AP-27

STAGE 2 REPORT

Date

RICE Operating Company OCD

112 West Taylor • Hobbs, New Mexico 88240 Phone: (575) 393-9174 • Fax: (575) 397-1471 ₽ 2: 18

CERTIFIED MAIL RETURN RECEIPT NO. 7007 2560 0000 4569 8692

November 8, 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: Progress Report BD E-15 (AP-27): UL/E, Sec. 15, T22S, 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

On March 29, 2000, a leak was discovered on the pipeline adjacent to the E-15 junction box. According to the form C-141 (Initial) filed with the NMOCD, the spill was due to a rupture in a steel dresser sleeve. An unknown volume of produced water was discharged with 300 barrels of fluid recovered. Depth to groundwater at this site is approximately 75 +/- ft below ground surface.

During March 2000, approximately 2,000 cubic yards of soil were excavated and transported offsite for disposal. The site was backfilled with clean soil and brought up to grade. Initial characterization of soil impacts was conducted at the site. In order to delineate the site, between January 22, 2001 and February 11, 2005, six monitor wells, two recovery wells and six borings were installed at the site.

A Stage 1/Stage 2 Abatement Plan was requested by the NMOCD and was submitted on June 5, 2001. The abatement plan requested addition soil borings and monitor wells at the site to complete vertical and horizontal delineation.

SOIL

In January 2002, the release area was excavated to a depth of 35 ft bgs and a 140 ft x 160 ft clay liner was installed in the bottom of the excavation. A compaction test was performed and a 20-mil plastic liner was installed over the clay and brought up the sides of the excavation to the surface. The excavated soils were used to backfill the excavation up to a depth of 5 feet bgs. A second 140 ft x 160 ft, 20-mil liner was installed and the remainder of the excavation was backfilled with clean topsoil and contoured to the surrounding surface. In September 2006, the NMOCD requested further expansion of the abatement plan to encompass a larger area. The amended Stage 1/Stage 2 plan was resubmitted in November 2006.

A Soil Closure Request detailing these events was submitted to and approved by NMOCD on October 11, 2012.

GROUNDWATER

In 2005, a groundwater remediation system was installed at the site to address the chloride impacts to the groundwater and was discontinued in 2007 due to low volumes, silting, and equipment problems. Several of the silted or dry monitor wells were permanently abandoned (MW-5, MW-6 and RW-2). Since 2005, the four active monitor wells (MW-1 through MW-4) have been sampled on a quarterly basis. A work plan was submitted, and approved by NMOCD on February 17, 2011, proposing to install three additional monitor wells to further delineate groundwater quality. In March 2011, three monitor wells MW-6R, MW-7 and MW-8 were installed.

A Project Status Report was submitted to the NMOCD on June 17, 2011 with proposed replacement of MW-2 with a 4-inch recovery well. NMOCD approved the plan on August 22, 2011. MW-2 was plugged and replaced with a 4-inch well (MW-2R) in October 2011. Monitor well MW-2R has been sampled since January 2012.

In the Proposed Groundwater Remediation report submitted to the NMOCD on April 17, 2012, ROC proposed to remove 335,104 gallons of chloride impacted groundwater from MW-2R. Beginning June 28, 2012, the well has been pumped on a weekly basis. Since groundwater recovery began, approximately 53,004 gallons of groundwater have been recovered and subsequently utilized for pipeline and well maintenance. The chloride concentration in MW-2R is currently 5,000 mg/L (Appendix A).

The vadose zone remediation portion of the Stage 1/Stage 2 Abatement Plan is completed. However, ROC will continue the groundwater remedy by pumping a total of 335,104 gallons of chloride impacted groundwater from the site. Once the groundwater pumping program is completed, ROC will submit a written report which will include a request for 'remediation termination' and the closure of the regulation file.

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,

Hack Conder Environmental Manager RICE Operating Company



September 27, 2012

Ĩ

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

RE: BD E-15 LEAK

Enclosed are the results of analyses for samples received by the laboratory on 09/19/12 15:50.

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 www.tceq.texas.gov/field/qa/lab_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.

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,

Celay D. Keine

Celey D. Keene Lab Director/Quality Manager



1

Analytical Results For:

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

Received:	09/19/2012	Sampling Date:	09/19/2012
Reported:	09/27/2012	Sampling Type:	Water
Project Name:	BD E-15 LEAK	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	T22S-R37E-SEC15E - LEA CTY., NM		

Sample ID: MONITOR WELL #2R (H202286-01)

Chloride, SM4500CI-B	mg	/L	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	5000	4.00	09/26/2012	ND	100	100	100	0.00	

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 negigence and any other cause whitsoever 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 based by one stated reasons or otherwse. Results relate only to the samples identified abore. This reproduced exception full within writem approval of Cardinal Laboratories.

Celey D.Kune

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

Ï

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

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 SM4500CI-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

PEASE 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 whitsbeever shall be deemed waived unlies made in writing and received by client, is subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by 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 based how stated reasons or otherwse. Results relate only to the samples identified abore. This reproduced exception in full with mitten approval of Cardinal Laboratories.

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

Page 3 of 4

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	* Bice									Å	3//	LL TO	•	·				ANAI	_YSIS	S RE	QUE	ST		
Project Manager: Hack Conder						P.O. #:												Ι						
Äddress:							Company:									SI								
City: Hobbs	State: NM	Zip	88	240				Ättn:									<u>io</u>							
Phone #::	Fax #:							Address:										An					i I	
Proječt #:	Project Öwne	r:						City:						s a	Σ		I	s/	e ⁿ					
Project Name:								State: Zip:					j e	15	\times	L L L	Ы							
Project Location	* BD E-15					<u></u>		Ph	one	#:				Chlorides	8015	BTEX	Texas TPH	Cations/Anions	TDS					
Sampler Name:	Kyle Norman					-		Fax		Litt tops				Ĕ	I	Ъ.	No.							
FOR LAB USE ONLY.		'n.			MA	TRIX	(PRE	SEF	<u>.v</u>	SAMPL		O.	TPH		ц Н	ete						
Lab I.D. H202286	Sample I.D.	(G)RAB OR (C)OMP.	#.CONTAINERS	GROUNDWATER MASTEWATED	SOIL	OIL I	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	-				Complete					-	-
	MW-2R	6		4		1				_		979-12	9:10	1									 	
	مرور در از مرور در از مرور در از مرور در				_	<u> </u>					[
÷																	·						 	
	<u> </u>		·}			┼──			·		[
			<u> </u>			┝╌					-												 	
		1-													•								 	
						1						-66	······································										 	
	· · · · · · · · · · · · · · · · · · ·												,		i									
	d Damages. Cardinal's liability and client's exclusive remedy for a provide the sector of the sector																							

manyses, na contract microardy uncer to regime in a microardy on a consequential damages, including without similation users interruptions, loss of use, or loss of profits included by client, its subsidiaries infinitation, business interruptions, loss of use, or loss of profits included by client, its subsidiaries infinitation subsidiaries infinitation of users and or users interruptions, loss of use, or loss of profits included by client, its subsidiaries infinitation or successions arises of users of or related to the performance of services hereiunder by Carcinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date: 9-19-12 Rece		Phone Result: Pione Result: Pies Pione #: Fax Result: Pies Pione Add'I Phone #:
hyle Nam	Time: 504		REMARKS:
Relinguished By:	Date: Rece	eived By:	email results: zconder@rice-ecs.com
	Time;		Knorman@rice-ecs.com; lpena@riceswd.com
Delivered By: (Circle One)		Sample Condition CHECKED BY:	Kjones@riceswd.com; Bbaker@rice-ecs.com;
Sampler - UPS - Bus - Other:		Cool Intact Intitials)	hconder@rice-ecs.com; Lweinheimer@rice-ecs.com

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

Page 4 of 4