AP – 060

ANNUAL GW MONITOR REPORT

DATE: 2006

AP-60
Annual GW Mon Report
2006

Whole Earth Environmental, Inc.
2103 Arbor Cove
Katy, Tx. 77494
281.394.2050
whearth@msn.com

March 19, 2007

NMOCD
1220 South St. Francis Drive
Sante Fe, NM 87505

Attn: Wayne Price

Re: 2006 Monitor Well Report / Sampling Summary
Junction K-33-1, EME SWD System
Unit "K", Sec. 33, T-19-S, R-37 E
NMOCD Case # AP-60

Dear Mr. Price:

Enclosed, please find the 2006 Annual Ground Water Monitoring Report for the K-33-1 site within the EME Salt Water Disposal System. The report includes the following information:

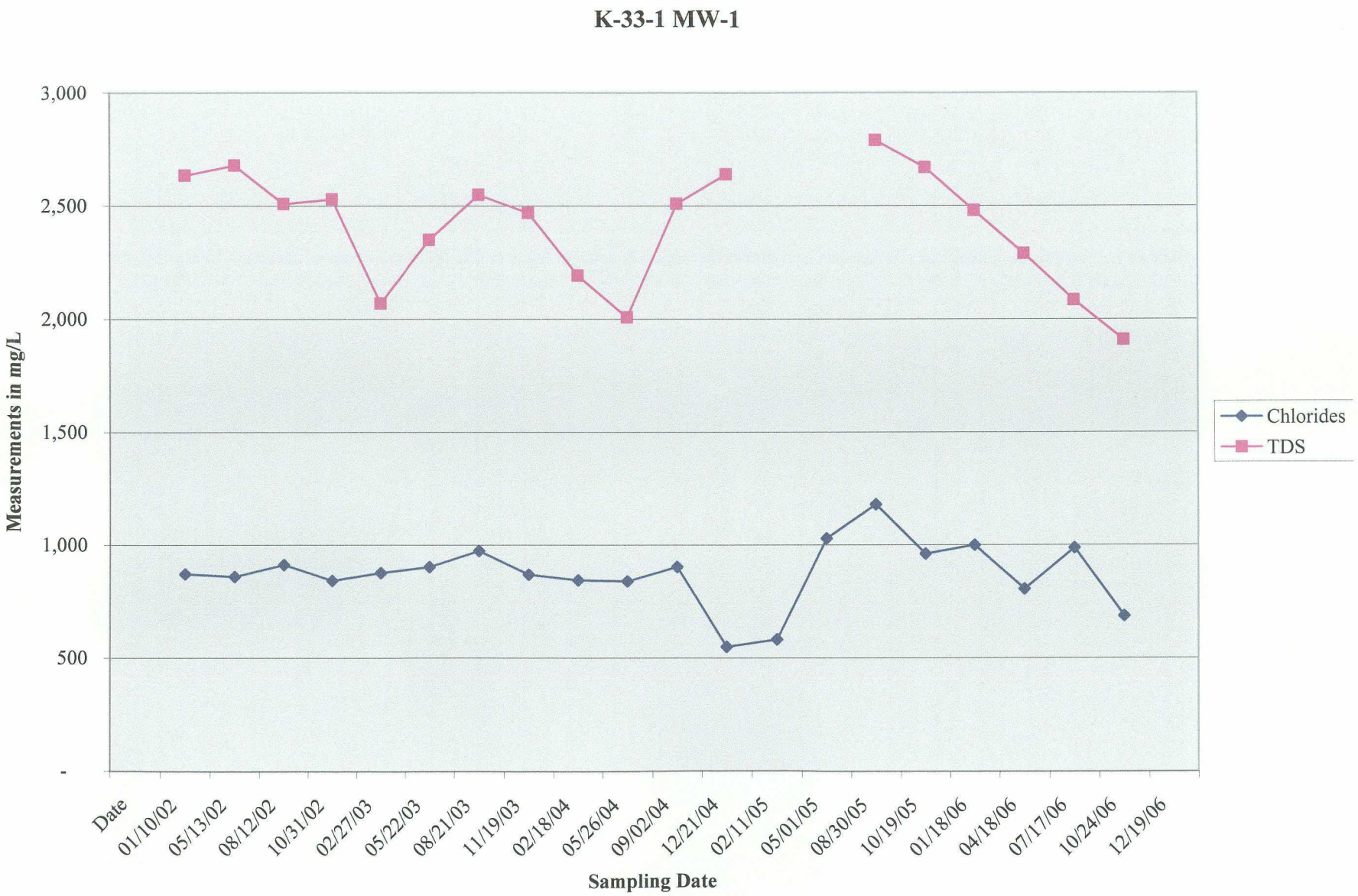
- Summary Tables of all laboratory results and depths to ground water
- Graphs of chloride concentrations over time
- Laboratory analytical reports
- CD version of the above

During the course of the year, two additional delineation wells were advanced confirming that the chloride concentrations within the individual well bores were at equilibrium with background. A final closure request was submitted to the NMOCD on December 28.

Thank you again for your interest in this project; if you've any questions or comments, please do not hesitate to get in touch with me or Kristin Pope at 505.393.9174

Warmest personal regards,

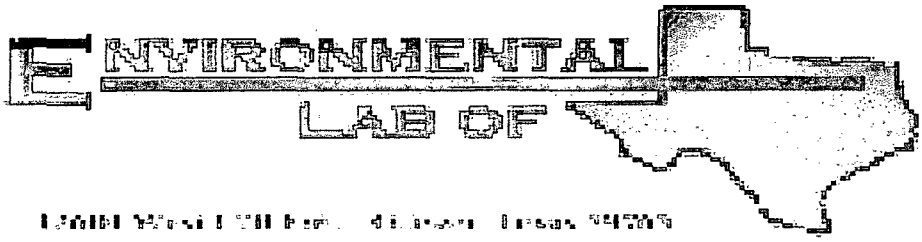
Mike Griffin
President
Whole Earth Environmental, Inc.


K-33-1 MW-1
3,000
2,500
2,000
1,500
1,000
500
-
Measurements in mg/L
Chlorides
TDS
Date
01/10/02
05/13/02
08/12/02
10/31/02
02/27/03
05/22/03
08/21/03
11/19/03
02/18/04
05/26/04
09/02/04
12/21/04
02/11/05
05/01/05
08/30/05
10/19/05
01/18/06
04/18/06
07/17/06
10/24/06
12/19/06
Sampling Date

Rice Operating Company
EME Junction K-33-1
NMOCD Case 1RO 427-92 AP-60
Unit 'K', Sec. 33, T19S, R37E

MW #	Depth to Water (Ft.)	Total Depth (Ft.)	Well Volume (Gal.)	Volume (gal.)	Sample Date	Chlorides	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylene	Sulfate
1	36.90	41.00	0.70	2.00	01/10/02	872	2,635	<0.002	<0.002	<0.002	<0.006	344
1	36.88	40.78	0.62	2.90	05/13/02	860	2,680	<1.00	<1.00	<1.00	<2.00	346
1	37.20	40.79	0.57	1.75	08/12/02	913	2,510	<0.001	<0.001	<0.001	<0.002	292
1	37.11	40.77	0.59	1.75	10/31/02	842	2,530	<0.001	<0.001	<0.001	<0.002	310
1	37.10	40.77	0.58	1.70	02/27/03	877	2,070	<0.001	<0.001	<0.001	0.001	305
1	31.10	41.20	1.62	4.80	05/22/03	904	2,350	<0.001	<0.001	<0.001	<0.002	264
1	37.29	40.04	0.44	1.32	08/21/03	975	2,550	<0.001	<0.001	<0.001	<0.002	274
1	37.40	40.78	0.54	1.60	11/19/03	869	2,470	<0.001	<0.001	<0.001	<0.002	282
1	37.40	40.75	0.54	1.60	02/18/04	844	2,192	<0.002	<0.002	<0.002	<0.006	43
1	37.30	40.75	0.55	2.00	05/26/04	840	2,008	<0.002	<0.002	<0.002	<0.006	113
1	37.12	41.00		2.00	09/02/04	904	2,510	<0.001	<0.001	<0.001	<0.001	304
1	32.91	41.00		4.05	12/21/04	550	2,640	<0.001	<0.001	<0.001	<0.001	216
1					02/11/05	582						
1					05/01/05	1,030						
1					08/30/05	1,180	2,790	<0.001	<0.001	<0.001	<0.001	
1	32.15	41.00	1.40	5.00	10/19/05	961	2,670	<0.001	<0.001	<0.001	<0.001	276
1	31.10	41.00	1.60	6.00	01/18/06	1,000	2,480	<0.001	<0.001	<0.001	<0.001	264
1	31.10	41.00	1.60	6.00	04/18/06	805	2,290	<0.001	<0.001	<0.001	<0.001	207
1	31.73	41.00	1.50	8.00	07/17/06	988	2,085	<0.001	<0.001	<0.001	<0.001	298
1					10/24/06	686	1,910	<0.001	<0.001	<0.001	<0.001	283
1					12/19/06			<0.001	<0.001	<0.001	<0.001	
2					10/24/06	692	1,900	<0.001	<0.001	<0.001	<0.001	237
3					10/24/06	687	2,100	<0.001	<0.001	<0.001	<0.001	306

All concentrations are in mg/L



Analytical Report

Prepared for:

Kristin Farris-Pope

Rice Operating Co.

122 W. Taylor

Hobbs. NM 88240

Project: EME Jct. K-33-1

Project Number: None Given

Location: T19S R37E Sec. 33 K- Lea County, NM

Lab Order Number: 6L07009

Report Date: 12/19/06

Rice Operating Co.	Project: EME Jct. K-33-1	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Monitor Well #3	6L07009-01	Water	12/06/06 15:45	12-07-2006 10:50

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Rice Operating Co.	Project: EME Jct. K-33-1	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Monitor Well #3 (6L07009-01) Water									
Benzene	ND	0.00100	mg/L	1	EL61404	12/14/06	12/18/06	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		*98.5 %*		*80-120*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*82.0 %*		*80-120*	"	"	"	"	

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Rice Operating Co.	Project: EME Jct. K-33-1	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

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
Batch EL61404 - EPA 5030C (GC)										
Blank (EL61404-BLK1)				Prepared & Analyzed: 12/14/06						
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	*45.2*		*ug/l*	*40.0*		*113*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*34.5*		*"*	*40.0*		*86.2*	*80-120*			
LCS (EL61404-BS1)				Prepared & Analyzed: 12/14/06						
Benzene	0.0423	0.00100	mg/L	0.0500		84.6	80-120			
Toluene	0.0430	0.00100	"	0.0500		86.0	80-120			
Ethylbenzene	0.0426	0.00100	"	0.0500		85.2	80-120			
Xylene (p/m)	0.0962	0.00100	"	0.100		96.2	80-120			
Xylene (o)	0.0469	0.00100	"	0.0500		93.8	80-120			
Surrogate: a,a,a-Trifluorotoluene	*37.6*		*ug/l*	*40.0*		*94.0*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*32.8*		*"*	*40.0*		*82.0*	*80-120*			
Calibration Check (EL61404-CCV1)				Prepared: 12/14/06 Analyzed: 12/15/06						
Benzene	54.4		ug/l	50.0		109	80-120			
Toluene	55.1		"	50.0		110	80-120			
Ethylbenzene	59.3		"	50.0		119	80-120			
Xylene (p/m)	116		"	100		116	80-120			
Xylene (o)	58.7		"	50.0		117	80-120			
Surrogate: a,a,a-Trifluorotoluene	*47.9*		*"*	*40.0*		*120*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*40.0*		*"*	*40.0*		*100*	*80-120*			
Matrix Spike (EL61404-MS1)	**Source: 6L05006-10**			Prepared: 12/14/06 Analyzed: 12/18/06						
Benzene	0.0402	0.00100	mg/L	0.0500	ND	80.4	80-120			
Toluene	0.0407	0.00100	"	0.0500	ND	81.4	80-120			
Ethylbenzene	0.0487	0.00100	"	0.0500	ND	97.4	80-120			
Xylene (p/m)	0.0853	0.00100	"	0.100	ND	85.3	80-120			
Xylene (o)	0.0444	0.00100	"	0.0500	ND	88.8	80-120			
Surrogate: a,a,a-Trifluorotoluene	*32.6*		*ug/l*	*40.0*		*81.5*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*38.7*		*"*	*40.0*		*96.8*	*80-120*			

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Organics by GC - Quality Control

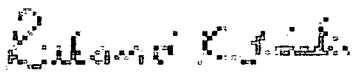
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EL61404 - EPA 5030C (GC)										
Matrix Spike Dup (EL61404-MSD1)	**Source: 6L05006-10**			Prepared: 12/14/06 Analyzed: 12/18/06						
Benzene	0.0422	0.00100	mg/L	0.0500	ND	84.4	80-120	4.85	20	
Toluene	0.0446	0.00100	"	0.0500	ND	89.2	80-120	9.14	20	
Ethylbenzene	0.0464	0.00100	"	0.0500	ND	92.8	80-120	4.84	20	
Xylene (p/m)	0.102	0.00100	"	0.100	ND	102	80-120	17.8	20	
Xylene (o)	0.0513	0.00100	"	0.0500	ND	103	80-120	14.8	20	
Surrogate: a,a,a-Trifluorotoluene	*38.2*		*ug/l*	*40.0*		*95.5*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*37.7*		*"*	*40.0*		*94.2*	*80-120*			

Rice Operating Co.	Project: EME Jct. K-33-1	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Notes and Definitions

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: 12/19/2006

Raland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer
Jeanne Mc Murrey, Inorg. Tech Director
LaTasha Cornish, Chemist
Sandra Sanchez, Lab Tech.

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Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765

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

Project Manager: Kristin Farris Pope 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 Fax No: (505) 397-1471

Sampler Signature: Rozanne Johnson (505)631-9310 e-mail: rozanne@valornet.com

Project Name: EME Junction K-33-1

Project #:

Project Loc: T19S R37E Sec33 K ~ Lea County New Mexico

PO #:

Report Format: [X] Standard [ ] TRRP [ ] NPDES

(lab use only)

ORDER #: 611071009

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO_3	HCl (2) 40 ml glass vials	H_2SO_4	NaOH	$Na_2S_2O_3$	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge	GW=Groundwater S=Soil/Solid	NP=Non-Potable Specify Other	Analyze For: TCLP:	TOTAL: TPH: 418.1	8015M	TPH: TX 1005	TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles (BTEX-N 8260)	Semivolatiles	BTEX 8021B/5030or BTEX 8260	RCI	N.O.R.M.	Total Dissolved Solids		RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
1	Monitor Well #3			12/6/2006	15:45		2	X		2							GW												X							X

Special Instructions:

Please email to : kpope@riceswd.com mfranks@riceswd.com rozanne@valornet.com

Bill to: Roz per Roz

Relinquished by:	Date	Time	Received by:	Date	Time
Rozanne Johnson	12-7-06	10:50			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by ELOT:	Date	Time
				12/7/06	10:50

Laboratory Comments:

Sample Containers Intact?	Y	N
VOCs Free of Headspace?	Y	N
Labels on container(s)	Y	N
Custody seals on container(s)	Y	N
Custody seals on cooler(s)	Y	N
Sample Hand Delivered by Sampler/Client Rep. ?	Y	N
by Courier? UPS DHL FedEx Lone Star		

Temperature Upon Receipt: -2.0 °C

not frozen

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: RKI Op.

Date/ Time: 12/7/04 10:50

Lab ID #: 0L07009

Initials: CK

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	Not Applicable	
#20	VOC samples have zero headspace?	Yes	No	Not Applicable	

Variance Documentation

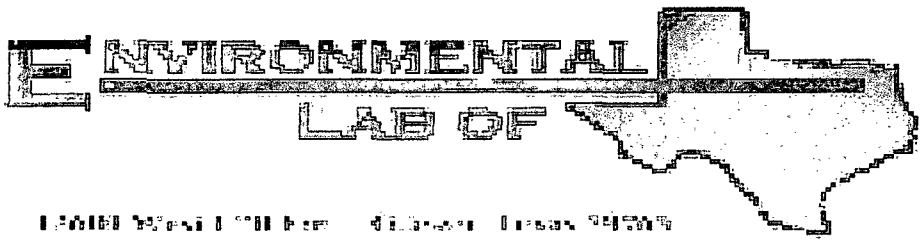
Contact: _____ Contacted by: _____ Date/ Time: _____

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



Analytical Report

Prepared for:

Kristin Farris-Pope

Rice Operating Co.

122 W. Taylor

Hobbs, NM 88240

Project: EME Jct. K-33-1

Project Number: None Given

Location: T19S-R37E-Sec33K, Lea Co., NM

Lab Order Number: 6J12016

Report Date: 10/24/06

Rice Operating Co.	Project: EME Jct. K-33-1	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Monitor Well #1	6J12016-01	Water	10/12/06 10:15	10-12-2006 16:00
Monitor Well #2	6J12016-02	Water	10/12/06 09:05	10-12-2006 16:00
Monitor Well #3	6J12016-03	Water	10/12/06 11:10	10-12-2006 16:00

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Rice Operating Co.	Project: EME Jct. K-33-1	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Monitor Well #1 (6J12016-01) Water									
Benzene	ND	0.00100	mg/L	1	EJ61608	10/16/06	10/16/06	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		*85.2 %*		*80-120*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*86.5 %*		*80-120*		"	"	"	
Monitor Well #2 (6J12016-02) Water									
Benzene	**0.00340**	0.00100	mg/L	1	EJ61608	10/16/06	10/16/06	EPA 8021B	
Toluene	**0.00405**	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*83.0 %*		*80-120*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*83.2 %*		*80-120*		"	"	"	
Monitor Well #3 (6J12016-03) Water									
Benzene	ND	0.00100	mg/L	1	EJ61608	10/16/06	10/16/06	EPA 8021B	
Toluene	**J [0.000862]**	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*84.2 %*		*80-120*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*88.0 %*		*80-120*		"	"	"	

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Rice Operating Co.	Project: EME Jct. K-33-1	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Monitor Well #1 (6J12016-01) Water									
Total Alkalinity	**292**	2.00	mg/L	1	EJ61311	10/13/06	10/13/06	EPA 310.1M	
Chloride	**686**	25.0	"	50	EJ61403	10/19/06	10/19/06	EPA 300.0	
Total Dissolved Solids	**1910**	10.0	"	1	EJ61404	10/14/06	10/15/06	EPA 160.1	
Sulfate	**283**	25.0	"	50	EJ61403	10/19/06	10/19/06	EPA 300.0	
Monitor Well #2 (6J12016-02) Water									
Total Alkalinity	**285**	2.00	mg/L	1	EJ61311	10/13/06	10/13/06	EPA 310.1M	
Chloride	**692**	12.5	"	25	EJ61403	10/19/06	10/19/06	EPA 300.0	
Total Dissolved Solids	**1900**	10.0	"	1	EJ61404	10/14/06	10/15/06	EPA 160.1	
Sulfate	**237**	12.5	"	25	EJ61403	10/19/06	10/19/06	EPA 300.0	
Monitor Well #3 (6J12016-03) Water									
Total Alkalinity	**306**	2.00	mg/L	1	EJ61311	10/13/06	10/13/06	EPA 310.1M	
Chloride	**687**	25.0	"	50	EJ61403	10/19/06	10/19/06	EPA 300.0	
Total Dissolved Solids	**2100**	10.0	"	1	EJ61404	10/14/06	10/15/06	EPA 160.1	
Sulfate	**296**	25.0	"	50	EJ61403	10/19/06	10/19/06	EPA 300.0	

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Rice Operating Co.	Project: EME Jct. K-33-1	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Total Metals by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Monitor Well #1 (6J12016-01) Water									
Calcium	**209**	4.05	mg/L	50	EJ61604	10/13/06	10/16/06	EPA 6010B	
Magnesium	**99.6**	1.80	"	"	"	"	"	"	
Potassium	**15.2**	0.600	"	10	"	"	"	"	
Sodium	**246**	2.15	"	50	"	"	"	"	
Monitor Well #2 (6J12016-02) Water									
Calcium	**213**	4.05	mg/L	50	EJ61604	10/13/06	10/16/06	EPA 6010B	
Magnesium	**106**	1.80	"	"	"	"	"	"	
Potassium	**14.2**	0.600	"	10	"	"	"	"	
Sodium	**250**	2.15	"	50	"	"	"	"	
Monitor Well #3 (6J12016-03) Water									
Calcium	**231**	4.05	mg/L	50	EJ61604	10/13/06	10/16/06	EPA 6010B	
Magnesium	**108**	1.80	"	"	"	"	"	"	
Potassium	**16.1**	0.600	"	10	"	"	"	"	
Sodium	**261**	2.15	"	50	"	"	"	"	

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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
Batch EJ61608 - EPA 5030C (GC)										
Blank (EJ61608-BLK1)				Prepared: 10/16/06 Analyzed: 10/17/06						
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	*32.4*		*ug/l*	*40.0*		*81.0*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*33.9*		*"*	*40.0*		*84.8*	*80-120*			
LCS (EJ61608-BS1)				Prepared: 10/16/06 Analyzed: 10/17/06						
Benzene	0.0482	0.00100	mg/L	0.0500		96.4	80-120			
Toluene	0.0428	0.00100	"	0.0500		85.6	80-120			
Ethylbenzene	0.0413	0.00100	"	0.0500		82.6	80-120			
Xylene (p/m)	0.0853	0.00100	"	0.100		85.3	80-120			
Xylene (o)	0.0409	0.00100	"	0.0500		81.8	80-120			
Surrogate: a,a,a-Trifluorotoluene	*36.7*		*ug/l*	*40.0*		*91.8*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*42.8*		*"*	*40.0*		*107*	*80-120*			
Calibration Check (EJ61608-CCV1)				Prepared: 10/16/06 Analyzed: 10/17/06						
Benzene	50.4		ug/l	50.0		101	80-120			
Toluene	43.5		"	50.0		87.0	80-120			
Ethylbenzene	41.4		"	50.0		82.8	80-120			
Xylene (p/m)	81.9		"	100		81.9	80-120			
Xylene (o)	40.3		"	50.0		80.6	80-120			
Surrogate: a,a,a-Trifluorotoluene	*33.7*		*"*	*40.0*		*84.2*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*35.0*		*"*	*40.0*		*87.5*	*80-120*			
Matrix Spike (EJ61608-MS1)	**Source: 6J12016-01**			Prepared: 10/16/06 Analyzed: 10/17/06						
Benzene	0.0518	0.00100	mg/L	0.0500	ND	104	80-120			
Toluene	0.0462	0.00100	"	0.0500	ND	92.4	80-120			
Ethylbenzene	0.0424	0.00100	"	0.0500	ND	84.8	80-120			
Xylene (p/m)	0.0932	0.00100	"	0.100	ND	93.2	80-120			
Xylene (o)	0.0432	0.00100	"	0.0500	ND	86.4	80-120			
Surrogate: a,a,a-Trifluorotoluene	*37.6*		*ug/l*	*40.0*		*94.0*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*39.6*		*"*	*40.0*		*99.0*	*80-120*			

Rice Operating Co.	Project: EME Jct. K-33-1	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

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
Batch EJ61608 - EPA 5030C (GC)										
Matrix Spike Dup (EJ61608-MSD1)	**Source: 6J12016-01**			Prepared: 10/16/06 Analyzed: 10/17/06						
Benzene	0.0500	0.00100	mg/L	0.0500	ND	100	80-120	3.92	20	
Toluene	0.0424	0.00100	"	0.0500	ND	84.8	80-120	8.58	20	
Ethylbenzene	0.0453	0.00100	"	0.0500	ND	90.6	80-120	6.61	20	
Xylene (p/m)	0.0807	0.00100	"	0.100	ND	80.7	80-120	14.4	20	
Xylene (o)	0.0412	0.00100	"	0.0500	ND	82.4	80-120	4.74	20	
Surrogate: a,a,a-Trifluorotoluene	*33.8*		*ug/l*	*40.0*		*84.5*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*34.7*		*"*	*40.0*		*86.8*	*80-120*			

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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
Batch EJ61311 - General Preparation (WetChem)										
Blank (EJ61311-BLK1)				Prepared & Analyzed: 10/13/06						
Total Alkalinity	ND	2.00	mg/L							
Carbonate Alkalinity	ND	0.100	"							
Bicarbonate Alkalinity	ND	2.00	"							
Hydroxide Alkalinity	ND	0.100	"							
LCS (EJ61311-BS1)				Prepared: 10/13/06 Analyzed: 10/20/06						
Bicarbonate Alkalinity	196	2.00	mg/L	200		98.0	85-115			
Duplicate (EJ61311-DUP1)		**Source: 6J12011-01**		Prepared & Analyzed: 10/13/06						
Total Alkalinity	238	2.00	mg/L		242			1.67	20	
Reference (EJ61311-SRM1)				Prepared & Analyzed: 10/13/06						
Total Alkalinity	250		mg/L	250		100	90-110			
Batch EJ61403 - General Preparation (WetChem)										
Blank (EJ61403-BLK1)				Prepared & Analyzed: 10/19/06						
Chloride	ND	0.500	mg/L							
Sulfate	ND	0.500	"							
LCS (EJ61403-BS1)				Prepared & Analyzed: 10/19/06						
Sulfate	9.55	0.500	mg/L	10.0		95.5	80-120			
Chloride	9.62	0.500	"	10.0		96.2	80-120			
Calibration Check (EJ61403-CCV1)				Prepared & Analyzed: 10/19/06						
Sulfate	10.1		mg/L	10.0		101	80-120			
Chloride	10.5		"	10.0		105	80-120			

Rice Operating Co.	Project: EME Jct. K-33-1	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

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
Batch EJ61403 - General Preparation (WetChem)										
Duplicate (EJ61403-DUP1)	**Source: 6J12011-01**			Prepared & Analyzed: 10/19/06						
Sulfate	291	25.0	mg/L		308			5.68	20	
Chloride	1430	25.0	"		1430			0.00	20	
Duplicate (EJ61403-DUP2)	**Source: 6J12016-02**			Prepared & Analyzed: 10/19/06						
Sulfate	236	12.5	mg/L		237			0.423	20	
Chloride	690	12.5	"		692			0.289	20	
Matrix Spike (EJ61403-MS1)	**Source: 6J12011-01**			Prepared & Analyzed: 10/19/06						
Sulfate	781	25.0	mg/L	500	308	94.6	80-120			
Chloride	2040	25.0	"	500	1430	122	80-120			S-07
Matrix Spike (EJ61403-MS2)	**Source: 6J12016-02**			Prepared & Analyzed: 10/19/06						
Sulfate	476	12.5	mg/L	250	237	95.6	80-120			
Chloride	979	12.5	"	250	692	115	80-120			
Batch EJ61404 - Filtration Preparation										
Blank (EJ61404-BLK1)				Prepared: 10/14/06 Analyzed: 10/15/06						
Total Dissolved Solids	ND	10.0	mg/L							
Duplicate (EJ61404-DUP1)	**Source: 6J12011-01**			Prepared: 10/14/06 Analyzed: 10/15/06						
Total Dissolved Solids	3380	10.0	mg/L		3260			3.61	5	
Duplicate (EJ61404-DUP2)	**Source: 6J12016-02**			Prepared: 10/14/06 Analyzed: 10/15/06						
Total Dissolved Solids	1850	10.0	mg/L		1900			2.67	5	

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Rice Operating Co.	Project: EME Jct. K-33-1	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

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
Batch EJ61604 - 6010B/No Digestion										
Blank (EJ61604-BLK1)				Prepared: 10/13/06 Analyzed: 10/16/06						
Calcium	ND	0.0810	mg/L							
Magnesium	ND	0.0360	"							
Potassium	ND	0.0600	"							
Sodium	ND	0.0430	"							
Calibration Check (EJ61604-CCV1)				Prepared: 10/13/06 Analyzed: 10/16/06						
Calcium	1.99		mg/L	2.00		99.5	85-115			
Magnesium	2.20		"	2.00		110	85-115			
Potassium	1.94		"	2.00		97.0	85-115			
Sodium	1.79		"	2.00		89.5	85-115			
Duplicate (EJ61604-DUP1)	**Source: 6J12001-04**			Prepared: 10/13/06 Analyzed: 10/16/06						
Calcium	0.426	0.0810	mg/L		0.427			0.234	20	
Magnesium	0.432	0.0360	"		0.422			2.34	20	
Potassium	0.596	0.0600	"		0.582			2.38	20	
Sodium	0.890	0.0430	"		0.866			2.73	20	

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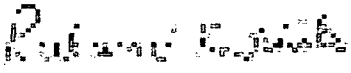
Notes and Definitions

S-07	Recovery outside Laboratory historical or method prescribed limits.
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: 10/24/2006

Raland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer
Jeanne Mc Murrey, Inorg. Tech Director
LaTasha Cornish, Chemist
Sandra Sanchez, Lab Tech.

Environmental Lab of Texas

12600 West I-20 East
Odessa, Texas 79765

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

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Kristin Farris Pope 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

Fax No: (505) 397-1471

Sampler Signature: Rozanne Johnson (505) 631-9310

Email: rozanne@velornet.com

Project Name: EME Junction K-33-1

Project Number:

Project Loc: T19S-R37E-Sec33K, Lea County NM

PO Number:

Analyze For: TCLP: / TOTAL: X (BTEX)

LAB # (lab use only) 6J12016	FIELD CODE	Date Sampled	Time Sampled	No. of Containers	Ice	HNO_3	HCl (2) 40 ml glass vials	NaOH	H_2SO_4	None (1) 1 Liter HDPE	Other (Specify)	Water	Sludge	Soil	Other (specify):	TPH: 418.1 8015M 1005 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, CO3, HCO3)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030	RCI	N.O.R.M.	Total Dissolved Solids				RUSH TAT (Pre-Schedule)	Standard TAT
-01	Monitor Well #1	10/12/2006	10:15	3	X		2			1		X					X	X					X			X					X
-02	Monitor Well #2	10/12/2006	9:05	3	X		2			1		X					X	X					X			X					X
-03	Monitor Well #3	10/12/2006	11:10	3	X		2			1		X					X	X					X			X					X

Special Instructions:

PLEASE Email RESULTS TO: kpope@riceswd.com; mfranks@riceswd.com
rozanne@velornet.com

Relinquished by:	Date	Time	Received by:	Date	Time
Rozanne Johnson	10/12/06	4:00			
Relinquished by:	Date	Time	Received by ELOT: [signature]	10/12/06	4:00

Sample Containers Intact? (Y) N
Labels on container? (Y) N
Custody Seals: Containers / (Cooler)
Temperature Upon Receipt:

Laboratory Comments: 2.0

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

ent: Rice Op.

e/ Time: 10/12/06 4:00

ID #: 6J12016

ials: [illegible]

Sample Receipt Checklist

					Client Initials
	Temperature of container/ cooler?	Yes	No	2.0 °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	
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	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

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
155 McCutcheon, Suite H El Paso, Texas 79932 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Kristen Farris-Pope
Rice Operating Company
122 W Taylor Street
Hobbs, NM, 88240

Report Date: August 9, 2006

Work Order: 6072144

Project Location: Lea County, New Mexico
Project Name: EME Junction K-33-1
Project Number: EME Junction K-33-1

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
96141	Monitor Well #1	Water	2006-07-17	12:15	2006-07-21

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 10 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director

Analytical Report

Sample: 96141 - Monitor Well #1

Analysis:	Alkalinity	Analytical Method:	SM 2320B	Prep Method:	N/A
QC Batch:	28340	Date Analyzed:	2006-07-26	Analyzed By:	LJ
Prep Batch:	24777	Sample Preparation:	2006-07-25	Prepared By:	LJ

Parameter	Flag	Result	RL	Units	Dilution	RL
Hydroxide Alkalinity		<1.00		mg/L as CaCo3	1	1.00
Carbonate Alkalinity		<1.00		mg/L as CaCo3	1	1.00
Bicarbonate Alkalinity		**276**		mg/L as CaCo3	1	4.00
Total Alkalinity		**276**		mg/L as CaCo3	1	4.00

Sample: 96141 - Monitor Well #1

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	28277	Date Analyzed:	2006-07-24	Analyzed By:	MT
Prep Batch:	24759	Sample Preparation:	2006-07-24	Prepared By:	MT

Parameter	Flag	Result	RL	Units	Dilution	RL
Benzene		<0.00100		mg/L	1	0.00100
Toluene		<0.00100		mg/L	1	0.00100
Ethylbenzene		<0.00100		mg/L	1	0.00100
Xylene		<0.00100		mg/L	1	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0954	mg/L	1	0.100	95	66.2 - 127.7
4-Bromofluorobenzene (4-BFB)	[1]	0.0584	mg/L	1	0.100	58	70.6 - 129.2

Sample: 96141 - Monitor Well #1

Analysis:	Cations	Analytical Method:	S 6010B	Prep Method:	S 3005A
QC Batch:	28357	Date Analyzed:	2006-07-26	Analyzed By:	TP
Prep Batch:	24749	Sample Preparation:	2006-07-24	Prepared By:	TS

Parameter	Flag	Result	RL	Units	Dilution	RL
Dissolved Calcium		**261**		mg/L	10	0.500
Dissolved Potassium		**20.6**		mg/L	1	1.00
Dissolved Magnesium		**109**		mg/L	10	1.00
Dissolved Sodium		**288**		mg/L	10	1.00

Sample: 96141 - Monitor Well #1

Analysis:	Ion Chromatography	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	28782	Date Analyzed:	2006-08-02	Analyzed By:	WB
Prep Batch:	25167	Sample Preparation:	2006-08-02	Prepared By:	WB

[1] BFB surrogate recovery outside normal limits. ICV/CCV and TFT surrogate recovery show the method to be in control.

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**988**	mg/L	100	0.500
Sulfate		**298**	mg/L	10	0.500

Sample: 96141 - Monitor Well #1

Analysis:	TDS	Analytical Method:	SM 2540C	Prep Method:	N/A
QC Batch:	28406	Date Analyzed:	2006-07-27	Analyzed By:	SM
Prep Batch:	24850	Sample Preparation:	2009-07-26	Prepared By:	SM

Parameter	Flag	RL Result	Units	Dilution	RL
Total Dissolved Solids		**2085**	mg/L	5	10.00

Method Blank (1) QC Batch: 28277

QC Batch:	28277	Date Analyzed:	2006-07-24	Analyzed By:	MT
Prep Batch:	24759	QC Preparation:	2006-07-24	Prepared By:	MT

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.000255	mg/L	0.001
Toluene		<0.000210	mg/L	0.001
Ethylbenzene		<0.000317	mg/L	0.001
Xylene		<0.000603	mg/L	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0949	mg/L	1	0.100	95	76.1 - 117
4-Bromofluorobenzene (4-BFB)		0.0633	mg/L	1	0.100	63	58.5 - 118

Method Blank (1) QC Batch: 28340

QC Batch:	28340	Date Analyzed:	2006-07-26	Analyzed By:	LJ
Prep Batch:	24777	QC Preparation:	2006-07-25	Prepared By:	LJ

Parameter	Flag	MDL Result	Units	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1
Bicarbonate Alkalinity		<4.00	mg/L as CaCo3	4
Total Alkalinity		<4.00	mg/L as CaCo3	4

Method Blank (1) QC Batch: 28357

QC Batch:	28357	Date Analyzed:	2006-07-26	Analyzed By:	TP
Prep Batch:	24749	QC Preparation:	2006-07-24	Prepared By:	TS

Parameter	Flag	MDL Result	Units	RL
Dissolved Calcium		0.132	mg/L	0.5
Dissolved Potassium		1.08	mg/L	1
Dissolved Magnesium		<0.704	mg/L	1
Dissolved Sodium		0.836	mg/L	1

Method Blank (1) QC Batch: 28406

QC Batch: 28406 Date Analyzed: 2006-07-27 Analyzed By: SM
Prep Batch: 24850 QC Preparation: 2006-07-26 Prepared By: SM

Parameter	Flag	MDL Result	Units	RL
Total Dissolved Solids		<5.000	mg/L	10

Method Blank (1) QC Batch: 28782

QC Batch: 28782 Date Analyzed: 2006-08-02 Analyzed By: WB
Prep Batch: 25167 QC Preparation: 2006-08-02 Prepared By: WB

Parameter	Flag	MDL Result	Units	RL
Chloride		<0.0181	mg/L	0.5
Sulfate		<0.0485	mg/L	0.5

Duplicates (1)

QC Batch: 28340 Date Analyzed: 2006-07-26 Analyzed By: LJ
Prep Batch: 24777 QC Preparation: 2006-07-25 Prepared By: LJ

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Hydroxide Alkalinity	<1.00	<1.00	mg/L as CaCo3	1	0	20
Carbonate Alkalinity	<1.00	<1.00	mg/L as CaCo3	1	0	20
Bicarbonate Alkalinity	110	108	mg/L as CaCo3	1	2	12.6
Total Alkalinity	110	108	mg/L as CaCo3	1	2	11.5

Duplicates (1)

QC Batch: 28406 Date Analyzed: 2006-07-27 Analyzed By: SM
Prep Batch: 24850 QC Preparation: 2006-07-26 Prepared By: SM

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Total Dissolved Solids	768.0	928.0	mg/L	2	19	17.2

Laboratory Control Spike (LCS-1)

QC Batch: 28277 | Date Analyzed: 2006-07-24 | Analyzed By: MT
Prep Batch: 24759 | QC Preparation: 2006-07-24 | Prepared By: MT

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.109	mg/L	1	0.1	0	109	
Toluene	0.108	mg/L	1	0.1	0	108	
Ethylbenzene	0.109	mg/L	1	0.1	0	109	
Xylene	0.322	mg/L	1	0.3	0	107.333	

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.104	mg/L	1	0.1	0	109		4.7	20
Toluene	0.103	mg/L	1	0.1	0	108		4.7	20
Ethylbenzene	0.101	mg/L	1	0.1	0	109		7.6	20
Xylene	0.306	mg/L	1	0.3	0	107.333		5.1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.101	0.101	mg/L	1	0.100	101	101	81.8 - 114
4-Bromofluorobenzene (4-BFB)	0.112	0.111	mg/L	1	0.100	112	111	72.7 - 116

Laboratory Control Spike (LCS-1)

QC Batch: 28357 | Date Analyzed: 2006-07-26 | Analyzed By: TP
Prep Batch: 24749 | QC Preparation: 2006-07-24 | Prepared By: TS

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Dissolved Calcium	51.7	mg/L	1	50	0	103.4	
Dissolved Potassium	50.8	mg/L	1	50	0	101.6	
Dissolved Magnesium	51.5	mg/L	1	50	0	103	
Dissolved Sodium	50.5	mg/L	1	50	0	101	

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Dissolved Calcium	51.7	mg/L	1	50	0	103.4		0	20
Dissolved Potassium	49.3	mg/L	1	50	0	101.6		3	20
Dissolved Magnesium	49.8	mg/L	1	50	0	103		3.4	20
Dissolved Sodium	48.6	mg/L	1	50	0	101		3.8	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 28782 | Date Analyzed: 2006-08-02 | Analyzed By: WB
Prep Batch: 25167 | QC Preparation: 2006-08-02 | Prepared By: WB

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	12.2	mg/L	1	12.5	0	97.6	
Sulfate	12.5	mg/L	1	12.5	0	100	

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	12.3	mg/L	1	12.5	0	97.6		0.8	20
Sulfate	12.5	mg/L	1	12.5	0	100		0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 96149

QC Batch: 28277 | Date Analyzed: 2006-07-24 | Analyzed By: MT
Prep Batch: 24759 | QC Preparation: 2006-07-24 | Prepared By: MT

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.107	mg/L	1	0.100	<0.000255	107	70.9 - 126
Toluene	0.105	mg/L	1	0.100	<0.000210	105	70.8 - 125
Ethylbenzene	0.106	mg/L	1	0.100	<0.000317	106	74.8 - 125
Xylene	0.311	mg/L	1	0.300	<0.000603	104	75.7 - 126

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param		MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	[2]	NA	mg/L	1	0.100	<0.000255	0	70.9 - 126	200	20
Toluene	[3]	NA	mg/L	1	0.100	<0.000210	0	70.8 - 125	200	20
Ethylbenzene	[4]	NA	mg/L	1	0.100	<0.000317	0	74.8 - 125	200	20
Xylene	[5]	NA	mg/L	1	0.300	<0.000603	0	75.7 - 126	200	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate		MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	[6]	0.101	NA	mg/L	1	0.1	101	0	73.6 - 121
4-Bromofluorobenzene (4-BFB)	[7]	0.110	NA	mg/L	1	0.1	110	0	81.8 - 114

Matrix Spike (MS-1) Spiked Sample: 96142

QC Batch: 28357 | Date Analyzed: 2006-07-26 | Analyzed By: TP
Prep Batch: 24749 | QC Preparation: 2006-07-24 | Prepared By: TS

[2]RPD is out of range because a matrix spike duplicate was not prepared.
[3]RPD is out of range because a matrix spike duplicate was not prepared.
[4]RPD is out of range because a matrix spike duplicate was not prepared.
[5]RPD is out of range because a matrix spike duplicate was not prepared.
[6]RPD is out of range because a matrix spike duplicate was not prepared.
[7]RPD is out of range because a matrix spike duplicate was not prepared.

Param		MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Dissolved Calcium	[8]	884	mg/L	1	50.0	863	42	68.4 - 138
Dissolved Potassium		110	mg/L	1	50.0	67.3	85	82 - 129
Dissolved Magnesium		496	mg/L	1	50.0	438	116	61.2 - 135
Dissolved Sodium	[9]	2200	mg/L	1	50.0	2180	40	81.8 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param		MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Dissolved Calcium	[10]	884	mg/L	1	50.0	863	42	68.4 - 138	0	20
Dissolved Potassium		111	mg/L	1	50.0	67.3	87	82 - 129	1	20
Dissolved Magnesium		491	mg/L	1	50.0	438	106	61.2 - 135	1	20
Dissolved Sodium	[11]	2200	mg/L	1	50.0	2180	40	81.8 - 125	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 96141

QC Batch: 28782
Prep Batch: 25167

Date Analyzed: 2006-08-02
QC Preparation: 2006-08-02

Analyzed By: WB
Prepared By: WB

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	2210	mg/L	100	12.5	988	98	25.4 - 171
Sulfate	1580	mg/L	100	12.5	298	102	0 - 677

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	2200	mg/L	100	12.5	988	97	25.4 - 171	0	20
Sulfate	1550	mg/L	100	12.5	298	100	0 - 677	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Standard (ICV-1)

QC Batch: 28277

Date Analyzed: 2006-07-24

Analyzed By: MT

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.104	104	85 - 115	2006-07-24
Toluene		mg/L	0.100	0.104	104	85 - 115	2006-07-24
Ethylbenzene		mg/L	0.100	0.104	104	85 - 115	2006-07-24
Xylene		mg/L	0.300	0.314	105	85 - 115	2006-07-24

[8]Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.
[9]Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.
[10]Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.
[11]Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

Standard (CCV-1)

QC Batch: 28277 Date Analyzed: 2006-07-24 Analyzed By: MT

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.107	107	85 - 115	2006-07-24
Toluene		mg/L	0.100	0.105	105	85 - 115	2006-07-24
Ethylbenzene		mg/L	0.100	0.106	106	85 - 115	2006-07-24
Xylene		mg/L	0.300	0.311	104	85 - 115	2006-07-24

Standard (ICV-1)

QC Batch: 28340 Date Analyzed: 2006-07-26 Analyzed By: LJ

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Alkalinity		mg/L as CaCo3	250	240	96	90 - 110	2006-07-26

Standard (CCV-1)

QC Batch: 28340 Date Analyzed: 2006-07-26 Analyzed By: LJ

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Alkalinity		mg/L as CaCo3	250	240	96	90 - 110	2006-07-26

Standard (ICV-1)

QC Batch: 28357 Date Analyzed: 2006-07-26 Analyzed By: TP

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	50.0	50.7	101	90 - 110	2006-07-26
Dissolved Potassium		mg/L	50.0	52.0	104	90 - 110	2006-07-26
Dissolved Magnesium		mg/L	50.0	49.6	99	90 - 110	2006-07-26
Dissolved Sodium		mg/L	50.0	50.9	102	90 - 110	2006-07-26

Standard (CCV-1)

QC Batch: 28357 Date Analyzed: 2006-07-26 Analyzed By: TP

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Calcium		mg/L	50.0	48.7	97	90 - 110	2006-07-26
Dissolved Potassium		mg/L	50.0	47.4	95	90 - 110	2006-07-26
Dissolved Magnesium		mg/L	50.0	47.2	94	90 - 110	2006-07-26

continued ...

standard continued . . .

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Dissolved Sodium		mg/L	50.0	47.3	95	90 - 110	2006-07-26

Standard (ICV-1)

QC Batch: 28406 Date Analyzed: 2006-07-27 Analyzed By: SM

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	1056	106	90 - 110	2006-07-27

Standard (CCV-1)

QC Batch: 28406 Date Analyzed: 2006-07-27 Analyzed By: SM

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Dissolved Solids		mg/L	1000	1075	108	90 - 110	2006-07-27

Standard (ICV-1)

QC Batch: 28782 Date Analyzed: 2006-08-02 Analyzed By: WB

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	12.4	99	90 - 110	2006-08-02
Sulfate		mg/L	12.5	12.7	102	90 - 110	2006-08-02

Standard (CCV-1)

QC Batch: 28782 Date Analyzed: 2006-08-02 Analyzed By: WB

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/L	12.5	12.2	98	90 - 110	2006-08-02
Sulfate		mg/L	12.5	12.4	99	90 - 110	2006-08-02

6701 Aberdeen Ave, Ste 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

TraceAnalysis, Inc.

1555 McCutcheon Way, Suite H
El Paso, Texas 79932
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 6072144

Company Name:	Phone #:
RICE Operating Company	(505)393-9174
Address: (Street, City, Zip)	Fax #:
122 W Taylor Street - Hobbs, New Mexico 88240	(505) 397-1471
Contact Person:	
Kristin Farris - Pope, Project Scientist	kpope@riceswd.com
Invoice to: (If different from above)	
Project #: None Given	Project Name: EME Junction K-33-1
Project Location: Lea County - New Mexico	Sampler Signature: Rozanne Johnson (505)631-9310 rozanne@valornet.com

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO_3	$NaHSO_4$	H_2SO_4	ICE	NONE	SAMPLING: DATE 2006	TIME
96141	Monitor Well #1	2	40 ml	X				X				X		7-17	12:15
	Monitor Well #1	1	1L	X								X		7-17	12:15

ANALYSIS REQUEST
(Circle or Specify Method No.)

MTBE 8021B/602	BTEX 8021B/602	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	PCB's 8082/608	Pesticides 8081A/608	BOD, TSS, pH	Moisture Content	Cations (Ca, Mg, Na, K)	Anions (Cl, SSSSO4, CO3, HCO3)	Total Dissolved Solids		Turn Around Time if different from standard	Hold
	X															X	X	X			

Relinquished by: Rozanne Johnson	Date: 7-20-06	Time: 8:00
Relinquished by:	Date:	Time:
Relinquished by:	Date:	Time:
Received by:	Date:	Time:
Received by:	Date:	Time:
Received at Laboratory by: Megan McCol	Date: 7-21-06	Time: 1105

LAB USE ONLY
Intact (Y/N)
Headspace Y/N
Temp °C
Log-In Review

REMARKS:
☐ check if special reporting limits needed

Carrier # Bus Gl 1165017715 9

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of COC