

1R - 426-255

REPORTS

DATE:

3-16-10

**BD Jct F-15
2009**

1R426-255

RECEIVED

APR - 5 2009
Environmental Bureau
Oil Conservation Division

DISCLOSURE

RECEIVED

APD - 6 2010

Environmental Bureau
Oil Conservation DivisionRICE OPERATING COMPANY
JUNCTION BOX DISCLOSURE* REPORT

SVD SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE	COUNTY	BOX DIMENSIONS - FEET		
							Length	Width	Depth
Blaine-Drinkard (BD)	Jct. F-15	F	15	21S	37E	Lea	eliminated		

LAND TYPE: BLM STATE X FEE LANDOWNER OTHERDepth to Groundwater 68 feet NMOCD SITE ASSESSMENT RANKING SCORE: 20Date Started 8/26/2009 Date Completed 11/4/2009 OCD Witness noSoil Excavated 400.0 cubic yards Excavation Length 30 Width 30 Depth 12 feetSoil Disposed 334 cubic yards Offsite Facility Sundance Location Eunice, NMFINAL ANALYTICAL RESULTS: Sample Date 9/17/2009, 11/4/2009 Sample Depth 12 ft, 24 ft, 33 ft, 36 ft

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

Sample Location	Benzene mg/kg	Toluene mg/kg	Ethyl Benzene mg/kg	Total Xylenes mg/kg	GRO mg/kg	DRO mg/kg	Chlorides mg/kg
4-WALL COMP.		PID = 39.8 (field)			<10.0	377	4,800
BOTTOM COMP.	<0.050	0.418	1.24	4.67	166	1,590	4,040
BLENDED BACKFILL	<0.050	<0.050	0.056	0.434	42.9	1,140	3,840
SB#1 @ 24 ft	0.542	1.45	2.81	11.2	1,720	7,340	736
SB#1 @ 33 ft	0.076	0.207	0.467	2.54	<50.0	3,040	1,760
SB#1 @ 36 ft	<0.050	0.113	0.538	2.51	176	4,380	1,820

General Description of Remedial Action: This junction was eliminated during the pipeline replacement/upgrade program. An investigation was conducted using a backhoe to collect soil samples at regular intervals producing a 30x30x12-ft deep excavation.

Chloride field tests were performed on each sample and yielded elevated concentrations.

Organic vapors, measured using a PID, also yielded elevated concentrations. The excavated soil was blended on site and representative composite samples were collected from the blended excavated soil, the bottom of the excavation, and the excavation walls.

Laboratory analysis of the representative samples confirmed elevated concentrations of chloride and TPH. The blended backfill was returned to the excavation up to 5 ft below ground surface (BGS). At 5-4 ft BGS, a 1-ft thick clay barrier was installed with a compaction test performed on 10/28/2009. Clean, imported soil was used to backfill the excavation to the ground surface and to contour to the surrounding area. To further investigate depth of chloride presence, a soil bore was initiated on 11/4/2009 at the former junction box. The boring was advanced to a depth of 36 ft BGS with soil samples collected every 3 ft and field tested for chlorides and organic vapors. Laboratory analysis of the 24 ft, 33 ft, and 36 ft samples confirmed elevated concentrations of chloride and TPH. The entire

borehole was plugged with bentonite to the ground surface. On 11/24/2009, the site was seeded with a blend of native vegetation and is expected to return to a productive capacity at a normal rate. NMOCD was notified of potential groundwater impact on 3/8/2010.

ADDITIONAL EVALUATION IS HIGH PRIORITY

enclosures: photos, boring log, lab results, PID (field) screenings, cross-section, compaction test, BTEX study, chloride curve

CHLORIDE FIELD TESTS

LOCATION	DEPTH	mg/kg
4-wall comp.	n/a	4,723
bottom comp.	12'	3,954
backfill comp.	n/a	3,779
background	6"	172
SOIL BORING at the junction (11/4/2009)	15'	1,128
	18'	1,232
	21'	852
	24'	889
	27'	1,189
	30'	1,090
	33'	1,595
	36'	1,497

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

SITE SUPERVISOR Jordan Woodfin SIGNATURE Jordan Woodfin COMPANY RICE OPERATING COMPANY

REPORT ASSEMBLED BY Katie Jones INITIAL KJ

PROJECT LEADER Larry Bruce Baker Jr. SIGNATURE Larry Bruce Baker Jr. DATE 3-16-10

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

BD Jct. F-15
Unit F, Section 15, T21S, R37E



collecting a soil sample, facing east

8/27/2009



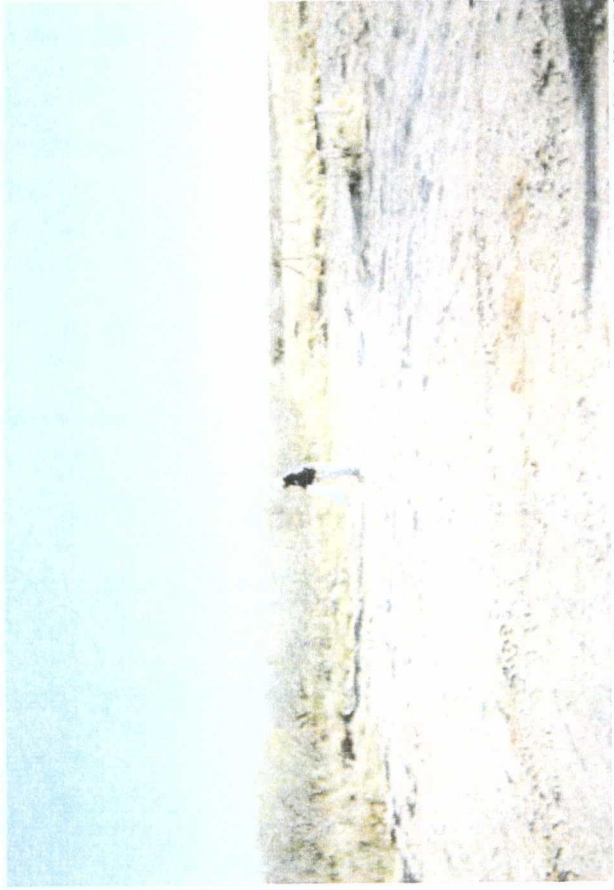
final 30x30x12-ft deep excavation, facing northeast

9/28/2009



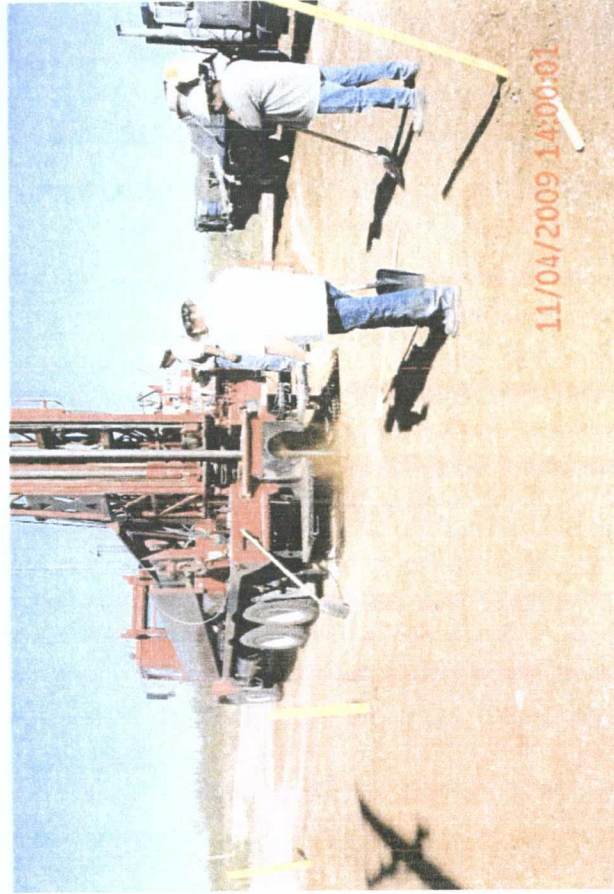
clay barrier installed, facing northeast

10/28/2008



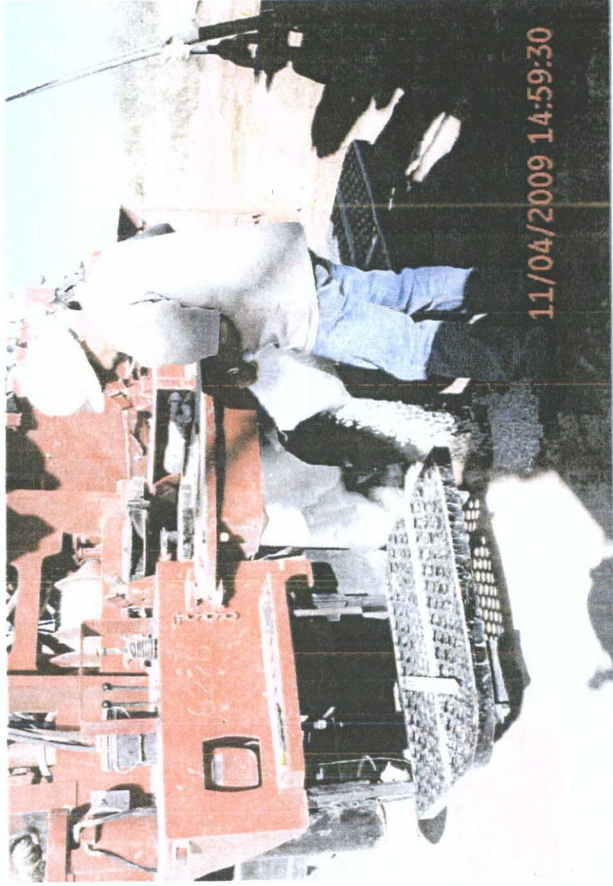
seeding the backfilled site

11/24/2009



drilling SB #1

11/4/2009



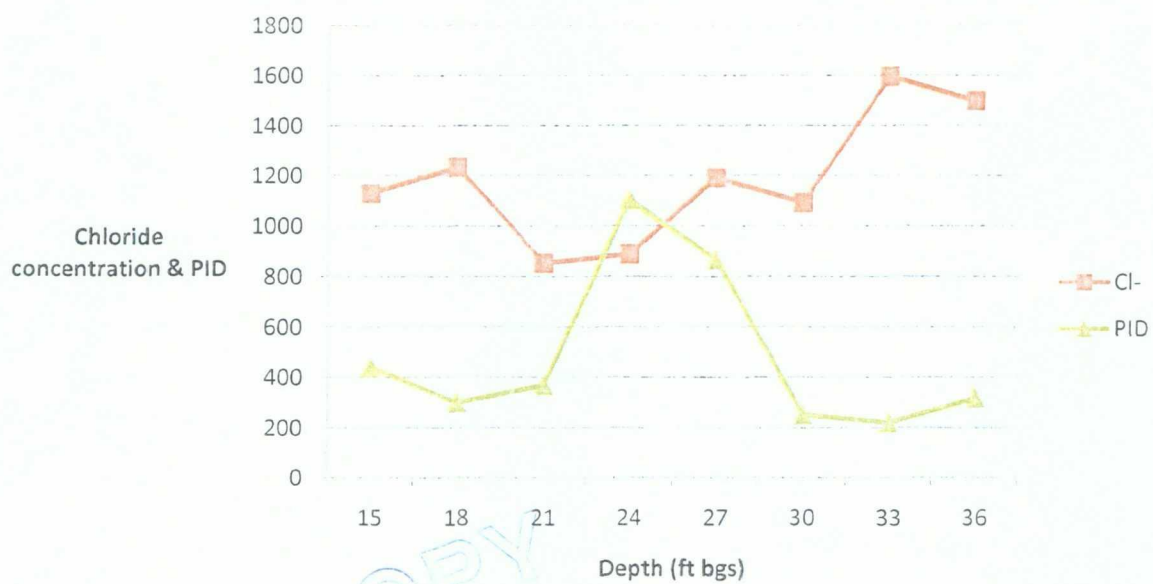
plugging SB #1 with bentonite

11/4/2009

Logger:	Lara Weinheimer				
Driller:	Harrison & Cooper, Inc. Drilling				
Consultant:	N/A - ROC junction box upgrade plan				
Drilling Method:	Air rotary				
Start Date:	11/4/2009				
End Date:	11/4/2009	Project Name: BD jct. F-15		Well ID: SB #1	
Comments: Split spoon sampling at 15, 18 & 24, 27 ft. All other were from air rotary cuttings (soil was rocky). Located at source.			Location: UL/F sec. 15 T21S R37E		
Drafted by: Lara Weinheimer			Lat: 32°28'49.417"N		
TD = 36 ft			Long: 103°9'13.558"W		
Estimated Depth to GW = 68 ft			County: Lea		
			State: NM		

Depth (feet)	chloride field tests	LAB	PID	Description	Lithology	Well Construction
				12 - 18 ft		
15	1128		441	VERY FINE TO FINE SAND WITH CALICHE		
				grayish-green, oily, strong hydrocarbon odor		
18	1232		300			
				18 - 21 ft		
				VERY FINE TO FINE SAND		
21	852		369	light brown, slightly oily, slightly moist, strong hydrocarbon odor		
				COPY		
24	889	CI-736	1103			
	B 0.542 T 1.45	GRO 1720				
	E 2.81 X 11.2	DRO 7340				
27	1189		865		21 - 36 ft	
				VERY FINE TO FINE SAND		
				orangey brown, moist, strong hydrocarbon odor		
30	1090		251			
33	1595	CI-1760	220	Dry		
	B 0.076 T 0.207	GRO <50.0				
	E 0.467 2.54	DRO 3040				
36	1497	CI-1820	317	Moist		
	B <0.05 T 0.113	GRO 176				
	E 0.538 2.51	DRO 4380				

Chloride and PID concentration vesus depth





CARDINAL LABORATORIES

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

ANALYTICAL RESULTS FOR
RICE OPERATING COMPANY
ATTN: HACK CONDER
122 W. TAYLOR
HOBBS, NM 88240
FAX TO: (575) 397-1471

Receiving Date: 11/04/09
Reporting Date: 11/09/09
Project Owner: NOT GIVEN
Project Name: BD JCT F-15
Project Location: BD JCT F-15

Sampling Date: 11/04/09
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: ML
Analyzed By: AB

COPY

LAB NUMBER	SAMPLE ID	GRO (C ₆ -C ₁₀) (mg/kg)	DRO (C ₁₀ -C ₂₈) (mg/kg)	Cl* (mg/kg)
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ANALYSIS DATE		11/09/09	11/09/09	11/06/09
H18649-1	SB#1 @ 24'	1,720	7,340	736
H18649-2	SB#1 @ 33'	<50.0	3,040	1,760
H18649-3	SB#1 @ 36'	176	4,380	1,820
Quality Control		590	591	500
True Value QC		500	500	500
% Recovery		118	118	100
Relative Percent Difference		11.3	15.0	<0.1

METHODS: TPH GRO & DRO: EPA SW-846 8015 M; Cl: Std. Methods 4500-ClB

*Analyses performed on 1:4 w:v aqueous extracts. Reported on wet weight.

Not accredited for GRO/DRO and Chloride.

Chemist

Date

H18649 TOL RICE

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ANALYTICAL RESULTS FOR
RICE OPERATING COMPANY
ATTN: HACK CONDER
122 W. TAYLOR
HOBBS, NM 88240
FAX TO: (575) 397-1471

Receiving Date: 11/04/09
Reporting Date: 11/05/09
Project Owner: NOT GIVEN
Project Name: BD JCT F-15
Project Location: BD JCT F-15

Sampling Date: 11/04/09
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: ML
Analyzed By: ZL

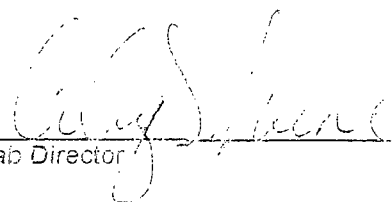
COPY

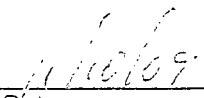
LAB NO.	SAMPLE ID	BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL BENZENE (mg/kg)	TOTAL XYLENES (mg/kg)
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ANALYSIS DATE:	11/04/09	11/04/09	11/04/09	11/04/09
H18649-1 SB #1 @ 24'	0.542	1.45	2.81	11.2
H18649-2 SB #1 @ 33'	0.076	0.207	0.467	2.54
H18649-1 SB #1 @ 36'	<0.050	0.113	0.538	2.51
Quality Control	0.043	0.043	0.045	0.145
True Value QC	0.050	0.050	0.050	0.150
% Recovery	86.0	86.0	90.0	96.7
Relative Percent Difference	1.5	4.4	1.0	1.0

METHODS: BTEX - SW-846 8021B

TEXAS NELAP ACCREDITATION T104704398-08-TX FOR BENZENE, TOLUENE, ETHYL BENZENE,
AND TOTAL XYLENES. Reported on wet weight.


Lab Director


Date

H18649 B RICE

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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

BILL TO				ANALYSIS REQUEST					
Company Name: Rice Operating Company				P.O. #:					
Project Manager: Hack Conder				Company:					
Address: 122 West Taylor				Attn:					
City: Hobbs				State: NM Zip: 88240					
Phone #: 393-9174				Fax #: 397-1471					
Project #:				Project Owner:					
Project Name: 30 jct P-15				Project Location: 30 jct P-15					
Sampler Name: Lara Weinheimer				Sample I.D.					
FOR LAB USE ONLY	MATRIX	PRESERV	SAMPLING	DATE	TIME	Chlorides	TPH 8015 M	BTEX	Texas TPH
Lab I.D.	GROUNDWATER	OTHER: ACID/BASE: ICE / COOL	OTHER: SLUDGE OIL SOIL WASTEWATER	11-4-29	1:19				
	(G) RAB OR (C) OMP			11-4-29	1:30				
				11-4-29	1:36				

PLEASE NOTE: Cardinal's liability and client's exclusive remedy for any claim arising out of or from this analysis shall be limited to the amount paid by the client for the analysis. 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 analysis. In no event shall Cardinal be liable for individual or consequential damages, including without limitation, business interruption, loss of time, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or from 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: L. Weinheimer	Date: 11-4-29	Received By: [Signature]	Date: 11-4-29
Relinquished By:	Date:	Received By:	Date:
Delivered By: (Circle One)	Date:	Checked By: [Signature]	Date:
Sampler - UPS - Bus - Other:		Sample Condition Cool - Intact Yes ☒ No ☐	

Phone Result: ☐ Yes ☒ No Add'l Phone #:
Fax Result: ☐ Yes ☒ No Add'l Fax #:
REMARKS: email results
Hconder@riceswd.com; jpurvis@riceswd.com;
Lweinheimer@riceswd.com

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

NEED SAMPLES BACK, PLEASE

RICE OPERATING COMPANY

122 West Taylor ~ Hobbs, NM 88240

PHONE: (575) 393-9174 FAX: (575) 397-1471

PID METER CALIBRATION & FIELD REPORT FORM

CK	☒
MODEL	
NO.	

MODEL: PGM 7300	SERIAL NO: 590-000183
MODEL: PGM 7300	SERIAL NO: 590-000504
MODEL: PGM 7600	SERIAL NO: 110-12383
MODEL: PGM 7600	SERIAL NO: 110-02920

GAS COMPOSITION: ISOBUTYLENE 100PPM / AIR: BALANCE

LOT NO: 924908	EXPIRATION DATE: 7-29-2012
FILL DATE: 7-30-09	METER READING ACCURACY: 100%

ACCURACY: +/- 2%

SYSTEM	SITE	UNIT	SECTION	TOWNSHIP	RANGE
BD	jet F-15	F	15	T21S	R37E

SAMPLE ID: soil bore #1

DEPTH	PID
15'	441
18'	700
21'	369
24'	1103
27'	865

DEPTH	PID

DEPTH	PID

DEPTH	PID

DEPTH	PID
30'	251
33'	220
36'	317

DEPTH	PID

DEPTH	PID

DEPTH	PID

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

Signature

Date

11-4-09

SITE MAP





CARDINAL LABORATORIES

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

ANALYTICAL RESULTS FOR
RICE OPERATING COMPANY
ATTN: ERIC GARRISON
122 W. TAYLOR
HOBBS, NM 88240

Receiving Date: 09/17/09
Reporting Date: 09/21/09
Project Number: NOT GIVEN
Project Name: BD JCT F-15 (T21S-R37E)
Project Location: BD JCT F-15 (T21S-R37E)

Sampling Date: 09/17/09
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: ML
Analyzed By: AB/HM

COPY

LAB NUMBER	SAMPLE ID	GRO (C ₆ -C ₁₀) (mg/kg)	DRO (>C ₁₀ -C ₂₈) (mg/kg)	Cl* (mg/kg)
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ANALYSIS DATE	09/18/09	09/18/09	09/18/09
H18267-1 5PT BTM COMP @ 12'	166	1,590	4,040
H18267-7 4 WALL COMP @ 30X30	<10.0	377	4,800
H18267-8 BLENDED BACKFILL	42.9	1,140	3,840
Quality Control	539	527	500
True Value QC	500	500	500
% Recovery	108	105	100
Relative Percent Difference	1.5	6.2	2.0

METHODS: TPH GRO & DRO: EPA SW-846 8015 M; Cl: Std. Methods 4500-Cl⁻B

*Analyses performed on 1:4 w/v aqueous extracts.

Reported on wet weight. Not accredited for GRO/DRO and Chloride.

Chemist

Date

H18267 TCL RICE



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

ANALYTICAL RESULTS FOR
RICE OPERATING COMPANY
ATTN: ERIC GARRISON
122 W. TAYLOR
HOBBS, NM 88240

Receiving Date: 09/17/09
Reporting Date: 09/21/09
Project Number: NOT GIVEN
Project Name: BD JCT F-15 (T21S-R37E)
Project Location: BD JCT F-15 (T21S-R37E)

Sampling Date: 09/17/09
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: ML
Analyzed By: ZL

COPY

LAB NO.	SAMPLE ID	BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL BENZENE (mg/kg)	TOTAL XYLENES (mg/kg)
ANALYSIS DATE:		09/18/09	09/18/09	09/18/09	09/18/09
H18267-1	5PT BTM COMP@12'	<0.050	0.418	1.24	4.67
H18267-COMP	COMPOSITE OF 5PT BTM 1 - 5	0.057	0.870	1.70	6.18
H18267-8	BLENDED BACKFILL	<0.050	<0.050	0.056	0.434
Quality Control		0.049	0.054	0.054	0.155
True Value QC		0.050	0.050	0.050	0.150
% Recovery		98.0	108	108	103
Relative Percent Difference		1.9	<1.0	<1.0	3.1

METHODS: TPH GRO & DRO - EPA SW-846 8015 M; BTEX - SW-846 8021B. Reported on wet weight.

TEXAS NELAP ACCREDITATION T104704398-08-TX FOR BENZENE, TOLUENE, ETHYL BENZENE,
AND TOTAL XYLENES.

Lab Director

Date

H18267 BTEX RICE

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(505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325) 673-7020

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

BILL TO										ANALYSIS REQUEST									
Company Name: <u>Cardinal Laboratories</u>										P.O. #:									
Project Manager: <u>Erica L. Johnson</u>										Company:									
Address: <u>101 E. Marland</u>										Attn:									
City: <u>Hobbs, NM</u>										Address:									
Phone #: <u>505-393-2326</u>										City:									
Fax #: <u>505-393-2476</u>										State:									
Project #:										Phone #:									
Project Owner: <u>APR 15-15 (215-8378)</u>										Fax #:									
Project Location: <u>APR 15-15 (215-8378)</u>																			
Sampler Name: <u>Erica L. Johnson</u>																			
FOR LAB USE ONLY																			
Lab I.D.	Sample I.D.	(G) RAB OR (C) OMP	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SOLG	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	PRESERV	MATRIX	DATE	TIME	SAMPLING		
1-17-01	5-17-01	1	1	1	1	1	1	1	1	1	1	1	1	1	1-17-01	13:30	1		
2-17-01	5-17-01	1	1	1	1	1	1	1	1	1	1	1	1	1	1-17-01	13:30	1		
3-17-01	5-17-01	1	1	1	1	1	1	1	1	1	1	1	1	1	1-17-01	13:30	1		
4-17-01	5-17-01	1	1	1	1	1	1	1	1	1	1	1	1	1	1-17-01	13:30	1		
5-17-01	5-17-01	1	1	1	1	1	1	1	1	1	1	1	1	1	1-17-01	13:30	1		
6-17-01	5-17-01	1	1	1	1	1	1	1	1	1	1	1	1	1	1-17-01	13:30	1		
7-17-01	5-17-01	1	1	1	1	1	1	1	1	1	1	1	1	1	1-17-01	13:30	1		
8-17-01	5-17-01	1	1	1	1	1	1	1	1	1	1	1	1	1	1-17-01	13:30	1		

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Relinquished By: <u>Erica L. Johnson</u>	Date: <u>4/11/01</u>	Received By: <u>Erica L. Johnson</u>	Date: <u>4/11/01</u>
Relinquished By:	Date:	Received By:	Date:
Delivered By: (Circle One)		Checked By: (Initials)	
Sampler - UPS - Bus - Other:		Sample Condition	
		Cool Intact	
		Yes ☐ No ☐	
		Yes ☐ No ☐	

REMARKS: Results returned 4/11/01
Results returned 4/11/01
Results returned 4/11/01

RICE OPERATING COMPANY

122 West Taylor Hobbs, NM 88240

PHONE: (575) 393-9174 FAX: (575) 397-1471

PID METER CALIBRATION & FIELD REPORT FORM

Check Model Number:

X

Model: PGM 7300

Serial No: 590-000183

Model: PGM 7300

Serial No: 590-000508

Model: PGM 7300

Serial No: 590-000504

Model: PGM 7600

Serial No: 110-023920

Model: PGM 7600

Serial No: 110-013744

Model: PGM 7600

Serial No: 110-013676

GAS COMPOSITION: ISOBUTYLENE 100PPM / AIR: BALANCE

LOT NO: 924908	EXPIRATION DATE: 07-29-12
FILL DATE: 07-25-12	METER READING ACCURACY: 15 ppm

ACCURACY: +/- 2%

SYSTEM	JUNCTION	UNIT	SECTION	TOWN SHIP	RANGE
BD	F-15	F	15	215	37E

SAMPLE ID	PID	SAMPLE ID	PID
5FT BTM comp E 12	318.9	COPY	
4WALL comp E 30	39.8		
Blended Backfill	108.7		
5FT BTM #1	16.1		
#2	20.3		
#3	719.2		
#4	412.3		
#5	218.1		

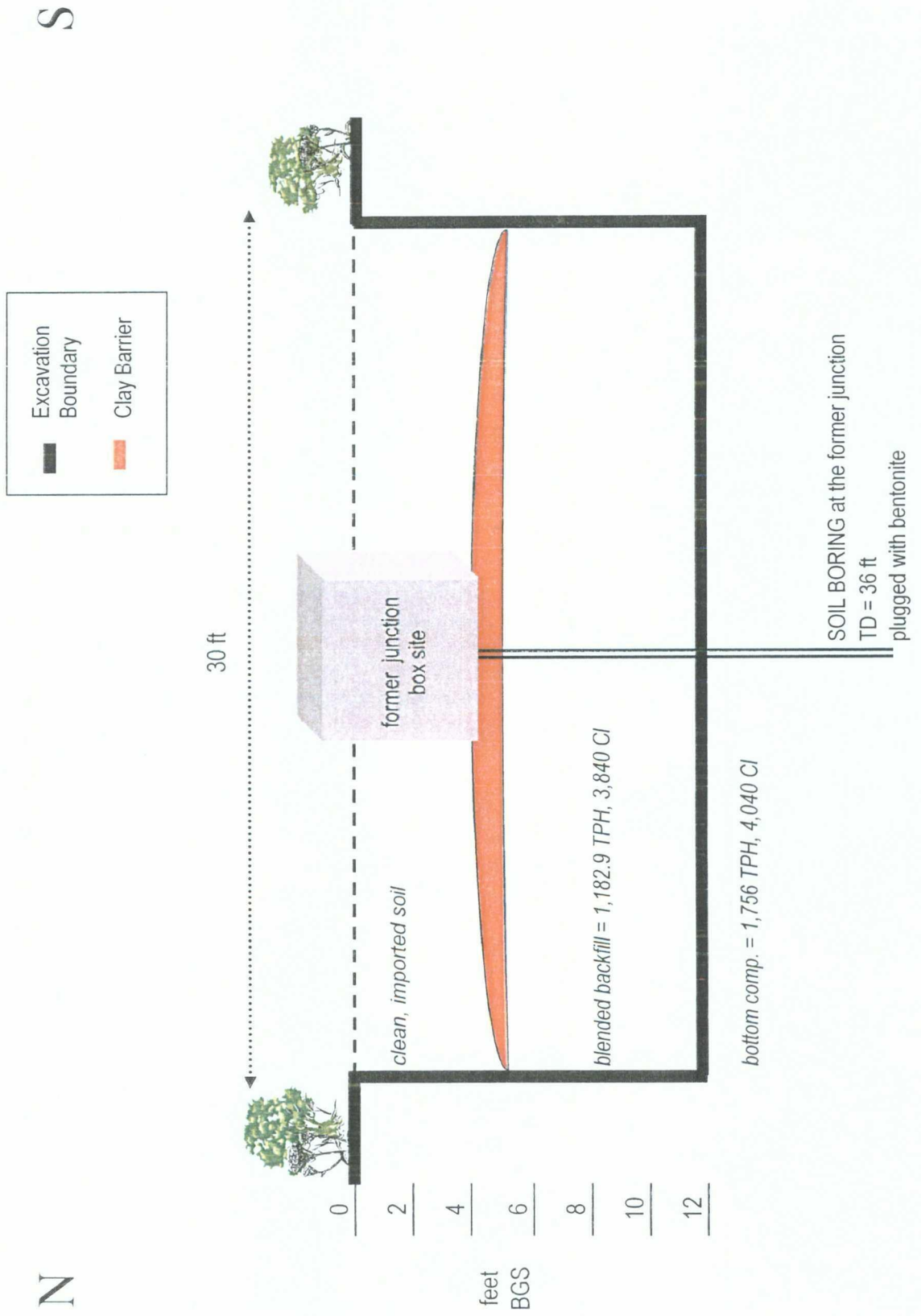
I verify that I have calibrated the above instrument in accordance to the manufacture operation manual.

SIGNATURE: *Paul S. ...*

DATE: 7-25-12

BD Jct.F-15
Unit 'F', Sec. 15, T21S, R37E

Excavation Cross-Section





LABORATORY TEST REPORT
PETTIGREW & ASSOCIATES, P.A.
1110 N. GRIMES
HOBBS, NM 88240
(575) 393-9827



DEBRA P. HICKS, P.E./L.S.I.
WILLIAM M. HICKS, III, P.E./P.S.

To: Rice Operating Company
Attn: Bruce
122 W. Taylor
Hobbs, NM 88240

Material: Waliach Red Clay

Project: BD Junction F-15
21-37
Project No. 2009.1260

Test Method: ASTM: D 2922

Date of Test: October 28, 2009

Depth: See Below

Depth of Probe: 12"

Test No.	Location	Dry Density		Depth
		% Max	% Moisture	
SG 3	Pit # 21-37; BD Jct. F-15	90.4	14.5	FSG

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Control Density: 100.7
ASTM: D 698

Optimum Moisture: 20.7%

Required Compaction: 90 - 95%

Densometer ID: 5572

Lab No.: 09 6902-6903

PETTIGREW & ASSOCIATES

Copies To: Rice Operating

BY: Erica M. Hart

BY: G. J. [Signature] P.E.

CHLORIDE CONCENTRATION CURVE

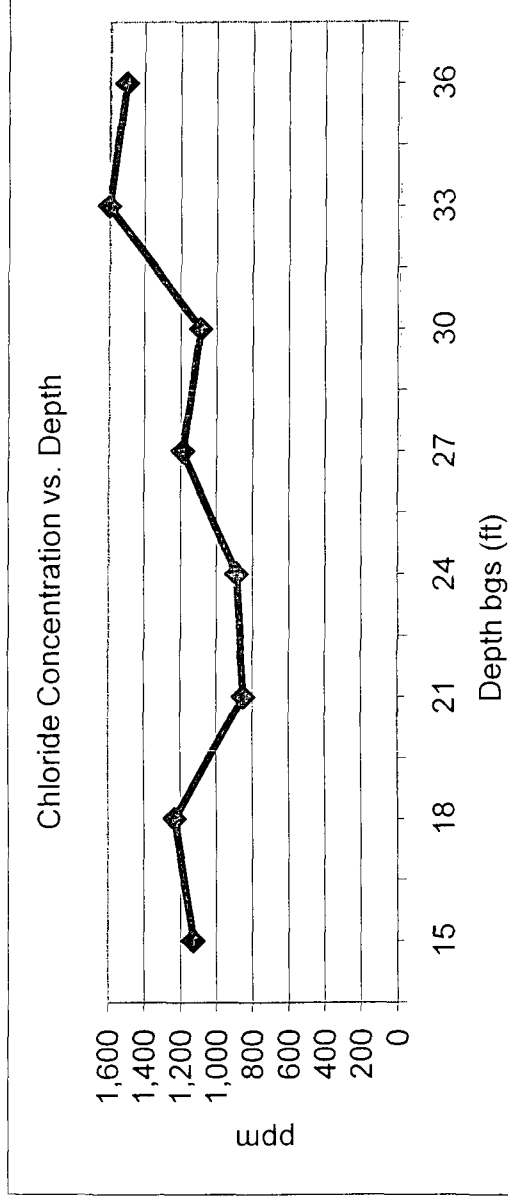
RICE Operating Company

BD Jct. F-15

Unit 'F', Sec. 15, T21S, R37E

SOIL BORING samples at the junction (source)

Depth bgs (ft)	[Cl] ppm
15	1,128
18	1,232
21	852
24	889
27	1,189
30	1,090
33	1,595
36	1,497



Groundwater = 68 ft

2009 BTEX Study

Revised Junction Box Upgrade Plan (2003)

System: BD
Site: Jct. F-15

Date: 9/17/2009
Sampler: Eric Garrison

Laboratory: Cardinal
Laboratories

Location	Component	PID reading (ppm)	FIELD COMPOSITE (mg/kg)			
			Benzene	Toluene	Ethyl Benzene	Total Xylenes
bottom composite at 12 ft BGS	1	16.1	<0.050	0.418	1.24	4.67
	2	20.3				
	3	419.2				
	4	418.3				
	5	218.1				
			LAB COMPOSITE (mg/kg)			
			0.057	0.870	1.70	6.18

Field PID tests <100 ppm are considered final for BTEX. If PID is >100 ppm, the components of the BTEX composite sample will be collected individually and will be composited under laboratory conditions to prevent excessive volatilization. A 15-box, 30-sample study will be made to compare field-compositing with lab-compositing BTEX samples. Composite components are collected in a skewed 'W' pattern.

Revised Junction Box Upgrade Work Plan (July 16, 2003)