

1R - 425-87

REPORTS

DATE:

8-8-11

RECEIVED OCD

2011 AUG 15 P 1:25

L. Peter Galusky, Jr. Ph.D., P.G.

Texerra

627 Forest View Way Monument, Colorado 80132
Tel: 719-339-6791 E-mail: lpg@texerra.com

August 8th, 2011

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: **INVESTIGATION & CHARACTERIZATION PLAN (ICP) REPORT**
Rice Operating Company – Vacuum SWD System
Vacuum Jct N-28-1: UL/N, Sec. 28, T17S, R35E (formerly Vacuum Jct K-28-1)
NMOCD Case Number: 1R425-87

Sent via Certified U.S. Mail w/ Return Receipt No. 7008 1830 0004 2694 4293

Mr. Hansen:

RICE Operating Company (ROC) has retained Texerra to address potential environmental concerns at the above-referenced site in the abandoned Vacuum Salt Water Disposal (SWD) system. This report summarizes work to date completed per the OCD-approved Investigation and Characterization Plan of May 2nd, 2011 for this site.

The location of the Vacuum Jct N-28-1 site is given in Figure 1. A summary of soil boring analyses from samples taken in June and July 2011 are given in Figure 2. Representative photographs of this work are given in the Appendix, as are copies of laboratory analyses.

Residual soil chlorides are high in the at-source soil boring (SB-2) from the surface to a depth of 65 ft bgs. The depth to groundwater at this site is approximately 68 ft below ground surface (bgs). The lateral extent of residual soil chlorides was defined by SB-3 to the west, SB-8 to the north and SB-6 to the south where a three-point decline (with the lowest sample testing less than 250 mg/kg) was found in the lowest intervals sampled. The easterly extent was defined by SB-4, where chloride concentrations decreased from 4,000 mg/kg to 432 mg/kg at 65 ft bgs. SB-9, drilled east of SB-4, is encroaching upon an abandoned lease facility (Figure 3). Residual soil petroleum hydrocarbons were generally negligible in each of the soil bores. Petroleum hydrocarbons were therefore determined not to be of concern.

It is clear from this initial investigation that further sampling and analyses of surface samples are needed in order to characterize and delineate the extent of residual soil chlorides. Once the site is fully delineated, a report with recommendations will be submitted to the NMOCD.

Vacuum Jct N-28-1 ICP Report

ROC is the service provider (agent) for the Vacuum 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.

We appreciate your consideration of this ICP report. Please do not hesitate to contact either Katie Jones of Rice Operating Company or myself if you have any questions or need additional information.

Sincerely,

A handwritten signature in black ink, appearing to be 'L. Peter Galusky, Jr.', written in a cursive style.

L. Peter Galusky, Jr. Ph.D.

Copy: Rice Operating Company

Vacuum Jct N-28-1 ICP Report

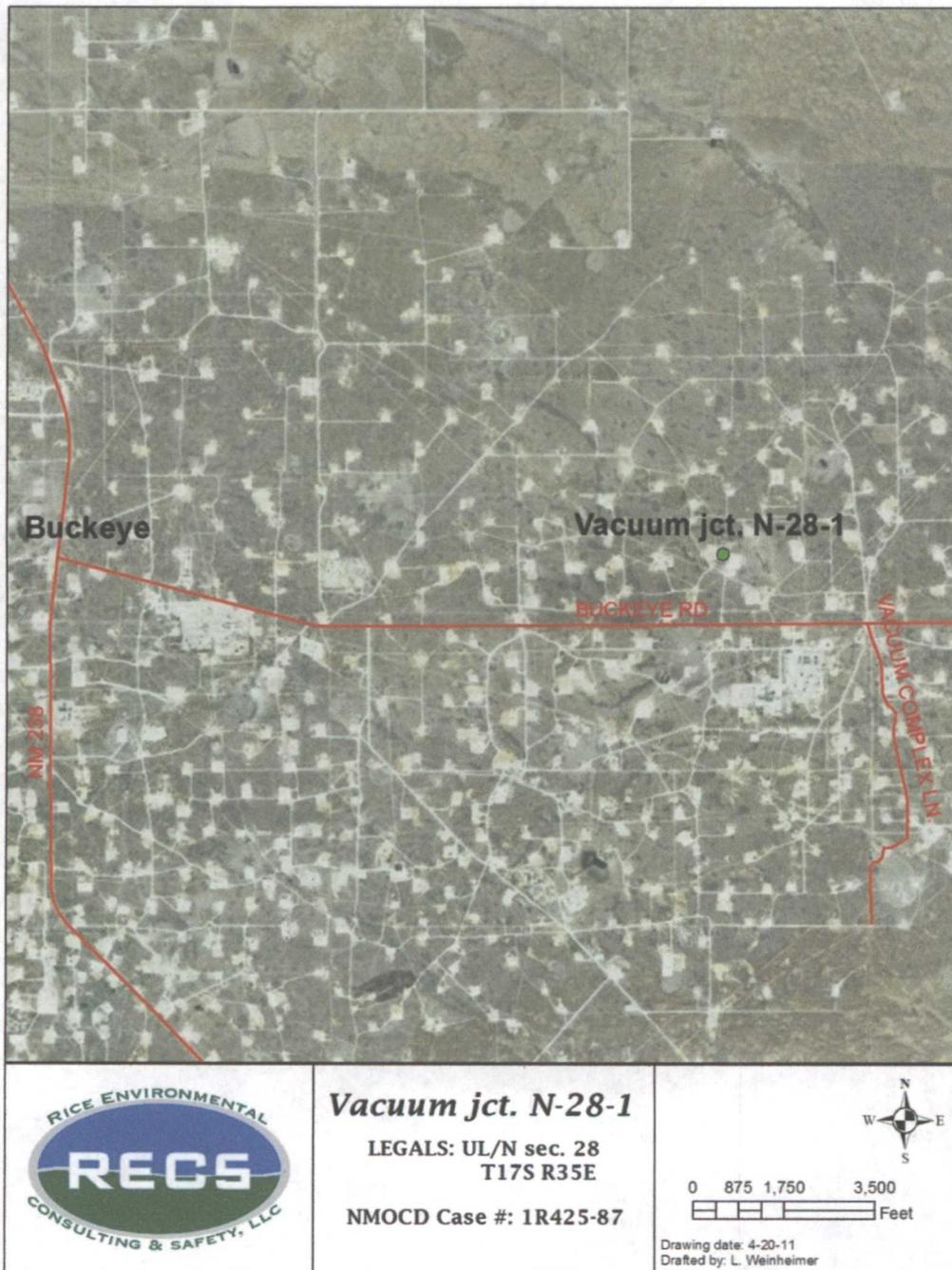


Figure 1 – Vacuum N-28-1 Jct location.

Vacuum Jct N-28-1 ICP Report

Soil bore installation

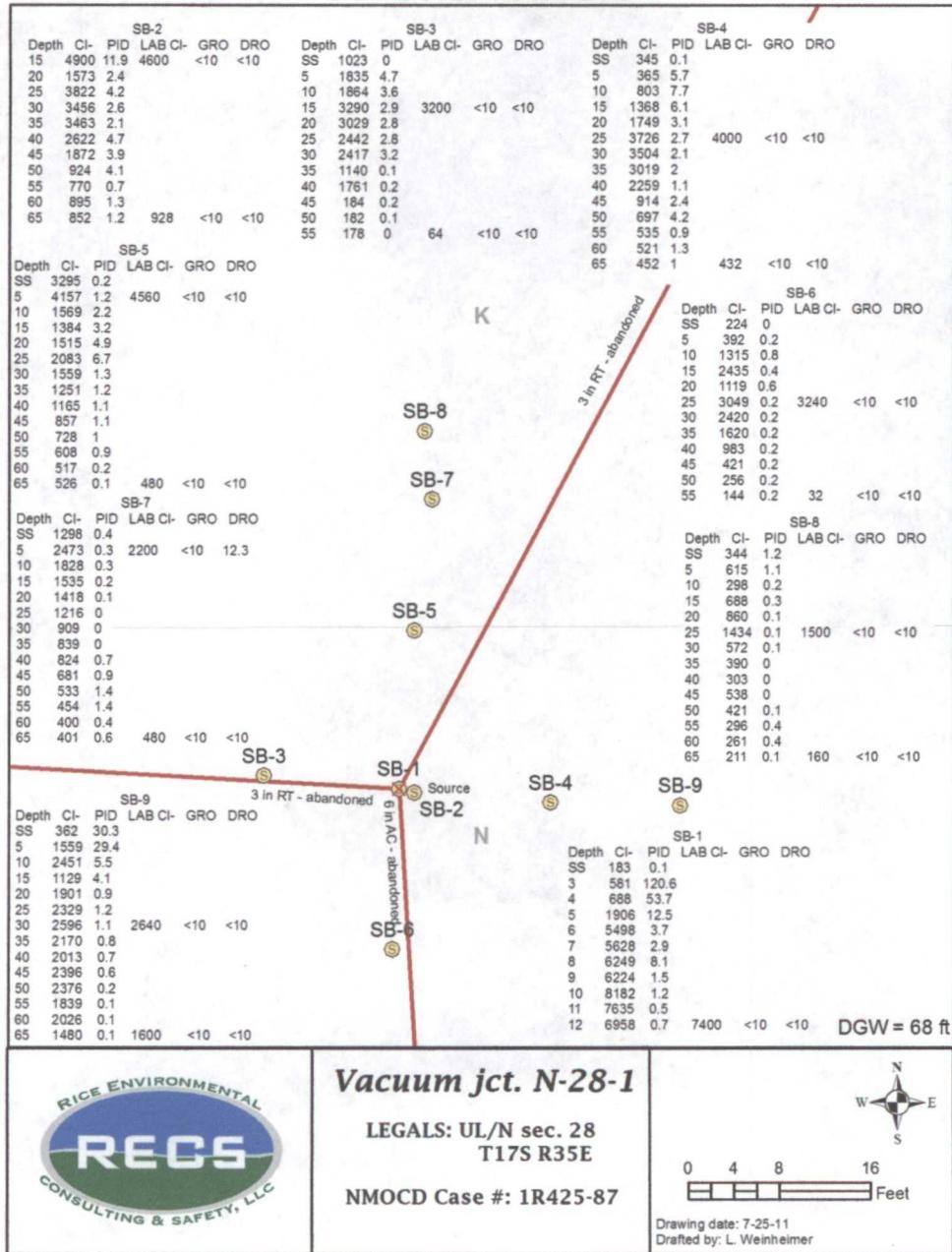


Figure 2 – Vacuum N-28-1 Jct summary of soil boring sampling locations and analyses.

Vacuum Jct N-28-1 ICP Report



Figure 3 – Abandoned lease facility, next to SB-9.

Vacuum Jct N-28-1 ICP Report

Vacuum Jct. N-28-1
Unit N, Section 28, T17S, R35E



drilling SB-2, facing south



plugging SB-2 with bentonite, facing east



drilling SB-3, facing south



plugging SB-3 with bentonite, facing east



drilling SB-4, facing east



plugging SB-4 with bentonite, facing east

Vacuum Jct N-28-1 ICP Report



drilling SB-5, facing south



plugging SB-5 with bentonite, facing east



drilling SB-6, facing southeast



plugging SB-6 with bentonite, facing east



drilling SB-7, facing east



plugging SB-7 with bentonite, facing east

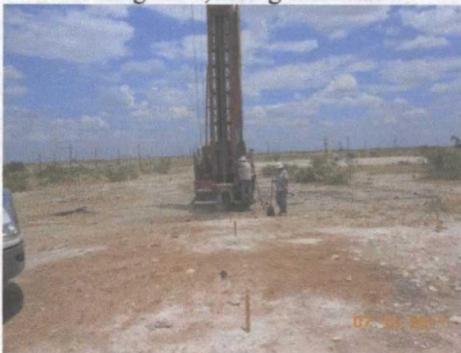
Vacuum Jct N-28-1 ICP Report



drilling SB-8, facing southwest



plugging SB-8 with bentonite, facing south



drilling SB-9, facing east



plugging SB-9 with bentonite, facing east



June 17, 2011

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

RE: VACUUM JCT N-28-1

Enclosed are the results of analyses for samples received by the laboratory on 06/10/11 16:20.

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,

Celey D. Keene
Lab Director/Quality Manager

Analytical Results For:

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

Received:	06/10/2011	Sampling Date:	06/09/2011
Reported:	06/17/2011	Sampling Type:	Soil
Project Name:	VACUUM JCT N-28-1	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SB 2 @ 15' (H101212-01)

Chloride, SM4500Cl-B		mg/kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4600	16.0	06/14/2011	ND	432	108	400	7.14	
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	06/15/2011	ND	154	76.9	200	3.51	
DRO >C10-C28	<10.0	10.0	06/15/2011	ND	152	75.8	200	3.11	
Surrogate: 1-Chlorooctane	86.5 %	70-130							
Surrogate: 1-Chlorooctadecane	110 %	70-130							

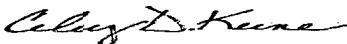
Sample ID: SB 2 @ 65' (H101212-02)

Chloride, SM4500Cl-B		mg/kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	928	16.0	06/14/2011	ND	432	108	400	7.14	
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	06/15/2011	ND	154	76.9	200	3.51	
DRO >C10-C28	<10.0	10.0	06/15/2011	ND	152	75.8	200	3.11	
Surrogate: 1-Chlorooctane	73.1 %	70-130							
Surrogate: 1-Chlorooctadecane	95.9 %	70-130							

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.



Caley D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	06/10/2011	Sampling Date:	06/09/2011
Reported:	06/17/2011	Sampling Type:	Soil
Project Name:	VACUUM JCT N-28-1	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SB 3 @ 15' (H101212-03)

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	3200	16.0	06/14/2011	ND	432	108	400	7.14		
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	06/15/2011	ND	154	76.9	200	3.51		
DRO >C10-C28	<10.0	10.0	06/15/2011	ND	152	75.8	200	3.11		
<i>Surrogate: 1-Chlorooctane</i>		73.4 %	70-130							
<i>Surrogate: 1-Chlorooctadecane</i>		94.3 %	70-130							

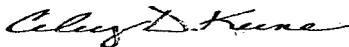
Sample ID: SB 3 @ 55' (H101212-04)

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	06/14/2011	ND	432	108	400	7.14		
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	06/15/2011	ND	154	76.9	200	3.51		
DRO >C10-C28	<10.0	10.0	06/15/2011	ND	152	75.8	200	3.11		
<i>Surrogate: 1-Chlorooctane</i>		80.0 %	70-130							
<i>Surrogate: 1-Chlorooctadecane</i>		103 %	70-130							

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* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	06/10/2011	Sampling Date:	06/09/2011
Reported:	06/17/2011	Sampling Type:	Soil
Project Name:	VACUUM JCT N-28-1	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SB 4 @ 25" (H101212-05)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	4000	16.0	06/14/2011	ND	432	108	400	7.14		
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	06/15/2011	ND	154	76.9	200	3.51		
DRO >C10-C28	<10.0	10.0	06/15/2011	ND	152	75.8	200	3.11		
Surrogate: 1-Chlorooctane	74.8 %	70-130								
Surrogate: 1-Chlorooctadecane	98.5 %	70-130								

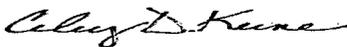
Sample ID: SB 4 @ 65' (H101212-06)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	432	16.0	06/14/2011	ND	432	108	400	3.64		
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	06/15/2011	ND	154	76.9	200	3.51		
DRO >C10-C28	<10.0	10.0	06/15/2011	ND	152	75.8	200	3.11		
Surrogate: 1-Chlorooctane	69.6 %	70-130								
Surrogate: 1-Chlorooctadecane	91.9 %	70-130								

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	06/10/2011	Sampling Date:	06/09/2011
Reported:	06/17/2011	Sampling Type:	Soil
Project Name:	VACUUM JCT N-28-1	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SB 5 @ 5' (H101212-07)

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	4560	16.0	06/14/2011	ND	432	108	400	3.64		
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	06/15/2011	ND	154	76.9	200	3.51		
DRO >C10-C28	<10.0	10.0	06/15/2011	ND	152	75.8	200	3.11		
<i>Surrogate: 1-Chlorooctane</i>		70.1 %	70-130							
<i>Surrogate: 1-Chlorooctadecane</i>		88.7 %	70-130							

Sample ID: SB 5 @ 65' (H101212-08)

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	480	16.0	06/14/2011	ND	432	108	400	3.64		
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	06/15/2011	ND	154	76.9	200	3.51		
DRO >C10-C28	<10.0	10.0	06/15/2011	ND	152	75.8	200	3.11		
<i>Surrogate: 1-Chlorooctane</i>		75.9 %	70-130							
<i>Surrogate: 1-Chlorooctadecane</i>		103 %	70-130							

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* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	06/10/2011	Sampling Date:	06/10/2011
Reported:	06/17/2011	Sampling Type:	Soil
Project Name:	VACUUM JCT N-28-1	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SB 6 @ 25' (H101212-09)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	3240	16.0	06/14/2011	ND	432	108	400	3.64		
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	06/15/2011	ND	154	76.9	200	3.51		
DRO >C10-C28	<10.0	10.0	06/15/2011	ND	152	75.8	200	3.11		
Surrogate: 1-Chlorooctane	81.0 %	70-130								
Surrogate: 1-Chlorooctadecane	110 %	70-130								

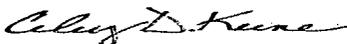
Sample ID: SB 6 @ 55' (H101212-10)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	06/14/2011	ND	432	108	400	3.64		
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	06/16/2011	ND	167	83.6	200	3.30		
DRO >C10-C28	<10.0	10.0	06/16/2011	ND	150	75.0	200	2.31		
Surrogate: 1-Chlorooctane	85.5 %	70-130								
Surrogate: 1-Chlorooctadecane	116 %	70-130								

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Celey D. Keene, Lab Director/Quality Manager

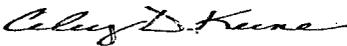
Notes and Definitions

- 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

Cardinal Laboratories

*=Accredited Analyte

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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 Operating Company Project Manager: Hack Conder Address: 122 West Taylor City: Hobbs State: NM Zip: 88240 Phone #: 575-393-9174 Fax #: 575-397-1471 Project #: _____ Project Owner: _____ Project Name: Vacuum Jet N-28-1 Project Location: Vacuum Jet N-28-1 Sampler Name: Jordan Woodfin For Use Only		P.O. #: _____ Company: _____ Attn: _____ Address: _____ City: _____ State: _____ Zip: _____ Phone #: _____ Fax #: _____	
BILL TO		ANALYSIS REQUEST	
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS
1	SB 2 @ 15'	1	1
2	SB 2 @ 65'	1	1
3	SB 3 @ 15'	1	1
4	SB 3 @ 55'	1	1
5	SB 4 @ 25'	1	1
6	SB 4 @ 65'	1	1
7	SB 5 @ 5'	1	1
8	SB 5 @ 65'	1	1
9	SB 6 @ 25'	1	1
10	SB 6 @ 55'	1	1
MATRIX: GROUNDWATER, WASTEWATER, SOIL, OIL, SLUDGE, OTHER: _____ PRESERV: ACID/BASE, ICE / COOL, OTHER: _____ DATE: 6/9/11 TIME: 12:00 11 12:30 11 01:00 11 01:30 11 02:00 11 02:30 11 03:00 11 03:30 6/10/11 06:30 06:45		ANALYSIS REQUEST: Chlorides, TPH 8015 M, BTEX, Texas TPH, Complete Cations/Anions, TPH 8015 M Extended Thru C40	
RECEIVED BY: <i>Jordan Woodfin</i> DATE: 6/9/11 TIME: 12:30 RECEIVED BY: <i>Jack Newman</i> DATE: 6/10/11 TIME: 06:45 CHECKED BY: <i>JW</i>			
Rollinquisishod By: Jordan Woodfin Delivered By: (Circle One) UPS - Bus - Other:		Sample Condition: Cool Intact Yes No Checked By: <i>JW</i>	

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

#26

NEED SAMPLES BACK, PLEASE



July 18, 2011

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

RE: VACUUM JCT N-28-1

Enclosed are the results of analyses for samples received by the laboratory on 07/14/11 10:30.

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,

Celey D. Keene
Lab Director/Quality Manager

Analytical Results For:

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

Received:	07/14/2011	Sampling Date:	07/13/2011
Reported:	07/18/2011	Sampling Type:	Soil
Project Name:	VACUUM JCT N-28-1	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SB 7 @ 5' (H101453-01)

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2200	16.0	07/15/2011	ND	416	104	400	0.00		
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	07/17/2011	ND	197	98.6	200	0.112		
DRO >C10-C28	12.3	10.0	07/17/2011	ND	182	90.8	200	0.814		
<i>Surrogate: 1-Chlorooctane</i>	97.5 %	70-130								
<i>Surrogate: 1-Chlorooctadecane</i>	108 %	70-130								

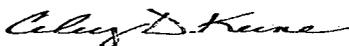
Sample ID: SB 7 @ 65' (H101453-02)

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	480	16.0	07/15/2011	ND	416	104	400	0.00		
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	07/17/2011	ND	197	98.6	200	0.112		
DRO >C10-C28	<10.0	10.0	07/17/2011	ND	182	90.8	200	0.814		
<i>Surrogate: 1-Chlorooctane</i>	106 %	70-130								
<i>Surrogate: 1-Chlorooctadecane</i>	113 %	70-130								

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* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	07/14/2011	Sampling Date:	07/13/2011
Reported:	07/18/2011	Sampling Type:	Soil
Project Name:	VACUUM JCT N-28-1	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SB 8 @ 25' (H101453-03)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1500	16.0	07/15/2011	ND	416	104	400	0.00		
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	07/17/2011	ND	197	98.6	200	0.112		
DRO >C10-C28	<10.0	10.0	07/17/2011	ND	182	90.8	200	0.814		

Surrogate: 1-Chlorooctane 105 % 70-130
 Surrogate: 1-Chlorooctadecane 114 % 70-130

Sample ID: SB 8 @ 65' (H101453-04)

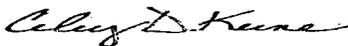
Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	160	16.0	07/15/2011	ND	416	104	400	0.00		
TPH 8015M		mg/kg		Analyzed By: ab						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	07/17/2011	ND	197	98.6	200	0.112		
DRO >C10-C28	<10.0	10.0	07/17/2011	ND	182	90.8	200	0.814		

Surrogate: 1-Chlorooctane 108 % 70-130
 Surrogate: 1-Chlorooctadecane 118 % 70-130

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	07/14/2011	Sampling Date:	07/13/2011
Reported:	07/18/2011	Sampling Type:	Soil
Project Name:	VACUUM JCT N-28-1	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SB 9 @ 30' (H101453-05)

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2640	16.0	07/15/2011	ND	416	104	400	0.00		
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	07/17/2011	ND	197	98.6	200	0.112		
DRO >C10-C28	<10.0	10.0	07/17/2011	ND	182	90.8	200	0.814		
<i>Surrogate: 1-Chlorooctane</i>	108 %	70-130								
<i>Surrogate: 1-Chlorooctadecane</i>	122 %	70-130								

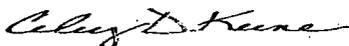
Sample ID: SB 9 @ 65' (H101453-06)

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1600	16.0	07/15/2011	ND	416	104	400	0.00		
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	07/17/2011	ND	197	98.6	200	0.112		
DRO >C10-C28	<10.0	10.0	07/17/2011	ND	182	90.8	200	0.814		
<i>Surrogate: 1-Chlorooctane</i>	108 %	70-130								
<i>Surrogate: 1-Chlorooctadecane</i>	118 %	70-130								

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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

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Rice Operating Company

Project Manager: Heck Conder

Address: 122 West Taylor

City: Hobbs

Phone #: 575-393-9174

Project #:

Project Name: VACUUM JCT N-28-1

Project Location: VACUUM JCT N-28-1

Sampler Name: Jordan Woodfin

FOR LAB USE ONLY

P.O. #:

Company:

Attn:

Address:

City:

State:

Phone #:

Zip:

Fax #:

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	Chlorides	TPH 8015 M	BTEX	Texas TPH	Complete Cations/Anions	TPH 8015 M Extended Thru C40
H101453	SB 7 @ 5'	9	1			✓				✓	✓		7/13/11	11:00	✓	✓				
	SB 7 @ 65'	9	1			✓				✓	✓		"	11:45	✓	✓				
	SB 8 @ 25'	9	1			✓				✓	✓		"	01:00	✓	✓				
	SB 8 @ 65'	9	1			✓				✓	✓		"	01:45	✓	✓				
	SB 9 @ 30'	9	1			✓				✓	✓		"	02:15	✓	✓				
	SB 9 @ 65'	9	1			✓				✓	✓		"	03:00	✓	✓				

PLEASE NOTE: Utility and Dewatering, Contract, Issuance and Client's evidence to include, All claims, including those for negligence and any other cause, whether or not known, shall be held by the contractor for the duration of the contract and shall be held in escrow until the final payment is received by the contractor. In the event that the contractor is not paid for the duration of the contract, the contractor shall be held liable for the performance of the contract. The contractor shall be held liable for the performance of the contract. The contractor shall be held liable for the performance of the contract.

Relinquished By: Jordan Woodfin

Relinquished By (Circle One):

CS - Bur - Other:

#26

PLEASE BACK, PLEASE

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 jr@rice-ecs.com kiones@riceswd.com