AP - 60

ANNUAL MONITORING REPORT

YEAR(S):

RICE Operating Company

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

CERTIFIED MAIL
RETURN RECEIPT NO. 7002 2410 0000 4940 1749

January 19, 2005

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

RE: 2004 MONITOR WELL REPORT/SAMPLING SUMMARY JUNCTION K-33-1, EME SWD SYSTEM UNIT 'K', SEC. 33, T19S, R37E NMOCD CASE #1R0427-92

Mr. Price:

Rice Operating Company (ROC) takes this opportunity to submit the 2004 Monitor Well Report for the EME K-33-1 junction box site located in the Eunice Monument Eumont (EME) Salt Water Disposal (SWD) System. One monitoring well was installed in 2002 during the delineation of a junction box. This well is sampled quarterly pursuant to NMOCD guidelines. In 2004, ROC and Arcadis G&M, Inc. of Midland, Texas sampled the well. In 2005, Whole Earth Environmental, Inc. (Whole Earth) of Houston will sample the well and Environmental Lab of Texas of Odessa will continue to conduct analytical tests of the water samples.

Whole Earth has been contracted by ROC to address groundwater concerns at this. NMOCD may expect the submission of an Investigation & Characterization Plan (ICP) this year.

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

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

RICE OPERATING COMAPANY

Kristin Farris Pope
Project Scientist

enclosures:

Summary table & graph

Analytical results

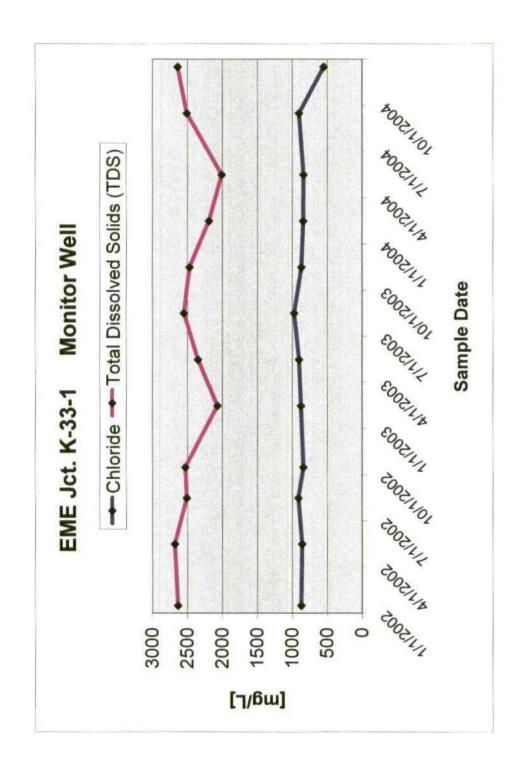
map

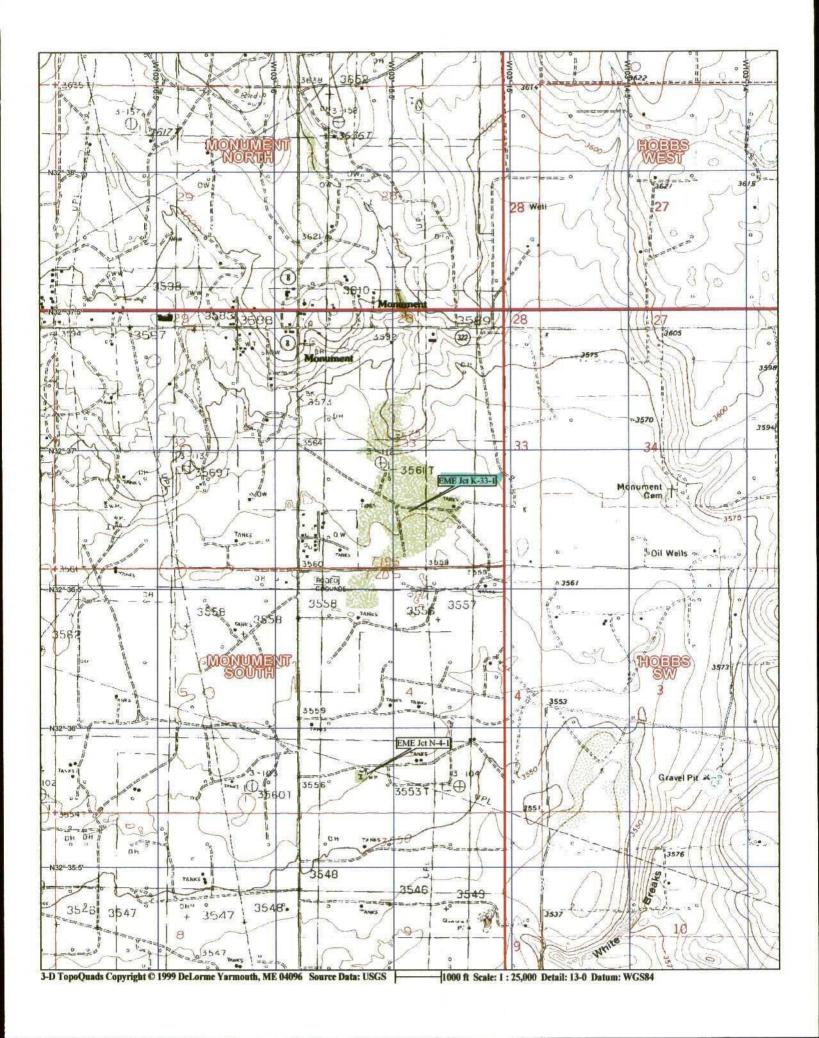
cc: LBG, CDH, Whole Earth, file, Rob Roy Industries,

Chris Williams NMOCD, District I Office 1625 N. French Drive Hobbs, NM 88240

MW # DEPTH TO TOTAL MELL MOLUME PURGED VOLUME PURGED CI TDS BENZENE TOLUENE PURCENCE COMMENTS COMMENTS 1 36.90 41.00 0.700 2.00 01/10/02 872 2635 <0.002 <0.002 <0.006 1 36.90 41.00 0.700 2.00 01/10/02 872 2635 <0.002 <0.002 <0.006 <0.006 1 36.90 41.00 0.700 2.00 01/10/02 872 2635 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.002 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.000 <0.															
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(ft) (gal) All concentrations are in 10 pertry All concentrations All c		TOTAL	XYLENES	<0.006	<2.00	<0.002	<0.002	0.001	<0.002	<0.002	<0.002	>0.006	<0.006	<0.001	<0.001
(ft) (gal) DEPTH TO TOTAL WELL VOLUME SAMPLE CI TDS 36.90 41.00 0.700 2.00 01/10/02 872 2635 36.88 40.78 0.624 2.90 05/13/02 860 2680 37.20 40.78 0.574 1.75 08/12/02 913 2510 37.11 40.77 0.586 1.75 10/31/02 842 2530 37.10 40.77 0.580 1.70 02/27/03 842 2530 31.10 41.20 1.616 4.80 05/22/03 904 2350 37.29 40.04 0.440 1.32 08/21/03 975 2550 37.40 40.75 0.540 1.60 02/18/04 844 2192 37.30 40.75 0.550 2.00 05/26/04 840 2008 37.12 41.00 XXX 2.00 09/02/04 904 2510	mg/L	ETHYL	BENZENE	<0.002	<1.00	< 0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.001	100.0>
(ft) (gal) DEPTH TO TOTAL WELL VOLUME SAMPLE CI TDS 36.90 41.00 0.700 2.00 01/10/02 872 2635 36.88 40.78 0.624 2.90 05/13/02 860 2680 37.20 40.78 0.574 1.75 08/12/02 913 2510 37.11 40.77 0.586 1.75 10/31/02 842 2530 37.10 40.77 0.580 1.70 02/27/03 842 2530 31.10 41.20 1.616 4.80 05/22/03 904 2350 37.29 40.04 0.440 1.32 08/21/03 975 2550 37.40 40.75 0.540 1.60 02/18/04 844 2192 37.30 40.75 0.550 2.00 05/26/04 840 2008 37.12 41.00 XXX 2.00 09/02/04 904 2510	itions are in	TOLUENE		<0.002	<1.00	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.001	<0.001
(ft) (gal) DEPTH TO TOTAL WELL VOLUME SAMPLE CI TDS 36.90 41.00 0.700 2.00 01/10/02 872 2635 36.88 40.78 0.624 2.90 05/13/02 860 2680 37.20 40.78 0.574 1.75 08/12/02 913 2510 37.11 40.77 0.586 1.75 10/31/02 842 2530 37.10 40.77 0.580 1.70 02/27/03 842 2530 31.10 41.20 1.616 4.80 05/22/03 904 2350 37.29 40.04 0.440 1.32 08/21/03 975 2550 37.40 40.75 0.540 1.60 02/18/04 844 2192 37.30 40.75 0.550 2.00 05/26/04 840 2008 37.12 41.00 XXX 2.00 09/02/04 904 2510	All concentra	BENZENE		<0.002	<1.00	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.001	<0.001
(ft) DEPTH TO WELL VOLUME SAMPLE WATER * DEPTH VOLUME PURGED DATE 36.90 41.00 0.700 2.00 01/10/02 36.88 40.78 0.624 2.90 05/13/02 37.20 40.79 0.574 1.75 08/12/02 37.10 40.77 0.586 1.75 10/31/02 37.10 40.77 0.580 1.70 02/27/03 37.29 40.04 0.440 1.32 08/21/03 37.40 40.78 0.540 1.60 11/19/03 37.40 40.75 0.540 1.60 02/18/04 37.30 40.75 0.550 2.00 05/26/04 37.12 41.00 XXX 2.00 09/02/04	7	SQL)	2635	2680	2510	2530	2070	2350	2550	2470	2192	2008	2510	2640
(ff) DEPTH TO TOTAL WELL VOLUME 36.90 41.00 0.700 2.00 36.88 40.78 0.624 2.90 37.20 40.79 0.574 1.75 37.11 40.77 0.586 1.75 37.10 40.77 0.580 1.70 31.10 41.20 1.616 4.80 37.29 40.04 0.440 1.32 37.40 40.75 0.540 1.60 37.30 40.75 0.550 2.00 37.30 40.75 0.550 2.00 37.12 41.00 XXX 2.00		CI-	<u> </u>	872	860	913	842	877	904	975	698	844	840	904	550
(ff) DEPTH TO TOTAL WELL WATER * DEPTH VOLUME 36.90 41.00 0.700 36.88 40.78 0.624 37.20 40.79 0.574 37.11 40.77 0.580 37.10 40.77 0.580 31.10 41.20 1.616 37.29 40.04 0.440 37.40 40.78 0.540 37.30 40.75 0.550 37.30 40.75 0.550 37.12 41.00 XXX		SAMPLE	DATE	01/10/02	05/13/02	08/17/02	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
(ff) DEPTH TO TOTAL WELL WATER * DEPTH VOLUME 36.90 41.00 0.700 36.88 40.78 0.624 37.20 40.79 0.574 37.11 40.77 0.580 37.10 40.77 0.580 31.10 41.20 1.616 37.29 40.04 0.440 37.40 40.78 0.540 37.30 40.75 0.550 37.30 40.75 0.550 37.12 41.00 XXX	u)	VOLUME	PURGED	2.00	2.90	1.75	1.75	1.70	4.80	1.32	1.60	1.60	2.00	2.00	4.05
(ff) DEPTH TO WATER * 36.90 36.88 37.20 37.10 37.10 37.40 37.40 37.40 37.40	38)	WELL	VOLUME	0.700	0.624	0.574	0.586	0.580	1.616	0.440	0.540	0.540	0.550	XXX	XXX
DEPTH TG WATER * 36.90 36.88 37.20 37.11 37.10 37.10 37.40 37.40 37.40	t)		DEPTH	41.00	40.78	40.79	40.77	40.77	41.20	40.04	40.78	40.75	40.75	41.00	41.00
W	(f	1		36.90	36.88	37.20	37.11	37.10	31.10	37.29	37.40	37.40	37.30	37.12	32.91
		# MM		1	_	-	-	-	_	_	_	П	_	-	_

* Depth to water measured from top of casing Casing is 3.021 ft







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

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

Receiving Date: 02/18/04 Reporting Date: 02/20/04 Project Number: NOT GIVEN Project Name: NOT GIVEN

Project Location: EME K-33-1

Sampling Date: 02/18/04

Sample Type: GROUNDWATER Sample Condition: COOL & INTACT

Sample Received By: BC

Analyzed By: BC

LAB NUMBE	R SAMPLE ID	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL BENZENE (mg/L)	TOTAL XYLENES (mg/L)
ANALYSIS D	DATE	02/18/04	02/18/04	02/18/04	02/18/04
H8466-1	EME K-33-1 MW 1	<0.002	<0.002	<0.002	<0.006
Quality Cont	rol	0.094	0.096	0.099	0.304
True Value C	QC	0.100	0.100	0.100	0.300
% Recovery		94.1	96.0	99.0	101
	cent Difference	1.9	5.1	2.5	0.4

METHOD: EPA SW-846 8260

Chemist

Date



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

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

Receiving Date: 02/18/04 Reporting Date: 02/20/04 Project Number: NOT GIVEN Project Name: NOT GIVEN Project Location: EME K-33-1 Sampling Date: 02/18/04

Sample Type: GROUNDWATER Sample Condition: COOL & INTACT

Sample Received By: BC Analyzed By: AH

LAB NUMBER	SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (u S/cm)	T-Alkalinity (mgCaCO ₃ /L)
ANALYSIS DA	ΓΕ:	02/19/04	02/19/04	02/19/04	02/19/04	02/19/04	02/19/04
H8466-1	EME K-33-1 MW 1	240	251	89	3.03	3702	286
Quality Control		NR	59	42	5.17	1322	NR
True Value QC		NR	50	50	5.00	1413	NR
% Recovery		NR	118	85	103	93.6	NR
Relative Percei	nt Difference	NR	1.7	2.3	1.0	0.7	NR
METHODS:		SM3	500-Ca-D	3500-Mg E	8049	120.1	310.1
		CI ⁻	SO₄	CO ₃	HCO ₃	рН	TDS
		(mg/L)	(mg/L)	(mg/L)	(mg/L)	(s.u.)	(mg/L)
ANALYSIS DA	TE:	02/19/04	02/19/04	02/19/04	02/19/04	02/19/04	02/20/04
H8466-1	EME K-33-1 MW 1	844	43	0	349	7.28	2192
Quality Control		1010	53.65	NR	1007	7.04	NR
True Value QC		1000	50.00	NR	1000	7.00	NR
% Recovery		101	107	NR	101	101	NR
Relative Perce	nt Difference	2.0	1.5	NR	1.1	0.3	1.4

Chemist

1 20 0

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ARDINAL LABORATORIES, INC.

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Rejenquished By: Sale 2 Sampler Relinquished: Sampler - UPS - Bus - Other: majese. Al dahra hekshig these he neglepese and any other cause schaboreer shell be decined waked an issue made in writing and resched by Candhail selder 30 days after completes of the explicable service into some sheal Candhail be labeled to strategies intermedy, that they will be interest to be some of the control of the control by chief, the adolfshirtee, PLEASE HOTE: Libbilly and Deninges, Cardinals liabilly and clearly exclusive remark for any claim schaig whether Sampler Name: Project Location: Project Name: Project #: Phone #: (505) 393-9/74 City: Delivered By. (Circle One) Address: /22 M. Project Manager: Company Name: Lab I.D 2111 Beechwood, Abilene, TX 79603 10 m (915) 673-7001 Fax (915) 673-7020 (505) 393-2326 Fax (505) 393-2476 Klistin Date: Received By: Sample I.D. layla birteindo Faccis Fax #: (505)397-1471 Time: Project Owner: State: 1/11 Zip: 88240 MW Received By: (Lab Staff 4 (G)RAB OR (C)OMP 101 East Marland, Hobbs, NM 88240 2) The true # CONTAINERS GROUNDWATER Cool Intact WASTEWATER ample Condition based in contract or tori, shall be limited to the amount paid by the clear for the MATRIX SOL CRUDE OIL SLUDGE OTHER City: Fax #: Altıs: Phone #: State: Address: Company: P.O. # ACID/BASE PRESERV CHECKED BY: ICE / COOL (Initials) BILL TO OTHER Zip: DATE SAMPLING REMARKS: 12/15 Phone Result: 12.6 TIME D Yes UNO Add'l Phone #: ANALYSIS REQUEST Terran and Conditions: literate with be this god on all accounts more than 30 days past due at the latest of 21% per accuminent the original data of hydron and all posts of colorations, including attention, a best of persons. Page_ `⊆

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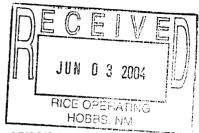


PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR RICE OPERATING ATTN: KRISTIN FARRIS 122 W. TAYLOR HOBBS, NM 88240

FAX TO: (505) 397-1471

Receiving Date: 05/26/04
Reporting Date: 05/28/04
Project Number: NOT GIVEN
Project Name: EMEK 33:1 MW
Project Location: NOT GIVEN



Sampling Date: 05/26/04

Sample Type: GROUNDWATER Sample Condition: COOL & INTACT

Sample Received By: GR.

Analyzed By: BC

LAB NUMBER SAMPLE ID	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL BENZENE (mg/L)	TOTAL XYLENES (mg/L)
ANALYSIS DATE	05/27/04	05/27/04	05/27/04	05/27/04
H8741-1 K-33-1 M.W.	<0.002	<0.002	<0.002	<0.006
Quality Control	0.098	0.099	0.088	0.256
True Value QC	0.100	0.100	0.100	0.300
% Recovery	97.9	98.9	87.7	85.4
Relative Percent Difference	7.4	5.0	1.8	3.6

METHOD: EPA SW-846 8260

Date



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

ANALYTICAL RESULTS FOR

RICE OPERATING

ATTN: KRISTIN FARRIS

FAX TO: (505) 397-1471

122 W. TAYLOR HOBBS, NM 88240

Receiving Date: 05/26/04

Reporting Date: 05/28/04

Project Number: NOT GIVEN Project Name: EME K-33-1 MW Project Location: NOT GIVEN

Sampling Date: 05/26/04

Sample Type: GROUNDWATER Sample Condition: COOL & INTACT

Sample Received By: GP

Analyzed By: AH

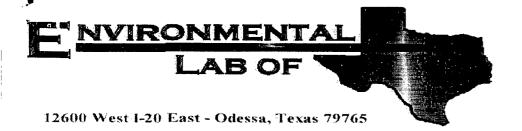
LAB NUMBER SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (u S/cm)	T-Alkalinity (mgCaCO ₃ /L)
ANALYSIS DATE:	05/27/04	05/27/04	05/27/04	05/27/04	05/27/04	05/27/04
H8741-1 K-33-1 M.W.	338	240	52	8.57	3536	260
Quality Control	NR	50	55	4.58	1322	NR
True Value QC	NR	50	50	5.00	·	NR
% Recovery	NR	100	110	91.6	93.6	NR
Relative Percent Difference	NR	0	0	7.2	0.7	NR
METHODS:	SM3	3500-Ca-D	3500-Mg E	8049	120.1	310.1
•	Cl	SO ₄	CO ₃	HCO ₃	рН	TDS
	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(s.u.)	(mg/L)
ANALYSIS DATE:	05/27/04	05/27/04	05/27/04	05/27/04	05/27/04	05/28/04
H8741-1 K-33-1 M.W.	840	113	0	317	7.14	2008
Quality Control	1010	48.21	NR	1007		NR
True Value QC	1000	50.00	NR	1000		NRNR
% Recovery	101	96.4	NR	101	99.3	NR
Relative Percent Difference	2.0	6.2	NR	1.1	1.6	1.4
METHODS:	SM4500-CI-B	375.4	310.1	310.1	150.1	160.1
Honey Hell				516)8]d	1
Chemist				Date (١	

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable services of the property and the cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

ARDINAL LABORATORIES, INC.
2111 Beechwood, Abilene, TX 79603 101 East Marland, Hobbs, NM 88240
(915) 673-7001 Fax (915) 673-7020 (505) 393-2326 Fax (505) 393-2476

	(915) 673-7001 Fax (915) 673-7020	(915) 673-7020		05)	393	-23	26 F	X	505	3	93-	(505) 393-2326 Fax (505) 393-2476		ı	ļ		l					Fage	1		9				
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Address: /33	W. Taylor	der in der Andrews der service gestellt und der service der der der der der der der der der de						<u> </u>	om	Company:	1.5																		
city: Hobbs		State: MM Zip: 88240	Zlp:	200	2	0		_	Attn:																				
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Lab I.D.	Sample I.D.	D,	(G)RAB OR (C)OM	GROUNDWATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	ICE / COOL	OTHER:	DATE	T ME	CKTIONC	Rojens	TDS	BTEX												i
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Analytical Report

Prepared for:

Sharon Hall
ARCADIS
1004 N. Big Spring Street
Midland, TX 79701

Project: Jct. K-33-1/510

Project Number: Jct. K-33-1/510

Location: Rice Operating/EME

Lab Order Number: 4I03014

Report Date: 09/19/04

1004 N. Big Spring Street

Midland TX, 79701

Project: Jct. K-33-1/510

Project Number: Jct. K-33-1/510

Project Manager: Sharon Hall

Fax: (432) 687-5401

Reported:

09/19/04 11:53

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	4103014-01	Water	09/02/04 13:00	09/03/04 14:40

1004 N. Big Spring Street Midland TX, 79701

Project: Jct. K-33-1/510

Project Number: Jct. K-33-1/510 Project Manager: Sharon Hall Fax: (432) 687-5401

Reported: 09/19/04 11:53

Organics by GC Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (4I03014-01) Water			-			····			
Benzene	ND	0.00100	mg/L	1	EI41004	09/08/04	09/08/04	EPA 8021B	
Toluene	ND	0.00100	**	**	n	11	n	**	
Ethylbenzene	ND	0.00100	11	**	"	u	**	**	
Xylene (p/m)	ND	0.00100	**	**	**	II	**	**	
Xylene (o)	ND	0.00100	H	Ħ	0	11	ht	п	
Surrogate: a,a,a-Trifluorotoluene		107 %	80-12	20	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.5 %	80-12	20	"	"	" ~	"	

1004 N. Big Spring Street Midland TX, 79701

Project: Jct. K-33-1/510

Project Number: Jct. K-33-1/510 Project Manager: Sharon Hall

Fax: (432) 687-5401

Reported: 09/19/04 11:53

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (4I03014-01) Water							· · · · · · · · · · · · · · · · · · ·		
Carbonate Alkalinity	ND	0.100	mg/L	1	EI41608	09/03/04	09/03/04	EPA 310.2M	
Bicarbonate Alkalinity	236	2.00	11	"	11	71	ti	u .	
Hydroxide Alkalinity	ND	0.100	**	"	n	н	O O	11	
Chloride	904	5.00	u	11	E140805	09/07/04	09/07/04	EPA 325.3M	
Total Dissolved Solids	2510	5.00	**	19	EI41607	09/09/04	09/09/04	EPA 160.1	
Sulfate	304	2.50	ti	5	EI41312	09/10/04	09/10/04	EPA 375.4	

1004 N. Big Spring Street Midland TX, 79701 Project: Jct. K-33-1/510

Project Number: Jct. K-33-1/510 Project Manager: Sharon Hall Fax: (432) 687-5401

Reported: 09/19/04 11:53

Total Metals by EPA / Standard Methods Environmental Lab of Texas

Analyte MW-1 (4103014-01) Water	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	239	1.00	mg/L	100	EI41506	09/15/04	09/15/04	EPA 6010B	
Magnesium	120	0.100	и	и	u	n	u	**	
Potassium	15.7	0.500	н	10	II.	n	U	n	
Sodium	291	1.00	11	100	н	11	**	tt.	

1004 N. Big Spring Street Midland TX, 79701 Project: Jct. K-33-1/510

Project Number: Jct. K-33-1/510 Project Manager: Sharon Hall Fax: (432) 687-5401

Reported: 09/19/04 11:53

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 EI41004 - EPA 5030C (GC)										
Blank (EI41004-BLK1)				Prepared	& Analyze	ed: 09/08/	04			
Benzene	ND	0.00100	mg/L							
Toluene	ND	0.00100	11							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00100	n							
Xylene (o)	ND	0.00100	11							•
Surrogate: a,a,a-Trifluorotoluene	23.4		ug/l	20.0		117	80-120	~		
Surrogate: 4-Bromofluorobenzene	18.3		"	20.0		91.5	80-120			
LCS (EI41004-BS1)				Prepared:	09/08/04	Analyzed	l: 09/10/04			
Benzene	93.0	,	ug/l	100		93.0	80-120			-
Toluene	95.0		н	100		95.0	80-120			
Ethylbenzene	95.1		II	100		95.1	80-120			
Xylene (p/m)	196		"	200		98.0	80-120			
Xylene (o)	104		#	100		104	80-120			
Surrogate: a,a,a-Trifluorotoluene	16.7		"	20.0		83.5	80-120			
Surrogate: 4-Bromofluorobenzene	18.6		"	20.0		93.0	80-120			
LCS Dup (E141004-BSD1)				Prepared:	09/08/04	Analyzed	1: 09/10/04			
Benzene	96.3	-	ug/l	100		96.3	80-120	3.49	20	
Toluene	99.4		*1	100		99.4	80-120	4.53	20	
Ethylbenzene	99.5		**	100		99.5	80-120	4.52	20	
Xylene (p/m)	206		**	200		103	80-120	4.98	20	
Xylene (o)	105		11	100		105	80-120	0.957	20	
Surrogate: a,a,a-Trifluorotoluene	18.0		,,	20.0		90.0	80-120		A	
Surrogate: 4-Bromofluorobenzene	21.9		"	20.0		110	80-120			
Calibration Check (EI41004-CCV1)				Prepared	& Analyz	ed: 09/08/	04			
Benzene	94.3		ug/l	100		94.3	80-120		1,1	
Toluene	95.8		11	100		95.8	80-120			
Ethylbenzene	102		**	100		102	80-120			
Xylene (p/m)	207		11	200		104	80-120			
Xylene (o)	105		Ħ	100		105	80-120			
Surrogate: a,a,a-Trifluorotoluene	23.0		. "	20.0		115	80-120			
Surrogate: 4-Bromofluorobenzene	18.6		"	20.0		93.0	80-120			

1004 N. Big Spring Street

Midland TX, 79701

Project: Jct. K-33-1/510

Project Number: Jct. K-33-1/510 Project Manager: Sharon Hall Fax: (432) 687-5401

Reported: 09/19/04 11:53

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 E141004 - EPA 5030C (GC)										
Matrix Spike (EI41004-MS1)	Soi	urce: 4107001	-01	Prepared:	09/08/04	Analyzed	: 09/10/04			
Benzene	97.5		ug/l	100	ND	97.5	80-120			
Toluene	101		**	100	ND	101	80-120			
Ethylbenzene	97.8		11	100	ND	97.8	80-120			
Xylene (p/m)	203		**	200	ND	102	80-120			
Xylene (o)	102		ŧı	100	ND	102	80-120			
Surrogate: a,a,a-Trifluorotoluene	17.2		"	20.0		86.0	80-120			
Surrogate: 4-Bromofluorobenzene	20.9		"	20.0		104	80-120			
Matrix Spike Dup (EI41004-MSD1)	So	urce: 4107001	-01	Prepared:	09/08/04	Analyzed	1: 09/10/04			
Benzene	99.0		ug/l	100	ND	99.0	80-120	1.53	20	
Toluene	101		**	100	ND	101	80-120	0.00	20	
Ethylbenzene	99.6		u	100	ND	99.6	80-120	1.82	20	
Xylene (p/m)	201		**	200	ND	100	80-120	1.98	20	
Xylene (o)	100		11	100	ND	100	80-120	1.98	20	
Surrogate: a,a,a-Trifluorotoluene	16.5		n	20.0		82.5	80-120			
Surrogate: 4-Bromofluorobenzene	19.3		"	20.0		96.5	80-120			

1004 N. Big Spring Street

Midland TX, 79701

Project: Jct. K-33-1/510

Project Number: Jct. K-33-1/510 Project Manager: Sharon Hall

Fax: (432) 687-5401

Reported: 09/19/04 11:53

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

	- No.	Reporting		Spike	Source		%REC		RPD		
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes	
Batch EI40805 - General Preparation	(WetChem)										
Blank (EI40805-BLK1)				Prepared	& Analyz	ed: 09/07/	04				
Chloride	ND	5.00	mg/L			7					
Matrix Spike (EI40805-MS1)	Sour	rce: 410700	1-06	Prepared	& Analyz	ed: 09/07/	04				
Chloride	1670	5.00	mg/L	500	1170	100	90-110				
Matrix Spike Dup (EI40805-MSD1)	Sour	rce: 4I0700	1-06	Prepared	& Analyz	ed: 09/07/	04				
Chloride	1660	5.00	mg/L	500	1170	98.0	90-110	0.601	20		
Reference (EI40805-SRM1)				Prepared & Analyzed: 09/07/04							
Chloride	4960		mg/L	5000		99.2	80-120				
Batch EI41312 - General Preparation Blank (EI41312-BLK1)	(WetChem)			Prepared	& Analyz	ed: 09/10/	04	T. 7			
Sulfate	ND	0.500	mg/L								
Calibration Check (EI41312-CCV1)				Prepared	& Analyz	ed: 09/10/	04				
Sulfate	48.9		mg/L	50.0		97.8	80-120				
Duplicate (EI41312-DUP1)	Sour	rce: 4I0301	0-01	Prepared	& Analyz	ed: 09/10/	04				
Sulfate	76.4	0.500	mg/L		74.6			2.38	20		
Batch EI41607 - Filtration Preparatio	n										
Blank (EI41607-BLK1)				Prepared	& Analyz	ed: 09/09/	'04				
Total Dissolved Solids	ND	5.00	mg/L								

1004 N. Big Spring Street

Midland TX, 79701

Project: Jct. K-33-1/510

Project Number: Jct. K-33-1/510 Project Manager: Sharon Hall Fax: (432) 687-5401

Reported: 09/19/04 11:53

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 E141607 - Filtration Preparation										
Duplicate (EI41607-DUP1)	Sor	ırce: 410301	0-01	Prepared	& Analyzo	ed: 09/09/	04			
Total Dissolved Solids	1610	5.00	mg/L		1640		w*	1.85	20	
Batch EI41608 - General Preparation (WetChem)								
Blank (EI41608-BLK1)				Prepared	& Analyzo	ed: 09/03/	04			
Carbonate Alkalinity	ND	0.100	mg/L							
Bicarbonate Alkalinity	ND	2.00	IJ					_		
Hydroxide Alkalinity	ND	0.100	11							
Duplicate (EI41608-DUP1)	So	urce: 4I0301	0-01	Prepared	& Analyz	ed: 09/03/	04			
Carbonate Alkalinity	0.00	0.100	mg/L		0.00		_		20	
Bicarbonate Alkalinity	444	2.00	e e		446			0.449	20	
Hydroxide Alkalinity	0.00	0.100	Ħ		0.00				20	
Reference (EI41608-SRM1)				Prepared	& Analyz	ed: 09/03/	04			
Carbonate Alkalinity	0.0501	<u> </u>	mg/L	0.0500		100	80-120			

1004 N. Big Spring Street Midland TX, 79701 Project: Jct. K-33-1/510

Fax: (432) 687-5401

Project Number: Jct. K-33-1/510 Project Manager: Sharon Hall **Reported:** 09/19/04 11:53

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 E141506 - General Preparation	n (Metals)									
Blank (E141506-BLK1)				Prepared	& Analyz	ed: 09/15/	04			
Calcium	ND	0.0100	mg/L							
Magnesium	ND	0.00100	**							
Potassium	ND	0.0500	#1							
Sodium	ND	0.0100	*1							
Blank (EI41506-BLK2)				Prepared	& Analyz	ed: 09/15/	04			
Calcium	ND	0.0100	mg/L					~		
Magnesium	ND	0.00100	n							
Potassium	ND	0.0500	11							
Sodium	ND	0.0100	И							
Calibration Check (EI41506-CCV1)				Prepared	& Analyz	ed: 09/15/	04			
Calcium	2.03		mg/L	2.00		102	85-115	, , , , , , , , , , , , , , , , , , ,		
Magnesium	2.04		.11	2.00		102	85-115			
Potassium	1.75		"	2.00		87.5	85-115			
Sodium	1.79		n	2.00		89.5	85-115			
Calibration Check (EI41506-CCV2)				Prepared	& Analyz	ed: 09/15/	04			
Calcium	1.93		mg/L	2.00		96.5	85-115			
Magnesium	2.02		u	2.00		101	85-115			
Potassium	1.76		tt	2.00		0.88	85-115			
Sodium	1.77		If	2.00		88.5	85-115			
Duplicate (EI41506-DUP1)	So	ource: 410300	9-01	Prepared	& Analyz	ed: 09/15/	04			
Calcium	281	1.00	mg/L		280			0.357	20	
Magnesium	110	0.100	**		111			0.905	20	
Potassium	8.18	0.500	"		8.31			1.58	20	
Sodium	359	1.00	11		365			1.66	20	

1004 N. Big Spring Street Midland TX, 79701 Project: Jct. K-33-1/510

Project Number: Jct. K-33-1/510 Project Manager: Sharon Hall Fax: (432) 687-5401

Reported: 09/19/04 11:53

Total Metals by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch EI41506 - General Preparation (Metals)

Duplicate (EI41506-DUP2)	Sou	rce: 4I1001:	5-01	Prepared & Analyzed: 09/15/04			
Calcium	20.2	0.100	mg/L	20.2	0.00	20	
Magnesium	28.4	0.0100	95	28.6	0.702	20	
Potassium	16.4	0.500	н	16.6	1.21	20	
Sodium	103	0.100	**	103	0.00	20	

1004 N. Big Spring Street

Midland TX, 79701

Project: Jct. K-33-1/510

Project Number: Jct. K-33-1/510

Project Manager: Sharon Hall

Fax: (432) 687-5401

Reported:

09/19/04 11:53

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:

Ealan OK, Jules

Date: 0-18-09

Raland K. Tuttle, Lab Manager Celey D. Keene, Lab Director, Org. Tech Director

Peggy Allen, QA Officer

Jeanne Mc Murrey, Inorg. Tech Director James L. Hawkins, Chemist/Geologist Sandra Biezugbe, Lab Tech.

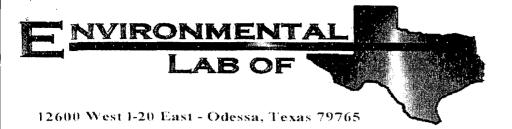
This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

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

Environmental Lab of Texas Variance / Corrective Action Report – Sample Log-In

Client: Archadis				
Date/Time: 9-3-04				
Order#: 4703014 -01				
Initials:				
Sample Receipt	Checklis	st		
Temperature of container/cooler?	(es/	No	3.5 ·C	
Shipping container/cooler in good condition?	(es	No		
Custody Seals intact on shipping container/cooler?	Yes	No	Not present	
Custody Seals intact on sample bottles?	Yes	No	(Not present	
Chain of custody present?	(Yes)	No		
Sample Instructions complete on Chain of Custody?	(Yes)	No		
Chain of Custody signed when relinquished and received?	(Yes)	No		
Chain of custody agrees with sample label(s)	Yes	No		
Container labels legible and intact?	Yes	No		
Sample Matrix and properties same as on chain of custody?	Yes	No		
Samples in proper container/bottle?	Yes	No		
Samples properly preserved?	Yes	No		
Sample bottles intact?	(Ves)	No		
Preservations documented on Chain of Custody?	Yes	No		
Containers documented on Chain of Custody?	(Yes)	No		
Sufficient sample amount for indicated test?	Yes	No		
All samples received within sufficient hold time?	Yes	No		
VOC samples have zero headspace?	(Yes)	No	Not Applicable	
Other observations:				
Variance Docum				
Contact Person: Date/Time: Regarding:			Contacted by:	
Corrective Action Taken:				
			·-	
		· · · · · · · · · · · · · · · · · · ·		

,	tory Task Order No./P.O. No.	CHAIN-OF-CUSTODY RECORD Page
Project Number/Name Sct. 1K - 53 - 1 Project Location (2000 Operatory) Laboratory (6N), Laboratory Project Manager 1KCSTso Forcis (0) Sampler(s)/Affiliation SC4 (ARCADIS)	Care of Start of Star	ANALYSIS / METHOD / SIZE
Date /Firm é Sample ID/Location Matrix Sampled	TIME OF	Remarks Total
MW-1 (9/4/84	1300 2	4IO3C M-U/ 3
		/
is in the matrix: $L(+ \text{Liquid}; s) = Solig;$	A Air	Lee 35 C Total No. of Bottles/
Relinquished by Rale a K 700	Organization: Avv. Cols of Texas	Date 1 5104 Time 1440 Seal Intact?
Received by:	Organization: Organization:	Date / / Time Seal Intact? Date / / Time Yes No N/A
special Instructions/Remarks:	Heave What analysis to	Wristin enviso @ leach. rest
Delivery Method: Min Person	Common Carrier SPECIFY	☐ Lab Courier ☐ Other SPECIFY AG 05-0597



Analytical Report

Prepared for:

Sharon Hall
ARCADIS
1004 N. Big Spring Street
Midland, TX 79701

Project: Jct. K-33-1/510

Project Number: Jct. K-33-1/510

Location: Rice Operating/ EME

Lab Order Number: 4L22006

Report Date: 12/30/04

ARCADIS 1004 N. Big Spring Street Midland TX, 79701 Project: Jct. K-33-1/510
Project Number: Jct. K-33-1/510
Project Manager: Sharon Hall

Fax: (432) 687-5401

Reported: 12/30/04 12:18

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-I	4L22006-01	Water	12/21/04 09:15	12/21/04 18:00

1004 N. Big Spring Street Midland TX, 79701 Project: Jct. K-33-1/510

Project Number: Jct. K-33-1/510 Project Manager: Sharon Hall Fax: (432) 687-5401

Reported: 12/30/04 12:18

Organics by GC Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
MW-1 (4L22006-01) Water				· · · · · · · · · · · · · · · · · · ·					
Benzene	ND	0.00100	mg/L	1	EL43006	12/29/04	12/29/04	EPA 8021B	
Toluene	ND	0.00100	II	н	tf	п	te	"	
Ethylbenzene	ND	0.00100	п	n	n	lt	"	n	
Xylene (p/m)	ND	0.00100	II	u	n	0	U	41	
Xylene (o)	ND	0.00100	n	11	11	"	ŧı	и	
Surrogate: a,a,a-Trifluorotoluene		96.2 %	80-12	20	"	n,	"	"	
Surrogate: 4-Bromofluorobenzene		98.6 %	80-12	20	"	"	" ~	"	

ARCADIS
1004 N. Big Spring Street

Midland TX, 79701

Project: Jct. K-33-1/510

Project Number: Jct. K-33-1/510 Project Manager: Sharon Hall Fax: (432) 687-5401

Reported: 12/30/04 12:18

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (4L22006-01) Water									
Total Alkalinity	270	2.00	mg/L	1	EL42907	12/29/04	12/29/04	EPA 310.2M	
Chloride	550	5.00	"	11	EL42908	12/29/04	12/29/04	EPA 325.3M	
Total Dissolved Solids	2640	5.00	"	11	EL42301	12/22/04	12/23/04	EPA 160.1	
Sulfate	216	2.50	"	5	EL42909	12/29/04	12/29/04	EPA 375.4	

1004 N. Big Spring Street Midland TX, 79701 Project: Jct. K-33-1/510

Project Number: Jct. K-33-1/510 Project Manager: Sharon Hall Fax: (432) 687-5401

Reported: 12/30/04 15:08

Total Metals by EPA / Standard Methods Environmental Lab of Texas

		D							
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (4L22006-01) Water									
Calcium	145	1.00	mg/L	100	EL42212	12/22/04	12/22/04	EPA 6010B	
Magnesium	87.2	0.100	10	и	u	"	u	n	
Potassium	13.3	0.500	0	10	n	н	11	11	
Sodium	159	1.00	n	100	11	и	и	TI .	

1004 N. Big Spring Street Midland TX, 79701

Project: Jct. K-33-1/510

Project Number: Jct. K-33-1/510 Project Manager: Sharon Hall

Fax: (432) 687-5401

Reported: 12/30/04 12:18

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

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch EL43006 - EPA 5030C (GC)										
Biank (EL43006-BLK1)				Prepared	& Analyz	ed: 12/29/0)4			
Benzene	ND	0.00100	mg/L							
Toluene	ND	0.00100	17							
Ethylbenzene	ND	0.00100	11							
Xylene (p/m)	ND	0.00100	u							
Xylene (o)	ND	0.00100	11							
Surrogate: a,a,a-Trifluorotoluene	100		ug/l	100		100	80-120		~~~~	
Surrogate: 4-Bromofluorobenzene	91.9		"	100		91.9	80-120			
LCS (EL43006-BS1)				Prepared	& Analyz	ed: 12/29/	04			
Benzene	86.8		ug/l	100		86.8	80-120			
Toluene	85.1		n	100		85.1	80-120			
Ethylbenzene	86.6		**	100		86.6	80-120			
Xylene (p/m)	191		**	200		95.5	80-120			
Xylene (o)	92.9		**	100		92.9	80-120			
Surrogate: a,a,a-Trifluorotoluene	117		"	100		117	80-120			
Surrogate: 4-Bromofluorobenzene	95.1		"	100		95.1	80-120			
Calibration Check (EL43006-CCV1)				Prepared	& Analyz	ed: 12/29/	04			
Benzene	89.5		ug/l	100		89.5	80-120			
Toluene	89.6		o	100		89.6	80-120			
Ethylbenzene	91.8		o o	100		91.8	80-120			
Xylene (p/m)	201		u	200		100	80-120			
Xylene (o)	99.5		"	100		99.5	80-120			
Surrogate: a,a,a-Trifluorotoluene	115		н	100		115	80-120			
Surrogate: 4-Bromofluorobenzene	95.0		"	100		95.0	80-120			
Matrix Spike (EL43006-MS1)	So	ource: 4L220	01-05	Prepared	& Analyz	ed: 12/29/	04			
Benzene	90.0		ug/l	100	ND	90.0	80-120			
Toluene	91.6		11	100	ND	91.6	80-120			
Ethylbenzene	91.4		u	100	ND	91.4	80-120			
Xylene (p/m)	201		Ħ	200	ND	100	80-120			
Xylene (o)	95.8		n	100	ND	95.8	80-120			
Surrogate: a,a,a-Trifluorotoluene	118		"	100		118	80-120			
Surrogate: 4-Bromofluorobenzene	102		"	100		102	80-120			

1004 N. Big Spring Street

Midland TX, 79701

Project: Jct. K-33-1/510

Project Number: Jct. K-33-1/510

Project Manager: Sharon Hall

Fax: (432) 687-5401

Reported: 12/30/04 12:18

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 EL43006 - EPA 5030C (GC)										
Matrix Spike Dup (EL43006-MSD1)	Sou	rce: 4L2200	1-05	Prepared	& Analyze	ed: 12/29/	04			
Benzene	93.0		ug/l	100	ND	93.0	80-120	3.28	20	
Toluene	94.6		n	100	ND	94.6	80-120	3.22	20	
Ethylbenzene	92.4		n	100	ND	92.4	80-120	1.09	20	
Xylene (p/m)	201		"	200	ND	100	80-120	0.00	20	
Xylene (o)	95.6		"	100	ND	95.6	80-120	0.209	20	
Surrogate: a,a,a-Trifluorotoluene	118		"	100		118	80-120		***************************************	
Surrogate: 4-Bromofluorobenzene	102		"	100		102	80-120	~		

1004 N. Big Spring Street

Midland TX, 79701

Project: Jct. K-33-1/510

Project Number: Jct. K-33-1/510 Project Manager: Sharon Hall

Reported:

12/30/04 12:18

Fax: (432) 687-5401

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

	D (Reporting	** *	Spike	Source	0/225	%REC	222	RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch EL42301 - 413.1										
Blank (EL42301-BLK1)				Prepared:	12/22/04	Analyzed	: 12/23/04			
Total Dissolved Solids	ND	5.00	mg/L							
Duplicate (EL42301-DUP1)	Sour	ce: 4L2101	0-01	Prepared:	12/22/04	Analyzed	: 12/23/04			
Total Dissolved Solids	590	5.00	mg/L		567			3.98	20	
Batch EL42907 - General Preparatio	n (WetChem)									
Blank (EL42907-BLK1)				Prepared	& Analyz	ed: 12/29/0)4	~		
Total Alkalinity	ND	2.00	mg/L							
Duplicate (EL42907-DUP1)	Sour	ce: 4L2200	2-01	Prepared	& Analyz	ed: 12/29/	04			
Total Alkalinity	181	2.00	mg/L		182			0.551	20	
Reference (EL42907-SRM1)				Prepared	& Analyz	ed: 12/29/	04			
Carbonate Alkalinity	0.0501		mg/L	0.0500		100	80-120			
Batch EL42908 - General Preparation	on (WetChem)	1								
Blank (EL42908-BLK1)				Prepared	& Analyz	zed: 12/29/	04			
Chloride	ND	5.00	mg/L							
Matrix Spike (EL42908-MS1)	Sour	rce: 4L2101	0-01	Prepared	& Analyz	zed: 12/29/	04			
Chloride	390	5.00	mg/L	250	155	94.0	80-120			
Matrix Spike Dup (EL42908-MSD1)	Sour	rce: 4L2101	10-01	Prepared	& Analyz	zed: 12/29/	04			
Chloride	394	5.00	mg/L	250	155	95.6	80-120	1.02	20	

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Midland TX, 79701

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Reported: 12/30/04 12:18

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 EL42908 - General Preparatio	on (WetChen	1)					-			
Reference (EL42908-SRM1)				Prepared	& Analyze	ed: 12/29/0	04			
Chloride	4960		mg/L	5000		99.2	80-120			
Blank (EL42909 - General Preparation Blank (EL42909-BLK1)	on (WetChen	n)		Prepared	& Analyz	ed: 12/29/	04			
Sulfate	ND	0.500	mg/L							
Calibration Check (EL42909-CCV1)				Prepared	& Analyz	ed: 12/29/	04	~		
Sulfate	48.9		mg/L	50.0		97.8	80-120			
Duplicate (EL42909-DUP1)	So	urce: 4L2101	10-01	Prepared	& Analyz	ed: 12/29/	04			
Sulfate	96.6	1.00	mg/L		99.8			3.26	20	

1004 N. Big Spring Street Midland TX, 79701 Project: Jct. K-33-1/510

Project Number: Jct. K-33-1/510
Project Manager: Sharon Hall

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Reported: 12/30/04 12:18

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 EL42212 - 6010B/No Digestion										
Blank (EL42212-BLK1)				Prepared	& Analyze	ed: 12/22/)4			
Calcium	ND	0.0100	mg/L		77.					
Magnesium	ND	0.00100	**							
Potassium	ND	0.0500	**							
Sodium	ND	0.0100	п							
Calibration Check (EL42212-CCV1)				Prepared	& Analyze	ed: 12/22/	04			
Calcium	2.10		mg/L	2.00		105	85-115	_		
Magnesium	2.12		11	2.00		106	85-115			
Potassium	2.03		"	2.00		102	85-115			
Sodium	1.82		"	2.00		91.0	85-115			
Duplicate (EL42212-DUP1)	So	urce: 4L2101	0-01	Prepared	& Analyz	ed: 12/22/	04			
Calcium	55.1	0.100	mg/L		57.3			3.91	20	
Magnesium	13.2	0.0100	0		13.0			1.53	20	
Potassium	12.5	0.500	u		13.2			5.45	20	
Sodium	105	1.00	Ħ		112			6.45	20	

1004 N. Big Spring Street

Midland TX, 79701

Project: Jct. K-33-1/510

Project Number: Jct. K-33-1/510 Project Manager: Sharon Hall

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Reported: 12/30/04 12:18

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

Laboratory Control Spike LCS

MS Matrix Spike

Duplicate Dup

Raland K. Tuttle, Lab Manager Celey D. Keene, Lab Director, Org. Tech Director

Peggy Allen, QA Officer

Jeanne Mc Murrey, Inorg. Tech Director James L. Hawkins, Chemist/Geologist

Sandra Sanchez, Lab Tech.

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

Environmental Lab of Texas Variance / Corrective Action Report – Sample Log-In

Client: Accadis	•			
VIIII / WCCCCCS				
Date/Time: 12-21-04 @ 1800				
Order #: 4L 22006				
Order #: 4 L 22006 Initials: 5 M M				
Sample Receipt	t Checkli	ist		
Temperature of container/cooler?	(Yes)	No	1.0 · C	
Shipping container/cooler in good condition?	Yes	No		
Custody Seals intact on shipping container/cooler?	Yes	No	Not present,	
Custody Seals intact on sample bottles?	Yes	No	Not present	
Chain of custody present?	Yes	No		
Sample Instructions complete on Chain of Custody?	Yes	No		
Chain of Custody signed when relinquished and received?	Yes	No		
Chain of custody agrees with sample label(s)	Yes	No		
Container labels legible and intact?	Yes	No		4
Sample Matrix and properties same as on chain of custody?	Yes	No		
Samples in proper container/bottle?	Yes	No		
Samples properly preserved?	(Yes)	No		
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?	(Yes)	No		
All samples received within sufficient hold time?	Yes	No		
VOC samples have zero headspace?	Yés)	No	Not Applicable	
Other observations:				
Contact Person: Date/Time: Regarding:	- · · ·		Contacted by:	
Corrective Action Taken:				
				
•				
			·	

RCADIS GERAGHTY & MILLER	Laboratory Task	Order No./P.C	. No.	CHAIN-O	F-CUSTOD	CHAIN-OF-CUSTODY RECORD Page	geof
roject Number/Name	1.5,5-1 /2:10	_		ANALYSIS / METHOD / SIZE	HOD / SIZE		
Project Location Rice Operating /こいこ	f Texas		sho''18				
Project Manager Kristin Farris Pope	Pope	PC PC					
Sampler(s)/Affiliation GC/ARCADIS		1200 14 Tu	1.0				
	Date/XXXXXX Time Sampled Lab ID	ISTER TO	7 64			Remarks	Total
Mw-1 L 12	12.21.04 0915	7	_			4522006 C)	3
Sample Matrix: L = Liquid; S = Sc	Solid; A = Air					1 -	of Bottles/ 3 Containers
32	٩	Organization: <u>ARCADIS</u> Organization: ビッ	IS the of Tx	Date 1.	2121 104	Time (800)	Seal Intact2 Yes No (N/A)
Relinauished by:	Organization:	ration:		Date	/ /	Time	Seal Intact?
Received by:	Organization:	ation:		Date	/ /	Time	Yes No N/A
Special Instructions/Remarks:							
							1.0° an 100.

AG 05-0597

SPECIFY

□Other

☐ Lab Courier

SPECIFY

☐ Common Carrier

🛚 In Person

Delivery Method: