# 1R-409

# REPORTS

DATE:

3-15-13

EME K-30 EOL 2012

# DISCLOSURE

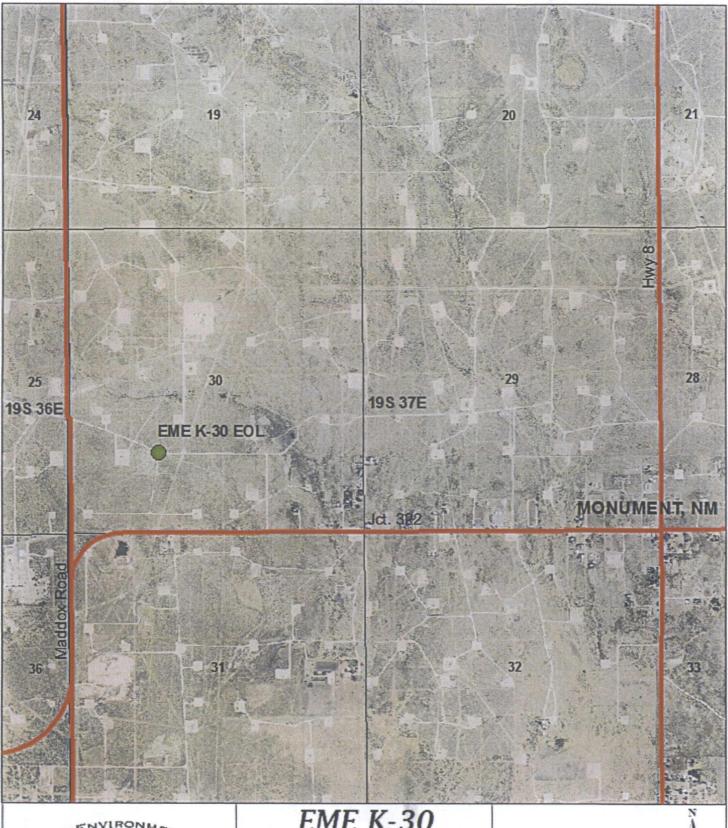


# RICE OPERATING COMPANY JUNCTION BOX DISCLOSURE\* REPORT

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APR 2 2013

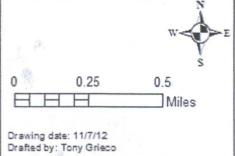
				DOVLOOR	TION		Oil C	onservation D	ivision
SWD SYSTEM	LIUNCTION	LINIT	SECTION			COLIN	7 <i>22</i> 0		
						- 0001	Length Length	Migth TATIS OV	Depth .
Eumont (EME)	K-30 EOL	K	30	198	37E	Lea		Eliminated	
LAND TYPE:	BLM	STATE_X	_ FEE LA	ANDOWNER			OTHER		
LAND TYPE: BLMSTATE_X FEE LANDOWNEROTHEROTHER									
Date Started	SWD SYSTEM JUNCTION UNIT SECTION TOWNSHIPP RANGE COUNTY BOX DIMENSIONS SEED TOWNSHIPP RANGE COUNTY BOX DIMENSIONS SEED TOWNSHIPP RANGE COUNTY BOX DIMENSIONS SEED TOWNSHIP TOWNSHIPP RANGE COUNTY BOX DIMENSIONS SEED TOWNSHIP TOWNS								
Soil Excavated	400.0	cubic ya	ırds Ex	cavation Le	ength 30	w	/idth30	Depth 12	feet
Soil Disposed	576	cubic ya	ırds Offsite	Facility S	undance Se	rvices, I	nc. Location	Eunice, N	IM
FINAL ANALYT	ICAL RE	SULTS:	Samp	le Date 8/2	20/2012, 8/2	23/2012	Sample De	oth1	2'
Procure 5-point co	mposite sar	iple of bot	tom and 4-	point compo	site sample	of side	walls. TPH and	Chloride labor	atory test
results	completed I	by using an	approved	lab and test	ing procedu	res purs	suant to NMOCE	guidelines.	
Sample	PID (fie	eld) G	RO	DRO	Chloride		CHLOF	RIDE FIELD TES	TS
•	I '				mg/kģ	·	LOCATION	DEPTH	mg/kg
4-WALL COMP.		<	10.0	17.4	960		background	6"	111
ВОТТОМ СОМР.	12 TO 18 TO 18	<	10.0	<10.0	208		4-WALL Comp	n/a	721
BLENDED BACKFIL	L	<	10.0	<10.0	1170		Bottom Comp	12'	305
	779201 22 - 122	2 2 11	·					2'	750
<b>General Descriptio</b>	SWD SYSTEM JUNCTION UNIT SECTION TOWNSHIP PANGE COUNTY BOX DIMENSIONS. FEEL SECTION TOWNSHIP PANGE COUNTY BOX DIMENSIONS. FEEL SECTION (SWD SYSTEM Leap Leap Leap Leap Leap Leap Leap Leap								
eliminated during the pi	peline replace	ment/upgrad	e program. A	After the forme	er junction		· ·	6'	1584
box was removed, an ir	vestigation w	as conducted	d using a bac	khoe to collec	t soil		l . i	8'	1232
samples at regular inter	vals, producir	ng a 30 x 30	x 12 ft deep	excavation. Cl	hloride field			10'	1236
tests performed on soil	samples did r	not decrease	with depth.	The excavated	l soil was		, ,	12'.	1315
blended on site and rep	resentative co	mposite san	ples of the e	xcavation bot	tom, the		<u> </u>		<del></del>
SWD SYSTEM   JUNCTION   UNIT   SECTION   TOWNSHIP   RANGE   COUNTY   BOX DIMENSIONS   Enumated   Determinated									
analysis of chloride and	TPH. All of th	ne 576 yards	of blended b	ackfill was tra	insported to a	NMOCD	approved disposa	al facility. On	
to a NMOCD approved	disposal facili	ty. On 9/11/2	2012, a 20-m	il reinforced p	lastic liner wa	s installe	d at 12 ft. BGS. Ti	ne remaining	
excavation was backfille	ed with clean i	mported soil	to ground su	ırface and cor	ntoured to the	surround	ling area. NMOCD	was notified of	
potential groundwater in	npact on 1/30	/2013.							
	SWD SYSTEM   JUNCTION   UNIT   SECTION   TOWNSHIP   RANGE   COUNTY   BOX DIMENSIONS - FEE Inc.   Eminicated   County   Section   County   Section   County								
SWD SYSTEM JUNCTION UNIT SECTION TOWNSHIP RANGE COUNTY BOX COMPASSIONS, FEET Part of Performance National Processing County (1997) (199									
			Enclosures:	site location m	nap, photos, la	aboratory	analysis, cross-se	ection diagram, c	hloride graph
SWO SYSTEM JUNCTION UNIT SECTION TOWNSHIP RANGE COUNTY BOX IMPRISONS, FESTIVE Eurone Monarcet Learner (1998) 430 EQL K 30 198 37E Les League White 1 County Eurone Monarcet Learner (1998) 430 EQL K 30 198 37E Les Eliminated Eliminated Learner (1998) 430 EQL K 30 EQ		WLEDGE							
		•	•	$\circ$	,				
REPORT			, 8			/			
ASSEMBLED BY	Laura Per	ia SIC	SNATURE	Faure	x M	ena	COMPANY	Rice Ope	erating
				,				Rice Environmen	tal Consulting
SITE SUPERVISOR	Dustin Yarbr	ough SIC	SNATURE	1	Not Available		COMPANY		•
SWD SYSTEM JUNCTION UNIT SECTION TOWNSHIP RANGE COUNTY BOX DIMENSIONS, FEEDING Enrone (DM) RANGE ON THE SECTION TOWNSHIP RANGE COUNTY BOX DIMENSIONS, FEEDING COUNTY ENGINEER COUNTY BOX DIMENSIONS, FEEDING COUNTY ENGINEER COUNTY BOX DIMENSIONS, FEEDING COUNTY BOX DIMENSIONS, FEED			13						
<del></del>	*This site is a '	'DISCLOSUR	E." It will be p	placed on a pri	ofitized list of s	imilar site	s for further conside	eration.	





# EME K-30 EOL

UL/K SECTION 30 T-19-S R-37-E LEA COUNTY, NM



# **EME K-30 EOL**

UL/K Sec. 30 (T19S-R37E)



Excavating site



Collecting sample

8/23/2012



Exporting soil

8/29/2012

8/15/2012



Installed 30'x30' liner @ 12' bgs

9/11/2012



Backfilling site

9/11/2012



Importing soil

9/14/2012



August 23, 2012

**ZACH CONDER** 

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

RE: EME K-30 EOL

Enclosed are the results of analyses for samples received by the laboratory on 08/20/12 16:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/ga/lab">www.tceq.texas.gov/field/ga/lab</a> accred certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2

Haloacetic Acids (HAA-5)

Method EPA 524.2

Total Trihalomethanes (TTHM)

Method EPA 524.4

Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

Celey & Keene

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Lab Director/Quality Manager

COPY





# Analytical Results For:

Rice Operating Company ZACH CONDER 112 W. Taylor Hobbs NM, 88240

Fax To:

(575) 397-1471

Received:

08/20/2012

Reported:

08/23/2012

Project Name:

EME K-30 EOL NONE GIVEN

Project Number: Project Location:

NONE GIVEN

Sampling Date:

08/20/2012

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Jodi Henson

# Sample ID: 8 PT BLENDED BACKFILL (H201965-01)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1170	16.0	08/22/2012	ND	400	100	400	0.00	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	08/23/2012	. ND	200	100	200	4.43	
DRO >C10-C28	<10.0	10.0	08/23/2012	ND	198	99.0	200	4.04	
Surrogate: 1-Chlorooctane	79.6	% 65.2-14	0 '						
Surrogate: 1-Chlorooctadecane	85.2	% 63.6-15	4						



### Cardinal Laboratories

\*=Accredited Analyte

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Celey Li Keena



ND

### **Notes and Definitions**

RPD Relative Percent Difference

\*\* Samples not received at proper temperature of 6°C or below.

\*\*\* Insufficient time to reach temperature.

Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

Analyte NOT DETECTED at or above the reporting limit

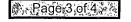


Cardinal Laboratories \*=Accredited Analyte

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Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



# -ARDINAL LABORATORIES

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603 (505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325)673-7020

Company Name	ompany Name: RICE Operating roject Manager: Zach Conder					ANALYSIS REQUEST																			
Project Manage	Zach Conder							P.O.	-						<u> </u>										
Address: 112								Con	npa	ny:								S							
City: Hobbs	State: NM	Zip	: 88	240	-	-i		Àttn	1:									ō		ŀ					
Phone #:	Fax #:							Add	res	s:								<u> </u>							
Project #:	Project Owner	:						City	:			erre diseases, and a pro-	, ,	10	Σ		エ	1/8			Ì				
Project Name:						·	_	Stat	e:			Zip:		ě	15	×		6	(0						
Project Location	1: 5MF K-30 EOL							Pho	ne	#:				Chlorides	<b>TPH 8015</b>	BTEX	Texas TPH	ati	TDS		1			1	
Sampler Name:	Dusty Zol Youtsweet		<b>,</b> ,					Fax	_				··· • · · · · · · · · · · · · · · · · ·	Ĕ	Ī	മ	, a	O	-						
FOR LAB USE ONLY	3	نه			MA	TRIX		f	PRE	SER	ĽΥ	SAMPL	NG	ပ	直	ľ	<u>e</u>	e e							
Lab I.D.	NATE VILLE				OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME					Complete Cations/Anions								
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	g out of ar related to the performance of services hereunder by C	ardina		less of	whather									ie.	□ Ye	e 171	No	Addi	Phone	#-	·				
Astalo	7 37 20 - 12 Time: 51.157	4	0%	di.	j	De	2/1		II.	-/1		≠ v.i- <b>4</b>	Fax Resul	t: 3:	□ Ye		No	Add'l						***************************************	
Relinguished By	Date:	R	ceiv	ed E	By:			. <del> </del>					email					_		_					
	Time:												Zcon												
Delivered By: (Circle One) Sample Co						on	C			ED BY:	hcond	er@	rice	-ecs	.com	1; Lw	eint/	eim	er@	rice-	ecs.	com;			
Delivered By: (Circle One)  Sample Condition CHECKED BY: hconder@rice-ecs.com; I cool Intact: (Initials kjones@riceswd.com; Annual Cool Intact: (I							Œwye	in and	(15 <sup>m</sup> (	<i>5</i> , 6	( K i	640 S	., <i>G1</i> **												

#26

<sup>†</sup> Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476



August 30, 2012

ZACH CONDER

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

RE: EME K-30 EOL

Enclosed are the results of analyses for samples received by the laboratory on 08/24/12 14:25.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/qa/lab\_accred\_certif.html">www.tceq.texas.gov/field/qa/lab\_accred\_certif.html</a>.

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Method EPA 552.2

Haloacetic Acids (HAA-5)

Method EPA 524.2

Total Trihalomethanes (TTHM)

Method EPA 524.4

Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

alex D. Kein

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Lab Director/Quality Manager

COPY



# Analytical Results For:

Rice Operating Company ZACH CONDER 112 W. Taylor Hobbs NM, 88240

Fax To:

(575) 397-1471

Received:

08/24/2012

Sampling Date:

08/23/2012

Reported:

08/30/2012

Sampling Type:

Soil

Project Name:

EME K-30 EOL

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Jodi Henson

Project Location:

NONE GIVEN

# Sample ID: 4 WALL COMP (H202033-01)

	•			 •	•
Chlo	ride,	SM450	DCI-B		mg/k

		_	
Anai	vzed	Bv:	нм

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	960	16.0	08/28/2012	ND	416	104	400	3.92	
TPH 8015M	mg	/kg	Analyze	d By: MS		<u>-</u>			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	08/29/2012	ND	201	100	200	0.929	
DRO >C10-C28	17.4	10.0	08/29/2012	ND	204	102	200	0.300	

Surrogate: 1-Chlorooctane

66.8 %

65.2-140

Surrogate: 1-Chlorooctadecane

81.2 %

63.6-154

### Sample ID: 5 PT BTTM COMP (H202033-02)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	08/28/2012	ND	416	104	400	3.92	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	08/29/2012	ND	201	100	200	0.929	
DRO >C10-C28	<10.0	10.0	08/29/2012	ND	204	102	200	0.300	
Surrogate: 1-Chlorooctane	78.5	% 65.2-14	0		((	$\frac{100}{2}$			
Surrogate: 1-Chlorooctadecane	94.9	% 63.6-15	4				П		

## Cardinal Laboratories

\*=Accredited Analyte

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Celey & Keine

Celey D. Keene, Lab Director/Quality Manager





### **Notes and Definitions**

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

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\*\*\* Insufficient time to reach temperature.

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Samples reported on an as received basis (wet) unless otherwise noted on report



Cardinal Laboratories

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Celey D. Kune

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

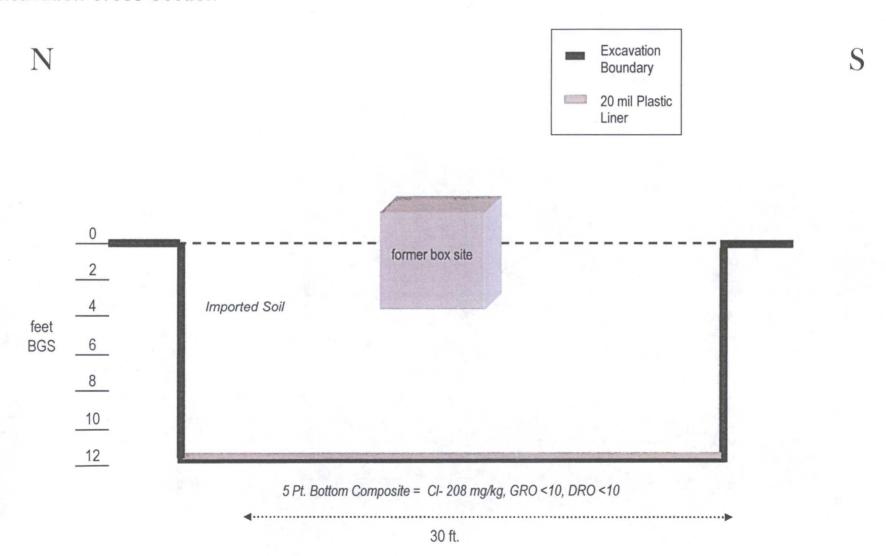
# ARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603 (505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325)673-7020

Company Name	(505) 393-2326 FAX (505) 393-24	70 (323) 073-7001 1	BILL TO						ANAI	YSIS	REC	DUES	Ť		
2	r: Zach Conder		P.O. #:	1,17	T			ĺ				1	Ť		
Address: 112		er sammer - 14 and 1990 - 17 by - 18 and	Company:						S						
City: Hobbs		Zip: 88240	Attn:						Cations/Anions						
Phone #:	Fax #:	appen in part of the code. We are in the state of Parameter of the code appearance in account.	Address:						'n						
Project #:	Project Owner		City:			$\geq$		_	s/A			l		İ	1
to the said the state of the said of the s	EME 4-30 EOL 19.3	77	State: Zip:		68	5		ТРН	Ü				.		
Project Location	_	<u></u>	Phone #:		Chlorides	<b>IPH 8015 M</b>	TEX		atic	TDS		ŀ			
Sampler Name:			Fax #:	~	위	8	BT	Texas	ပိ	F		i			
FOR LAB USE ONLY		MATRIX	PRESERV. SAMPLI	NG	Ö	古		(6)	E E						ļ ļ
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP- # CONTAINERS GROUNDWATER WASTEWATER SOIL OU	OTHER: ACID/BASE: ICE / COOL OTHER:			F		-	Complete						
H202033		A CONT - # CONT GROUN WASTE SOIL SOIL SLUQGI	PATE DATE	TIME.		<i>&gt;</i>									1 1
. 1	4 (1) all Comp.	CITATION	8/23/12	1457											
2	4 Wall Comp.	CILLI	8/23/12	1:507											
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	$(\bigcirc)$														
analyses. All chains include	nd Dannages. Cardinal's liability and chent's exclusive remedy for a rg those for negligefied and any other cause whatsoover shall be d ardinal be liable the incidental or consequental damages, including	y staim arraing whether based in contrac- semed walved links made in writing an without limitation, business interruptions	t or sort, shall be limited to the amount pair direction by Cardinal within 30 days after lass of each or lass of profits increased by o	I by the client for t completion of the bent its rubsidial	ine e asplicati ies	de									
alfiliates or successors arisi	ng out of or related to the performance of services hereunder by Ca	rdinel, regard@scl whether such claim Received By://	is based upon any of the above stated re-	sons of otherwise Phone Res	),	□ Yes	171	No	Add'l 1	Phone	#.				
antito)	The: 5:00P/	Tue In	16	Fax Result REMARKS	:	□ Yes			Addi						
Refination By	Date: 8-24- 7 Time 14 25	Received By:	Mon	email r	ler@	)rice			7		_				
Delivered By	(Circle One)	Sample Condit Cool Intact		hconde											
Sampler - UPS	- Bus - Other:	☐ Yes ☐ Ye	s (Initials)	kjones	will	-G2W	/u.cc	) زا الر	JW/	Your	si bugi	NO.	1 CE - 1		

<sup>†</sup> Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

# **Excavation Cross-Section**



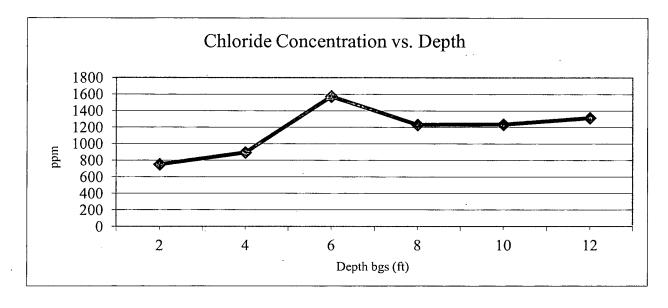
# EME K-30 EOL

Unit 'K', Sec. 30, T19S, R37E

Backhoe samples at 5' N of the junction (source)

Depth bgs (ft)	[Cl-] ppm
2	750
· 4	894
6	1574
8	1232
10	1236
12	1315

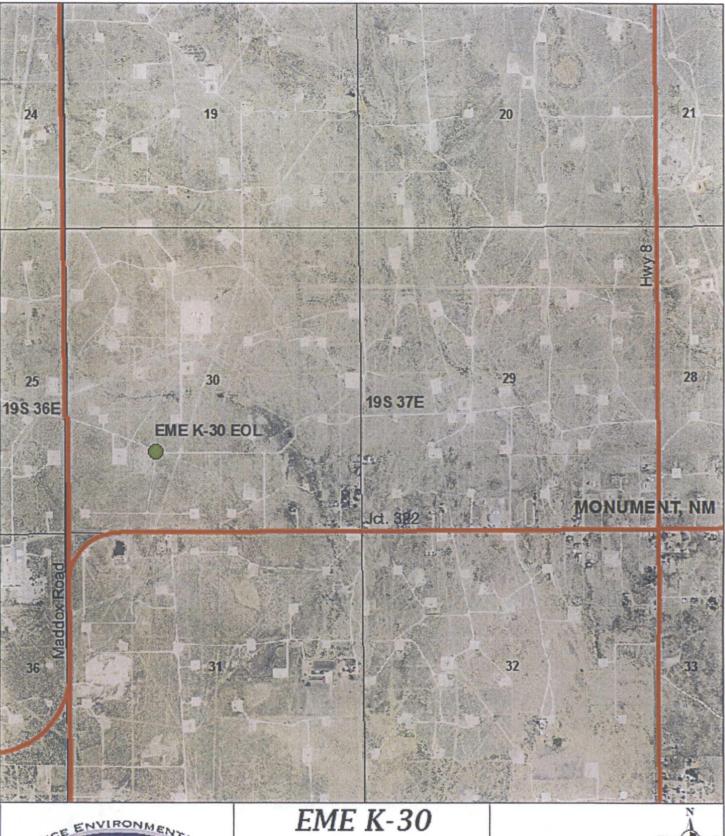
Groundwater = 37 ft



# RICE OPERATING COMPANY JUNCTION BOX DISCLOSURE\* REPORT

### BOX LOCATION

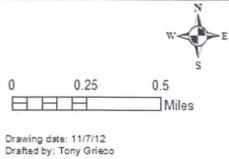
SWD SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP		COUNT	Y L BOX DI	MENSIONS -	FFFT
Eunice Monument				1			Length	Width	Depth
Eumont (EME)	K-30 EOL	K	30	19S	37E	Lea		Eliminated	
LAND TYPE:	BLM	STATE X	FEE LA	NDOWNER			OTHER _		
Depth to Groun	ndwater	37	feet	NMOCD	SITE ASSE	ESSME	NT RANKING S	CORE:	40*
Data Started	Q/1 <i>/</i> 1	/2012	Data Cor	mpleted	0/1//2012	00	D Witness	No	
Date Started	0/14/	2012	_ Date Col	iipieteu	9/14/2012	0	D williess	INO	
Soil Excavated	400.0	cubic ya	rds Exc	cavation Le	ngth 30	w	idth30	Depth	12 feet
Soil Disposed	576	cubic ya	rds Offsite	Facility Su	ındance Se	rvices, lı	nc. Location	Eunice	e, NM
FINAL ANALYT	ICAL DE	SIII TO:		- D-4- 0/0	000000	00/0040	0	- 41-	401
							Sample De		12'
Procure 5-point co									-
results	completed t	by using an	approved is	ab and testi	ng proceau	res purs	uant to NMOCE	guidelines	i.
Sample	PID (fie	eld) G	RO	DRO	Chloride		CHLOF	RIDE FIELD 1	ESTS
Location	ppm		g/kg	mg/kg	mg/kg		LOCATION	DEPTH	mg/kg
4-WALL COMP.	(10)	<1	0.0	17.4	960		background	6"	111
ВОТТОМ СОМР.			0.0	<10.0	208	$\neg$	4-WALL Comp	n/a	721
BLENDED BACKFIL	L MARTINE	<1	0.0	<10.0	1170		Bottom Comp	12'	305
	#WAS TO #1+28 ST	r 1256m		<del></del>	1		, ,	2'	750
General Description	of Remed	ial Action:	This junction	n box and line	e were		Vertical	4'	894
eliminated during the pip							delineation	6'	1584
box was removed, an in		<del></del>					trench at 5' N of	8'	1232
samples at regular inter							the former	10'	
tests performed on soil							junction (source)	12'	1236
				• • • • • • • • • • • • • • • • • • • •		l		12	1315
blended on site and repr			·				de est TDU A 4		
excavation walls, and th					<u> </u>				
analysis of chloride and									
to a NMOCD approved						<u>.</u>			
excavation was backfille			to ground sur	face and con	toured to the	surround	ing area. NMOCD	was notified	of
potential groundwater in	npact on 1/30.	/2013.	<u>,                                      </u>						
							w		
		<del> </del>	DDITIONAL E	EVALUATION	NIS <u>HIGH</u> PF	RIORITY			
*Windmill located 965 ft	east from jur								
LUEDEDY CEDTIE							analysis, cross-se		
I HEREBY CERTIF	YIHALIF	IE INFORM	ATION ABO			MPLET	E TO THE BEST	OF MY KI	10WLEDGE
			•	AND BEL	itr.				
			•	$\cap$		7			
REPORT	1 0-5	. 010	<b>/</b>	$\mathcal{L}_{a}$	a. L	/	001101111	5.	
ASSEMBLED BY	Laura Per	ia SIG	SNATURE	ZUUL		ena	COMPANY	Rice	Operating
		,		•				Rice Environ	mental Consulting
SITE SUPERVISOR	Dustin Yarbro	ough SIG	NATURE	N	lot Available		COMPANY		Safety
						- /		<u> </u>	
PROJECT LEADER	Zach Cond	ler. SIG	NATURE 5			£/	DATE	3-15	-13
	'This site is a "	DISCLOSURE	E." It will be pl	aced on a prio	Fitized list of si	imilar sites	for further conside	eration.	***





# EME K-30 EOL

UL/K SECTION 30 T-19-S R-37-E LEA COUNTY, NM



# **EME K-30 EOL**

UL/K Sec. 30 (T19S-R37E)



Excavating site 8/15/2012



Collecting sample 8/23/2012



Exporting soil

8/29/2012



Installed 30'x30' liner @ 12' bgs

9/11/2012



Backfilling site

9/11/2012



Importing soil

9/14/2012



August 23, 2012

ZACH CONDER

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

RE: EME K-30 EOL

Enclosed are the results of analyses for samples received by the laboratory on 08/20/12 16:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/qa/lab\_accred\_certif.html">www.tceq.texas.gov/field/qa/lab\_accred\_certif.html</a>.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2

Haloacetic Acids (HAA-5)

Method EPA 524.2

Total Trihalomethanes (TTHM)

Method EPA 524.4

Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Lab Director/Quality Manager

alex

COPY





# Analytical Results For:

Rice Operating Company ZACH CONDER 112 W. Taylor Hobbs NM, 88240

(575) 397-1471

Fax To:

Sampling Date:

08/20/2012

Reported:

08/20/2012 08/23/2012

Sampling Type:

Soil

Project Name:

Received:

EME K-30 EOL

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Jodi Henson

Project Location:

NONE GIVEN

### Sample ID: 8 PT BLENDED BACKFILL (H201965-01)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1170	16.0	08/22/2012	ND	400	100	400	0.00	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	08/23/2012	ND	200	100	200	4.43	
DRO >C10-C28	<10.0	10.0	08/23/2012	ND	198	99.0	200	4.04	
Surrogate: 1-Chlorooctane	79.6	% 65.2-14	0				<del></del>		
Surrogate: 1-Chlorooctadecane	85.2	% 63.6-15	4						



# Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or toxt, 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 service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subdiciaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claims is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey E: Keene



ND

### **Notes and Definitions**

RPD Relative Percent Difference

\*\* Samples not received at proper temperature of 6°C or below.

\*\*\* Insufficient time to reach temperature.

- Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

Analyte NOT DETECTED at or above the reporting limit



Cardinal Laboratories

\*=Accredited Analyte

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 service. In no event shall 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 the services hereunder by Cardinal, regardless of whether such claims is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproducted except in full with written approval of Cardinal Laboratories.

Celey L. Keene

Celey D. Keene, Lab Director/Quality Manager



# ARDINAL LABORATORIES

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603 (505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325)673-7020

Company Name	ompany Name: RICE Operating roject Manager: Zach Conder						ANALYSIS REQUEST																		
Project Manage		<del></del>			**********				). #	_															
Address: 112								Co	mp	any	:							တ					į		
City: Hobbs	State: NM	Zip	: 88	240	) .			Att	n:								}	5							
Phone #:	Fax #:							Ad	dre	ss:								į							
Project #:	Project Owner	•						Cit	y:						≥		I	1/8							
Project Name:								Sta	te:			Zip:		Chlorides	<b>IPH 8015 M</b>	×	Texas TPH	6							
Project Location	Dustry To Gorbough							Ph	one	#:				ıξ	ÌÀ	BTEX	S	a‡i	TDS		,				1
Sampler Name:	Westy Zal Gontrough							Fax				····		물		В	×a	Ö	=						1
FOR LAB USE ONLY	3	٠.			M	ATRI	X 		PR	ESE	RV.	SAMPL	NG	C	<u>a</u>		e	je je	1		İ				
1-510	(G)RAB OR (C)OMP # CONTAINERS. GROUNDWATER WASTEWATER SOIL								ńi	_							,	Complete Cations/Anions							
	Sample I.D.	Sample I.D. (6) RAB ON THE CONTAIN WASTEWAY (C. 18) SOIL CONTAIN WASTEWAY (C. 18) SOIL CONTAIN WASTEWAY (C. 18) SOIL CONTAIN WASTEWAY (C. 18) SOIL CONTAIN CON					DGE	OTHER:	ACID/BASE:	CE/COOL	ER:							ပိ							
1201965		(G)R	) #_	GRC	MAS S		SLU	OTH	ACIL	ICE.	ÒTHER	DATE	TIME			ame.									
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PLEASE NOTE: Liability ar unalyses. All claims including	rd Damayea. Cardinal's kability and client'i disclusive romedy for a vy these for negligione and any other cause whatsoever shall be o	ny clair Ioernar	n aristi I waive	ng whet ed union	her bas is inade	ed in c	ing nac	or lort	, shall ved by	be lin	nited t knal w	o the amount pai ithin 30 days afte	d by the client for r completion of th	the o applica	ble										
affiliates or successors rulan	ardinal be table for incidental or consequential dámagos, including rg out of or related to the performance of services hereunder by C		regar	qless o	whollu	r such	puons, claim i	a hase	use, o	n eny	of the	allows stated re	asons or otherwis	e.		- (5)	No	A alatu	Disease	ш.					
Relinguished By	Date: Received By:						l ey	W	<u> </u>	-0			Phone Re Fax Resul REMARKS	t:	□ Ye □ Ye			Add'I	Phone Fax #:	<u></u>					
Relinquished By	shed By: Date: Received By:									_/			email	resu	ılts										
Time:												Zcond	der@	)rice	-ecs	.cor	n; Bl	bake	er@r	ice-e	es.c	om;			
Delivered Bv:	Delivered By: (Circle One) Sample					e Co	nditi	on		CHE	ÇK	ĘD βΥ:	hcond kjones	er@	rice	ecs.	com	ı; Lw	einh	eim	er@	rice-e	ecs.	com;	
	Cool						Yes	;		2	initi	als	kjones	@ri	cesv	vd.co	يزcmc	Rivye	uthro	45h	(e/, f)	(Q = 0	X5 C		

#26

<sup>†</sup> Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476



August 30, 2012

ZACH CONDER

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

RE: EME K-30 EOL

Enclosed are the results of analyses for samples received by the laboratory on 08/24/12 14:25.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/qa/lab\_accred\_certif.html">www.tceq.texas.gov/field/qa/lab\_accred\_certif.html</a>.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2

Haloacetic Acids (HAA-5)

Method EPA 524.2

Total Trihalomethanes (TTHM)

Method EPA 524.4

Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

Celeg D. Keens

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Lab Director/Quality Manager

COPY



# Analytical Results For:

Rice Operating Company ZACH CONDER 112 W. Taylor Hobbs NM, 88240

Fax To:

(575) 397-1471

Received:

08/24/2012

Sampling Date:

08/23/2012

Reported:

08/30/2012

Sampling Type:

Soil

Project Name:

EME K-30 EOL

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Jodi Henson

Project Location:

NONE GIVEN

### Sample ID: 4 WALL COMP (H202033-01)

Chloride, SM4500CI-B	mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed ·	Method Blank	BS .	% Recovery	True Value QC	RPD	Qualifier
Chloride	960	16.0	08/28/2012	ND .	416	104	400	3.92	
TPH 8015M	mg	/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	08/29/2012	ND ·	201	100	200	0.929	
DRO >C10-C28	17.4	10.0	08/29/2012	ND	204	102	200	0.300	
Surrogate: 1-Chlorooctane	66.8	% 65.2-14	10						
Surrogate: L-Chloroctadecane	812	% 63.6-15	ia :						

# Sample ID: 5 PT BTTM COMP (H202033-02)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	208	16.0	08/28/2012	ND	416	104	400	3.92		
TPH 8015M	mg/kg		Analyzed By: MS							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	08/29/2012	ND	201	100	200	0.929		
DRO >C10-C28	<10.0	10.0	08/29/2012	ND	204	102	200	0.300		
Surrogate: 1-Chlorooctane	78.5	% 65.2-14	0	(COPV						
Surrogate: 1-Chlorooctadecane	94.9	% 63.6-15	4							

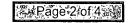
### Cardinal Laboratories

\*=Accredited Analyte

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Celeg Di Keine







### **Notes and Definitions**

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

\*\* Samples not received at proper temperature of 6°C or below.

\*\*\* Insufficient time to reach temperature.

Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report



Cardinal Laboratories

\*=Accredited Analyte

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Celeg D. Keene

Celey D. Keene, Lab Director/Quality Manager



# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

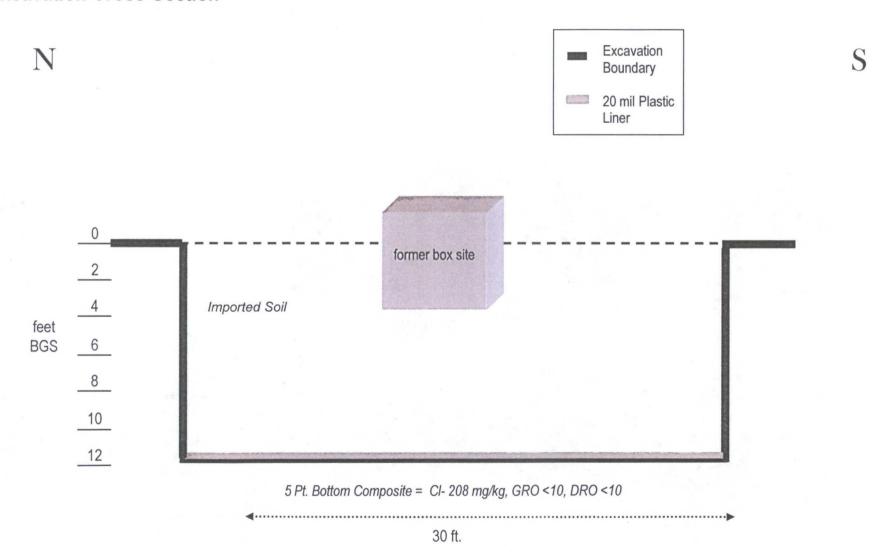
# ARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603 (505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325)673-7020

Company Name	RICE Operating		BILL TO	lach	************			1	ANAL	YSIS	REQU	EST	 	
Project Manage	r <sup>z</sup> Zach Conder	P.O. #:												
Address: 112 W. Taylor			Company:						Cations/Anions					1
Cliy: Hobbs State: NM Zip: 88240			Attn:				ĺ						1	
Phone #: Fax #:			Address:											1
Project #:	Project Owner		City:		,,	∑		エ	//S				1	
Project Name: EME H-3D EOL 19.37			State: Zip:		ě	5	$\times$	<u>P</u>	o	40				}
Project Location:			Phone #:		Chlorides	8	BTEX	Texas TPH		TDS				]
Sampler Name:			Fax #:			T								1
FOR LAB USE ONLY  Lab I.D.  3202033	Sample I.D.  4 Wall Comp.  5 F. Bottom Comp.	C C(G)RAB OR (C)OMP.  — # CONTAINERS  GROUNDWATER  WASTEWATER  SOIL  SOIL  SILUDGE	PRESERV SAMPL  OUTHER  OUTHER  OUTHER  PATE  PAT	TIME //45P //507	J	TPH 8015 M			Complete					
PLEASE NOTE: Links by an	of Damages, Cardinal's hability and client's exclusive remedy for a	ny claim arising whether based in contra	of of fort, shall be limited to the amount produced by Cardinal within 30 days af	id by the chent for er completion of th	the re-applicat	sle								
service. In no event shall Co	d Damages. Cardinal's lightity and client's exclusive remedy for a gittuse for negligered shot any other cause whistoores shall be addined be lighte the incidental or consequental damages, including no did of a related to the performance of sarvices herevinder by C	without limitation, business interruptions ardinal, regardid sold whether such claim	, loss of se, or loss of profits incurred by is based yoon any of the above stated n	client, its subsidia asons or etnerwis	ries ie.								 	
Relinguished By	Date: 5/00 P/ Date: 8-94-17 Time: 75	Received By:	B Mori	Phone Res Fax Result REMARKS email	sult: t: S: resu der@	□ Yes □ Yes Its Orice	-ecs	.con		ax#: oake	r@rice			
Delivered By: (Circle One)  Sample Condition Cool Intact (Tyes ☐ Yes ☐ No ☐ No		(Initials)	kjones	ler@rice-ecs.com; Lweinheimer@rice-ecs.com; s@riceswd.com; dwyarbrowh@riæ-ecs.com										

<sup>†</sup> Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

# **Excavation Cross-Section**



# EME K-30 EOL

Unit 'K', Sec. 30, T19S, R37E

Backhoe samples at 5' N of the junction (source)

Depth bgs (ft)	[Cl] ppm
2	750
4	894
6	1574
. 8	1232
10	1236
12	1315

Groundwater = 37 ft

