

1R - 415

REPORTS

DATE:

12-31-09



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December 31, 2009

Edward J. Hansen
NMOCD
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
VIA EMAIL

RE: Soil Investigation Work Plan at Abo 1-G Release Site, Unit G, Section 1, 17S, 36E
NMOCD case # 1R 0415

Dear Mr. Hansen,

The purpose of this letter is to report the findings of Soil Investigation Work Plan, dated December 8, 2009; the confirmatory boring was completed on December 14, 2009 at the Abo 1-G site near Lovington, New Mexico. Rice Operating Company conducted the work on behalf of Vanguard LLC.

Work Plan Completed

A second Confirmatory Boring was located between SB-1 (drilled in October, 2003) and the Confirmatory Boring #1 (drilled in October, 2006). We completed this boring on December 14, 2009. Based on field titrations, the boring was terminated at 60 feet where three consecutive samples had chloride concentrations less than 250 mg/kg. Samples were collected at 5 foot intervals and the first 30 feet of samples were obtained by use of a split spoon tool all other samples were collected from cuttings. Selected samples were submitted to the laboratory for analysis. A soil bore log and lab analytical data are attached, a comparison of chloride concentration with depth was made with data obtained from the adjacent deep borings at the site (SB-1 and the Confirmatory Boring #1) the results confirm our conclusion. Figure 1 is attached showing the results of all three borings.

Request for Termination of the Regulatory File

This new soil data shows consistency with existing data which supports the conclusion that the release at Lovington Abo 1G is not the source of ground water impact; Vanguard requests that NMOCD terminate the regulatory file in accordance with the previously-

submitted closure report dated 4-3-08. Upon termination of the file, Vanguard will plug and abandon the monitor well on site.

Thank you for your consideration concerning this request. If you have any questions, do not hesitate to contact me.

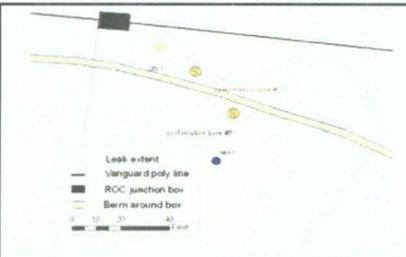
Sincerely,

A handwritten signature in black ink, appearing to read "Britt Pence", written in a cursive style.

Britt Pence
Vice President

Attachments: SB Log, Lab Analytical Report, Figure 1

Logger: Lara Weinheimer
Driller: Harrison & Cooper, Inc. Drilling
OPERATOR: Vanguard
Drilling Method: Air rotary
Start Date: 12/14/2009
End Date: 12/14/2009

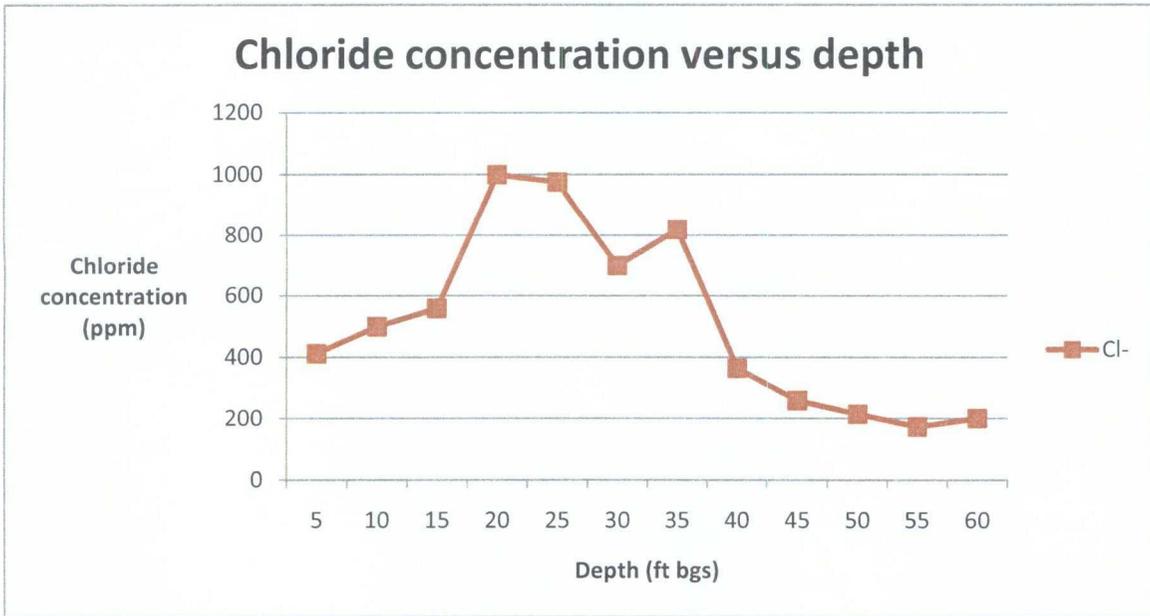


Comments: Split spoon sampling to 30' All others were from cuttings. Located 40.5 ft NNW of MW-1.
 Drafted by: Lara Weinheimer
 TD = 60 ft GW = 98 ft

Project Name: Abo 1G
Well ID: Confir. bore #2
Location: UL/G sec. 1 T17S R36E
Lat: 32°52'2.172"N
Long: 103°18'13.788"W
County: Lea
State: NM

Depth (feet)	chloride field tests	LAB	PID	Description	Lithology	Well Construction
0 - 5 ft				VERY FINE TO FINE SAND; CALICHE PARTICLES light orangey-brown, dry, no odor	[Yellowish-brown lithology]	[Well construction diagram showing casing and bentonite seal]
5	412					
5 - 10 ft				VERY FINE TO FINE SAND light orangey-brown, dry, no odor	[Yellowish-brown lithology]	
10	500					
10 - 25 ft				VERY FINE TO FINE SAND WITH SANDSTONE light orangey-brown, dry, no odor	[Yellowish-brown lithology]	
15	558					
20	999	Cl-834				
25	975			Moist		
25 - 30 ft				VERY FINE TO FINE SAND orangey-brown, moist, no odor	[Yellowish-brown lithology]	
30	699					
30 - 60 ft				VERY FINE TO FINE SAND WITH CALICHE PARTICLES light brown, dry, no odor	[Brown lithology]	
35	818					
40	364					

Depth (feet)	chloride field tests	LAB	PID	Description	Lithology	Well Construction
45	259	Cl-160				
50	214	Cl-112				
				Slightly moist		
55	173	Cl-48				
60	200	Cl-48				





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

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

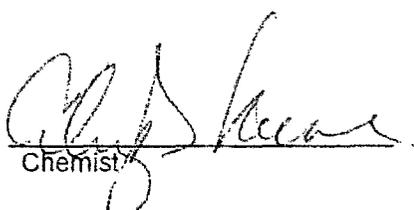
Receiving Date: 12/14/09
Reporting Date: 12/15/09
Project Number: NOT GIVEN
Project Name: ABO 1G
Project Location: ABO 1G

Analysis Date: 12/15/09
Sampling Date: 12/14/09
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: AB
Analyzed By: HM

LAB NO.	SAMPLE ID	Cl ⁻ (mg/kg)
H18873-1	CONFIRMATION BORE #2 @ 20'	832
H18873-2	CONFIRMATION BORE #2 @ 45'	160
H18873-3	CONFIRMATION BORE #2 @ 50'	112
H18873-4	CONFIRMATION BORE #2 @ 55'	48
H18873-5	CONFIRMATION BORE #2 @ 60'	48
Quality Control		500
True Value QC		500
% Recovery		100
Relative Percent Difference		< 0.1

METHOD: Standard Methods 4500-Cl⁻B

Note: Analyses performed on 1:4 w:v aqueous extracts.


Chemist

12/15/09
Date

H18873 RICE

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CHAIN OF CUSTODY AND ANALYSIS REQUEST

Company Name: Rice Operating Company
Project Manager: Hack Conder
Address: 122 West Taylor
City: Hobbs
Phone #: 393-9174
State: NM **Zip:** 88240
Project #:
Project Name: Av, 16
Project Location: Av, 16
Sampler Name: Lara Weinheimer

Lab I.D.	Sample I.D.	CONTAINERS			MATRIX			PRESERV.			SAMPLING			
		(GRAB OR) (CMP)	#	OTHER	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER	ACID/BASE	ICE/COOL	OTHER	DATE
H18873-1	Lehman's house # 2	1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	12-14-09	8:58
-2	"	1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	12-14-09	9:28
-3	"	1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	12-14-09	9:30
-4	"	1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	12-14-09	9:52
-5	"	1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	12-14-09	9:57

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Relinquished By: L. Weinheimer
Date: 12-14-09
Time: 5:00
Received By: [Signature]
Date:
Time:

Relinquished By:
Date:
Time:

Delivered By: (Circle One)
 Sampler - UPS - Bus - Other: #16-52
Checked By: [Signature] (Initials)

REMARKS: email results

Phone Results: Yes No
Add'l Phone #:
Fax Results: Yes No
Add'l Fax #:

Hconder@riceswd.com; jburvis@riceswd.com;
 Lweinheimer@riceswd.com

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

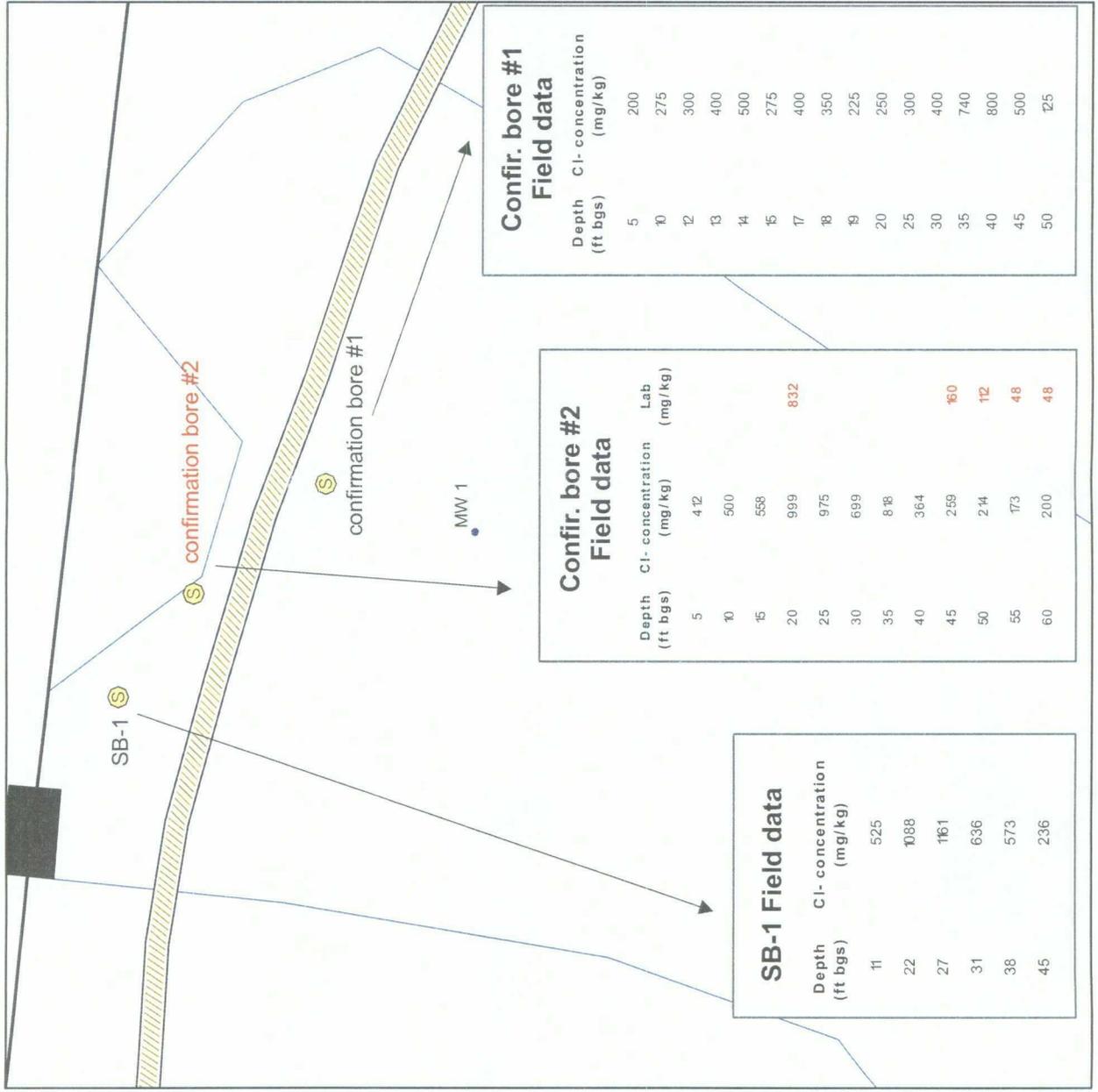
NEED SAMPLES BACK, PLEASE



122 W. Taylor
 Hobbs, NM 88240
 Phone (575) 393-9174
 Fax (575) 397-1471

Site Name: Abo 1G
 Legals: UL/G sec. 1 T17S R36E
 NMOCD Case #: 1R 0415
 Operator: Vanguard

Soil bore locations



- Leak extent
- Vanguard poly line
- Vanguard junction box
- ▨ Berm around box



FIGURE 1