

1R - 427 - 40

REPORTS

DATE:

2-4-2004

EME E-35

1R0427-40

**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	E-35	E	35	20 S	36 E	Lea	Moved 100 ft West		

LAND TYPE: BLM _____ STATE _____ FEE LANDOWNER Tuffy Cooper OTHER _____

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

Date Started 5/19/2003 Date Completed 1/13/2004 OCD Witness No

Soil Excavated 133 cubic yards Excavation Length 20 Width 15 Depth 12 feet

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

FINAL ANALYTICAL RESULTS: Sample Date 5/27/2003 Sample Depth 12' 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	Chlorides mg/kg
SIDEWALLS	<0.025	<0.025	<0.025	<0.025	<10.0	13.8	1350
BOTTOM	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	1930
REMEDIATED	<0.025	<0.025	<0.025	<0.025	<10.0	42.2	390
Soil Bore @ 20 ft	XXX	XXX	XXX	XXX	XXX	XXX	160

General Description of Remedial Action: The junction site was delineated vertically and laterally producing a 20' x 15' x 12'bgs excavation. Although TPH concentrations were well below NMOCD guidelines, chlorides did not significantly decrease vertically or laterally. The excavation was backfilled to 3 ft BGS with the soil that was blended on site. At 3 ft, a 20 mil poly liner was installed in a convex manner as illustrated in the attached diagram. The remaining soil was backfilled and contoured on top of the liner on 6/3/2003. The surface was seeded with a blend of native vegetation. On 1/13/2004, a soil bore was conducted at this site to determine the vertical extent of chloride impact. The bore was advanced to 20 ft BGS when a conclusive decline trend of chloride concentrations was observed (see graph). The bore hole was backfilled with cuttings and a bentonite seal was placed at 0-9 ft to maintain the integrity of the poly liner. A new watertight junction box has been built 100' west of this location.

enclosures: lab results, photos, diagram, bore log, chloride graph

CHLORIDE FIELD TESTS

LOCATION	DEPTH (ft)	ppm
Vertical	10	1100
	12	600
10' North	wall comp.	740
5' South	wall comp.	820
10' East	wall comp.	900
10' West	wall comp.	640
4 wall comp.	n/a	800
bottom comp.	12	1600
remed. comp.	n/a	900
Soil Bore	20	195

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

DATE 2/4/2004 PRINTED NAME Kristin Farris
SIGNATURE *Kristin Farris* TITLE Project Scientist

EME jct. E-35



Backhoe Excavation May 2003



Installing 20 mil Poly Liner



Seeding Disturbed Surface

7/29/03



New Junction Box 100 ft West of Excavation



Backfilled Site with ID plate in center and new box in background



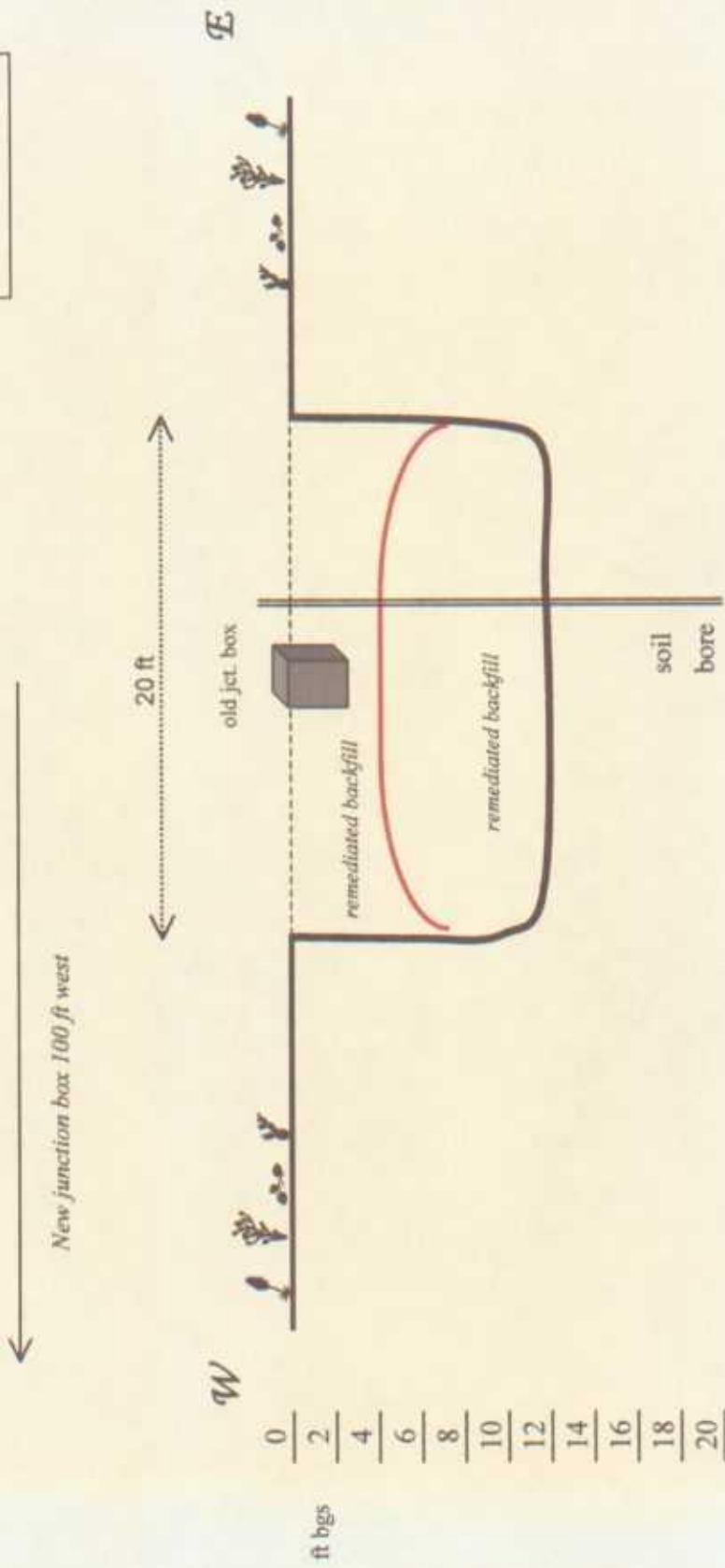
Close-up of ID plate " POLY LINER 3' "



Soil Bore 1/13/2004

**EME jct. E-35
Impact Excavation
Cross-Section**

	Excavation Boundary
	20 mil Poly



CHLORIDE CONCENTRATION CURVE

RICE Operating Company

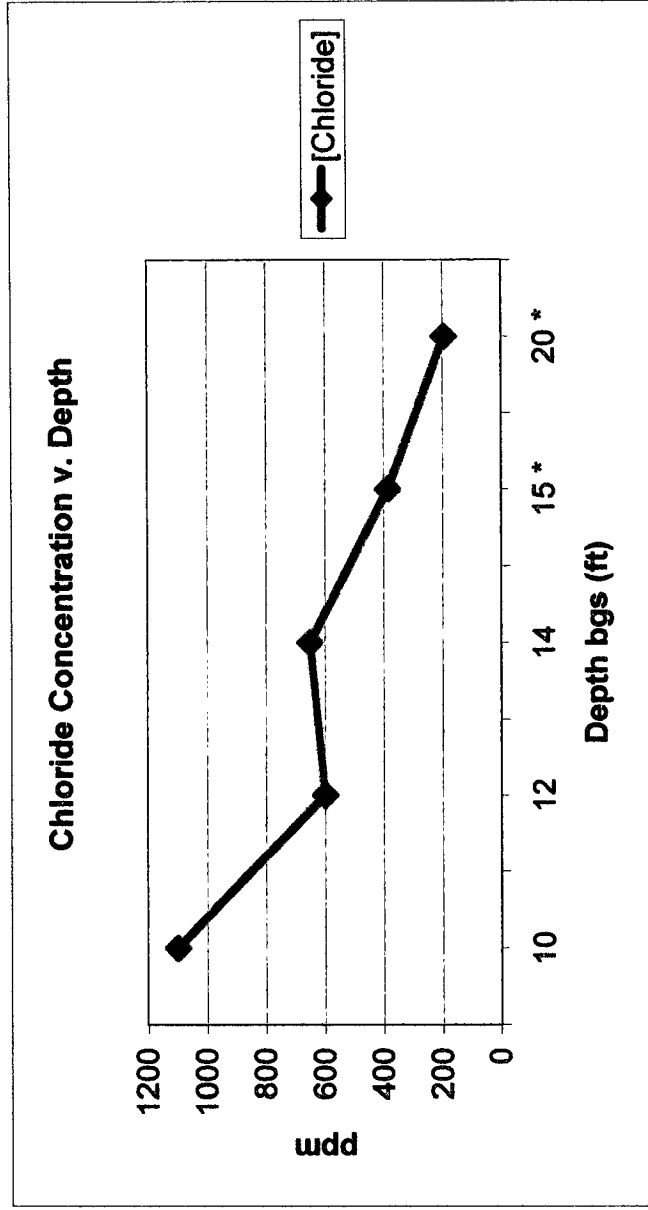
EME jct. E-35
T20S, R36E

Vertical Delineation at Source

Depth bgs (ft)	[Cl ⁻] ppm
10	1100
12	600
14	650
15 *	386
20 *	195

* Soil Bore

Groundwater = 122 ft



Logger:	Joe Gatts; Mort Bates	Client:	RICE Operating Company	Well ID: SB-1
Driller:	Atkins Engineering Associates, Inc.	Project Name:	jct. E-35	
Drilling Method:	Hollow Stem Auger	Location:	EME SWD System	
Start Date:	1/13/2004		Sec. 35, T20S, R36E	
End Date:	1/13/2004		Lea County, NM	
Notes:	TD = 20 ft; Groundwater = 122 ft			

Depth (feet)	Split Spoon		Description	Lithology	Additional Notes
	chloride	PID			
0.0			Silty Sand with Broken Caliche: loose, reddish brown, dry	0-9 ft Hydrated Bentonite Seal	Blended backfill from backhoe excavation with poly liner at 4-9 ft BGS
1.0					
2.0					
3.0					
4.0			Silty Sand with Broken Caliche: loose, tan, dry		
5.0					
6.0					
7.0					
8.0			Caliche: firm, tan, dry		
9.0					
10.0					
11.0					
12.0			Silty Fine Sand: loose, tan, dry		remainder of bore hole backfilled with cuttings
13.0					
14.0					
15.0	386	no odor			
16.0			Caliche: firm, tan, dry		lab = 160 ppm Cl-
17.0					
18.0					
19.0					
20.0	195	no odor			

ANALYTICAL REPORT

Prepared for:

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

Project: jct. E-35
PO#: 757
Order#: G0306585
Report Date: 05/30/2003

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#: G0306585
Project:
Project Name: jct. E-35
Location: EME

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 Collected</u>	<u>Date / Time Received</u>	<u>Container</u>	<u>Preservative</u>
0306585-01	Wall Comp	SOIL	5/27/03	5/28/03 13:25	4 oz glass	ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 10.5 C		
	8015M					
	8021B/5030 BTEX					
	Chloride					
0306585-02	Bottom Comp. @ 12'	SOIL	5/27/03	5/28/03 13:25	4 oz glass	ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 10.5 C		
	8015M					
	8021B/5030 BTEX					
	Chloride					

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

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

Order#: G0306585
 Project:
 Project Name: jct. E-35
 Location: EME

Lab ID: 0306585-01
 Sample ID: Wall Comp

8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
Blank	Prepared	Analyzed	Amount	Factor		
		5/28/03	1	1	WL	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	13.8	10.0
TOTAL, C6-C35	13.8	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	98%	70	130
1-Chlorooctadecane	123%	70	130

8021B/5030 BTEX

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
Blank	Prepared	Analyzed	Amount	Factor		
0005665-02		5/29/03 10:20	1	25	CK	8021B

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

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	104%	80	120
Bromofluorobenzene	110%	80	120

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

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

Order#: G0306585
 Project:
 Project Name: jct. E-35
 Location: EME

Lab ID: 0306585-02
 Sample ID: Bottom Comp. @ 12'

8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>	<u>WL</u>	<u>8015M</u>
		5/28/03	1	1	WL	

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

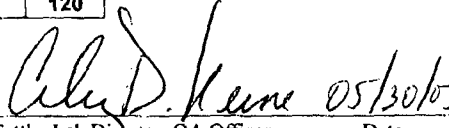
Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	99%	70	130
1-Chlorooctadecane	125%	70	130

8021B/5030 BTEX

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>	<u>CK</u>	<u>8021B</u>
0005665-02		5/29/03 10:42	1	25	CK	

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

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	92%	80	120
Bromofluorobenzene	110%	80	120

Approval:  05/30/03
 Raland K. Tuttle, Lab Director, QA Officer Date
 Celey D. Keene, Org. Tech. Director
 Jeanne McMurrey, Inorg. Tech. Director
 Sandra Biezugbe, Lab Tech.
 Sara Molina, Lab Tech.

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

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

Order#: G0306585
 Project:
 Project Name: jct. E-35
 Location: EME

Lab ID: 0306585-01
 Sample ID: Wall 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	1350	mg/kg	1	20	9253	5/29/03	SB

Lab ID: 0306585-02
 Sample ID: Bottom Comp. @ 12'

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	1930	mg/kg	1	20	9253	5/29/03	SB

Approval:

Celcy D. Keene 05/30/03

Raland K. Tuttle, Lab Director, QA Officer
 Celcy 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#: G0306585**

BLANK	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0005663-02			<10.0		
MS	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0306583-02	0	952	860	90.3%	
MSD	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0306583-02	860	952	900	4.2%	4.5%
SRM	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0005663-05		1000	787	78.7%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8021B/5030 BTEX

Order#: G0306585

BLANK		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
SOIL							
Benzene-mg/kg		0005665-02			<0.025		
Toluene-mg/kg		0005665-02			<0.025		
Ethylbenzene-mg/kg		0005665-02			<0.025		
p/m-Xylene-mg/kg		0005665-02			<0.025		
o-Xylene-mg/kg		0005665-02			<0.025		
MS		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
SOIL							
Benzene-mg/kg		0306583-02	0	0.1	0.095	95.%	
Toluene-mg/kg		0306583-02	0	0.1	0.093	93.%	
Ethylbenzene-mg/kg		0306583-02	0	0.1	0.099	99.%	
p/m-Xylene-mg/kg		0306583-02	0	0.2	0.207	103.5%	
o-Xylene-mg/kg		0306583-02	0	0.1	0.103	103.%	
MSD		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
SOIL							
Benzene-mg/kg		0306583-02	0	0.1	0.095	95.%	0.%
Toluene-mg/kg		0306583-02	0	0.1	0.092	92.%	1.1%
Ethylbenzene-mg/kg		0306583-02	0	0.1	0.095	95.%	4.1%
p/m-Xylene-mg/kg		0306583-02	0	0.2	0.198	99.%	4.4%
o-Xylene-mg/kg		0306583-02	0	0.1	0.097	97.%	6.%
SRM		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
SOIL							
Benzene-mg/kg		0005665-05		0.1	0.098	98.%	
Toluene-mg/kg		0005665-05		0.1	0.094	94.%	
Ethylbenzene-mg/kg		0005665-05		0.1	0.092	92.%	
p/m-Xylene-mg/kg		0005665-05		0.2	0.191	95.5%	
o-Xylene-mg/kg		0005665-05		0.1	0.092	92.%	

ENVIRONMENTAL LAB OF TEXAS**QUALITY CONTROL REPORT****Test Parameters**

Order#: G0306585

BLANK	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0005667-01			<20.0		
MS	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0306585-02	1930	500	2410	96.0%	
MSD	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0306585-02	1930	500	2430	100.0%	0.8%
SRM	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0005667-04		5000	4960	99.2%	

ANALYTICAL REPORT

Prepared for:

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

Project: E-35 Jct Box

PO#:

Order#: G0306623

Report Date: 06/05/2003

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#: G0306623
Project:
Project Name: E-35 Jct Box
Location: Monument

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>Collected</u>	<u>Date / Time</u> <u>Received</u>	<u>Container</u>	<u>Preservative</u>
0306623-01	E-35 Backfill	SOIL	6/2/03 12:00	6/2/03 17:00	4 oz glass	Ice
	<u>Lab Testing:</u>	Rejected: No		Temp: 1.5 C		
	8015M					
	8021B/5030 BTEX					
	Chloride					

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

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

Order#: G0306623
 Project:
 Project Name: E-35 Jct Box
 Location: Monument

Lab ID: 0306623-01
 Sample ID: E-35 Backfill

8015M

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
		6/2/03	1	1	WL	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	42.2	10.0
TOTAL, C6-C35	42.2	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	122%	70	130
1-Chlorooctadecane	97%	70	130

8021B/5030 BTEX

<u>Method</u>	<u>Date</u>	<u>Date</u>	<u>Sample</u>	<u>Dilution</u>	<u>Analyst</u>	<u>Method</u>
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
0005748-02		6/4/03 17:32	1	25	CK	8021B

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

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	92%	80	120
Bromofluorobenzene	95%	80	120

Approval: *Raland K Tuttle* 6-06-03
 Raland K. Tuttle, Lab Director, QA Officer Date
 Celey D. Keene, Org. Tech. Director
 Jeanne McMurrey, Inorg. Tech. Director
 Sandra Biezugbe, Lab Tech.
 Sara Molina, Lab Tech.

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

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

Order#: G0306623
Project:
Project Name: E-35 Jet Box
Location: Monument

Lab ID: 0306623-01
Sample ID: E-35 Backfill

Test Parameters

<u>Parameter</u>	<u>Result</u>	<u>Units</u>	<u>Dilution</u> <u>Factor</u>	<u>RL</u>	<u>Method</u>	<u>Date</u> <u>Analyzed</u>	<u>Analyst</u>
Chloride	390	mg/kg	1	20	9253	6/3/03	SB

Approval: Raland K Tuttle 6-06-03
Raland K. Tuttle, Lab Director, QA Officer Date
Celey D. Keene, Org. Tech. Director
Jeanne McMurrey, Inorg. Tech. Director
Sandra Biezugbe, Lab Tech.
Sara Molina, Lab Tech.

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8015M

Order#: G0306623

BLANK	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0005708-02			<10.0		
MS	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0306609-01	0	952	1180	123.9%	
MSD	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0306609-01	0	952	1170	122.9%	0.9%
SRM	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0005708-05		1000	1068	106.8%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8021B/5030 BTEX

Order#: G0306623

BLANK		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
SOIL							
	Benzene-mg/kg	0005748-02			<0.025		
	Toluene-mg/kg	0005748-02			<0.025		
	Ethylbenzene-mg/kg	0005748-02			<0.025		
	p/m-Xylene-mg/kg	0005748-02			<0.025		
	o-Xylene-mg/kg	0005748-02			<0.025		
MS		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
SOIL							
	Benzene-mg/kg	0306621-02	0	0.1	0.092	92.%	
	Toluene-mg/kg	0306621-02	0	0.1	0.088	88.%	
	Ethylbenzene-mg/kg	0306621-02	0	0.1	0.087	87.%	
	p/m-Xylene-mg/kg	0306621-02	0	0.2	0.179	89.5%	
	o-Xylene-mg/kg	0306621-02	0	0.1	0.085	85.%	
MSD		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
SOIL							
	Benzene-mg/kg	0306621-02	0	0.1	0.088	88.%	4.4%
	Toluene-mg/kg	0306621-02	0	0.1	0.084	84.%	4.7%
	Ethylbenzene-mg/kg	0306621-02	0	0.1	0.083	83.%	4.7%
	p/m-Xylene-mg/kg	0306621-02	0	0.2	0.170	85.%	5.2%
	o-Xylene-mg/kg	0306621-02	0	0.1	0.082	82.%	3.6%
SRM		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
SOIL							
	Benzene-mg/kg	0005748-05		0.1	0.098	98.%	
	Toluene-mg/kg	0005748-05		0.1	0.093	93.%	
	Ethylbenzene-mg/kg	0005748-05		0.1	0.087	87.%	
	p/m-Xylene-mg/kg	0005748-05		0.2	0.177	88.5%	
	o-Xylene-mg/kg	0005748-05		0.1	0.085	85.%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Test Parameters

Order#: G0306623

<i>BLANK</i>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0005710-01			<20.0		
<i>MS</i>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0306609-01	2800	500	3320	104.%	
<i>MSD</i>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0306609-01	2800	500	3330	106.%	0.3%
<i>SRM</i>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0005710-04		5000	4960	99.2%	



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

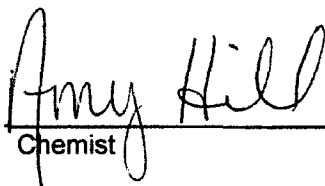
Receiving Date: 01/14/04
Reporting Date: 01/15/04
Project Number: NOT GIVEN
Project Name: E-35
Project Location: EME

Analysis Date: 01/15/04
Sampling Date: 01/13/04
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Cl ⁻ (mg/Kg)
H8362-1	SOIL BORE 20' BGS	160
Quality Control		980
True Value QC		1000
% Recovery		98.0
Relative Percent Difference		3.0

METHOD: Standard Methods 4500-Cl⁻B

Note: Analyses performed on 1:4 w:v aqueous extracts.



Chemist

1/15/04

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.

H8362

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page of



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

Company Name: RICE OPERATING		P.O. #:	
Project Manager: Kristin Farris		Company: RICE	
Address: 122 W Taylor		Attn:	
City: Hobbs		Address:	
State: NM Zip: 88240		City:	
Phone #: 393-9174 Fax #: 397-1471		State:	
Project Owner:		Phone #:	
Project Name: E-35		Fax #:	
Project Location: EME			
Sampler Name: J. bats			

Lab I.D.	Matrix	PRESERV	SAMPLING	DATE	TIME
Sample I.D.	SOIL			11/30/12	1200
H8864 Soil Base 20' bgs	WASTEWATER				
	GROUNDWATER				
	CRUDE OIL				
	SLUDGE				
	OTHER:				
	(G)RAB OR (C)OMP.				
	# CONTAINERS				

REMARKS:

Phone Result: Yes No Add'l Phone #:

Fax Result: Yes No Add'l Fax #:

RECEIVED BY: J. Farris Date: 11/4/12 Time: 2:30

RECEIVED BY: (Lab Staff) Burgess Date: Time:

Checked By: Burgess (Initials)

Sample Condition: Cool, Intact Yes No No

Delivered By: (Circle One) UPS Other:

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