

**1R - 427 - 142**

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# **REPORTS**

**DATE:**

**7-26-04**

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EME 0-35 South

1R0427-142

# FINAL REPORT

**RICE OPERATING COMPANY  
JUNCTION BOX FINAL REPORT**

**BOX LOCATION**

SWD SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE	COUNTY	BOX DIMENSIONS - FEET		
EME	O-35 South	O	35	20S	36E	Lea	Length	Width	Depth
							Moved 200 ft Northeast (outside battery)		

LAND TYPE: BLM \_\_\_\_\_ STATE \_\_\_\_\_ FEE LANDOWNER Tuffy Cooper OTHER \_\_\_\_\_

Depth to Groundwater 122 feet NMOCD SITE ASSESSMENT RANKING SCORE: 0

Date Started 3/22/2004 Date Completed 6/1/2004 OCD Witness No

Soil Excavated 13 cubic yards Excavation Length 10 Width 3 Depth 12 feet

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

**FINAL ANALYTICAL RESULTS:** Sample Date 3/22/2004, 6/1/2004 Sample Depth 12 ft

Procure 5-point composite sample of bottom and 4-point composite sample of 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
VERTICAL @ 12 ft	0.0	<10.0	<10.0	1070
33 ft East @ 12 ft (background)	XXX	<10.0	<10.0	128
SOIL BORE @ 38 ft	1.6	<10.0	<10.0	176

LOCATION	DEPTH (ft)	ppm
Vertical	5	147
at box	6	285
	7	318
	8	273
	9	699
	10	554
	11	936
	12	968
	13	1147
	14	876
Soil bore	15	626
at box	20	654
	21	652
	26	600
	31	300
	36	184
	37	184
	38	161

General Description of Remedial Action: This was the South box of 2 that were located inside an active production facility. Vertical delineation was conducted with a backhoe while chloride field tests were performed every foot. Chloride concentrations to 14 ft exhibited an ambiguous trend which warranted further investigation. A soil bore was initiated on 6/1/2004 and advanced to a depth of 38 ft where a conclusive trend of decline in chloride concentrations was observed (see graph). Some moisture was encountered around 33 ft so a bentonite plug was placed in the bore hole from 33-38 ft, as well as at the surface to 3 ft BGS. Chloride left in place at this site is not threatening to groundwater at 122 ft BGS. All PID field screening results were minimal and lab analysis confirmed TPH concentrations well below NMOCD guidelines. All excavations were backfilled and contoured to the surrounding surface. A new watertight junction box has been built outside the battery approximately 200 ft Northeast of this box.

enclosures: chloride graph, photos, lab results, PID field screenings, soil bore log, diagram

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

SITE SUPERVISOR Joe Gatts SIGNATURE Joe Gatts COMPANY RICE Operating Company

REPORT ASSEMBLED BY Kristin Farris Pope SIGNATURE Kristin Farris Pope

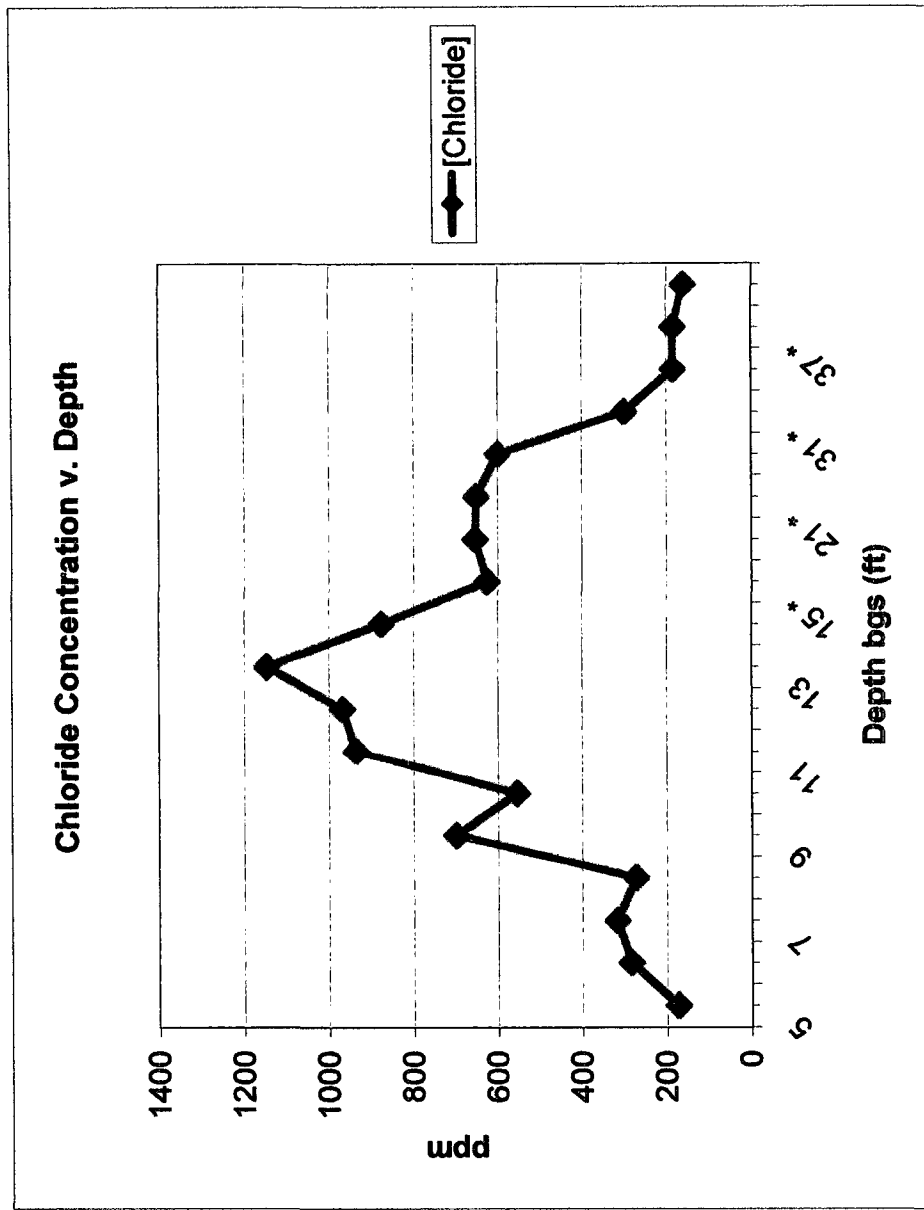
DATE 7/26/2004 TITLE Project Scientist

**EME jct. O-35 South**

T20S, R36E

*Vertical Delineation at Source*

Depth bgs (ft)	[Cl <sup>-</sup> ] ppm
5	174
6	285
7	318
8	273
9	699
10	554
11	936
12	968
13	1147
14	876
15 *	626
20 *	654
21 *	652
26 *	600
31 *	300
36 *	184
37 *	184
38 *	161



\* Soil bore samples

Groundwater = 122 ft

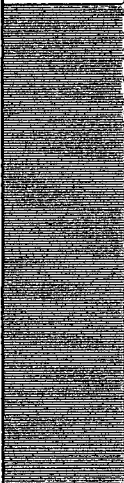
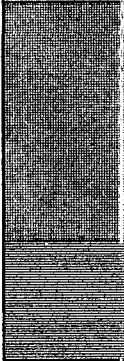



# LOG OF BORING

K. Farris

RICE Operating Company

<b>Logger:</b>	Israel Juarez; 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>			
<b>Drilling Method:</b>	Hollow Stem Auger		<b>Location:</b>			
<b>Start Date:</b>	6/1/2004		jct. O-35 South			
<b>End Date:</b>	6/1/2004		EME SWD System			
<b>Notes:</b>			Bored at the site of the O-35 South box TD = 38 ft      Groundwater = 122 ft			
			Sec. 35, T20S, R36E			
			Lea County, NM			


Depth (feet)	Split Spoon chloride	PID	Description	Lithology	Additional Notes	
0.0			0-15 ft Clayey Sand w/Caliche: loose, tan dry		0-3 ft hydrated bentonite plug	
2.0						
4.0						
6.0						
8.0						
10.0						
12.0						
14.0						
16.0	626	4.0				
18.0						
20.0			15-23 ft Caliche: firm, white, dry		remainder of bore backfilled with drill cuttings	
22.0	652	1.8				
24.0						
26.0	600	1.7				
28.0			23-27 Clayey Sand w/Caliche: firm, tan, dry			
30.0						
32.0			27-30 ft Clayey Sand: loose, tan, dry			
34.0						
36.0	300	1.2				
38.0						
30.0			30-38 ft Silty Sand: loose, tan, damp			33-38 ft hydrated bentonite plug
32.0						
34.0						
36.0	184	1.9				
38.0	184	1.4				
38.0	161	1.6				

lab = 176 ppm Cl<sup>-</sup>

# EME jet. O-35 North & South

Unit 'O', Sec. 35, T20S, R36E

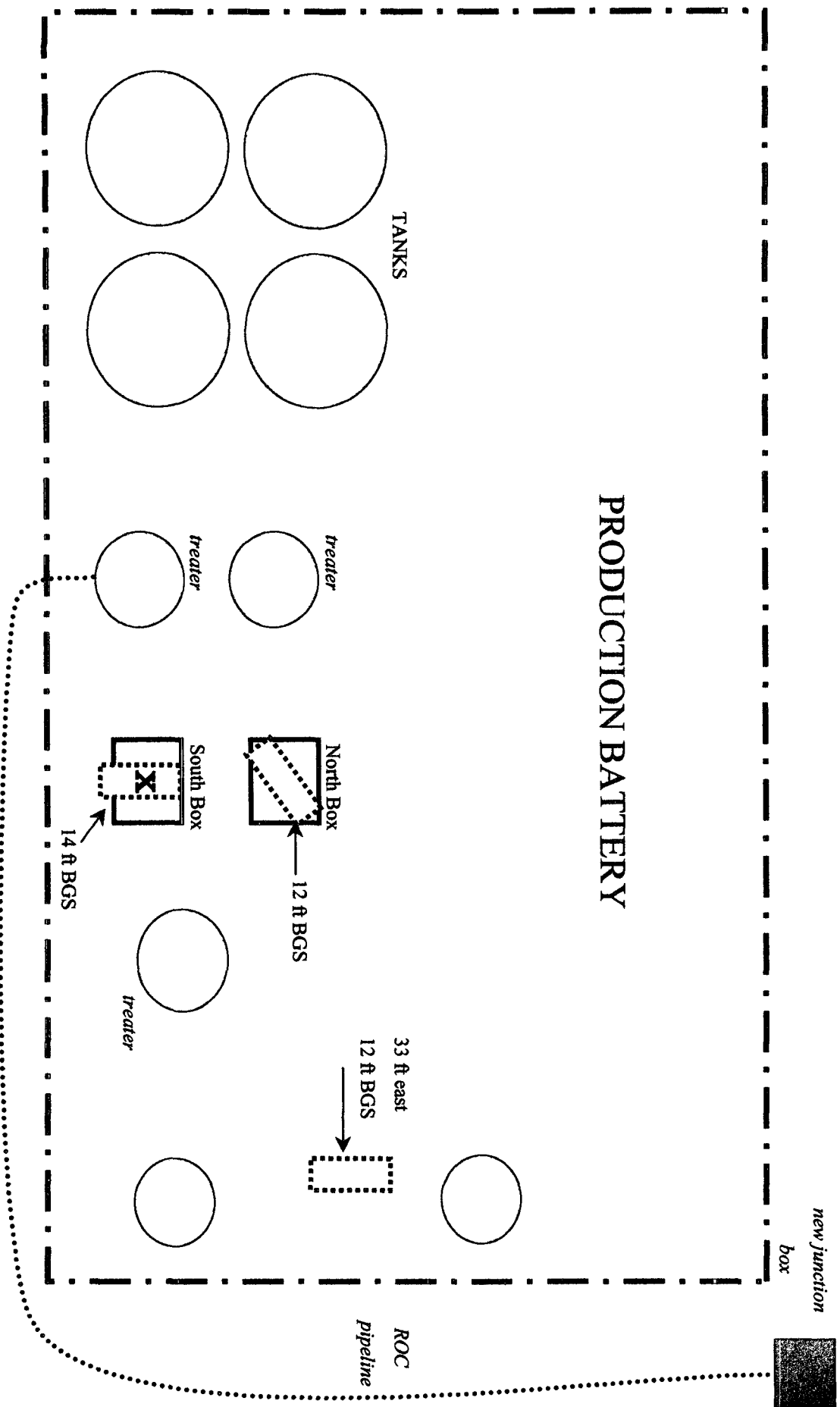
\*\*\* NOT TO SCALE \*\*\*

 = Excavation trench  
**X** = Soil Bore Location



LEASE ROAD

## PRODUCTION BATTERY



## EME jct. O-35 South Box



Boxes inside battery (looking SW); South box on left 12/30/02



Vertical delineation with backhoe 3/22/04



Construction of new junction box 200 ft NE 9/26/03

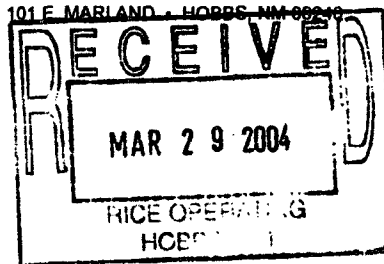


Soil bore at south box 6/1/04



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: 03/22/04  
Reporting Date: 03/23/04  
Project Number: NOT GIVEN  
Project Name: JCT. O-35  
Project Location: EME

Sampling Date: 03/22/04  
Sample Type: SOIL  
Sample Condition: COOL & INTACT  
Sample Received By: BC  
Analyzed By: BC/AH

LAB NO.	SAMPLE ID	GRO (C <sub>6</sub> -C <sub>10</sub> ) (mg/Kg)	DRO (>C <sub>10</sub> -C <sub>28</sub> ) (mg/Kg)	CI* (mg/Kg)
		03/22/04	03/22/04	03/23/04
H8550-1	NORTH BOX 12' BGS	<10.0	<10.0	160
H8550-2	SOUTH BOX 12' BGS	<10.0	<10.0	1070
H8550-3	33' EAST OF N. BOX 12' BGS	<10.0	<10.0	128
	Quality Control	843	835	980
	True Value QC	800	800	1000
	% Recovery	105	104	98.0
	Relative Percent Difference	5.6	1.1	2.0

METHODS: TPH GRO & DRO: EPA SW-846 8015 M; CI: Std. Methods 4500-CI'B

\*Analyses performed on 1:4 w:v aqueous extracts.

Chemist

3/23/04  
Date

H8550.XLS

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**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**

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**ARDINAL  
LABORATORIES**

SOIL BORE

PHONE (325) 873-7001 • 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: 06/03/04  
Reporting Date: 06/03/04  
Project Number: NOT GIVEN  
Project Name: EME JCT O-35 @ 38'  
Project Location: NOT GIVEN

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

LAB NO.	SAMPLE ID	GRO	DRO	CI*
		(C <sub>8</sub> -C <sub>10</sub> ) (mg/Kg)	(>C <sub>10</sub> -C <sub>28</sub> ) (mg/Kg)	(mg/Kg)
ANALYSIS DATE		06/03/04	06/03/04	06/03/04
H8780-1	EME JCT O-35 @ 38'	<10.0	<10.0	176
Quality Control		790	765	950
True Value QC		800	800	1000
% Recovery		98.8	98.2	95.0
Relative Percent Difference		0.9	7.2	6.0

METHODS: TPH GRO & DRO: EPA SW-846 8015 M; CI: Std. Methods 4500-CIB

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

Chemist

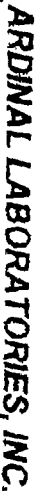
*Burgess A. Cash*

Date

6/3/04

H8780.XLS

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# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]

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

**RICE OPERATING COMPANY**

122 WEST TAYLOR

HOBBS, NEW MEXICO 88240

PHONE: (505) 393-9174 FAX: (505) 397-1471

**VOC FIELD TEST REPORT FORM**

MINI RAE PLUS CLASSIC PHOTOIONIZATION GAS DETECTOR

MODEL NO: PGM 761S

SERIAL NO: 104412

CALIBRATION GAS

GAS COMPOSITION: ISOBUTYLENE

100 PPM

AIR

BALANCE

LOT NO: 02-22-30FILL DATE: 5/20/03EXP. DATE: 11/20/04ACCURACY: + or - 2%

METER READING

ACCURACY: 99.8

SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE
EME	0-35	0	75	T205	R36E

SAMPLE	PID RESULT	SAMPLE	PID RESULT
N. Box 5'bp	194	S. Box 10'bp	0
N. Box 6'bp	144	S. Box 11'bp	0
N. Box 7'bp	31	S. Box 12'bp	0
N. Box 8'bp	17	S. Box 13'bp	0
N. Box 9'bp	0	S. Box 14'bp	0
N. Box 10'bp	0		
N. Box 11'bp	0		
N. Box 12'bp	0		
S. Box 5'bp	147		
S. Box 6'bp	120		
S. Box 7'bp	55		
S. Box 8'bp	15		
S. Box 9'bp	0		

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

  
Signature

3/22/04  
Date