

1R - 427 - 50

REPORTS

DATE:

2-24-2004

EME I-9

120 727-30

FINAL REPORT

**RICE OPERATING COMPANY
JUNCTION BOX FINAL REPORT**

BOX LOCATION

SWD SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE	COUNTY	BOX DIMENSIONS - FEET		
EME	I-9	I	9	21 S	36 E	Lea	Length	Width	Depth
							eliminated		

LAND TYPE: BLM _____ STATE _____ FEE LANDOWNER _____ Millard Deck _____ OTHER _____

Depth to Groundwater _____ 200 _____ feet NMOC D SITE ASSESSMENT RANKING SCORE: _____ 0 _____

Date Started _____ 10/9/2003 _____ Date Completed _____ 11/21/2003 _____ OCD Witness _____ No _____

Soil Excavated _____ 177 _____ cubic yards Excavation Length _____ 20 _____ Width _____ 20 _____ Depth _____ 12 _____ feet

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

FINAL ANALYTICAL RESULTS: Sample Date _____ 10/13/2003 _____ Sample Depth _____ 12 ft _____

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 NMOC D 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
SIDEWALLS	<0.005	<0.005	<0.005	<0.015	<10.0	217	352
BOTTOM	See analytical report from Environmental Lab of Texas						
REMEDIATED	<0.005	<0.005	<0.005	<0.015	<10.0	626	544

General Description of Remedial Action: This junction box site was delineated with a backhoe while chloride tests and PID readings were conducted regularly. Chloride concentrations sufficiently declined vertically with depth and laterally. Although NMOC D TPH and BTEX guidelines were met, elevated PID readings during delineation caused concern. In accordance with the 2003 NMOC D-approved "Revised Junction Box Upgrade Work Plan", the bottom composite at 12 ft BGS was prepared in the field and sent to a lab for analysis. The five components of the composite were also sent separately to the lab for analysis, but the components were composited under laboratory conditions. The attached analysis by Environmental Lab of Texas indicates no significant disparities in BTEX concentrations of the two methods. At 6 ft of the 20 x 20 x 12-ft-deep excavation, a compacted clay barrier was installed to inhibit downward migration of remaining chloride impact. The remainder of the excavation was backfilled with soil that was landfarmed on site. The disturbed surface was seeded with a blend of native vegetation and will be monitored for growth. An identification plate was placed on the surface to mark the presence of the clay barrier below. A new junction is not required here anymore as the new pipeline was plumbed straight through.

enclosures: chloride graphs, photos, lab results, clay density test, PID readings, BTEX study

CHLORIDE FIELD TESTS

LOCATION	DEPTH (ft)	ppm
5 ft South	8	1375
	9	1510
	10	1654
	12	1442
	14	1184
Vertical	6	941
at jct.	7	914
	8	784
	10	676
	12	542
4-wall comp.	n/a	676
bottom comp.	12	740
remed. comp.	n/a	875

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

DATE _____ 2/24/2004 _____ PRINTED NAME _____ Kristin Farris _____

SIGNATURE _____ *Kristin Farris* _____ TITLE _____ Project Scientist _____

EME jct. I-9



Box removed; prior to excavation

8/21/2003



Seeding disturbed surface at backfilled site

12/12/2003



Compacting clay

Nov. 2003



Shovel marking plate to identify clay barrier below

12/15/2003

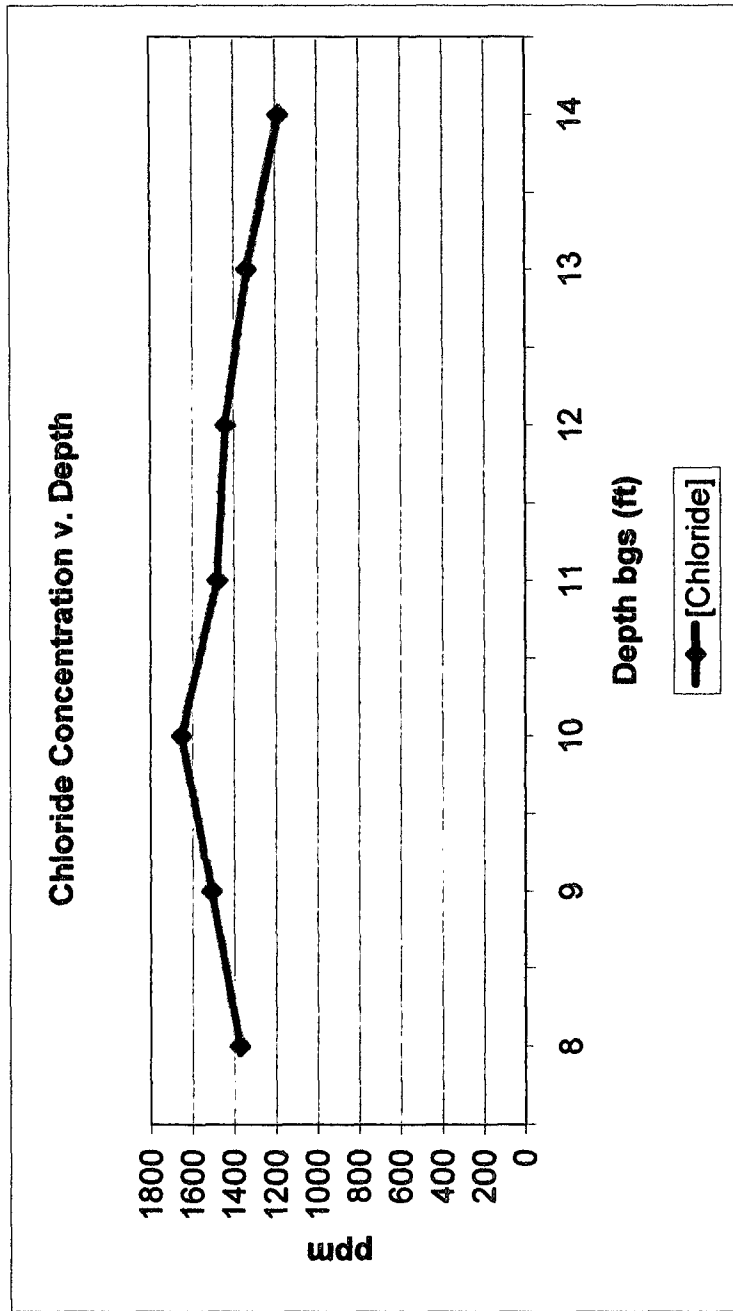
EME jct. I-9

T21S, R36E

5 ft South of Junction

Depth bgs (ft)	[Cl] ppm
8	1375
9	1510
10	1654
11	1482
12	1442
13	1337
14	1184

Groundwater = 200 ft



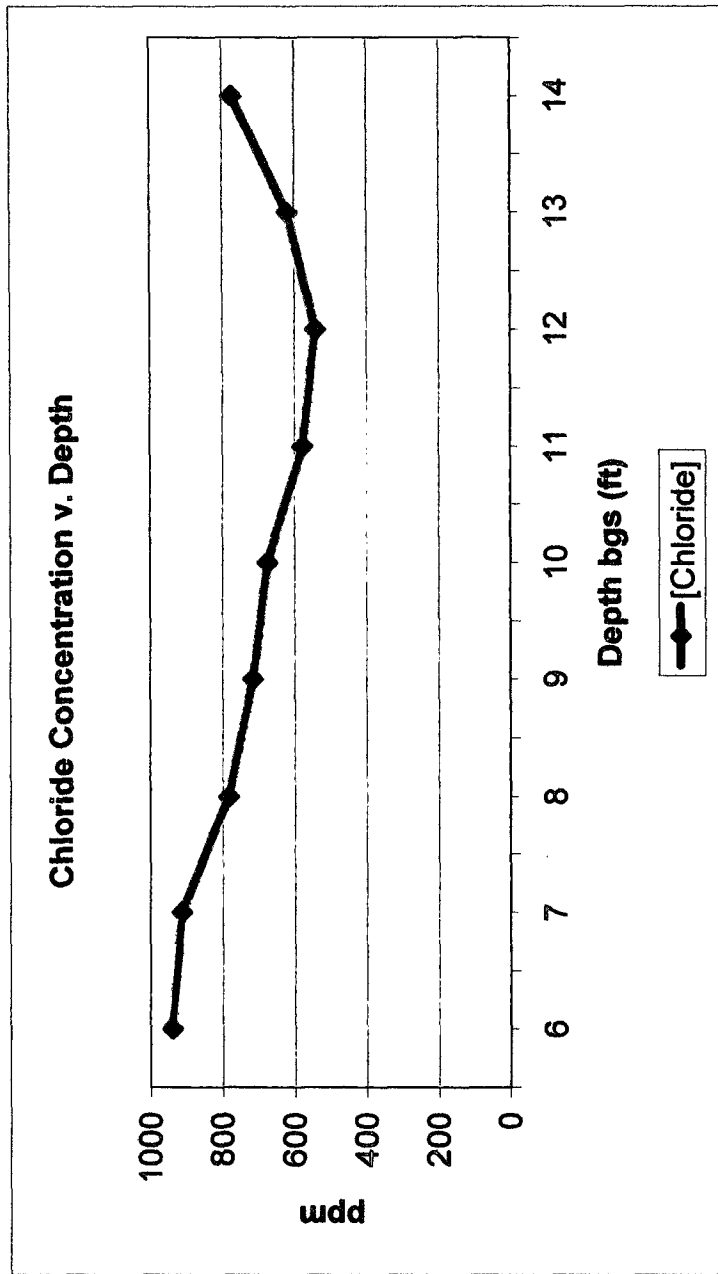
EME jct. I-9

T21S, R36E

Vertical at junction

Depth bgs (ft)	[Cl ⁻] ppm
6	941
7	914
8	784
9	716
10	676
11	578
12	542
13	620
14	774

Groundwater = 200 ft





ARDINAL LABORATORIES

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

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

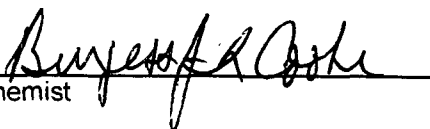
ANALYTICAL RESULTS FOR
RICE OPERATING CO.
ATTN: KRISTIN FARRIS
122 W. TAYLOR
HOBBS, NM 88240
FAX TO: (505) 397-1471

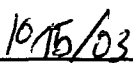
Receiving Date: 10/14/03
Reporting Date: 10/15/03
Project Number: NOT GIVEN
Project Name: EME I-9
Project Location: LEA CO., NM

Sampling Date: 10/13/03
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC

LAB NO.	SAMPLE ID	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)
ANALYSIS DATE		10/14/03	10/14/03	10/14/03	10/14/03
H8081-1	BOTTOM 12' COMP.	<0.005	<0.005	<0.005	0.020
H8081-2	4 WALL COMP.	<0.005	<0.005	<0.005	<0.015
H8081-3	REMEDiated BACKFILL	<0.005	<0.005	<0.005	<0.015
Quality Control		0.102	0.095	0.093	0.272
True Value QC		0.100	0.100	0.100	0.300
% Recovery		102	95.1	92.3	90.7
Relative Percent Difference		8.8	0.7	2.0	1.6

METHOD: EPA SW-846 8260


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.

H8081B.XLS



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 1 of 1

Company Name: **RICE Operating Company**
Project Manager: **Kristin Harris**

Address: **122 W. Taylor**

City: **Hobbs, NM** State: **NM** Zip: **88240**

Phone #: **393-9174** Fax #: **397-1871**

Project #: **EMC I. 9** Project Owner:

Project Name: **EMC I. 9**

Project Location: **EC**

Sampler Name: **CRISTIN HARRIS**

FOR LAB USE ONLY

Lab I.D. Sample I.D.

48081-1 Bottom 1st Comp
-2 1st Well Comp
-3 Rechecked backfill

(G)RAB OR (C)OMP. # CONTAINERS
GROUNDWATER
WASTEWATER
SOIL
CRUDE OIL
SLUDGE
OTHER:
ACID/BASE:
ICE/COOL
OTHER:

DATE TIME
10/13/03 4:10
10/13/03 4:50
10/13/03 4:28

MATRIX PRESERV SAMPLING

ANALYSIS REQUEST

TPH 8015
Chloride
BTEX

Relinquished By: **CRISTIN HARRIS** Date: **10/14/03** Time: **7:35**
Received By: (Lab Staff) **CRISTIN HARRIS** Date: **10/14/03** Time: **7:35**
Sample Relinquished: **CRISTIN HARRIS** Date: **10/14/03** Time: **7:35**
Received By: **CRISTIN HARRIS** Date: **10/14/03** Time: **7:35**

Delivered By: (Circle One) **CRISTIN HARRIS**
Sample - UPS - Bue - Other: **CRISTIN HARRIS**
Sample Condition: **CRISTIN HARRIS**
Cool Intact: **CRISTIN HARRIS**
Checked By: (Initials) **CRISTIN HARRIS**

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

REMARKS: **For copy to Rice**

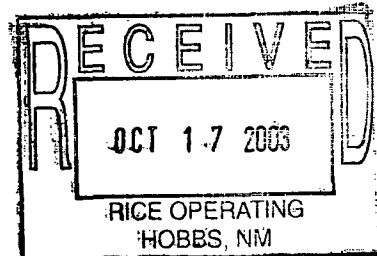
† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476.



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



Receiving Date: 10/14/03
Reporting Date: 10/15/03
Project Number: NOT GIVEN
Project Name: EME I-9
Project Location: LEA CO., NM

Sampling Date: 10/13/03
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC/AH

LAB NUMBER	SAMPLE ID	GRO (C ₆ -C ₁₀) (mg/Kg)	DRO (>C ₁₀ -C ₂₈) (mg/Kg)	CI* (mg/Kg)
		10/14/03	10/14/03	10/15/03
H8081-1	BOTTOM 12' COMP.	<10.0	825	592
H8081-2	4 WALL COMP.	<10.0	217	352
H8081-3	REMEDIED BACKFILL	<10.0	626	544
	Quality Control	767	822	1040
	True Value QC	800	800	1000
	% Recovery	95.9	103	104
	Relative Percent Difference	3.6	6.2	1.0

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

Date

H8081A.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.

Ray L. Rascon

ANALYTICAL REPORT

Prepared for:

**Kristin Farris
Rice Operating
122 W. Taylor
Hobbs, NM 88240**

**Project: EME I-9
PO#:
Order#: G0307797
Report Date: 10/31/2003**

Certificates

US EPA Laboratory Code TX00158

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

Rice Operating
122 W. Taylor
Hobbs, NM 88240
505-397-1471

Order#: G0307797
Project:
Project Name: EME I-9
Location: Lea Co., NM

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas, unless otherwise noted.

<u>Lab ID:</u>	<u>Sample :</u>	<u>Matrix:</u>	<u>Date / Time</u>	<u>Date / Time</u>	<u>Container</u>	<u>Preservative</u>
			<u>Collected</u>	<u>Received</u>		
0307797-01	EME I-9 1-5 Composite	SOIL	10/27/03	10/28/03	L glass	Ice
				8:20		
				Temp: -0.5 C		
				Rejected: No		
0307797-02	EME I-9 Field Bottom @ 12 Comp.	SOIL	10/27/03 12:50	10/28/03	4 oz glass	Ice
				8:20		
				Temp: -0.5 C		
				Rejected: No		
	<u>Lab Testing:</u> 8015M 8021B/5030 BTEX Chloride					

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Kristin Farris
Rice Operating
122 W. Taylor
Hobbs, NM 88240

Order#: G0307797
Project:
Project Name: EME I-9
Location: Lea Co., NM

Lab ID: 0307797-01
Sample ID: EME I-9 1-5 Composite

8015M

Method	Date	Date	Sample	Dilution	Analyst	Method
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
		10/28/03	1	1	JLH	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	218	10.0
DRO, >C12-C35	2,880	10.0
TOTAL, C6-C35	3,098	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	126%	70	130
1-Chlorooctadecane	129%	70	130

8021B/5030 BTEX

Method	Date	Date	Sample	Dilution	Analyst	Method
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
0007286-02		10/29/03	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Toluene	0.028	0.025
Ethylbenzene	0.050	0.025
p/m-Xylene	0.127	0.025
o-Xylene	0.117	0.025

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	91%	80	120
Bromofluorobenzene	99%	80	120

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

Page 1 of 2

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Kristin Farris
Rice Operating
122 W. Taylor
Hobbs, NM 88240

Order#: G0307797
Project:
Project Name: EME I-9
Location: Lea Co., NM

Lab ID: 0307797-02
Sample ID: EME I-9 Field Bottom @ 12 Comp.

8015M

Method	Date	Date	Sample	Dilution	Analyst	Method
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
		10/28/03	1	1	JLH	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	174	10.0
DRO, >C12-C35	2,550	10.0
TOTAL, C6-C35	2,724	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	123%	70	130
1-Chlorooctadecane	130%	70	130

8021B/5030 BTEX

Method	Date	Date	Sample	Dilution	Analyst	Method
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
0007286-02		10/29/03	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	<0.025	0.025
Toluene	<0.025	0.025
Ethylbenzene	0.033	0.025
p/m-Xylene	0.070	0.025
o-Xylene	0.062	0.025

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	91%	80	120
Bromofluorobenzene	101%	80	120

Approval:

Raland K. Tuttle, Lab Director, QA Officer
Celey D. Keene, Org. Tech. Director
Jeanne McMurrey, Inorg. Tech. Director
Sandra Biezugbe, Lab Tech.
Sara Molina, Lab Tech.

Date

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

Page 2 of 2

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

Kristin Farris
Rice Operating
122 W. Taylor
Hobbs, NM 88240

Order#: G0307797
Project:
Project Name: EME I-9
Location: Lea Co., NM

Lab ID: 0307797-01
Sample ID: EME I-9 1-5 Composite

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	567	mg/kg	1	20	9253	10/29/03	SB

Lab ID: 0307797-02
Sample ID: EME I-9 Field Bottom @ 12 Comp.

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date Analyzed</u>	<u>Analyst</u>
Chloride	603	mg/kg	1	20	9253	10/29/03	SB

Approval:

Celestine D. Keene 10/31/03
Raland K. Tuttle, Lab Director, QA Officer
Celestine D. Keene, Org. Tech. Director
Jeanne McMurrey, Inorg. Tech. Director
Sandra Biezugbe, Lab Tech.
Sara Molina, Lab Tech.

Date

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8015M

Order#: G0307797

BLANK	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0007266-02			<25.0		
CONTROL	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0007266-03		952	849	89.2%	
CONTROL DUP	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0007266-04		952	829	87.1%	2.4%
SRM	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0007266-05		1000	1001	100.1%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8021B/5030 BTEX

Order#: G0307797

BLANK	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0007286-02			<0.025		
Toluene-mg/kg		0007286-02			<0.025		
Ethylbenzene-mg/kg		0007286-02			<0.025		
p/m-Xylene-mg/kg		0007286-02			<0.025		
o-Xylene-mg/kg		0007286-02			<0.025		
MS	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0307808-01	0	2.5	2.22	88.8%	
Toluene-mg/kg		0307808-01	0	2.5	2.22	88.8%	
Ethylbenzene-mg/kg		0307808-01	0	2.5	2.19	87.6%	
p/m-Xylene-mg/kg		0307808-01	0	5	4.43	88.6%	
o-Xylene-mg/kg		0307808-01	0	2.5	2.17	86.8%	
MSD	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0307808-01	0	2.5	2.35	94.%	5.7%
Toluene-mg/kg		0307808-01	0	2.5	2.36	94.4%	6.1%
Ethylbenzene-mg/kg		0307808-01	0	2.5	2.32	92.8%	5.8%
p/m-Xylene-mg/kg		0307808-01	0	5	4.70	94.%	5.9%
o-Xylene-mg/kg		0307808-01	0	2.5	2.31	92.4%	6.3%
SRM	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0007286-05		0.1	0.088	88.%	
Toluene-mg/kg		0007286-05		0.1	0.085	85.%	
Ethylbenzene-mg/kg		0007286-05		0.1	0.082	82.%	
p/m-Xylene-mg/kg		0007286-05		0.2	0.164	82.%	
o-Xylene-mg/kg		0007286-05		0.1	0.080	80.%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Test Parameters

Order#: G0307797

BLANK	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0007277-01			<20.0		
MS	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0307797-01	567	500	1060	98.6%	
MSD	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0307797-01	567	500	1080	102.6%	1.9%
SRM	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0007277-04		5000	4960	99.2%	

2003 BTEX Study

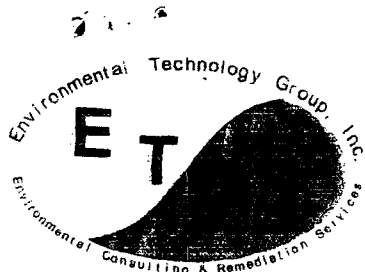
Revised Junction Box Upgrade Plan (2003)

System: EME Date: 10/27/2003 Laboratory: Environmental Lab
 Site: jct. I-9 Sampler: Gary Stark (ETGI Hobbs) of Texas

Location	Component	PID reading (ppm)	FIELD COMPOSITE (mg/kg)			
			Benzene	Toluene	Ethyl Benzene	Total Xylenes
Bottom Composite at 12 ft BGS	1	0.0	<0.025	<0.025	0.033	0.132
	2	269.0				
	3	0.0				
	4	0.0				
	5	16.7				
			LAB COMPOSITE (mg/kg)			
			<0.025	0.028	0.050	0.244

Field PID tests >100 ppm are considered final for BTEX. If PID is >100 ppm, the components of the BTEX composite sample will be collected individually and will be composited under laboratory conditions to prevent excessive volatilization. A 15-box, 30-sample study will be made to compare field-compositing with lab-compositing BTEX samples. Composite components are collected in a skewed 'W' pattern.

Revised Junction Box Upgrade Work Plan (July 16, 2003)



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

BALANCE

AIR

LOT NO: 67401

FILL DATE: 10-13-03

EXP. DATE: 1/1/04

ACCURACY: 100ppm ± 2%

METER READING

ACCURACY: 100.4

SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE
<u>ENIE</u>	<u>I-9</u>	<u>I</u>	<u>9</u>	<u>T21S</u>	<u>R36E</u>

Excavation 20x20x12 Composite

SAMPLE	PID RESULT	SAMPLE	PID RESULT
<u>Bottom 12'</u>	<u>109</u>		
<u>4 Wall</u>	<u>55.6</u>		
<u>Remedated</u>	<u>22.1</u>		
<u>Backfill</u>			
<u>N. Wall 10'</u>	<u>50.2</u>		
<u>S. Wall 10'</u>	<u>53.6</u>		
<u>W. Wall 10'</u>	<u>48.2</u>		
<u>E. Wall 10'</u>	<u>45.6</u>		

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

Gary Mark

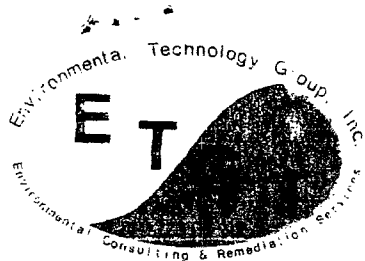
Signature

Field Tech

Title

10-13-03

Date



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
AIR

100 PPM

BALANCE

LOT NO: 67401

FILL DATE: 10-22-03

EXP. DATE: 11-24

ACCURACY: 100ppm ± 2%

METER READING

ACCURACY: 100.4

SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE
EME	I-9	I	9	T215	N27E

SAMPLE	PID RESULT	SAMPLE	PID RESULT
Bottom 12'			
Sample 1	0.0		
2	269		
3	0.0		
4	0.0		
5	41.8		
Composite	16.7		

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

Ray Mark
Signature

Field tech
Title

10-22-03
Date



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

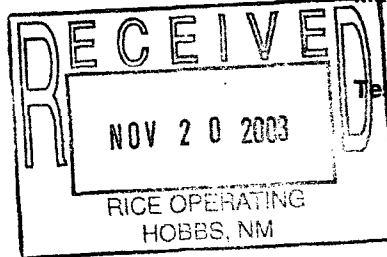
Material: Red Clay

Project: EME I9
EME I-9

Test Method: ASTM: D 2922

Date of Test: November 18, 2003

Depth: Finished Subgrade



Test No.	Location	Dry Density % Maximum	% Moisture	Depth
SG-1	Pit - 6' W. & 3' S. of the NE Corner	102.9	19.9	

Control Density: 103.9
ASTM: D 698

Optimum Moisture: 21.4%

Required Compaction: 95%

Lab No.: 03 6950-6951

Copies To: Rice Operating

PETTIGREW and ASSOCIATES

BY: Don Riecke S.E.T.