

**1R - 426-311**

# **REPORTS**

**DATE:**

**3-22-12**

1R426-311  
RECEIVED OGD  
2012 MAY -1 P 1:50

BD Jct. H-11-1  
2011

**CLOSURE**

# RICE *Operating Company*

122 West Taylor • Hobbs, New Mexico 88240

Phone: (575) 393-9174 • Fax: (575) 397-1471

May 1, 2012

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  
BD Jct. H-11-1: UL/H, Sec. 11, T23S, R37E  
RICE Operating Company – Blinebry-Drinkard SWD System

Mr. Hansen:

Rice Operating Company (ROC) is the service provider (agent) for the BD 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 2011, ROC initiated work on the former Jct. H-11-1. The site is located in UL/H, Sec. 11, T23S, R37E. NM OSE records indicate that groundwater would likely be encountered at a depth of approximately 35 +/- feet but after encountering red bed clay while drilling a source soil bore, it was verified there is no groundwater at this site. The site was delineated using a backhoe to collect soil samples at regular intervals, creating a 20x15x12 ft deep excavation. Each sample was field titrated for chlorides and field screened using a PID for hydrocarbons, resulting in low concentrations of TPH and elevated concentrations of chloride. The excavated soil was blended on site and representative composite samples of the excavation bottom, the excavation walls, and the blended backfill were sent to a commercial for analysis of chloride and TPH, resulting in a 4-WALL chloride concentration of 464 mg/kg, a gasoline range organics (GRO) concentration below detectable limits and diesel range organics (DRO) concentration of 155 mg/kg. The bottom composite resulted in chloride concentrations of 1,260 mg/kg, and concentrations of GRO and DRO below detectable limits. The blended backfill resulted in a chloride concentration of 336 mg/kg, and concentrations of GRO and DRO below detectable limits. The blended backfill was returned to the excavation to 5 ft BGS where a 20-mil reinforced plastic liner was installed. The excavation was backfilled with the remaining blended soil to ground surface and contoured to the surrounding area. 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 presence, a soil bore was initiated on 10/26/2011 at 2 ft south of the former junction box. The boring advanced to a total depth of 45 ft BGS with soil samples collected at regular intervals to a depth of 45 ft BGS. The 20 ft and 45 ft samples were taken to a commercial laboratory for analysis of chloride and TPH, resulting in a concentration of 1,660 mg/kg and concentrations of GRO and DRO below detectable limits at 20 ft BGS. The sample resulted in chloride concentrations of 448 mg/kg and concentrations of GRO and DRO below detectable limits at 45 ft BGS. To verify depth to groundwater, the boring continued to a depth of 45 ft where red bed clay was encountered, indicating the bottom of the aquifer. Since no groundwater was encountered, the bore was packed open to allow any possible groundwater to accumulate. On 10/31/2011, Arc Environmental was on site to gauge the bore for groundwater accumulation and found no water in the bore. The entire bore hold was plugged with bentonite to ground surface. The junction box final report, photo documentation, boring log, laboratory analysis, PID screenings, bore hole condition letter, cross-section, chloride curve, and revegetation form 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

A handwritten signature in black ink, appearing to read 'H. Conder', with a stylized, flowing script.

Hack Conder  
Environmental Manager

enclosures

**RICE OPERATING COMPANY  
JUNCTION BOX FINAL REPORT**

**BOX LOCATION**

SWD SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE	COUNTY	BOX DIMENSIONS - FEET		
Blinebry-Drinkard (BD)	Jct. H-11-1	H	11	23S	37E	Lea	Length 4'	Width 4'	Depth 4'
							Eliminated		

LAND TYPE: BLM \_\_\_\_\_ STATE \_\_\_\_\_ FEE LANDOWNER Walco Ranch, LLC. OTHER \_\_\_\_\_

Depth to Groundwater None feet NMOCD SITE ASSESSMENT RANKING SCORE: 0

Date Started 4/4/2011 Date Completed 10/26/2011 OCD Witness No

Soil Excavated 133.3 cubic yards Excavation Length 20 Width 15 Depth 12 feet

Soil Disposed None cubic yards Offsite Facility n/a Location n/a

FINAL ANALYTICAL RESULTS: **Sample Date** 5/12/2011, 10/26/2011 **Sample Depth** 12', 20', 45'

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.

**CHLORIDE FIELD TESTS**


Sample Location	PID (field) ppm	GRO mg/kg	DRO mg/kg	Chloride mg/kg
4-WALL COMP.	6.1	<10.0	155	464
BOTTOM COMP.	2.7	<10.0	<10.0	1,260
BLENDED BACKFILL	10.1	<10.0	<10.0	336
SB 1 @ 20'	0.0	<10.0	<10.0	1,660
SB 1 @ 45'	0.0	<10.0	<10.0	448

LOCATION	DEPTH	mg/kg
4-wall comp.	N/A	400
bottom comp.	12'	754
blended backfill	N/A	959
background	6"	114
SB-1 at 2' south of source	15'	961
	20'	1,214
	25'	818
	30'	320
	35'	450
	40'	575
	45'	413

**General Description of Remedial Action:** This junction was eliminated during the pipeline replacement/upgrade program. After the former junction box was removed, an investigation was conducted using a backhoe to collect soil samples at regular intervals producing a 20x15x12-ft excavation. Chloride field tests performed on each sample yielded elevated concentrations. Organic vapors were measured using a PID which yielded low concentrations. The excavated soil was blended on site and representative composite samples of the excavation bottom, the excavation walls, and the blended backfill were sent to a commercial laboratory for analysis of chloride and TPH. The blended backfill was returned to the excavation to 5-ft. below ground surface (BGS). On 6/3/2011, a 20 mil reinforced plastic liner was installed at 5-ft. BGS and the excavation was backfilled with the remaining blended soil to ground surface and contoured to the surrounding area. On 6/7/2011, the site was seeded with a blended of native vegetation and is expected to return to a productive capacity at a normal rate. To further investigate the depth of chloride presence, a soil bore was initiated on 10/26/2011. The boring was advanced to a depth of 45-ft. BGS with soil samples collected every 5-ft. between 15-45-ft. Chloride field tests were performed on each sample and organic vapors were measured using a PID. The 20-ft. and 45-ft. samples were taken to a commercial laboratory for analysis of chloride and TPH. Red bed clay was encountered at 20-ft. BGS which indicated the bottom of the aquifer. Since no groundwater was encountered, the bore was advanced to 65-ft BGS and packed open to allow any possible groundwater to accumulate. On 10/31/2011, Arc Environmental was on site to gauge the bore for groundwater accumulation. They found no water in the bore. The entire bore hole was plugged with bentonite to ground surface.

enclosures: photos, boring log, lab results, PID (field) screenings, bore hole condition letter, cross-section, 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 

ASSEMBLED BY Laura Peña SIGNATURE 

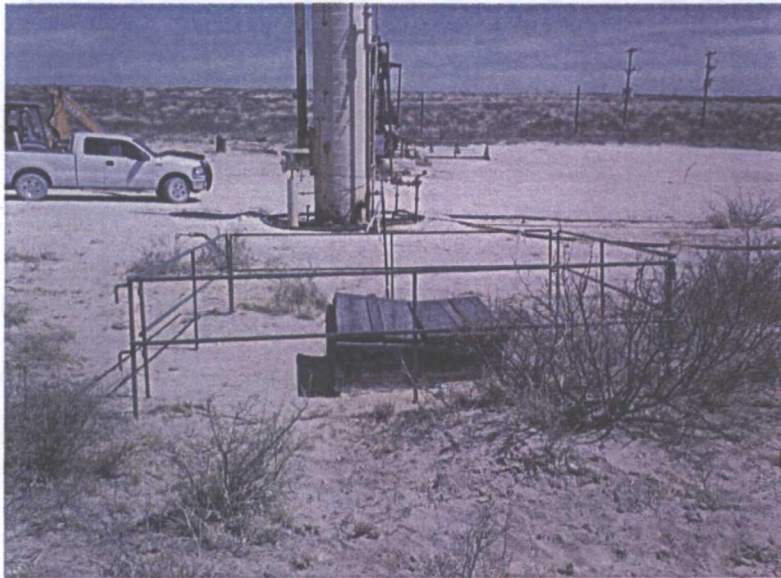
COMPANY RICE OPERATING COMPANY

PROJECT LEADER Zach Conder SIGNATURE 

DATE 3-22-12

# BD Jct. H-11-1

Unit H, Section 11, T23S, R37E



Site prior to excavating, facing east

3/30/2011



Excavating site

4/16/2011



Collecting sample, facing south

5/11/2011



Seeding site, facing west

6/7/2011



# BD Jct. H-11-1

Unit H, Section 11, T23S, R37E



Drilling SB-1, facing northeast

10/26/2011



Plugging SB-1, facing east

11/1/2011



Collecting sample, facing northeast





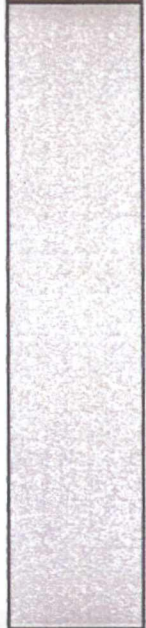



10/26/2011



Completed SB-1, facing east

11/1/2011



Logger:	Kyle Norman	REMOVED JCT H11-1 				
Driller:	Harrison & Cooper, Inc.			Project Name:	Well ID:	
Drilling Method:	Air rotary			BD jct. H-11-1	SB-1	
Start Date:	10/26/2011			Project Consusultant: Junction box plan		
End Date:	10/26/2011			Location: UL/H sec.11 T23S R37E		
Comments: SB-1 located 2 ft south of the former junction box site. All samples were from cuttings. DRAFTED BY: L. Weinheimer TD = 65 ft      GW = none				Lat: 32°19'14.587"N      County: Lea Long: 103°7'40.276"W      State: NM		
Depth (feet)	Chloride field tests	LAB	PID	Description	Lithology	Well Construction
				Brown Sand		
SS						
5 ft				Tan Sand		
10 ft						
15 ft	961		0			
20 ft	1214	CI- 1660 GRO <10 DRO <10	0	Red Clay		
25 ft	818		0			
30 ft	320		0			Bentonite Seal
35 ft	450		0			

COPY



Depth (feet)	Chloride field tests	LAB	PID	Description	Lithology	Well Construction
40 ft	575		0	Red Clay		
45 ft	413	CI- 443	0			
		GRO <10				
		DRO <10				
50 ft			0			
55 ft			0			
60 ft			0			
65 ft			0			

COPY

October 31, 2011

Hack Conder

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

RE: BD H-11-1 (23/37)

Enclosed are the results of analyses for samples received by the laboratory on 10/28/11 7:55.

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.

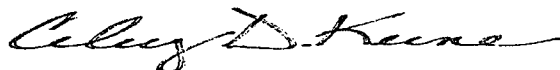
Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

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

COPY

**Analytical Results For:**

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

 Received: 10/28/2011  
 Reported: 10/31/2011  
 Project Name: BD H-11-1 (23/37)  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

 Sampling Date: 10/26/2011  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SB-1 @ 20' (H102338-01)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1660	16.0	10/28/2011	ND	432	108	400	0.00	
TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/29/2011	ND	178	89.0	200	3.30	
DRO >C10-C28	<10.0	10.0	10/29/2011	ND	193	96.3	200	2.49	
Surrogate: 1-Chlorooctane		82.9 %	55.5-154						
Surrogate: 1-Chlorooctadecane		102 %	57.6-158						

**Sample ID: SB-1 @ 45' (H102338-02)**

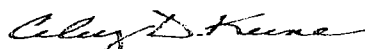
Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	448	16.0	10/28/2011	ND	432	108	400	0.00	
TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/29/2011	ND	178	89.0	200	3.30	
DRO >C10-C28	<10.0	10.0	10/29/2011	ND	193	96.3	200	2.49	
Surrogate: 1-Chlorooctane		72.8 %	55.5-154						
Surrogate: 1-Chlorooctadecane		95.1 %	57.6-158						

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Cardinal Laboratories

\*=Accredited Analyte

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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


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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager


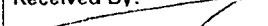





## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

[illegible]

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Relinquished By: 		Date: 10-28-11 Time: 7:30		Received By: 		Phone Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Fax Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Add'l Phone #: Add'l Fax #:	
Relinquished By: 		Date: 10/28/11 Time: 7:55		Received By: 		REMARKS:  email results kjones@riceswd.com; knorman@rice-ecs.com; Zconder@rice-ecs.com; Bbaker@rice-ecs.com; hconder@rice-ecs.com; Lweinheimer@rice-ecs.com			
Delivered By: (Circle One) Sampler - UPS - Bus - Other:		Sample Condition Cool Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		CHECKED BY: (Initials) 					

# 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	x
NO.	

MODEL: PGM 7300	SERIAL NO: 590-000508
MODEL: PGM 7300	SERIAL NO: 590-000504
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%

<b>COMPANY</b>
Rice

SITE	UNIT	SECTION	TOWN SHIP	RANGE
BD H-11-1 Jct.	H	11	23 S	37 E

SAMPLE ID	PID	SAMPLE ID	PID
Soil Bore #1 @ 15'	0		
Soil Bore #1 @ 20'	0		
Soil Bore #1 @ 25'	0		
Soil Bore #1 @ 30'	0		
Soil Bore #1 @ 35'	0		
Soil Bore #1 @ 40'	0		
Soil Bore #1 @ 45'	0		

COPY

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

SIGNATURE:



DATE: 10-26-2011

May 16, 2011

Hack Conder

Rice Operating Company

112 W. Taylor

Hobbs, NM 88240

RE: BD JCT H-11-1 (22/37)

Enclosed are the results of analyses for samples received by the laboratory on 05/12/11 16:30.

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.

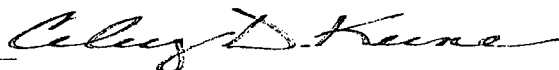
Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

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

COPY

**Analytical Results For:**

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

 Received: 05/12/2011  
 Reported: 05/16/2011  
 Project Name: BD JCT H-11-1 (22/37)  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

 Sampling Date: 05/12/2011  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: 5 PT BTM COMP (H100977-01)**

Chloride, SM4500CI-B		mg/kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>1260</b>	16.0	05/13/2011	ND	448	112	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	05/14/2011	ND	175	87.5	200	0.193	
DRO >C10-C28	<10.0	10.0	05/14/2011	ND	163	81.7	200	0.578	
Surrogate: 1-Chlorooctane		109 %	70-130						
Surrogate: 1-Chlorooctadecane		111 %	70-130						

**Sample ID: 4 WALL COMP (H100977-02)**

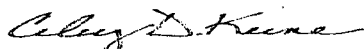
Chloride, SM4500CI-B		mg/kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>464</b>	16.0	05/13/2011	ND	448	112	400	0.00	
TPH 8015M		mg/kg	Analyzed By: AB						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/14/2011	ND	175	87.5	200	0.193	
<b>DRO &gt;C10-C28</b>	<b>155</b>	10.0	05/14/2011	ND	163	81.7	200	0.578	
Surrogate: 1-Chlorooctane		105 %	70-130						
Surrogate: 1-Chlorooctadecane		102 %	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: 05/12/2011  
Reported: 05/16/2011  
Project Name: BD JCT H-11-1 (22/37)  
Project Number: NONE GIVEN  
Project Location: NOT GIVEN

Sampling Date: 05/12/2011  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: BLENDED BACKFILL COMP (H100977-03)**

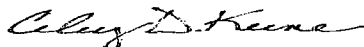
Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	336	16.0	05/13/2011	ND	448	112	400	0.00		
TPH 8015M		mg/kg		Analyzed By: AB						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	05/14/2011	ND	175	87.5	200	0.193		
DRO >C10-C28	<10.0	10.0	05/14/2011	ND	163	81.7	200	0.578		
<hr/>										
Surrogate: 1-Chlorooctane		97.8 %	70-130							
Surrogate: 1-Chlorooctadecane		104 %	70-130							

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\*=Accredited Analyte

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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

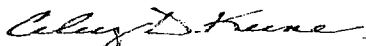
COPY

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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.



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Celey D. Keene, Lab Director/Quality Manager

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240  
(575) 393-2326 FAX (575) 393-2476

[illegible]

# 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.	<input type="checkbox"/>	MODEL: PGM 7300	SERIAL NO: 590-000508
MODEL	<input type="checkbox"/>	MODEL: PGM 7300	SERIAL NO: 590-000504
NO.	<input type="checkbox"/>	MODEL: PGM 7320	SERIAL NO: 592-903318
	<input checked="" type="checkbox"/>	MODEL: PGM 7300	SERIAL NO: 590-000183

GAS COMPOSITION: ISOBUTYLENE 100PPM / AIR: BALANCE

LOT NO :930132	EXPIRATION DATE:4-28-13
METER READING ACCURACY:100.00	

ACCURACY : +/- 2%

<b>COMPANY</b>
RICE

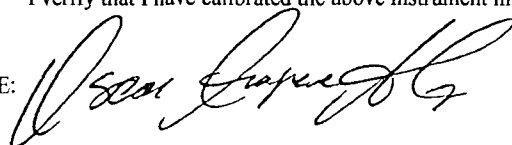
SYSTEM	JUNCTION	UNIT	SECTION	TOWN SHIP	RANGE
BD	JCT H-11-1	H	11	23E	37S

SAMPLE ID	PID	SAMPLE ID	PID
5 pt Bottom Comp.	2.7		
4 WALL Comp	6.1		
Blended Breaks 11 Comp	10.1		

COPY

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

SIGNATURE:



DATE: 5-12-11



*Arc Environmental*

P. O. Box 1772  
Lovington, New Mexico 88260  
(575) 631-9310  
Rozanne Johnson ~ rozanne@valornet.com

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November 2, 2011

Mr. Hack Conder  
RICE Operating Company  
112 West Taylor  
Hobbs, New Mexico 88240

**Re: BD Junction H-11-1**

Mr. Conder,

On Monday October 31, 2011 soil bore #1 at the BD Junction H-11-1, Lea County T23S, R37E, Sec 11 Unit Letter H was checked with a Solinst Water Level Meter for water accumulation within the borehole. The meter indicated no water within the borehole at the total depth of 64.78 feet.

Sincerely,  
*Arc Environmental*

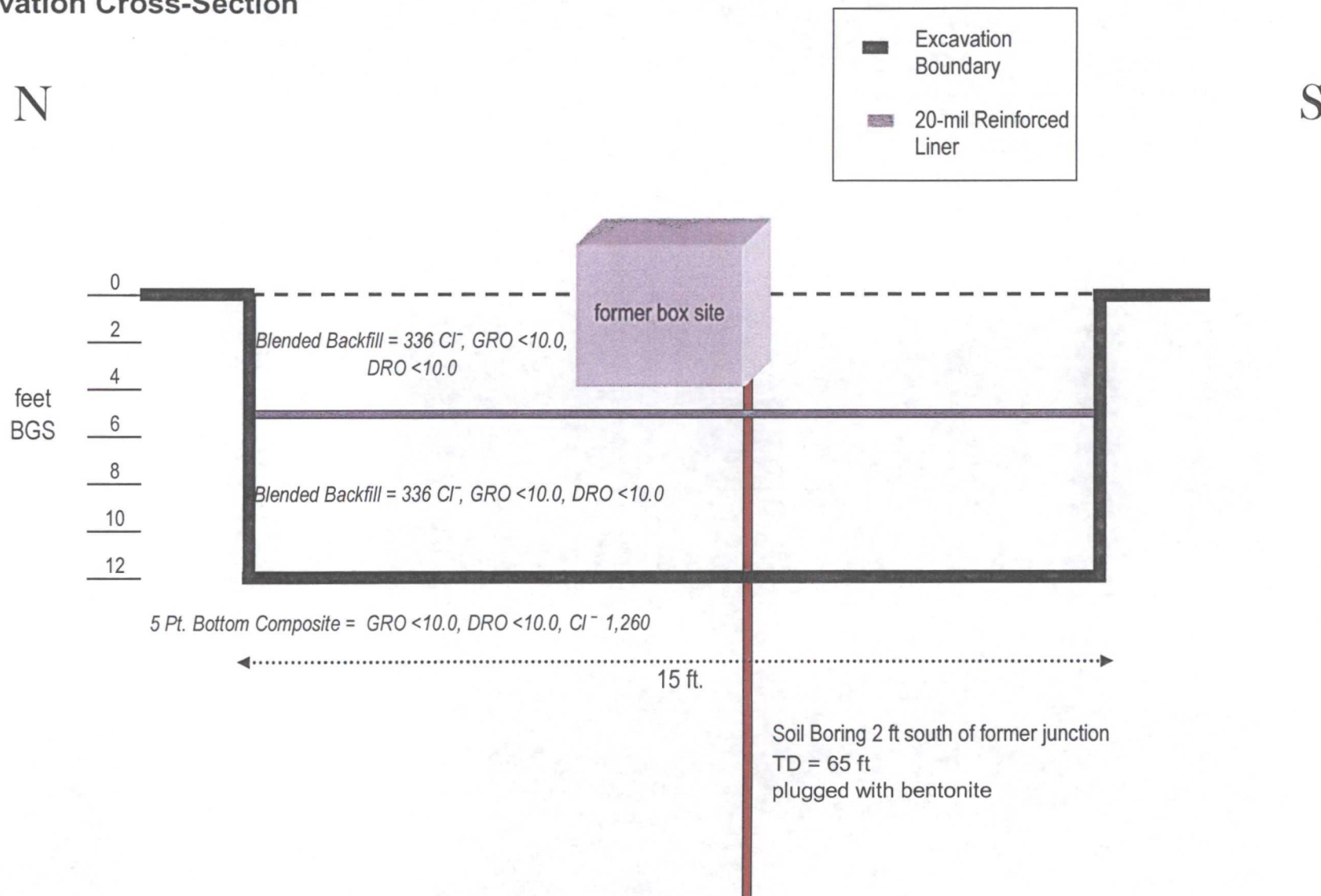
*Rozanne Johnson*  
Rozanne Johnson

*Electronic Copy:* Hack Conder  
Katie Jones

COPY

BD Jct. H-11-1  
Unit 'H', Sec. 11, T23S, R37E

## Excavation Cross-Section



## CHLORIDE CONCENTRATION CURVE

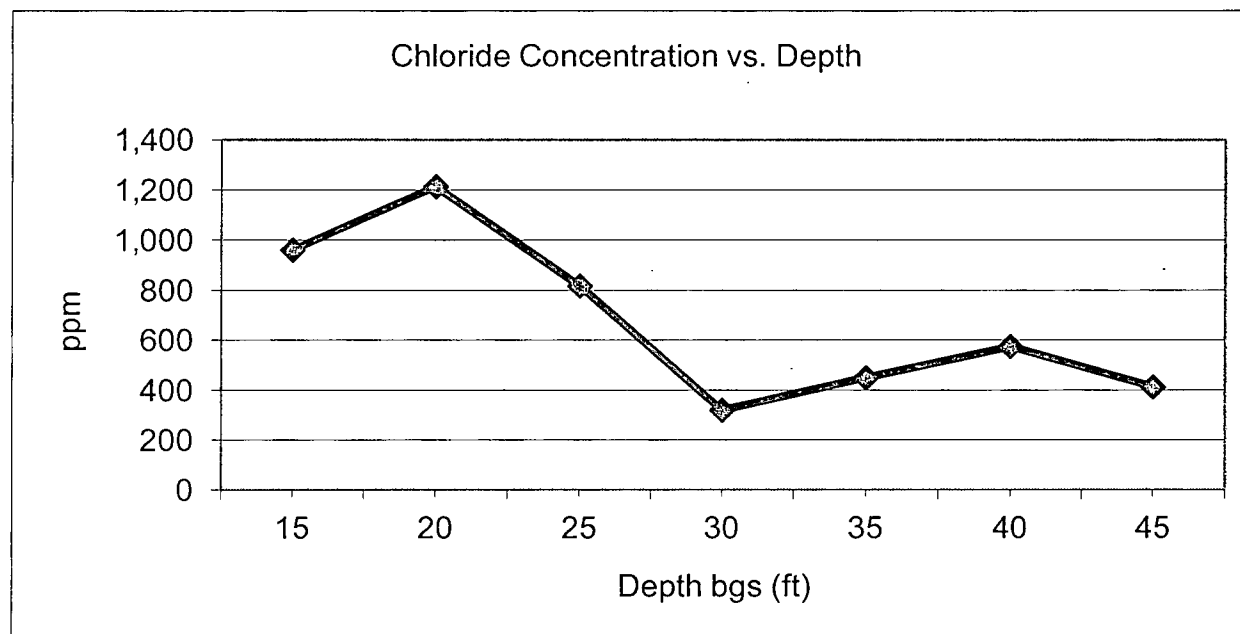
RICE Operating Company

### BD Jct. H-11-1

Unit 'H', Sec. 11, T23S, R37E

SB-1 samples at 2 ft South of the junction (source)

Depth bgs (ft)	[Cl] ppm
15	961
20	1,214
25	818
30	320
35	450
40	575
45	413



Groundwater = None



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

## REVEGETATION FORM

### 1. General Information

Site name		BD H-11-1 JCT				
U/L H	Section 11	Township 23S	Range 37E	County Lea	Latitude 32° 19.247'	Longitude 103° 7.670'
Contact Name:		Bruce Baker				
Email:		bbaker@rice-ecs.com				
Site size:	5,432	square feet	Map detail of site attached <input checked="" 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 checked="" type="checkbox"/>	Bioremediated <input type="checkbox"/>	Imported <input checked="" type="checkbox"/>	Blended <input checked="" type="checkbox"/>	Depth (in):	
Texture:		Describe soil & subsoil:			
Soil prep methods:	Rip <input type="checkbox"/>	Depth(in):	Disc <input type="checkbox"/>	Depth (in):	Rollerpack <input type="checkbox"/>
Date completed: 6/7/2011					

### 3. Bioremediation

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

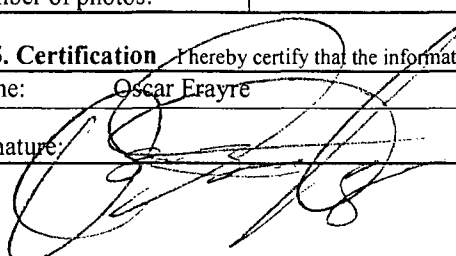
### 4. Seeding

*\*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:	5 lbs. side oats and blue grama mix	Seeding date:	6/7/2011
Broadcast <input checked="" type="checkbox"/>					
Method: Broadcast spreader					
Soil conditions during seeding: Dry <input checked="" type="checkbox"/> Damp <input type="checkbox"/> Wet <input type="checkbox"/>					
Photos attached <input checked="" 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:	Oscar Frayre	Title: Environmental Tech	Date: 6/7/2011
Signature: 			

COPY