1R - 426-153

REPORTS

DATE:

4-1-08

BD N-32 Vent

IR426-153

Disclosure

4-1-08

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

BOX LOCATION

SWD SYSTEM	JUNCTION	UNIT	SECTION	TOWNSHIP	RANGE	COUNTY	NEW BOX DIMENSIONS - FEET		
							Length	Width	Depth
Blinebry-Drinkard (BD)	N-32 vent	N	32	21S	37E	Lea	moved 80 ft northeast		

LAND TYPE: BLM _____ STATE _____ FEE LANDOWNER G.P. Sims OTHER _____

Depth to Groundwater 99 feet NMOCD SITE ASSESSMENT RANKING SCORE: 40 *

Date Started 8/8/2007 Date Completed 11/2/2007 NMOCD Witness no

Soil Excavated 566 cubic yards Excavation Length 45 Width 40 Depth 5-12 feet

Soil Disposed 0 cubic yards Offsite Facility n/a Location n/a

FINAL ANALYTICAL RESULTS: **Sample Date** 10/11/2007, 10/12/2007, 11/2/2007 **Sample Depth** 12, 90 ft

5-point composite sample of bottom and 4-point composite sample of excavation sidewalls. TPH, BTEX, and chloride laboratory test results completed by using an approved laboratory 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.	<0.001	<0.001	0.011	0.01	<10.0	57.8	688
BOTTOM COMP.	PID = 8.8 (field reading)				<10.0	36	2400
BACKFILL	PID = 20.1 (field reading)				<10.0	517	1090
SOIL BORING grab							1296

General Description of Remedial Action:

This junction was moved 80 ft northeast as part of the pipeline replacement program. After the box was removed from the former junction site, a backhoe was used to collect soil samples at regular intervals to produce a 30 x 30 x 12 ft deep excavation. Chloride field tests were conducted on each sample and concentrations did not relent with depth. Organic vapors were also measured on each sample. Composite samples were collected from the excavation floor and walls for laboratory analysis. The excavated soil was blended on site and returned to the excavation up to 6 ft below ground surface. A 6-ft-deep shelf was excavated extending 5 ft out from the north, south, and west walls and 10 ft out from the east wall to prepare the surface for a clay barrier. At 6-5 ft BGS, a 1-ft-thick clay barrier was installed. The remaining fill was used to backfill the 45 x 40 x 5 ft excavation to ground surface and to contour to the surrounding area. An identification plate was placed on the surface at the former junction site to mark the presence of the clay below. NMOCD was notified of potential groundwater impact at this site on 10/18/2007. To further investigate depth of chloride presence, a soil boring was initiated on 11/2/2007 at 5 ft north of the former junction. The boring was advanced to 90 ft BGS while soil samples were collected every 5 ft and tested for chloride concentrations. The 90 ft sample was analyzed at a commercial laboratory for chloride and confirmed an elevated concentration. The entire borehole was plugged with bentonite to ground surface. The consultants of Arcadis of Midland, Texas have been assigned to this project.

** Two inactive private livestock wells are located within 1000 ft southeast of this site.*

enclosures: photos, excavation plan view, cross-section, boring log, lab results, BTEX comparison table, PID screenings, clay test

CHLORIDE FIELD TESTS

LOCATION	DEPTH (ft)	ppm
4-wall comp.	n/a	976
bottom comp.	12	1708
backfill comp.	n/a	894
SOIL BORING 5 ft north of former junction 11/2/2007	15	1042
	20	968
	25	2102
	30	2960
	35	2449
	40	1368
	45	1883
	50	1393
	55	1405
	60	1437
	65	1349
	70	1315
	75	1505
	80	1412
	85	1247
	90	1285

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

SITE SUPERVISOR L. Bruce Baker SIGNATURE Larry Bruce Baker COMPANY RICE Operating Company

REPORT ASSEMBLED BY Kristin Farris Pope SIGNATURE Kristin Farris Pope

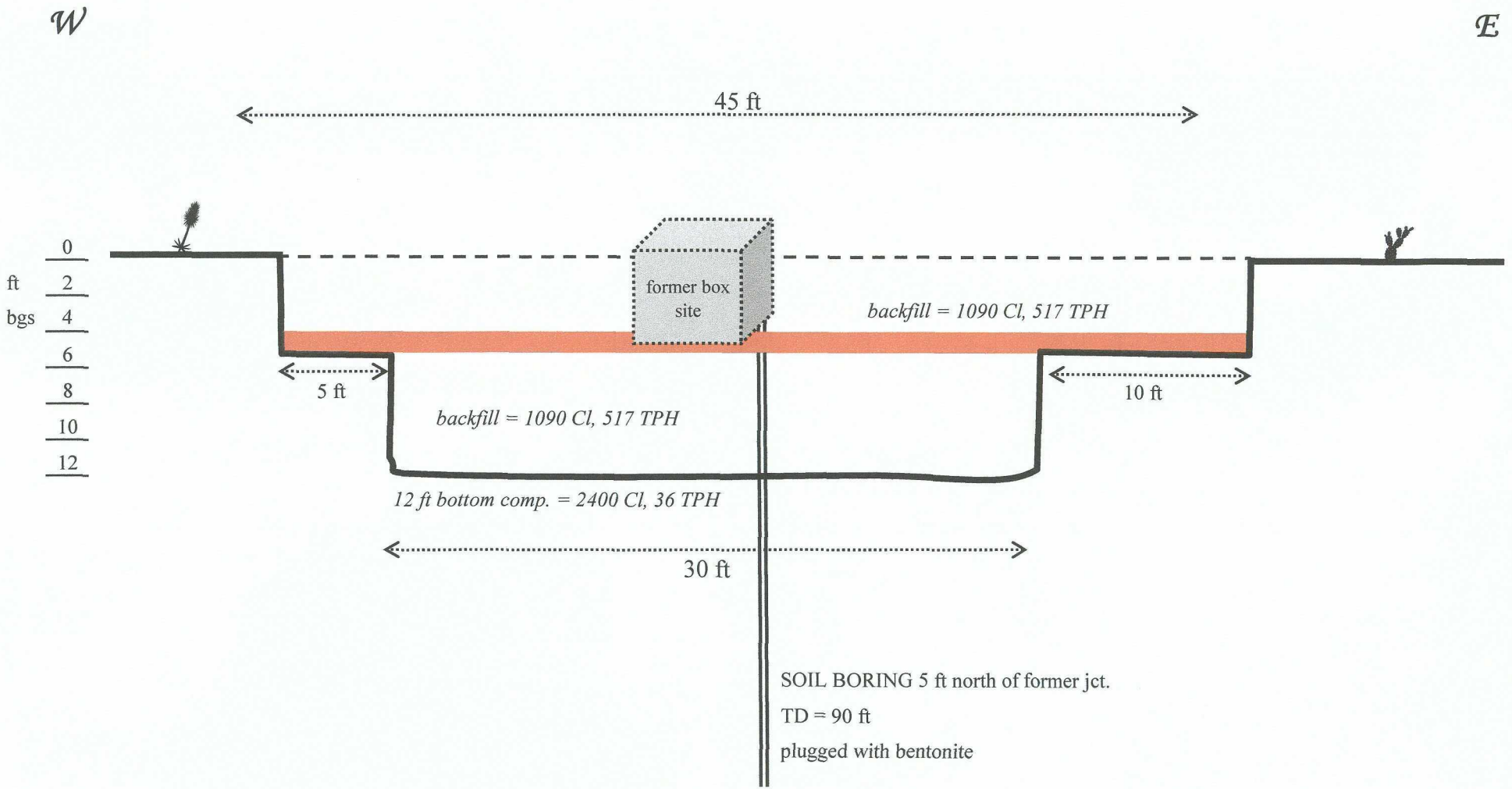
DATE 12/6/2007 TITLE Project Scientist

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

BD N-32 vent

Unit N, Section 32, T21S, R37E

Excavation Cross-Section



BD N-32 vent

Unit N, Section 32, T21S, R37E

old junction box removed prior to delineation 1/27/2006

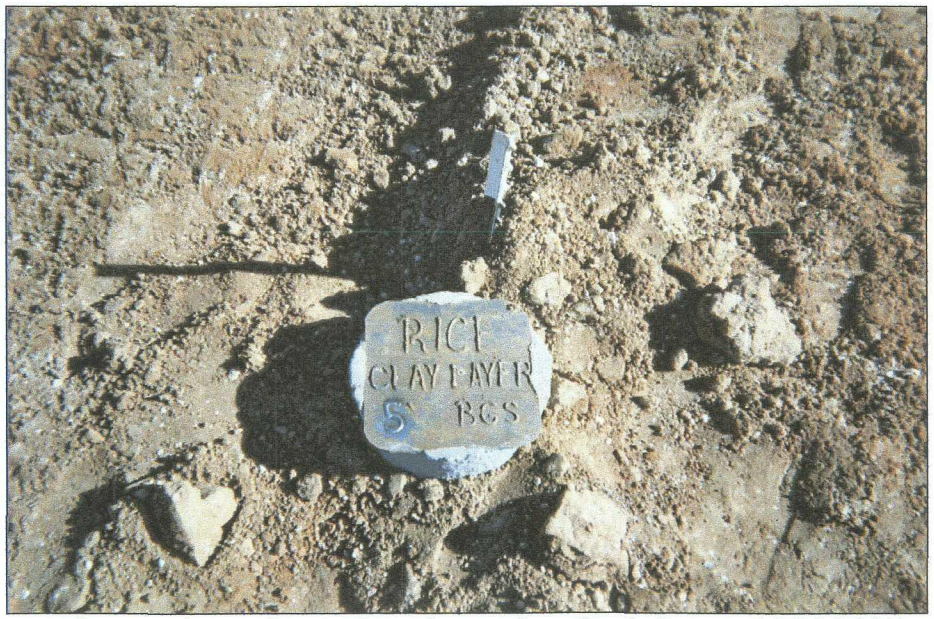
new pipeline junction and box site 80 ft northeast 3/28/2006

beginning delineation at former junction site 10/4/2007

backfilling 30 x 30 x 12-ft excavation 10/15/2007

excavating 6-ft shelf around excavation 10/16/2007

compacted clay barrier at 5 ft BGS 10/17/2007



surface marker at former junction noting clay below 10/19/2007

soil boring for vertical delineation 5 ft north of junction 11/2/2007

BD N-32 vent

Excavation Plan View

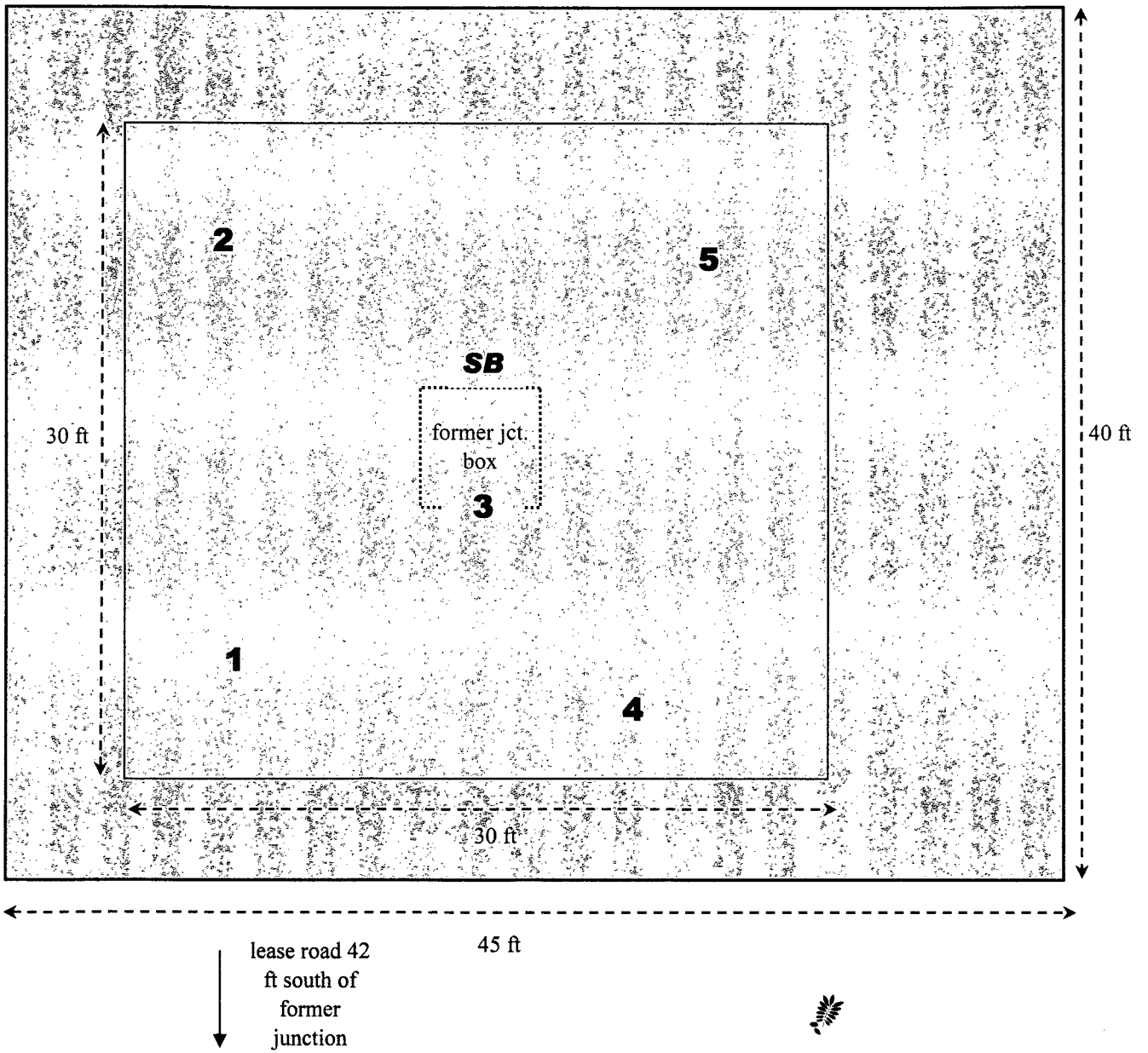
= 12-ft-deep excavation with clay at 4-5 ft

= 5 ft shelf for clay around excavation

= established vegetation (sparse)

\# = component of bottom composite sample

SB = soil boring location



Logger:	Lara Weinheimer	**Client:** RICE Operating Company	**Well ID:** SB - 1
Driller:	Harrison & Cooper Drilling		
Drilling Method:	Split spoon & Air Rotary	**Project Name:** BD jct. N-32 vent	
Start Date:	11-2-07		
End Date:	11-2-07	**Location:** BD SWD System unit N, Sec. 32, T21S, R37E Lea County, NM	
Comments: 5 ft north of former junction box site TD = 90 ft GW = 99 ft			

Depth (feet)	chloride field test	PID	Description
			12 - 15 ft FINE TO MEDIUM GRAIN SAND
15	1042	9	yellowish-orange, dry, slight hydrocarbon odor
			15 - 20 ft VERY FINE TO FINE SAND
20	968	1.2	yellowish-orange, dry, moderate hydrocarbon odor
			20 - 25 ft VERY FINE TO FINE SAND
25	2102	1.5	yellowish-orange, dry, slight hydrocarbon odor
30	2960	0.5	25 - 40 ft VERY FINE TO FINE SAND yellowish-orange, dry, no odor
35	2449	0.6	
40	1368	--	
			40 - 45 ft VERY FINE TO FINE SAND
45	1883	--	yellowish-orange, slightly damp, no odor
			45 - 50 ft VERY FINE TO FINE SAND
50	1393	--	reddish-orange, damp, no odor
			50 - 55 ft VERY FINE TO FINE SAND
55	1405	--	yellowish-orange, slightly damp, no odor
60	1437	--	60 - 90 ft VERY FINE TO FINE SAND light brown, slightly damp, no odor
65	1349	--	
70	1315	--	
75	1505	--	
80	1412	--	
85	1247	--	
90	1285	--	
Lab results at 90 ft	1296		

Lithology

Soil Bore Construction

bentonite seal

CARDINAL LABORATORIES

PHONE (325) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
RICE OPERATING CO.
ATTN: BRUCE BAKER
122 W. TAYLOR
HOBBS, NM 88240
FAX TO: (505) 397-1471

Receiving Date: 10/12/07
Reporting Date: 10/15/07
Project Number: NOT GIVEN
Project Name: BD VENT N-32
Project Location: BD VENT N-32

Sampling Date: 10/11/07
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: CK
Analyzed By: CK/KS

LAB NUMBER	SAMPLE ID	GRO (C_6-C_{12}) (mg/Kg)	DRO (>C_{12}-C_{28}) (mg/Kg)	Cl* (mg/Kg)
ANALYSIS DATE		10/08/07	10/08/07	10/12/07
H13491-1	5PT. BTTM. COMP. @ 12'	<10.0	36.0	2400
H13491-2	4 WALL COMP. 30X30 FIELD	<10.0	57.8	688
Quality Control		485	562	510
True Value QC		500	500	500
% Recovery		97.0	112	102
Relative Percent Difference		13.4	11.9	2.0

METHODS: TPH GRO & DRO: EPA SW-846 8015 M; Std. Methods 4500-Cl⁻B
*Analyses performed on 1:4 w:v aqueous extracts.

Chemist

10/15/07
Date

H13491TCL Rice

CARDINAL LABORATORIES

PHONE (325) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
RICE OPERATING COMPANY
ATTN: BRUCE BAKER
122 WEST TAYLOR
HOBBS, NM 88240
FAX TO: (505) 397-1471

Receiving Date: 10/12/07
Reporting Date: 10/15/07
Project Number: NOT GIVEN
Project Name: BD VENT N-32
Project Location: BD VENT N-32

Sampling Date: 10/11/07
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: CK
Analyzed By: CK

LAB NUMBER	SAMPLE ID	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)
ANALYSIS DATE		10/12/07	10/12/07	10/12/07	10/12/07
H13491-2	4 WALL COMP. 30X30 FIELD	<0.001	<0.001	0.011	0.010
H13491-3	4 WALL LAB COMP.	<0.001	<0.001	<0.001	<0.003
Quality Control		0.107	0.098	0.098	0.299
True Value QC		0.100	0.100	0.100	0.300
% Recovery		107	97.6	98.1	99.5
Relative Percent Difference		2.8	3.8	3.4	3.3

METHOD: EPA SW-846 8021B

Chemist

10/15/07
Date

H13491b Rice

CARDINAL LABORATORIES

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

Company Name:	Rice Operating Co.	**BILL TO**	
Project Manager:	Bruce Baker	P.O. #:	
Address:	122 West Taylor	Company:	
City:	Hobbs State: NM Zip: 88240	Attn:	
Phone #:	393-9174 Fax #: 397-1471	Address:	
Project #:	Project Owner:	City:	
Project Name:	BO Vent N-32	State: Zip:	
Project Location:	BO Vent N-32	Phone #:	
Sampler Name:		Fax #:	

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING DATE	TIME	Cl-	TPH 8015M	Btex	ANALYSIS REQUEST
H13491- 1	5pt. Bottom Comp @ 12'	C				✓					✓		10-11-07	11:15 AM	✓	✓		
2	4 Wall Comp. 30x30 Field	C				✓					✓		10-11-07	1:50 pm	✓	✓	✓	
3	North Wall Comp. 5pt.	C				✓					✓		10-11-07	2:08 pm				
	South Wall Comp 5pt.	C				✓					✓		10-11-07	2:11 pm				Composite in Lab
	East Wall Comp 5pt	C				✓					✓		10-11-07	2:15 pm				Run Btex ONLY
	West Wall Comp 5pt.	C				✓					✓		10-11-07	2:20 pm				
																		Report as 4-Wall Lab Comp.

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: Bruce Baker	Date: 10-12-07 Time: 8:49 AM	Received By:	
Relinquished By:	Date: 10-12-07 Time: 8:45	Received By: Cathy Greene	
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Sample Condition Cool: ☑ Yes ☐ No Intact: ☑ Yes ☐ No	CHECKED BY: (Initials) CH	

Phone Result: ☐ Yes ☐ No Add'l Phone #:
Fax Result: ☐ Yes ☐ No Add'l Fax #:
REMARKS:
Email bbaker@riceswd.com
cc to jpurvis@riceswd.com

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

30 ft x 30 ft x 12 ft
L W D

RICE OPERATING COMPANY

122 West Tayor Hobbs, NM 88240
PHONE: (505) 393-9174 FAX: (505) 397-1471

PID METER CALIBRATION & FIELD REPORT FORM

CK. MODEL NO.			
	✓	MODEL: PGM 7600	SERIAL NO: 110-013676
		MODEL: PGM 7600	SERIAL NO: 110-013744
		MODEL: PGM 7600	SERIAL NO: 110-12383
		MODEL: PGM 7600	SERIAL NO: 110-012920

GAS COMPOSITION: ISOBUTYLENE 100PPM / AIR: BALANCE

LOT NO: 07-3216 4	EXPIRATION DATE: 1/18/07
FILL DATE: 7/18/07	METER READING ACCURACY: 99.4

ACCURACY : +/- 2%

SYSTEM	JUNCTION	UNIT	SECTION	TOWN SHIP	RANGE
BD	Vent N-32	~~BD~~ N	32	21S	37E

SAMPLE ID	PID	SAMPLE ID	PID
Spt. Bttm. Comp.	8.8		
4 WALL Comp.	106		
North WALL Spt. Comp.	170		
South WALL Spt. Comp.	23.5		
EAST WALL Spt. Comp.	12.6		
West WALL Spt. Comp.	8.3		

I verify that I have calibrated the above insrument in accordance to the namufacture operation manual.

SIGNATUE: Bruce Baker

DATE: 10-11-07

LABORATORY TEST REPORT

PETTIGREW & ASSOCIATES, P.A.

1110 N. GRIMES
HOBBS, NM 88240
(505) 393-9827

AASHTO R18

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

To: Rice Operating
Attn: Hack Conder
122 W. Taylor
Hobbs, NM 88240

Material: Red Clay

Test Method: ASTM: D 2922

Project: General Information
Project No. 2007.1007

Date of Test: October 17, 2007

Depth: See Below

Depth of Probe: 6"

Test No.	Location	Dry Density % Max	% Moisture	Depth
SG 14	BD Vent N-32, 15' N. and 15' E. of SW Corner	93.4	14.0	Finished Subgrade

Control Density: 103.3
ASTM: D 698

Optimum Moisture: 20.8%

Required Compaction: 90-95%

Densometer ID: 5071

Lab No.: 07 9325-9326

Copies To: Rice Op

PETTIGREW & ASSOCIATES

BY: Erica M Hart

BY: Debra P. Hicks P.E.

30 x 30 x 12 ft

RICE OPERATING COMPANY

122 West Tayor Hobbs, NM 88240
PHONE: (505) 393-9174 FAX: (505) 397-1471

PID METER CALIBRATION & FIELD REPORT FORM

CK. MODEL NO.			
	✓	MODEL: PGM 761S	SERIAL NO: 110-013676
		MODEL: PGM 7600	SERIAL NO: 110-013744
		MODEL: PGM 7600	SERIAL NO: 110-12383
		MODEL: PGM 7600	SERIAL NO: 110-012920

GAS COMPOSITION: ISOBUTYLENE 100PPM / AIR: BALANCE

LOT NO : 07- 3264	EXPIRATION DATE: 1/18/09
FILL DATE: 7/18/07	METER READING ACCURACY: 99.5

ACCURACY : +/- 2%

SYSTEM	JUNCTION	UNIT	SECTION	TOWN SHIP	RANGE
BD	Vent N-32	N	32	21S	37E

SAMPLE ID	PID	SAMPLE ID	PID
Blended Backfill	20.1		

I verify that I have calibrated the above insrument in accordance to the namufacture operation manual.

SIGNATUE: Bruce Baker

DATE: 10-12-07

CARDINAL LABORATORIES

PHONE (325) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
RICE OPERATING CO.
ATTN: BRUCE BAKER
122 W. TAYLOR
HOBBS, NM 88240
FAX TO: (575) 397-1471

Receiving Date: 10/12/07
Reporting Date: 10/16/07
Project Number: NOT GIVEN
Project Name: BD VENT N-32
Project Location: BD VENT N-32

Sampling Date: 10/12/07
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: CK/HM

LAB NUMBER	SAMPLE ID	GRO (C_6-C_{12}) (mg/kg)	DRO (>C_{12}-C_{28}) (mg/kg)	Cl* (mg/kg)
ANALYSIS DATE		10/15/07	10/15/07	10/15/07
H13502-1	BLENDED BACKFILL	<10.0	517.0	1090
Quality Control		457	589	500
True Value QC		500	500	500
% Recovery		91.4	118	100
Relative Percent Difference		16.5	7.7	2.0

METHODS: TPH GRO & DRO: EPA SW-846 8015 M; Std. Methods 4500-Cl-B
*Analysis performed on a 1:4 w:v aqueous extract.

Chemist

10/17/07
Date

H13502TCL Rice

CARDINAL LABORATORIES

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

Company Name:	Rice Operating Co.	**BILL TO**	
Project Manager:	Bruce Baker	P.O. #:	
Address:	122 West Taylor	Company:	
City:	Hobbs State: NM Zip: 88240	Attn:	
Phone #:	393-9174 Fax #: 397-1471	Address:	
Project #:	Project Owner:	City:	
Project Name:	BD Vent N-32	State: Zip:	
Project Location:	BD Vent N-32	Phone #:	
Sampler Name:	Bruce Baker	Fax #:	

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST											
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	Cl⁻	TPH 8015M										
H13502-1																										
~~H13502-1~~	Blended Backfill	C	1			✓					✓		10-12-07	2:50pm	✓	✓										
lc																										

Relinquished By:	Date: 10-12-07	Received By:	Phone Result: ☐ Yes ☐ No Add'l Phone #:
Bruce Baker	Time: 4:36PM		Fax Result: ☐ Yes ☐ No Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS: Email to bbaker@riceswd.com
	Time:		CC # to jpurvis@riceswd.com

Delivered By: (Circle One)
Sampler - UPS - Bus - Other:

Sample Condition: Cool: ☒ Yes ☐ No Intact: ☒ Yes ☐ No

CHECKED BY: (Initials)

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

2007 BTEX Study

Revised Junction Box Upgrade Plan (2003)

System:	BD	Date:	10/11/2007	Laboratory:	Cardinal
Site:	N-32 vent	Sampler:	L. Bruce Baker		Laboratories

Location	Component	PID reading (ppm)	FIELD COMPOSITE (mg/kg)			
			Benzene	Toluene	Ethyl Benzene	Total Xylenes
4-WALL COMPOSITE from 30 x 30 x 12 ft	NORTH wall SOUTH wall EAST wall WEST wall	106	<0.001	<0.001	0.011	0.010
			LAB COMPOSITE (mg/kg)			
			<0.001	<0.001	<0.001	<0.003

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.