

1R - 427 - 46

# REPORTS

DATE:

2-19-2004

EME State BEOL

1R0427-96

**FINAL**

**REPORT**

**RICE OPERATING COMPANY  
JUNCTION BOX FINAL REPORT**

**BOX LOCATION**

SWD SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE	COUNTY	BOX DIMENSIONS - FEET		
							Length	Width	Depth
EME	State 'B' EOL	D	7	22S	36E	Lea	Moved 50 ft North		

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

Depth to Groundwater 180 feet NMOCD SITE ASSESSMENT RANKING SCORE: 10 \*

Date Started 12/10/2003 Date Completed 12/16/2003 OCD Witness No

Soil Excavated 64 cubic yards Excavation Length n/a Width n/a Depth n/a feet

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

**FINAL ANALYTICAL RESULTS:** Sample Date 12/30/2003 Sample Depth 80 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 @ 80 ft	XXX	XXX	XXX	XXX	XXX	XXX	976
Vertical @ 10 ft (field tests)	PID = 0.0 ppm				XXX	XXX	1654

**General Description of Remedial Action:** This EOL box was located inside the yard of an active production battery. The box was surrounded by healthy, established vegetation. Delineation with a backhoe did not yield a sufficient decline of chloride concentrations with depth. There was no evidence of TPH impact and all PID readings were 0.0. The site was bored with a split-spoon auger on 12/30/2003. The soil bore delineation yielded a conclusive decline in chloride concentrations and boring was ceased at 80 ft (see graph). Because the box was inside an active facility, excavation larger than the trenches was not possible. The site was backfilled and leveled to the surrounding terrain. A new junction box was built 50 ft north of this site. Disturbed vegetation is expected to return at a normal rate. Based on the chloride trend of declination, ROC concludes that groundwater is not threatened at this site.

**CHLORIDE FIELD TESTS**

LOCATION	DEPTH (ft)	ppm
Vertical	7	1436
w/backhoe	8	2085
	10	1654
Soil Bore	20	1963
	30	1488
	40	1069
	50	1477
	60	1343
	70	1275
	80	1027

\* Water well 1000 ft southeast of location.

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

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

DATE 2/19/2004

PRINTED NAME Kristin Farris

SIGNATURE *Kristin Farris*

TITLE Project Scientist

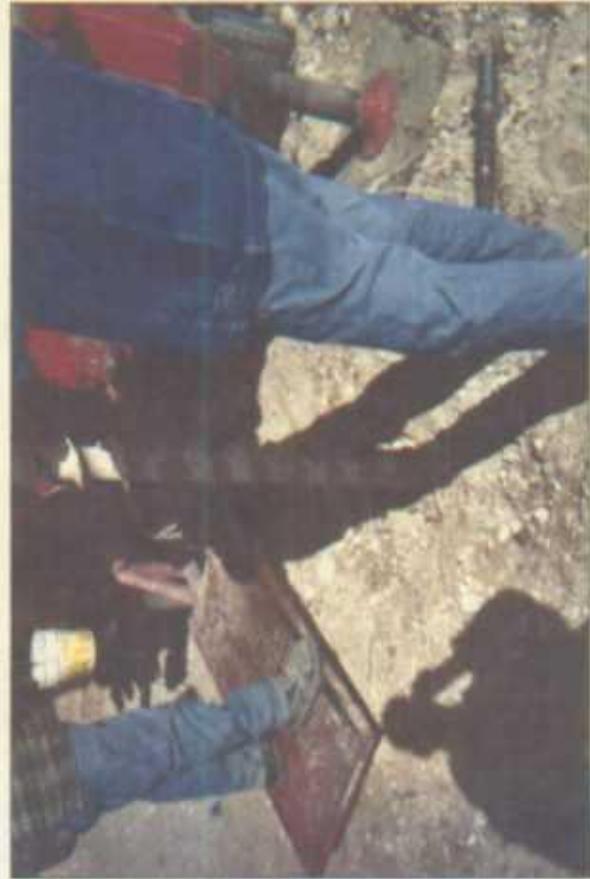
# EME State 'B' EOL



Undisturbed junction box 11/17/2003



Backhoe delineation 12/10/2003



Soil bore delineation 12/30/2003



Completed new box 50 ft north of old box 12/3/2003

**CHLORIDE CONCENTRATION CURVE**

**RICE Operating Company**

**EME State 'B' EOL**

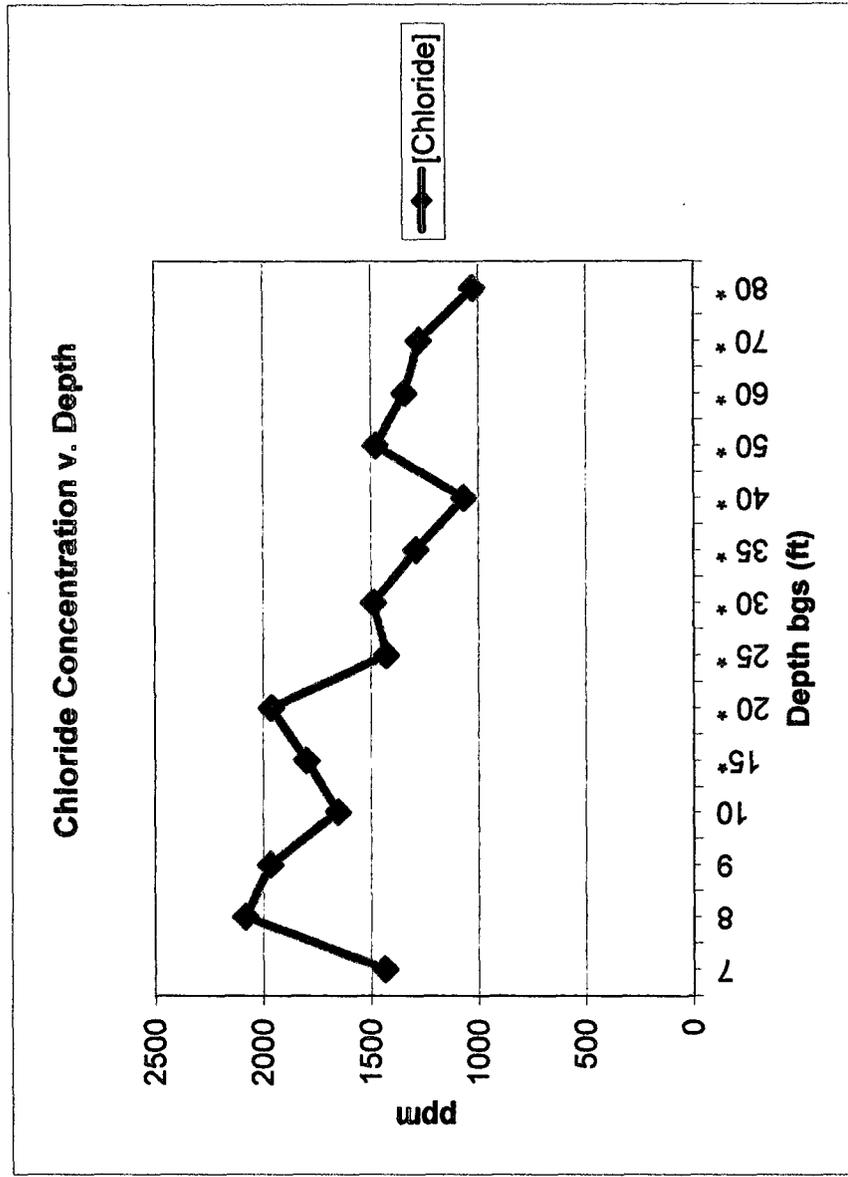
Unit 'D', Sec. 7, T22S, R36E

*Vertical Delineation at Source*

Depth bgs (ft)	[Cl <sup>-</sup> ] ppm
7	1436
8	2085
9	1968
10	1654
15*	1799
20*	1963
25*	1429
30*	1488
35*	1290
40*	1069
50*	1477
60*	1343
70*	1275
80*	1027

Groundwater = 180 ft

\* Soil bore samples



<b>Logger:</b>	Joe Gatts; Mort Bates	<b>Client:</b>	Well ID:
<b>Driller:</b>	Atkins Engineering Associates, Inc.	RICE Operating Company	SB-1
<b>Drilling Method:</b>	Hollow Stem Auger	<b>Project Name:</b>	
<b>Start Date:</b>	12/30/2003	State 'B' EOL	
<b>End Date:</b>	12/30/2003	<b>Location:</b>	
<b>Notes:</b>	Backfilled with drill cuttings; TD = 85 ft; Groundwater = 180 ft	EME SWD System Sec. 7, T22S, R36E Lea County, NM	

Depth (feet)	Split Spoon		Description	Lithology	Additional Notes
	chloride	PID			
0.0			0-12 ft Silty sand with Broken Caliche: loose, reddish-brown, dry		
5.0					
10.0					
15.0	1799	no odor	12-27 ft Caliche: firm, tan, dry		
20.0	1963	no odor			
25.0	1429	no odor			
30.0	1488	no odor	27-85 ft Silty Sand: loose, tan, dry		
35.0	1290	no odor			
40.0	1069	no odor			
45.0					
50.0	1477	no odor			
55.0					
60.0	1343	no odor			
65.0					
70.0	1275	no odor			
75.0					
80.0	1027	no odor			
85.0					

lab = 976 ppm Cl<sup>-</sup>



**ARDINAL  
LABORATORIES**

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

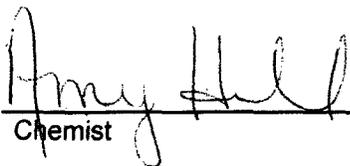
Receiving Date: 01/05/04  
Reporting Date: 01/06/04  
Project Number: NOT GIVEN  
Project Name: MIRAGE  
Project Location: EME

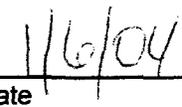
Analysis Date: 01/06/04  
Sampling Date: 12/30/03  
Sample Type: SOIL  
Sample Condition: COOL & INTACT  
Sample Received By: BC  
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Cl <sup>-</sup> (mg/Kg)
H8318-1	SOIL BORE 80' BGS	976
Quality Control		1010
True Value QC		1000
% Recovery		101
Relative Percent Difference		7.0

METHOD: Standard Methods	4500-ClB
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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.

h8318



# ARDINAL 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     

**BILL TO**

**ANALYSIS REQUEST**

P.O. #:

Company: **RICE**

Address:

City:

State:

Phone #:

Fax #:

Project Manager: **Kristin Farris**

Address: **122 W Taylor**

City: **Hobbs**

State: **NM**

Zip: **88240**

Phone #: **393-9174**

Fax #: **397-1171**

Project Owner:

Project Name: **MFEAGE**

Project Location: **EME**

Sampler Name: **J Laft**

OR USE ONLY

Lab I.D. **Sample I.D.**

**AS3751** **Soil Bone 80kg**

(G)RAB OR (C)OMP.	6
# CONTAINERS	1
GROUNDWATER	
WASTEWATER	
SOIL	X
CRUDE OIL	
SLUDGE	
OTHER :	
ACID/BASE:	
ICE / COOL	X
OTHER :	
DATE	12/05
TIME	1030

*Chloride*

**NOTE: Chain of Custody and Sample Receipt Form** for any data entry number found in contact or text, shall be linked to the original paid for the client for the work. All data including those for reagents and any other cases whereover shall be deemed valid unless noted otherwise within 30 days after completion of the applicable work. 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 theories of recovery.

Terms and Conditions: Payment will be charged on all accounts more than 30 days past due at the rate of 2 1/2% per annum from the original date of invoice, and all costs of collection, including attorney's fees.

Requested By: **J Laft**  
Date: **12/10/04**  
Time: **930**

Received By: (Lab Staff)  
**John Laft**  
Date: **12/10/04**  
Time: **1030**

Delivered By: (Circle One)

Sample Condition

CHECKED BY: (Initials)

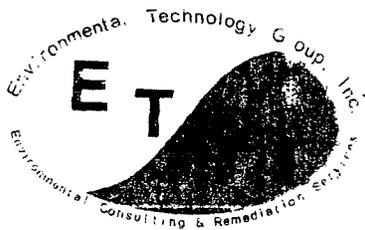
Sampler - UPS - Bus - Other:

Good  Cool  Other

**Fax to RICE**

Phone Result:  Yes  No  Add'l Phone #:  
 Fax Result:  Yes  No  Add'l Fax #:

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



**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: 12-10-03

EXP. DATE: 11/24

ACCURACY: 100 PPM ± 2%

METER READING

ACCURACY: 100.7

SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE
EMIS	merge 51 B EOL	D	7	22	36

SAMPLE	PID RESULT	SAMPLE	PID RESULT
Ventilator			
Source			
10'	0.0		
Letenil			
5' East			
10'	0.0		
Letenil			
5' West			
10'	0.0		

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

Sary Paul  
Signature

Field Tech  
Title

12-10-03  
Date

ETGZ Jet box final report  
SITE EXCAVATION INFORMATION

Vertical at Source

EME Miraga state B' Box

DATE DEPTH CL PID TPH SOIL COMPOSITION

DATE	DEPTH	CL	PID	TPH	SOIL COMPOSITION
12-10-03	4	1534			strong odor Caliche light brown Sand
	5	993			}
	6	1139			
	7	1436		mild odor	
	8	2085		little odor	
	9	1968		No odor	
	10	1659	0.0	( )	

Vertical North ↑  
at Source

Vertical  
at Source

