

AP - 59

F-35

**ANNUAL GW MONITORING
REPORT**

**DATE:
2002**

RICE Operating Company

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

AP-54
F-35 Annual GW Mon.
Report
2002

CERTIFIED MAIL

RETURN RECEIPT NO. 7002 2410 0000 4940 0827

April 1, 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 07 2003

ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION

**RE: 2002 MONITOR WELL REPORT/SAMPLING SUMMARY
VACUUM SWD SYSTEM
SEC. 35, T17S, R35E**

Mr. Olson:

Rice Operating Company (ROC) takes this opportunity to submit the 2002 Monitor Well Report for the Vacuum Salt Water Disposal System. There are 2 sites in this system that have monitor wells that are sampled quarterly pursuant to NMOCD guidelines. These groundwater impacts became evident during the removal of redwood tanks.

Site Name	Unit Letter	Section	Township/Range
F-35	F	35	T17S, R35E
G-35	G	35	T17S, R35E

First quarter monitor well sampling events of 2002 were conducted by Environmental Plus, Inc. of Eunice. Cardinal Laboratory of Hobbs performed the water analysis. ROC performed the remainder of the sampling for the 2002 year. These samples were analyzed by Environmental Lab of Texas, of Odessa.

In 2003, ROC will continue to sample these monitor wells with Environmental Lab of Texas providing the water analysis. Closure advancement for the F-35 and G-35 sites is currently suspended due to System Partner negotiations.

ROC is the service provider (operator) for the Vacuum Salt Water Disposal System and has not ownership of any portion of pipeline, well, or facility. The Vacuum 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, Chris Williams
 NMOCD, District I Office
 1625 N. French Drive
 Hobbs, NM 88240

DRILLING LOG		Site Name/Location		Logged by F. Root	
RICE Operating Company 122 West Taylor Hobbs, New Mexico 88240 Phone: (505) 393-9174 Fax: (505) 397-1471		F-36 SWD Facility 35-T17S-R35E Vacuum SWD System Lea County, NM		Well No: MW1	Date Drilled: 1/10/02
		Well Depth: 63'	Boring Depth: 63'	Well Material: PVC	Construction: Sand and bentonite above screen.
		Casing Length: 63'	Boring Diameter: 4.5"	Casing Size: 2"	
		Screen Length: 15'	Drilling Method: Air Rotary	Slot Size: N/A	
TEST					
DEPTH	SUBSURFACE LITHOLOGY	SAMPLE TYPE	(ppm)	REMARKS	Boring
0	Ground surface		CI		
1	Top Soil				
2					
3	Caliche				
4					
5					
6					
7					
8					
9					
10		Grab	190	Field Test Strong TPH odor	
11					
12	Caliche and sand				
13					
14					
15		Grab	340	Field Test Strong TPH odor	
16					
17					
18	Sandstone				
19					
20		Grab	290	Field Test Strong TPH odor	
21	Sand and sandstone stringers				
22					
23					
24					
25		Grab	630	Field Test Strong TPH odor	cuttings
26					
27					
28					
29					
30		Grab	1260	Field Test Strong TPH odor	
31					
32					
33					
34					
35					
36					
37					
38					
39					
40		Grab	1240	Field Test Strong TPH odor	
41					
42					
43					
44					
45					
46					
47					
48					
49					
50		Grab	1070	Field Test Strong TPH odor	
51					
52					
53					
54					
55		Grab	490	Field Test Strong TPH odor	
56					
57					
58					
59					
60					
61					
62					
63					

Water sample taken 1/10/02 results: Chlorides 5200 ppm, TDS 9425 ppm, Benzene 50 ppb.

Vacuum F-35 (west Buckeye)
F, 35, 17S, 35E SWD facility

Rice Operating Co. Monitor Well Data Sheet

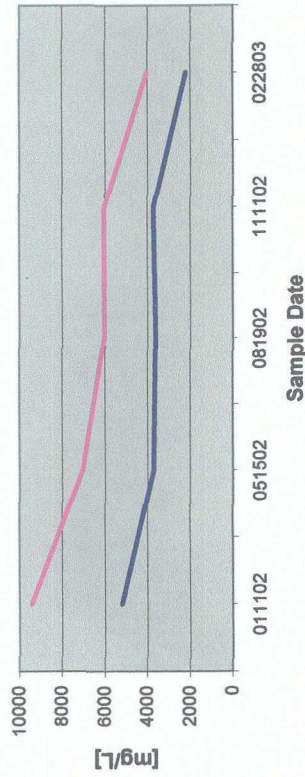
All parameter concentrations are in mg/L.

MW #	WATER LEVEL (ft)	TOTAL DEPTH (ft)	WELL VOLUME	VOLUME BAILED	SAMPLE DATE	TIME	CL-	TDS	BENZENE	TOLUENE	ETHYL BENZENE	TOTAL XYLENES
1	58.00	66.00	1.300	3.90	011102	1455	5200	9425	0.050	0.053	0.050	0.090
1	57.78	65.62	1.250	4.25	051502	1330	3720	7050	0.744	0.510	0.207	0.309
1	57.91	65.22	1.170	5.50	081902	1125	3630	6040	0.705	0.112	0.172	0.076
1	57.90	64.89	1.118	3.70	111102	1015	3720	6020	1.210	0.835	0.343	0.431
1	57.90	64.28	1.020	3.00	022803	1330	2200	4040	0.909	0.840	0.321	0.374

greenish-gray; TPH odor

Vacuum F-35 Monitor Well #1

— Chlorides — Total Dissolved Solids (TDS)



ANALYTICAL REPORT

Prepared for:

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

Project: Vac F-35

PO#:

Order#: G0305852

Report Date: 03/05/2003

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#: G0305852
Project:
Project Name: Vac F-35
Location: Vacuum

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>
0305852-01	MW 1	WATER	2/28/03	2/28/03 19:40	See COC	See COC
	<u>Lab Testing:</u>	Rejected: No		Temp: 3.5 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#: G0305852
Project:
Project Name: Vac F-35
Location: Vacuum

Lab ID: 0305852-01

Sample ID: MW 1

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0004817-02		3/4/03 10:20	1	5	CK	8021B

Parameter	Result mg/L	RL
Benzene	0.909	0.005
Toluene	0.840	0.005
Ethylbenzene	0.321	0.005
p/m-Xylene	0.250	0.005
o-Xylene	0.124	0.005

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

Raland K. Tuttle 3-05-03

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

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

Order#: G0305852
Project:
Project Name: Vac F-35
Location: Vacuum

Lab ID: 0305852-01

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	441	mg/L	1	2.00	310.1	3/3/03	SB
Carbonate Alkalinity	<0.10	mg/L	1	0.10	310.1	3/3/03	SB
Chloride	2200	mg/L	1	5.00	9253	3/3/03	SB
Hydroxide Alkalinity	<0.10	mg/L	1	0.10	310.1	3/3/03	SB
SULFATE, 375.4	26.2	mg/L	1	0.5	375.4	3/4/03	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	81.1	mg/L	10	0.10	6010B	3/3/03	SM
Magnesium	29.6	mg/L	10	0.010	6010B	3/3/03	SM
Potassium	6.41	mg/L	10	0.50	6010B	3/3/03	SM
Sodium	1200	mg/L	1000	10.0	6010B	3/3/03	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)	4040	mg/L	1	5.0	160.1	3/3/03	TAL

Approval: Raland K. Tuttle 3-05-03

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#: G0305852

BLANK	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
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	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
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	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
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	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
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#: G0305852

BLANK						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery RPD
Bicarbonate Alkalinity-mg/L		0004837-01			<2.00	
Carbonate Alkalinity-mg/L		0004833-01			<0.10	
Chloride-mg/L		0004836-01			<5.00	
Hydroxide Alkalinity-mg/L		0004834-01			<0.10	
SULFATE, 375.4-mg/L		0004835-01			<0.50	
DUPLICATE						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery RPD
Bicarbonate Alkalinity-mg/L		0305850-01	440		441	0.2%
Carbonate Alkalinity-mg/L		0305850-01	0		<0.10	0.0%
Hydroxide Alkalinity-mg/L		0305850-01	0		<0.10	0.0%
SULFATE, 375.4-mg/L		0305850-01	501		493	1.6%
MS						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery RPD
Chloride-mg/L		0305850-01	3470	1000	4450	98.0%
MSD						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery RPD
Chloride-mg/L		0305850-01	3470	1000	4470	100.0% 0.4%
SRM						
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery RPD
Bicarbonate Alkalinity-mg/L		0004837-04		0.05	0.0496	99.2%
Carbonate Alkalinity-mg/L		0004833-04		0.05	0.0496	99.2%
Chloride-mg/L		0004836-04		5000	4960	99.2%
Hydroxide Alkalinity-mg/L		0004834-04		0.05	0.0496	99.2%
SULFATE, 375.4-mg/L		0004835-04		50	48.9	97.8%

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Cations

Order#: G0305852

BLANK		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Calcium-mg/L		0004810-01			<0.010		
Magnesium-mg/L		0004810-01			<0.001		
Potassium-mg/L		0004810-01			<0.050		
Sodium-mg/L		0004810-01			<0.010		
DUPLICATE		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Calcium-mg/L		0305851-01	95.8		98.8		3.1%
Magnesium-mg/L		0305851-01	54.3		53.5		1.5%
Potassium-mg/L		0305851-01	9.4		9.42		0.2%
Sodium-mg/L		0305851-01	265		261		1.5%
SRM		LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
	WATER						
Calcium-mg/L		0004810-04		2	2.08	104.%	
Magnesium-mg/L		0004810-04		2	2.22	111.%	
Potassium-mg/L		0004810-04		2	1.72	86.%	
Sodium-mg/L		0004810-04		2	1.79	89.5%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Test Parameters

Order#: G0305852

BLANK	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Total Dissolved Solids (TDS)-mg/L		0004824-01			<5.0		
DUPLICATE	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Total Dissolved Solids (TDS)-mg/L		0305850-01	6870		6880		0.1%

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

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager:

Kristin Farris

Company Name

RICE Operating

Company Address:

122 W. Taylor

City/State/Zip:

H/0665, NM 88240

Telephone No. (505) 393-9174

Fax No: (505) 397-1471

Sampler Signature:

For Exh 1

Fax No: (505) 397-1471

[illegible]

ANALYTICAL REPORT

Prepared for:

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

Project: F-35 SWD
PO#: 570
Order#: G0204999
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#: G0204999
Project:
Project Name: F-35 SWD
Location: Vacuum

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>
0204999-01	MW 1	WATER	11/11/02 10:15	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#: G0204999
Project:
Project Name: F-35 SWD
Location: Vacuum

Lab ID: 0204999-01
Sample ID: MW 1

8021B/5030 BTEX

Method	Date	Date	Sample	Dilution		
Blank	Prepared	Analyzed	Amount	Factor	Analyst	Method
0003799-02		11/18/02 18:50	1	5	CK	8021B

Parameter	Result mg/L	RL
Benzene	1.21	0.005
Ethylbenzene	0.343	0.005
Toluene	0.835	0.005
p/m-Xylene	0.293	0.005
o-Xylene	0.138	0.005

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	113%	80	120
Bromofluorobenzene	108%	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

Raland K. Tuttle 11-19-02

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

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

Order#: G0204999
Project:
Project Name: F-35 SWD
Location: Vacuum

Lab ID: 0204999-01
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	512	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	3720	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	2.8	mg/L	1	0.5	375.4	11/14/02	SB

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)	6020	mg/L	1	5.0	160.1	11/13/02	TAL

Approval:

Raland K. Tuttle 11-19-02

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#: G0204999
Project:
Project Name: F-35 SWD
Location: Vacuum

Lab ID: 0204999-01
Sample ID: MW 1

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>Prepared</u>	<u>Date</u> <u>Analyzed</u>	<u>Analyst</u>
Calcium	171	mg/L	100	1.0	6010B	11/15/2002	11/15/02	SM
Magnesium	6.77	mg/L	10	0.010	6010B	11/15/2002	11/15/02	SM
Potassium	11.0	mg/L	10	0.50	6010B	11/15/2002	11/15/02	SM
Sodium	1940	mg/L	1000	10.0	6010B	11/15/2002	11/15/02	SM

Approval:

Raland K Tuttle 11-19-02

Raland K. Tuttle, Lab Director, QA Officer Date

Celey D. Keene, Org. Tech. Director

Jeanne McMurrey, Inorg. Tech. Director

Sandra Biczugbe, Lab Tech.

Sara Molina, Lab Tech.

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8021B/5030 BTEX

Order#: G0204999

BLANK	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
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	RPD
Benzene-mg/L		0003799-03		0.1	0.099	99.%	
Ethylbenzene-mg/L		0003799-03		0.1	0.103	103.%	
Toluene-mg/L		0003799-03		0.1	0.102	102.%	
p/m-Xylene-mg/L		0003799-03		0.2	0.218	109.%	
o-Xylene-mg/L		0003799-03		0.1	0.105	105.%	
CONTROL DUP	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/L		0003799-04		0.1	0.098	98.%	1.%
Ethylbenzene-mg/L		0003799-04		0.1	0.102	102.%	1.%
Toluene-mg/L		0003799-04		0.1	0.101	101.%	1.%
p/m-Xylene-mg/L		0003799-04		0.2	0.215	107.5%	1.4%
o-Xylene-mg/L		0003799-04		0.1	0.104	104.%	1.%
SRM	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/L		0003799-05		0.1	0.101	101.%	
Ethylbenzene-mg/L		0003799-05		0.1	0.104	104.%	
Toluene-mg/L		0003799-05		0.1	0.103	103.%	
p/m-Xylene-mg/L		0003799-05		0.2	0.219	109.5%	
o-Xylene-mg/L		0003799-05		0.1	0.106	106.%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Anions

Order#: G0204999

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%
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#: G0204999

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#: G0204999

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%

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

Company Name

RICE Operating

Company Address:

122 W. Taylor

City/State/Zip:

H/0665, NM 88240

Telephone No. (505) 393-9174

Fax No: (505) 397-1471

Sampler Signature:

Kristin Ford

[illegible]

ANALYTICAL REPORT

Prepared for:

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

F-35

Project: MW 1
PO#: 570
Order#: G0204265
Report Date: 08/27/2002

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#: G0204265
Project:
Project Name: MW 1
Location: Vacuum F-35

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>
0204265-01	MW 1	WATER	8/19/02 11:25	8/19/02 19:55	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#: G0204265
Project:
Project Name: MW 1
Location: Vacuum F-35

Lab ID: 0204265-01
Sample ID: MW 1

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>
0002969-02		8/26/02 21:35	1	10	CK	8021B

Parameter	Result mg/L	RL
Benzene	0.705	0.010
Ethylbenzene	0.172	0.010
Toluene	0.112	0.010
p/m-Xylene	0.027	0.010
o-Xylene	0.049	0.010

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	102%	73	115
Bromofluorobenzene	105%	72	110

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

8-28-02

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

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

Order#: G0204265
Project:
Project Name: MW 1
Location: Vacuum F-35

Lab ID: 0204265-01
Sample ID: MW 1

Anions

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Bicarbonate Alkalinity	490	mg/L	1	2.00	310.1	8/20/02	SB
Carbonate Alkalinity	<0.10	mg/L	1	0.10	310.1	8/20/02	SB
Chloride	3630	mg/L	1	5.00	9253	8/20/02	SB
Hydroxide Alkalinity	<0.10	mg/L	1	0.10	310.1	8/20/02	SB
SULFATE, 375.4	10.7	mg/L	1	0.5	375.4	8/21/02	SB

Cations

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Calcium	97.8	mg/L	10	0.10	6010B	8/22/02	SM
Magnesium	40.7	mg/L	10	0.010	6010B	8/22/02	SM
Potassium	25.8	mg/L	10	0.50	6010B	8/22/02	SM
Sodium	2590	mg/L	1000	10.0	6010B	8/22/02	SM

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Total Dissolved Solids (TDS)	6040	mg/L	1	5.0	160.1	8/20/02	SB

Approval:

Raland K. Tuttle 8-29-02
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.

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8021B/5030 BTEX

Order#: G0204265

BLANK							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/L		0002969-02			<0.001		
Ethylbenzene-mg/L		0002969-02			<0.001		
Toluene-mg/L		0002969-02			<0.001		
p/m-Xylene-mg/L		0002969-02			<0.001		
o-Xylene-mg/L		0002969-02			<0.001		
MS							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/L		0204252-01	0	0.1	0.097	97.%	
Ethylbenzene-mg/L		0204252-01	0	0.1	0.098	98.%	
Toluene-mg/L		0204252-01	0	0.1	0.099	99.%	
p/m-Xylene-mg/L		0204252-01	0	0.2	0.205	102.5%	
o-Xylene-mg/L		0204252-01	0	0.1	0.098	98.%	
MSD							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/L		0204252-01	0	0.1	0.091	91.%	6.4%
Ethylbenzene-mg/L		0204252-01	0	0.1	0.092	92.%	6.3%
Toluene-mg/L		0204252-01	0	0.1	0.093	93.%	6.3%
p/m-Xylene-mg/L		0204252-01	0	0.2	0.192	96.%	6.5%
o-Xylene-mg/L		0204252-01	0	0.1	0.092	92.%	6.3%
SRM							
	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/L		0002969-05		0.1	0.094	94.%	
Ethylbenzene-mg/L		0002969-05		0.1	0.094	94.%	
Toluene-mg/L		0002969-05		0.1	0.095	95.%	
p/m-Xylene-mg/L		0002969-05		0.2	0.196	98.%	
o-Xylene-mg/L		0002969-05		0.1	0.094	94.%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Anions

Order#: G0204265

BLANK	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Bicarbonate Alkalinity-mg/L		0002909-01			<2.00		
Carbonate Alkalinity-mg/L		0002910-01			<0.10		
Chloride-mg/L		0002908-01			<5.00		
Hydroxide Alkalinity-mg/L		0002911-01			<0.10		
SULFATE, 375.4-mg/L		0002932-01			<0.50		
DUPLICATE	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Bicarbonate Alkalinity-mg/L		0204265-01	490		490		0.0%
Carbonate Alkalinity-mg/L		0204265-01	0		<0.10		0.0%
Hydroxide Alkalinity-mg/L		0204265-01	0		<0.10		0.0%
SULFATE, 375.4-mg/L		0204251-01	256		255		0.4%
MS	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/L		0204259-01	111	250	359	99.2%	
MSD	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/L		0204259-01	111	250	354	97.2%	1.4%
SRM	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Bicarbonate Alkalinity-mg/L		0002909-04		0.05	.0496	99.2%	
Carbonate Alkalinity-mg/L		0002910-04		0.05	0.0496	99.2%	
Chloride-mg/L		0002908-04		5000	4960	99.2%	
Hydroxide Alkalinity-mg/L		0002911-04		0.05	0.0496	99.2%	
SULFATE, 375.4-mg/L		0002932-04		50	49.5	99.0%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Cations

Order#: G0204265

BLANK	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Calcium-mg/L		0002943-02			<0.01		
Magnesium-mg/L		0002943-02			<0.001		
Potassium-mg/L		0002943-02			<0.05		
Sodium-mg/L		0002943-02			<0.01		
DUPLICATE	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Calcium-mg/L		0204220-04	100		99.5		0.5%
Magnesium-mg/L		0204220-04	13.7		13.5		1.5%
Potassium-mg/L		0204220-04	5.48		5.4		1.5%
Sodium-mg/L		0204220-04	78.8		78.7		0.1%
SRM	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Calcium-mg/L		0002943-05		2	2.02	101.%	
Magnesium-mg/L		0002943-05		2	1.91	95.5%	
Potassium-mg/L		0002943-05		2	1.94	97.%	
Sodium-mg/L		0002943-05		2	2	100.%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Test Parameters

Order#: G0204265

BLANK	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Total Dissolved Solids (TDS)-mg/L		0002931-01			<5.00		
DUPLICATE	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Total Dissolved Solids (TDS)-mg/L		0204259-01	619		606		2.1%

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

p. 2

ANALYTICAL REPORT

Prepared for:

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

Project: F-35
Order#: G0203375
Report Date: 05/21/2002

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#: G0203375
Project:
Project Name: F-35
Location: Vacuum 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>
0203375-01	MW 1	WATER	5/15/02 13:30	5/16/02 19:45	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

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

Order#: G0203375
Project:
Project Name: F-35
Location: Vacuum SWD

Lab ID: 0203375-01

Sample ID: MW 1

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0001761-02		5/20/02 14:54	1	1	CK	8021B

Parameter	Result mg/L	RL
Benzene	0.744	0.001
Ethylbenzene	0.207	0.001
Toluene	0.510	0.001
p/m-Xylene	0.191	0.001
o-Xylene	0.118	0.001

Approval: Raland K. Tuttle 5-22-02
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#: G0203375
Project:
Project Name: F-35
Location: Vacuum SWD

Lab ID: 0203375-01
Sample ID: MW 1

Anions

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Bicarbonate Alkalinity	503	mg/L	1	2.00	310.1	5/17/02	SB
Carbonate Alkalinity	<0.10	mg/L	1	0.10	310.1	5/17/02	SB
Chloride	3720	mg/L	1	5.00	9253	5/17/02	SB
Hydroxide Alkalinity	<0.10	mg/L	1	0.10	310.1	5/17/02	SB
SULFATE, 375.4	3.20	mg/L	1	0.50	375.4	5/17/02	SB

Cations

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Calcium	240	mg/L	50	0.500	6010B	5/17/02	SM
Magnesium	93.4	mg/L	50	0.050	6010B	5/17/02	SM
Potassium	13.3	mg/L	10	0.500	6010B	5/17/02	SM
Sodium	2120	mg/L	500	5.00	6010B	5/17/02	SM

Test Parameters

Parameter	Result	Units	Dilution Factor	RL	Method	Date Analyzed	Analyst
Total Dissolved Solids (TDS)	7050	mg/L	1	5.0	160.1	5/17/02	SB

Approval:

Raland K. Tuttle 5-22-02
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

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8021B/5030 BTEX

Order#: G0203375

BLANK	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/L		0001761-02			<0.001		
Ethylbenzene-mg/L		0001761-02			<0.001		
Toluene-mg/L		0001761-02			<0.001		
p/m-Xylene-mg/L		0001761-02			<0.001		
o-Xylene-mg/L		0001761-02			<0.001		
MS	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/L		0203378-01	0	0.1	0.104	104.%	
Ethylbenzene-mg/L		0203378-01	0	0.1	0.104	104.%	
Toluene-mg/L		0203378-01	0	0.1	0.105	105.%	
p/m-Xylene-mg/L		0203378-01	0	0.2	0.210	105.%	
o-Xylene-mg/L		0203378-01	0	0.1	0.104	104.%	
MSD	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/L		0203378-01	0	0.1	0.101	101.%	2.9%
Ethylbenzene-mg/L		0203378-01	0	0.1	0.101	101.%	2.9%
Toluene-mg/L		0203378-01	0	0.1	0.103	103.%	1.9%
p/m-Xylene-mg/L		0203378-01	0	0.2	0.205	102.5%	2.4%
o-Xylene-mg/L		0203378-01	0	0.1	0.101	101.%	2.9%
SRM	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/L		0001761-05		0.1	0.102	102.%	
Ethylbenzene-mg/L		0001761-05		0.1	0.102	102.%	
Toluene-mg/L		0001761-05		0.1	0.104	104.%	
p/m-Xylene-mg/L		0001761-05		0.2	0.208	104.%	
o-Xylene-mg/L		0001761-05		0.1	0.102	102.%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Anions

Order#: G0203375

BLANK	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Bicarbonate Alkalinity-mg/L		0001754-01			<2.00		
Carbonate Alkalinity-mg/L		0001755-01			<0.10		
Chloride-mg/L		0001753-01			<5.00		
Hydroxide Alkalinity-mg/L		0001756-01			<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		0203375-01	503		505		0.4%
Carbonate Alkalinity-mg/L		0203375-01	0		<0.10		0.0%
Hydroxide Alkalinity-mg/L		0203375-01	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		0203375-01	3720	5000	8600	97.6%	
MSD	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/L		0203375-01	3720	5000	8680	99.2%	0.9%
SRM	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Bicarbonate Alkalinity-mg/L		0001754-04		0.05	0.0496	99.2%	
Carbonate Alkalinity-mg/L		0001755-04		0.05	0.0496	99.2%	
Chloride-mg/L		0001753-04		5000	5050	101.0%	
Hydroxide Alkalinity-mg/L		0001756-04		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#: G0203375

BLANK	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Calcium-mg/L		0001757-02			<0.01		
Magnesium-mg/L		0001757-02			<0.001		
Potassium-mg/L		0001757-02			<0.05		
Sodium-mg/L		0001757-02			<0.01		
DUPLICATE	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Calcium-mg/L		0203375-01	240		258		7.2%
Magnesium-mg/L		0203375-01	93.4		96.4		3.2%
Potassium-mg/L		0203375-01	13.4		13.5		0.7%
Sodium-mg/L		0203375-01	2120		1970		7.3%
SRM	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Calcium-mg/L		0001757-05		2	2.06	103.%	
Magnesium-mg/L		0001757-05		2	2.11	105.5%	
Potassium-mg/L		0001757-05		2	2.07	103.5%	
Sodium-mg/L		0001757-05		2	2.1	105.%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

Test Parameters

Order#: G0203375

BLANK	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Total Dissolved Solids (TDS)-mg/L		0001760-01			<5.00		
DUPLICATE	WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Total Dissolved Solids (TDS)-mg/L		0203376-01	3260		3580		9.4%

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

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager:

~~Breanna~~ Kristin Farris

Company Name

Rice Operating

Company Address:

22 W. Taylor

City/State/Zip:

Hobbs NM 88246

Telephone No:

605) 393-9174
Fax No. (505) 397-1471

Sampler Signature:

Kristin Jarvis

Project Name:

E-35

Project #:

Project Loc:

PO#:

570

Fax No. (505) 397-1471

Christie Davis

[illegible]



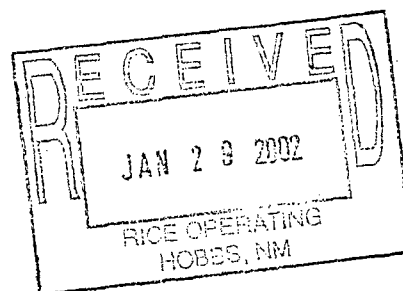
ENVIRONMENTAL PLUS, INC.
STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES

Micro-Blaze

Micro-Blaze One™

January 25, 2002

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



Subject: Buckeye Vacuum System Monitor Well Sampling

Dear Mr. Anderson,

Included below is the information for the Buckeye Vacuum System monitor wells sampled and measured by Environmental Plus, Inc. on 1-10-02.

RICE OPERATING BUCKEYE VACUUM SYSTEM MONITOR WELLS						
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
F-35	1/10/2002	2	58.00	66.00	1.3	3.9
G-35	1/10/2002	2	53.55	64.30	1.8	5.3

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.



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:

Receiving Date: 01/11/02
Reporting Date: 01/16/02
Project Owner: RICE OPERATING CO.
Project Name: BUCKEYE (WEST) F-35
Project Location: NOT GIVEN

Sampling Date: 01/10/02
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: AH
Analyzed By: HM

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

ANALYSIS DATE:	01/16/02	01/15/02	01/15/02	01/15/02	01/15/02	01/15/02	01/15/02
H6427-1 R011002BWMW	2339	670	225	18.5	14986	380	
Quality Control	NR	55.0	48.6	5.27	1489	NR	
True Value QC	NR	50.0	50.0	5.00	1413	NR	
% Recovery	NR	110	97.2	105	105	NR	
Relative Percent Difference	NR	0	6.0	0	0.3	NR	

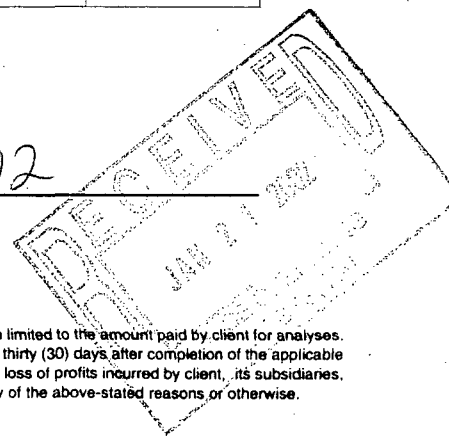
METHODS:	SM3500-Ca-D	3500-Mg E	8049	120.1	310.1		
----------	-------------	-----------	------	-------	-------	--	--

	Cl ⁻ (mg/L)	SO ₄ (mg/L)	CO ₃ (mg/L)	HCO ₃ (mg/L)	pH (s.u.)	TDS (mg/L)	
ANALYSIS DATE:	01/15/02	01/15/02	01/15/02	01/15/02	01/15/02	01/15/02	01/15/02
H6427-1 R011002BWMW	5200	5	0	464	7.25	9425	
Quality Control	1040	52.66	NR	984	7.00	NR	
True Value QC	1000	50.00	NR	1000	7.00	NR	
% Recovery	104	105	NR	98.4	100	NR	
Relative Percent Difference	1.0	0.6	NR	2.7	0.1	NR	

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

Amy Hill
Chemist

1-16-02
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.

H6427A.XLS



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

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

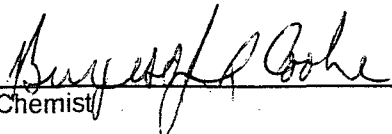
ANALYTICAL RESULTS FOR
RICE OPERATING CO.
ATTN: DONNIE ANDERSON
122 W. TAYLOR
HOBBS, NM 88240
FAX TO:

Receiving Date: 01/11/02
Reporting Date: 01/12/02
Project Owner: RICE OPERATING CO.
Project Name: BUCKEYE (WEST)
Project Location: NOT GIVEN

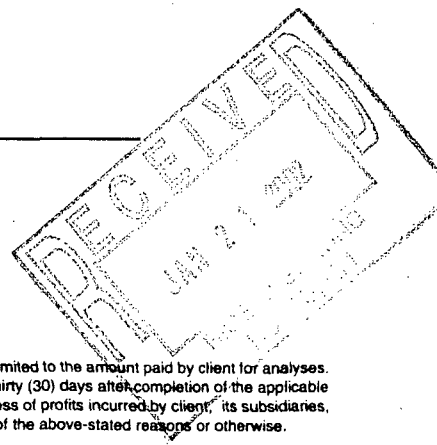
Sampling Date: 01/10/02
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: AH
Analyzed By: BC

LAB NUMBER	SAMPLE ID	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL BENZENE (mg/L)	TOTAL XYLENES (mg/L)
ANALYSIS DATE		01/11/02	01/11/02	01/11/02	01/11/02
H6427-1	R011002BWMW	0.050	0.053	0.050	0.090
Quality Control		0.100	0.104	0.108	0.314
True Value QC		0.100	0.100	0.100	0.300
% Recovery		99.9	104	108	105
Relative Percent Difference		1.6	2.8	2.2	1.9

METHOD: EPA SW-846 8260


Chemist

1/13/02
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.

H6427B.XLS

2111 Beechwood, Abilene, TX 79603

101 East Marland, Hobbs, NM 88240
505-393-2326 Fax 505-393-2476

[illegible]

Price, Wayne

From: Price, Wayne
Sent: Saturday, November 17, 2001 3:58 PM
To: 'riceswd@leaco.net'
Cc: Sheeley, Paul; Johnson, Larry
Subject: Redwood Tank and Pit closures

Contacts: Carolyn Doran Haynes

The OCD is in receipt of the following closure plans and have assigned them the following case numbers. Please provide final closure reports for OCD approval for these sites by June 30, 2002.

M-33 OCD Case # 1R0329
F-35 OCD Case # 1R0330
M-9 OCD Case # 1R0331
G-35 OCD Case # 1R0332
H-2 OCD Case # 1R0333

Tracking:

Recipient

'riceswd@leaco.net'

Sheeley, Paul

Johnson, Larry

Delivery

Delivered: 11/17/01 3:58 PM

Delivered: 11/17/01 3:58 PM