1R-425-82

WORKPLANS

Date:
5-3-11

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

Texerra

75 Wuthering Hts Drive Colorado Springs, CO 80921 Tel: 917-339-6791 E-mail: lpg@texerra.com

May 3rd, 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

RECEIVE

RE: INVESTIGATION & CHARACTERIZATION PLAN (ICP)

> Rice Operating Company - Vacuum SWD System Vacuum Jct F-31: UL/F, Sec. 31, T17S, R35E

NMOCD Case Number: 1R425-82

MAY 12 2011

Oil Conservation Division 1220 S. St. Francis Drive Santa Fe, NM 87505

Sent via U.S. Mail w/ Certified Receipt No. 7011 0110 0001 5863 8156

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. 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/usage basis. Environmental projects of this nature require System Party AFE approval prior to work commencing at the site. In general, project funding is not forthcoming until NMOCD approves the work plan. Therefore, your timely review of this submission is greatly appreciated.

For all such environmental projects, ROC will choose the path forward that:

- Protects public health,
- Provides the greatest net environmental benefit,
- Complies with NMOCD Rules, and
- Is supported by good science.

Each site shall generally have three submissions:

- 1. This Investigation and Characterization Plan (ICP) is proposed for gathering data and site characterization and assessment.
- 2. Upon evaluating the data and results from the ICP, a recommended remedy will be submitted in a Corrective Action Plan (CAP) if warranted.
- 3. Finally, after implementing the remedy, a <u>Termination Request</u> with final documentation will be submitted.

This site is located approximately 0.5 miles southeast of Buckeye, New Mexico in UL/F, Sec. 31, T17S, R35E as shown on the Site Location Map (Figure 1). NM OSE records indicate that groundwater will likely be encountered at a depth of approximately 106 +/-feet.

In 2009 ROC initiated work on the former Vacuum F-31 junction as part of the system abandonment. The site was delineated using a backhoe to form an excavation with dimensions 10x15x12-ft deep and soil samples were screened at regular intervals for both hydrocarbons and chlorides. (Field and laboratory results are summarized in the attached Junction Box Disclosure Report). Laboratory analysis for diesel range organics (DRO) exceeded 1,500 mg/kg in the bottom and four-wall composite samples. Laboratory analysis for gasoline range organics (GRO) measured 206 and 116 mg/kg in the bottom and four-wall composite samples, respectively. Residual soil chlorides measured 1,010 mg/kg and 1,620 mg/kg using field titration methods from bottom and four-wall composite samples, respectively. Laboratory analysis of benzene and toluene from the bottom and four-wall composite samples each measured less than 0.05 mg/kg. However, ethylbenzene and total xylenes were at low but detectable levels in the bottom composite sample and measured 1.28 and 3.14 mg/kg, respectively. The four-wall composite measured 0.111 and 1.14 mg/kg. Blended backfill was returned to the site, which was then re-graded to natural contours. NMOCD was notified of potential groundwater impact on March 5th, 2010.

ROC proposes additional investigative and characterization work at the site to determine if there is potential for groundwater degradation from residual chlorides at the site.

Proposed Work Elements

- 1. Summarize information and data collected by ROC to date.
- 2. Summarize additional, publicly available regional and local hydrological information.
- 3. Conduct vertical and lateral delineation of residual <u>soil chlorides</u> and <u>petroleum</u> <u>hydrocarbons</u> from samples taken using a drill rig, hand auger and/or backhoe.
 - Vertical sampling will be conducted until the following criteria are met in the field.
 - i. Three samples in which the chloride concentration decreases and the third sample has a chloride concentration of ≤ 250 ppm; and,
 - ii. Three samples in which PID readings decrease and the third sample has a PID reading of ≤ 100 ppm; or,
 - iii. The sampling reaches the capillary fringe.
 - b. Lateral sampling will be conducted until the following criteria are met in the field.
 - i. A decrease is observed in chloride concentrations between lateral bores at similar depths; and,
 - ii. A chloride concentration of \leq 250 ppm is observed in a lateral surface sample; or,
 - iii. Safety concerns impede further lateral delineation.
- 4. If warranted, install a monitor well to provide a direct measurement of potential groundwater impact. (All monitoring wells will be constructed per EPA, NMOCD, and industry standards).

Vac Jct F-31

5. Evaluate the risk of groundwater impact in light of the information obtained.

If the evaluation demonstrates that residual constituents pose no threat to ground water quality, then only a surface restoration plan will be proposed to OCD. If this work indicates that there is a present or future risk of impacting groundwater quality from past operations at this location, then a corrective action plan (CAP) will be developed and proposed to OCD.

Thank you for your time and consideration on this project. Please call Hack Conder at (575) 393-9174 or myself if you have any questions or wish to discuss this project.

Sincerely,

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

Copy:

Rice Operating Company

Attachments:

Junction Box Disclosure Report

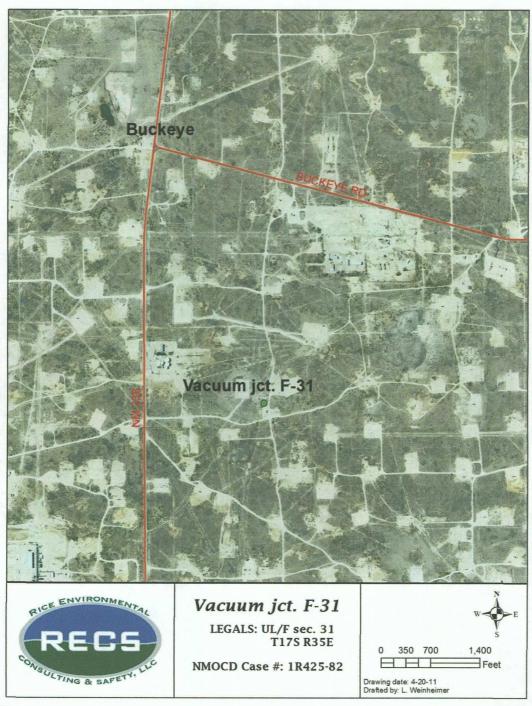


Figure 1 – Site location map.



RICE Environmental Consulting and Safety (RECS)
P.O. Box 5630 Hobbs, NM 88241
Phone 575.393.4411 Fax 575.393.0293

RICE OPERATING COMPANY JUNCTION BOX DISCLOSURE* REPORT

		 		LOCATIO					
SWD SYSTEM JUN	ICTION L	NIT S	SECTION TO	NNSHIP	RANGE	COUNTY	Length	MENSIONS -	Depth Depth
Vacuum Jc	L F-31	F	31	17S	35E	Lea	20.40.	eliminated	
L			t				<u> </u>	-	
LAND TYPE: BLM	STA	TE_X	FEE LANDO	WNER	***************************************		OTHER		
Depth to Groundwa	ster10	6 fee	et M	NMOCD S	ITE ASSI	ESSMENT	RANKING S	CORE:	30*
Date Started	2/17/2009	<u> </u>	Date Comple	eted4	7/2009	OCD	Witness	no	
Soil Excavated	66.7	cubic yards	Excava	tion Lengt	n <u>10</u>	Width	15	Depth	12 feet
Soil Disposed	72	cubic yards	s Öffsite	Facility_	Sundanc	e and CRI	Location	Eunice and	Hobbs, NM
FINAL ANALYTICA			Sample Da	te	2009, 3/1 3/24/200	9		epth	12 ft
Procure 5-point compo laboratory test results of									
Sample Location	Benzene mg/kg	Taluene mg/kg	Ethyl Benzene mg/kg	Total Xyene:	1	RO	DRO ma/ka	Chlordes	j
4-WALL COMP.	<0.050	<0.050		mg/kg 1,14		1/kg 16	mg/kg 1,960	mg/kg 1,620	
BOTTOM COMP.	<0.050	<0.050		3.14		06	1,680	1,010	
BLENDED BACKFILL	-0.000		= 71 (field)	3.14		7.0	1,050	1,260	
BLENDED BACKFILL II			41.8 (field)	·		0.0	1,300	544	
BLENDED BACKFILL II	l	- 10-	41.0 (ileid)		1	0.0	1,300	344	
General Description of I					<u>_</u>		CHLO	RIDE FIELD	TESTS
Vacuum SWD System Aban			· · · · · · · · · · · · · · · · · · ·					,	
was conducted at the former	junction box	site using	a backhoe to co	ollect soil sa	imples at		OCATION	DEPTH	mg/kg
regular intervals creating a 1	0x25x12-ft ex	cavation.	Chloride field t	ests perform	ned on ea	ch 4	l-wall comp.	n/a	1,528
sample yielded concentratio	ns that increa	sed with d	lepth. Organic	vapors, mea	sured usi	ng b	ottom comp.	12	908
a PID, yielded some elevate	d concentration	ons. The e	excavated soil w	ras blended	on site ar	id b	ended backfill	n/a	880
representative composite sa	mples were c	ollected fro	om the excavati	on bottom,	walls, and	Ы	ended backfill I	n/a	695
blended backfill. Laboratory	analysis of the	ne represe	ntative compos	ite samples	confirmed	;	background	6"	252
elevated concentrations of c	hloride and T	PH. BTEX	X concentration:	s were below	w NMOCE			1'	425
guidelines. The blended ba								2	290
representative composite sa									478
								3	
backfill was returned to the							vertical	4	508
area. On 4/30/2009, the site					<u>.</u>		delineation	5	651
to return to a productive cap		mal rate. N	NMOCD was no	outled of pot	ential		trench 15 ft	6	1,986
groundwater impact on 3/5/							West of the	7	3,227
*A water well is located 834	ft south of th	e location.			<u> </u>	1	junction (source)	8	3,796
							(Source)	â	5,032
ADDITION	AL EVAL	JATION	IS <u>HIGH</u> P	RIORITY	/			10"	4,018
						_		11'	3,749
enclosures; photo	os, lab results	PID (field	l) screenings, B	TEX study,	chloride c	urve		12	3,087
SÍTE SUPERVISOR <u>Jo</u>	ERTIFY THA	SIGN	NFORMATION KNOWL NATURE	ABOVE I EDGE AN					F MY ATING COMPANY
PROJECT LEADER Larry	Bruce Baker .	irSIGN	IATURE LO	ny F	me	Baker	A. DATI	<u> 3-/</u>	8-10
					المناف الأدام				

Vacuum Jct. F-31







0x25x12-ft excavation, facing east



seeding the backfilled site, facing west

4/6/2009

backfilling the site, facing west

4/30/2009



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

Receiving Date: 03/11/09 Reporting Date: 03/16/09

% Recovery

Project Number: NOT GIVEN Project Name: VACUUM JCT F-31 Project Location: VACUUM JCT F-31 Sampling Date: 03/10/09 Sample Type: SOIL

Sample Condition: COOL & INTACT

Sample Received By: ML Analyzed By: AB/TR

GRO

95.6

6.5

DRO

106

10.9

100

<0.1

LAB NUMBER SAMPLE ID

Relative Percent Difference

(C6-C10) (>C10-C28) (mg/kg) (mg/kg)

CI* (mg/kg)

ANALYSIS DA	TE	03/13/09	03/13/09	03/11/09
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and the second s	akayiniyasesi (1904 esti erganya kun pilanekandada ayan unini yapatendanya da kanan yang ayan Mengunia da Kanan ayan yan yang anan salah sayan salah yang ayan ayan ayan ayan ayan ayan ayan			
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Quality Contro	1	478	529	500
True Value QC		500	500	500

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

H17048 TCL RICE

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 the liabile for incidental or consequential transages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, artificials or successors arising out of or related to the performance of services fereunder 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 Laboratones.



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

Receiving Date: 03/11/09
Reporting Date: 03/12/09
Project Number: NOT GIVEN

Project Name: VACCUM JCT-31
Project Location: VACCUM JCT-31

Sampling Date: 03/10/09 Sample Type: SOIL

Sample Condition: COOL & INTACT

Sample Received By: ML

Analyzed By: ZL

LAB NÜMBEF SAMPLE ÎD	BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL BENZENE (mg/kg)	TOTAL XYLENES (mg/kg)
ANALYSIS DATE	03/11/09	03/11/09]	03/11/09	03/11/09
H17048-1 5PT BTM COMP	<0.050	<0.050	1.28	3.14
H17048-2-6 COMPOSITE OF BTM GRAB	<0.050	<0.050	1.71	3.70
PT. 1 - 5				
Quality Control True Value QC	0.049	0.049	0.048	0.144 0.150
% Recovery	98.0	98.0	96.0	96.0
Relative Percent Difference	3.4	4.1	5.6	6.0

METHOD: EPA SW-846 8021B

TEXAS NELAP CERTIFICATION T104704398-08-TX FOR BENZENE, TOLUENE, ETHYL BENZENE, AND TOTAL XYLENES:

Chemist:

Date

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

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

RICE OPERATING COMPANY

122 West Tayor Hobbs, NM 88240 PHONE: (575) 393-9174 FAX: (575) 397-1471 PD METER CALIBRATION & FUT D REPORT FORM

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

SIGNATUE: Inda Woulf

DATE: 3-10-09



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

Receiving Date: 03/11/09
Reporting Date: 03/16/09
Project Number: NOT GIVEN

Project Name: VACUUM JCT F-31
Project Location: VACUUM JCT F-31

LAB NUMBER SAMPLE ID

Sampling Date: 03/11/09 Sample Type: SOIL

Sample Condition: COOL & INTACT

Sample Received By: ML-Analyzed By: AB/TR

GRO DRO (C_8-C_{16}) (> $C_{10}-C_{28}$) CI* (mg/kg) (mg/kg) (mg/kg)

ANALYSIS DATE 03/12/09 03/13/09 03/13/09 H17050-1 4 WALL COMP 1,620 116 1,960 H17050-6 BLENDED BACKFILL 67.0 1,050 1,260 Quality Control 478 529 500 True Value QC 500 500 500 100 % Recovery 95.6 106 Relative Percent Difference 6.5 10.9 <0.1

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

Chemist

Date

H17050 TCL RICE

PLEASE NOTE: Liability and Damages. Carcinal's liability and client's exclusive remedy for any claim arising, whether based in contract or fort, 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 includental or consequential damages, including, without fimiliabin, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, additions or successors anising out of or related to the performance of services between the relationship controlled above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



ANALYTICAL RESULTS FOR RICE OPERATING COMPANY ATTN: JORDAN WOODFIN 122 W. TAYLOR

HOBBS, NM 88240. FAX TO: (575) 397-1471

Receiving Date: 03/11/09 Reporting Date: 03/16/09

Project Number: NOT GIVEN

Project Name: VACCUM JCT F-31
Project Location: VACCUM JCT F-31

Sampling Date: 03/11/09 Sample Type: SOIL

Semple Condition: COOL & INTACT

ample Received By: ML

Analyzed By: ZL

LAB NUMBEF SAMPLE ID	BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL BENZENE (mg/kg)	TOTAL XYLENES (mg/kg)
ANALYSIS DATE	03/13/09	03/13/09	03/13/09	03/13/09
H17050-1 4 WALL COMP	<0.050	<0.050	0.111	1.14
H17050-2-5 COMPOSITE OF NORTH,	< 0.050	<0.050	0.062	1.21
SOUTH, EAST, & WEST WALL	S			
The second secon				and the state of t
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Quality Control	0.050	0.050	0.049	0.150
True Value QC	0.050	0.050	0.050	0.150
% Recovery	100	100	98	100
Relative Percent Difference	1.6	<1.0	<1.0	<1.0

METHOD: EPA SW-846 8021B

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

Chemist

Date

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

4RDINAL 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 Nam	Company Name: KICC OFFICETING		CHARLES AND THE PARTY OF THE PA			Ý Ý	ANALYSIS RE	REQUEST		
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Phone Result: O Yes O No Add'l Phone #: Fax Result: O Yes O No Add'l Fax #: REMARKS: [Jii:イン Relinquished By: Relinquished By:

JUDODFIN @ KICELUDIO ENAIL REALTS TO BRAILE REPLIED CON Ü \mathcal{G} Sampler JUPS . Bus . Other: Delivered By: (Circle One)

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

RICE OPERATING COMPANY

122 West Tayor Hobbs, NM 88240 PHONE: (575) 393-9174 FAX: (575) 397-1471 PID METER CALIBRATION & FIELD REPORT-FORM

				ACCURAC	Y:+/-2%		
FILL DAT	E: 2-	29-08	<u> </u>		METER READING	ACCURACY: 100	
		- 3425	·····		EXPIRATION DATE	E: 8-29-0	9
	Model:	PGM 7300 PGM 7300	Serial No: Serial No:	590-000508 590-000504	ENE 100PPM / AIR:	Model: PGM 7600 Model: PGM 7600	Serial No: 110-01374 Serial No: 110-01367
	Model	PGM 7300	Coriol May	Check N 590-000183	Model Number:	Model: PGM 7600	Serial No: 110-02392

SYSTEM	JUNCTION	UNIT	SECTION	TOWN SHIP	RANGE
Vacuum	F-3)	F	31	175	35E

			
SAMPLE ID	PID	SAMPLE ID	PID
Guall Comp	212	Blended Badzhill	71
E. Wall	290		
W. Wall	111	<u> </u>	
N. Wall	120	COPU	
5 Wall	175		
		·	

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

SIGNATURE Judan Worlf

DATE: 3-11-09



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

Receiving Date: 03/24/09 Reporting Date: 03/26/09

Project Number: NOT GIVEN Project Name: VACUUM JCT F-31

Project Location: VACUUM JCT F-31

Sampling Date: 03/24/09 Sample Type: SOIL

Sample Condition: COOL & INTACT

Sample Received By: AB Analyzed By: AB/TR

DRO

(C₆-C₁₀) (>C₁₀-C₂₈)

CI"

LAB NUMBER SAMPLE ID

(mg/kg) (mg/kg)

(mg/kg)

ANALYSIS DATE	03/25/09	03/25/09	03/25/09
H17114-1 BLENDED BACKFILL	<10.0	1,300	544
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			رون در داده داده این در این
			entropologica opposite de proposite de la como esta de la como esta de la como esta de la como esta de la como
Quality Control	402	440	500
True Value QC	500	500	500
% Recovery	80.4	88.0	100
Relative Percent Difference	3.2	18.2	<0.1

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

Chemist

H17114 TCL RICE

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or ton, 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 services. In no event shall Cardinal be liable for incliental or consequential damages, including, without limitation, business interruptions, loss of tise, 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, regardloss 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.

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

ARDINAL LABORATORIES
101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603

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

roject Manager:	P.O. #:	ANALYSIS REQUEST	-
ddress: 177 W. TAV.OR	Сотрапу:		
ity: 408/35 State//// Zip: 8/8	240		
hone #: 393-9() 4 Fax #:	Address:		
toject #: Project Owner:	City:		-
roject Name: Vacuum Jct F-3	/ State: Zip:		
roject Location: Jackam Tet F-3	Phone #:		- (
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	MATRIX PRESERV SAMPLING	İ	<u>} </u>
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telinquished By: Pate 24-09 Received By	ed By:	Phone Result: O Yes O No IAdd'l Phone #: Fax Result: O Yes O No IAdd'l Fax #:	
DROHN WOODFICK THE 320	-CD1	REMARKS: EMAIL Regults to	
Time:		BAKKER & KICEWO.COM	
Delivered By: (Circle One)	HS L	CCJ MICHING KICESWO.COM	
Sampler - UPS · Bus · Other:	X Ves X ·Ves.	a JUDODFINA KICKSWIT.COM	7
† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476	tten changes to 505-393-2476	e e e e e e e e e e e e e e e e e e e	

RICE OPERATING COMPANY

122 West Tayor Hobbs, NM 88240
PHONE: (575) 393-9174 FAX: (575) 397-1471
PID METER CALIBRATION-&-FIELD REPORT FORM----

	*	Check !	Model Number:		
Model	: PGM 7300 Serial No	5: 590-000183 5: 590-000508 5: 590-000504		Model: PGM 7600 Model: PGM 7600 Model: PGM 7600	Serial No: 110-02392 Serial No: 110-01374 Serial No: 110-01367
	(N: ÍSOBUTYI	LENE 100PPM / AIR		
	-3415		EXPIRATION DATE		
FILL DATE: 2	-29-08		METER READING	ACCURACY: 99. 9	
		ACCURAC	CY: +/- 2%		
SYSTEM	JUNCTION	UNIT	SECTION	TOWN SHIP	RANGE
Vacuum	F-31	F	3/	175	356
OI SA	MPLE ID	PID	SA	MPLE ID	PID
Blende	d Backfill	41.5			
		ř			
······································		(C	OPY	7	
	——————————————————————————————————————		<u> </u>		
		·			
·				·	

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

SIGNATURE Jordon Hovel

DATE: 3-24-89

2009 BTEX Study

Revised Junction Box Upgrade Plan (2003)

System: Site:

Vacuum Jct. F-31

Date: Sampler:

3/10/2009

Jordan Woodfin

Laboratory:

Cardinal Laboratories

		PID reading	u.	FIELD COMPOSITE	ITE (mg/kg)	(F
Location	Component	(mdd)	Benzene	Toluene	Ethyl Benzene	Total Xylenes
- 11	North Wall	120				
4-wall	South Wall	175	020 07	<0.050	0 111	1 14
composite at	East Wall	290	000.07		- - - - -	-
11 C1 × 11 O1	West Wall	111				
				LAB COMPOSITE	FE (mg/kg)	
			<0.050	<0.050	0.062	1.21

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 composite sample study will be made to compare field-compositing with lab-compositing BTEX samples. Composite components are collected in a skewed 'W' pattern.

2009 BTEX Study

Revised Junction Box Upgrade Plan (2003)

System:

Jct. F-31 Vacuum

Sampler: Date:

ratory:

Cardinal Laboratories

	3/10/2009	Labora
ler:	Jordan Woodfin	

Senzene Toluene E	(m = 1)	
	=	(mdd)
		342
		296
		133
		275
		432
	İ	

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.

Vacuum Jct. F-31

Unit 'F', Sec. 31, T17S, R35E

Backhoe samples at 20 ft West of the junction (source)

(CI) ppm 425	290	478	508	651	1986	3227	3796	5032	4018	3749	3087
Depth bgs (ft)	2	3	4	9	9	7	8	6	10	11	12

Groundwater = 106 ft

