

**AP - 43**

**ANNUAL  
MONITORING REPORT**

**YEAR(S):**

**2007**



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ARCADIS U.S., Inc.  
1004 North Big Spring Street  
Suite 300  
Midland  
Texas 79701  
Tel 432 687 5400  
Fax 432 687 5401  
www.arcadis-us.com

Sent Certified mail  
Return Receipt No. 7002 2410 0001 5813 3562

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

Environmental

Subject: **2007 MONITOR WELL REPORT/SAMPLING SUMMARY**  
**JCT. A-20, EME SWD SYSTEM**  
**UNIT 'A', SEC. 20, T20S, R37E**  
**NMOCD CASE # AP-43 (formerly 1R0427-89)**

Date:  
28 February 2008

Contact:  
Sharon E. Hall

Phone:  
432 687-5400

Email:  
shall@arcadis-us.com

Our ref:  
MT000857.0001

Dear Mr. Hansen:

On behalf of Rice Operating Company (ROC), ARCADIS U.S., Inc. (ARCADIS) respectfully submits the 2007 Monitor Well Report for the EME Jct. A-20 site located in the Eunice Monument Eumont (EME) Salt Water Disposal (SWD) System.

One monitoring well was installed in 2002 during delineation as part of the Junction Box Upgrade Program.

Soon after the well was installed, phase-separated hydrocarbon (PSH) was found on the water. ROC has actively worked at recovering the PSH in the well by hand bailing or by using an absorbent sock. In September of 2004 Basin Environmental Service Technologies (Basin) assumed the maintenance and weekly replacement of the socks; PSH thickness and volume are measured weekly. Basin will continue weekly recovery in 2008 unless an alternate remedial method is proposed and approved by NMOCD. Product thickness and recovery information is shown in the attached table.

A Stage 1 Abatement Plan was submitted to NMOCD on June 23, 2005 NMOCD approved the Abatement Plan Proposal on February 21, 2006.

On February 28, 2006 monitor wells MW-2 and MW-3 were installed southeast and northwest of the Jct. A-20 and soil and groundwater samples were collected. On

Part of a bigger picture

# ARCADIS

Mr. Ed Hansen  
28 February 2008

May 31, 2006, monitor wells MW-4 and MW-5 were installed southeast and northwest of the Jct. A-20 and soil and groundwater samples were collected. A Stage 1 Abatement Plan Report and Stage 2 Abatement Plan proposal was submitted to NMOCD on January 30, 2007. The report details the investigation and investigation results. NMOCD approval of the Stage 2 Abatement Plan is pending.

All monitor wells are sampled quarterly per NMOCD guidelines. The attached table summarizes the groundwater conditions at the site. 2007 groundwater laboratory reports are also attached.

ROC is the service provider (agent) 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.

Sincerely,  
ARCADIS U.S., Inc.

*Sharon E. Hall*

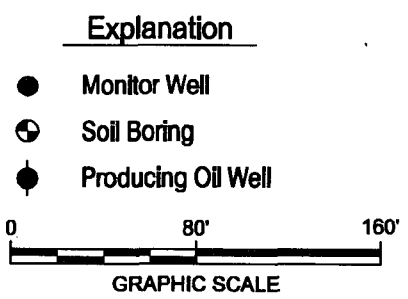
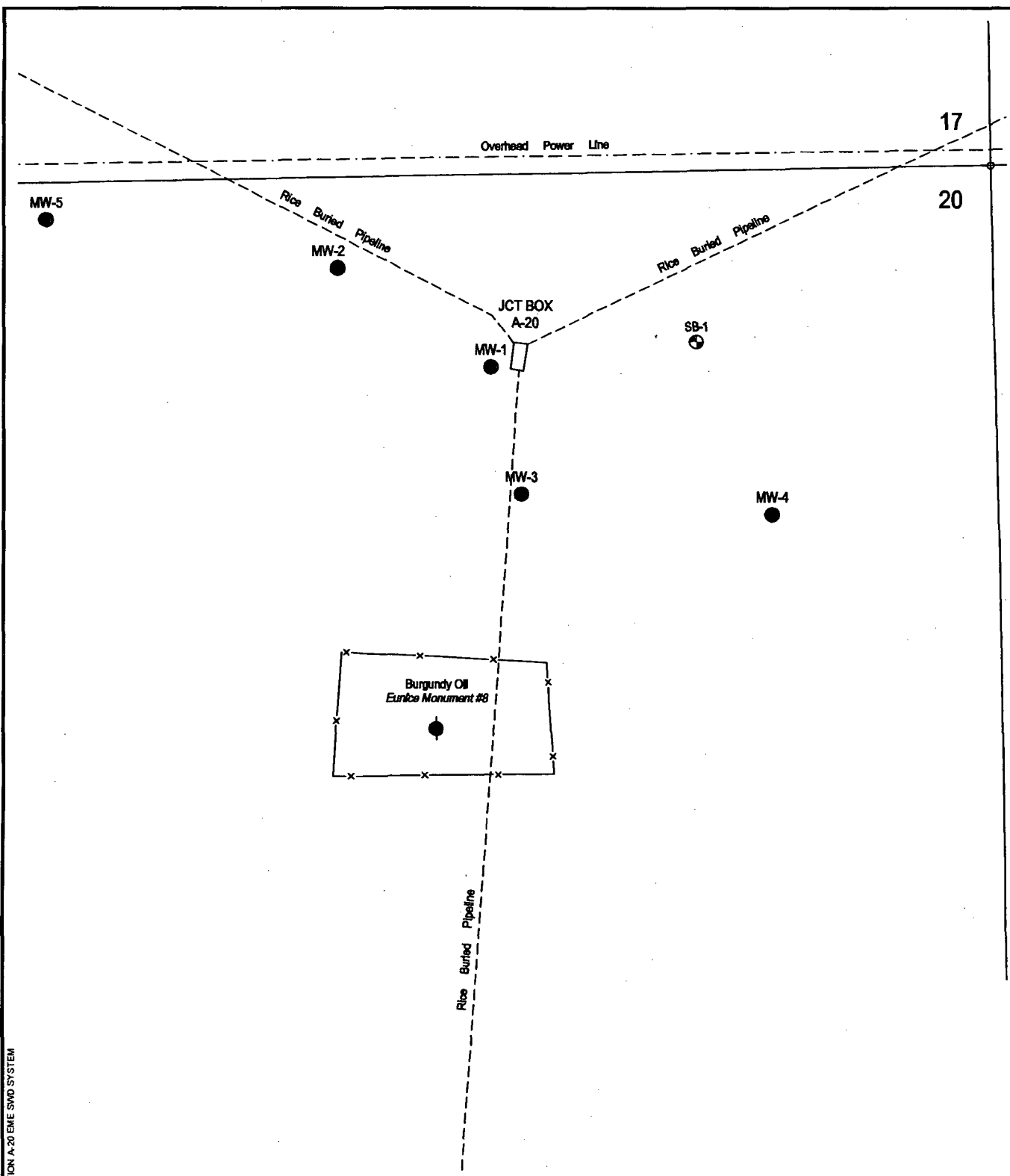
Sharon E. Hall  
Site Evaluation Department Manager

Copies:  
Kristin Farris Pope- ROC (2 copies)

Attachments:  
MW Summary Tables  
Monitor Well Location Figure  
Laboratory Analytical Results

*Use or disclosure of information contained on this sheet is subject to the restriction and disclaimer located on the signature page of this document.*

CITY: MID-TX DIV 85/GROUP: ENV DB: HG LD: PIC: PW: SH: TM: LYR: ON="OFF"="REF" UN: 31-014-09803  
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 XREFS: IMAGES: PROJECTNAME: JUNCTION A-20 EME SWD SYSTEM  
 A-20 MW-1B-1.dwg  
 1B-1B-1.dwg



RICE OPERATING COMPANY LEA COUNTY, NEW MEXICO <b>JUNCTION A-20 EME SWD SYSTEM</b>	
<b>MONITOR WELL AND SOIL BORING LOCATIONS</b>	
<b>ARCADIS</b>	FIGURE <b>1</b>

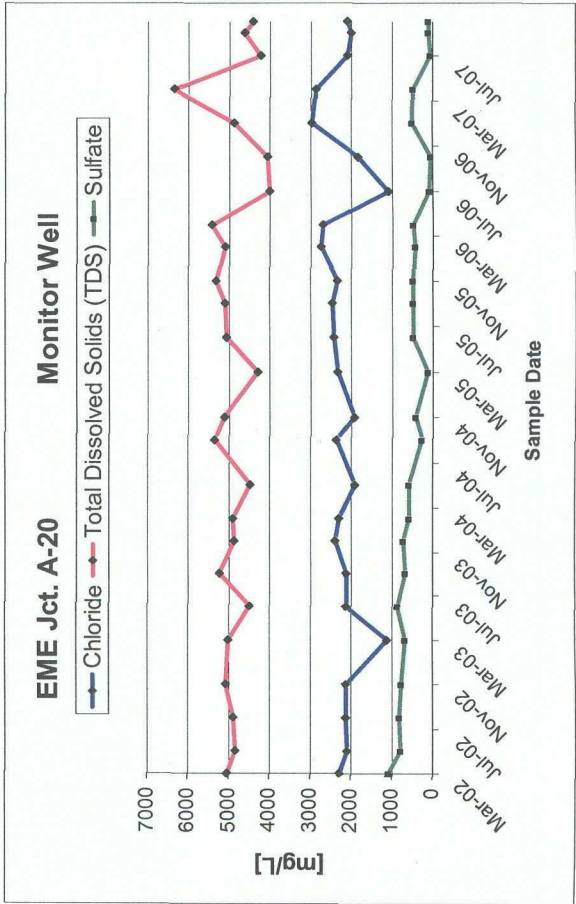
EMIE Jct. A-20  
unit 'A', Sec. 20, T20S, R37E

NMOCDC Case # IR0427-89

All concentrations are in mg/L

MW #	DEPTH TO WATER * (ft)	TOTAL DEPTH	WELL VOLUME (gal)	VOLUME PURGED	SAMPLE DATE	Cl <sup>-</sup>	TDS	BENZENE	TOLUENE	ETHYL BENZENE	TOTAL XYLENES	SULFATE
1	24.70	38.40	2,200	6.70	3/5/02	2279	5044	<0.002	0.003	0.006	0.014	1087
1	25.62	38.22	2,000	6.00	5/13/02	2100	4840	XXX	XXX	XXX	XXX	793
1	26.00	38.25	1,960	6.00	8/22/02	2130	4890	XXX	XXX	XXX	XXX	822
1	24.97	38.25	2,125	6.50	11/12/02	2130	5070	XXX	XXX	XXX	XXX	780
1	26.20	38.00	0.280	0.80	3/14/03	1120	5020	XXX	XXX	XXX	XXX	673
1	23.20	26.00	0.448	1.30	6/5/03	2130	4500	XXX	XXX	XXX	XXX	875
1	23.42	26.00	0.400	1.20	9/3/03	2130	5240	XXX	XXX	XXX	XXX	679
1	23.20	26.00	0.448	1.30	12/10/03	2390	4870	XXX	XXX	XXX	XXX	731
1	25.64	26.50	0.860	2.50	2/26/04	2300	4900	XXX	XXX	XXX	XXX	588
1	23.02	26.00	0.448	1.30	5/27/04	1910	4480	XXX	XXX	XXX	XXX	588
1	XXX	XXX	XXX	XXX	9/16/04	2360	5340	XXX	XXX	XXX	XXX	273
1	24.53	38.36	2,210	6.60	11/24/04	1930	5110	XXX	XXX	XXX	XXX	422
1	22.39	32.00	XXX	XXX	3/22/05	2330	4290	XXX	XXX	XXX	XXX	125
1	23.40	32.00	XXX	4.32	6/28/05	2430	5060	XXX	XXX	XXX	XXX	481
1	23.45	32.00	XXX	4.18	9/6/05	2460	5100	XXX	XXX	XXX	XXX	486
1	23.43	38.36	2,400	8.00	11/2/05	2330	5310	0.00643	0.0125	0.0635	0.1558	484
1	23.22	38.36	2,400	8.00	2/1/06	2750	5100	0.0139	0.0435	0.145	0.3009	434
1	23.20	38.36	2,400	8.00	4/26/06	2700	5430	j[0.00433]	0.00849	0.0694	0.1248	482
1	23.84	38.36	2,300	8.00	7/24/06	1090	4010	0.0341	<0.0200	0.0823	0.0866	96.8
1	23.60	38.36	2,400	8.00	10/17/06	1830	4050	0.0409	0.0187	0.124	0.1489	44.7
1	23.82	38.26	2,300	8.00	1/30/07	2960	4870	<0.001	<0.001	<0.001	<0.001	504
1	23.67	38.26	2,300	8.00	4/12/07	2870	6360	0.0288	0.0472	0.177	0.194	493
1	24.06	38.26	2,300	8.00	7/16/07	2090	4220	<0.001	<0.001	<0.001	<0.002	70.4
1	24.48	38.26	2,200	8.00	9/4/07	1999	4612	<0.002	0.031	0.24	0.246	115
1	24.14	38.26	2,300	8.00	10/11/07	2100	4416	0.068	0.012	0.17	0.138	111

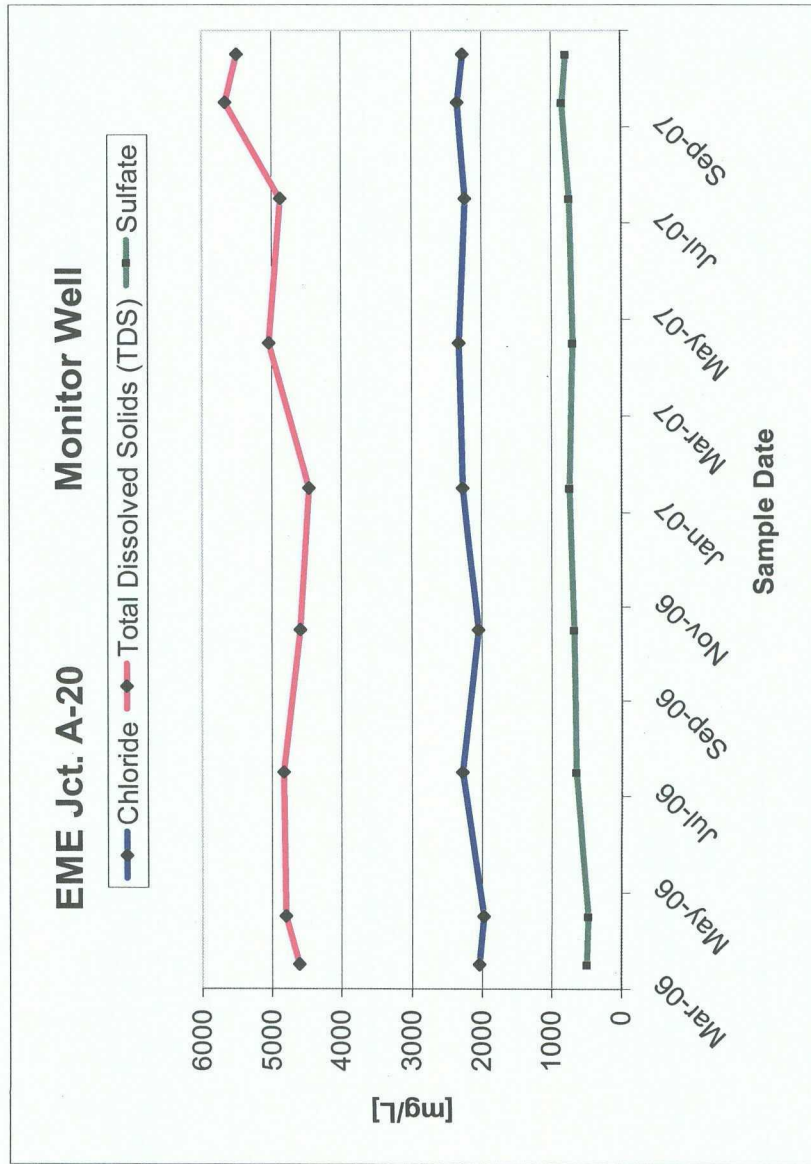
\* Depth to water measured from top of casing  
Casing is 2.875 ft



All concentrations are in mg/L

MW #	DEPTH TO WATER * (ft)	TOTAL DEPTH	WELL VOLUME	VOLUME PURGED (gal)	SAMPLE DATE	Cl <sup>-</sup>	TDS	BENZENE	TOLUENE	ETHYL BENZENE	TOTAL XYLENES	SULFATE
2	23.84	32.00	1.300	4.00	3/8/06	2030	4610	<0.001	<0.001	<0.001	<0.001	491
2	23.72	32.00	1.300	15.00	4/26/06	1970	4800	<0.001	<0.001	<0.001	<0.001	479
2	24.45	32.00	1.200	10.00	7/24/06	2270	4825	<0.001	<0.001	<0.001	<0.001	648
2	24.08	32.00	1.300	8.00	10/17/06	2040	4590	<0.001	<0.001	<0.001	<0.001	679
2	23.85	31.72	1.300	6.00	1/30/07	2260	4460	<0.001	<0.001	<0.001	<0.001	745
2	23.71	31.72	1.300	6.00	4/12/07	2320	5040	<0.001	<0.001	<0.001	<0.001	694
2	24.03	31.72	1.200	6.00	7/16/07	2230	4870	<0.001	<0.001	<0.001	<0.002	740
2	24.46	31.72	1.200	5.00	9/4/07	2339	5664	<0.002	<0.002	<0.002	<0.006	842
2	24.11	31.72	1.200	5.00	10/11/07	2260	5500	<0.001	<0.001	<0.001	<0.003	790

\* Depth to water measured from top of casing



**EME Jct. A-20**  
unit 'A', Sec. 20, T20S, R37E

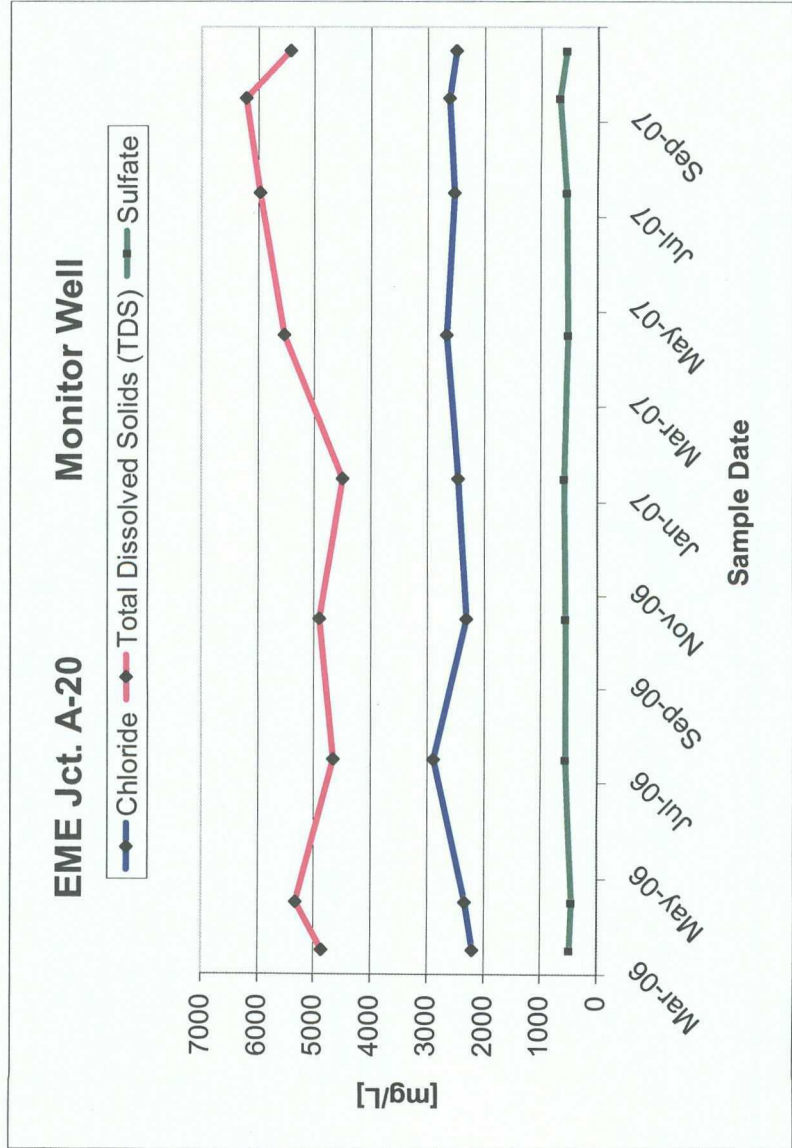
NMOCDC Case #1R0427-89

**RICE Operating Company**  
Monitor Well Data Sheet

All concentrations are in mg/L

MW #	(ft)		TOTAL DEPTH	WELL VOLUME	VOLUME PURGED	SAMPLE DATE	Cl <sup>-</sup>	TDS	BENZENE	TOLUENE	ETHYL BENZENE	TOTAL XYLENES	SULFATE
	DEPTH TO WATER *	DEPTH											
3	23.90	32.70	32.70	1.400	5.00	3/8/06	2200	4860	<0.001	<0.001	<0.001	<0.001	486
3	23.93	32.70	32.70	1.400	15.00	4/29/06	2340	5320	<0.001	<0.001	<0.001	<0.001	452
3	24.61	32.70	32.70	1.300	10.00	7/24/06	2890	4650	<0.001	<0.001	<0.001	<0.001	566
3	24.23	32.70	32.70	1.400	8.00	10/17/06	2310	4900	<0.001	<0.001	<0.001	<0.001	563
3	24.02	32.75	32.75	1.400	6.00	1/30/07	2460	4490	<0.001	<0.001	<0.001	<0.001	589
3	23.87	32.75	32.75	1.400	6.00	4/12/07	2670	5530	<0.001	0.00109	0.000397	0.00104	516
3	24.27	32.75	32.75	1.400	6.00	7/16/07	2530	5960	<0.001	<0.001	<0.001	<0.002	541
3	24.70	32.75	32.75	1.300	5.00	9/4/07	2619	6212	<0.002	<0.002	<0.002	<0.006	679
3	24.30	32.75	32.75	1.400	5.00	10/11/07	2500	5417	<0.001	<0.001	<0.001	<0.003	548

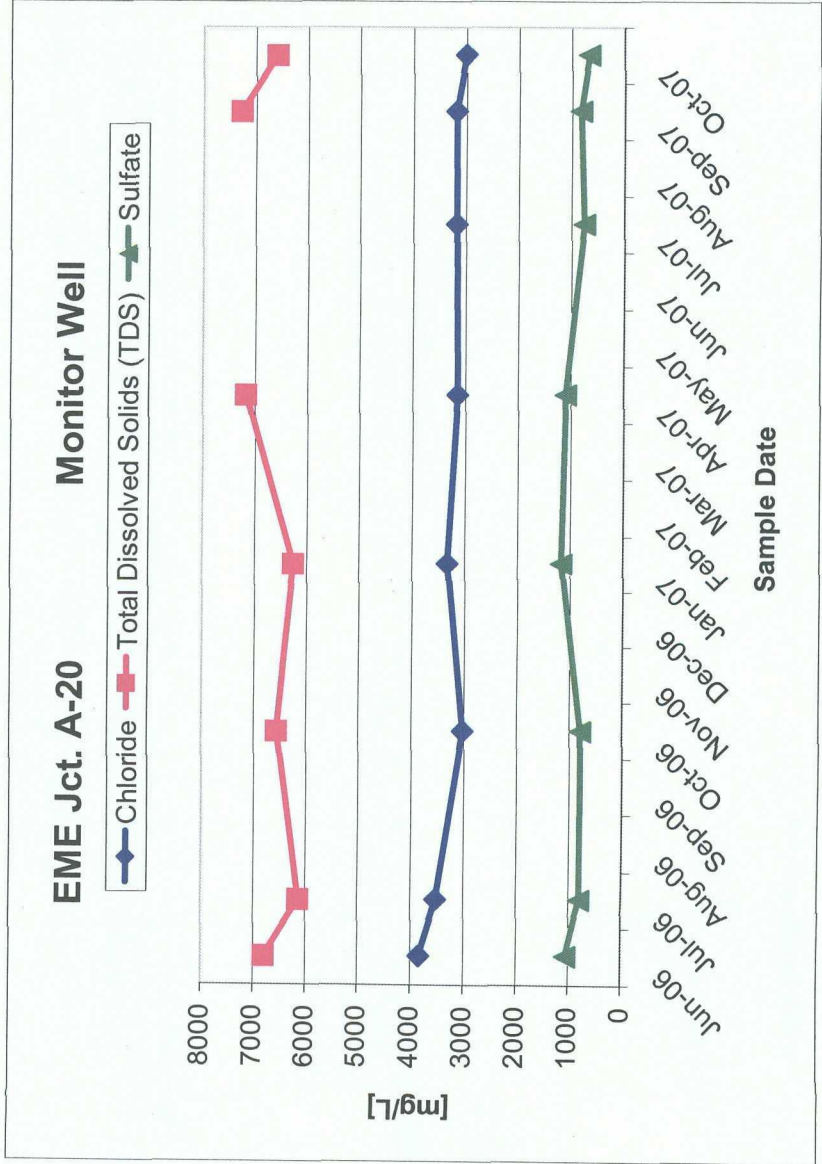
\* Depth to water measured from top of casing



All concentrations are in mg/L

MW #	DEPTH TO WATER * (ft)	TOTAL DEPTH	WELL VOLUME	VOLUME PURGED (gal)	SAMPLE DATE	Cl <sup>-</sup>	TDS	BENZENE	TOLUENE	ETHYL BENZENE	TOTAL XYLENES	SULFATE
4	21.87	31.80	1.600	10.00	6/13/06	3840	6790	<0.001	<0.001	<0.001	<0.001	1060
4	21.97	31.80	1.600	10.00	7/24/06	3520	6135	<0.001	<0.001	<0.001	<0.001	806
4	21.59	31.50	1.600	8.00	10/17/06	3020	6560	<0.001	<0.001	<0.001	<0.001	791
4	21.37	32.05	1.700	8.00	1/30/07	3330	6260	<0.001	<0.001	<0.001	<0.001	1170
4	21.20	32.05	1.700	8.00	4/12/07	3140	7170	<0.001	<0.001	<0.001	<0.001	1090
4	21.65	32.05	1.700	8.00	7/16/07	3170		<0.001	<0.001	<0.001	<0.002	751
4	22.11	32.05	1.600	6.00	9/4/07	3179	7270	<0.002	<0.002	<0.002	<0.006	831
4	24.30	32.75	1.400	5.00	10/11/07	3000	6587	0.002	<0.001	<0.001	<0.003	670

\* Depth to water measured from top of casing

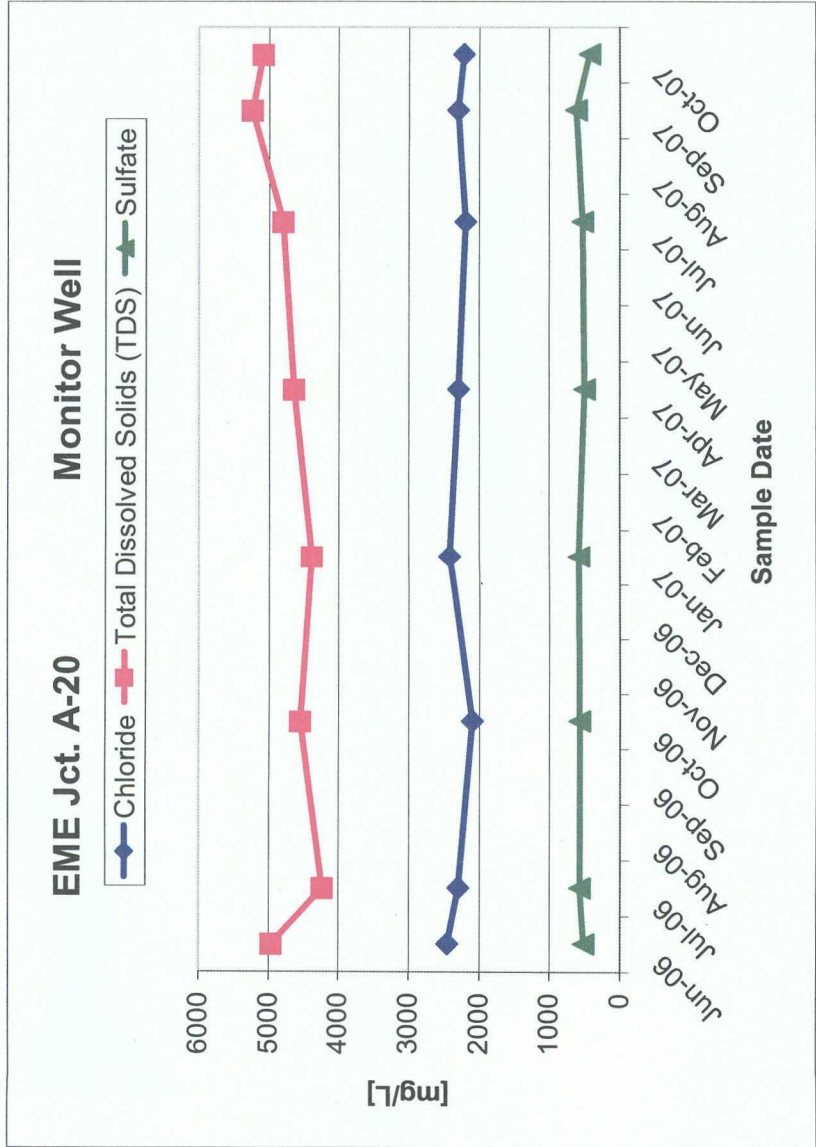




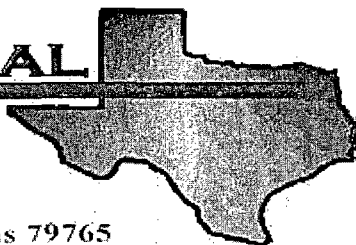
All concentrations are in mg/L

MW #	DEPTH TO WATER * (ft)	TOTAL DEPTH	WELL VOLUME	VOLUME PURGED (gal)	SAMPLE DATE	Cl <sup>-</sup>	TDS	BENZENE	TOLUENE	ETHYL BENZENE	TOTAL XYLENES	SULFATE
5	25.02	32.20	1.100	10.00	6/13/06	2450	4960	<0.001	<0.001	<0.001	<0.001	519
5	25.26	32.20	1.100	10.00	7/24/06	2300	4235	<0.001	<0.001	<0.001	<0.001	574
5	24.92	32.20	1.200	8.00	10/17/06	2100	4550	<0.001	<0.001	<0.001	<0.001	573
5	24.68	31.98	1.200	6.00	1/30/07	2420	4390	<0.001	<0.001	<0.001	<0.001	588
5	24.55	31.98	1.200	6.00	4/12/07	2290	4640	<0.001	<0.001	<0.001	<0.001	505
5	24.78	31.98	1.200	6.00	7/16/07	2190	4800	<0.001	<0.001	<0.001	<0.002	527
5	25.18	31.98	1.100	5.00	9/4/07	2299	5236	<0.002	<0.002	<0.002	<0.006	623
5	24.90	31.98	1.100	5.00	10/11/07	2220	5082	<0.001	<0.001	<0.001	<0.003	428

\* Depth to water measured from top of casing



**E** NVIRONMENTAL  
LAB OF



12600 West I-20 East - Odessa, Texas 79765

A Xenco Laboratories Company

## Analytical Report

**Prepared for:**

Kristin Farris-Pope

Rice Operating Co.

122 W. Taylor

Hobbs, NM 88240

Project: EME Jct. A-20

Project Number: None Given

Location: T20S R37E Sec20A Lea Co., NM

Lab Order Number: 7B01019

Report Date: 02/13/07

Rice Operating Co.  
122 W. Taylor  
Hobbs NM, 88240

Project: EME Jct. A-20  
Project Number: None Given  
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Monitor Well #1	7B01019-01	Water	01/30/07 13:20	02-01-2007 15:42
Monitor Well #2	7B01019-02	Water	01/30/07 10:10	02-01-2007 15:42
Monitor Well #3	7B01019-03	Water	01/30/07 12:00	02-01-2007 15:42
Monitor Well #4	7B01019-04	Water	01/30/07 11:05	02-01-2007 15:42
Monitor Well #5	7B01019-05	Water	01/30/07 09:20	02-01-2007 15:42

Rice Operating Co.  
122 W. Taylor  
Hobbs NM, 88240

Project: EME Jct. A-20  
Project Number: None Given  
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

**Organics by GC**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Monitor Well #1 (7B01019-01) Water</b>									
Benzene	0.0259	0.0100	mg/L	10	EB70703	02/07/07	02/09/07	EPA 8021B	
Toluene	0.0783	0.0100	"	"	"	"	"	"	
Ethylbenzene	0.300	0.0100	"	"	"	"	"	"	
Xylene (p/m)	0.463	0.0100	"	"	"	"	"	"	
Xylene (o)	0.186	0.0100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		126 %	80-120		"	"	"	"	S-04
Surrogate: 4-Bromofluorobenzene		202 %	80-120		"	"	"	"	S-04
<b>Monitor Well #2 (7B01019-02) Water</b>									
Benzene	ND	0.00100	mg/L	1	EB70703	02/07/07	02/09/07	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		106 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	80-120		"	"	"	"	
<b>Monitor Well #3 (7B01019-03) Water</b>									
Benzene	ND	0.00100	mg/L	1	EB70703	02/07/07	02/09/07	EPA 8021B	
Toluene	I [0.000796]	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		101 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.2 %	80-120		"	"	"	"	
<b>Monitor Well #4 (7B01019-04) Water</b>									
Benzene	ND	0.00100	mg/L	1	EB70703	02/07/07	02/09/07	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		96.6 %	80-120		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		91.2 %	80-120		"	"	"	"	

Environmental Lab of Texas

A Xenco Laboratories Company

*The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Environmental Lab of Texas.*

Rice Operating Co.  
122 W. Taylor  
Hobbs NM, 88240

Project: EME Jct. A-20  
Project Number: None Given  
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

**Organics by GC**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Monitor Well #5 (7B01019-05) Water</b>									
Benzene:	ND	0.00100	mg/L	1	EB70703	02/07/07	02/09/07	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		94.2 %	80-120	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		88.4 %	80-120	"	"	"	"	"	

Environmental Lab of Texas

A Xenco Laboratories Company

*The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Environmental Lab of Texas.*

Rice Operating Co.  
122 W. Taylor  
Hobbs NM, 88240

Project: EME Jct. A-20  
Project Number: None Given  
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

**General Chemistry Parameters by EPA / Standard Methods**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Monitor Well #1 (7B01019-01) Water</b>									
Total Alkalinity	438	2.00	mg/L	1	EB70209	02/02/07	02/02/07	EPA 310.1M	
Chloride	2960	50.0	"	100	EB70208	02/02/07	02/03/07	EPA 300.0	
Total Dissolved Solids	4870	10.0	"	1	EB70302	02/02/07	02/03/07	EPA 160.1	
Sulfate	504	50.0	"	100	EB70208	02/02/07	02/03/07	EPA 300.0	
<b>Monitor Well #2 (7B01019-02) Water</b>									
Total Alkalinity	398	2.00	mg/L	1	EB70209	02/02/07	02/02/07	EPA 310.1M	
Chloride	2260	25.0	"	50	EB70208	02/02/07	02/03/07	EPA 300.0	
Total Dissolved Solids	4460	10.0	"	1	EB70302	02/02/07	02/03/07	EPA 160.1	
Sulfate	745	25.0	"	50	EB70208	02/02/07	02/03/07	EPA 300.0	
<b>Monitor Well #3 (7B01019-03) Water</b>									
Total Alkalinity	366	2.00	mg/L	1	EB70209	02/02/07	02/02/07	EPA 310.1M	
Chloride	2460	25.0	"	50	EB70208	02/02/07	02/03/07	EPA 300.0	
Total Dissolved Solids	4490	10.0	"	1	EB70302	02/02/07	02/03/07	EPA 160.1	
Sulfate	589	25.0	"	50	EB70208	02/02/07	02/03/07	EPA 300.0	
<b>Monitor Well #4 (7B01019-04) Water</b>									
Total Alkalinity	436	2.00	mg/L	1	EB70209	02/02/07	02/02/07	EPA 310.1M	
Chloride	3330	50.0	"	100	EB70208	02/02/07	02/03/07	EPA 300.0	
Total Dissolved Solids	6260	10.0	"	1	EB70302	02/02/07	02/03/07	EPA 160.1	
Sulfate	1170	50.0	"	100	EB70208	02/02/07	02/03/07	EPA 300.0	
<b>Monitor Well #5 (7B01019-05) Water</b>									
Total Alkalinity	458	2.00	mg/L	1	EB70209	02/02/07	02/02/07	EPA 310.1M	
Chloride	2420	50.0	"	100	EB70208	02/02/07	02/03/07	EPA 300.0	
Total Dissolved Solids	4390	10.0	"	1	EB70302	02/02/07	02/03/07	EPA 160.1	
Sulfate	588	50.0	"	100	EB70208	02/02/07	02/03/07	EPA 300.0	

Environmental Lab of Texas

A Xenco Laboratories Company

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Rice Operating Co.  
122 W. Taylor  
Hobbs NM, 88240

Project: EME Jct. A-20  
Project Number: None Given  
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

**Total Metals by EPA / Standard Methods**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Monitor Well #1 (7B01019-01) Water</b>									
Calcium	230	4.05	mg/L	50	EB70612	02/06/07	02/06/07	EPA 6010B	
Magnesium	257	1.80	"	"	"	"	"	"	
Potassium	35.6	0.600	"	10	"	"	"	"	
Sodium	1400	10.8	"	250	"	"	"	"	
<b>Monitor Well #2 (7B01019-02) Water</b>									
Calcium	172	4.05	mg/L	50	EB70612	02/06/07	02/06/07	EPA 6010B	
Magnesium	209	1.80	"	"	"	"	"	"	
Potassium	43.0	0.600	"	10	"	"	"	"	
Sodium	1440	10.8	"	250	"	"	"	"	
<b>Monitor Well #3 (7B01019-03) Water</b>									
Calcium	244	20.2	mg/L	250	EB70612	02/06/07	02/06/07	EPA 6010B	
Magnesium	271	9.00	"	"	"	"	"	"	
Potassium	32.4	0.600	"	10	"	"	"	"	
Sodium	1270	10.8	"	250	"	"	"	"	
<b>Monitor Well #4 (7B01019-04) Water</b>									
Calcium	222	4.05	mg/L	50	EB70612	02/06/07	02/06/07	EPA 6010B	
Magnesium	276	1.80	"	"	"	"	"	"	
Potassium	54.4	0.600	"	10	"	"	"	"	
Sodium	1960	21.5	"	500	"	"	"	"	
<b>Monitor Well #5 (7B01019-05) Water</b>									
Calcium	137	4.05	mg/L	50	EB70612	02/06/07	02/06/07	EPA 6010B	
Magnesium	186	1.80	"	"	"	"	"	"	
Potassium	46.7	0.600	"	10	"	"	"	"	
Sodium	1410	10.8	"	250	"	"	"	"	

Environmental Lab of Texas  
A Xenco Laboratories Company

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Rice Operating Co.  
122 W. Taylor  
Hobbs NM, 88240

Project: EME Jct. A-20  
Project Number: None Given  
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

**Organics by GC - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch EB70703 - EPA 5030C (GC)**

**Blank (EB70703-BLK1)**

Prepared: 02/07/07 Analyzed: 02/10/07

Benzene	ND	0.00100	mg/L							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00100	"							
Xylene (o)	ND	0.00100	"							
Surrogate: a,a,a-Trifluorotoluene	41.0		ug/l	50.0		82.0	80-120			
Surrogate: 4-Bromofluorobenzene	43.5		"	50.0		87.0	80-120			

**LCS (EB70703-BS1)**

Prepared: 02/07/07 Analyzed: 02/09/07

Benzene	0.0524	0.00100	mg/L	0.0500		105	80-120			
Toluene	0.0527	0.00100	"	0.0500		105	80-120			
Ethylbenzene	0.0524	0.00100	"	0.0500		105	80-120			
Xylene (p/m)	0.111	0.00100	"	0.100		111	80-120			
Xylene (o)	0.0478	0.00100	"	0.0500		95.6	80-120			
Surrogate: a,a,a-Trifluorotoluene	47.2		ug/l	50.0		94.4	80-120			
Surrogate: 4-Bromofluorobenzene	53.0		"	50.0		106	80-120			

**Calibration Check (EB70703-CCV1)**

Prepared: 02/07/07 Analyzed: 02/10/07

Benzene	55.4		ug/l	50.0		111	80-120			
Toluene	53.4		"	50.0		107	80-120			
Ethylbenzene	53.1		"	50.0		106	80-120			
Xylene (p/m)	110		"	100		110	80-120			
Xylene (o)	46.7		"	50.0		93.4	80-120			
Surrogate: a,a,a-Trifluorotoluene	46.8		"	50.0		93.6	80-120			
Surrogate: 4-Bromofluorobenzene	55.8		"	50.0		112	80-120			

**Matrix Spike (EB70703-MS1)**

Source: 7B01020-01

Prepared: 02/07/07 Analyzed: 02/09/07

Benzene	0.0598	0.00100	mg/L	0.0500	ND	120	80-120			
Toluene	0.0587	0.00100	"	0.0500	ND	117	80-120			
Ethylbenzene	0.0579	0.00100	"	0.0500	ND	116	80-120			
Xylene (p/m)	0.125	0.00100	"	0.100	ND	125	80-120			M1
Xylene (o)	0.0550	0.00100	"	0.0500	ND	110	80-120			
Surrogate: a,a,a-Trifluorotoluene	51.3		ug/l	50.0		103	80-120			
Surrogate: 4-Bromofluorobenzene	58.7		"	50.0		117	80-120			

Environmental Lab of Texas

A Xenco Laboratories Company

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Rice Operating Co.  
 122 W. Taylor  
 Hobbs NM, 88240

Project: EME Jct. A-20  
 Project Number: None Given  
 Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

**Organics by GC - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch EB70703 - EPA 5030C (GC)**

**Matrix Spike Dup (EB70703-MSD1)**

Source: 7B01020-01

Prepared: 02/07/07 Analyzed: 02/10/07

Benzene	0.0598	0.00100	mg/L	0.0500	ND	120	80-120	0.00	20	
Toluene	0.0593	0.00100	"	0.0500	ND	119	80-120	1.69	20	
Ethylbenzene	0.0599	0.00100	"	0.0500	ND	120	80-120	3.39	20	
Xylene (p/m)	0.128	0.00100	"	0.100	ND	128	80-120	2.37	20	M1
Xylene (o)	0.0562	0.00100	"	0.0500	ND	112	80-120	1.80	20	
Surrogate: a,a,a-Trifluorotoluene	52.6		ug/l	50.0		105	80-120			
Surrogate: 4-Bromofluorobenzene	60.3		"	50.0		121	80-120			S-04

Environmental Lab of Texas

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Rice Operating Co.  
122 W. Taylor  
Hobbs NM, 88240

Project: EME Jct. A-20  
Project Number: None Given  
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch EB70208 - General Preparation (WetChem)**

**Blank (EB70208-BLK1)**

Prepared: 02/02/07 Analyzed: 02/03/07

Sulfate	0.459	0.500	mg/L							B, J
Chloride	ND	0.500	"							

**LCS (EB70208-BS1)**

Prepared: 02/02/07 Analyzed: 02/03/07

Chloride	10.7	0.500	mg/L	10.0		107	80-120			
Sulfate	11.6	0.500	"	10.0		116	80-120			

**Calibration Check (EB70208-CCV1)**

Prepared: 02/02/07 Analyzed: 02/03/07

Chloride	10.5		mg/L	10.0		105	80-120			
Sulfate	11.8		"	10.0		118	80-120			

**Duplicate (EB70208-DUP1)**

Source: 7B01017-01

Prepared: 02/02/07 Analyzed: 02/03/07

Sulfate	93.0	5.00	mg/L		96.4			3.59	20	
Chloride	127	5.00	"		132			3.86	20	

**Duplicate (EB70208-DUP2)**

Source: 7B01020-02

Prepared: 02/02/07 Analyzed: 02/03/07

Chloride	2220	50.0	mg/L		2240			0.897	20	
Sulfate	2410	50.0	"		2400			0.416	20	

**Matrix Spike (EB70208-MS1)**

Source: 7B01017-01

Prepared: 02/02/07 Analyzed: 02/03/07

Sulfate	204	5.00	mg/L	100	96.4	108	80-120			
Chloride	240	5.00	"	100	132	108	80-120			

**Matrix Spike (EB70208-MS2)**

Source: 7B01020-02

Prepared: 02/02/07 Analyzed: 02/03/07

Sulfate	3500	50.0	mg/L	1000	2400	110	80-120			
Chloride	3330	50.0	"	1000	2240	109	80-120			

Environmental Lab of Texas

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Rice Operating Co.  
122 W. Taylor  
Hobbs NM, 88240

Project: EME Jct. A-20  
Project Number: None Given  
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch EB70209 - General Preparation (WetChem)**

**Blank (EB70209-BLK1)** Prepared & Analyzed: 02/02/07

Total Alkalinity	ND	2.00	mg/L							
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**Duplicate (EB70209-DUP1)** Source: 7B01016-01 Prepared & Analyzed: 02/02/07

Total Alkalinity	310	2.00	mg/L		314			1.28	20	
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**Reference (EB70209-SRM1)** Prepared & Analyzed: 02/02/07

Total Alkalinity	246		mg/L	250		98.4	90-110			
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**Batch EB70302 - Filtration Preparation**

**Blank (EB70302-BLK1)** Prepared: 02/02/07 Analyzed: 02/03/07

Total Dissolved Solids	ND	10.0	mg/L							
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**Duplicate (EB70302-DUP1)** Source: 7B01016-01 Prepared: 02/02/07 Analyzed: 02/03/07

Total Dissolved Solids	1920	10.0	mg/L		1840			4.26	20	
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**Duplicate (EB70302-DUP2)** Source: 7B01020-01 Prepared: 02/02/07 Analyzed: 02/03/07

Total Dissolved Solids	6280	10.0	mg/L		5700			9.68	20	
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Environmental Lab of Texas

A Xenco Laboratories Company

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Rice Operating Co.  
 122 W. Taylor  
 Hobbs NM, 88240

Project: EME Jct. A-20  
 Project Number: None Given  
 Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

**Total Metals by EPA / Standard Methods - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch EB70612 - 6010B/No Digestion**

**Blank (EB70612-BLK1)**

Prepared & Analyzed: 02/06/07

Calcium	ND	0.0810	mg/L							
Magnesium	ND	0.0360	"							
Potassium	ND	0.0600	"							
Sodium	ND	0.0430	"							

**Calibration Check (EB70612-CCV1)**

Prepared & Analyzed: 02/06/07

Calcium	1.79		mg/L	2.00		89.5	85-115			
Magnesium	1.98		"	2.00		99.0	85-115			
Potassium	1.80		"	2.00		90.0	85-115			
Sodium	1.74		"	2.00		87.0	85-115			

**Duplicate (EB70612-DUP1)**

Source: 7B01016-01

Prepared & Analyzed: 02/06/07

Calcium	172	4.05	mg/L		176			2.30	20	
Magnesium	111	1.80	"		109			1.82	20	
Potassium	17.0	0.600	"		16.8			1.18	20	
Sodium	306	4.30	"		305			0.327	20	

Environmental Lab of Texas

A Xenco Laboratories Company

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### Notes and Definitions

- S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
- M1 The MS and/or MSD were above the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
- J Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
- B Analyte is found in the associated blank as well as in the sample (CLP B-flag).
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference
- LCS Laboratory Control Spike
- MS Matrix Spike
- Dup Duplicate

Report Approved By: \_\_\_\_\_



Date: 2/13/2007

Brent Barron, Laboratory Director/Corp. Technical Director  
Celey D. Keene, Org. Tech Director  
Raland K. Tuttle, Laboratory Consultant

James Mathis, QA/QC Officer  
Jeanne Mc Murrey, Inorg. Tech Director

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-563-1800.

Project Manager: Kristin Farris Pope [kpope@riceswd.com](mailto:kpope@riceswd.com)  
 Company Name: RICE Operating Company  
 Company Address: 122 W. Taylor Street  
 City/State/Zip: Hobbs, New Mexico 88240  
 Telephone No.: (505) 393-9174  
 Sampler Signature: Rozanne Johnson (505) 631-9310  
 Fax No.: (505) 397-1471 e-mail: rozanne@valornet.com  
 Project Name: EME Junction A-20  
 Project #: \_\_\_\_\_  
 Report Format:  Standard  TRRP  NPDES  
 Project Loc: T20S R37E Sec20 A - Lea County New Mexico  
 PO #: \_\_\_\_\_

Special Instructions: Please email to: [kpope@riceswd.com](mailto:kpope@riceswd.com) [rozanne@valornet.com](mailto:rozanne@valornet.com)  
 mfranks@riceswd.com

Received by: Rozanne Johnson Date: 2-1-07 Time: 12:00  
 Received by: James Johnson Date: 2-1-07 Time: 15:42  
 Received by: James Johnson Date: 2-1-07 Time: 15:42

LAB # (lab use only): \_\_\_\_\_  
 ORDER #: 7301019

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers							Matrix			
								Ice	HNO <sub>3</sub>	HCl (2) 40 ml glass vials	H <sub>2</sub> SO <sub>4</sub>	NaOH	Na <sub>2</sub> S <sub>2</sub> O <sub>8</sub>	None (1) 1 Liter HDPE		Other (Specify)	DV - Drinking Water SL - Bridge	GW - Groundwater S - Soil/Soil
701	Monitor Well #1			1/30/2007	13:20		3	X		2					1			GW
702	Monitor Well #2			1/30/2007	10:10		3	X		2					1			GW
703	Monitor Well #3			1/30/2007	12:00		3	X		2					1			GW
704	Monitor Well #4			1/30/2007	11:05		3	X		2					1			GW
705	Monitor Well #5			1/30/2007	9:20		3	X		2					1			GW

Analyze For:		
TCP: TOTAL	X	
Semivolatiles		
BTEX 8021B/5030	X	
Volatiles (BTEX-N 8260)		
Metals: As Ag Ba Cd Cr Pb Hg Se		
SAR / ESP / CEC		
Anions (Cl, SO <sub>4</sub> , Alkalinity)		
Cations (Ca, Mg, Na, K)	X	X
TPH: TX 1005 TX 1006	X	X
TPH: 418.1 8015M 8015B	X	X
Total Dissolved Solids	X	X
NORM	X	X
RCl	X	X
RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	X	X

Laboratory Comments:  
 Sample Containers intact?  N  
 VOCs Free of Headspace?  N  
 Labels on container(s)  N  
 Custody seals on container(s)  N  
 Custody seals on cooler(s)  N  
 Sample Hand Delivered by Sampler/Client Rep?  Y  
 by Courier?  DHL  UPS  FedEx  Lone Star  
 Temperature Upon Receipt: 4.0 °C

# Environmental Lab of Texas

## Variance/ Corrective Action Report- Sample Log-In

at: Rice Dr.  
 Time: 2-1-07 15:42  
 ID #: 11 BOLD 19  
 S: OK

### Sample Receipt Checklist

Client Initials

	Yes	No		
Temperature of container/ cooler?	Yes	No	4.0 °C	
Shipping container in good condition?	Yes	No		
Custody Seals intact on shipping container/ cooler?	Yes	No	Not Present	
Custody Seals intact on sample bottles/ container?	Yes	No	Not Present	
Chain of Custody present?	Yes	No		
Sample Instructions complete of Chain of Custody?	Yes	No		
Chain of Custody signed when relinquished/ received?	Yes	No		
Chain of Custody agrees with sample label(s)?	Yes	No	ID written on Cont./ Lid	
Container label(s) legible and intact?	Yes	No	Not Applicable	
Sample matrix/ properties agree with Chain of Custody?	Yes	No		
Containers supplied by ELOT?	Yes	No		
Samples in proper container/ bottle?	Yes	No	See Below	
Samples properly preserved?	Yes	No	See Below	
Sample bottles intact?	Yes	No		
Preservations documented on Chain of Custody?	Yes	No		
Containers documented on Chain of Custody?	Yes	No		
Sufficient sample amount for indicated test(s)?	Yes	No	See Below	
All samples received within sufficient hold time?	Yes	No	See Below	
Subcontract of sample(s)?	Yes	No	Not Applicable	
VOC samples have zero headspace?	Yes	No	Not Applicable	

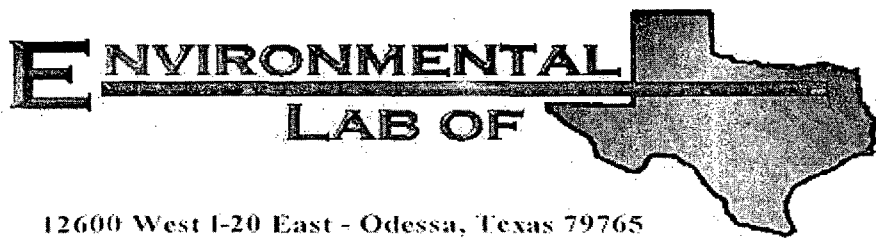
### Variance Documentation

Contacted by: \_\_\_\_\_ Date/ Time: \_\_\_\_\_

regarding: \_\_\_\_\_

Corrective Action Taken: \_\_\_\_\_

- Check all that Apply:
- See attached e-mail/ fax
  - Client understands and would like to proceed with analysis
  - Cooling process had begun shortly after sampling event.



12600 West I-20 East - Odessa, Texas 79765

A Xenco Laboratories Company

## Analytical Report

**Prepared for:**

Kristin Farris-Pope

Rice Operating Co.

122 W. Taylor

Hobbs, NM 88240

Project: EME Jct. A-20

Project Number: None Given

Location: T20S R37E Sec20A ~ Lea County New Mexico

Lab Order Number: 7D16034

Report Date: 04/26/07



Rice Operating Co.  
122 W. Taylor  
Hobbs NM, 88240

Project: EME Jct. A-20  
Project Number: None Given  
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Monitor Well # 1	7D16034-01	Water	04/12/07 13:35	04-16-2007 13:05
Monitor Well # 2	7D16034-02	Water	04/12/07 10:30	04-16-2007 13:05
Monitor Well # 3	7D16034-03	Water	04/12/07 12:30	04-16-2007 13:05
Monitor Well # 4	7D16034-04	Water	04/12/07 11:45	04-16-2007 13:05
Monitor Well # 5	7D16034-05	Water	04/12/07 09:45	04-16-2007 13:05

Rice Operating Co.  
122 W. Taylor  
Hobbs NM, 88240

Project: EME Jct. A-20  
Project Number: None Given  
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

**Organics by GC**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Monitor Well # 1 (7D16034-01) Water</b>									
Benzene	0.0288	0.00100	mg/L	1	ED71705	04/17/07	04/19/07	EPA 8021B	
Toluene	0.0472	0.00100	"	"	"	"	"	"	
Ethylbenzene	0.177	0.00100	"	"	"	"	"	"	
Xylene (p/m)	0.194	0.00100	"	"	"	"	"	"	
Xylene (o)	0.129	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		164 %	80-120	"	"	"	"	"	S-04
Surrogate: 4-Bromofluorobenzene		250 %	80-120	"	"	"	"	"	S-04
<b>Monitor Well # 2 (7D16034-02) Water</b>									
Benzene	ND	0.00100	mg/L	1	ED71705	04/17/07	04/19/07	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		108 %	80-120	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		93.8 %	80-120	"	"	"	"	"	
<b>Monitor Well # 3 (7D16034-03) Water</b>									
Benzene	ND	0.00100	mg/L	1	ED71705	04/17/07	04/19/07	EPA 8021B	
Toluene	0.00109	0.00100	"	"	"	"	"	"	
Ethylbenzene	I [0.000397]	0.00100	"	"	"	"	"	"	
Xylene (p/m)	0.00104	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		107 %	80-120	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		92.8 %	80-120	"	"	"	"	"	
<b>Monitor Well # 4 (7D16034-04) Water</b>									
Benzene	ND	0.00100	mg/L	1	ED71705	04/17/07	04/19/07	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		103 %	80-120	"	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		90.2 %	80-120	"	"	"	"	"	

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Rice Operating Co.  
122 W. Taylor  
Hobbs NM, 88240

Project: EME Jct. A-20  
Project Number: None Given  
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

**Organics by GC**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Monitor Well # 5 (7D16034-05) Water</b>									
Benzene	ND	0.00100	mg/L	1	ED71705	04/17/07	04/19/07	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: <i>a,a,a</i> -Trifluorotoluene		110 %	80-120		"	"	"	"	
Surrogate: <i>4</i> -Bromofluorobenzene		94.2 %	80-120		"	"	"	"	

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Rice Operating Co.  
122 W. Taylor  
Hobbs NM, 88240

Project: EME Jct. A-20  
Project Number: None Given  
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

**General Chemistry Parameters by EPA / Standard Methods**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Monitor Well # 1 (7D16034-01) Water</b>									
Total Alkalinity	400	2.00	mg/L	1	ED71912	04/19/07	04/19/07	EPA 310.1M	
Chloride	2870	25.0	"	50	ED72102	04/21/07	04/23/07	EPA 300.0	
Total Dissolved Solids	6360	10.0	"	1	ED71907	04/16/07	04/17/07	EPA 160.1	
Sulfate	493	25.0	"	50	ED72102	04/21/07	04/23/07	EPA 300.0	
<b>Monitor Well # 2 (7D16034-02) Water</b>									
Total Alkalinity	380	2.00	mg/L	1	ED71912	04/19/07	04/19/07	EPA 310.1M	
Chloride	2320	25.0	"	50	ED72102	04/21/07	04/23/07	EPA 300.0	
Total Dissolved Solids	5040	10.0	"	1	ED71907	04/16/07	04/17/07	EPA 160.1	
Sulfate	694	25.0	"	50	ED72102	04/21/07	04/23/07	EPA 300.0	
<b>Monitor Well # 3 (7D16034-03) Water</b>									
Total Alkalinity	430	2.00	mg/L	1	ED71912	04/19/07	04/19/07	EPA 310.1M	
Chloride	2670	25.0	"	50	ED72102	04/21/07	04/23/07	EPA 300.0	
Total Dissolved Solids	5530	10.0	"	1	ED71907	04/16/07	04/17/07	EPA 160.1	
Sulfate	516	25.0	"	50	ED72102	04/21/07	04/23/07	EPA 300.0	
<b>Monitor Well # 4 (7D16034-04) Water</b>									
Total Alkalinity	460	2.00	mg/L	1	ED71912	04/19/07	04/19/07	EPA 310.1M	
Chloride	3140	50.0	"	100	ED72102	04/21/07	04/23/07	EPA 300.0	
Total Dissolved Solids	7170	10.0	"	1	ED71907	04/16/07	04/17/07	EPA 160.1	
Sulfate	1090	50.0	"	100	ED72102	04/21/07	04/23/07	EPA 300.0	
<b>Monitor Well # 5 (7D16034-05) Water</b>									
Total Alkalinity	456	2.00	mg/L	1	ED71912	04/19/07	04/19/07	EPA 310.1M	
Chloride	2290	25.0	"	50	ED72102	04/21/07	04/23/07	EPA 300.0	
Total Dissolved Solids	4640	10.0	"	1	ED71907	04/16/07	04/17/07	EPA 160.1	
Sulfate	505	25.0	"	50	ED72102	04/21/07	04/23/07	EPA 300.0	

Environmental Lab of Texas

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Rice Operating Co.  
122 W. Taylor  
Hobbs NM, 88240

Project: EME Jct. A-20  
Project Number: None Given  
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

**Total Metals by EPA / Standard Methods  
Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Monitor Well # 1 (7D16034-01) Water</b>									
Calcium	332	20.2	mg/L	250	ED71807	04/18/07	04/18/07	EPA 6010B	
Magnesium	257	1.80	"	50	"	"	"	"	
Potassium	24.8	0.600	"	10	"	"	"	"	
Sodium	1100	10.8	"	250	"	"	"	"	
<b>Monitor Well # 2 (7D16034-02) Water</b>									
Calcium	248	4.05	mg/L	50	ED71807	04/18/07	04/18/07	EPA 6010B	
Magnesium	208	1.80	"	"	"	"	"	"	
Potassium	30.0	0.600	"	10	"	"	"	"	
Sodium	1140	10.8	"	250	"	"	"	"	
<b>Monitor Well # 3 (7D16034-03) Water</b>									
Calcium	316	20.2	mg/L	250	ED71807	04/18/07	04/18/07	EPA 6010B	
Magnesium	242	1.80	"	50	"	"	"	"	
Potassium	22.7	0.600	"	10	"	"	"	"	
Sodium	1040	10.8	"	250	"	"	"	"	
<b>Monitor Well # 4 (7D16034-04) Water</b>									
Calcium	276	20.2	mg/L	250	ED71807	04/18/07	04/18/07	EPA 6010B	
Magnesium	260	1.80	"	50	"	"	"	"	
Potassium	38.4	0.600	"	10	"	"	"	"	
Sodium	1730	10.8	"	250	"	"	"	"	
<b>Monitor Well # 5 (7D16034-05) Water</b>									
Calcium	200	4.05	mg/L	50	ED71807	04/18/07	04/18/07	EPA 6010B	
Magnesium	175	1.80	"	"	"	"	"	"	
Potassium	31.1	0.600	"	10	"	"	"	"	
Sodium	1110	10.8	"	250	"	"	"	"	

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122 W. Taylor  
Hobbs NM, 88240

Project: EME Jct. A-20  
Project Number: None Given  
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

**Organics by GC - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch ED71705 - EPA 5030C (GC)</b>										
<b>Blank (ED71705-BLK1)</b> Prepared: 04/17/07 Analyzed: 04/19/07										
Benzene	ND	0.00100	mg/L							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00100	"							
Xylene (o)	ND	0.00100	"							
Surrogate: a,a,a-Trifluorotoluene	51.9		ug/l	50.0		104	80-120			
Surrogate: 4-Bromofluorobenzene	45.1		"	50.0		90.2	80-120			
<b>LCS (ED71705-BS1)</b> Prepared: 04/17/07 Analyzed: 04/19/07										
Benzene	0.0564	0.00100	mg/L	0.0500		113	80-120			
Toluene	0.0563	0.00100	"	0.0500		113	80-120			
Ethylbenzene	0.0585	0.00100	"	0.0500		117	80-120			
Xylene (p/m)	0.108	0.00100	"	0.100		108	80-120			
Xylene (o)	0.0600	0.00100	"	0.0500		120	80-120			
Surrogate: a,a,a-Trifluorotoluene	55.5		ug/l	50.0		111	80-120			
Surrogate: 4-Bromofluorobenzene	52.2		"	50.0		104	80-120			
<b>Calibration Check (ED71705-CCV1)</b> Prepared: 04/17/07 Analyzed: 04/19/07										
Benzene	57.0		ug/l	50.0		114	80-120			
Toluene	55.8		"	50.0		112	80-120			
Ethylbenzene	57.2		"	50.0		114	80-120			
Xylene (p/m)	105		"	100		105	80-120			
Xylene (o)	59.4		"	50.0		119	80-120			
Surrogate: a,a,a-Trifluorotoluene	55.3		"	50.0		111	80-120			
Surrogate: 4-Bromofluorobenzene	52.5		"	50.0		105	80-120			
<b>Matrix Spike (ED71705-MS1)</b> Source: 7D13003-23 Prepared: 04/17/07 Analyzed: 04/19/07										
Benzene	0.0546	0.00100	mg/L	0.0500	ND	109	80-120			
Toluene	0.0541	0.00100	"	0.0500	ND	108	80-120			
Ethylbenzene	0.0541	0.00100	"	0.0500	0.000418	107	80-120			
Xylene (p/m)	0.104	0.00100	"	0.100	0.00206	102	80-120			
Xylene (o)	0.0593	0.00100	"	0.0500	0.00157	115	80-120			
Surrogate: a,a,a-Trifluorotoluene	53.2		ug/l	50.0		106	80-120			
Surrogate: 4-Bromofluorobenzene	49.5		"	50.0		99.0	80-120			

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 122 W. Taylor  
 Hobbs NM, 88240

Project: EME Jct. A-20  
 Project Number: None Given  
 Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

**Organics by GC - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch ED71705 - EPA 5030C (GC)</b>										
<b>Matrix Spike Dup (ED71705-MSD1)</b>										
		<b>Source: 7D13003-23</b>			<b>Prepared: 04/17/07</b>		<b>Analyzed: 04/19/07</b>			
Benzene	0.0554	0.00100	mg/L	0.0500	ND	111	80-120	1.82	20	
Toluene	0.0554	0.00100	"	0.0500	ND	111	80-120	2.74	20	
Ethylbenzene	0.0581	0.00100	"	0.0500	0.000418	115	80-120	7.21	20	
Xylene (p/m)	0.106	0.00100	"	0.100	0.00206	104	80-120	1.94	20	
Xylene (o)	0.0609	0.00100	"	0.0500	0.00157	119	80-120	3.42	20	
Surrogate: a,a,a-Trifluorotoluene	53.5		ug/l	50.0		107	80-120			
Surrogate: 4-Bromofluorobenzene	50.4		"	50.0		101	80-120			

Rice Operating Co.  
122 W. Taylor  
Hobbs NM, 88240

Project: EME Jct. A-20  
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Fax: (505) 397-1471

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch ED71907 - Filtration Preparation**

**Blank (ED71907-BLK1)** Prepared: 04/16/07 Analyzed: 04/17/07

Total Dissolved Solids ND 10.0 mg/L

**Duplicate (ED71907-DUP1)** Source: 7D16035-01 Prepared: 04/16/07 Analyzed: 04/17/07

Total Dissolved Solids 6280 10.0 mg/L 6400 1.89 20

**Batch ED71912 - General Preparation (WetChem)**

**Blank (ED71912-BLK1)** Prepared & Analyzed: 04/19/07

Total Alkalinity ND 2.00 mg/L

**LCS (ED71912-BS1)** Prepared & Analyzed: 04/19/07

Bicarbonate Alkalinity 172 2.00 mg/L 200 86.0 85-115

**Duplicate (ED71912-DUP1)** Source: 7D16033-01 Prepared & Analyzed: 04/19/07

Total Alkalinity 950 2.00 mg/L 1050 10.0 20

**Reference (ED71912-SRM1)** Prepared & Analyzed: 04/19/07

Total Alkalinity 246 mg/L 250 98.4 90-110

**Batch ED72102 - General Preparation (WetChem)**

**Blank (ED72102-BLK1)** Prepared: 04/21/07 Analyzed: 04/23/07

Sulfate ND 0.500 mg/L

Chloride ND 0.500 "

**LCS (ED72102-BS1)** Prepared: 04/21/07 Analyzed: 04/23/07

Sulfate 9.66 0.500 mg/L 10.0 96.6 80-120

Chloride 9.02 0.500 " 10.0 90.2 80-120

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122 W. Taylor  
Hobbs NM, 88240

Project: EME Jct. A-20  
Project Number: None Given  
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch ED72102 - General Preparation (WetChem)</b>										
<b>Calibration Check (ED72102-CCV1)</b>										
					Prepared: 04/21/07 Analyzed: 04/23/07					
Sulfate	11.1		mg/L	10.0		111	80-120			
Chloride	8.06		"	10.0		80.6	80-120			
<b>Duplicate (ED72102-DUP1)</b>										
					Source: 7D16034-01 Prepared: 04/21/07 Analyzed: 04/23/07					
Sulfate	512	25.0	mg/L		493			3.78	20	
Chloride	2890	25.0	"		2870			0.694	20	
<b>Duplicate (ED72102-DUP2)</b>										
					Source: 7D18006-01 Prepared: 04/21/07 Analyzed: 04/23/07					
Sulfate	121	5.00	mg/L		121			0.00	20	
Chloride	91.2	5.00	"		89.6			1.77	20	
<b>Matrix Spike (ED72102-MS1)</b>										
					Source: 7D16034-01 Prepared: 04/21/07 Analyzed: 04/23/07					
Sulfate	983	25.0	mg/L	500	493	98.0	80-120			
<b>Matrix Spike (ED72102-MS2)</b>										
					Source: 7D18006-01 Prepared: 04/21/07 Analyzed: 04/23/07					
Sulfate	220	5.00	mg/L	100	121	99.0	80-120			
Chloride	192	5.00	"	100	89.6	102	80-120			
<b>Matrix Spike (ED72102-MS3)</b>										
					Source: 7D16034-01 Prepared: 04/21/07 Analyzed: 04/25/07					
Chloride	4620	50.0	mg/L	1000	2870	175	80-120			MI

Rice Operating Co.  
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 Hobbs NM, 88240

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**Total Metals by EPA / Standard Methods - Quality Control**  
**Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch ED71807 - 6010B/No Digestion**

**Blank (ED71807-BLK1)**

Prepared & Analyzed: 04/18/07

Calcium	ND	0.0810	mg/L							
Magnesium	ND	0.0360	"							
Potassium	ND	0.0600	"							
Sodium	ND	0.0430	"							

**Calibration Check (ED71807-CCV1)**

Prepared & Analyzed: 04/18/07

Calcium	2.12		mg/L	2.00		106	85-115			
Magnesium	2.26		"	2.00		113	85-115			
Potassium	1.85		"	2.00		92.5	85-115			
Sodium	1.74		"	2.00		87.0	85-115			

**Duplicate (ED71807-DUP1)**

Source: 7D16034-01

Prepared & Analyzed: 04/18/07

Calcium	321	20.2	mg/L		332			3.37	20	
Magnesium	257	1.80	"		257			0.00	20	
Potassium	23.8	0.600	"		24.8			4.12	20	
Sodium	1120	10.8	"		1100			1.80	20	

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Rice Operating Co.  
122 W. Taylor  
Hobbs NM, 88240

Project: EME Jct. A-20  
Project Number: None Given  
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

### Notes and Definitions

S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.

M1 The MS and/or MSD were above the acceptance limits due to sample matrix interference. See Blank Spike (LCS).

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

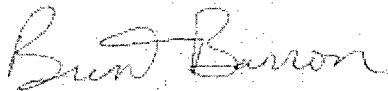
RPD Relative Percent Difference

LCS Laboratory Control Spike

MS Matrix Spike

Dup Duplicate

Report Approved By:



Date:

4/26/2007

Brent Barron, Laboratory Director/Corp. Technical Director  
Celey D. Keene, Org. Tech Director  
Raland K. Tuttle, Laboratory Consultant

James Mathis, QA/QC Officer  
Jeanne Mc Murrey, Inorg. Tech Director

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-563-1800.

Environmental Lab of Texas

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Page 11 of 11

12600 West I-20 East  
Odessa, Texas 79765

Phone: 432-563-1800  
Fax: 432-563-1713

Project Manager: Kristin Farris Pope kpope@riceswd.com  
Project Name: EME Junction A-20  
Company Name: RICE Operating Company Project #: \_\_\_\_\_  
Company Address: 122 W. Taylor Street Project Loc: T20S R37E Sec20 A - Lea County New Mexico  
City/State/Zip: Hobbs, New Mexico 88240 PO #: \_\_\_\_\_

Telephone No: (505) 393-9174 Report Format:  Standard  TRRP  NPDES  
Fax No: (505) 397-1471 e-mail: rozanne@valornet.com

Sampler Signature: Rozanne Johnson (505)631-9310

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Preservation & # of Containers							Matrix	Analyze For	
							HNO <sub>3</sub>	HCl (2) 40 ml glass vials	H <sub>2</sub> SO <sub>4</sub>	NaOH	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	Other (Specify)	DV-Drinking Water Sludge			GW - Groundwater Sample
01	Monitor Well #1			4/12/2007	13:35	3	X	2					1	GW	TOTAL: <input checked="checked" type="checkbox"/> X	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs Standard TAT
02	Monitor Well #2			4/12/2007	10:30	3	X	2				1	GW			
03	Monitor Well #3			4/12/2007	12:30	3	X	2				1	GW			
04	Monitor Well #4			4/12/2007	11:45	3	X	2				1	GW			
05	Monitor Well #5			4/12/2007	9:45	3	X	2				1	GW			
<b>Special Instructions:</b> Please email to: <u>kpope@riceswd.com</u> or <u>ipurvis@riceswd.com</u> Received by: <u>James Johnson</u> <u>4-14-07</u> 6:40 Reinquished by: <u>Rozanne Johnson</u> <u>4-14-07</u> 6:40 Received by: <u>Rozanne Johnson</u> <u>4-14-07</u> 13:05 Reinquished by: _____																

Analyze For:		ICUP
Metals: As Ag Ba Cd Cr Pb Hg Se	X	
SAR / ESP / CEC		
Anions (Cl, SO <sub>4</sub> , Alkalinity)		
Cations (Ca, Mg, Na, K)		
TPH: TX 1005 TX 1006		
TPH: 418.1 8015M 8015B		
Semivolatiles		
Volatiles (BTEX-N 8260)		
BTEX 8021B/5930		
ROI		
N.O.R.M.		
Total Dissolved Solids		

**Laboratory Comments:**  
 Sample Containers Initialed?   
 VOCs Free of Headspace?   
 Labels on container(s)   
 Custody seals on container(s)   
 Custody seals on cooler(s)   
 Sample Hand Delivered by Sampler/Client Reps?  UPS  DHL  FedEx  Lone Star   
 by Courier?  
 Temperature Upon Receipt: 2.0 °C

## Environmental Lab of Texas

### Variance/ Corrective Action Report- Sample Log-In

Client: Rice Operating  
 Date/ Time: 04-16-07 @ 1305  
 Lab ID #: 7016034  
 Initials: JMM

#### Sample Receipt Checklist

				Client Initials
#1 Temperature of container/ cooler?	(Yes)	No	2.0 °C	
#2 Shipping container in good condition?	(Yes)	No		
#3 Custody Seals intact on shipping container/ cooler?	(Yes)	No	Not Present	
#4 Custody Seals intact on sample bottles/ container?	(Yes)	No	Not Present	
#5 Chain of Custody present?	(Yes)	No		
#6 Sample instructions complete of Chain of Custody?	(Yes)	No		
#7 Chain of Custody signed when relinquished/ received?	(Yes)	No		
#8 Chain of Custody agrees with sample label(s)?	(Yes)	No	ID written on Cont./ Lid	
#9 Container label(s) legible and intact?	(Yes)	No	Not Applicable	
#10 Sample matrix/ properties agree with Chain of Custody?	(Yes)	No		
#11 Containers supplied by ELOT?	(Yes)	No		
#12 Samples in proper container/ bottle?	(Yes)	No	See Below	
#13 Samples properly preserved?	(Yes)	No	See Below	
#14 Sample bottles intact?	(Yes)	No		
#15 Preservations documented on Chain of Custody?	(Yes)	No		
#16 Containers documented on Chain of Custody?	(Yes)	No		
#17 Sufficient sample amount for indicated test(s)?	(Yes)	No	See Below	
#18 All samples received within sufficient hold time?	(Yes)	No	See Below	
#19 Subcontract of sample(s)?	Yes	No	<del>Not Applicable</del>	
#20 VOC samples have zero headspace?	(Yes)	No	Not Applicable	

#### Variance Documentation

Contact: \_\_\_\_\_ Contacted by: \_\_\_\_\_ Date/ Time: \_\_\_\_\_

Regarding: \_\_\_\_\_

Corrective Action Taken: \_\_\_\_\_

- Check all that Apply:
- See attached e-mail/ fax
  - Client understands and would like to proceed with analysis
  - Cooling process had begun shortly after sampling event



**ARDINAL  
LABORATORIES**

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

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

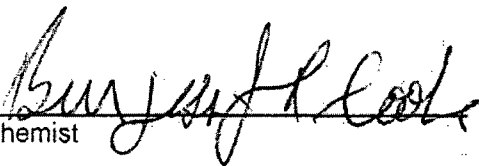
ANALYTICAL RESULTS FOR  
RICE OPERATING COMPANY  
ATTN: KRISTIN FARRIS-POPE  
122 W. TAYLOR  
HOBBS, NM 88240  
FAX TO: (505) 397-1471


Receiving Date: 09/05/07  
Reporting Date: 09/08/07  
Project Number: NOT GIVEN  
Project Name: EME JUNCTION A-20  
Project Location: T20S-R37E-SEC20 A ~ LEA CO., NM

Sampling Date: 09/04/07  
Sample Type: GROUNDWATER  
Sample Condition: COOL & INTACT  
Sample Received By: KR  
Analyzed By: AB

LAB NUMBER	SAMPLE ID	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL BENZENE (mg/L)	TOTAL XYLENES (mg/L)
	ANALYSIS DATE	09/07/07	09/07/07	09/07/07	09/07/07
H13236-1	MONITOR WELL #1	<0.002	0.031	0.240	0.246
H13236-2	MONITOR WELL #2	<0.002	<0.002	<0.002	<0.006
H13236-3	MONITOR WELL #3	<0.002	<0.002	<0.002	<0.006
H13236-4	MONITOR WELL #4	<0.002	<0.002	<0.002	<0.006
H13236-5	MONITOR WELL #5	<0.002	<0.002	<0.002	<0.006
	Quality Control	0.107	0.104	0.104	0.317
	True Value QC	0.100	0.100	0.100	0.300
	% Recovery	107	104	104	106
	Relative Percent Difference	6.1	8.2	7.6	7.5

METHOD: EPA SW-846 8021 B

  
Chemist

  
Date



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

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

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

Receiving Date: 09/05/07  
 Reporting Date: 09/18/07  
 Project Owner: NOT GIVEN  
 Project Name: EME JUNCTION A-20  
 Project Location: T20S-R37E-SEC20 A~LEA COUNTY, NM

Sampling Date: 09/04/07  
 Sample Type: WATER  
 Sample Condition: COOL & INTACT  
 Sample Received By: KR  
 Analyzed By: HM/KS

LAB NUMBER	SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity ( $\mu$ S/cm)	T-Alkalinity (mgCaCO <sub>3</sub> /L)
ANALYSIS DATE:		09/15/07	09/15/07	09/15/07	09/15/07	09/06/07	09/12/07
H13236-1	MONITOR WELL #1	1230	101	178	12.7	7,640	740
H13236-2	MONITOR WELL #2	1395	196	202	16.7	8,530	204
H13236-3	MONITOR WELL #3	1405	286	196	15.1	8,930	200
H13236-4	MONITOR WELL #4	1592	316	303	19.4	10,620	180
H13236-5	MONITOR WELL #5	1390	137	180	26.0	8,270	252
Quality Control		NR	50.6	50.0	1.91	1409	NR
True Value QC		NR	50.0	50.0	2.00	1413	NR
% Recovery		NR	101	100	95.7	99.7	NR
Relative Percent Difference		NR	< 0.1	6.2	1.6	1.4	NR

METHODS:	SM3500-Ca-D	3500-Mg E	8049	120.1	310.1
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LAB NUMBER	SAMPLE ID	Cl <sup>-</sup> (mg/L)	SO <sub>4</sub> (mg/L)	CO <sub>3</sub> (mg/L)	HCO <sub>3</sub> (mg/L)	pH (s.u.)	TDS (mg/L)
ANALYSIS DATE:		09/12/07	09/12/07	09/12/07	09/12/07	09/06/07	09/10/07
H13236-1	MONITOR WELL #1	1,999	115	0	903	7.37	4,612
H13236-2	MONITOR WELL #2	2,339	842	0	249	7.15	5,664
H13236-3	MONITOR WELL #3	2,619	679	0	244	7.08	6,212
H13236-4	MONITOR WELL #4	3,179	831	0	220	7.07	7,270
H13236-5	MONITOR WELL #5	2,299	623	0	307	7.31	5,236
Quality Control		500	25.5	NR	964	7.02	NR
True Value QC		500	25.0	NR	1000	7.00	NR
% Recovery		100	102	NR	96.4	100	NR
Relative Percent Difference		< 0.1	6.0	NR	6.0	0.3	NR

METHODS:	SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1
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*Kristin Farris-Pope*  
 Chemist

9/18/07  
 Date

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# Cardinal Laboratories, Inc.

101 East Marland - Hobbs, New Mexico 88240  
 Tel (505) 393-2326  
 Fax (505) 393-2476

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # \_\_\_\_\_

Company Name: **RICE Operating Company** PO# \_\_\_\_\_  
 Project Manager: **Kristin Farris-Pope, Project Scientist**  
 Address: (Street, City, Zip) **122 W Taylor Street - Hobbs, New Mexico 88240**  
 Phone #: **(505) 393-9174** Fax #: **(505) 397-1471**  
 Project #: **(505) 393-9174** Project Name: **EME Junction A-20**

Project Location: **T20S-R37E-Sec20 A ~ Lea County - New Mexico**  
 Sampler Signature: *[Signature]* Rozanne Johnson (505)631-9310  
 rozanne@valornet.com

LAB # (LAB USE ONLY)	FIELD CODE	(G)rab or (C)omp	MATRIX			PRESERVATIVE METHOD				SAMPLING	
			WATER	AIR	SLUDGE	HCL (2.0ml VOA)	HNO <sub>3</sub>	NaHSO <sub>4</sub>	H <sub>2</sub> SO <sub>4</sub>	ICE (1-1.1Ltr HDPE)	DATE (2007)
H132361	Monitor Well #1	G	X			2			1	9-4	12:40
-2	Monitor Well #2	G	X			2			1	9-4	10:00
-3	Monitor Well #3	G	X			2			1	9-4	11:45
-4	Monitor Well #4	G	X			2			1	9-4	10:50
-5	Monitor Well #5	G	X			2			1	9-4	9:10

Relinquished by: *[Signature]* Date: **9-5-07** Time: **10:15am**  
 Rozanne Johnson

Received by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 Received By: (Laboratory Staff) **Kenyatta Rendon** Date: **9/5/07** Time: **10:15am**

Delivered By: (Circle One) **(Sampler)** - UPS - Bus - Other:  
 Sample Condition: Yes  No   
 Cool  Inact   
 Checked By: \_\_\_\_\_ (Initials)

**ANALYSIS REQUEST**  
 (Circle or Specify Method No.)

TPH 418, 1/TX1005 / TX1005 Extended (C35)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GCMS Vol. 8260B/624	GCMS Semi. Vol. 8270C/625	PCBs 8082/608	Pesticides 8081A/608	BOD, TSS, pH	Moisture Content	Cations (Ca, Mg, Na, K)	Anions (Cl, SO <sub>4</sub> , CO <sub>3</sub> , HCO <sub>3</sub> )	Total Dissolved Solids	Chlorides	Turn Around Time ~ 24 Hours
X															X	X	X	
															X	X	X	
															X	X	X	
															X	X	X	
															X	X	X	

Phone Results: Yes  No   
 Fax Results: Yes  No   
 Additional Fax Number: \_\_\_\_\_

REMARKS:  
 Email Results to: **kpope@riceswd.com**  
**lweinheimer@riceswd.com**  
**rozanne@valornet.com**





# CARDINAL LABORATORIES

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

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

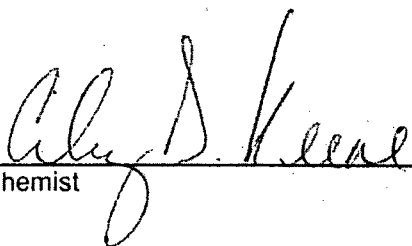
ANALYTICAL RESULTS FOR  
RICE OPERATING COMPANY  
ATTN: KRISTIN FARRIS-POPE  
122 WEST TAYLOR  
HOBBS, NM 88240  
FAX TO: (575) 397-1471

Receiving Date: 10/15/07  
Reporting Date: 10/18/07  
Project Number: NOT GIVEN  
Project Name: EME JUNCTION A-20  
Project Location: T20S R37E SEC20 A - LEA COUNTY, NM

Sampling Date: 10/11/07  
Sample Type: WATER  
Sample Condition: COOL & INTACT  
Sample Received By: CK  
Analyzed By: CK/AB

LAB NUMBER	SAMPLE ID	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL BENZENE (mg/L)	TOTAL XYLENES (mg/L)
ANALYSIS DATE		10/15/07	10/15/07	10/15/07	10/15/07
H13505-1	MONITOR WELL #1	0.068	0.012	0.170	0.138
H13505-2	MONITOR WELL #2	<0.001	<0.001	<0.001	<0.003
H13505-3	MONITOR WELL #3	<0.001	<0.001	<0.001	<0.003
H13505-4	MONITOR WELL #4	0.002	<0.001	<0.001	<0.003
H13505-5	MONITOR WELL #5	<0.001	<0.001	<0.001	<0.003
Quality Control		0.102	0.108	0.108	0.332
True Value QC		0.100	0.100	0.100	0.300
% Recovery		102	108	108	111
Relative Percent Difference		0.9	0.8	0.8	1.3

METHOD: EPA SW-846 8021B

  
\_\_\_\_\_  
Chemist

10/18/07  
\_\_\_\_\_  
Date

H13505b Rice

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

ANALYTICAL RESULTS FOR  
 RICE OPERATING COMPANY  
 ATTN: KRISTIN FARRIS-POPE  
 122 W. TAYLOR STREET  
 HOBBS, NM 88240  
 FAX TO: (575) 397-1471

Receiving Date: 10/15/07  
 Reporting Date: 10/18/07  
 Project Number: NOT GIVEN  
 Project Name: EME JUNCTION A-20  
 Project Location: T20S R37E SEC20 A~LEA COUNTY, NM

Sampling Date: 10/11/07  
 Sample Type: WATER  
 Sample Condition: COOL & INTACT  
 Sample Received By: CK  
 Analyzed By: HM/KS

LAB NUMBER	SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity ( $\mu$ S/cm)	T-Alkalinity (mgCaCO <sub>3</sub> /L)
ANALYSIS DATE:		10/17/07	10/16/07	10/16/07	10/17/07	10/16/07	10/16/07
H13505-1	MONITOR WELL #1	1,238	153	204	16.2	7,750	860
H13505-2	MONITOR WELL #2	1,366	230	200	17.7	8,520	384
H13505-3	MONITOR WELL #3	1,246	306	230	11.8	8,980	344
H13505-4	MONITOR WELL #4	1,479	336	288	17.7	10,660	340
H13505-5	MONITOR WELL #5	1,284	183	180	22.1	8,250	444
Quality Control		NR	50.6	50.8	1.94	9,790	NR
True Value QC		NR	50.0	50.0	2.00	10,000	NR
% Recovery		NR	101	102	97.0	97.9	NR
Relative Percent Difference		NR	5.5	1.6	5.8	0.2	NR

METHODS:	SM3500-Ca-D	3500-Mg E	8049	120.1	310.1
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LAB NUMBER	SAMPLE ID	Cl <sup>-</sup> (mg/L)	SO <sub>4</sub> (mg/L)	CO <sub>3</sub> (mg/L)	HCO <sub>3</sub> (mg/L)	pH (s.u.)	TDS (mg/L)
ANALYSIS DATE:		10/17/07	10/17/07	10/16/07	10/16/07	10/16/07	10/15/07
H13505-1	MONITOR WELL #1	2,100	111	0	1,049	7.14	4,416
H13505-2	MONITOR WELL #2	2,260	790	0	468	7.24	5,500
H13505-3	MONITOR WELL #3	2,500	548	0	420	7.16	5,417
H13505-4	MONITOR WELL #4	3,000	670	0	415	7.17	6,587
H13505-5	MONITOR WELL #5	2,220	428	0	542	7.46	5,082
Quality Control		500	23.0	NR	988	6.97	NR
True Value QC		500	25.0	NR	1000	7.00	NR
% Recovery		100	92.1	NR	98.8	99.6	NR
Relative Percent Difference		< 0.1	1.9	NR	< 0.1	0.3	NR

METHODS:	SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1
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*Kristin Farris-Pope*  
 Chemist

10/18/07  
 Date

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Cardinal Laboratories, Inc.

101 East Marland - Hobbs, New Mexico 88240  
Tel (505) 393-2328  
Fax (505) 393-2476

Company Name: RICE Operating Company  
Project Manager: Kristin Farris-Pope, Project Scientist  
Address: 122 W Taylor Street - Hobbs, New Mexico 88240  
Phone #: (505) 393-9174  
Fax #: (505) 397-1471

Project Name: EME Junction A-20  
Project Location: T20S-R37E-Sec20 A ~ Lea County - New Mexico  
Sampler Signature: Rozanne Johnson (505) 393-9310  
Address: 122 W Taylor Street - Hobbs, New Mexico 88240  
Phone #: (505) 393-9174  
Fax #: (505) 397-1471

LAB #	FIELD CODE	(G)rab or (C)omp	MATRIX			PRESERVATIVE METHOD					SAMPLING	
			WATER	SOIL	AIR	SLUDGE	HCL (2.40ml VOA)	HNO3	NaHSO4	H2SO4	ICE (1-Liter HDPE)	DATE (2007)
1	Monitor Well #1	G	X				2			1	10-11	12:35
2	Monitor Well #2	G	X				2			1	10-11	9:15
3	Monitor Well #3	G	X				2			1	10-11	11:15
4	Monitor Well #4	G	X				2			1	10-11	10:05
5	Monitor Well #5	G	X				2			1	10-11	8:30

Received by: Rozanne Johnson  
Date: 10-15-07  
Time: 11:55

Received By: (Laboratory Staff)  
Date: 10-15-07  
Time: 11:55

Sample Condition:  Cool  Intact  Yes  No

Delivered By: (Circle One) UPS - Bus - Other: \_\_\_\_\_  
Checked By: \_\_\_\_\_ (Initials) *CDK*

ANALYSIS REQUEST (Circle or Specify Method No.)

Method	Yes	No
TPH 418 1/TX1005 / TX1005 Extended (C35)		
PAH 8270C		
Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7		
TCLP Metals Ag As Ba Cd Cr Pb Se Hg		
TCLP Volatiles		
TCLP Semi Volatiles		
TCLP Pesticides		
RCI		
GC/MS Vol. 8260B/624		
GC/MS Semi. Vol. 8270C/625		
PCBs 8082/608		
Pesticides 8081A/608		
BOD, TSS, pH		
Moisture Content		
Cations (Ca, Mg, Na, K)	X	
Anions (Cl, SO4, CO3, HCO3)	X	
Total Dissolved Solids	X	
Chlorides	X	
Turn Around Time ~ 24 Hours		

REMARKS:

Phone Results: Yes No  
Fax Results: Yes No  
Additional Fax Number: \_\_\_\_\_

Email Results to: kpope@riceswd.com  
lweinhelmer@riceswd.com  
rozanne@valornet.com