

AP - 46

ANNUAL MONITORING REPORT

YEAR(S):

2003

RICE Operating Company

122 West Taylor • Hobbs, New Mexico 88240
Phone: (505)393-9174 • Fax: (505) 397-1471

CERTIFIED MAIL

RETURN RECEIPT NO. 7002 2410 0000 4940 1282

1R0 427 - 88

March 4, 2004

Mr. Wayne Price
New Mexico Energy, Minerals, & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 S. St. Francis Drive
Santa Fe, New Mexico 87505

RE: 2003 MONITOR WELL REPORT/SAMPLING SUMMARY
EME SWD SYSTEM
LEA COUNTY, NEW MEXICO

Mr. Price:

Rice Operating Company (ROC) takes this opportunity to submit the 2003 Monitor Well Report for the Eunice Monument Eumont (EME) Salt Water Disposal System. Listed below are sites in this system that have monitor wells that are sampled quarterly pursuant to NMOCD guidelines. Groundwater impact became apparent at these sites during the remediation process of the Junction Box Upgrade Plan except for H-13, which was the result of a pipeline leak.

Site Name	Unit Letter	Section	Township/Range
E-5 jct.	E	5	T20S, R37E
N-5 jct.	N	5	T20S, R37E
K-6 jct.	K	6	T20S, R37E
M-16-1 jct.	M	16	T20S, R37E
K-33-1 jct.	K	33	T19S, R37E
H-13 leak	H	13	T20S, R36E
A-20 jct.	A	20	T20S, R37E

ROC samples these monitor wells each quarter. Analysis of the samples was provided by Cardinal Laboratories of Hobbs and Environmental Lab of Texas of Odessa. In 2004, ROC will continue to conduct the sampling of the monitor wells at these sites. As in 2003, either Environmental Lab of Texas of Odessa, Texas, or Cardinal Laboratories of Hobbs will continue to conduct analytical tests of the water samples of 2004.

ROC will continue to address the groundwater concerns at these sites in 2004 by contracting a consultant/groundwater specialist to generate work plans for remediation of the vadose zone at groundwater-impacted sites and to address the groundwater concerns. NMOCD can anticipate more work plan submissions for such sites as they are prioritized in 2004. After NMOCD approval, AFE's will be submitted to System Partners for approval. Sites with confirmed groundwater impact will also be evaluated for the extent of groundwater impact.

ROC is the service provider (operator) for the EME Salt Water Disposal System and has no ownership of any portion of pipeline, well, or facility. The EME SWD System is owned by a consortium of oil producers, System Partners, who provide all operating capital on a percentage ownership/usage basis.

Thank you for your consideration concerning this annual summary of groundwater monitoring information. If you have any questions, do not hesitate to contact me.

RICE OPERATING COMAPANY

Kristin Farris

Kristin Farris
Project Scientist

Enclosures: Summary table & graph for each site
 Analytical results

Cc: LBG, CDH, file, Wayne Price, Chris Williams
 NMOCD, District I Office
 1625 N. French Drive
 Hobbs, NM 88240

EME Jct. K-6
K, 6, 20S, 37E

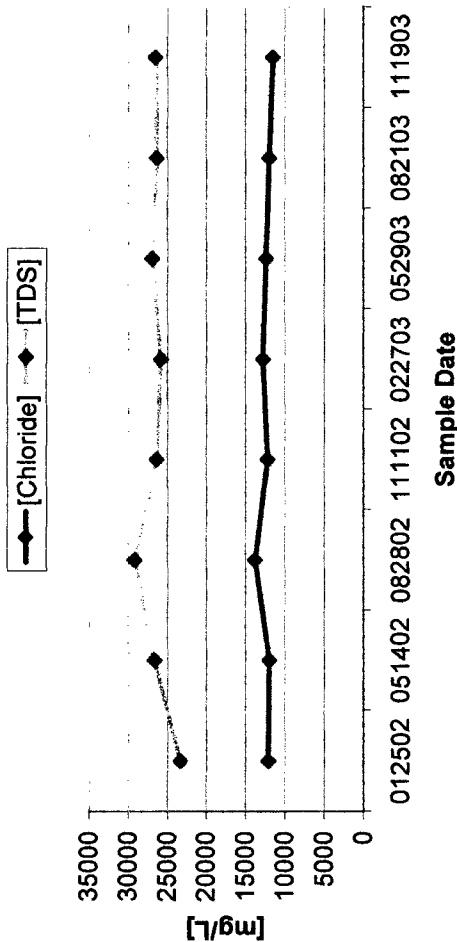
Rice Operating Co. Monitor Well Data Sheet

All parameter concentrations are in mg/L.

MW #	WATER LEVEL * (ft)	TOTAL DEPTH	WELL VOLUME	VOLUME BAILED	SAMPLE DATE	TIME	CL-	TDS	BENZENE	TOLUENE	ETHYL BENZENE	TOTAL XYLENES
1	37.20	43.50	1.000	3.10	012502	1315	12096	23370	<0.002	<0.002	0.002	0.006
1	37.30	42.78	0.877	2.75	051402	1125	12000	26700	0.00124	<.001	0.00336	0.00354
1	37.52	42.80	0.845	2.50	082802	1435	13796	29180	<0.002	<0.002	0.003	<0.006
1	38.65	40.60	0.312	1.00	111102	1545	12200	26400	0.001	0.001	0.001	0.003
1	37.78	40.55	0.440	1.30	022703	0900	12800	25900	0.001	0.001	0.001	0.003
1	37.80	41.00	0.512	1.50	052903	1145	12400	27000	0.002	0.001	0.001	0.001
1	37.90	40.90	0.480	1.40	082103	1335	12000	26400	0.003	<0.001	0.002	0.004
1	38.17	44.52	1.010	3.00	111903	1430	11500	26500	0.003	0.001	<0.001	0.001

sandy
red & silty
silty

EME Jct. K-6 Monitor Well



* Depth to water is measured from the top of the casing
Casing is 2.938 ft

ANALYTICAL REPORT

Prepared for:

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

Project: K-6

PO#:

Order#: G0305840

Report Date: 03/04/2003

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#: G0305840
Project:
Project Name: K-6
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</u> <u>Collected</u>	<u>Date / Time</u> <u>Received</u>	<u>Container</u>	<u>Preservative</u>
0305840-01	MW 1	WATER	2/27/03	2/27/03 19:36	See COC	See COC
<u>Lab Testing:</u>		Rejected: No	Temp: -2 C			
8021B/5030 BTEX						
Anions						
Cations						
Total Dissolved Solids (TDS)						

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

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

Order#: G0305840
Project:
Project Name: K-6
Location: EME

Lab ID: 0305840-01
Sample ID: MW 1

8021B/5030 BTEX

Method	Date	Date	Sample	Dilution	Analyst	Method
Blank	Prepared	Analyzed	Amount	Factor		
0004817-02		3/3/03 17:48	1	1	CK	8021B

Parameter	Result mg/L	RL
Benzene	0.001	0.001
Toluene	0.001	0.001
Ethylbenzene	0.001	0.001
p/m-Xylene	0.002	0.001
o-Xylene	<0.001	0.001

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	93%	80	120
Bromofluorobenzene	100%	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

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

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

Order#: G0305840
Project:
Project Name: K-6
Location: EME

Lab ID: 0305840-01
Sample ID: MW 1

Anions

<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>
Bicarbonate Alkalinity	440	mg/L	1	2.00	310.1	2/28/03	SB
Carbonate Alkalinity	<0.10	mg/L	1	0.10	310.1	2/28/03	SB
Chloride	12800	mg/L	1	5.00	9253	2/28/03	SB
Hydroxide Alkalinity	<0.10	mg/L	1	0.10	310.1	2/28/03	SB
SULFATE, 375.4	4830	mg/L	100	50.0	375.4	2/28/03	SB

Cations

<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>
Calcium	1050	mg/L	1000	10.0	6010B	2/28/03	SM
Magnesium	388	mg/L	100	0.10	6010B	2/28/03	SM
Potassium	62.8	mg/L	10	0.50	6010B	2/28/03	SM
Sodium	7460	mg/L	1000	10.0	6010B	2/28/03	SM

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>
Total Dissolved Solids (TDS)	25900	mg/L	1	5.0	160.1	2/28/03	TAL

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.

3-04-03

Date

RL = Reporting Limit N/A = Not Applicable

Page 1 of 1

ENVIRONMENTAL LAB OF TEXAS I, LTD.

12600 West I-20 East, Odessa, TX 79765 Ph: 915-563-1800

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8021B/5030 BTEX

Order#: G0305840

BLANK		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Benzene-mg/L		0004817-02			<0.001		
Toluene-mg/L		0004817-02			<0.001		
Ethylbenzene-mg/L		0004817-02			<0.001		
p/m-Xylene-mg/L		0004817-02			<0.001		
o-Xylene-mg/L		0004817-02			<0.001		
CONTROL		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Benzene-mg/L		0004817-03		0.1	0.100	100.0%	
Toluene-mg/L		0004817-03		0.1	0.101	101.0%	
Ethylbenzene-mg/L		0004817-03		0.1	0.100	100.0%	
p/m-Xylene-mg/L		0004817-03		0.2	0.206	103.0%	
o-Xylene-mg/L		0004817-03		0.1	0.099	99.0%	
CONTROL DUP		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Benzene-mg/L		0004817-04		0.1	0.095	95.0%	5.1%
Toluene-mg/L		0004817-04		0.1	0.095	95.0%	6.1%
Ethylbenzene-mg/L		0004817-04		0.1	0.094	94.0%	6.2%
p/m-Xylene-mg/L		0004817-04		0.2	0.193	96.5%	6.5%
o-Xylene-mg/L		0004817-04		0.1	0.094	94.0%	5.2%
SRM		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Benzene-mg/L		0004817-05		0.1	0.093	93.0%	
Toluene-mg/L		0004817-05		0.1	0.095	95.0%	
Ethylbenzene-mg/L		0004817-05		0.1	0.094	94.0%	
p/m-Xylene-mg/L		0004817-05		0.2	0.194	97.0%	
o-Xylene-mg/L		0004817-05		0.1	0.094	94.0%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Anions

Order#: G0305840

BLANK						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Bicarbonate Alkalinity-mg/L		0004788-01			<2.00	
Carbonate Alkalinity-mg/L		0004789-01			<0.10	
Chloride-mg/L		0004796-01			<5.00	
Hydroxide Alkalinity-mg/L		0004792-01			<0.10	
SULFATE, 375.4-mg/L		0004795-01			<0.50	
DUPLICATE						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Bicarbonate Alkalinity-mg/L		0305831-27	186		185	0.5%
Carbonate Alkalinity-mg/L		0305831-27	0		<0.10	0.0%
Hydroxide Alkalinity-mg/L		0305831-27	0		<0.10	0.0%
SULFATE, 375.4-mg/L		0305820-01	98.2		96.0	2.3%
MS						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Chloride-mg/L		0305831-27	137	250	386	99.6%
MSD						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Chloride-mg/L		0305831-27	137	250	381	97.6%
SRM						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Bicarbonate Alkalinity-mg/L		0004788-04		0.05	0.0496	99.2%
Carbonate Alkalinity-mg/L		0004789-04		0.05	0.0496	99.2%
Chloride-mg/L		0004796-04		5000	4960	99.2%
Hydroxide Alkalinity-mg/L		0004792-04		0.05	0.0496	99.2%
SULFATE, 375.4-mg/L		0004795-04		50	50.8	101.6%

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Cations

Order#: G0305840

BLANK		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Calcium-mg/L		0004785-02			<0.010		
Magnesium-mg/L		0004785-02			<0.001		
Potassium-mg/L		0004785-02			<0.050		
Sodium-mg/L		0004785-02			<0.010		
DUPLICATE		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Calcium-mg/L		0305820-01	104		106		1.9%
Magnesium-mg/L		0305820-01	16.3		16.0		1.9%
Potassium-mg/L		0305820-01	6.67		6.58		1.4%
Sodium-mg/L		0305820-01	67.1		68.6		2.2%
SRM		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Calcium-mg/L		0004785-05		2	2.08	104.%	
Magnesium-mg/L		0004785-05		2	2.20	110.%	
Potassium-mg/L		0004785-05		2	1.76	88.%	
Sodium-mg/L		0004785-05		2	1.73	86.5%	

12600 West I-20 East
Odessa, Texas 79763
Phone: 915-563-1800
Fax: 915-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Y-9

Project #:

EME

Fax No: (505) 397-1471

Per. Tarts

[illegible]

ANALYTICAL REPORT

Prepared for:

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

Project: Jct K-6
PO#: 510
Order#: G0306596
Report Date: 06/04/2003

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#: G0306596
Project:
Project Name: Jct K-6
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</u> <u>Collected</u>	<u>Date / Time</u> <u>Received</u>	<u>Container</u>	<u>Preservative</u>
0306596-01	MW1	WATER	5/29/03 11:45	5/29/03 19:40	See COC	See COC
<u>Lab Testing:</u>		Rejected: No	Temp: 4.0 C			
8021B/5030 BTEX						
Anions						
Cations						
Total Dissolved Solids (TDS)						

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

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

Order#: G0306596
Project:
Project Name: Jct K-6
Location: EME

Lab ID: 0306596-01
Sample ID: MW1

8021B/5030 BTEX

Method	Date	Date	Sample	Dilution	Analyst	Method
Blank	Prepared	Analyzed	Amount	Factor		
0005706-02		5/30/03 12:19	1	1	CK	8021B

Parameter	Result mg/L	RL
Benzene	0.002	0.001
Toluene	0.001	0.001
Ethylbenzene	0.001	0.001
p/m-Xylene	0.001	0.001
o-Xylene	<0.001	0.001

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	99%	80	120
Bromofluorobenzene	107%	80	120

Approval:

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

Page 1 of 1

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

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

Order#: G0306596
Project:
Project Name: Jct K-6
Location: EME

Lab ID: 0306596-01
Sample ID: MW1

Anions

<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>
Bicarbonate Alkalinity	484	mg/L	1	2.00	310.1	5/30/03	WL
Carbonate Alkalinity	<0.10	mg/L	1	0.10	310.1	5/30/03	WL
Chloride	12400	mg/L	1	5.00	9253	5/30/03	WL
Hydroxide Alkalinity	<0.10	mg/L	1	0.10	310.1	5/30/03	WL
SULFATE, 375.4	3880	mg/L	50	25.0	375.4	6/2/03	SB

Cations

<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>
Calcium	1080	mg/L	1000	10.0	6010B	6/3/03	SM
Magnesium	355	mg/L	100	0.10	6010B	6/3/03	SM
Potassium	63.1	mg/L	10	0.50	6010B	6/3/03	SM
Sodium	6910	mg/L	1000	10.0	6010B	6/3/03	SM

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>
Total Dissolved Solids (TDS)	27000	mg/L	1	5.0	160.1	6/2/03	TAL

Approval:

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.

RL = Reporting Limit

N/A = Not Applicable

Page 1 of 1

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8021B/5030 BTEX

Order#: G0306596

BLANK							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/L		0005706-02			<0.001		
Toluene-mg/L		0005706-02			<0.001		
Ethylbenzene-mg/L		0005706-02			<0.001		
p/m-Xylene-mg/L		0005706-02			<0.001		
o-Xylene-mg/L		0005706-02			<0.001		
MS							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/L		0306601-01	0	0.1	0.097	97.%	
Toluene-mg/L		0306601-01	0	0.1	0.096	96.%	
Ethylbenzene-mg/L		0306601-01	0	0.1	0.094	94.%	
p/m-Xylene-mg/L		0306601-01	0	0.2	0.196	98.%	
o-Xylene-mg/L		0306601-01	0	0.1	0.094	94.%	
MSD							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/L		0306601-01	0	0.1	0.096	96.%	1.%
Toluene-mg/L		0306601-01	0	0.1	0.093	93.%	3.2%
Ethylbenzene-mg/L		0306601-01	0	0.1	0.093	93.%	1.1%
p/m-Xylene-mg/L		0306601-01	0	0.2	0.193	96.5%	1.5%
o-Xylene-mg/L		0306601-01	0	0.1	0.095	95.%	1.1%
SRM							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/L		0005706-05		0.1	0.093	93.%	
Toluene-mg/L		0005706-05		0.1	0.089	89.%	
Ethylbenzene-mg/L		0005706-05		0.1	0.087	87.%	
p/m-Xylene-mg/L		0005706-05		0.2	0.181	90.5%	
o-Xylene-mg/L		0005706-05		0.1	0.088	88.%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Cations

Order#: G0306596

BLANK							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Calcium-mg/L		0005716-02			<0.010		
Magnesium-mg/L		0005716-02			<0.001		
Potassium-mg/L		0005716-02			<0.050		
Sodium-mg/L		0005716-02			<0.010		
DUPLICATE							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Calcium-mg/L		0306596-01	1080		1100		1.8%
Magnesium-mg/L		0306596-01	355		358		0.8%
Potassium-mg/L		0306596-01	63.1		61.8		2.1%
Sodium-mg/L		0306596-01	6910		6790		1.8%
SRM							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Calcium-mg/L		0005716-05		2	1.98	99.%	
Magnesium-mg/L		0005716-05		2	2.10	105.%	
Potassium-mg/L		0005716-05		2	1.82	91.%	
Sodium-mg/L		0005716-05		2	1.93	96.5%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Test Parameters

Order#: G0306596

BLANK						
WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Total Dissolved Solids (TDS)-mg/L	0005714-01			<5.0		
DUPLICATE						
WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Total Dissolved Solids (TDS)-mg/L	0306599-01	5600		5540		1.1%

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12500 West 120 East
Odessa, Texas 79763
Phone: 915-563-1800
Fax: 915-563-1713

Project Manager:

Kristin Farris

Project Name:

Test K-6

Company Name

PICE Operating

Project #:

Company Address:

122 W. Taylor

Project Loc:

72

City/State/Zip:

Hobbs, NM 88240

PO #: 510

Telephone No. (505) 393-9174

Fax No: (505) 397-1471

Sampler Signature:

Per *Hand*

240M/L6A	Matrix
240M/L6A	Matrix

[illegible]

ANALYTICAL REPORT

Prepared for:

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

Project: Jct. K-6
PO#: S10
Order#: G0307302
Report Date: 08/27/2003

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#: G0307302
Project:
Project Name: Jct. K-6
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</u> <u>Collected</u>	<u>Date / Time</u> <u>Received</u>	<u>Container</u>	<u>Preservative</u>
0307302-01	MW1	WATER	8/21/03 13:35	8/25/03 9:03	See COC	See COC
<u>Lab Testing:</u>		Rejected: No	Temp:	4.5 C		
8021B/5030 BTEX						
Anions						
Cations						
Total Dissolved Solids (TDS)						

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

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

Order#: G0307302
Project:
Project Name: Jct. K-6
Location: EME

Lab ID: 0307302-01
Sample ID: MW1

8021B/5030 BTEX

Method	Date	Date	Sample	Dilution		
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>	<u>Analyst</u>	<u>Method</u>
0006638-02		8/25/03	1	1	JMM	8021B

Parameter	Result mg/L	RL
Benzene	0.003	0.001
Toluene	<0.001	0.001
Ethylbenzene	0.002	0.001
p/m-Xylene	0.002	0.001
o-Xylene	0.002	0.001

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	117%	80	120
Bromofluorobenzene	108%	80	120

Approval:

Celestine Keene 08/27/03
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

ANALYTICAL REPORT

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

Order#: G0307302
Project:
Project Name: Jct. K-6
Location: EME

Lab ID: 0307302-01
Sample ID: MW1

Anions

<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>
Bicarbonate Alkalinity	440	mg/L	2	4.0	310.1	8/25/03	SB
Carbonate Alkalinity	< 0.20	mg/L	2	0.20	310.1	8/25/03	SB
Chloride	12000	mg/L	1	5.00	9253	8/27/03	SB
Hydroxide Alkalinity	< 0.20	mg/L	2	0.20	310.1	8/25/03	SB
SULFATE, 375.4	3060	mg/L	50	25.0	375.4	8/26/03	SB

Cations

<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>
Calcium	919	mg/L	100	1.0	6010B	8/26/03	SM
Magnesium	334	mg/L	100	0.10	6010B	8/26/03	SM
Potassium	126	mg/L	100	5.0	6010B	8/26/03	SM
Sodium	7170	mg/L	1000	10.0	6010B	8/26/03	SM

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>
Total Dissolved Solids (TDS)	26400	mg/L	1	5.0	160.1	8/25/03	TAL

Approval:

Celestine Keene 08/27/03
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

8021B/5030 BTEX

Order#: G0307302

BLANK							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/L		0006638-02			<0.001		
Toluene-mg/L		0006638-02			<0.001		
Ethylbenzene-mg/L		0006638-02			<0.001		
p/m-Xylene-mg/L		0006638-02			<0.001		
o-Xylene-mg/L		0006638-02			<0.001		
CONTROL							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/L		0006638-03		0.1	0.111	111.%	
Toluene-mg/L		0006638-03		0.1	0.114	114.%	
Ethylbenzene-mg/L		0006638-03		0.1	0.105	105.%	
p/m-Xylene-mg/L		0006638-03		0.2	0.222	111.%	
o-Xylene-mg/L		0006638-03		0.1	0.100	100.%	
DUPLICATE							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/L		0307295-06	0		<0.001		0.%
Toluene-mg/L		0307295-06	0		<0.001		0.%
Ethylbenzene-mg/L		0307295-06	0		<0.001		0.%
p/m-Xylene-mg/L		0307295-06	0		<0.001		0.%
o-Xylene-mg/L		0307295-06	0		<0.001		0.%
SRM							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/L		0006638-05		0.1	0.109	109.%	
Toluene-mg/L		0006638-05		0.1	0.114	114.%	
Ethylbenzene-mg/L		0006638-05		0.1	0.104	104.%	
p/m-Xylene-mg/L		0006638-05		0.2	0.227	113.5%	
o-Xylene-mg/L		0006638-05		0.1	0.104	104.%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Anions

Order#: G0307302

BLANK						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
						RPD
Bicarbonate Alkalinity-mg/L		0006617-01			<2.00	
Carbonate Alkalinity-mg/L		0006618-01			<0.10	
Chloride-mg/L		0006640-01			<5.00	
Hydroxide Alkalinity-mg/L		0006619-01			<0.10	
SULFATE, 375.4-mg/L		0006634-01			<0.50	
DUPLICATE						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
						RPD
Bicarbonate Alkalinity-mg/L		0307300-01	500		502	0.4%
Carbonate Alkalinity-mg/L		0307300-01	0		< 0.20	0.0%
Hydroxide Alkalinity-mg/L		0307300-01	0		< 0.20	0.0%
SULFATE, 375.4-mg/L		0307300-01	4.9		5.00	2.0%
MS						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
						RPD
Chloride-mg/L		0307300-01	2060	1000	3050	99.0%
MSD						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
						RPD
Chloride-mg/L		0307300-01	2060	1000	3070	101.0%
SRM						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
						RPD
Bicarbonate Alkalinity-mg/L		0006617-04		0.05	0.0496	99.2%
Carbonate Alkalinity-mg/L		0006618-04		0.05	0.0496	99.2%
Chloride-mg/L		0006640-04		5000	4960	99.2%
Hydroxide Alkalinity-mg/L		0006619-04		0.05	0.0496	99.2%
SULFATE, 375.4-mg/L		0006634-04		50	50.7	101.4%

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Cations

Order#: G0307302

BLANK							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Calcium-mg/L		0006632-01			<0.010		
Magnesium-mg/L		0006632-01			<0.001		
Potassium-mg/L		0006632-01			<0.050		
Sodium-mg/L		0006632-01			<0.010		
DUPLICATE							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Calcium-mg/L		0307300-01	78.1		77.3		1.0%
Magnesium-mg/L		0307300-01	30.4		29.8		2.0%
Potassium-mg/L		0307300-01	5.82		4.95		16.2%
Sodium-mg/L		0307300-01	1150		1160		0.9%
SRM							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Calcium-mg/L		0006632-04		2	2.05	102.5%	
Magnesium-mg/L		0006632-04		2	2.04	102.0%	
Potassium-mg/L		0006632-04		2	1.73	86.5%	
Sodium-mg/L		0006632-04		2	1.73	86.5%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Test Parameters

Order#: G0307302

BLANK	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Total Dissolved Solids (TDS)-mg/L		0006633-01			<5.0		
DUPLICATE	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Total Dissolved Solids (TDS)-mg/L		0307303-01	2550		2830		10.4%

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12500 West 120 East
Odessa, Texas 79763

Project Manager: Kristin Farris

Project Name: Jct. K-6

Company Name RICE Operating

Project #:

Company Address: 123 W. Taylor

Project Loc: *F.M.F.*

City/State/Zip: Fla 665, NM 88240

PO #: 510

Telephone No (505) 393-9174

Fax No: (505) 397-1471

Samplers Signature:

[illegible]

ANALYTICAL REPORT

Prepared for:

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

Project: Jct. K-6
PO#: 510
Order#: G0307983
Report Date: 11/25/2003

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#: G0307983
Project:
Project Name: Jct. K-6
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</u> <u>Collected</u>	<u>Date / Time</u> <u>Received</u>	<u>Container</u>	<u>Preservative</u>
0307983-01	MW-1	WATER	11/19/03 14:30	11/19/03 19:40	See COC	See COC
<u>Lab Testing:</u>		Rejected: No	Temp: 4.0 C			
8021B/5030 BTEX						
Anions						
Cations						
Total Dissolved Solids (TDS)						

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

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

Order#: G0307983
Project:
Project Name: Jct. K-6
Location: EME

Lab ID: 0307983-01
Sample ID: MW-1

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>		
0007531-02		11/22/03	1	1	CK	8021B

Parameter	Result mg/L	RL
Benzene	0.003	0.001
Toluene	0.001	0.001
Ethylbenzene	<0.001	0.001
p/m-Xylene	0.001	0.001
o-Xylene	<0.001	0.001

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	91%	80	120
Bromofluorobenzene	94%	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

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

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

Order#: G0307983
Project:
Project Name: Jct. K-6
Location: EME

Lab ID: 0307983-01

Sample ID: MW-1

Anions

<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>
Bicarbonate Alkalinity	456	mg/L	1	2.00	310.1	11/20/03	SB
Carbonate Alkalinity	<0.10	mg/L	1	0.10	310.1	11/20/03	SB
Chloride	11500	mg/L	1	5.00	325	11/20/03	SB
Hydroxide Alkalinity	<0.10	mg/L	1	0.10	310.1	11/20/03	SB
SULFATE, 375.4	3720	mg/L	50	25.0	375.4	11/24/03	SB

Cations

<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>
Calcium	1071	mg/L	1000	10.0	6010B	11/21/03	SM
Magnesium	382	mg/L	100	0.10	6010B	11/21/03	SM
Potassium	57.3	mg/L	10	0.50	6010B	11/21/03	SM
Sodium	7590	mg/L	1000	10.0	6010B	11/21/03	SM

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>
Total Dissolved Solids (TDS)	26500	mg/L	1	5.0	160.1	11/20/03	SB

Approval:

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.

RL = Reporting Limit

N/A = Not Applicable

Page 1 of 1

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Anions

Order#: G0307983

BLANK		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Bicarbonate Alkalinity-mg/L		0007510-01			<2.00		
Carbonate Alkalinity-mg/L		0007512-01			<0.10		
Chloride-mg/L		0007516-01			<5.00		
Hydroxide Alkalinity-mg/L		0007514-01			<0.10		
SULFATE, 375.4-mg/L		0007546-01			<0.50		
DUPLICATE		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Bicarbonate Alkalinity-mg/L		0307979-01	468		466		0.4%
Carbonate Alkalinity-mg/L		0307979-01	0		<0.10		0.0%
Hydroxide Alkalinity-mg/L		0307979-01	0		<0.10		0.0%
SULFATE, 375.4-mg/L		0307979-01	20.9		21.6		3.3%
MS		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Chloride-mg/L		0307979-01	1930	500	2430	100.0%	
MSD		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Chloride-mg/L		0307979-01	1930	500	2420	98.0%	0.4%
SRM		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Bicarbonate Alkalinity-mg/L		0007510-04		0.05	0.0496	99.2%	
Carbonate Alkalinity-mg/L		0007512-04		0.05	0.0496	99.2%	
Chloride-mg/L		0007516-04		5000	4960	99.2%	
Hydroxide Alkalinity-mg/L		0007514-04		0.05	0.0496	99.2%	
SULFATE, 375.4-mg/L		0007546-04		50	49.0	98.0%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8021B/5030 BTEX

Order#: G0307983

BLANK						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Benzene-mg/L		0007531-02			<0.001	
Toluene-mg/L		0007531-02			<0.001	
Ethylbenzene-mg/L		0007531-02			<0.001	
p/m-Xylene-mg/L		0007531-02			<0.001	
o-Xylene-mg/L		0007531-02			<0.001	
CONTROL						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Benzene-mg/L		0007531-03		0.1	0.096	96.%
Toluene-mg/L		0007531-03		0.1	0.092	92.%
Ethylbenzene-mg/L		0007531-03		0.1	0.091	91.%
p/m-Xylene-mg/L		0007531-03		0.2	0.182	91.%
o-Xylene-mg/L		0007531-03		0.1	0.090	90.%
CONTROL DUP						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Benzene-mg/L		0007531-04		0.1	0.101	101.%
Toluene-mg/L		0007531-04		0.1	0.097	97.%
Ethylbenzene-mg/L		0007531-04		0.1	0.092	92.%
p/m-Xylene-mg/L		0007531-04		0.2	0.183	91.5%
o-Xylene-mg/L		0007531-04		0.1	0.087	87.%
SRM						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Benzene-mg/L		0007531-05		0.1	0.099	99.%
Toluene-mg/L		0007531-05		0.1	0.094	94.%
Ethylbenzene-mg/L		0007531-05		0.1	0.091	91.%
p/m-Xylene-mg/L		0007531-05		0.2	0.181	90.5%
o-Xylene-mg/L		0007531-05		0.1	0.087	87.%

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Cations

Order#: G0307983

BLANK							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Calcium-mg/L		0007495-02			<0.010		
Magnesium-mg/L		0007495-02			<0.001		
Potassium-mg/L		0007495-02			<0.050		
Sodium-mg/L		0007495-02			<0.010		
DUPLICATE							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Calcium-mg/L		0307979-01	81		81.6		0.7%
Magnesium-mg/L		0307979-01	20.1		19.9		1.1%
Potassium-mg/L		0307979-01	7.1		7.25		2.1%
Sodium-mg/L		0307979-01	1290		1280		0.8%
SRM							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Calcium-mg/L		0007495-05		2	1.76	88.1%	
Magnesium-mg/L		0007495-05		2	2.17	108.5%	
Potassium-mg/L		0007495-05		2	1.93	96.5%	
Sodium-mg/L		0007495-05		2	2.21	110.5%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Test Parameters

Order#: G0307983

BLANK	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Total Dissolved Solids (TDS)-mg/L		0007518-01			<5.00		
DUPLICATE	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Total Dissolved Solids (TDS)-mg/L		0307979-01	3590		3600		0.3%

12600 West 1-20 East
Odessa, Texas 79763

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

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager:

Keistin Farris

Project Name:

Tet. K-6

Company Name

RICE Operating

Project #:

Company Address:

133 W. Taylor

Project Loc:

EME

City/State/Zip:

Flabbs, NM 88240

PO #:

510

Telephone No.

No (505) 393-9174

Fax No:

(505) 397-1471

Sampler Signature:

Israel Mary

[illegible]

RICE Operating Company

122 West Taylor • Hobbs, New Mexico 88240
Phone: (505)393-9174 • Fax: (505) 397-1471

CERTIFIED MAIL

RETURN RECEIPT NO. 7002 2410 0000 4940 0988

April 10, 2003

Mr. William Olson
New Mexico Energy, Minerals, & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 S. St. Francis Drive
Santa Fe, New Mexico 87505

RECEIVED

APR 11 2003

ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION

RE: 2002 MONITOR WELL REPORT/SAMPLING SUMMARY
EME SWD SYSTEM
LEA COUNTY, NEW MEXICO

Mr. Olson:

Rice Operating Company (ROC) takes this opportunity to submit the 2002 Monitor Well Report for the Eunice Monument Eumont (EME) Salt Water Disposal System. There are 7 sites in this system that have monitor wells that are sampled quarterly pursuant to NMOCD guidelines. Groundwater impact became apparent at these sites during the remediation process of the Junction Box Upgrade Plan except for P-6, which was the result of a pipeline leak.

Site Name	Unit Letter	Section	Township/Range
E-5 jct.	E	5	T20S, R37E
N-5 jct.	N	5	T20S, R37E
K-6 jct.	K	6	T20S, R37E
M-16-1 jct.	M	16	T20S, R37E
K-33-1 jct.	K	33	T19S, R37E
P-6 leak	P	6	T20S, R37E
A-20 jct.	A	20	T20S, R37E

The first quarter sampling events of 2002 were performed by Environmental Plus, Inc. of Eunice. ROC sampled the monitor wells each subsequent quarter. Analysis of the samples was provided by Cardinal Laboratories of Hobbs and Environmental Lab of Texas of Odessa. In 2003, ROC will continue to conduct the sampling of the monitor wells at these sites. As in 2002, either

Environmental Lab of Texas of Odessa, Texas, or Cardinal Laboratories of Hobbs will conduct analytical tests of the water samples of 2003.

Trident Environmental of Midland, Texas has been contracted by ROC to prioritize the junction box disclosure sites and to generate work plans for remediation of the vadose zone at groundwater-impacted sites. NMOCD can anticipate the submittal of work plans for several such sites in 2003. After NMOCD approval, AFE's will be submitted to System Partners for approval. Sites with confirmed groundwater impact will also be evaluated for the extent of groundwater impact.

ROC is the service provider (operator) for the EME Salt Water Disposal System and has no ownership of any portion of pipeline, well, or facility. The EME SWD System is owned by a consortium of oil producers, System Partners, who provide all operating capital on a percentage ownership/usage basis.

Thank you for your consideration concerning this annual summary of groundwater monitoring information. If you have any questions, do not hesitate to contact me.

RICE OPERATING COMAPANY

Kristin Farris

Kristin Farris
Project Scientist

Enclosures: Summary table & graph for each site
 Analytical results

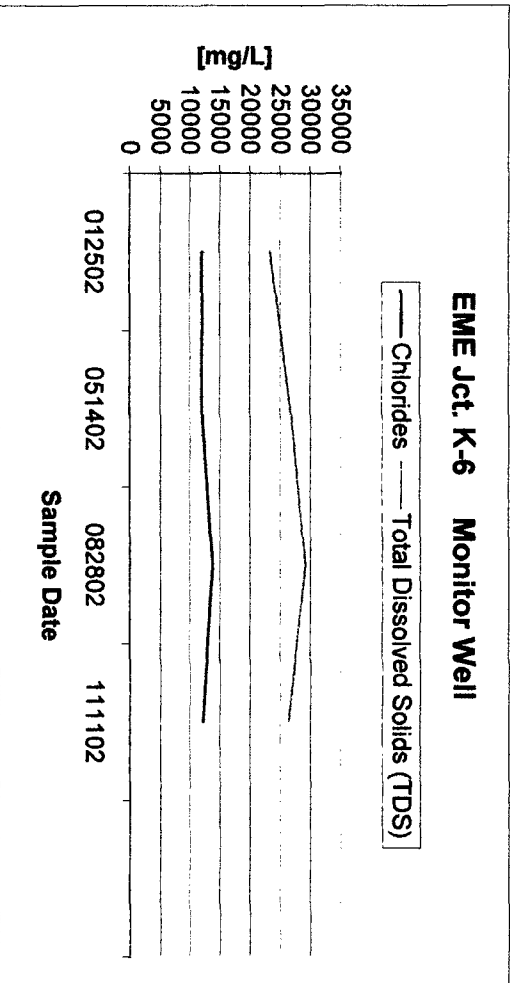
Cc: LBG, CDH, file, Wayne Price, Chris Williams
 NMOCD, District I Office
 1625 N. French Drive
 Hobbs, NM 88240

EME Jct. K-6
K, 6, 20S, 37E

Rice Operating Co. Monitor Well Data Sheet

All parameter concentrations are in mg/L.

MW #	(ft)		(gal)		SAMPLE DATE	TIME	CL-	TDS	BENZENE	TOLUENE	ETHYL BENZENE	TOTAL XYLENES	
	WATER LEVEL	TOTAL DEPTH	WELL VOLUME	VOLUME BAILED									
1	37.20	43.50	1.000	3.10	012502	1315	12096	23370	<0.002	<0.002	0.002	0.006	
1	37.30	42.78	0.877	2.75	051402	1125	12000	26700	0.00124	<.001	0.00336	0.00354	sandy
1	37.52	42.80	0.845	2.50	082802	1435	13796	29180	<0.002	<0.002	0.003	<0.006	red & silty
1	38.65	40.60	0.312	1.00	111102	1545	12200	26400	0.001	0.001	0.001	0.003	silty



ANALYTICAL REPORT

Prepared for:

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

Project: Jct. K-6
PO#: 510
Order#: G0205001
Report Date: 11/19/2002

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#: G0205001
Project:
Project Name: Jct. K-6
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</u> <u>Collected</u>	<u>Date / Time</u> <u>Received</u>	<u>Container</u>	<u>Preservative</u>
0205001-01	MW 1	WATER	11/11/02 15:45	11/12/02 19:15	See COC	See COC
<u>Lab Testing:</u>		Rejected: No	Temp: 4 C			
8021B/5030 BTEX						
Anions						
Cations						
Total Dissolved Solids (TDS)						

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

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

Order#: G0205001
Project:
Project Name: Jct. K-6
Location: EME

Lab ID: 0205001-01
Sample ID: MW 1

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>		
0003799-02		11/19/02 12:02	1	1	CK	8021B

Parameter	Result mg/L	RL
Benzene	0.001	0.001
Ethylbenzene	0.001	0.001
Toluene	0.001	0.001
p/m-Xylene	0.002	0.001
o-Xylene	<0.001	0.001

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	98%	80	120
Bromofluorobenzene	110%	80	120

Approval: Jeanne McMurrey 11-20-02
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#: G0205001
Project:
Project Name: Jct. K-6
Location: EME

Lab ID: 0205001-01
Sample ID: MW 1

Cations

Parameter	Result	Units	Dilution Factor	RL	Method	Date Prepared	Date Analyzed	Analyst
Calcium	993	mg/L	1000	10.0	6010B	11/15/2002	11/15/02	SM
Magnesium	40.9	mg/L	100	0.10	6010B	11/15/2002	11/15/02	SM
Potassium	57.8	mg/L	10	0.50	6010B	11/15/2002	11/15/02	SM
Sodium	6290	mg/L	1000	10.0	6010B	11/15/2002	11/15/02	SM

Approval: Jeanne McMurrey 11-20-02
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#: G0205001
Project:
Project Name: Jet. K-6
Location: EME

Lab ID: 0205001-01
Sample ID: MW 1

Anions

<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>
Bicarbonate Alkalinity	460	mg/L	1	2.00	310.1	11/13/02	SB
Carbonate Alkalinity	<0.10	mg/L	1	0.10	310.1	11/13/02	SB
Chloride	12200	mg/L	1	5.00	9253	11/13/02	SB
Hydroxide Alkalinity	<0.10	mg/L	1	0.10	310.1	11/13/02	SB
SULFATE, 375.4	3780	mg/L	50	25.0	375.4	11/14/02	SB

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>
Total Dissolved Solids (TDS)	26400	mg/L	1	5.0	160.1	11/13/02	TAL

Approval: Jeanne McMurrey 11-20-02
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#: G0205001

BLANK						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Benzene-mg/L		0003799-02			<0.001	
Ethylbenzene-mg/L		0003799-02			<0.001	
Toluene-mg/L		0003799-02			<0.001	
p/m-Xylene-mg/L		0003799-02			<0.001	
o-Xylene-mg/L		0003799-02			<0.001	
CONTROL						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Benzene-mg/L		0003799-03		0.1	0.099	99.9%
Ethylbenzene-mg/L		0003799-03		0.1	0.103	103.0%
Toluene-mg/L		0003799-03		0.1	0.102	102.0%
p/m-Xylene-mg/L		0003799-03		0.2	0.218	109.0%
o-Xylene-mg/L		0003799-03		0.1	0.105	105.0%
CONTROL DUP						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Benzene-mg/L		0003799-04		0.1	0.098	98.0%
Ethylbenzene-mg/L		0003799-04		0.1	0.102	102.0%
Toluene-mg/L		0003799-04		0.1	0.101	101.0%
p/m-Xylene-mg/L		0003799-04		0.2	0.215	107.5%
o-Xylene-mg/L		0003799-04		0.1	0.104	104.0%
SRM						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
Benzene-mg/L		0003799-05		0.1	0.101	101.0%
Ethylbenzene-mg/L		0003799-05		0.1	0.104	104.0%
Toluene-mg/L		0003799-05		0.1	0.103	103.0%
p/m-Xylene-mg/L		0003799-05		0.2	0.219	109.5%
o-Xylene-mg/L		0003799-05		0.1	0.106	106.0%

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Anions

Order#: G0205001

BLANK						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
						RPD
Bicarbonate Alkalinity-mg/L		0003746-01			<2.00	
Carbonate Alkalinity-mg/L		0003747-01			<0.10	
Chloride-mg/L		0003750-01			<5.00	
Hydroxide Alkalinity-mg/L		0003748-01			<0.10	
SULFATE, 375.4-mg/L		0003767-01			<0.50	
DUPLICATE						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
						RPD
Bicarbonate Alkalinity-mg/L		0204999-01	512		510	0.4%
Carbonate Alkalinity-mg/L		0204999-01	0		<0.10	0.0%
Hydroxide Alkalinity-mg/L		0204999-01	0		<0.10	0.0%
SULFATE, 375.4-mg/L		0204999-01	2.8		2.9	3.5%
MS						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
						RPD
Chloride-mg/L		0204999-01	3720	5000	8680	99.2%
MSD						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
						RPD
Chloride-mg/L		0204999-01	3720	5000	8600	97.6%
0.9%						
SRM						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery
						RPD
Bicarbonate Alkalinity-mg/L		0003746-04		0.05	0.0496	99.2%
Carbonate Alkalinity-mg/L		0003747-04		0.05	0.0496	99.2%
Chloride-mg/L		0003750-04		5000	4960	99.2%
Hydroxide Alkalinity-mg/L		0003748-04		0.05	0.0496	99.2%
SULFATE, 375.4-mg/L		0003767-04		50	53.2	106.4%

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Cations

Order#: G0205001

BLANK							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Calcium-mg/L		0003781-02			<0.010		
Magnesium-mg/L		0003781-02			<0.001		
Potassium-mg/L		0003781-02			<0.050		
Sodium-mg/L		0003781-02			<0.010		
DUPLICATE							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Calcium-mg/L		0204999-01	171		172		0.6%
Magnesium-mg/L		0204999-01	6.77		7.47		9.8%
Potassium-mg/L		0204999-01	11		11.6		5.3%
Sodium-mg/L		0204999-01	1940		1900		2.1%
SRM							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Calcium-mg/L		0003781-05		2	2.09	104.5%	
Magnesium-mg/L		0003781-05		2	1.89	94.5%	
Potassium-mg/L		0003781-05		2	1.75	87.5%	
Sodium-mg/L		0003781-05		2	1.88	94.4%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Test Parameters

Order#: G0205001

BLANK	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Total Dissolved Solids (TDS)-mg/L		0003753-01			<5.0		
DUPLICATE	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Total Dissolved Solids (TDS)-mg/L		0204999-01	6020		6070		0.8%

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

jet. K-6

EME

518

Fax No: (505) 397-1471

[illegible]



PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

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

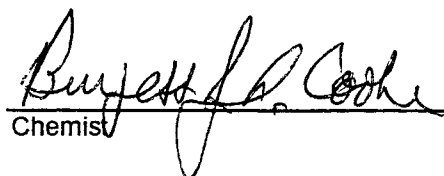
ANALYTICAL RESULTS FOR
RICE OPERATING CO.
ATTN: KRISTIN FARRIS
122 W. TAYLOR
HOBBS, NM 88240
FAX TO: (505) 397-1471

Receiving Date: 08/29/02
Reporting Date: 08/30/02
Project Number: NOT GIVEN
Project Name: K-6
Project Location: EME

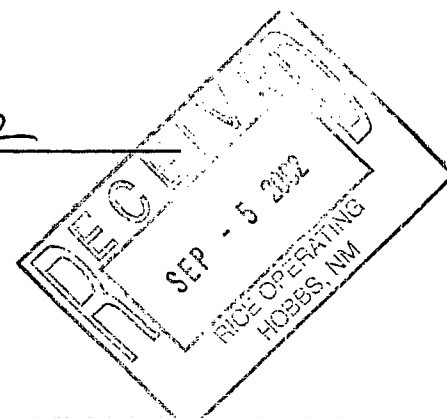
Sampling Date: 08/28/02
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: AH
Analyzed By: BC

LAB NUMBER	SAMPLE ID	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL BENZENE (mg/L)	TOTAL XYLENES (mg/L)
ANALYSIS DATE		08/29/02	08/29/02	08/29/02	08/29/02
H6991-1	K-6 MW1	<0.002	<0.002	0.003	<0.006
Quality Control		0.111	0.105	0.108	0.309
True Value QC		0.100	0.100	0.100	0.300
% Recovery		111	105	108	103
Relative Percent Difference		1.5	3.9	3.0	5.0

METHOD: EPA SW-846 8260


Chemist

8/30/02
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.



PHONE (915) 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: 08/29/02
Reporting Date: 08/30/02
Project Number: NOT GIVEN
Project Name: K-6
Project Location: EME

Sampling Date: 08/28/02
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: AH
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (mS/cm)	T-Alkalinity (mgCaCO ₃ /L)
------------	-----------	--------------	--------------	--------------	-------------	-------------------------	--

ANALYSIS DATE:	08/29/02	08/29/02	08/29/02	08/29/02	08/29/02	08/29/02
H6991-1 K-6 MW 1	9684	798	268	22.5	30729	493
Quality Control	NR	42.4	48.0	4.62	1451	NR
True Value QC	NR	50.0	50.0	5.00	1413	NR
% Recovery	NR	84.9	96.1	92.4	103	NR
Relative Percent Difference	NR	11.8	4.4	9.0	0.1	NR

METHODS:	SM3500-Ca-D	3500-Mg E	8049	120.1	310.1
----------	-------------	-----------	------	-------	-------

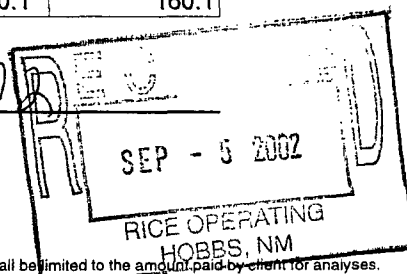
Cl ⁻ (mg/L)	SO ₄ (mg/L)	CO ₃ (mg/L)	HCO ₃ (mg/L)	pH (s.u.)	TDS (mg/L)
---------------------------	---------------------------	---------------------------	----------------------------	--------------	---------------

ANALYSIS DATE:	08/29/02	08/29/02	08/29/02	08/29/02	08/29/02	08/30/02
H6991-1 K-6 MW 1	13796	4086	0	601	6.73	29180
Quality Control	1000	49.34	NR	975	7.04	NR
True Value QC	1000	50.00	NR	1000	7.00	NR
% Recovery	100	98.7	NR	97.5	101	NR
Relative Percent Difference	3.0	0.2	NR	2.5	0.1	8.8

METHODS:	SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1
----------	-------------	-------	-------	-------	-------	-------

Amy Hill
Chemist

8-30-02
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. Cardinal shall 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.

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page (of)

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ANALYTICAL REPORT

Prepared for:

**DONNIE ANDERSON
RICE OPERATING COMPANY
122 W. TAYLOR
HOBBS, NM 88242**

**Project: K-6
Order#: G0203359
Report Date: 05/17/2002**

Certificates

US EPA Laboratory Code TX00158

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

RICE OPERATING COMPANY
122 W. TAYLOR
HOBBS, NM 88242
505-397-1471

Order#: G0203359
Project:
Project Name: K-6
Location: EME SWD

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.

<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>
0203359-01	MW 1	WATER	5/14/02 11:20	5/15/02 10:00	See COC	See COC
<u>Lab Testing:</u>		Rejected: No	Temp: See COC			
8021B/5030 BTEX						
Anions						
Cations						
Total Dissolved Solids (TDS)						

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

DONNIE ANDERSON
RICE OPERATING COMPANY
122 W. TAYLOR
HOBBS, NM 88242

Order#: G0203359
Project:
Project Name: K-6
Location: EME SWD

Lab ID: 0203359-01
Sample ID: MW 1

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>		
0001724-02		5/15/02 11:56	1	1	CK	8021B

Parameter	Result µg/L	RL
Benzene	1.24	1.00
Ethylbenzene	3.36	1.00
Toluene	<1.00	1.00
p/m-Xylene	3.54	1.00
o-Xylene	<1.00	1.00

Approval:

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

DONNIE ANDERSON
RICE OPERATING COMPANY
122 W. TAYLOR
HOBBS, NM 88242

Order#: G0203359
Project:
Project Name: K-6
Location: EME SWD

Lab ID: 0203359-01

Sample ID: MW 1

Anions

<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>
Bicarbonate Alkalinity	522	mg/L	1	2.0	310.1	5/15/02	SB
Carbonate Alkalinity	<0.10	mg/L	1	0.1	310.1	5/15/02	SB
Chloride	12000	mg/L	1	5.00	9253	5/16/02	SB
Hydroxide Alkalinity	<0.10	mg/L	1	0.1	310.1	5/15/02	SB
SULFATE, 375.4	3960	mg/L	50	25.0	375.4	5/17/02	SB

Cations

<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>
Calcium	1010	mg/L	250	2.50	6010B	5/16/02	SM
Magnesium	368	mg/L	250	0.250	6010B	5/16/02	SM
Potassium	46.0	mg/L	50	2.50	6010B	5/16/02	SM
Sodium	7310	mg/L	1250	12.5	6010B	5/16/02	SM

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>
Total Dissolved Solids (TDS)	26700	mg/L	1	5.0	160.1	5/15/02	SB

Approval:

Roland K. Tuttle 5-19-02
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 I, LTD.

12600 West I-20 East, Odessa, TX 79765 Ph: 915-563-1800

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8021B/5030 BTEX

Order#: G0203359

BLANK						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery RPD
Benzene-µg/L		0001724-02			<1.00	
Ethylbenzene-µg/L		0001724-02			<1.00	
Toluene-µg/L		0001724-02			<1.00	
p/m-Xylene-µg/L		0001724-02			<1.00	
o-Xylene-µg/L		0001724-02			<1.00	
CONTROL						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery RPD
Benzene-µg/L		0001724-03		100	115	115.%
Ethylbenzene-µg/L		0001724-03		100	114	114.%
Toluene-µg/L		0001724-03		100	112	112.%
p/m-Xylene-µg/L		0001724-03		200	225	112.5%
o-Xylene-µg/L		0001724-03		100	113	113.%
CONTROL DUP						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery RPD
Benzene-µg/L		0001724-04		100	114	114.% 0.9%
Ethylbenzene-µg/L		0001724-04		100	110	110.% 3.6%
Toluene-µg/L		0001724-04		100	109	109.% 2.7%
p/m-Xylene-µg/L		0001724-04		200	225	112.5% 0.%
o-Xylene-µg/L		0001724-04		100	112	112.% 0.9%
SRM						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery RPD
Benzene-µg/L		0001724-05		100	115	115.%
Ethylbenzene-µg/L		0001724-05		100	112	112.%
Toluene-µg/L		0001724-05		100	109	109.%
p/m-Xylene-µg/L		0001724-05		200	226	113.%
o-Xylene-µg/L		0001724-05		100	111	111.%

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Anions

Order#: G0203359

BLANK						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery RPD
Bicarbonate Alkalinity-mg/L		0001737-01			<2.00	
Carbonate Alkalinity-mg/L		0001738-01			<0.10	
Chloride-mg/L		0001733-01			<5.00	
Hydroxide Alkalinity-mg/L		0001739-01			<0.10	
SULFATE, 375.4-mg/L		0001741-01			<0.50	
DUPLICATE						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery RPD
Bicarbonate Alkalinity-mg/L		0203354-01	292		293	0.3%
Carbonate Alkalinity-mg/L		0203354-01	0		<0.10	0.0%
Hydroxide Alkalinity-mg/L		0203354-01	0		<0.10	0.0%
SULFATE, 375.4-mg/L		0203355-01	610		610	0.0%
MS						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery RPD
Chloride-mg/L		0203354-01	860	500	1360	100.0%
MSD						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery RPD
Chloride-mg/L		0203354-01	860	500	1360	100.0%
SRM						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery RPD
Bicarbonate Alkalinity-mg/L		0001737-04		0.05	0.0496	99.2%
Carbonate Alkalinity-mg/L		0001738-04		0.05	0.0496	99.2%
Chloride-mg/L		0001733-04		5000	5050	101.0%
Hydroxide Alkalinity-mg/L		0001739-04		0.05	0.0496	99.2%
SULFATE, 375.4-mg/L		0001741-04		50	49.9	99.8%

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Cations

Order#: G0203359

BLANK							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Calcium-mg/L		0001725-02			<0.010		
Magnesium-mg/L		0001725-02			<0.001		
Potassium-mg/L		0001725-02			<0.050		
Sodium-mg/L		0001725-02			<0.010		
DUPLICATE							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Calcium-mg/L		0203354-01	266		264		0.8%
Magnesium-mg/L		0203354-01	106		106		0.0%
Potassium-mg/L		0203354-01	15.4		14.8		4.0%
Sodium-mg/L		0203354-01	303		308		1.6%
SRM							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Calcium-mg/L		0001725-05		2	1.99	99.5%	
Magnesium-mg/L		0001725-05		2	2.06	103.0%	
Potassium-mg/L		0001725-05		2	1.77	88.5%	
Sodium-mg/L		0001725-05		2	1.91	95.5%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Test Parameters

Order#: G0203359

BLANK						
WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Total Dissolved Solids (TDS)-mg/L	0001731-01			<5.00		
DUPLICATE						
WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Total Dissolved Solids (TDS)-mg/L	0203354-01	2680		2760		2.9%

12600 West I-20 East
Odessa, Texas 79763
Phone: 915-563-1800
Fax: 915-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Name: K-6

Project #:

Project Loc: EME 3WD

PO#: 776

Fax No: (505) 397-1471

Sampler Signature: Kevin J. Farrell

[illegible]



ENVIRONMENTAL PLUS, INC.

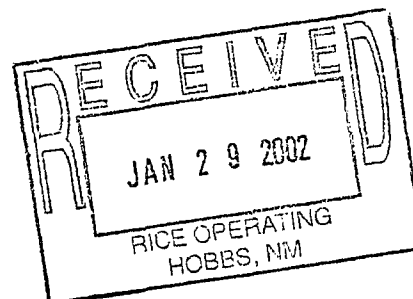
Micro-Blaze

Micro-Blaze Out™

STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES

January 25, 2002

Mr. Donnie Anderson
Rice Operating Company
122 West Taylor
Hobbs, New Mexico 88240



Subject: Monument EME K-6 Monitor Well Sampling

Dear Mr. Anderson,

Included below is the information for the Monument EME K-6 monitor well sampled by Environmental Plus, Inc. on 1-24-02.

RICE OPERATING T20S R37E MONUMENT EME K-6						
MONITOR WELL ID	DATE	WELL CASING INSIDE DIAMETER INCHES	WATER LEVEL FROM TOP OF CASING FEET	TOTAL DEPTH FROM TOP OF CASING FEET	BORE WATER VOLUME GALLONS	PURGE VOLUME GALLONS
MWI	1/25/2002	2	37.2	43.5	1.0	3.1

If you have any questions or require more information please call Mr. Ben Miller or myself at the office or at 505.390.0288 or 505.390.7864, respectively.

Sincerely,

Pat McCasland
EPI Technical Services Manager

cc: Ben Miller, EPI Vice President and General Manager
Sherry Miller, EPI President
file

ENVIRONMENTAL PLUS, INC.



ARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

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

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

Receiving Date: 01/25/02
Reporting Date: 01/30/02
Project Number: EME-K-6
Project Name: EME-K-6
Project Location: 20S R37E

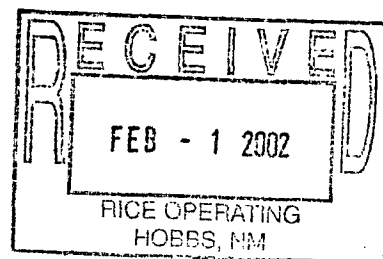
Sampling Date: 01/25/02
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: HM/AH

LAB NUMBER	SAMPLE ID	TDS (mg/L)	CI (mg/L)
ANALYSIS DATE:		01/30/02	01/28/02
H6464-1	WROEMEK612502MW	23370	12096
Quality Control		NR	1039
True Value QC		NR	1000
% Recovery		NR	104
Relative Percent Difference		5.1	1.0

METHODS: EPA 600/4-79-02	160.1	4500-Cl'B*
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*notified
of this impact*

*Std. Methods



Amy Hill
Chemist

1-30-02
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.



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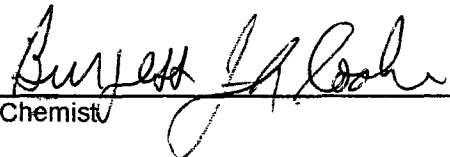
ANALYTICAL RESULTS FOR
RICE OPERATING CO.
ATTN: DONNIE ANDERSON
122 W. TAYLOR
HOBBS, NM 88240
FAX TO: (505) 397-1471

Receiving Date: 01/25/02
Reporting Date: 01/30/02
Project Number: EME-K-6
Project Name: EME-K-6
Project Location: 20S R37E

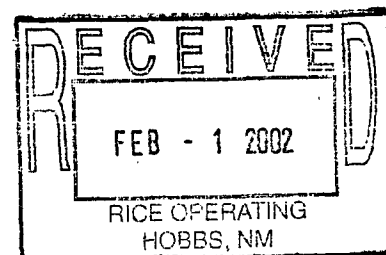
Sampling Date: 01/25/02
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: BC

LAB NUMBER	SAMPLE ID	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL BENZENE (mg/L)	TOTAL XYLENES (mg/L)
ANALYSIS DATE		01/25/02	01/25/02	01/25/02	01/25/02
H6464-1	WROEMEK612502MW	<0.002	<0.002	0.002	0.006
Quality Control		0.111	0.107	0.109	0.314
True Value QC		0.100	0.100	0.100	0.300
% Recovery		111	107	109	105
Relative Percent Difference		8.2	3.8	5.6	4.2

METHOD: EPA SW-846 8260


Chemist

1/30/02
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.

H6464B.XLS

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page _____ of _____

ANALYSIS REQUEST

Company: Rice Operating

Address: 12211bs- Taylors

Project Name:	EN5-K-6
eng. revision	
date	11/10/08

Sampler Name: 25-118-271

Phone #: 505-393-9174

MATRIX	PRESERV	SAMPLING

Sample I.D.

30 days past due at the rate of 24% per annum from the original date of invoice, and all costs of collection, including attorney's fees.

Terms and Conditions: Interest will be charged on all amounts owed from 30 days past due at the rate of 30% per annum from the original date of invoice, and all costs of collection, including attorney's fees.

and all kinds of entertainments, including attorney's fees.

Cell Phone: _____

Officer #:
