

1R - 425-103

# REPORTS

DATE:

4-17-12

1R425-103

RECEIVED OGD

2012 MAY -1 P. 1: 52

Vacuum C-36 EOL  
2011

DISCLOSURE

**RICE OPERATING COMPANY  
JUNCTION BOX DISCLOSURE\* REPORT**

**BOX LOCATION**

SWD SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE	COUNTY	BOX DIMENSIONS - FEET		
							Length	Width	Depth
Vacuum	C-36 EOL	C	36	17S	34E	Lea	Eliminated		

LAND TYPE: BLM \_\_\_\_\_ STATE X FEE LANDOWNER \_\_\_\_\_ OTHER \_\_\_\_\_

Depth to Groundwater 107 feet NMOCD SITE ASSESSMENT RANKING SCORE: 10

Date Started 10/7/2010 Date Completed 7/25/2011 OCD Witness No

Soil Excavated 2.2 cubic yards Excavation Length 5 Width 3 Depth 4 feet

Soil Disposed 5 cubic yards Offsite Facility Sundance Services, Inc. Location Eunice, NM

**FINAL ANALYTICAL RESULTS:** Sample Date 7/25/2011 Sample Depth 12'

Procure 5-point composite sample of bottom and 4-point composite sample of sidewalls. TPH and Chloride laboratory test results completed by using an approved lab and testing procedures pursuant to NMOCD guidelines.

Sample Location	PID (field) ppm	GRO mg/kg	DRO mg/kg	Chloride mg/kg
Source @ 12'	0.9	<10.0	<10.0	1,880

**CHLORIDE FIELD TESTS**

LOCATION	DEPTH	mg/kg
SB-1 at source	background	59
	1'	121
	2'	266
	3'	296
	4'	1,282
	5'	1,181
	6'	1,244
	7'	677
	8'	1,795
	9'	1,253
	10'	947
	11'	1,016
12'	1,651	

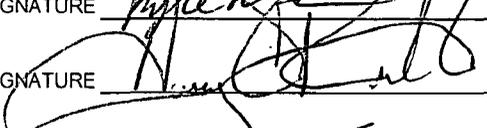
**General Description of Remedial Action:** This junction was eliminated during the Vacuum SWD system abandonment program. An investigation was conducted at the former junction box site using a backhoe to collect soil samples at regular intervals producing a 5x3x4-ft deep excavation. The site could not be excavated any deeper due to extremely compacted subsoil materials. Chloride field tests performed on each sample yielded elevated concentrations that did not relent with depth. Organic vapors were measured using a PID which yielded relatively low concentrations. A total of 5 yards of soil was hauled to a NMOCD approved disposal facility. The excavation was backfilled with imported soil to ground surface. On 10/11/2010, the site was seeded with a blend of native vegetation and is expected to return to a productive capacity at a normal rate. To further investigate the depth of chloride, a soil bore was initiated on 7/25/2011. The boring was advanced to a total depth of 12-ft. below ground surface with soil samples collected at regular intervals. Chloride field tests were performed on each sample and organic vapors were measured using a PID. The 12-ft. sample was taken to a commercial laboratory for analysis of chloride and TPH, which yielded low TPH and chloride concentration that did not decrease with depth. The bore was plugged with bentonite to ground surface. NMOCD was notified of potential groundwater impact on 4/10/2012.

**ADDITIONAL EVALUATION IS MEDIUM PRIORITY**

enclosures: photos, soil bore log, lab results, PID (field) screenings, chloride curve, revegetation form

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

SITE SUPERVISOR Kyle Norman SIGNATURE 

REPORT ASSEMBLED BY Amy C. Ruth SIGNATURE 

COMPANY RICE OPERATING COMPANY

PROJECT LEADER Zach Conder SIGNATURE 

DATE 4-17-12

\*This site is a "DISCLOSURE." It will be placed on a prioritized list of similar sites for further consideration.

# Vacuum C-36 EOL

Unit C, Section 36, T17S, R34E



Excavating/sampling source, facing west 10.7.10



Spreading imported soil, facing south 10.11.10



Seeding site, facing west 10.11.10



Raking seed, facing west 10.11.10



Sampling drill cuttings, facing south 7.25.11



Plugging the soil bore in total with bentonite, facing south 7.25.11



Depth (feet)	Chloride field tests	LAB	PID	Description	Lithology	Well Construction
9 ft	1253		3.8			
10 ft	947		2.8			
11 ft	1016		1.8	Light Brown Fine Sand with some Caliche		
12 ft	1651	Cl- 1830	0.9			
		GRO <10				
		DRO <10				



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

July 28, 2011

Hack Conder  
Rice Operating Company  
112 W. Taylor  
Hobbs, NM 88240

RE: VACUUM C-36 EOL (17/34)

Enclosed are the results of analyses for samples received by the laboratory on 07/25/11 15:50.

Cardinal Laboratories is accredited through Texas NELAP for:

Method SW-846 8021	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method SW-846 8260	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method TX 1005	Total Petroleum Hydrocarbons

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

Cardinal Laboratories is accredited 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 (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,

A handwritten signature in cursive script that reads "Celey D. Keene".

Celey D. Keene  
Lab Director/Quality Manager

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**Analytical Results For:**

 Rice Operating Company  
 Hack Conder  
 112 W. Taylor  
 Hobbs NM, 88240  
 Fax To: (575) 397-1471

 Received: 07/25/2011  
 Reported: 07/28/2011  
 Project Name: VACUUM C-36 EOL (17/34)  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

 Sampling Date: 07/25/2011  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: INITIAL @ 12' (H101544-01)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1880	16.0	07/26/2011	ND	400	100	400	3.92	
TPH 8015M		mg/kg		Analyzed By: ab					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/26/2011	ND	184	91.8	200	3.23	
DRO >C10-C28	<10.0	10.0	07/26/2011	ND	167	83.4	200	3.62	

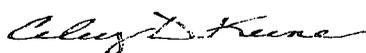
 Surrogate: 1-Chlorooctane 115 % 70-130  
 Surrogate: 1-Chlorooctadecane 118 % 70-130

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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 claim 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 D. Keene, Lab Director/Quality Manager

**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

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*Celey D. Keene*

Celey D. Keene, Lab Director/Quality Manager



# CARDINAL 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

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Rice		<b>BILL TO</b>		<b>ANALYSIS REQUEST</b>																																
Project Manager: Hack Conder		P.O. #:		Chlorides	TPH 8015 M	BTEX	Texas TPH	Complete Cations/Anions	TDS																											
Address:		Company:																																		
City: State: NM Zip:		Attn:																																		
Phone #: Fax #:		Address:																																		
Project #: Project Owner:		City:																																		
Project Name:		State: Zip:																																		
Project Location: Vacuum C-36 EOL		Phone #:																																		
Sampler Name: Kyle Norman		Fax #:																																		
FOR LAB USE ONLY																																				
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS																		MATRIX				PRESERV.		SAMPLING									
HID1544	-1 Initial @ 12'	G	1	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME																						
						✓					✓		7-25-11	10:15	✓	✓																				

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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. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 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 services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: <i>K. Jones</i>	Date: 7-25-11	Received By: <i>Adri Henson</i>	Phone Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Add'l Phone #:
	Time: 3:50		Fax Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS:	
	Time:		email results	
Delivered By: (Circle One)	Sample Condition	CHECKED BY: <i>[Signature]</i>	kjones@riceswd.com	
Sampler - UPS - Bus - Other:	Cool Intact	(Initials)	Zconder@rice-ecs.com; Bbaker@rice-ecs.com;	
	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		hconder@rice-ecs.com; Lweinheimer@rice-ecs.com	

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

# RICE ENVIRONMENTAL CONSULTING & SAFETY

122 West Taylor Hobbs, NM 88240  
 PHONE: (505) 393-9174 FAX: (505) 397-1471  
 PID METER CALIBRATION & FIELD REPORT FORM

CK.		MODEL: PGM 7300	SERIAL NO: 590-000508
MODEL	x	MODEL: PGM 7300	SERIAL NO: 590-000504
NO.		MODEL: PGM 7320	SERIAL NO: 592-903318
		MODEL: PGM 7300	SERIAL NO: 590-000183

GAS COMPOSITION: ISOBUTYLENE 100PPM / AIR: BALANCE

LOT NO : 930360	EXPIRATION DATE: 5/24/2013
METER READING ACCURACY: 99.9 PPM	

ACCURACY : +/- 2%

COMPANY
Rice

SITE	UNIT	SECTION	TOWN SHIP	RANGE
Vacuum C-36 EOL	C	36	17	34

SAMPLE ID	PID	SAMPLE ID	PID
Soil Bore @ 1'	1.2		
2'	1.7		
3'	3.8		
4'	10		
5'	5.9		
6'	5.4		
7'	2.7		
8'	1.8		
9'	3.8		
10'	2.8		
11'	1.8		
12'	0.9		

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

SIGNATURE:

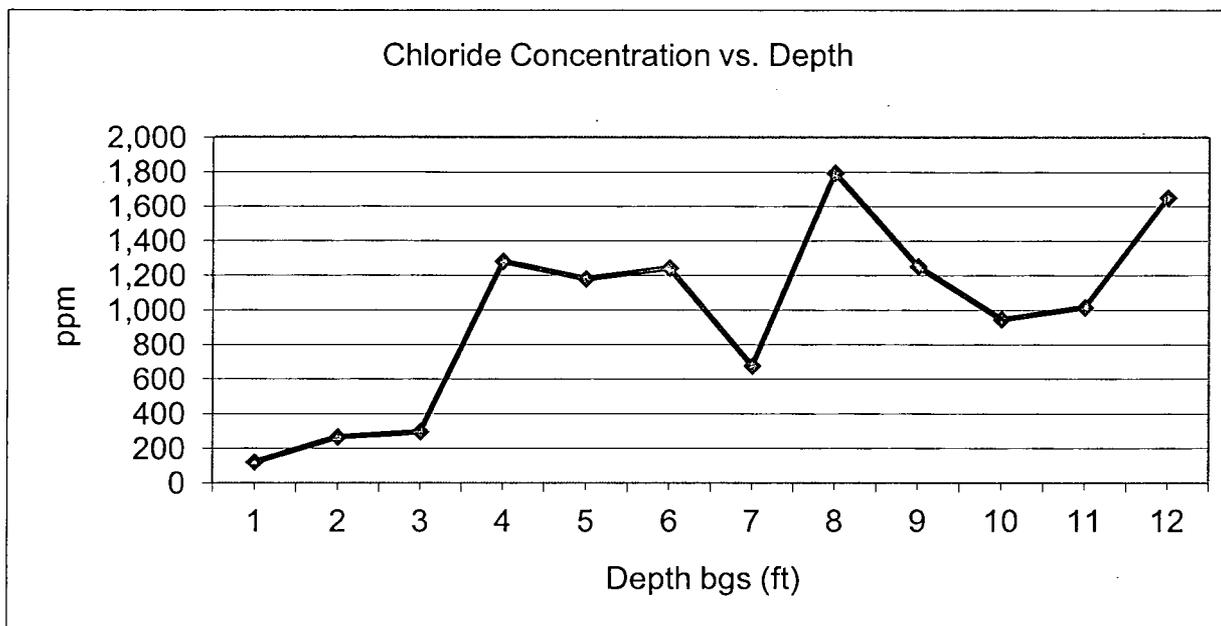
DATE: 7/25/2011

# Vacuum C-36 EOL

Unit 'C', Sec. 36, T17S, R34E

Soil bore samples at the source

Depth bgs (ft)	[Cl] ppm
1	121
2	266
3	296
4	1,282
5	1,181
6	1,244
7	677
8	1,795
9	1,253
10	947
11	1,016
12	1651



Groundwater = 107 ft



PO Box 5630  
 Hobbs, NM 88241  
 Phone: (575) 393-4411  
 Fax: (575) 393-0293

## REVEGETATION FORM

### 1. General Information

Site name		Vacuum C-36 EOL 17.34				
U/L	Section	Township	Range	County	Latitude	Longitude
C	36	17S	34E	Lea	32° 47.791'	103° 31.003'
Contact Name:		Bruce Baker				
Email:		bbaker@rice-ecs.com				
Site size:		1,539 square feet		Map detail of site attached <input type="checkbox"/>		
Additional information:						

### 2. Soils

*\*Do not rip caliche subsoils; caliche rocks brought to the surface by ripping shall be removed.*

Salvaged from site <input type="checkbox"/>	Bioremediated <input type="checkbox"/>	Imported <input checked="" type="checkbox"/>	Blended <input type="checkbox"/>	Depth (in):	
Texture:		Describe soil & subsoil: Topsoil Sand with subsoil caliche			
Soil prep methods:	Rip <input type="checkbox"/>	Depth(in):	Disc <input type="checkbox"/>	Depth (in):	Rollerpack <input type="checkbox"/>
Date completed: 10/11/2010					

### 3. Bioremediation

Fertilizer <input type="checkbox"/>	Hay <input type="checkbox"/>	Other <input type="checkbox"/>
Type:	Describe:	
Lbs/acre:		

### 4. Seeding

*\*Attach seed bag tags to this form. Seed bag tags shall contain the site name and S-T-R.*

Custom seed mix <input checked="" type="checkbox"/>	Prescribed mix <input type="checkbox"/>	Seed mix name: 1.5 lbs. blue grama	Seeding date: 10/11/2010
Broadcast <input checked="" type="checkbox"/>			
Method: Hand broadcast			
Soil conditions during seeding: Dry <input checked="" type="checkbox"/> Damp <input type="checkbox"/> Wet <input type="checkbox"/>			
Photos attached <input type="checkbox"/>	Observations:		
Number of photos:			

### 5. Certification

I hereby certify that the information in this form and attachments is true and complete to the best of my knowledge and belief.

Name: Robert Egans	Title: Environmental Tech	Date: 10/11/2010
Signature: <i>Robert Egans</i>		

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