1R - 428-48

REPORTS

DATE:

9-22-10

R. T. HICKS CONSULTANTS, LTD.

901 Rio Grande Blvd NW ▲ Suite F-142 ▲ Albuquerque, NM 87104 ▲ 505.266.5004 ▲ Fax: 505.266.0745

September 22, 2010

Edward J. Hansen
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

RECEIVED
SEP 23 2010
Environmental Bureau
Oil Conservation Division

RE: **Termination Request**
Hobbs M-20 Vent Site: NMOCD CASE #: 1R428-48
Township 18S, Range 38E, Section 20, Unit M

Mr. Hansen:

On behalf of Rice Operating Company (ROC), R.T. Hicks Consultants, Ltd. is submitting this termination request for the Hobbs M-20 Vent regulatory file. The investigation demonstrated that neither chloride nor hydrocarbons are present in the vadose zone in quantities that represent a threat to ground water quality.

Background
The Hobbs M-20 Vent site is located west of the city of Hobbs at Township 18S, Range 38E, Section 20, in Unit M. The original junction box and equipment was believed to have been removed during system abandonment prior to 2002 but not specifically documented. The Investigation Characterization Plan (ICP), dated February 18, 2010 and approved by the NMOCD on February 23, 2010, is provided as Attachment A to this letter. The ICP includes background information and a site vicinity map for this and four other nearby ROC sites.

Field Program
On April 12, 2010, ROC installed a single 8-foot deep sampling trench at the location of the original junction box. Soil samples were recovered at 1-foot intervals from four feet to eight feet below ground surface and field screened for chlorides by titration and hydrocarbons using a photoionic detector (PID).

The field screening results indicate that the greatest chloride concentration (152 mg/kg) was encountered at 5 feet below ground surface and the greatest hydrocarbon concentration (2.3 ppm) was found at 5' and at 8' below ground surface. Based on the guidelines included with the ICP, no additional trenches or soil borings were required for delineation.

Confirmation laboratory analysis for chloride was performed on the 5- and 8-foot samples; and found chloride concentrations of 64 and 144 mg/kg, respectively. The laboratory results and chain-of-custody as well as the field documentation of the backhoe excavation are provided in Attachment B.

Recommendations
Based on the trench sampling information, we conclude that this site is in compliance with the requirements of 19.15.29 NMAC such that soil at the site does not and will not endanger public health or the environment. Observed chloride concentrations in soil at the site are consistent with (or lower than) background levels for the area. The natural vegetation is recovering at this site, and no additional surface restoration is necessary to address impacts due to the historic use of the site (see Photograph 1 below). We recommend termination of the regulatory file.

Photograph 1. Vegetation at M-20 vent site in July 2010

ROC is the service provider (agent) for the Hobbs Salt Water Disposal System and has no ownership of any portion of pipeline, well or facility. The Hobbs SWD System is owned by a consortium of oil producers, System Parties, who provide all operating capital on a percentage ownership/usage basis.

Please contact Hack Conder of ROC at 575-393-9174 if you have any questions concerning this submission. Thank you for your time and consideration.

Sincerely,
R.T Hicks Consultants, Ltd.

Katie Lee
Project Scientist

Copy: Hack Conder, ROC

Attachment A

Submitted ICP and Approval from NMOCD

R.T. Hicks Consultants, Ltd.
901 Rio Grande Blvd. NW, Suite F-142
Albuquerque, NM 87104

From: Katie Lee
To: Katie Jones;
Subject: FW: ICP Approval for Rice Hobbs SWD M-20 Vent (1R428-48)
Date: Tuesday, February 23, 2010 3:57:34 PM

-----Original Message-----
From: Hansen, Edward J., EMNRD [mailto:edwardj.hansen@state.nm.us]
Sent: Tuesday, February 23, 2010 3:39 PM
To: Hack Conder
Cc: Leking, Geoffrey R, EMNRD; Katie Lee
Subject: ICP Approval for Rice Hobbs SWD M-20 Vent (1R428-48)

Dear Mr. Conder:

The New Mexico Oil Conservation Division (OCD) has reviewed the submitted Investigation Characterization Plans (ICP), dated February 18, 2010, for the above-referenced site. The OCD hereby approves the following ICP for the Rice Operating Company (ROC) site:

> Rice Hobbs SWD M-20 Vent submitted by R. T. Hicks on 2/19/2010 #1R428-48

Please be advised that OCD approval of this plan does not relieve the owner/ operator of responsibility should operations pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the owner/operator of responsibility for compliance with any OCD, federal, state, or local laws and/or regulations.

If you have questions regarding this matter, please contact me at 505-476-3489.

Edward J. Hansen
Hydrologist
Environmental Bureau

R. T. HICKS CONSULTANTS, LTD.

901 Rio Grande Blvd NW ▲ Suite F-142 ▲ Albuquerque, NM 87104 ▲ 505.266.5004 ▲ Fax: 505.266.0745

February 18, 2010

Mr. Edward J. Hansen
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

RE: **Investigation & Characterization Plan**
Hobbs M-20 Vent, NMOCD Case # 1R428-48
Township 18S, Range 38E, Section 20, Unit M

Mr. Hansen:

On behalf of Rice Operating Company (ROC), R.T. Hicks Consultants, Ltd. is pleased to submit this Investigation & Characterization Plan (ICP) for the Hobbs M-20 Vent site. Plate 1 is a map showing the site relative to major roads in the area. Plate 2 shows the site, nearby USGS monitoring wells, and a regional potentiometric surface map.

The work elements proposed below will allow us to characterize this site and develop an appropriate Corrective Action Plan.

1. ROC will identify and document the location of all current and historic equipment and pipelines associated with the site.
2. ROC will use a backhoe with a 12-foot vertical reach to install a series of sampling trenches in order to recover soil samples and delineate the lateral extent (and potentially the vertical extent) of impacted soil.
3. If characterization by the backhoe is insufficient to define the extent and magnitude of past releases, ROC and Hicks Consultants will use a drilling rig to drill one soil boring at the center of the source area to delineate the vertical extent of chloride in the soil.
4. Soil samples obtained by the backhoe or drilling rig will be obtained from regular intervals below ground surface.
5. Representative soil samples will be sent to a laboratory to allow for verification of the field chloride and PID results.
6. General soil texture descriptions will be provided for each sample trench or boring.
7. The criteria to delineate the extent of impact during trenching as well as in a soil boring is 5 point chloride decline vs. depth, or:
    a. After three consecutive samples demonstrate <250 ppm chloride using field analyses and <100ppm total hydrocarbon vapors using the headspace method, or
    b. After five consecutive samples show a decreasing trend of chloride and hydrocarbons and the last sample shows chloride < 250 ppm and total hydrocarbon vapors <100ppm.
    c. Soil boring to capillary fringe should neither (a) or (b) apply.
8. If the boring penetrates the capillary fringe, a monitoring well will be completed with a 2 or 4" diameter casing down gradient from confirmed impact for use during possible corrective actions. Ground water will be analyzed for chloride, sulfate, TDS and BTEX if warranted. Plate 2 presents a potentiometric surface map for the site area.
9. If field analysis of hydrocarbon vapors and observations of staining show that hydrocarbon impact is unlikely at the site or below 20-feet, collection of samples from cuttings may be substituted for split spoon sampling (chloride only).

The ROC trench characterization will be employed to identify the lateral extent of chloride at the site, if possible. If trenching does not fully characterize the lateral extent of chloride at the site, boreholes will be advanced 20 feet beyond the furthest trenches where the soil data has an average chloride concentration greater than 1,000 mg/kg. The total depth of borings drilled to characterize lateral extent shall be 20 feet below ground surface with soil samples for delineation taken at 5 foot intervals.

Rice Operating Company (ROC) is the service provider (agent) for the Hobbs Saltwater Disposal System and has no ownership of any portion of pipeline, well, or facility. A consortium of oil producers who own the Hobbs System (System Parties) provide all operating capital on a percentage ownership/usage basis. Major projects require System Parties' authorization for expenditures (AFE) approval and work begins as funds are received. We will implement the work outlined herein after NMOCD approval and subsequent authorization from the System Parties. The Hobbs SWD system is in abandonment.

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

1. Protects public health,
2. Provides the greatest net environmental benefit,
3. Complies with NMOCD Rules,
4. Is supported by good science.

Following the site characterization described above, a Corrective Action Plan with the data and analysis supportive of a procedure for site file termination, or a termination request will be submitted, depending on characterization findings.

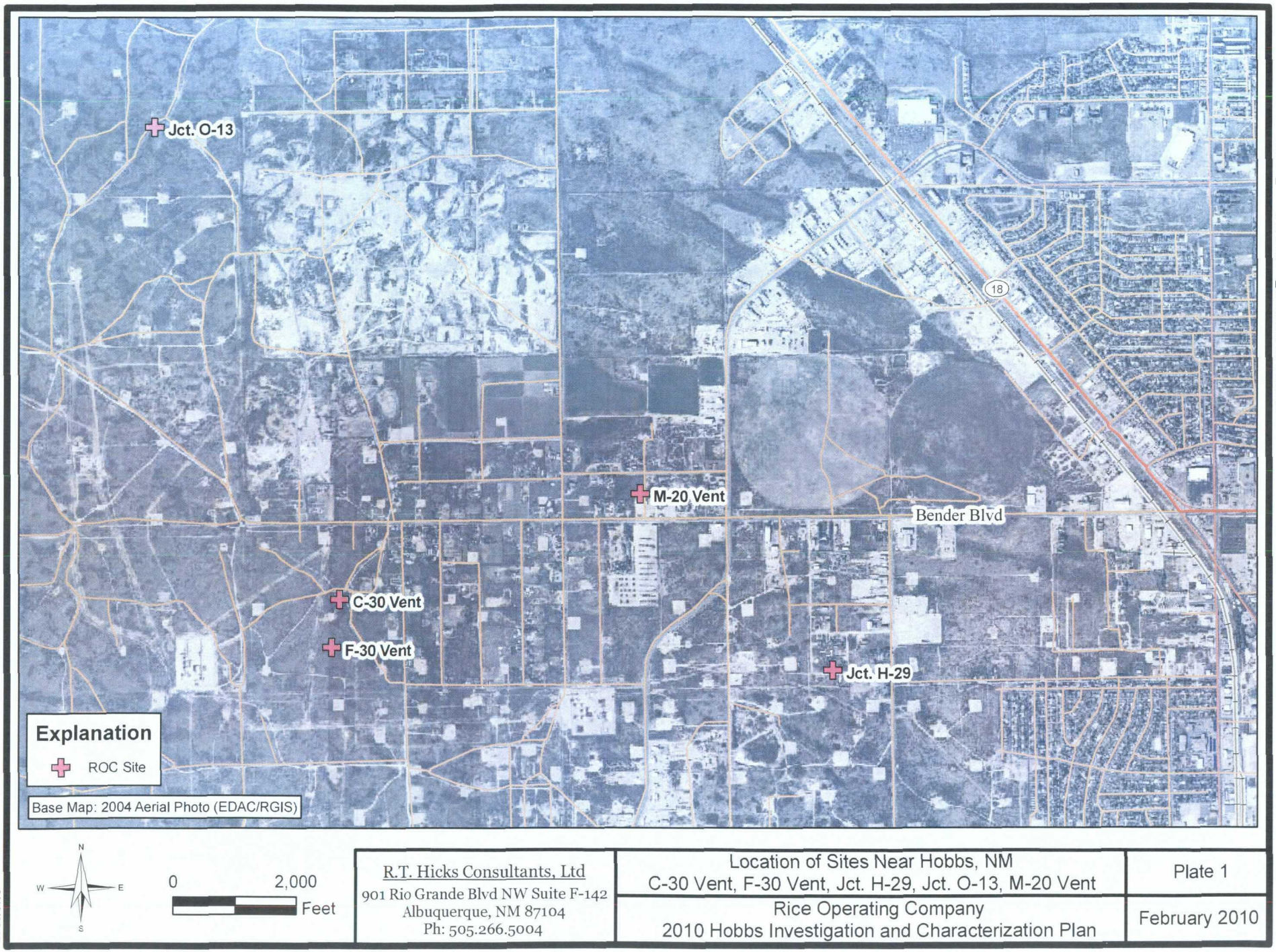
Please contact Hack Conder of ROC at 575-393-9174 if you have any questions concerning this submission. Thank you for your time and consideration.

Sincerely,
R.T Hicks Consultants, Ltd.

Katie Lee

Katie Lee
Project Scientist

Copy: Hack Conder, ROC



R.T. Hicks Consultants, Ltd
901 Rio Grande Blvd NW Suite F-142
Albuquerque, NM 87104
Ph: 505.266.5004

Location of Sites Near Hobbs, NM
C-30 Vent, F-30 Vent, Jct. H-29, Jct. O-13, M-20 Vent

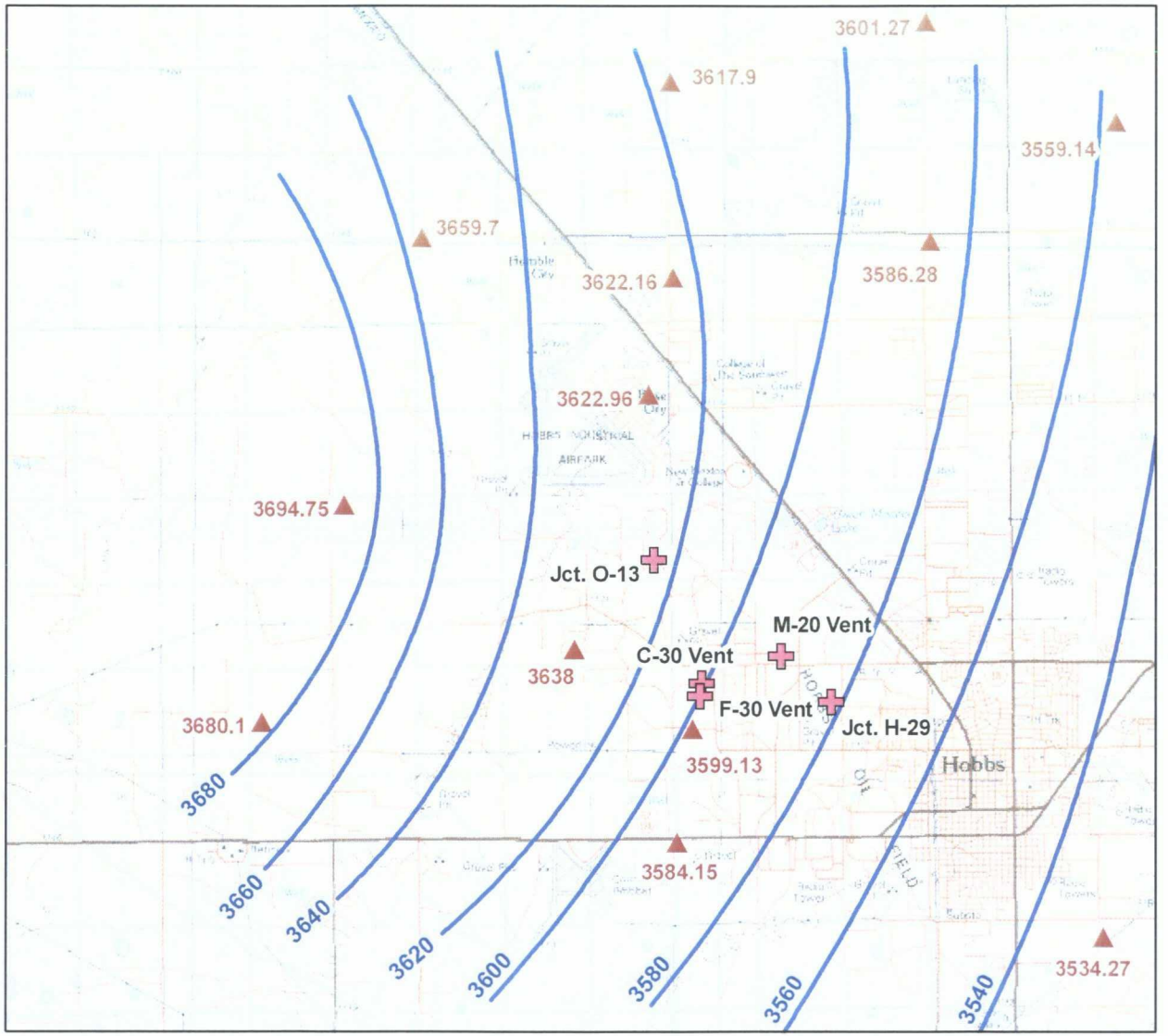
Plate 1

Rice Operating Company
2010 Hobbs Investigation and Characterization Plan

February 2010

S:/PROJECTS/ROC/FEB2010_ICPS/PLATES/P1_SITESONAERIAL.MXD

2/10/2010



Explanation

- ROC Site
- USGS gauging station (2007) [ground water elevation (ft)]
- Potentiometric surface (ft amsl) (derived from USGS 2007)

N W E S

0 1 2 Miles

R.T. Hicks Consultants, Ltd
901 Rio Grande Blvd NW Suite F-142
Albuquerque, NM 87104
Ph: 505.266.5004

2007 Poteniometric Surface Map
C-30 Vent, F-30 Vent, Jct. H-29, Jct. O-13, M-20 Vent

Plate 2

Rice Operating Company
2010 Hobbs Investigation and Characterization Plan

February 2010

2/10/2010

S:/PROJECTS/ROC/FEB2010_ICPS/PLATES/P2_2007POTENTIOMETRIC.MXD

Attachment B

Laboratory Reports
Backhoe Delineation

R.T. Hicks Consultants, Ltd.
901 Rio Grande Blvd. NW, Suite F-142
Albuquerque, NM 87104

CARDINAL LABORATORIES

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

ANALYTICAL RESULTS FOR
RICE OPERATING COMPANY
ATTN: BRUCE BAKER
112 W. TAYLOR
HOBBS, NM 88240

Receiving Date: 04/12/10
Reporting Date: 04/19/10
Project Number: NOT GIVEN
Project Name: HOBBS M-20 VENT (18/38)
Project Location: HOBBS M-20 VENT (18/38)

Sampling Date: 04/12/10
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: JH
Analyzed By: AB/HM

LAB NUMBER	SAMPLE ID	GRO (C_6-C_{10}) (mg/kg)	DRO (>C_{10}-C_{28}) (mg/kg)	Cl* (mg/kg)
ANALYSIS DATE		04/15/10	04/15/10	04/13/10
H19655-1	SOURCE GRAB @ 5FT	<50.0	626	64
H19655-2**	SOURCE BTM GRAB @ 8FT	<10.0	788	144
Quality Control		485	564	500
True Value QC		500	500	500
% Recovery		97.0	113	100
Relative Percent Difference		0.1	0.4	< 0.1

METHODS: TPH GRO & DRO: EPA SW-846 8015 M; Cl^-: Std. Methods 4500-Cl^-B
*Analysis performed on a 1:4 w:v aqueous extract.
Reported on wet weight.
**One or more TPH surrogates outside historical limits due to matrix interference.

Chemist

04/19/10
Date

H19655 TCL 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 Company	BILL TO
Project Manager: Bruce Baker	P.O. #:
Address: 122 West Taylor	Company:
City: Hobbs State: NM Zip: 88240	Attn:
Phone #: 575-393-9174 Fax #: 575-397-1471	Address:
Project #: Project Owner:	City:
Project Name: Hobbs M-20 Vent 12/33	State: Zip:
Project Location: Hobbs M-20 Vent 19/33	Phone #:
Sampler Name: Jordan Woodfin	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	ANALYSIS REQUEST: Chlorides	TPH 8015 M	BTEX	Texas TPH
H196551	Source grab @ 5ft	G	1			✓					✓		4-12-10	1000	✓	✓		
-2	Source blm grb @ 4ft	G	1			✓					✓		4-12-10	1040	✓	✓		

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: Jordan Woodfin	Date: Time:	Received By:	Phone Result: ☐ Yes ☐ No Add'l Phone #:
			Fax Result: ☐ Yes ☐ No Add'l Fax #:
Relinquished By:	Date: 4/12/10 Time: 4:35	Received By: Jodi Henson	REMARKS: email results jwoodfin@riceswd.com; jpurvis@riceswd.com bbaker@riceswd.com KJONES@Riceswd.com
Delivered By: (Circle One) Sampler - UPS - Bus - Other:		Sample Condition: Cool ☑ Yes ☐ No; Intact ☑ Yes ☐ No	CHECKED BY: (Initials)

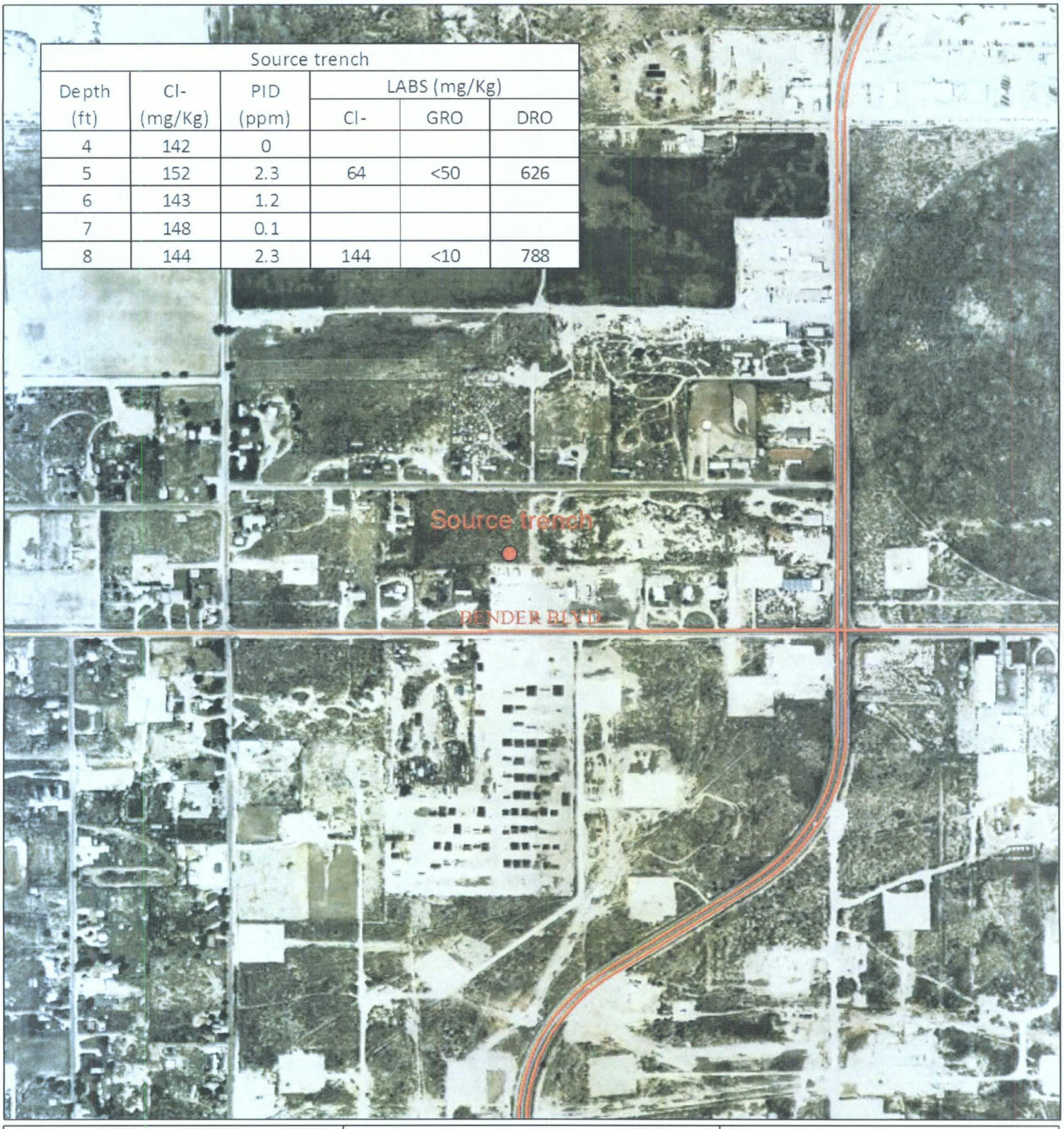
† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

#26

NEED SAMPLES BACK, PLEASE

Backhoe Trench Data

Source trench					
Depth (ft)	Cl- (mg/Kg)	PID (ppm)	LABS (mg/Kg)		
			Cl-	GRO	DRO
4	142	0			
5	152	2.3	64	<50	626
6	143	1.2			
7	148	0.1			
8	144	2.3	144	<10	788



RICE ENVIRONMENTAL CONSULTING & SAFETY, LLC

RECS

Hobbs M-20 vent

Legals: UL/M sec. 20
T18S R38E
NMOCD Case #: 1R428-48

N
W E
S

0 330 660 1,320
Feet

Drawing date: 7-6-10
Drafted by: L. Weinheimer

JCT BOX DELINEATION SUMMARY REPORT

Site: Hobbs M-20 Vent Legal: UL/M SEC 20 T18S R38E Landowner: Samuel Bruton GW: <50

GPS N. 32* 43.607 W. 103* 10.497

Source	CL	PID
1		
2		
3		
4	142	0
5	152	2.3
6	143	1.2
7	148	0.1
8	144	2.3
9		
10		
11		
12		

North Wall	
Cl-	
PID	

South Wall	
Cl-	
PID	

East Wall	
Cl-	
PID	

West Wall	
Cl-	
PID	

4 Wall Comp	
Cl-	
PID	

	Pt.1	Pt.2	Pt.3	Pt. 4	Pt.5	5 Pt Comp.
Cl-						
PID						

Background at 6"			
Cl-		PID	

Excavation Deminsions: 5'x3'x8'

Soil hauled off and where: None

Soil imported and from where: None

field results	cl-	pid
Source Grab @ 5ft	152	2.3
Source Btm Grab @ 8ft	144	2.3

lab results	gro	dro	cl-
	<50	626	64
	<10	788	144

Summary: Upon arrival at this location we made an assessment of the site for all potential safety hazards. Next, we conducted an investigation of the former junction box location using a backhoe, and collected soil samples at regular intervals. These samples were field tested for evidence of chloride and organic vapors. We dug a source vertical to a depth of 8 feet. The samples from the 5ft and 8ft were sent to the lab for further testing. The vertical was backfilled the same day it was dug using the same soil removed from the excavation.

Signature: Jordan Woodfin **Date:** 4-12-10

Hobbs M-20 vent

UL/M sec. 20 T18S R38E

Digging source trench

Sampling source trench

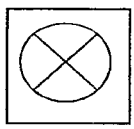
Backfilling trench

Completed site delineation

JCT DELINEATION REPORT

LOCATION: Hobbs M-20 Vent							
DEPTH TO GW: <50'					LANDOWNER: Samuel Bruton		
@ SOURCE							
DEPTH	SOIL	WATER	CF	AGNO3	CL-	PID	SOIL LITHOLOGY
BACKGROUND @ 6'	10.1	30.7	3.04	0.04	122	0	Dark Brown Silty Sand
4'	10.7	30.4	2.84	0.05	142	0	Brown Silty Sand with Caliche Rubble (moist)
5'	10	30.5	3.05	0.05	152	2.3	Brown Silty Sand with Caliche Rubble (moist)
6'	10.5	30	2.86	0.05	143	1.2	Brown Silty Sand with Caliche Rubble (moist)
7'	10.1	30	2.97	0.05	148	0.1	Brown Silty Sand with Caliche Rubble (moist)
8'	10.4	30	2.88	0.05	144	2.3	Tan Caliche (moist)

NORTH



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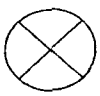

SAMPLE POINT

SIGNATURE: Jordan Woodfin DATE: 4-12-10

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: 590-000183			Model: PGM 7600	Serial No: 110-023920
	Model: PGM 7300	Serial No: 590-000508			Model: PGM 7600	Serial No: 110-013744
√	Model: PGM 7300	Serial No: 590-000504			Model: PGM 7600	Serial No: 110-013676

GAS COMPOSITION: ISOBUTYLENE 100PPM / AIR: BALANCE

LOT NO : 924503	EXPIRATION DATE: 7-5-12
FILL DATE: 7-1-09	METER READING ACCURACY: 100

ACCURACY : +/- 2%

SYSTEM	JUNCTION	UNIT	SECTION	TOWN SHIP	RANGE
Hobbs	M-20 VENT	M	20	18S	38E

SAMPLE ID	PID	SAMPLE ID	PID
Source		Background	
4'	0	6"	0
5'	2.3		
6'	1.2		
7'	0.1		
8'	2.3		

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

SIGNATUE: Jordan Woodfin DATE: 4-12-10