

1R - 426-27

REPORTS

DATE:

9/17/2003

IR-426-27

FINAL REPORT

**RICE OPERATING COMPANY
JUNCTION BOX FINAL REPORT**

BOX LOCATION

SWD SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE	COUNTY	BOX DIMENSIONS - FEET		
BD	K-20-1 vent	K	20	21 S	37 E	Lea	Length	Width	Depth
							Moved 45 ft North		

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

Depth to Groundwater _____ 99 _____ feet NMOCD SITE ASSESSMENT RANKING SCORE: _____ 10 _____

Date Started _____ 5/2/2003 _____ Date Completed _____ 8/6/2003 _____ OCD Witness _____ No _____

Soil Excavated _____ 466 _____ cubic yards Excavation Length _____ 30 _____ Width _____ 30 _____ Depth _____ 14 _____ feet

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

FINAL ANALYTICAL RESULTS: Sample Date _____ 5/8/2003 _____ Sample Depth _____ 12-14 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	Chlorides mg/kg
SIDEWALLS	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	1630
BOTTOM	<0.025	<0.025	<0.025	0.033	<10.0	18.5	1390
REMEDIATED	<0.025	<0.025	<0.025	<0.025	<10.0	335	780

General Description of Remedial Action: As chloride concentrations were high

near the surface surrounding the junction box site, the walls of the 30 x 30 x 12 ft excavation were dug deeper in an effort to confirm a chloride trend. With the deeper delineation, chloride impact did in fact significantly decline with depth, indicative of unsaturated conditions (see graphs). TPH concentrations remained well below NMOCD guidelines. Due to these trends, ROC contends groundwater is not threatened at 87 ft below. A new watertight junction box has been built 45 ft north of this location. The surface disturbed by these activities will be re-seeded with a blend of native vegetation in September to inhibit downward migration of chloride left in place. The site will be monitored for growth.

cc: lab results, chloride graphs, photos

CHLORIDE FIELD TESTS

LOCATION	DEPTH (ft)	ppm
4-wall comp.	n/a	1500
bottom comp.	12-14	1200
15' E	6	4100
	13	1250
15' W	6	1700
	14	600
20' S	8	4600
	14	1000
10' N	6	1900
	14	850

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

DATE _____ 9/17/2003 _____

PRINTED NAME _____ Kristin Farris _____

SIGNATURE _____ *Kristin Farris* _____

TITLE _____ Project Scientist _____

BD jct. K-20-1



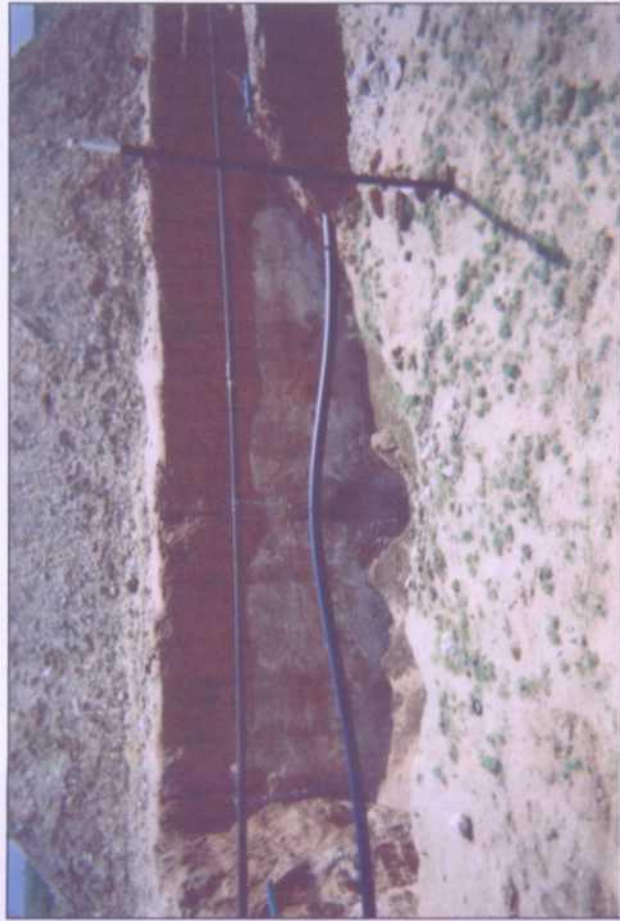
Junction Box Site Before Excavation



Excavation—May 2003



Sloping Excavation—May 2003



Final Excavation—May 2003



New Watertight Junction Box 45 ft North of Excavation



Backfilled—8/6/2003



ID Plate At Backfilled Site

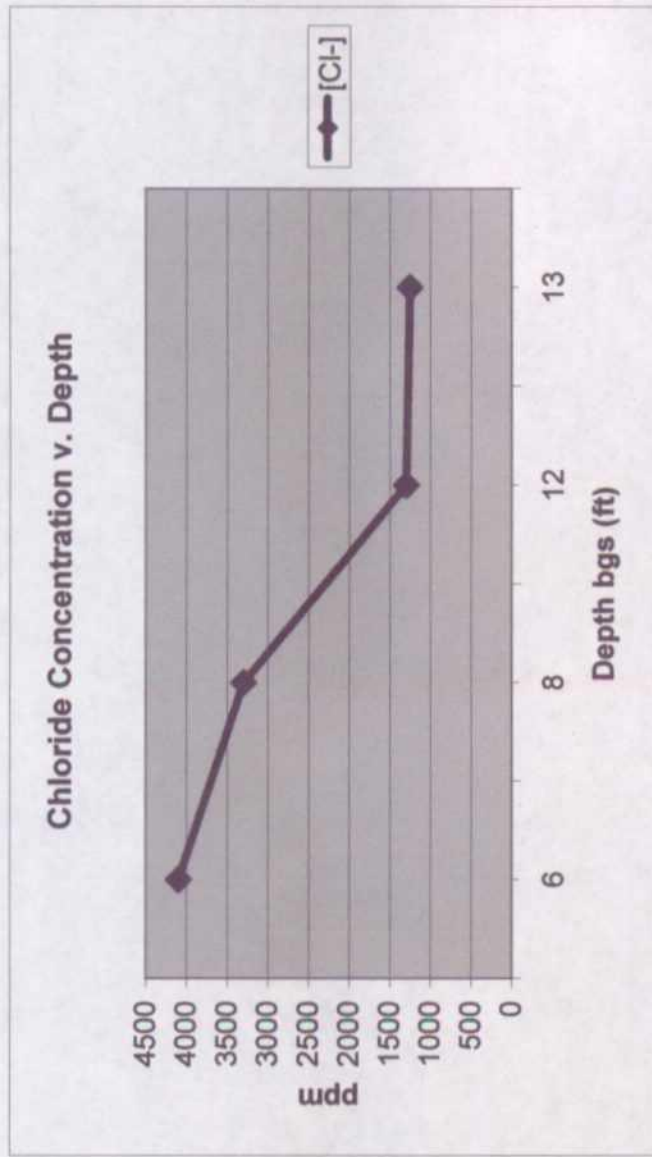
BD jct. K-20-1

T21S, R37E

15 ft East of Jct.

Depth bgs (ft)	[Cl ⁻] ppm
6	4100
8	3300
12	1300
13	1250

Groundwater = 99 ft



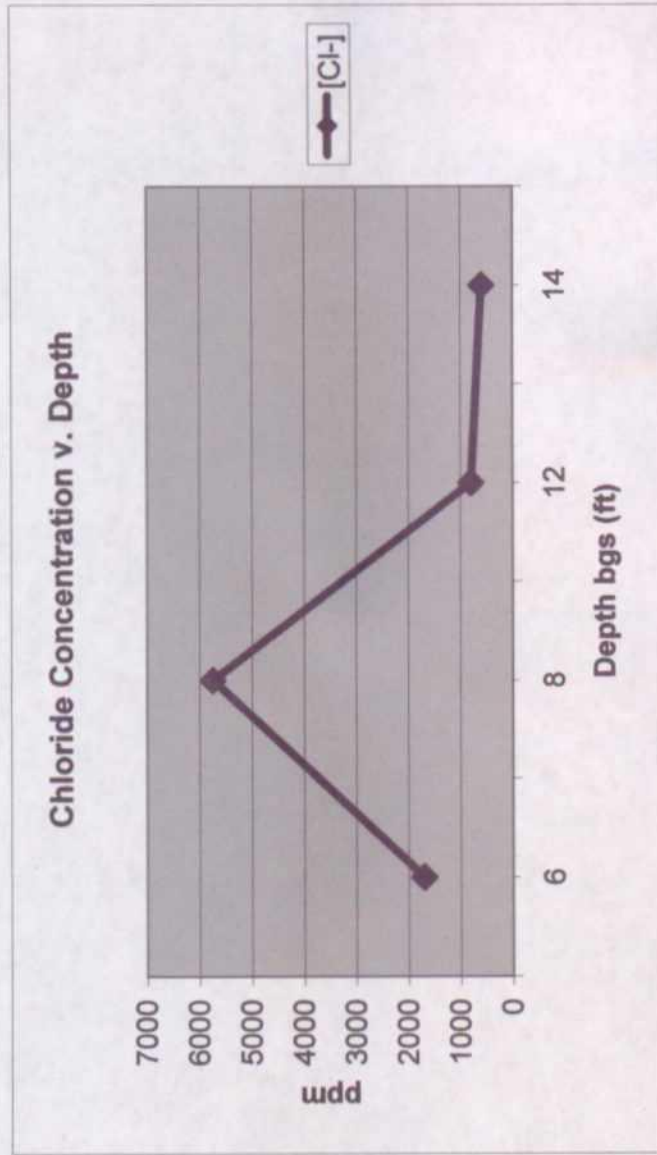
BD jct. K-20-1

T21S, R37E

15 ft West of Jct.

Depth bgs (ft)	[Cl ⁻] ppm
6	1700
8	5750
12	800
14	600

Groundwater = 99 ft



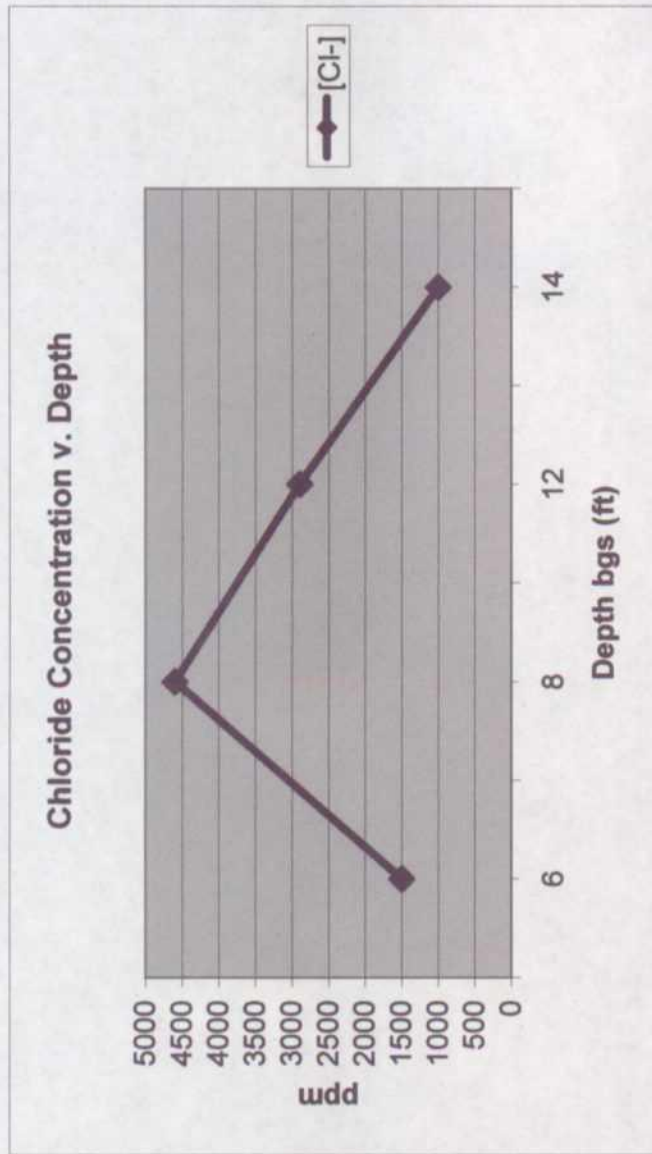
BD jct. K-20-1

T21S, R37E

20 ft South of Jct.

Depth bgs (ft)	[Cl-] ppm
6	1500
8	4600
12	2900
14	1000

Groundwater = 99 ft



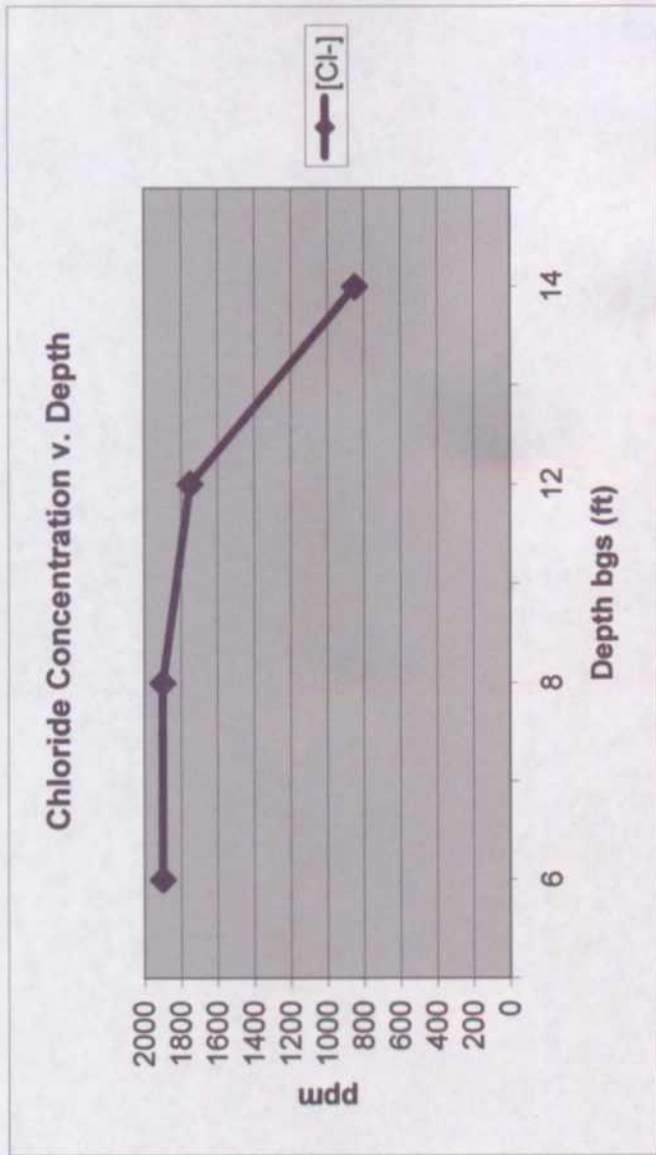
BD jct. K-20-1

T21S, R37E

10 ft North of Jct.

Depth bgs (ft)	[Cl ⁻] ppm
6	1900
8	1900
12	1750
14	850

Groundwater = 99 ft



ANALYTICAL REPORT

Prepared for:

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

Project: K-20-1

PO#:

Order#: G0306456

Report Date: 05/14/2003

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#: G0306456
Project:
Project Name: K-20-1
Location: BD

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>
0306456-01	5 pt. Bottom Comp. @ 12'	SOIL	5/8/03 14:00	5/9/03 11:22	4 oz glass	Ice
<u>Lab Testing:</u>		Rejected: No	Temp: -4.5 C			
8015M						
8021B/5030 BTEX						
Chloride						
0306456-02	Wall Comp.	SOIL	5/8/03 14:00	5/9/03 11:22	4 oz glass	Ice
<u>Lab Testing:</u>		Rejected: No	Temp: -4.5 C			
8015M						
8021B/5030 BTEX						
Chloride						

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

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

Order#: G0306456
Project:
Project Name: K-20-1
Location: BD

Lab ID: 0306456-01
Sample ID: 5 pt. Bottom Comp. @ 12'

8015M

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
		5/9/03	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	18.5	10.0
TOTAL, C6-C35	18.5	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	82%	70	130
1-Chlorooctadecane	75%	70	130

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0005518-02		5/13/03 12:07	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	0.033	0.025
o-Xylene	<0.025	0.025

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	92%	80	120
Bromofluorobenzene	96%	80	120

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

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ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

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

Order#: G0306456
Project:
Project Name: K-20-1
Location: BD

Lab ID: 0306456-02
Sample ID: Wall Comp.

8015M

Method	Date	Date	Sample	Dilution	Analyst	Method
Blank	Prepared	Analyzed	Amount	Factor		
		5/9/03	1	1	CK	8015M

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	80%	70	130
1-Chlorooctadecane	72%	70	130

8021B/5030 BTEX

Method	Date	Date	Sample	Dilution	Analyst	Method
Blank	Prepared	Analyzed	Amount	Factor		
0005518-02		5/13/03 12:29	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	97%	80	120

Approval: Raland K. Tuttle 5-14-03
 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.

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

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ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

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

Order#: G0306456
Project:
Project Name: K-20-1
Location: BD

Lab ID: 0306456-01
Sample ID: 5 pt. 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	1390	mg/kg	1	20	9253	5/12/03	CK

Lab ID: 0306456-02
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	1630	mg/kg	1	20	9253	5/12/03	CK

Approval:

Raland K. Tuttle 5-13-03
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

RL = Reporting Limit N/A = Not Applicable

Page 1 of 1

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8015M

Order#: G0306456

BLANK	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0005484-02			<10.0		
MS	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0306448-02	0	952	850	89.3%	
MSD	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0306448-02	0	952	804	84.5%	5.6%
SRM	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0005484-05		1000	938	93.8%	

ENVIRONMENTAL LAB OF TEXAS**QUALITY CONTROL REPORT****8021B/5030 BTEX****Order#: G0306456**

BLANK	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0005518-02			<0.025		
Toluene-mg/kg		0005518-02			<0.025		
Ethylbenzene-mg/kg		0005518-02			<0.025		
p/m-Xylene-mg/kg		0005518-02			<0.025		
o-Xylene-mg/kg		0005518-02			<0.025		
MS	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0306459-03	0	0.1	0.091	91.%	
Toluene-mg/kg		0306459-03	0	0.1	0.091	91.%	
Ethylbenzene-mg/kg		0306459-03	0	0.1	0.091	91.%	
p/m-Xylene-mg/kg		0306459-03	0	0.2	0.189	94.5%	
o-Xylene-mg/kg		0306459-03	0	0.1	0.090	90.%	
MSD	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0306459-03	0	0.1	0.096	96.%	5.3%
Toluene-mg/kg		0306459-03	0	0.1	0.094	94.%	3.2%
Ethylbenzene-mg/kg		0306459-03	0	0.1	0.093	93.%	2.2%
p/m-Xylene-mg/kg		0306459-03	0	0.2	0.190	95.%	0.5%
o-Xylene-mg/kg		0306459-03	0	0.1	0.089	89.%	1.1%
SRM	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0005518-05		0.1	0.105	105.%	
Toluene-mg/kg		0005518-05		0.1	0.103	103.%	
Ethylbenzene-mg/kg		0005518-05		0.1	0.096	96.%	
p/m-Xylene-mg/kg		0005518-05		0.2	0.197	98.5%	
o-Xylene-mg/kg		0005518-05		0.1	0.090	90.%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Test Parameters

Order#: G0306456

BLANK	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0005496-01			<20.0		
MS	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0306447-01	0	500	514	102.8%	
MSD	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0306447-01	0	500	514	102.8%	0.0%
SRM	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0005496-04		5000	5140	102.8%	

Environmental Lab of Texas | 11th

12600 West I-20 East
Odessa, Texas 79763

Phone: 915-563-1800
Fax: 915-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager:

Fax: 915-563-1713
Kristin Ferris

Project Name:

K-20-1

Company Name

Rich

Project #:

Company Address:

122 W Taylor

Project Loc:

B7D

City/State/Zip:

Hobbs, Nm 38240

PO#

Telephone No:

Fax No:

Sampler Signature:

9

[illegible]

ANALYTICAL REPORT

Prepared for:

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

Project: K-20-1

PO#:

Order#: G0306477

Report Date: 05/16/2003

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#: G0306477
Project:
Project Name: K-20-1
Location: BD

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<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>
0306477-01	Remediated Pile Comp.	SOIL	5/12/03 16:00	5/13/03 13:12	4 oz glass	Ice
<u>Lab Testing:</u>		Rejected: No	Temp:	4 C		
8015M						
8021B/5030 BTEX						
Chloride						

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

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

Order#: G0306477
Project:
Project Name: K-20-1
Location: BD

Lab ID: 0306477-01
Sample ID: Remediated Pile Comp.

8015M

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
		5/14/03	1	1	WL	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	335	10.0
TOTAL, C6-C35	335	10.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	109%	70	130
1-Chlorooctadecane	97%	70	130

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0005543-02		5/14/03 11:52	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	80%	80	120
Bromofluorobenzene	86%	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 1 of 1

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

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

Order#: G0306477
Project:
Project Name: K-20-1
Location: BD

Lab ID: 0306477-01
Sample ID: Remediated Pile Comp.

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	780	mg/kg	1	20	9253	5/13/03	SB

Approval:

Raland K Tuttle 5-14-03

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

8021B/5030 BTEX

Order#: G0306477

BLANK	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0005543-02			<0.025		
Toluene-mg/kg		0005543-02			<0.025		
Ethylbenzene-mg/kg		0005543-02			<0.025		
p/m-Xylene-mg/kg		0005543-02			<0.025		
o-Xylene-mg/kg		0005543-02			<0.025		
MS	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0306476-01	0	0.1	0.104	104.%	
Toluene-mg/kg		0306476-01	0	0.1	0.105	105.%	
Ethylbenzene-mg/kg		0306476-01	0	0.1	0.1	100.%	
p/m-Xylene-mg/kg		0306476-01	0	0.2	0.206	103.%	
o-Xylene-mg/kg		0306476-01	0	0.1	0.093	93.%	
MSD	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0306476-01	0	0.1	0.096	96.%	8.%
Toluene-mg/kg		0306476-01	0	0.1	0.096	96.%	9.%
Ethylbenzene-mg/kg		0306476-01	0	0.1	0.093	93.%	7.3%
p/m-Xylene-mg/kg		0306476-01	0	0.2	0.192	96.%	7.%
o-Xylene-mg/kg		0306476-01	0	0.1	0.088	88.%	5.5%
SRM	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0005543-05		0.1	0.096	96.%	
Toluene-mg/kg		0005543-05		0.1	0.097	97.%	
Ethylbenzene-mg/kg		0005543-05		0.1	0.098	98.%	
p/m-Xylene-mg/kg		0005543-05		0.2	0.200	100.%	
o-Xylene-mg/kg		0005543-05		0.1	0.096	96.%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8015M

Order#: G0306477

BLANK	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0005532-02			<10.0		
CONTROL	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0005532-03		952	1113	116.9%	
CONTROL DUP	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0005532-04		952	1161	122.%	4.2%
SRM	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0005532-05		1000	1012	101.2%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Test Parameters

Order#: G0306477

BLANK	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0005512-01			<20.0		
MS	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0306474-01	3260	2000	5280	101.1%	
MSD	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0306474-01	3260	2000	5320	103.1%	0.8%
SRM	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0005512-04		5000	5230	104.6%	

12600 West I-20 East
Odessa, Texas 79763

Phone: 915-563-1800
Fax: 915-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager:

Kristin Farris

Project Name:

K-20-1

Company Name

Rice Operating

Project #:

Company Address:

122 w Taylor

Project Loc:

DB

City/State/Zip:

47 00888 W 882 40

附

Telephone No:

Fax No:

Sampler Signature:

[illegible]