

1R - 427-29

# REPORTS

DATE:

11-21-2003

EME P-34

1R0427-29

# 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	P-34	P	34	19S	36E	Lea	Moved 73 ft southwest		

LAND TYPE: BLM \_\_\_\_\_ STATE \_\_\_\_\_ FEE LANDOWNER James A. Foster, Jr. OTHER \_\_\_\_\_

Depth to Groundwater 47 feet NMOCD SITE ASSESSMENT RANKING SCORE: 20

Date Started 9/10/2003 Date Completed 10/3/2003 OCD Witness No

Soil Excavated 200 cubic yards Excavation Length 25 Width 16 Depth 12 feet

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

**FINAL ANALYTICAL RESULTS:** Sample Date 9/22/2003 Sample Depth 12 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	PID ppm	GRO mg/kg	DRO mg/kg	Chloride mg/kg
SIDEWALLS	13.1	<10.0	<10.0	528
BOTTOM	26.7	xxx	xxx	800
BACKFILL	18.1	<10.0	<10.0	384

**CHLORIDE FIELD TESTS**

LOCATION	DEPTH (ft)	ppm
vertical @ source	6	907
	8	917
	10	690
	12	1165
	14	603
5 ft North	6	1753
	7	1109
	9	890
	10	735
	12	555
bottom comp.	12	682
4-wall comp.	n/a	784
backfill	n/a	694

**General Description of Remedial Action:** This junction box site was delineated with a backhoe while chloride tests and PID readings were conducted at regular intervals. TPH impact was minimal and lab results confirmed concentrations well below NMOCD guidelines. Chloride concentrations exhibited a conclusive decline with depth, however, lateral trends of chloride declination were not determined within the 25 x 16 x 12-ft-deep excavation. The excavation was backfilled with the blended excavated material up to 6 ft bgs. To inhibit further downward migration of chloride impact, a 1.5 ft compacted clay barrier was installed at 6 ft bgs and extended over shelves made to surround the original excavation (see diagram). The remaining blended material was then backfilled on top of the clay up to the surface. The disturbed surface was re-seeded with native vegetation on 10/15/2003 and will be monitored for growth.

enclosures: lab results, chloride graphs, photos, clay density test,

PID readings, cross-section of excavation

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

DATE 11/21/2003 PRINTED NAME Kristin Farris

SIGNATURE *Kristin Farris* TITLE Project Scientist

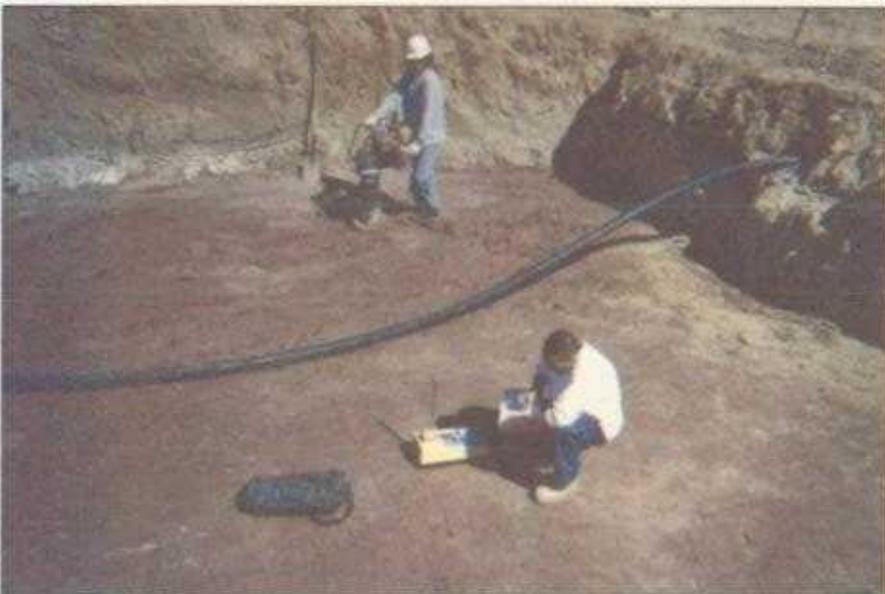
**EME jet. P-34**



Undisturbed Junction Box Prior to NORM Removal



Excavation Sept. 2003



Compacting and Testing Clay Liner at 6 ft BGS 10/2/2003



Backfilled Site with ID Plate Marking Clay Below



Construction of New Junction Box With New Plumbing

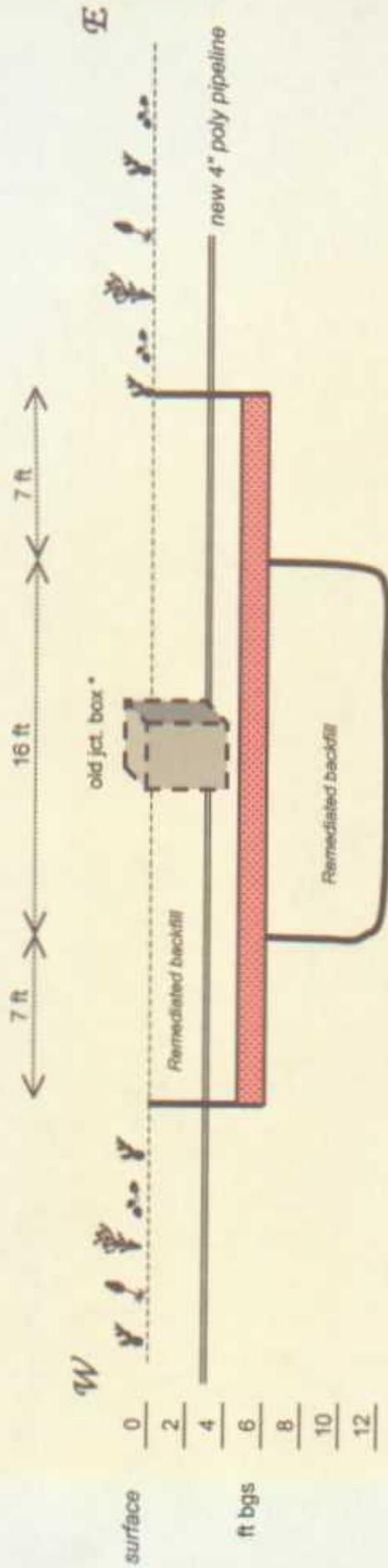
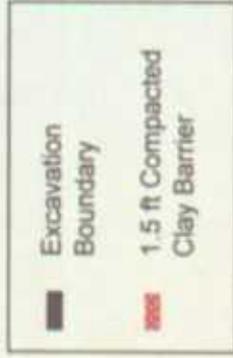


Completed Box 73 ft SW 8/29/2003



Seeding Disturbed Area 10/15/2003

**EME jct. P-34**  
**Impact Excavation**  
**Cross-Section**



\* New junction box has been built 73 ft Southwest from old junction.

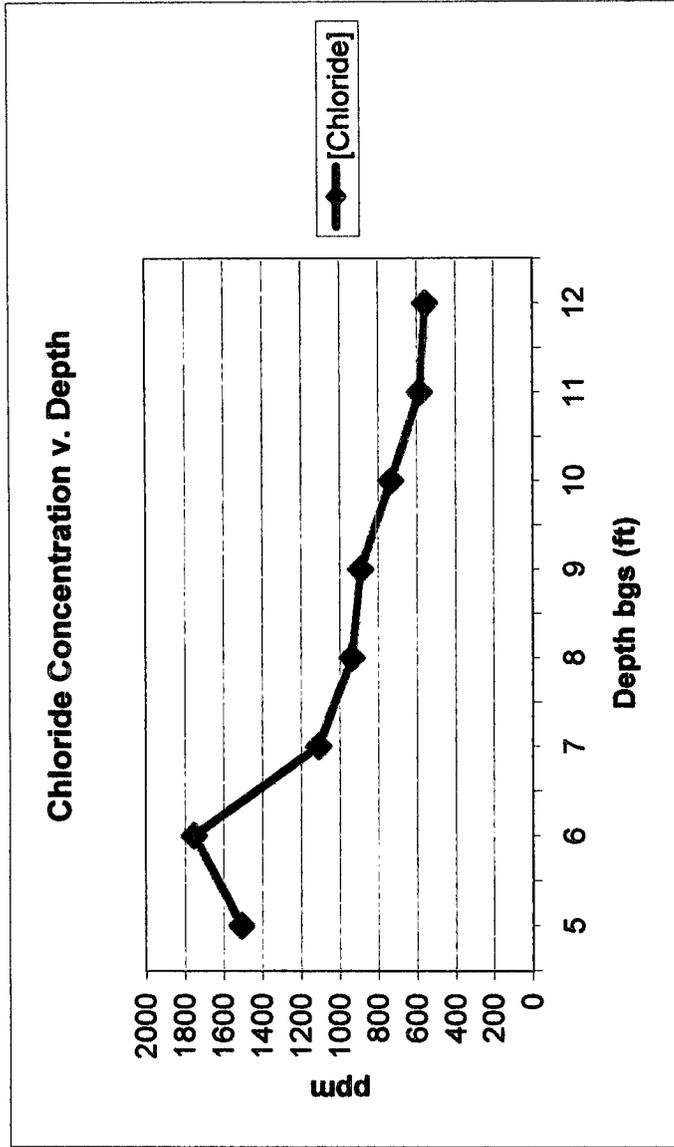
**EME jct. P-34**

T19S, R36E

5 ft North from Junction

Depth bgs (ft)	[Cl <sup>-</sup> ] ppm
5	1508
6	1753
7	1109
8	937
9	890
10	735
11	585
12	555

Groundwater = 47 ft

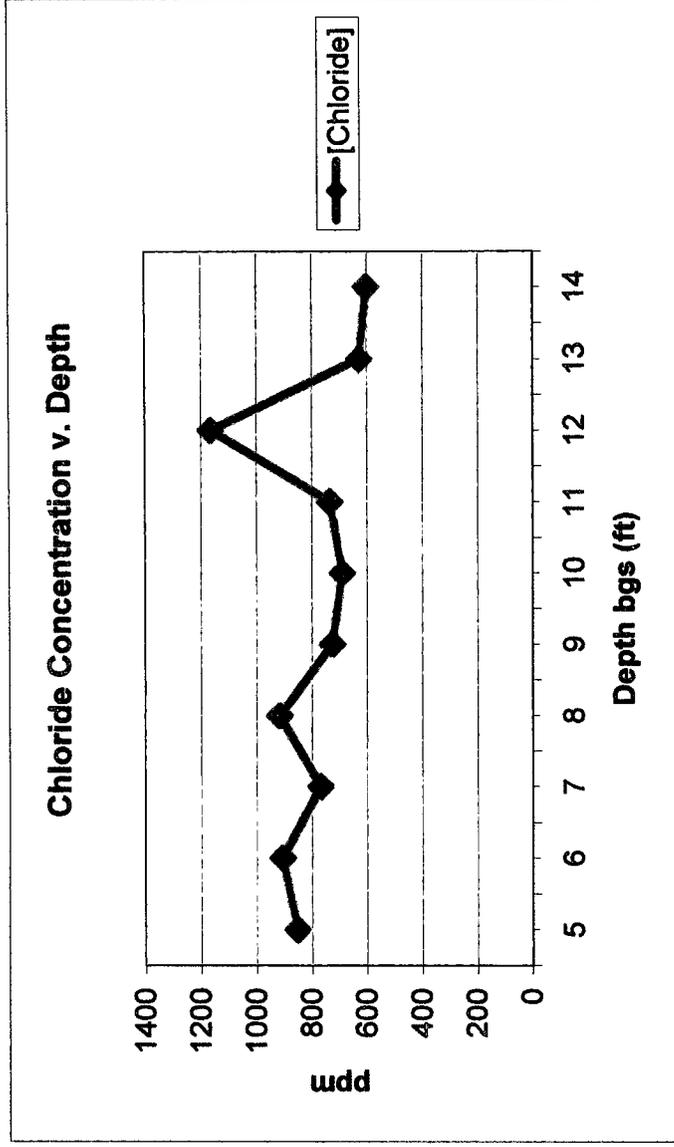


**EME jct. P-34**

T19S, R36E

Depth bgs (ft)	[Cl <sup>-</sup> ] ppm
5	852
6	907
7	769
8	917
9	726
10	690
11	735
12	1165
13	628
14	603

Groundwater = 47 ft





LABORATORY TEST REPORT  
**PETTIGREW and ASSOCIATES, P.A.**  
1110 N. GRIMES  
HOBBS, NM 88240  
(505) 393-9827



DEBRA P. HICKS, P.E./L.S.I.  
WILLIAM M. HICKS, III, P.E./P.S.

To: Rice Operating Corporation  
Attn: Carolyn Haynes  
122 W. Taylor  
Hobbs, NM 88240

Material: Red Clay

Test Method: ASTM: D 2922

Project: ~~EL-ME~~ <sup>EME</sup> Junction P-34

Date of Test: October 2, 2003

Depth: Finished Subgrade

Test No.	Location	Dry Density % Maximum	% Moisture	Depth
SG-1	Pit - 10' W. & 5' N. of the SE Corner	97.5	18.5	

Control Density: 104.2  
ASTM: D 698

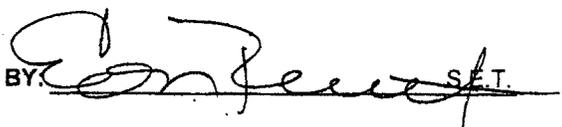
Optimum Moisture: 23.1%

Required Compaction: 95%

Lab No.: 03 6187-6188

Copies To: Rice Operating

PETTIGREW and ASSOCIATES

BY:  S.E.T.



**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**

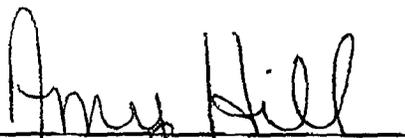
Receiving Date: 11/19/03  
Reporting Date: 11/19/03  
Project Number: NOT GIVEN  
Project Name: EME P-34  
Project Location: LEA COUNTY

Analysis Date: 11/19/03  
Sampling Date: 09/16/03  
Sample Type: SOIL  
Sample Condition: COOL & INTACT  
Sample Received By: BC  
Analyzed By: AH

LAB NUMBER	SAMPLE ID	CF (mg/Kg)
H8187-1	BOTTOM 12' COMP.	800
Quality Control		1000
True Value QC		1000
% Recovery		100
Relative Percent Difference		2.0

**METHOD: Standard Methods**      **4500-CF**

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

  
\_\_\_\_\_  
Chemist

11/19/03  
\_\_\_\_\_  
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.

H8187





# 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: 09/26/03  
Reporting Date: 09/27/03  
Project Number: NOT GIVEN  
Project Name: EME P-34  
Project Location: LEA CO., NM

Sampling Date: 09/22/03  
Sample Type: SOIL  
Sample Condition: COOL & INTACT  
Sample Received By: BC  
Analyzed By: BC/AH

LAB NUMBER	SAMPLE ID	GRO (C <sub>6</sub> -C <sub>10</sub> ) (mg/Kg)	DRO (>C <sub>10</sub> -C <sub>28</sub> ) (mg/Kg)	Cl* (mg/Kg)
ANALYSIS DATE		09/26/03	09/26/03	09/26/03
H8039-1	BOTTOM 6' COMPOSITE	<10.0	<10.0	1070
H8039-2	4 WALL COMPOSITE	<10.0	<10.0	528
H8039-3	STOCKPILE 5 POINT	<10.0	<10.0	384
Quality Control		765	803	980
True Value QC		800	800	1000
% Recovery		95.7	100	98.0
Relative Percent Difference		7.4	2.3	2.0

METHODS: TPH GRO & DRO: EPA SW-846 8015 M; Cl: Std. Methods 4500-ClB  
\*Analyses performed on 1:4 w:v aqueous extracts.

Burgess A. Cook  
Chemist

9/27/03  
Date

H8039.XLS

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.



**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 Company</b>		P.O. #:	<b>BILL TO</b>		ANALYSIS REQUEST																			
Project Manager: <b>Kristin Farris</b>		Company: <b>RICE</b>																						
Address: <b>122 W. Taylor</b>		State: <b>NM</b> Zip: <b>88240</b>																						
City: <b>Hobbs,</b>		State: <b>NM</b> Zip: <b>88240</b>																						
Phone #: <b>393-9174</b>		Fax #: <b>397-1471</b>																						
Project #:		Project Owner:																						
Project Name: <b>EME P-34</b>		State:	Zip:																					
Project Location: <b>Lee</b>		City:	State:	Zip:																				
Sampler Name: <b>George S. L. Co</b>		Phone #:	Fax #:																					
FOR LAB USE ONLY																								
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						PRESERV		SAMPLING												
				GROUNDWATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME										
<b>MS039-1</b>	<b>Bottom 5' Composite</b>	<b>C</b>	<b>6</b>								<b>9-22-03</b>	<b>13:46</b>	<b>+</b>	<b>+</b>	<b>TPW 8015'</b>									
<b>-2</b>	<b>4' Level Composite</b>	<b>C</b>	<b>6</b>								<b>9-22-03</b>	<b>13:08</b>	<b>+</b>	<b>+</b>	<b>Chloride</b>									
<b>-3</b>	<b>Stockpile 5' point</b>	<b>C</b>	<b>6</b>								<b>9-22-03</b>	<b>14:29</b>	<b>+</b>	<b>+</b>										

**FIELD NOTE:** Laboratory and Manager. Cardiac safety and other suitable remedy for any skin injury whether caused by contact or not, shall be linked to the nearest field by the client for the analysis. All data 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 analysis. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruption, loss of use, or loss of profits, however caused, by the analysis. Includes or successions taking out of or related to the performance of services provided by Cardinal, regardless of whether such claim is based upon any of the above stated headings or otherwise.

Sampler Relinquished: Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received By: (Lab Staff) \_\_\_\_\_  
 Date: **9-26-03** Time: **8:50** Received By: (Lab Staff) **George S. L. Co**

Delivered By: (Circle One)  Driver  UPS  Bus  Other: \_\_\_\_\_  
 Sample Condition:  Intact  Damaged  
 Checked By: (Initials) **George S. L. Co**

REMARKS: **For copy to rice**

Terms and Conditions: Inherent risk by changed on all records more than 30 days from date of the test or 24h per version from the original date of service, and all costs of collection, including laboratory fees.

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

ETGI

25' x 15' x 12' deep

Junction Box final report Bottom/Wall/Stockpile composite  
SITE EXCAVATION INFORMATION

EMB P-34

DATE DEPTH CL PID TPH SOIL COMPOSITION

DATE	DEPTH	CL	PID	TPH	SOIL COMPOSITION
9-15-03	Bottom 12'	682	26.7	15	M.S.
	W. Wall	592	30.0	32	
	Stockpile	772	29.5	23	
	N. Wall 7'	426	26.5	34	
	S. Wall 18'	777	26.7	18	
	W. Wall 8'	527	21.5	14	
	E. Wall 8'	628	23.4	30	

*Handwritten signature*

ET&I

Junction Box Final report 30x30 5'x6' deep  
SITE EXCAVATION INFORMATION

EME P.34

DATE DEPTH CL LAB PID TPH SOIL COMPOSITION

146 C  
146 C  
146 C

DATE	DEPTH	CL	LAB	PID	TPH	SOIL COMPOSITION
9-22-03	Bottom 6'	989	1070	15.5	48	
	N. Well	784	528	13.1	49	
	S. Well 12'	694	584	18.1	62	
	N. Well 7'	232		14.7	54	
	S. Well 18'	667		18.2	20	
	W. Well 15'	494		15.2	24	
	E. Well 15'	800		17.1	73	

*Handwritten signature*