1R - 426-09

GENERAL CORRESPONDENCE

YEAR(S):
2008

Hansen, Edward J., EMNRD

From: Hansen, Edward J., EMNRD
Sent: Tuesday, August 12, 2008 4:35 PM
To: 'Hack Conder'
Cc: Price, Wayne, EMNRD; 'Marvin Burrows'
Subject: Workplans for 1R427-09, 1R426-09, 1R428-76, and 1R427-172

Dear Mr. Conder:

The New Mexico Oil Conservation Division (OCD) has determined after reviewing your Notification of Groundwater Impact for each of the following four sites:

1) Rice EME L-6 Boot
Unit L, Section 6, T20S, R37E
Lea County, New Mexico
OCD Case #1R0427-09

2) Rice BD H-19
Unit H, Section 19, T21S, R37
Lea County, New Mexico
OCD Case #1R0426-09

3) Rice Hobbs Jct. M-4
Unit M, Section 4, T19S, R38E
Lea County, New Mexico
OCD Case #1R0428-76

4) Rice EME Gaither Boot
Unit I, Section 34, T19S, R36E
Lea County, New Mexico
OCD Case #1R0427-172

that the Rice Operating Company (ROC) must submit for each of the four sites a separate corrective action workplan in accordance with OCD Rule 116 (19.15.3.116 NMAC) to remediate the ground water contamination at each of these sites. The workplans must include a schedule for immediate implementation of groundwater remediation and source control. The workplans must be submitted to the OCD Santa Fe Office within 30 days.

Specifically, the workplan for the Rice EME L-6 Boot site must include that an estimation of the chloride mass that has contaminated the groundwater by the release at the Rice EME L-6 Boot Site and a plan for the removal of that chloride mass from the groundwater. An existing groundwater monitoring well may be used for this purpose. Also, please propose a treatment and / or disposal method for that chloride mass.

Also, for the Rice EME Gaither Boot additional site investigation must be performed at the site; i.e., an upgradient groundwater monitoring well must be installed at the site to determine the regional background groundwater quality. If the background quality is similar to the downgradient well sample results, then the workplan must include that an estimation of the chloride mass that has contaminated the

groundwater by the release at the Rice EME Gaither Boot Site and a plan for the removal of that chloride mass from the groundwater. An existing groundwater monitoring well may be used for this purpose. Also, please propose a treatment and / or disposal method for that chloride mass. *[However, if the background quality is not similar to the downgradient well sample results, then an Abatement Plan may be required. Therefore, please submit the analytical results for the upgradient well to the OCD prior to submitting the workplan. Additional time for submittal of the workplan for this site may be requested.]*

ROC should submit one paper copy and an electronic copy on CD for each of the workplans and for all future workplans and/or reports for each of the sites. Please be sure to include the current corresponding OCD Case # on each of the respective workplans. If you have any questions regarding this matter, please call me at (505) 476-3489.

Edward J. Hansen
Hydrologist
Environmental Bureau

Highlander Environmental Corp.

Midland, Texas

CERTIFIED MAIL
RETURN RECEIPT NO. 7002 2410 0000 1387 9208

June 6, 2008

Mr. Wayne Price
New Mexico Energy, Minerals, & Natural Resources
Oil Conservation Division, Environmental Bureau
1220 S. St. Francis Drive
Santa Fe, New Mexico 87505

RE: NOTIFICATION OF GROUNDWATER IMPACT
H-19 Vent Site
Blinebry Drinkard (BD) SWD System
UNIT "H", SEC. 19, T21S, R37E

Mr. Price:

Highlander Environmental Corp. (Highlander) on behalf of Rice Operating Company (ROC) notifies the Director of the New Mexico Oil Conservation Division (OCD), Environmental Bureau of groundwater impact at the above-referenced site in accordance with NM Rule 116. The site location is shown on Figures 1 and 2. The remediation of this site may be subject to NM Rule 19 procedures.

As part of the ROC Junction Box Upgrade Workplan, the junction box was moved 25' to the northwest. The former junction box site was investigated vertically and horizontally with a trench utilizing a backhoe. The Site was delineated to 12 feet below ground surface (bgs) where chlorides and TPH were elevated. ROC concluded that groundwater investigation was warranted. No water wells were located within Section 19 which contains the Site. However, according to the USGS Well Reports, one water well is located in adjacent Section 18 with a depth to groundwater of 98 feet bgs.

An Investigation and Characterization Plan (ICP) was prepared by Highlander Environmental Corp. (Highlander) and submitted to the OCD on August 3, 2007. Upon approval from the NMOCD, on April 4, 2008 one soil boring was installed at the junction box to a depth of 90'. Field analysis indicated elevated chloride concentrations

throughout the borehole. As a result, the rig was moved approximately 15' southeast of the borehole location and one monitor well was installed. Groundwater was encountered at an approximate depth of 120' and the monitor well was completed to a total depth of 133' below ground surface. The monitor well location is shown on Figure 3.

After appropriate development, the wells were sampled pursuant to OCD guidelines by a third party and Cardinal Labs of Hobbs, New Mexico performed the analysis. Chloride and Total Dissolved Solids (TDS) concentrations exceeded New Mexico Water Quality Control Commission standards at 516 mg/L and 1270 mg/L, respectively. Hydrocarbon constituents (BTEX) were not detected. Highlander will present a remedy for this site in the submission of a Corrective Action Plan.

ROC is the service provider (agent) for the BD Salt Water Disposal System and has no ownership of any portion of the pipelines, wells, or facilities. The EME System is owned by a consortium of oil producers, System Partners, who provide all operating capital on a percentage ownership/usage basis. Environmental remediation projects of this magnitude require System Partner AFE approval and work begins as funds are received.

Please accept this notification for the above-referenced site. Should you have any questions or concerns regarding this site, please do not hesitate to contact me.

HIGHLANDER ENVIRONMENTAL CORP.

Jeffrey W. Kindley, P.G.
Senior Environmental Geologist

enclosures: figures, water analyses, well log

cc: ROC, NMOCD-Chris Williams

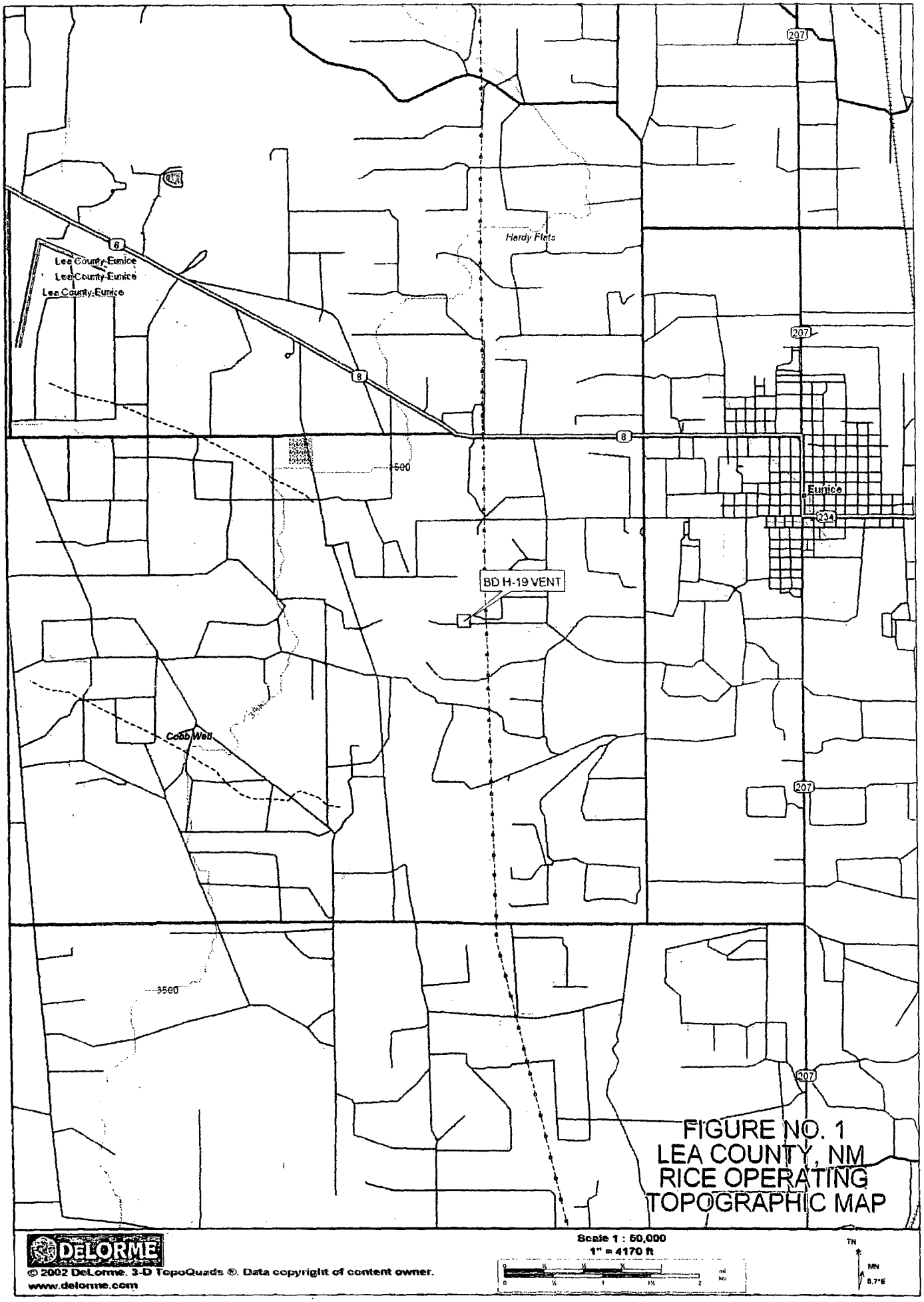


FIGURE NO. 1
LEA COUNTY, NM
RICE OPERATING
TOPOGRAPHIC MAP

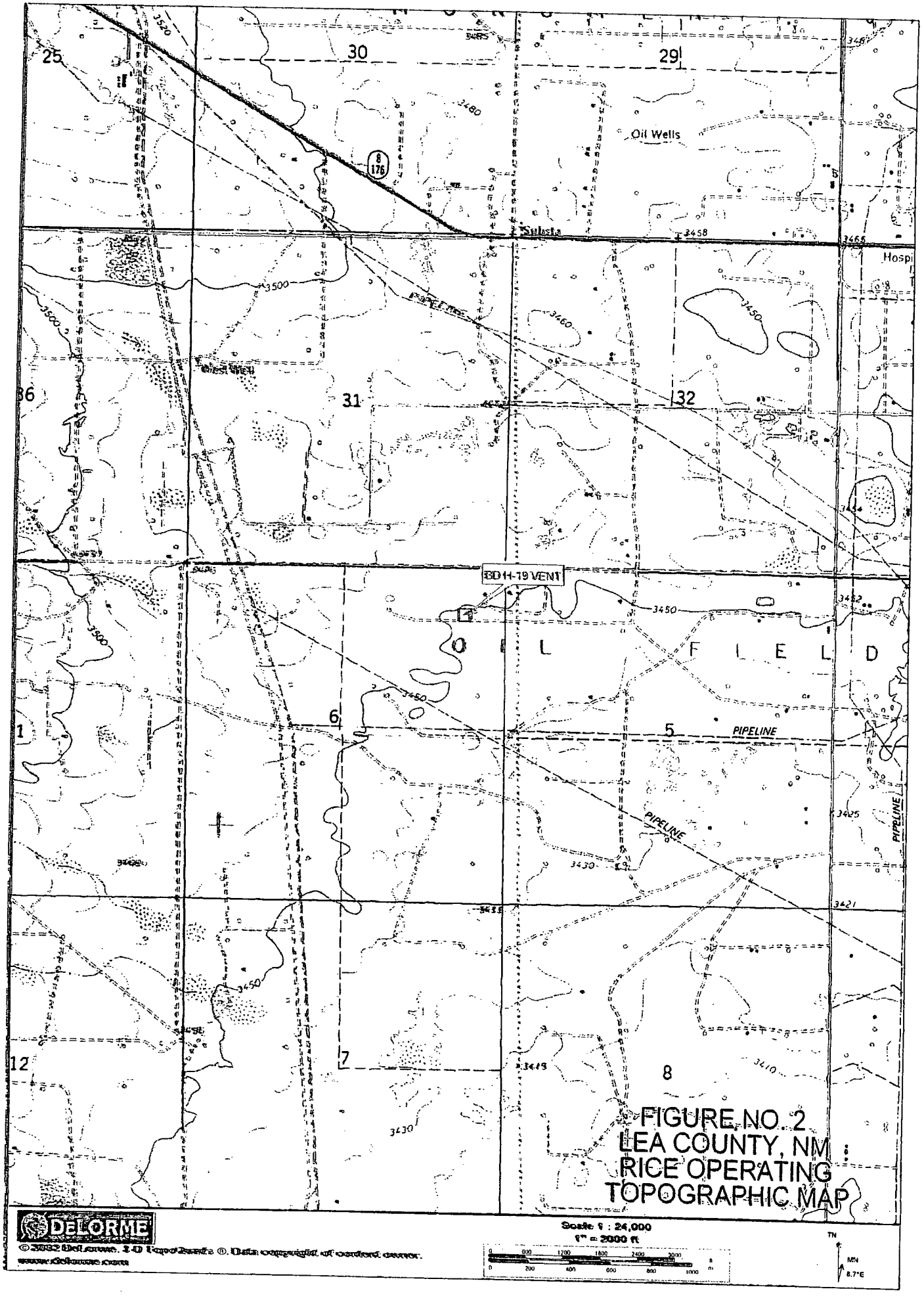


FIGURE NO. 2
LEA COUNTY, NM
RICE OPERATING
TOPOGRAPHIC MAP

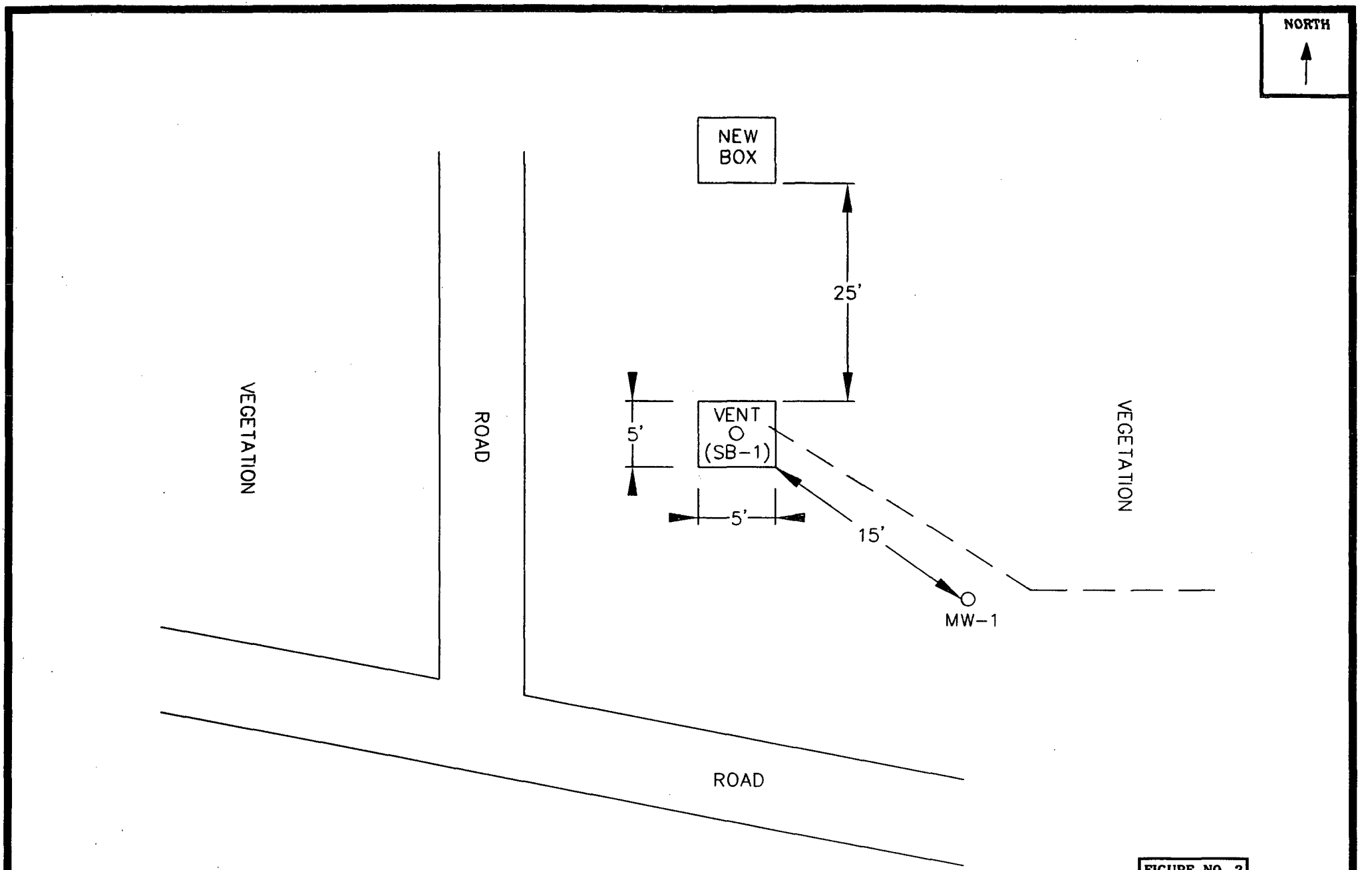


FIGURE NO. 3

LEA COUNTY, NEW MEXICO

RICE OPERATING COMPANY
BD H-19 VENT

HIGHLANDER ENVIRONMENTAL CORP.
MIDLAND, TEXAS

DATE: 8/6/07
DWN. BY: RC
FILE: C:\RICE\3003 BD H-19 VENT

CARDINAL LABORATORIES

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

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

Receiving Date: 04/24/08
Reporting Date: 04/28/08
Project Owner: NOT GIVEN
Project Name: BD H-19 VENT
Project Location: T21S R37E SEC19 H.~ LEA CO., NM

Sampling Date: 04/23/08
Sample Type: WATER
Sample Condition: COOL & INTACT
Sample Received By: ML
Analyzed By: AB

LAB NUMBER SAMPLE ID	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL BENZENE (mg/L)	TOTAL XYLENES (mg/L)
ANALYSIS DATE	04/25/08	04/25/08	04/25/08	04/25/08
H14710-1 MONITOR WELL #1	<0.001	<0.001	<0.001	<0.003
Quality Control	0.097	0.097	0.095	0.296
True Value QC	0.100	0.100	0.100	0.300
% Recovery	97.0	96.8	95.4	98.6
Relative Percent Difference	0.5	1.4	0.8	0.7

METHOD: EPA SW-846 8021B

Chemist

04/29/08
Date

H14710-RICE

CARDINAL LABORATORIES

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

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

Receiving Date: 04/24/08
Reporting Date: 04/28/08
Project Number: NOT GIVEN
Project Name: BD H-19 VENT
Project Location: T21S R37E SEC19 H-LEA COUNTY, NM

Sampling Date: 04/23/08
Sample Type: WATER
Sample Condition: COOL & INTACT
Sample Received By: ML
Analyzed By: HM/KS

LAB NUMBER SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (u S/cm)	T-Alkalinity ($mgCaCO_3$/L)
ANALYSIS DATE:	04/28/08	04/28/08	04/28/08	04/28/08	04/25/08	04/25/08
H14710-1 MONITOR WELL #1	356	78	25	4.57	2,120	240
Quality Control	NR	51.3	52.5	4.56	1,411	NR
True Value QC	NR	50.0	50.0	4.00	1,413	NR
% Recovery	NR	103	105	114	99.8	NR
Relative Percent Difference	NR	1.4	4.9	13.1	1.4	NR
METHODS:		SM3500-Ca-D	3500-Mg E	8049	120.1	310.1

	Cl^- (mg/L)	SO_4 (mg/L)	CO_3 (mg/L)	HCO_3 (mg/L)	pH (s.u.)	TDS (mg/L)
ANALYSIS DATE:	04/25/08	04/28/08	04/25/08	04/25/08	04/25/08	04/25/08
H14710-1 MONITOR WELL #1	516	106	0	293	7.07	1,270
Quality Control	490	26.0	NR	976	6.98	NR
True Value QC	500	25.0	NR	1000	7.00	NR
% Recovery	98.0	104	NR	97.6	99.7	NR
Relative Percent Difference	2.0	13.6	NR	2.4	1.0	NR
METHODS:	SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1

Chemist

04/29/08
Date

H14710 RICE

101 East Marland - Hobbs, New Mexico 88240
Tel (505) 393-2326
Fax (505) 393-2476

Cardinal Laboratories, Inc.

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # _____

Company Name: RICE Operating Company	BILL TO Company: RICE Operating Company PO#
Project Manager: Kristin Farris-Pope, Project Scientist	Address: (Street, City, Zip) 122 W Taylor Street ~ Hobbs, New Mexico 88240
Address: (Street, City, Zip) 122 W Taylor Street ~ Hobbs, New Mexico 88240	Phone#: (575) 393-9174 Fax#: (575)397-1471
Phone #: (575) 393-9174	Fax #: (575) 397-1471
Project #:	Project Name: BD H-19 Vent
Project Location: T21S R37E Sec19 H ~ Lea County New Mexico	Sampler Signature: Rozanne Johnson (505)631-9310 rozanne@valornet.com

LAB # (LAB USE ONLY)	FIELD CODE	(G)rab or (C)omp	# CONTAINERS	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL (2 40ml VOA)	HNO_3	NaHSO4	H_2SO_4	ICE (1-1Liter HDPE)	NONE	SAMPLING: DATE (2008)	TIME
H14710-1	Monitor Well #1	G	3	X				2				1		4-23	14:25

ANALYSIS REQUEST
(Circle or Specify Method No.)

MTBE 8021B/602	BTEX 8021B/602	TPH 418.1/TX1005 / TX1005 Extended (C35)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260B/624	GC/MS Semi. Vol. 8270C/625	PCB's 8082/608	Pesticides 8081A/608	BOD, TSS, pH	Moisture Content		Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, CO3, HCO3)	Total Dissolved Solids	Chlorides	Turn Around Time ~ 24 Hours
	X																X	X	X		

Relinquished by: Rozanne Johnson	Date: 4-24-2008	Time: 14:05	Received by: Cathy Watkins	Date: 4-24-08	Time: 14:07
Relinquished by: Cathy Watkins	Date: 4-24-08	Time: 16:50	Received By: (Laboratory Staff) Misti LeBeau	Date: 4/24/08	Time: 4:50

Phone Results		Yes	No
Fax Results		Yes	No Additional Fax Number:

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

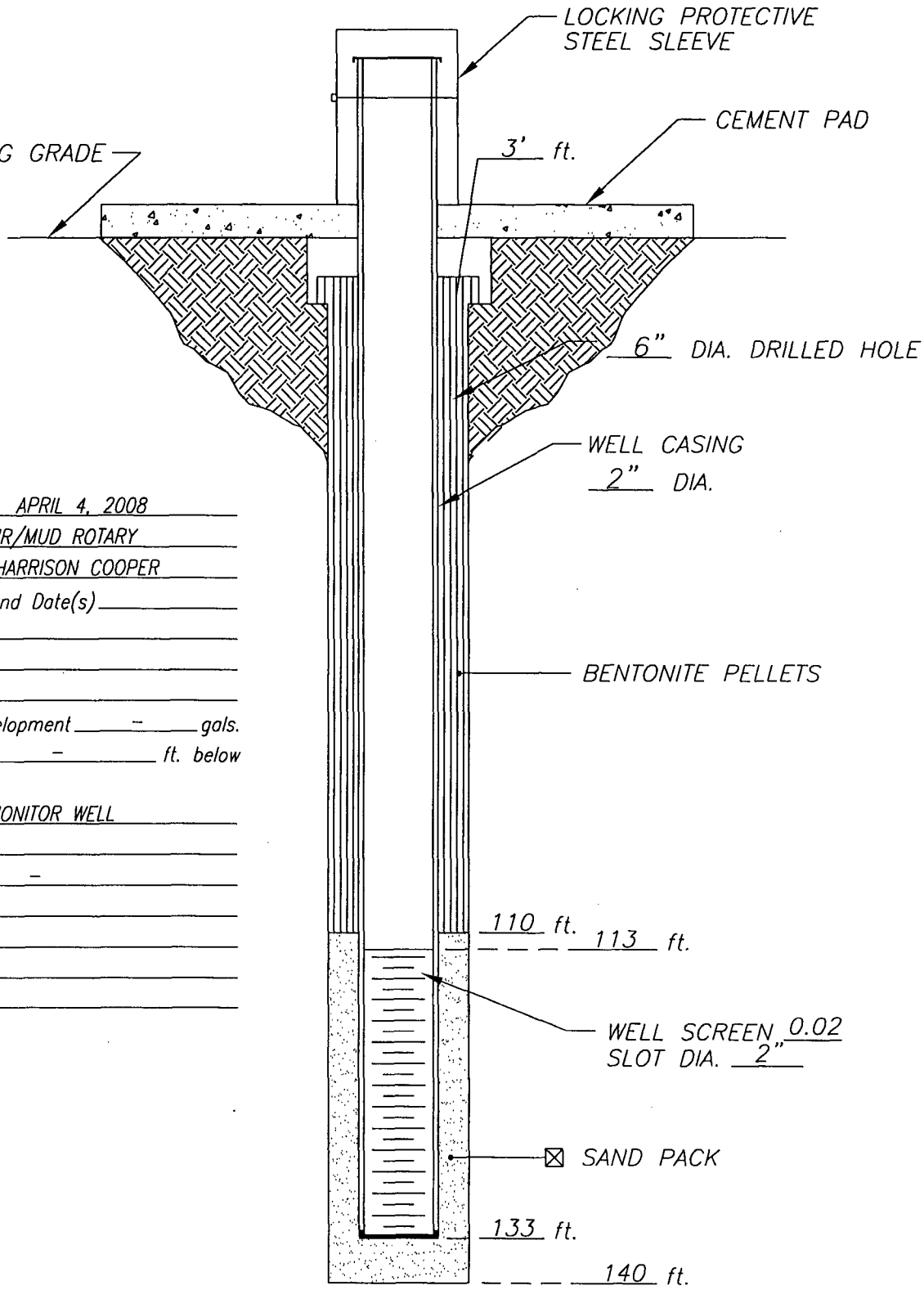
Sample Condition: Cool: Yes ✓ / No; Intact: Yes ✓ / No

CHECKED BY: (Initials) MCBB

REMARKS:

Email Results to: kpope@riceswd.com
lweinheimer@riceswd.com
rozanne@valornet.com

WELL CONSTRUCTION LOG



Installation Date(s) APRIL 4, 2008
Drilling Method AIR/MUD ROTARY
Drilling Contractor HARRISON COOPER
Development Technique(s) and Date(s) –

Water Removed During Development – gals.
Static Depth to Water – ft. below Ground Level
Well Purpose MONITOR WELL

Remarks –

DATE: APRIL 4, 2008 *Highlander Environmental*	CLIENT: *RICE OPERATING* PROJECT: *BD H-19 VENT* LOCATION: *LEA COUNTY, NEW MEXICO*	WELL NO. MW-1

Hansen, Edward J., EMNRD

From: Jeff Kindley [jkindley@hec-enviro.com]
Sent: Wednesday, March 26, 2008 9:35 AM
To: Price, Wayne, EMNRD; Hansen, Edward J., EMNRD; Sanchez, Daniel J., EMNRD; Johnson, Larry, EMNRD
Cc: 'Lara Weinheimer'
Subject: ROC Notifications for Field Activities

March 26, 2008

NMOCD
Hobbs, Santa Fe
Notification prior to sampling activities

Highlander Environmental Corporation personnel will be at the following locations next week for investigation of Rice Operating Company (ROC) sites:

Monday, March 31, 2008

Justice E-1 Vent – Unit E, Section 1, T-25-S, R-37-E.

Installation of two monitor wells

Tuesday, April 1, 2008

BD H-18/9 Vent – Unit H, Section 19, T-21-S, R-37-E IR 426-09

Investigative Soil Boring for vertical delineation. Possible installation of one monitor well.

If you have any questions or require any additional information, please advise.

Jeff Kindley, P.G.
Senior Environmental Geologist
Highlander Environmental Corp.
Office – (432) 682-4559