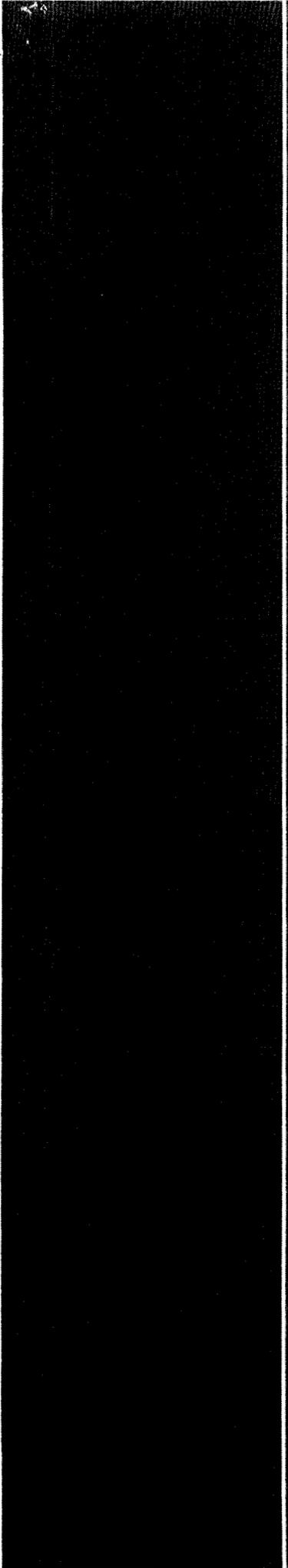
Please contact me at (575)393-2967 if you have any questions or wish to discuss this site. Thank you for your time and consideration.

Sincerely,  
RICE Operating Company



Laura Flores  
Environmental Project Assistant Manager

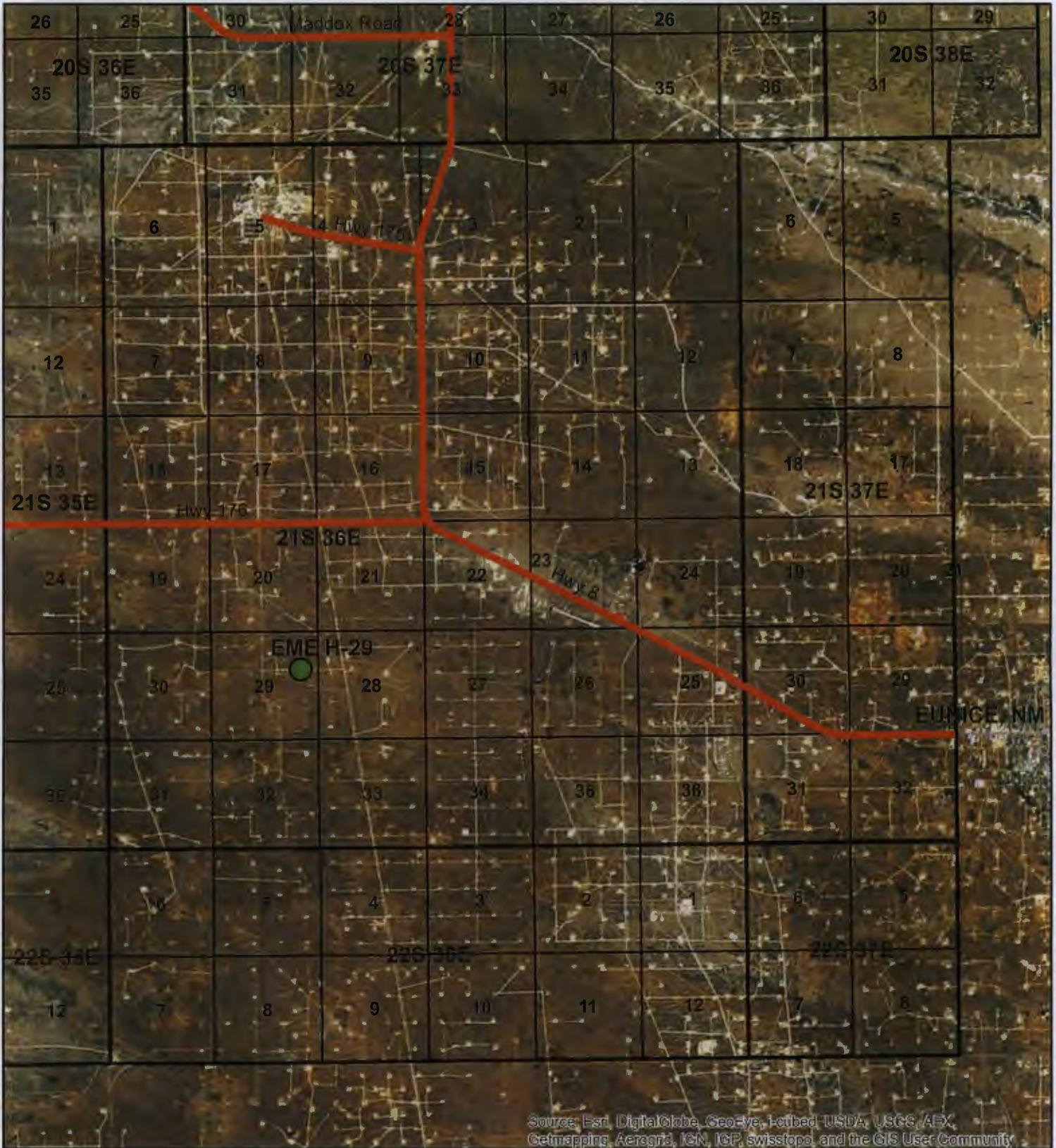
enclosures



## Site Maps

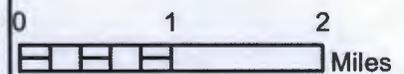
**RICE *Operating Company* (ROC)**  
419 West Cain Hobbs, NM 88240  
Phone: (575) 393-2967 Fax: (575) 393-0293

# Site Location Map



**EME H-29  
(1R427-48)**

**UL H SECTION 29  
T-21-S R-36-E  
LEA COUNTY, NM**



Drawing date: 5/6/13  
Drafted by: T. Grieco

# Area Map

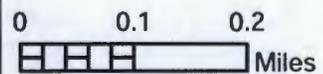


Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



## EME H-29 (1R427-48)

UL H SECTION 29  
T-21-S R-36-E  
LEA COUNTY, NM



Drawing date: 5/6/13  
Drafted by: T. Grieco

# Junction Box Report

**RICE *Operating Company* (ROC)**  
419 West Cain Hobbs, NM 88240  
Phone: (575) 393-2967 Fax: (575) 393-0293

**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-29	H	29	21S	36E	Lea	Moved 50 ft East		

LAND TYPE: BLM \_\_\_\_\_ STATE X FEE LANDOWNER \_\_\_\_\_ OTHER \_\_\_\_\_

Depth to Groundwater 174 feet NMOCD SITE ASSESSMENT RANKING SCORE: 0

Date Started 10/21/2003 Date Completed 10/27/2003 OCD Witness No

Soil Excavated 200 (excavation trenches) cubic yards Excavation Length 20 Width 20 Depth 14 feet

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

**FINAL ANALYTICAL RESULTS:** Sample Date 12/30/2003 Sample Depth 46 ft bgs

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

Sample Location	Benzene mg/kg	Toluene mg/kg	Ethyl Benzene mg/kg	Total Xylenes mg/kg	GRO mg/kg	DRO mg/kg	Chloride mg/kg
Soil Bore @ 46 ft	XXX	XXX	XXX	XXX	XXX	XXX	192
Vertical @ 14 ft (field tests)	PID = 0.0 ppm				XXX	27	1332

**CHLORIDE FIELD TESTS**

General Description of Remedial Action: During initial delineation trenches made with a backhoe to 14 ft bgs, chloride concentrations did not sufficiently decline. There were no indications of TPH during this delineation (see PID results). A soil bore was performed and at 47 ft bgs, a conclusive decline in chloride concentrations was observed (see graph). Based on the decline, ROC concludes that groundwater is not threatened at this site. The bore was backfilled with cuttings and the site was leveled. Vegetation is already established on the surface. A new watertight junction box has been built 50 ft east of this site.

enclosures: chloride graph, photos, lab results, PID readings, soil bore

LOCATION	DEPTH (ft)	ppm
Soil Bore	20	868
	25	986
	30	871
	35	566
	40	645
	45	314
	46	189

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

DATE 1/9/2004 PRINTED NAME Kristin Farris

SIGNATURE *Kristin Farris* TITLE Project Scientist

**EME jct. H-29**



Undisturbed box prior to NORM removal

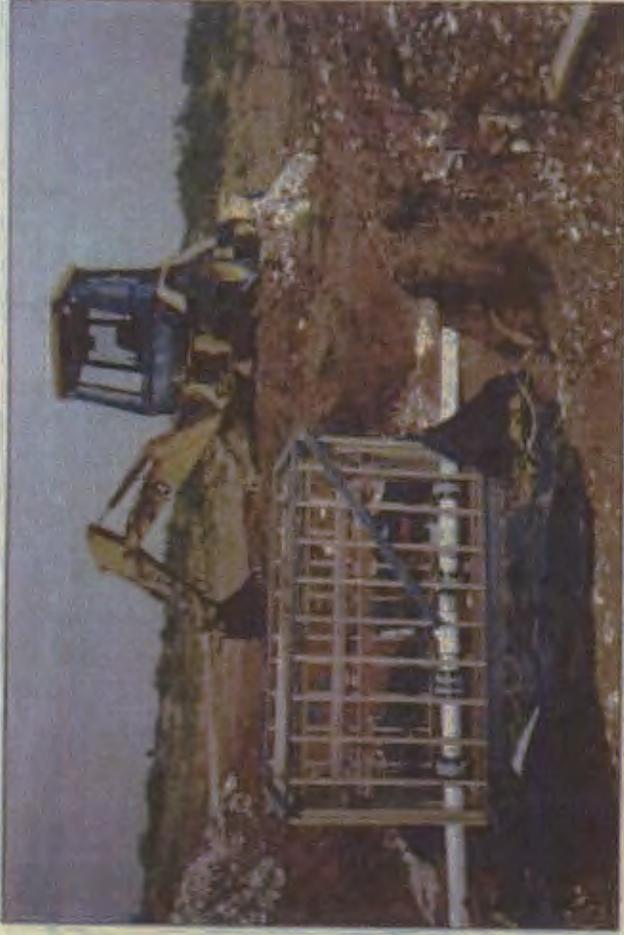


NORM Excavation

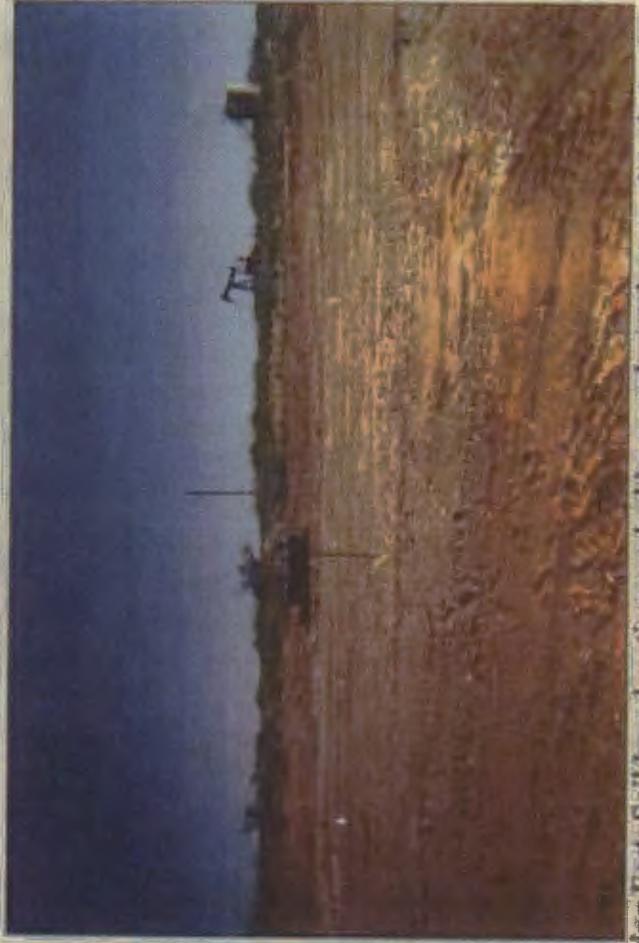


Delineation & Excavation

Oct. 2003



Construction of New Junction Box 50 ft East



Looking East: Soil bore location marked by wooden stake; new box in background

**CHLORIDE CONCENTRATION CURVE**

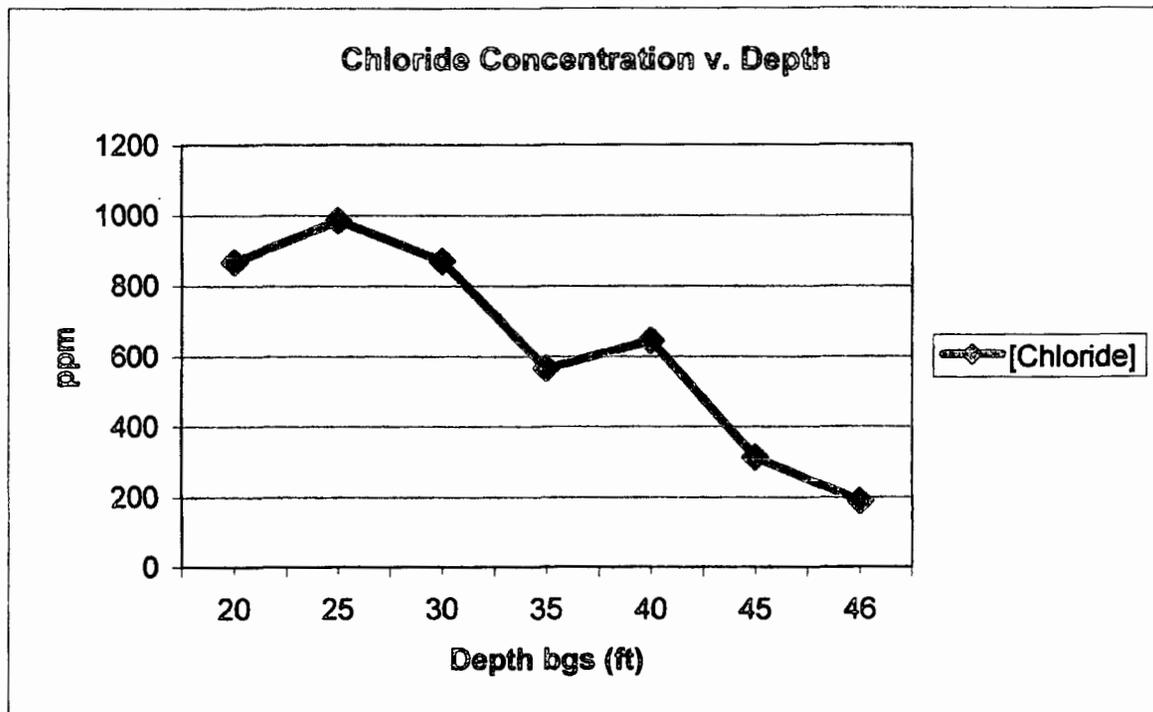
**RICE Operating Company**

**EME jet. H-29**  
T21S, R36E

*Soil Bore*

Depth bgs (ft)	[Cl <sup>-</sup> ] ppm
20	868
25	986
30	871
35	566
40	645
45	314
46	189

Groundwater = 174 ft



<b>Logger:</b>	Joe Gatts; Mort Bates	<b>Client:</b>	RICE Operating Company	<b>Well ID:</b>     <b>SB-1</b>
<b>Driller:</b>	Atkins Engineering Associates, Inc.	<b>Project Name:</b>	jct. H-29	
<b>Drilling Method:</b>	Hollow Stem Auger	<b>Location:</b>	EME SWD System	
<b>Start Date:</b>	12/30/2003		Sec. 29, T21S, R36E	
<b>End Date:</b>	12/30/2003		Lea County, NM	
<b>Notes:</b>	Backfilled with drill cuttings; TD = 47 ft; Groundwater = 174 ft			

Depth (feet)	Split Spoon		Description	Lithology	Additional Notes
	chloride	PID			
0.0					
2.0					
4.0					
6.0					
8.0			Silty sand mixed with broken caliche: loose, reddish brown, dry		
10.0					
12.0					
14.0					
16.0					
18.0					
20.0	868	no odor	Caliche: hard, tan, dry		
22.0					
24.0	986	no odor	Silty sand: loose, tan, dry		
26.0			Caliche: hard, tan, dry		
28.0					
30.0	871	no odor	Silty sand: loose, tan, dry		
32.0					
34.0	566	no odor	Silty sand partially cemented; tan, firm, dry		
36.0					
38.0					
40.0	645	no odor			
42.0			Silty sand: loose, tan, dry		
44.0	314	no odor			
46.0	185	odor			lab = 192 ppm Cl <sup>-</sup>



PHONE (325) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR  
RICE OPERATING CO.  
ATTN: KRISTIN FARRIS  
122 W. TAYLOR  
HOBBS, NM 88240  
FAX TO: (505) 397-1471

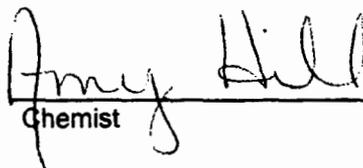
Receiving Date: 01/05/04  
Reporting Date: 01/06/04  
Project Number: NOT GIVEN  
Project Name: EME  
Project Location: H-29

Analysis Date: 01/06/04  
Sampling Date: 12/30/03  
Sample Type: SOIL  
Sample Condition: COOL & INTACT  
Sample Received By: BC  
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Cl <sup>-</sup> (mg/Kg)
H8317-1	SOIL BORE 46' BGS	192
Quality Control		1010
True Value QC		1000
% Recovery		101
Relative Percent Difference		7.0

METHOD: Standard Methods      4500-Cl<sup>-</sup>B

Note: Analysis performed on a 1:4 w:v aqueous extract.

  
\_\_\_\_\_  
Chemist

  
\_\_\_\_\_  
Date

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.

h8317



# CARDINAL LABORATORIES, INC.

2111 Beechwood, Abilene, TX 79603 101 East Marland, Hobbs, NM 88240  
(915) 673-7001 Fax (915) 673-7020 (505) 393-2326 Fax (505) 393-2476

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page \_\_\_ of \_\_\_

Company Name: <b>RICE Operating</b>	<b>BILL TO</b>	<b>ANALYSIS REQUEST</b>											
Project Manager: <b>Kristin Ferris</b>	P.O. #:												
Address: <b>122 W Taylor</b>	Company: <b>RICE</b>												
City: <b>Hobbs</b> State: <b>NM</b> Zip: <b>88240</b>	Attn:												
Phone #: <b>393-9174</b> Fax #: <b>397-1471</b>	Address:												
Project #: Project Owner:	City:												
Project Name: <b>EME</b>	State: Zip:												
Project Location: <b>H-29</b>	Phone #:												
Supplier Name: <b>J. Gatts</b>	Fax #:												

OR LAB USE ONLY		# GRAB OR (C)OMP.	# CONTAINERS	MATRIX						PRESERV		SAMPLING		DATE	TIME	
Lab I.D.	Sample I.D.			GROUNDWATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :				
H837-1	Soil Bore 46' top	6	1			X							123003	1030	Chloride	

NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the test. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable test. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Terms and Conditions: Interest will be charged on all accounts more than 30 days past due at the rate of 24% per annum from the original date of invoice, and all costs of collection, including attorney's fees.

Supplier Relinquished By: <i>J. Gatts</i>	Date: 11/5/04 Time: 9:30	Received By:	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Fax Result: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #: Add'l Fax #:
Relinquished By:	Date: 11/5/04 Time: 10:30	Received By: (Lab Staff) <i>Burrows</i>	REMARKS: Fax to RICE	
Delivered By: (Circle One) Printer - UPS - Bus - Other:	Sample Condition Cool / Intact <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No	CHECKED BY: (Initials)		

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476.

①

174' GW

STATE  
LANDOWNER

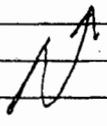
ET6I Jet box Finiel Report Vertical 14' North 1' at center  
SITE EXCAVATION INFORMATION

EMIS N-29 SOURCE

DATE DEPTH CL PID TPH SOIL COMPOSITION

DATE	DEPTH	CL	PID	TPH	SOIL COMPOSITION
10-31-03	4'	580			Brown Sand
	5'	645			coarse light brown sand
	6'	580			
	7'	500			
	8'	467			
	9'	404			
	10'	527			
	11'	689			
	12'	890	0.0		
	13'	1263	0.0		
	14'	1332	0.0		

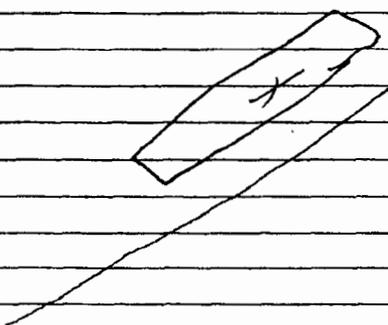
Tony RC  
87



①

North 1' from center

6" pipe



*[Handwritten signature]*



**ENVIRONMENTAL TECHNOLOGY GROUP, INC.**

2540 WEST MARLAND

HOBBS, NEW MEXICO 88240

PHONE: (505) 397-4882 FAX: (505) 397-4701

**VOC FIELD TEST REPORT FORM**

MINI RAE PLUS CLASSIC PHOTOIONIZATION GAS DETECTOR

MODEL NO: PGM 761S

SERIAL NO: 103999

CALIBRATION GAS

GAS COMPOSITION: ISOBUTYLENE

100 PPM

AIR

BALANCE

LOT NO: 67401

FILL DATE: 10-21-03

EXP. DATE: 11-24

ACCURACY: 100ppm ± 2%

METER READING

ACCURACY: 100.7

SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE
<i>EME</i>	<i>H-29</i>	<i>H</i>	<i>29</i>	<i>215</i>	<i>36E</i>

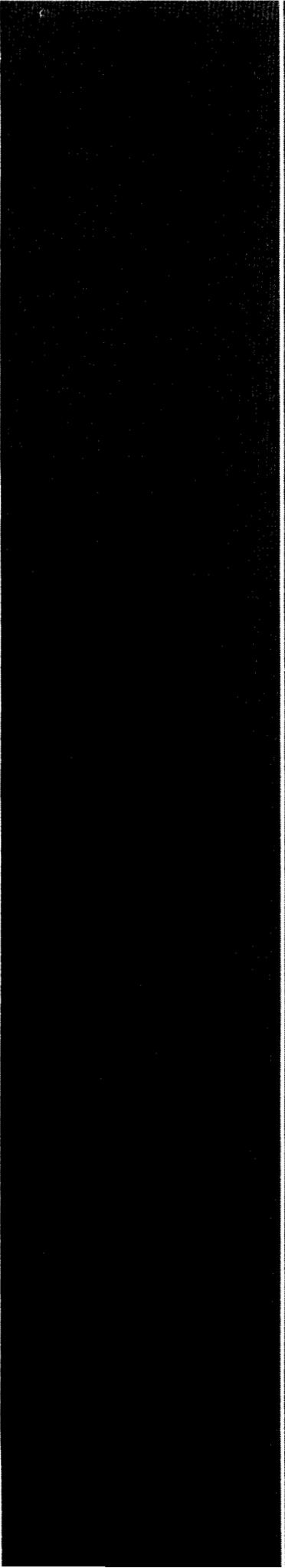
SAMPLE	PID RESULT	SAMPLE	PID RESULT
<i>Vent 14</i>			
<i>12'</i>	<i>0.0</i>		
<i>13'</i>	<i>0.0</i>		
<i>14'</i>	<i>0.0</i>		

I certify that I have calibrated the above instrument in accordance to the manufacture operation manual.

*Gay Stark*  
Signature

*Field Tech*  
Title

*10-21-03*  
Date



# Current Photodocumentation

**RICE *Operating Company* (ROC)**  
419 West Cain Hobbs, NM 88240  
Phone: (575) 393-2967 Fax: (575) 393-0293

**EME H-29 (1R427-48)**  
Unit Letter H, Section 9, T21S, R36E



Facing west

7/16/2013



Facing north

7/16/2013