1R-427-340

# APPROVALS

YEAR(S):

## Hansen, Edward J., EMNRD

From:	Hansen, Edward J., EMNRD
Sent:	Tuesday, March 19, 2013 11:09 AM
To:	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 (1R427-340) Termination - ROC EME Jct L-21 Site

## RE: Termination Request for the Rice Operating Company's EME Jct L-21 Site Unit Letter L, Section 21, T19S, R37E, NMPM, Lea County, New Mexico Remediation Plan (1R427-340) 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 March 1, 2013 (received March 4, 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 (1R427-340) 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

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

CERTIFIED MAIL RETURN RECEIPT NO. 7007 2560 0000 4569 9262

#### March 1, 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

RE: Termination Request EME Jct. L-21 (1R427-340): UL/L, Sec. 21, T19S, 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 2010, ROC initiated work on the former L-21 junction box. The site is located in UL/L, Sec. 21, T21S, R37E. NM OSE records indicate that groundwater would likely be encountered at a depth of approximately 47 +/- feet. The site was delineated using a backhoe to collect soil samples at regular intervals, creating a 30x25x12 ft deep excavation. Each sample was field titrated for chlorides and field screened using a PID for hydrocarbons, resulting in chloride concentrations that did not relent with depth. The excavated soil was blended on site and representative samples were collected from the excavation 4-wall, excavation bottom, and blended backfill and sent to a commercial laboratory for analysis of chloride and TPH, resulting in a 4-wall chloride concentration of 800 mg/kg, a concentration of gasoline range organics (GRO) below detectable limits and a diesel range organics (DRO) concentration of 72.6 mg/kg. The bottom composite resulted in a chloride concentration of 576 mg/kg and concentrations of GRO and DRO below detectable limits. The blended backfill resulted in a chloride concentration of 400 mg/kg, a GRO concentration below detectable limits, and a DRO concentration of 16.6 mg/kg. At 12 ft below ground surface (BGS), a 20-mil liner was installed with a six inch pad of clean imported blow sand below and above the liner. The blended backfill was

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returned to the excavation to 1 ft BGS. The remaining excavation was backfilled with clean imported soil to ground surface and contoured to the surrounding area.

To further investigate the depth of chloride presence, a soil bore was initiated on June 11, 2010 at 10 ft south of the former junction box. The boring was advanced to 45 ft BGS with soil samples collected every 3 ft. The 18 ft and 45 ft samples were taken to a commercial laboratory for analysis, resulting in a SB-1 at 18 ft chloride concentration of 496 mg/kg and concentrations of GRO and DRO below detectable limits. SB-1 at 45 ft resulted in a chloride concentration of 224 mg/kg and concentrations of GRO and DRO below detectable limits. The entire bore hole was plugged with bentonite to ground surface.

On June 1, 2010, the site was seeded and reseeded on November 30, 2010, with a blend of native vegetation. A junction box is no longer needed at the site. Vegetation has rebounded at the site, so no re-vegetation efforts are needed.

The junction box site location map, final report, photodocumentation, soil bore log, laboratory analysis, PID sheet, cross-section, chloride graph and current photodocumentation are attached.

### Recommendations

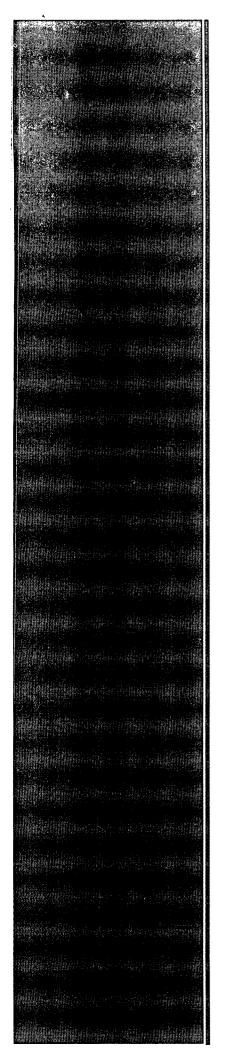
Site investigation demonstrates that residual chloride and hydrocarbons in the vadose zone will not with reasonable probability contaminate groundwater in excess of NMOCD standards. This site meets the requirements of the NMOCD-approved Revised Junction Box Upgrade Work Plan (July 16, 2003). As such,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

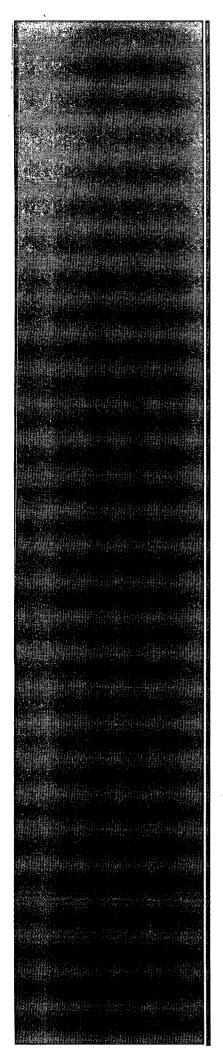


# Site Location Map

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

# Site Location Map

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## Junction Box Report

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

BXU DCATONI         BXX DVEXISION         Description           SWD5YSTEM         ALX21         L         21         198         376         Les         Les         With         Description           LAND TYPE:         BLM         STATE_X         FEE LANDOWNER		RICE OPERATING COMPANY JUNCTION BOX FINAL REPORT											
SWD5YSTEW         LURDTON         UNIT         SECTOR         TOWNSHEP         RAIGE         COUNTY         BOX DIMENSIONS, FEET           Invertidation         Jet. L-21         L         21         198         37E         Lea         Lea         Min         Definition           LAND TYPE:         BLM						BOX LO	CATION						
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LAND TYPE:       BLMSTATEXFEE LANDOWNER      OTHEROTHEROTHEROTHEROTHEROTHEROTHER			Jct. L-21	L	21	195	37E	Lea	Length	Length Width Depth			
Depth to Groundwater       47       feet       NMOCD SITE ASSESSMENT RANKING SCORE:       20         Date Started       42222010       Date Completed       5/27/2010       OCD Witness       no         Soil Excavated       333       cubic yards       Decavation       Location       Euroice, NM         Soil Disposed       108       cubic yards       Offsite Facility       Sundance Services       Location       Euroice, NM         FINAL ANALYTICAL RESULTS:       Sample Date       4/22/2010, 6/11/2010       Sample Depth       18 ft, 45 ft.         Procure Spoint composite sample of bottom and 4-point composite sample of sidewalls. TPH and Chloride laboratory test results completed by using an approved bian dresting procedures pursuant to NMOCD guidelines.       CHLORIDE FIELD TESTS         Sample       00       100       10.6       400         BOTTON COMP       2.3       <10.0										Eliminated			
Date Started       4/22/2010       Date Completed       5/27/2010       OCD Witness       no         Soil Excavated       333.3       cubic yards       Excavation Length       30       Wdth       25       Depth       12       feet         Soil Disposed       106       cubic yards       Offsite Facility       Stindence Services       Location       Eunice, NM         FINAL ANALYTICAL RESULTS:       Sample Date       4/22/2010, 6/11/2010       Sample Depth       18 ft, 45 ft.         Procure S-point composite sample of bottom and 4-point composite sample of sidewalls.       TPH and       Chiorde laboratory test results completed by using an approved lab and testing procedures pursuant to NMOCD guidelines.       CHLORIDE FIELD TESTS         Sample       PID (Med)       GRNQ       MRQ       MRQ       MRQ       MRQ       MRQ       MRQ       MRQ       4/400 cmp.       18 ft (3 ft (3 cmp.)       18 ft (3 cmp.)       24 ft (3 cmp.)       18 ft (3 cmp.)       24 ft (3 cmp.)       24	LAN	LAND TYPE: BLM STATE _ FEE LANDOWNEROTHEROTHER											
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BOTTOM COMP.       2.9       <10.0				· •					LOCATION	DEPTH	mg/kg		
BACKFILL COMP       2.3       <10.0	4-W	ALL COMP.	3.5	<	10.0	72.6	80	0	4-wall comp.	n/a	572		
SB # 1 @ 18 ft.       0.6       <10.0							·····		bottom comp.	12	469		
SB # 1 @ 45 ft.       0.0       <10.0	·								backfill comp.				
General Description of Remedial Action:       This junction and line were eliminated         during the pipeline/upgrade program. After the former junction box was removed, an       SB # 1 at 10         investigation was conducted using a backhoe to collect samples at regular intervals creating       300 530         a 30X25X12-ft. deep excavation. Chloride field test performed on each sample yielded.       300 530         relatively low concentrations. The excavated soil was blended on site and       33 346         representative samples were collected from the blended backfill, the bottom of the excavation,       39 3005         analysis of chloride and TPH. At 12 ft. below ground surface (BGS) a 20 ml plastic liner       42 309         was installed with six inch pad of clean imported box samples were bar. The blended backfill was returned to the excavation to       1         1 ft. BGS. The remaining blended backfill was hauled to a NMOCD approved facility. The remaining excavation was backfilled with clean       imported box sand below and above finer. The blended backfill was backfilled with clean         imported soil to ground surface and contoured to the surrounding area. To further investigate depth of chloride presence, a soil bore was       initiated on 6/11/2010, at 10 ft. south of former junction box. The boring was advanced to 45 ft. BGS with soil samples collected every 3 ft.         between 15 ft. and 45 ft. samples were taken to a commercial laboratory which confirmed chloride concentrations that       did relent with depth and tow concentrations of TPH. The entire bore hole was plugged with bentonite to ground s													
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and excavation Walls. The representative samples were sent to a commercial laboratory for       45'       321         analysis of chloride and TPH. At 12 ft. below ground surface (BGS) a 20 ml plastic liner       was installed with six inch pad of clean imported blow sand below and above liner. The blended backfill was returned to the excavation to         1 ft. BGS. The remaining blended backfill was hauled to a NMOCD approved facility. The remaining excavation was backfilled with clean       imported soil to ground surface and contoured to the surrounding area. To further investigate depth of chloride presence, a soil bore was         initiated on 6/11/2010, at 10 ft. south of former junction box: The boring was advanced to 45 ft. BGS with soil samples collected every 3 ft.         between 15 ft. and 45 ft. The 18 ft. and 45 ft. samples were taken to a commercial laboratory which confirmed chloride concentration that         did relent with depth and low concentrations of TPH. The entire bore hole was plugged with bentonite to ground surface. On 6/01/2010, the         site was seeded and reseeded on 11/30/2010 with a blend of native vegetation and is expected to return to a productive capacity at a         normal rate.         I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY         KNOVVLEDGE AND BELIEF.         SIGNATURE         ABB BLIEF.         SIGNATURE         ABB BLIEF.         SIGNATURE         ABB BLIEF. </td <td>using a Pl</td> <td>D, which yield</td> <td>ed low conce</td> <td>entrations. T</td> <td>he excavated</td> <td>soil was blen</td> <td>ded on site a</td> <td>nd</td> <td>4</td> <td></td> <td>305</td>	using a Pl	D, which yield	ed low conce	entrations. T	he excavated	soil was blen	ded on site a	nd	4		305		
analysis of chloride and TPH. At 12 ft. below ground surface (BGS) a 20 ml plastic liner was installed with six inch pad of clean imported blow sand below and above liner. The blended backfill was returned to the excavation to 1 ft. BGS. The remaining blended backfill was hauled to a NMOCD approved facility. The remaining excavation was backfilled with clean imported soil to ground surface and contoured to the surrounding area. To further investigate depth of chloride presence, a soil bore was initiated on 6/11/2010, at 10 ft. south of former junction box: The boring was advanced to 45 ft. BGS with soil samples collected every 3 ft. between 15 ft. and 45 ft. The 18 ft. and 45 ft. samples were taken to a commercial laboratory which confirmed chloride concentration that did relent with depth and low concentrations of TPH. The entire bore hole was plugged with bentonite to ground surface. On 6/01/2010, the site was seeded and reseeded on 11/30/2010 with a blend of native vegetation and is expected to return to a productive capacity at a normal rate.  I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF. SITE SUPERVISOR Robert Egans SIGNATURE MARK COMPANY RICE OPERATING COMPANY REPORT ASSEMBLED BY Larry Bruce Baker Jr. INITIAL <u>JB B</u>	representa	ative samples	were collecte	d from the b	lended backfi	II, the bottom	of the excava	tion,		42'	309		
was installed with six inch pad of clean imported blow sand below and above liner. The blended backfill was returned to the excavation to         1 ft. BGS. The remaining blended backfill was hauled to a NMOCD approved facility. The remaining excavation was backfilled with clean         imported soil to ground surface and contoured to the surrounding area. To further investigate depth of chloride presence, a soil bore was         initiated on 6/11/2010, at 10 ft. south of former junction box: The boring was advanced to 45 ft. BGS with soil samples collected every 3 ft.         between 15 ft. and 45 ft. The 18 ft. and 45 ft. samples were taken to a commercial laboratory which confirmed chloride concentration that         did relent with depth and low concentrations of TPH. The entire bore hole was plugged with bentonite to ground surface. On 6/01/2010, the         site was seeded and reseeded on 11/30/2010 with a blend of native vegetation and is expected to return to a productive capacity at a         normal rate.         I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY         KNOWLEDGE AND BELIEF.         SITE SUPERVISOR       Robert Egans       SIGNATURE         REPORT       ASSEMBLED BY       Larry Bruce Baker Jr.       INITIAL	and excav	ation Walls.	The represen	tative sample	es were sent i	to a commerci	al laboratory	for		45'	321		
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imported soil to ground surface and contoured to the surrounding area. To further investigate depth of chloride presence, a soil bore was initiated on 6/11/2010, at 10 ft. south of former junction box: The boring was advanced to 45 ft. BGS with soil samples collected every 3 ft. between 15 ft. and 45 ft. The 18 ft. and 45 ft. samples were taken to a commercial laboratory which confirmed chloride concentration that did relent with depth and low concentrations of TPH. The entire bore hole was plugged with bentonite to ground surface. On 6/01/2010, the site was seeded and reseeded on 11/30/2010 with a blend of native vegetation and is expected to return to a productive capacity at a normal rate.  I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF. SITE SUPERVISOR Robert Egans SIGNATURE COMPANY RICE OPERATING COMPANY REPORT ASSEMBLED BY Larry Bruce Baker Jr. INITIAL LBBB	was instal	led with six in	ch pad of clea	an imported I	blow sand be	low and above	e liner. The b	lended backf	ill was returned to t	he excavation to			
initiated on 6/11/2010, at 10 ft. south of former junction box. The boring was advanced to 45 ft. BGS with soil samples collected every 3 ft. between 15 ft. and 45 ft. The 18 ft. and 45 ft. samples were taken to a commercial laboratory which confirmed chloride concentration that did relent with depth and low concentrations of TPH. The entire bore hole was plugged with bentonite to ground surface. On 6/01/2010, the site was seeded and reseeded on 11/30/2010 with a blend of native vegetation and is expected to return to a productive capacity at a normal rate.  I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF.  SITE SUPERVISOR Robert Egans SIGNATURE MALL & BB	1 ft. BGS.	The remainir	g blended b	ackfill was ha	uled to a NM	OCD approve	d facility. Th	e remaining e	excavation was bac	kfilled with clean			
between 15 ft. and 45 ft. The 18 ft. and 45 ft. samples were taken to a commercial laboratory which confirmed chloride concentration that did relent with depth and low concentrations of TPH. The entire bore hole was plugged with bentonite to ground surface. On 6/01/2010, the site was seeded and reseeded on 11/30/2010 with a blend of native vegetation and is expected to return to a productive capacity at a normal rate. I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF. SITE SUPERVISOR Robert Egans SIGNATURE MULTICLE SUPERVISOR Robert Egans SIGNATURE MULTICLE SUPERVISOR Robert Egans SIGNATURE MULTICLE SUPERVISOR ROBERT ASSEMBLED BY Larry Bruce Baker Jr. INITIAL SB 8	imported s	soil to ground	surface and o	contoured to	the surround	ng area. To f	urther investi	gate depth of	chloride presence,	a soil bore was			
did relent with depth and low concentrations of TPH. The entire bore hole was plugged with bentonite to ground surface. On 6/01/2010, the         site was seeded and reseeded on 11/30/2010 with a blend of native vegetation and is expected to return to a productive capacity at a         normal rate.         enclosures: photos, boring log, lab results, PID (field) screenings, cross-section, chloride curve         I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY         KNOWLEDGE AND BELIEF.         SITE SUPERVISOR       Robert Egans         SIGNATURE       JULY         REPORT       ASSEMBLED BY         Larry Bruce Baker Jr.       INITIAL	initiated or	n 6/11/2010, a	t 10 ft. south	of former jur	nction box. T	he boring was	advanced to	45 ft. BGS w	ith soil samples co	lected every 3 ft.			
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normal rate.         enclosures: photos, boring log, lab results, PID (field) screenings, cross-section, chloride curve         I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY         KNOWLEDGE AND BELIEF.         SITE SUPERVISOR       Robert Egans         SIGNATURE       JULICATION         REPORT       ASSEMBLED BY         Larry Bruce Baker Jr.       INITIAL	did relent	with depth and	low concen	trations of TF	PH. The entir	e bore hole w	as plugged w	nth bentonite	to ground surface.	On 6/01/2010, t	he		
enclosures: photos, boring log, lab results, PID (field) screenings, cross-section, chloride curve I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF. SITE SUPERVISOR <u>Robert Egans</u> SIGNATURE <u>KINGWLETE TO THE BEST OF MY</u> REPORT ASSEMBLED BY Larry Bruce Baker Jr. INITIAL <u>XBB</u>	site was se	eeded and res	eeded on 11	/30/2010 wit	h a blend of r	native vegetati	on and is exp	ected to retur	m to a productive c	apacity at a			
I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF. SITE SUPERVISOR <u>Robert Egans</u> SIGNATURE <u>REPORT</u> ASSEMBLED BY Larry Bruce Baker Jr. INITIAL <u>LBB</u>	normal rat	e.											
I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF. SITE SUPERVISOR <u>Robert Egans</u> SIGNATURE <u>REPORT</u> ASSEMBLED BY Larry Bruce Baker Jr. INITIAL <u>LBB</u>											- <u></u>		
KNOWLEDGE AND BELIEF. SITE SUPERVISOR <u>Robert Egans</u> SIGNATURE <u>Here Company</u> Company <u>Rice Operating Company</u> REPORT ASSEMBLED BY Larry Bruce Baker Jr. INITIAL <u>288</u>						enclosi	ureš: photos, bo	oring log, lab res	ults, PID (field) screen	ings, cross-section,	, chloride curve		
REPORT ASSEMBLED BY Larry Bruce Baker Jr. INITIAL LBB													
ASSEMBLED BY Larry Bruce Baker Jr. INITIAL 268	SITE SUPE	ERVISOR	Robert Ega	ins SiG		fley	let-	En a	COMPANY	RICE OPERATING	G COMPANY		
PROJECT LEADER Larry Bruce Baker Jr. SIGNATURE Larry Bruce Bacher Jr. DATE 3-23-11			arry Bruce Ba	ker Jr		LBB	~						
	PROJECT	LEADER <u>L</u>	arry Bruce Ba	<u>kër Jr.</u> SIG	NATURE	Lany	Bruce P	Bucher Ju	DATE	3-23	-11		





Site before excavation

4/22/2010



6" blow sand pad below plastic liner

5/26/2010



Plastic liner installed

5/26/2010



6" blow sand pad above plastic liner

5/26/2010

.



Seeding site

6/01/2010

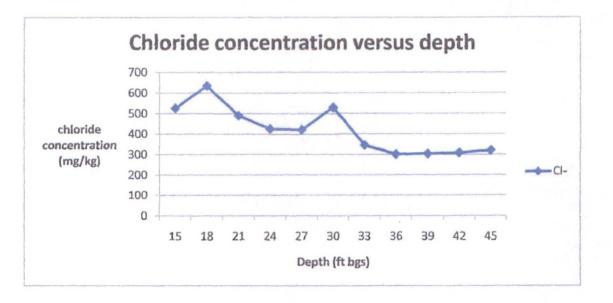


Drilling soil bore

6/11/2010

Logger:         Jordan Woodfin           Driller:         Harrison & Cooper           Consultant:         Junction box upgrade           Drilling Method         Air Rotary           Start Date:         6/11/2010           End Date:         6/11/2010           Comments:         All samples from cuttings.				Former jct. box SB-1	QUEE BPER	BB
				ttings. Located 10 ft south of	Project Name: EME jct. L-	Well ID: 21 SB-1
Comme		ormer ju Drafte	iction bo			L/L sec. 21 T19S R37E 5"N County: Lea
Depth (feet)	chloride field tests	LAB	PID	Description	Lithology	Well Construction
15 ft	526		0.9	12 - 30 ft SAND		
18 ft	635	CI- 496 GRO <10 DRO <10	0.6	tan to red		
21ft	492		0.4			
24 ft	426		0.6			
27 ft	422		0.2	COPY		
30 ft	530		0.3			seal
33 ft	346		0.2	30 - 36 ft SAND AND CALICHE RUBBLE tan to red		
36 ft	302		0.1	1		

Depth (feet)	chloride field tests	LAB	PID	Description	Lithology	Well Construction
39 ft	305		0			
42 ft	309		0	36 - 45 ft SAND tan to red		
45 ft	321	CI- 224 GRO <10	0			
		DRO <10				



COPY



PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR RICE OPERATING COMPANY ATTN: HACK CONDER 112 W. TAYLOR HOBBS, NM 88240

Receiving Date: 06/11/10 Reporting Date: 06/14/10 Project Number: NOT GIVEN Project Name: EME JCT L-21 Project Location: EME JCT L-21 Sampling Date: 06/11/10 Sample Type: SOIL Sample Condition: COOL & INTACT Sample Received By: JH Analyzed By: AB

GRO	DRO	
(C <sub>6</sub> -C <sub>10</sub> )	(>C <sub>10</sub> -C <sub>28</sub> )	CI*
(mg/kg)	.(mg/kg)	(mg/kg)

### LAB NUMBER SAMPLE ID

ANALYSIS DATE	06/12/10	06/12/10	06/11/10
H20100-1 SB #1 @ 18'	<10.0	<10.0	496
H20100-2 SB #1 @ 45'	<10.0	<10.0	224
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			<u>.,</u>
	-		
Quality Control	461	423	500
True Value QC	500	500	500
% Recovery	92.2	84.6	100
Relative Percent Difference	1.7	0.4	3.9

METHODS: TPH GRO & DRO: EPA SW-846 8015 M; CI: Std. Methods 4500-CI:B. \*Analyses performed on 1:4 w:v aqueous extracts.

Reported on wet weight.

Chemist

Dai

## H20100 TCL RICE

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## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

NEED SAMPLES BACK, PLEASE

ARDINAL LABORATORIES

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	(505) 393-2326 FAX (505) 393-2476	(325) 673-7001 FAX (325)673-7020

Company Name: Rice Operating Company							<b>B</b> ]]	LL TO					1	ANAL	YSIS	S RE	QUE	ST										
Project Manage	r: Hack Conder						Ρ.	P.O. #:												1								
Address: 122			-				C	Company:									S											
City: Hobbs	State: NM	Zip	: 88	240			A	ttn:							i		lo		:									
Phone #: 393-9	9174 Fax #: 397-14	71					A	ddre	ss:	-							, U		. ·									
Project #:	Project Owner	:					C	ity:						Σ		Т	s//											
Project Name: I	EME Jct L-21						SI	ate:			Zip:		<u></u>	2	×	TPH	ü			ļ								
	n: EME Jct L-21						P	none	;#:				Chlorides	801	BTEX	د د	Cations/Anions											
1	Jordan Woodfin						Fa	1x #:							BT	xa	ΰ		. <sup>.</sup>	ļ								
FOR LAB USE ONLY					MAT	RIX		PR	ESE	RV.	SAMPLI	NG	Chlori Chlori BTE Texas															
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER WASTEWATER	SOIL	OIL	SLUDGE OTHER	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME					Complete	*										
H2010D-1	SB # 1 @ 18'		1		$\checkmark$		ŀ		$\checkmark$		6/11/10	11:10	1	1						r.								
2	SB # 1 @ 45'		1		$\checkmark$				1		6/11/10	11:29	1	1					ļ									
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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 the client for the analyses. At dalms including those for negligence and any other cause whatsever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. Is no wreat shall Cardina be liable for Indicentar consequently damages including which multiplicable service. Is no wreat shall Cardina be liable for Indicentar consequently damages including within within the indicentar of two distributions that be used in a start of the service. The service is no server that Cardina be liable by distributions that bublishing interval to the service in the service is no server to the Cardina be liable by distributions that bublishing interval to the service in the service is the server of the cardina be applied by distributions the service is the server of the Cardina be applied by distributions the service is the service in the service in the service is the service is the service in the service is the service in th

ervice. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profils incurred by dient, its subsidiaries affiliates or successors arising out of ordelated to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

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Delivered By: (Circle One)	Sample Condition CHECKED BY:	
	Cool Intact (Initials)	Lweinheimer@riceswd.com
Sampler - UPS - Bus - Other:		
		· · · · · · · · · · · · · · · · · · ·

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393 2476

#26

## RICE OPERATING COMPANY

## 122 West Tayor Hobbs, NM 88240 PHONE: (575) 393-9174 FAX: (575) 397-1471 PID METER CALIBRATION & FIELD REPORT FORM

1

Model: PGM 7300 Seria Model: PGM 7300 Seria Model: PGM 7300 Seria Check Model Number:

Serial No: 590-000183 Serial No: 590-000508 Serial No: 590-000504 Model: PGM 7600 Model: PGM 7600 Model: PGM 7600

Serial No: 110-023920 Serial No: 110-013744 Serial No: 110-013676

GAS COMPOSITION: ISOBUTYLENE 100PPM / AIR: BALANCE

LOTNO: 927041	EXPIRATION DATE: 11-112-12
FILL DATE: (1-17-09	METER READING ACCURACY: 100

ACCURACY : +/- 2%

SYSTEM	JUNCTION	UNIT	SECTION	TOWN SHIP	RANGE
EME	6-21	L	21	195	37E

SAMPLE ID	PID	SAMPLE ID	PID
15'	0.9		
18'	0.6		
21'	0.4	2.	il
24'	0.6		,
27'	0.2		
	0.3		
33'	0.7		
30 ' 33 ' 36 '	ó. \		
391	.0.		
42'	Ø		
451	D		

I verify that I have calibrated the above instrument in accordance to the manufacture operation manual.

)orden Woodf SIGNATUE:

DATE: 6-11-10



ANALYTICAL RESULTS FOR RICE OPERATING COMPANY ATTN: BRUCE BAKER 112 W. TAYLOR HOBBS, NM 88240

Receiving Date: 05/18/10 Reporting Date: 05/20/10 Project Number: NOT GIVEN Project Name: EME JCT. L-21 (19/37) Project Location: EME JCT. L-21 (19/37) Sampling Date: 05/17/10 Sample Type: SOIL Sample Condition: COOL & INTACT Sample Received By: JH Analyzed By: AB/HM

GRO DRO (C<sub>6</sub>-C<sub>10</sub>) (>C<sub>10</sub>-C<sub>28</sub>) CI\* (mg/kg) (mg/kg) (mg/kg)

## LAB NUMBER SAMPLE ID

ANALYSIS DATE		05/19/10	05/19/10	05/18/10
H19915-1 5PT. BOTTOM	COMP @ 12'	<10.0	<10.0	576
H19915-2 4-WALL COMP	•	<10.0	72.6	800
H19915-3 BLENDED BAC	KFILL	<10.0	16.6	400
	************			
	الم	·		
		<u> </u>		
Quality Control	- <u></u>	499	489	500
True Value QC		500	500	500
% Recovery		99.8	97.8	1.00
Relative Percent Difference	······································	0.3	1.1	<0.1

METHODS: TPH GRO & DRO: EPA SW-846 8015 M; CI: Std. Methods 4500-CIB \*Analyses performed on 1:4 w:v aqueous extracts.

Reported on wet weight.

Date

#### H19915 TCL RICE

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## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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(4	505) 393-2326 FAX	(505) 393-24	76	(32	25) (	673-	70	01	FA	X (:	325															
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Project Manager:	Bruck Bak	er							I	P.O.	. #:							·								
Address: 122	W. Taylor								0	Con	npa	any	:													
city: Hobbs	-393-9174 F	State: MA	Zip	: 2	5 B	24	ΰ		/	Attr	1:									1		15	.			
Phone #: 575	-393-9174 F	ax#: 575	-3	77	- ,	141-	71			Add	Ires	ss:			-				<u>ن</u> ب ،	(C)	)i≍	P	1			
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t Cardinal cannot accept verbal changes. Please fax written changes to 505-393-4476 # 2.6

Sample Condition Cpoi/Intact Uves Ves

CHECKED BY:

Delivered By: (Circle One) Sampler-UPS - Bus - Other:

## RICE OPERATING COMPANY

122 West Tayor Hobbs, NM 88240 PHONE: (575) 393-9174 FAX: (575) 397-1471 PID METER CALIBRATION & FIELD REPORT FORM

Check	Model	Number

~

 Model: PGM 7300
 Serial No: 590-000183

 Model: PGM 7300
 Serial No: 590-000508

 Model: PGM 7300
 Serial No: 590-000504

Model: PGM 7600 Model: PGM 7600 Model: PGM 7600 Serial No: 110-023920 Serial No: 110-013744 Serial No: 110-013676

GAS COMPOSITION: ISOBUTYLENE 100PPM / AIR: BALANCE

LOTINO: 928547	EXPIRATION DATE: 2-4-2013
FILL DATE:	METER READING ACCURACY: 99.8 PPM

ACCURACY : +/- 2%

SYSTEM	JUNCTION	UNIT	SECTION	TOWN SHIP	RANGE
EME	1-21	1	21	T195	R372

SAMPLE ID	PID	SAMPLE ID	PID
20' South 2	2201	SPT Bottom	29
4	169.3	4 Wall comp.	3-5
6.	66.6	Blendad Back Pill	2.3
8	50.9	• • •	
10	99.1		
<u>j2</u>	87-2		1/
20' East 2	0.4		
4	0.4		
6	05		
5	0.6		·
10	05		
12	ns		

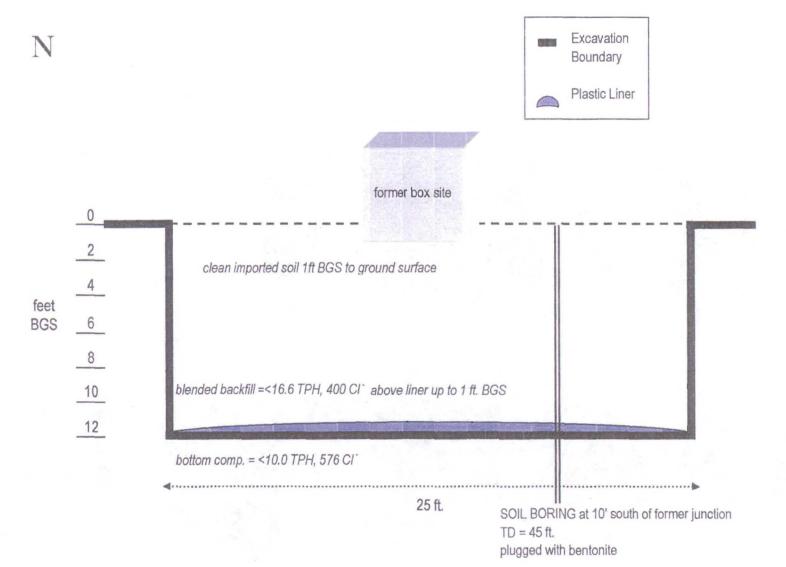
I verify that I have calibrated the above instrument in accordance to the manufacture operation manual.

SIGNATUE: Coererde Merlinez

DATE: 5-17-16

BD Jct. L-21 Unit 'L', Sec. 21, T19S, R37E

## **Excavation Cross-Section**



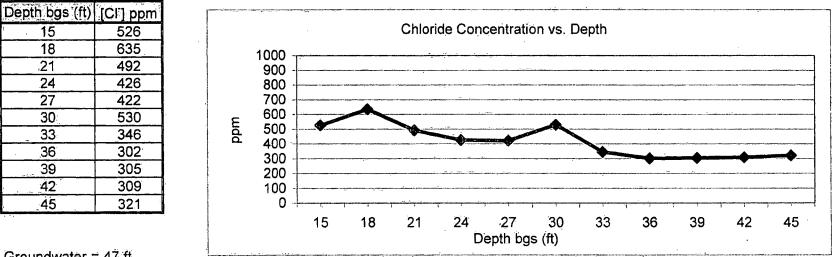
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## CHLORIDE CONCENTRATION CURVE

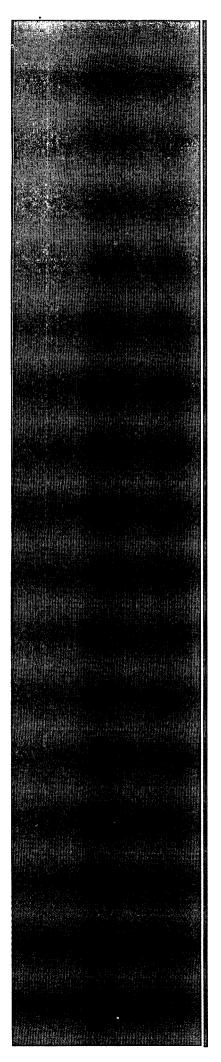


Unit<sup>3</sup>L', Sec. 21, T19S, R37E

Soil bore 10 ft. south of former junction box (source)



Groundwater = 47 ft.



# **Current Photodocumentation**

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

# EME Jct. L-21

UL/L, Section 21, T19S, R37E



Facing south

2/13/2013



Facing east

2/13/2013