1R-427-80

APPROVALS

YEAR(S):



Hansen, Edward J., EMNRD

From:	Hansen, Edward J., EMNRD
Sent:	Monday, June 03, 2013 4:47 PM
То:	Hack Conder (hconder@riceswd.com)
Cc:	Leking, Geoffrey R, EMNRD; Laura Pena (lpena@riceswd.com); Katie Jones
	<kjones@riceswd.com> (kjones@riceswd.com); Scott Curtis (scurtis@riceswd.com)</kjones@riceswd.com>
Subject:	Remediation Plan (1R427-80) Termination - ROC EME M-9-2 Site

RE: Termination Request for the Rice Operating Company's EME M-9-2 Site Unit Letter M, Section 9, T20S, R37E, NMPM, Lea County, New Mexico Remediation Plan (1R427-80) Termination

Dear Mr. Conder:

The New Mexico Oil Conservation Division (OCD) has received Rice Operating Company's report and request to close the above-referenced site, dated May 22, 2013 (received May 30, 2013). The reports are acceptable to the OCD.

The above-referenced report, submitted in accordance with 19.15.29 NMAC (Rule 29; formally, Rule 116), indicates that Rice Operating Company has met the requirements of 19.15.29 NMAC; therefore, the OCD approves the report and hereby notifies you that the remediation plan (1R427-80) is terminated in accordance with 19.15.29 NMAC.

Please be advised that OCD approval of this report does not relieve the owner/operator of responsibility should operations pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the owner/operator of responsibility for compliance with any OCD, federal, state, or local laws and/or regulations.

If you have any questions regarding this matter, please contact me at 505-476-3489.

Edward J. Hansen Hydrologist Environmental Bureau RICE Operating Company

122 West Taylor • Hobbs, New Mexico 88240 Phone: (575) 393-9174 • Fax: (575) 397-1471

CERTIFIED MAIL RETURN RECEIPT NO. 7007 2560 0000 4569 9248

May 22, 2013

Mr. Edward Hansen New Mexico Energy, Minerals, & Natural Resources Oil Conservation Division, Environmental Bureau 1220 S. St. Francis Drive Santa Fe, New Mexico 87505 MAY 30 2013

KHCH

Oil Conservation Division 1220 S. St. Francis Drive Santa Fe, NM 87505

RE: Termination Request EME M-9-2 (1R427-80): UL/M, Sec. 9, T20S, R37E RICE Operating Company – Eunice Monument Eumont SWD System

Mr. Hansen:

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

Background

In 2002, ROC initiated work on the former M-9-2 junction box. The site is located in UL/M, Sec. 9, T20S, R37E. NM OSE records indicate that groundwater would likely be encountered at a depth of approximately 18 +/- feet. On April 2, 2002, a monitoring well (MW-1) was installed a few feet south of the former junction boxes to further access if groundwater was impacted.

Excavation operations began with the removal of the junction boxes according to the Redwood Tank Replacement/Closure Plan for EME SWD Site M-9, including M-9-2, on June 19, 2002. After the former junction box was removed, the site was delineated using a backhoe to collect soil samples at regular intervals, creating a 110x100x20 ft deep excavation. Each sample was field titrated for chlorides, resulting in low concentrations. Representative composite samples of the excavation bottom and the excavation walls were sent to a commercial for analysis of chloride, TPH and BTEX, resulting in a sidewall chloride concentration of 245 mg/kg and concentrations of gasoline range organics (GRO), diesel range organics (DRO) and BTEX below detectable limits. The bottom composite resulted in a chloride concentration of 95 mg/kg and concentrations of GRO, DRO and BTEX below detectable limits. The site was backfilled to 4 ft below

ground surface (BGS) where a compacted red-bed clay layer was installed and density tested. The clay layer will provide a barrier that will inhibit the downward migration of chlorides to groundwater. The excavation was backfilled with remediated soil to ground surface and contoured to the surrounding area. The remediated soil was tested in 3 ft lifts, resulting in low concentrations of chloride. A new, water-tight junction box was built over the same location within an active facility; therefore, seeding is not necessary.

Due to the horizontal extent of the excavation, MW-1 was lost and a replacement monitor well (MW-1A) was installed adjacent to the southeast corner of the excavated area. From 2003 to 2007, six additional monitor wells were installed under the Stage 1 Abatement Plan for M-9 SWD (AP-65) and have since been plugged and abandoned.

On July 24, 2009, a termination request was submitted to NMOCD for the M-9 SWD facility site, which is inclusive of M-9-2, based on chloride concentrations in the vadose zone of all borings, monitoring wells, and excavations averaging less than 250 mg/kg, which is representative of background levels. The excavation, backfilling, and installation of a clay layer performed by ROC mitigated any potential threat of constituents of concern (BTEX, chlorides, or TDS) from the area into the vadose zone or groundwater. Groundwater quality conditions on site are at or near background levels and six years of groundwater monitoring have supported the conclusions herein. NMOCD approved the termination request on September 22, 2009.

The junction box site location map, area map, final report, laboratory analysis and current photodocumentation are attached.

Recommendations

Site investigation demonstrates that residual chloride and hydrocarbons in the vadose zone will not with reasonable probability contaminate groundwater in excess of NMOCD standards. This site meets the requirements of the NMOCD-approved Revised Junction Box Upgrade Work Plan (July 16, 2003). As such, ROC request termination of the regulatory file, or similar closure status.

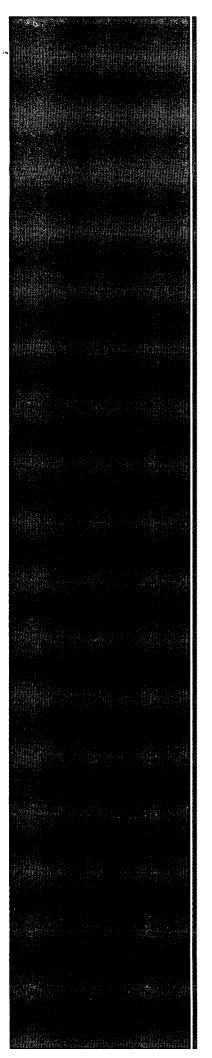
Please contact me at (575)393-9174 if you have any questions or wish to discuss this site. Thank you for your time and consideration.

Sincerely, RICE Operating Company

Hack Conder Environmental Manager



enclosures



Site Maps

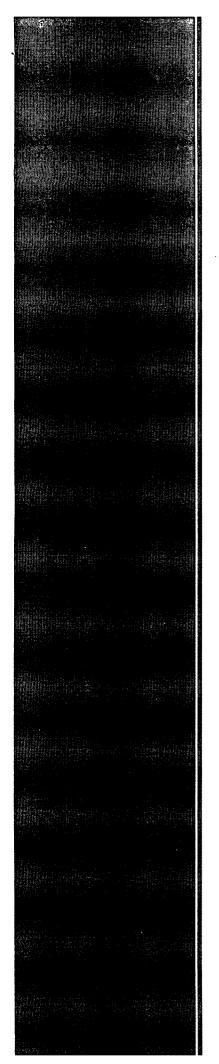
RICE *Operating Company* (ROC) 112 West Taylor Hobbs, NM 88240 Phone: (575) 393-9174 Fax: (575) 397-1471

Site Location Map

20 21	22 23	24	19	20	21	22	23	24	19 20
29 28	27 26 1 19S 36E	June 1	30 Jot 3	29	28 Monument	27	1	25	30 29 19S 38E
32 33	34. 35 Childress Ro	MO 36	NUMEN	T, NM 32	195 37 33	7 E 34	35	36	31 32
5		Maddox Road	6	5	4	3	2 Billy Wal	ker Rd.	6 5
8 9		12	7	8	EME	10 M-9-2	H	12	7 8
17 16	15 14 205 36E	13	18	17	16 205 3	15 7E	14	43	18 17 20S 38E
20 21	22 23	24	-19	20		22	22	24	19 20
/	77	uffy Cooper Rd. 25	30	29	-	27	28	25	30 29
32 33	34, 35	36	31	32	-	34	35	36	31 32
5 4 3	2	1	5	a Hwy 175	3	2	故	6	5
8 9 10		2 7	8	9	10	11	12	-7	
17 16 15	15 35E 14	3 Hw 176	T	16	S 36E	14	13 -	18	17
20 21 22	23 2	4 19	20	21	22	23 Hurs 8	24	19	20 2
29 28 27		30	29	28	23	28-		30	29 N
	CS		EME . 1R42			0	1	2	W E
CONSULTING	& SAFETY, LLE		UL/M S T20S LEA CO	, R37E		EE	g date: 5/3/1;	Miles	

Area Map





RICE *Operating Company* (ROC) 112 West Taylor Hobbs, NM 88240 Phone: (575) 393-9174 Fax: (575) 397-1471

Junction Box Report

RICE OPERATING COMPANY JUNCTION BOX FINAL REPORT

					BOX LOC	ATION		-			•	
	SWD SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE	COUNTY	BC	DX DIME	NSIONS - FE	ET	
	EME	M-9-2	M	9	20S	37E	LEA	Length		Width	Depth	
	LAND TYPE: E	BLMS		FEE L	ANDOWNER	<u>S&W</u>	CATTLE C	<u>о</u> оті	IER			
	Depth to Grour	ndwater	18	feet	NMOCD	SITE ASSE	SSMENT	RANKIN	G SCOF	RE:	20	
	Date Started	06/19/2	2002	Date Co	mpleted	09/09/2002	0CE	Witness		YES		_
	Soil Excavated	8000	cubic ya	rds Ex	cavation Le	ength <u>110</u>	Wid	th100	De	epth	20fee	Ħ
	Soil Disposed	_,,	cubic ya	rds O	ffsite Facility	······		Locat	tion			~
FI	NAL ANALY	TICAL R	ESULTS	S: Samp	le Date	09/09/2	002	Sample	Depth		20	
	Pr	rocure 5-point BTEX and C		oratory tes		pleted by us	ing an app					
	Sample	Benzene			Ethyl Benzene	Total Xylen		GRO	DF		Chlorides	-
<u> </u>	Location	mg/kg		g/kg	mg/kg	mg/kg		ng/kg	mg		mg/kg	-
<u> </u>	SIDEWALLS BOTTOM	<0.025		.025	<0.025 <0.025	<0.025		<10 <10	<* *>		245 95	
	eneral Descriptio				n box was locate			CH	LORIDE	FIELD TE	STS	
take	en form the M-9 SW	/D Facility reme	diation site.	The site was	excavated to 20	bgs and		LOCATIO	N	DEPTH	mg/kg	
the	n backfilled with 4' o	of clean overburd	len soil. A c	ompacted red	-bed clay liner v	vas installed		SIDEWAL	LS	13'	260	^
and	density tested. Th	e excavation wa	s backfilled v	vith remediate	d soil. The rem	ediated soil wa	is T	BOTTON	Λ	20'	100	
test	ed in 3' lifts. A mon	itor well was inst	alled to sam	ple groundwa	ter constituents	. Any remaining	<u> </u>	4' fill above	gw	16'	220	
hyd	rocarbon will natura	ally attenuate.					1	st lift above	liner	12'	310	
								2nd lift		9'	350	
						····		3rd lift		6'	320	
<u> </u>		<u> </u>						4th lift		3'	360	<u>.</u>
				· · · · · · · ·				Surface		0'	471	
		<u> </u>					-	<u></u>				
							1					

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

DATE	Øctgber 2] 2002	PRINTED NAME	D. E. Anderson
SIGNATURE	Alluderon		Project Leader - Environmental

ANALYTICAL REPORT

Prepared for:

LOGAN ANDERSON RE ENVIRONMENTAL P.O. BOX 13418 ODESSA, TX 79768

 Project:
 Rice

 PO#:
 G0204401

 Report Date:
 09/04/2002

<u>Certificates</u> US EPA Laboratory Code TX00158

(

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

ENVIRONMENTAL LAB OF TEXAS SAMPLE WORK LIST

RE ENVIRONMENTAL	Order#:	G0204401
P.O. BOX 13418	Project:	
ODESSA, TX 79768	Project Name:	Rice
366-0804	Location:	M-9 EME

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas, unless otherwise noted.

			Date / Time	Date / Time		
Lab ID:	Sample :	Matrix:	Collected	Received	Container	Preservative
0204401-01	Bottom Composite @20'	SOIL	8/28/02	8/29/02	4 oz Glass	Ice
			15:00	16:30		
Lab	Testing:	Rejected: No	Тел	ip: 0.5C	.'	
	8015M					
	8021B/5030 BTEX					
	Chloride			· · ·		
		· · · · · · · · · · · · · · · · · · ·				~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

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LOGAN ANDERS RE ENVIRONME P.O. BOX 13418 ODESSA, TX 797	NTAL			Order#: Project: Project Name Location:	G020 e: Rice M-91			
Lab ID:	0204401-01							
Sample ID:	Bottom Composi	te @20'						
				8015M				
	Method	Date Prepared	Date	Sample	Dilution	A	36.44.2	
	Blank	Freparcu	<u>Analyzed</u> 8/30/02	<u>Amount</u> 1	<u>Factor</u> 1	<u>Analyst</u> CK	Method 8015M	
				-	-	CIL	0015111	
•								
		Parameter		Result mg/kg		RL		
		GRO, C6-C12	······································	<10.0		10.0		
		DRO, >C12-C35		<10.0		10.0		
	•	TOTAL, C6-C35	· · · · · · · · · · · · · · · · · · ·	<10.0		10.0		
			80770	5030 BTEX				
	Method	Date	Date	Sample	Dilntion			
•	Blank	Prepared	Analyzed	Amount	Factor	Analyst	Method	
	0003022-02		9/1/02	1	25	СК	8021B	
			9:30			·· ·		
		Development	······································	Result		זמ		
		Parameter		mg/kg		RL		
		Benzene		<0.025		0.025	'n	
		Ethylbenzene	·	<0.025		0.025		
		Toluene		<0.025		0.025		
	•							
		p/m-Xylene		<0.025		0.025		
		p/m-Xylene o-Xylene						· · · ·
		o-Xylene		<0.025 <0.025		0.025		
		o-Xylene	5	<0.025 <0.025 % Recovered	QC Limit	0.025 0.025 s (%)		
· ·		o-Xylene		<0.025 <0.025	80	0.025		

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

Page 1 of 1

ENVIRONMENTAL LAB OF TEXAS I, LTD.

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

Sara Molina, Lab Tech:

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LOGAN ANDERSON RE ENVIRONMENTAL P.O. BOX 13418 ODESSA, TX 79768		Order#: Project: Project Name: Location:	G0204401 Rice M-9 EME	-		
Lab ID: 0204401-01 Sample ID: Bottom Composite @20' Test Parameters		Dilutic			Date	· · · · · · · · · · · · · · · · · · ·
Parameter	Result	Units Facto		Method	Analyzed	<u>Analyst</u>
Chloride	94.5	mg/kg l	20	9253	9/4/02	SB

Approval: Raland K. Tuttle, Lab Director, QA Officer Celey D. Keene, Org. Tech. Director Jeanne McMurrey, Inorg. Tech. Director Sandra Biezugbe, Lab Tech. Sara Molina, Lab Tech.

RL = Reporting Limit N/A = Not Applicable

Page 1 of 1

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Date

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8015M

Order#: G0204401

BLANK	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Resuit	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg	<u> </u>	0003018-02			<10.0		
MS	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0204400-04	198	952	1124	97.3%	
MSD	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0204400-04	198	952	1144	99.4%	1.8%
SRM	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0003018-05		1000	1030	103.%	

ENVIRONMENTAL LAB OF TEXAS I, LTD.

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ENVIRONMENTAL LAB OF TEXAS QUALITY CONTROL REPORT 8021B/5030 BTEX

Order#: G0204401

BLANK	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0003022-02			<0.025		
Ethylbenzene-mg/kg		0003022-02			<0.025	1	· · · · · · · · · · · · · · · · · · ·
Toluene-mg/kg		0003022-02			<0.025		
p/m-Xylene-mg/kg		0003022-02			<0.025		
o-Xylene-mg/kg		0003022-02			<0.025		
MS	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0204388-07	0	0.14	0.089	89.%	
Ethylbenzene-mg/kg		0204388-07	0	0.1	0.090	90.%	
Toluene-mg/kg		0204388-07	0	0.1	0.091	91.%	
p/m-Xylene-mg/kg	·, ,,	0204388-07	0	0.2	0.188	94.%	
o-Xylene-mg/kg		0204388-07	0	0.1	0.091	91.%	
MSD	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg	• •	0204388-07	0	0.1	0.094	94.%	5.5%
Ethylbenzene-mg/kg		0204388-07	0	0.1	0.095	95.%	5.4%
Toluene-mg/kg		0204388-07	0	0.1	0.097	97.%	6.4%
p/m-Xylene-mg/kg		0204388-07	0	0.2	0.198	99.%	5.2%
Kylene-mg/kg		0204388-07	0	0.1	0.095	95.%	4.3%
S'RM	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0003022-05		0.1	0.096	96.%	
Ethylbenzene-mg/kg		0003022-05		0.1	0.097	97.%	
Foluene-mg/kg		0003022-05		0.1	0.098	98.%	
o/m-Xylene-mg/kg		0003022-05		0.2	0.201	100.5%	
o-Xylene-mg/kg		0003022-05		0.1	0.097	97.%	

Test Parameters

Order#: G0204401

BLANK	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0003049-01			<20.0	· ·	
MS	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0204401-01	94.5	667	756	99.2%	
MSD	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0204401-01	94.5	667	744	97.4%	1.6%
SRM	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0003049-04		5000	4960	99.2%	

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Project Manager: Ponnie And Company Name RE Environm	erson								Р	rojec	ct Na	me:		K	$\frac{2}{12}$	C						
Company Name RE Environm	entr/				-					Р	roje	ct #:										
Company Address:										Pro	ject l			N	7-	9		E	m	È		
City/State/Zip:						•					P	O #:										
																	<u></u>					
Telephone No:																						
										F		τ	CLP:	A	naly	ze F	or.				_	
			г		Preser	vative			Aatrix	_			TAL:	-	1-							
B# ((ab use: only)) FIELD CODE	Date Sampled			ta HNO3		H ₃ SO4	Other (Specify)		Soil	Other (specify):		Anians (CL)SO4 CO		Metals: As Ag Ba Cd Cr Pb Hg Se Volatites	Semivolatiles	BTEX 8021B/5030	RCI	N.O.R.M. Total Commo			RIISH TAT (Pre-Schedule)	Standard TAT
(041107: Cl. Bottom Composite @ 20'	8-28-02	3:00 /		λ[┼╌┼╴	┼╌┼		┨┤╴	Ø	- ^		X)				-	_			┢╋╋	4
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Fax Results to x	Donnie A.	lare	_								•	Solution	mele Meen	Cont	ainer Upç				议			
Inquished by: Date Tim Date Tim B-29:02 4!3	e Received by:	NUU SO	<u>~</u>					Dal	e	Т	ime		poral Poral			nen Skij			「「「「」」			
	e Received by ELC			s	-	- 0						1.02	17. 20	STHO	A 11	1310	Sea 6	-1929	1.5	三:10.3	12215	12:19

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ANALYTICAL REPORT

Prepared for:

LOGAN ANDERSON RE ENVIRONMENTAL P.O. BOX 13418 ODESSA, TX 79768

 Project:
 Rice

 PO#:
 G0204422

 Report Date:
 09/06/2002

Certificates US EPA Laboratory Code TX00158

ENVIRONMENTAL LAB OF TEXAS I, LTD.

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ENVIRONMENTAL LAB OF TEXAS SAMPLE WORK LIST

RE ENVIRONMENTAL P.O. BOX 13418 ODESSA, TX 79768 366-0804 Order#: G0204422 Project: Project Name: Rice Location: M-9

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas, unless otherwise noted.

<u>Lab ID:</u> 0204422-01	<u>Sample :</u> 5 pt. Wall Comp. @ 13'			Date / Time <u>Collected</u> 8/30/02	Date / Time <u>Received</u> 9/3/02	Container 4 oz glass		Preservative Ice
۲.	T m- the sec			15:00	11:30	× .		
	<u>b Testing:</u>	Rejected:	No	Ten	ip: 16.5 C			
	8015M							
	8021B/5030 BTEX							
	Chloride							
0204422-02	4 pt. Bottom Comp. @ 16'	SOIL		8/30/02	9/3/02	4 oz glass		Ice
				15:00	11:30			·
La	<u>b Testing:</u>	Rejected:	No	Ten	p: 16.5 C		•	
	8015M		•					
	8021B/5030 BTEX			5				
•	Chloride							

LOGAN ANDER RE ENVIRONM P.O. BOX 13418 ODESSA, TX 7	ENTAL			Order#: Project: Project Na Location:	me: I	G020442 Rice 14-9	2		
Lab ID:	0204422-01								
Sample ID:	5 pt. Wall Comp	. @ 13'							
				8015M					
	Method	Date	Date	Sample	Dilu	tion			
	Blank	Prepared	Analyzed	Amount	Fac		Analyst	Method	
			9/3/02	1	1		CK	8015M	
		•							·
		Parameter	Res mg/		···R	L			
		GRO, C6-C12	<10	.0	1	0.0			
		DRO, >C12-C35		<10	.0	1	0.0		
		TOTAL, C6-C35	,	<10	.0	1	0.0	•	
	Method <u>Blank</u> 0003053-02	Date <u>Prepared</u>	8021B Date <u>Analyzed</u> 9/5/02 13:19	/5030 BTE Sample <u>Amount</u> 1	X Dilut <u>Fact</u> 25	or	<u>Analyst</u> CK	<u>Method</u> 8021B	
			13:19						
		Parameter		Resu mg/k		R	Ĺ		
	•	Benzene		<0.02	25	0.0	25		
		Ethylbenzene		<0.02	25	0.0		·	
		Toluene		<0.02	25	0.0			•
			p/m-Xylene			0.0			
		o-Xylene		<0.02	5	0.0	25		
				4		•			
		Surrogate	5	% Recovered		imits (%)		
		aaa-Toluene		114%	80	120	_		

115%

80

120

Bromofluorobenzene

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Page 1 of 2

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

LOGAN ANDEJ RE ENVIRONN P.O. BOX 13418 ODESSA, TX 7	IENTAL				Order#: Project: Project Name Location:	: R	50204 Lice 1-9	422	1	
Lab ID:	0204422-02									
Sample ID:	4 pt. Bottom Con	np. @ 16'						•		
				801.	5M					
	Method	Date	Date		Sample	Dilu				
	Blank	Prepared	Analyzed	4	Amount	Fac		<u>Analyst</u>	Method	
			9/3/02		1	1		CK	8015M	
		Parameter			Result mg/kg		•	RL		
		GRO, C6-C12			<10.0			10.0		
		DRO, >C12-C35	•		50.3			10.0		
. **		TOTAL, C6-C35			50.3			10.0		
			8021E		<i>30 BTEX</i>					
	Method	Date	Date		-	Diluti				
	Blank	Prepared	<u>Analyzed</u> 9/5/02	A	mount	Fact	or	<u>Analyst</u>	Method	
	0003053-02		14:25		1	25		СК	8021B	
		Parameter	· · · · · · · · ·		Result mg/kg			RL		
		Benzene			< 0.025	—†		0.025		
		Ethylbenzene			<0.025		. (0.025		
		Toluene			< 0.025		(0.025		
		p/m-Xylene			<0.025).025		
	I	o-Xylene			<0.025		().025		

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

9-06-02 IC. Approval: Date

Raland K. Tuttle, Lab Director, QA Officer Celey D. Keene, Org. Tech. Director Jeanne McMurrey, Inorg. Tech. Director Sandra Biezugbe, Lab Tech. Sara Molina, Lab Tech.

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2. 12600 West I-20 East, Odessa, TX 79765 Ph: 915-563-1800

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LOGAN ANDERSON RE ENVIRONMENTAL P.O. BOX 13418 ODESSA, TX 79768		Projec	t: t Name: R	-			
		<u>.</u>			,		
Test Parameters Parameter		Units	Dilution <u>Factor</u>	<u>RL</u>	Method	Date Analyzed	Analyst
	245	mg/kg	1	20	9253	9/4/02	SB
04422-02							
t. Bottom Comp. @ 16'				· ·			
S	Result	Units	Dilution <u>Factor</u>	RL	Method	Date Analyzed	Analyst
•	354	mg/kg	1	20	9253	9/4/02	SB
	'AL 104422-01 pt. Wall Comp. @ 13'	AL 04422-01 pt. Wall Comp. @ 13' "S 	AL Projec Projec 204422-01 pt. Wall Comp. @ 13' "5" 	AL Project: Project Name: R Location: M .04422-01 pt. Wall Comp. @ 13' "S Dilution <u>Result</u> <u>Units</u> Factor 245 mg/kg 1 04422-02 pt. Bottom Comp. @ 16' "S Dilution <u>Result</u> <u>Units</u> Factor	AL Project: Project Name: Rice Location: M-9 104422-01 pt. Wall Comp. @ 13' "5 Dilution <u>Result</u> <u>Units</u> <u>Factor</u> <u>RL</u> 245 mg/kg 1 20 04422-02 pt. Bottom Comp. @ 16' "5 <u>Dilution</u> <u>Result</u> <u>Units</u> <u>Factor</u> <u>RL</u>	AL Project: Project Name: Rice Location: M-9 04422-01 pt. Wall Comp. @ 13' "5 Dilution <u>Result</u> <u>Units</u> <u>Factor</u> <u>RL</u> <u>Method</u> 245 mg/kg 1 20 9253 04422-02 pt. Bottom Comp. @ 16' "5 <u>Dilution</u> <u>Result</u> <u>Units</u> <u>Factor</u> <u>RL</u> <u>Method</u>	AL Project: Project Name: Rice Location: M-9 204422-01 pt. Wall Comp. @ 13' "5 Dilution Date <u>Result Units Factor RL Method Analyzed</u> 245 mg/kg 1 20 9253 9/4/02 04422-02 pt. Bottom Comp. @ 16' "5 Dilution Date <u>Result Units Factor RL Method Analyzed</u> Date <u>Result Units Factor RL Method Analyzed</u>

Raland K. Tuttle, Lab Director, QA Officer Celey D. Keene, Org. Tech. Director Jeanne McMurrey, Inorg. Tech. Director Sandra Biezughe, Lab Tech. Sara Molina, Lab Tech.

RL = Reporting Limit N/A = Not Applicable ENVIRONMENTAL LAB OF TEXAS I, LTD.

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8015M

Order#: G0204422

BLANK	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0003048-02			<10.0		
CONTROL	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0003048-03		952	1003	105.4%	
CONTROL DUP	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0003048-04		952	992	104.2%	1.1%
SRM	SOIL LAB-ID #		Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg	- <u></u>	0003048-05	F	1000	1040	104.%	

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8021B/5030 BTEX

Order#: G0204422

BLANK	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0003053-02			<0.025		
Ethylbenzene-mg/kg	• • • · · · · · · · · • • · · ·	0003053-02		3	<0.025		· · · · · · · · · · · · · · · · · · ·
Toluene-mg/kg		0003053-02			<0.025		
p/m-Xylene-mg/kg		0003053-02			<0.025		
o-Xylene-mg/kg		0003053-02			<0.025		
MS	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg	<u></u>	0204422-01	0	0.1	0.093	93.%	
Ethylbenzene-mg/kg	<u></u>	0204422-01	0	0.1	0.095	95.%	
Toluene-mg/kg		0204422-01	0	0.1	0.095	95.%	
p/m-Xylene-mg/kg		0204422-01	0	0.2	0.196	98.%	
-Xylene-mg/kg		0204422-01	0	0.1	0.095	95.%	
MSD	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0204422-01	0	0.1	0.094	94.%	1.1%
Ethylbenzene-mg/kg		0204422-01	0	0.1	0.096	96.%	1.%
Foluene-mg/kg		0204422-01	0	0.1	0.096	96.%	1.%
p/m-Xylene-mg/kg		0204422-01	0	0.2	0.198	99.%	1.%
Viene-mg/kg		0204422-01	0	0.1	0.096	96.%	1.%
LRM	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0003053-05		0.1	0.105	105.%	
Ethylbenzene-mg/kg		0003053-05		0.1	0.105	105.%	
foluene-mg/kg		0003053-05		0.1	0.108	108.%	
/m-Xylene-mg/kg		0003053-05		0.2	0.215	107.5%	
-Xylene-mg/kg		0003053-05		0.1	0.104	104.%	

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Test Parameters

Order#: G0204422

BLANK	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0003050-01			<20.0		
MS	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0204410-15	5320	5000	10300	99.6%	·····
MSD	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0204410-15	5320	5000	10200	97.6%	1.%
SRM	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0003050-04		5000	4960	99.2%	

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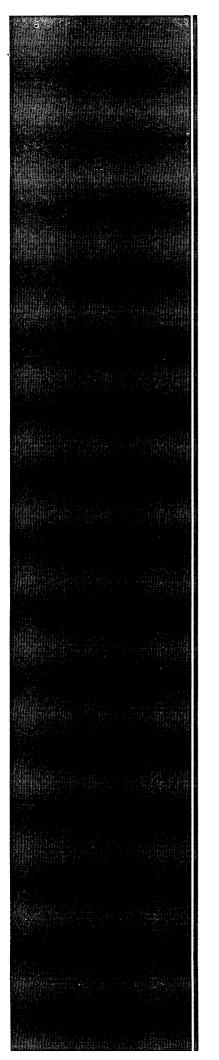
12600 West I-20 East, Odessa, TX 79765 Ph: 915-563-1800

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Envi. mental Lab of Texas 12600 West I-20 East Odessa, Texas 79763 Project Manager: Ponic And Company Name REEnstown Company Address: City/State/Zip:	losn 2ntil								HAIN I	^a roje F	ct Nai ro]ec ject L	me: _ t #: _ .oc: _		R	7 120	2				EST		
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D2D LAB # (lab use only) FIELD CODE	Date Sampled	Time Sampled	No. of Containers	ice HNO ₃	HCI NaOH	H ₃ SO4	None Other (Specify)	Water Sturine	Soit	Other (specify)	Calions (Ca, Mg, Na, K)	Anions (CitySO4, CO3, HCO3)		Metais: As Ap Be Co Cr Pp Hg Se Volatiles	Semivolalijes	BTEX 80218/5030	RCI	N.O.R.M. Total Commo	0,00 (0,000)		RUSH TAT (Pre-Schedule)	Standard TAT
01 5pt. Wall Comp. @ 13' 02. 4pt. Bottom Comp. @16'	8-30102	-)	Υ.					X	Ĺ	r -	1				R	_					
02 4pt. Bottom Comp. @161	8-30-02	3:00 P		×.			_		1	1	X[$ \mathcal{X} $				$ \mathcal{Y} $		_		┥╌┼	_	4-4
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Current Photodocumentation

RICE *Operating Company* (ROC) 112 West Taylor Hobbs, NM 88240 Phone: (575) 393-9174 Fax: (575) 397-1471

EME M-9-2 (1R427-80) UL/M, Section 9, T20S, R37E



Facing north

3/26/2013



Facing south

3/26/2013