

GRCC

Monzeglio, Hope, NMENV

From: Rajen, Gaurav [Gaurav.Rajen@wnr.com]
Sent: Friday, January 02, 2009 1:04 PM
To: Monzeglio, Hope, NMENV
Cc: Chavez, Carl J, EMNRD; Cobrain, Dave, NMENV; Riege, Ed; Johnson, Cheryl; Dorsey, Alvin
Subject: Lab addendum report of 12-29-08 on sampling of NAPIS wells in September 2008
Attachments: 0810065-addendum.pdf

Hope Monzeglio
 Hazardous Waste Bureau
 NMED

Dear Hope:

I am pleased to send you a recent addendum that our environmental testing laboratory sent us on December 29, 2008, related to the monitoring of NAPIS wells in September 2008. As you may recall, this was an event in which we were unable to collect enough volumes to test for all needed chemicals. (Please see my earlier e-mail of October 29, 2008 – attached below.)

For the data from September 2008, the laboratory had made an error in that we had requested BTEX as well as MTBE and the laboratory report had not included MTBE results, but only BTEX. The original Chain-of-custody had listed MTBE as a needed test.

The laboratory personnel went through their records (at our request) and were able to correct this error. The attached report now does include MTBE results.

You will note that NAPIS-1 which does not usually show MTBE had a very slight level of MTBE at 0.004 ppm – this well was Non-detect for MTBE in the November 2008 sampling. NAPIS-2 which has shown low levels of MTBE that are declining came up Non-detect for MTBE in the September tests.

With my best regards,

Raj

From: Rajen, Gaurav
Sent: Wednesday, October 29, 2008 10:45 AM
To: 'Monzeglio, Hope, NMENV'
Cc: 'Chavez, Carl J, EMNRD'; Cobrain, Dave, NMENV; Riege, Ed; Johnson, Cheryl; Dorsey, Alvin
Subject: Monitoring of NAPIS wells in September 2008

October 29, 2008

Hope Monzeglio
 Hazardous Waste Bureau
 NMED

Dear Hope:

It is a pleasure to send you the laboratory results for the NAPIS wells, NAPIS-1 (formerly also identified as KA1R), NAPIS-2 (formerly also identified as KA2R) and NAPIS-3 (formerly also identified as KA3R), for samples that we collected on September 30, 2008; as well as details of our well gauging, purging and testing of basic water quality parameters in the field. These results from the laboratory were received on October 17, 2008.

Our original sampling event was set for September 23, 2008, and so we purged the wells on September 22, 2008, as the monitoring well NAPIS-3 (formerly KA3R) has been found to take a day to recharge. However, we were unable to sample on September 23, 2008 due to personnel unavailability; and had to reschedule the sampling event to September 30, 2008. Details of our efforts are presented below.

1/5/2009

On September 30, 2008, we found that the wells are now beginning to run dry. Well NAPIS-3 was dry and had not recharged at all from previous purging on September 22, 2008; wells NAPIS-1 and NAPIS-2 could not be purged of three well volumes on September 30, 2008, both had begun to recharge at very low rates, and we were unable to collect enough water volumes to run all the tests planned. The volumes we collected have allowed us to conduct DRO, MRO, GRO, BTEX and Volatiles, and COD analyses on NAPIS-1 and NAPIS-2. For NAPIS-1 we were able to get an additional volume that enabled us to also test for basic metals.

On September 30, 2008, we waited several hours to collect more volumes of the samples but were unable to get any additional water out of these wells. We also returned to the wells on October 1, 2008, and again on October 2, 2008, to collect more volumes of water if possible and found that the wells were still dry. Our next scheduled sampling event is for mid-November 2008. We hope to have sufficient volumes of water at that time to run all our planned tests.

We believe that the fact of the wells not having much water is indicative of the wells intersecting a perched body of groundwater that may get recharged seasonally from the surface, but that does not connect to a continuing and major source of groundwater from a shallow aquifer.

Details of well gauging and purging; and basic water quality parameters collected in the field:

NAPIS 1 (formerly also KA1R)

9/22/2008

Depth to bottom: 14.0 feet

Depth to water surface: 8.92 feet

Three well volumes calculated as 2.5 gallons and purged.

On September 30, 2008, the depth to water was again approximately 8.9 feet, but there was insufficient water flow and recharge to purge the well of three well volumes – after approximately 1 gallon was purged and recharge found to be very slow, we collected as many bottles of water volumes as possible. However, the water volume was insufficient to conduct all the planned laboratory tests. We returned again to the well on October 1 and October 2, 2008, and found it to be still dry.

Temperature: 21.4 degrees C

Specific Conductivity 2.374 milliSiemens/cm

pH – 7.21

Salinity 1.2 ppt

Dissolved Oxygen – 0.76 mg/L

NAPIS 2 (formerly also KA2R)

9/22/2008

Depth to bottom: 14.5 feet

Depth to water surface: 9.27 feet

Three well volumes calculated as approximately 3 gallons and purged.

On September 30, 2008, the depth to water was again approximately 9.2 feet, but there was insufficient water flow and recharge to purge the well of three well volumes – after approximately 1 gallon was purged and recharge found to be very slow, we collected as many bottles of water volumes as possible. However, the water volume was insufficient to conduct all the planned laboratory tests. We returned again to the well on October 1 and October 2, 2008, and found it to be still dry.

Temperature: 25.5 degrees C

Specific Conductivity 1.665 milliSiemens/cm

pH – 7.08

Salinity 0.8 ppt

Dissolved Oxygen – 0.44 mg/L

NAPIS 3 (formerly also KA3R)

9/22/2008

Depth to bottom: 30.7 feet

Depth to water surface: 8.23 feet

Three well volumes calculated as approximately 11 gallons and purged.

On September 30, 2008, the well was found to be dry. We returned again to the well on October 1 and October 2, 2008, and found it to be still dry.

No data on water quality parameters could be obtained as the well was dry

Basic parameter data were collected using a pH-Conductivity probe and meter and a separate Dissolved Oxygen probe and meter manufactured by YSI. The probes were calibrated according to the manufacturer's specifications.

We collected water samples into containers supplied by the analytical laboratory. The filled sample containers were kept in an ice

1/5/2009

cooler while in the field and in a locked state inside a refrigerated cooler before final shipment. The containers were shipped in an ice cooler packed with ice on October 2, 2008, and reached the analytical laboratory on October 3, 2008.

Copies of the laboratory reports from our September sampling event are attached. I have also attached a copy of our laboratory results from July 2008. You will notice that for those results that can be compared, such as for DRO, MRO, GRO, and BTEX/Volatiles in NAPIS-2, the levels are lower for some constituents and not much higher for others in September 2008 than they were in July, 2008. I have attached a Table that compares these data for July and for September for NAPIS-2. The well NAPIS-1 has had non-detectable levels for the hydrocarbons tested – in July as well as in September, 2008.

We look forward to your comments.

With my best regards,

Gaurav Rajen, Ph.D.

This inbound email has been scanned by the MessageLabs Email Security System.



COVER LETTER

Monday, December 29, 2008

Gaurav Rajen
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301

TEL: (505) 722-3833
FAX (505) 722-0210

RE: NAPIS

Dear Gaurav Rajen:

Order No.: 0810065

Hall Environmental Analysis Laboratory, Inc. received 2 sample(s) on 10/3/2008 for the analyses presented in the following report.

This report is an addendum to the report dated October 17, 2008. This is an updated report.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a horizontal line.

Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager



Hall Environmental Analysis Laboratory, Inc.

Date: 29-Dec-08

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 0810065
 Project: NAPIS
 Lab ID: 0810065-01

Client Sample ID: NAPIS-1
 Collection Date: 9/30/2008 2:00:00 PM
 Date Received: 10/3/2008
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
						Analyst: SCC
EPA METHOD 8015B: DIESEL RANGE						
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	10/7/2008
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	10/7/2008
Surr: DNOP	105	58-140		%REC	1	10/7/2008
						Analyst: DAM
EPA METHOD 8015B: GASOLINE RANGE						
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	10/13/2008 4:55:44 PM
Surr: BFB	85.4	59.9-122		%REC	1	10/13/2008 4:55:44 PM
						Analyst: DAM
EPA METHOD 8021B: VOLATILES						
Methyl tert-butyl ether (MTBE)	4.6	2.5		µg/L	1	10/13/2008 4:55:44 PM
Benzene	ND	1.0		µg/L	1	10/13/2008 4:55:44 PM
Toluene	ND	1.0		µg/L	1	10/13/2008 4:55:44 PM
Ethylbenzene	ND	1.0		µg/L	1	10/13/2008 4:55:44 PM
Xylenes, Total	ND	2.0		µg/L	1	10/13/2008 4:55:44 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	10/13/2008 4:55:44 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	10/13/2008 4:55:44 PM
Surr: 4-Bromofluorobenzene	96.5	65.9-130		%REC	1	10/13/2008 4:55:44 PM

Qualifiers: * Value exceeds Maximum Contaminant Level
 E Estimated value
 J Analyte detected below quantitation limits
 ND Not Detected at the Reporting Limit
 S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 MCL Maximum Contaminant Level
 RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 29-Dec-08

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 0810065
 Project: NAPIS
 Lab ID: 0810065-02

Client Sample ID: NAPIS-2
 Collection Date: 9/30/2008 2:25:00 PM
 Date Received: 10/3/2008
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	3.9	1.0		mg/L	1	10/7/2008
Motor Oil Range Organics (MRO)	7.7	5.0		mg/L	1	10/7/2008
Surr: DNOP	112	58-140		%REC	1	10/7/2008
EPA METHOD 8015B: GASOLINE RANGE						Analyst: DAM
Gasoline Range Organics (GRO)	0.45	0.050		mg/L	1	10/13/2008 5:25:59 PM
Surr: BFB	120	59.9-122		%REC	1	10/13/2008 5:25:59 PM
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	10/13/2008 5:25:59 PM
Benzene	16	1.0		µg/L	1	10/13/2008 5:25:59 PM
Toluene	ND	1.0		µg/L	1	10/13/2008 5:25:59 PM
Ethylbenzene	1.6	1.0		µg/L	1	10/13/2008 5:25:59 PM
Xylenes, Total	4.1	2.0		µg/L	1	10/13/2008 5:25:59 PM
1,2,4-Trimethylbenzene	10	1.0		µg/L	1	10/13/2008 5:25:59 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	10/13/2008 5:25:59 PM
Surr: 4-Bromofluorobenzene	117	65.9-130		%REC	1	10/13/2008 5:25:59 PM

Qualifiers: * Value exceeds Maximum Contaminant Level
 E Estimated value
 J Analyte detected below quantitation limits
 ND Not Detected at the Reporting Limit
 S Spike recovery outside accepted recovery limits
 B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 MCL Maximum Contaminant Level
 RL Reporting Limit



**ENVIRONMENTAL
SCIENCE CORP.**

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289
Est. 1970

REPORT OF ANALYSIS

Andy Freeman
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

October 14, 2008

Date Received : October 07, 2008
Description :
Sample ID : NAPIS-1
Collected By :
Collection Date : 09/30/08 14:00

ESC Sample # : L368557-01

Site ID :
Project # : 0810065

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Mercury	BDL	0.00020	mg/l	7470A	10/09/08	1
Arsenic	BDL	0.020	mg/l	6010B	10/10/08	1
Barium	0.17	0.0050	mg/l	6010B	10/10/08	1
Cadmium	BDL	0.0050	mg/l	6010B	10/10/08	1
Chromium	BDL	0.010	mg/l	6010B	10/10/08	1
Lead	BDL	0.0050	mg/l	6010B	10/10/08	1
Selenium	0.050	0.020	mg/l	6010B	10/14/08	1
Silver	BDL	0.010	mg/l	6010B	10/10/08	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit (PQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 10/14/08 15:08 Printed: 10/14/08 15:09



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REPORT OF ANALYSIS

Andy Freeman
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

October 14, 2008

Date Received : October 07, 2008
Description :
Sample ID : NAPIS-1
Collected By :
Collection Date : 09/30/08 14:00

ESC Sample # : L368557-02

Site ID :

Project # : 0810065

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	26.	20.	mg/l	410.4	10/10/08	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit (PQL)

Note:

The reported analytical results relate only to the sample submitted.

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REPORT OF ANALYSIS

October 14, 2008

Andy Freeman
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

ESC Sample # : L368557-03

Date Received : October 07, 2008
Description :

Site ID :

Sample ID : NAPIS-2

Project # : 0810065

Collected By :
Collection Date : 09/30/08 14:25

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	92.	20.	mg/l	410.4	10/10/08	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 10/14/08 15:08 Printed: 10/14/08 15:09

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
 Project: NAPIS

Work Order: 0810065

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8015B: Diesel Range

Sample ID: MB-17284		MBLK			Batch ID: 17284		Analysis Date: 10/7/2008		
Diesel Range Organics (DRO)	ND	mg/L	1.0						
Motor Oil Range Organics (MRO)	ND	mg/L	5.0						
Sample ID: LCS-17284		LCS			Batch ID: 17284		Analysis Date: 10/7/2008		
Diesel Range Organics (DRO)	6.168	mg/L	1.0	123	74	157			
Sample ID: LCSD-17284		LCSD			Batch ID: 17284		Analysis Date: 10/7/2008		
Diesel Range Organics (DRO)	6.371	mg/L	1.0	127	74	157	3.23	23	

Method: EPA Method 8015B: Gasoline Range

Sample ID: B		MBLK			Batch ID: R30669		Analysis Date: 10/13/2008 9:15:56 AM		
Gasoline Range Organics (GRO)	ND	mg/L	0.050						
Sample ID: 2.5UG GRO LCS		LCS			Batch ID: R30669		Analysis Date: 10/13/2008 7:57:41 PM		
Gasoline Range Organics (GRO)	0.5322	mg/L	0.050	106	80	115			

Method: EPA Method 8021B: Volatiles

Sample ID: B		MBLK			Batch ID: R30669		Analysis Date: 10/13/2008 9:15:56 AM		
Methyl tert-butyl ether (MTBE)	ND	µg/L	2.5						
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
1,2,4-Trimethylbenzene	ND	µg/L	1.0						
1,3,5-Trimethylbenzene	ND	µg/L	1.0						
Sample ID: 100NG BTEX LCS		LCS			Batch ID: R30669		Analysis Date: 10/13/2008 8:28:10 PM		
Methyl tert-butyl ether (MTBE)	26.55	µg/L	2.5	133	51.2	138			
Benzene	20.06	µg/L	1.0	100	85.9	113			
Toluene	21.07	µg/L	1.0	105	86.4	113			
Ethylbenzene	20.74	µg/L	1.0	104	83.5	118			
Xylenes, Total	63.21	µg/L	2.0	105	83.4	122			
1,2,4-Trimethylbenzene	24.00	µg/L	1.0	120	83.5	115			S
1,3,5-Trimethylbenzene	22.42	µg/L	1.0	112	85.2	113			

Method: EPA Method 8260: Volatiles Short List

Sample ID: 5ml rb		MBLK			Batch ID: R30681		Analysis Date: 10/14/2008 9:45:36 AM		
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0						
Sample ID: 5ml rb		MBLK			Batch ID: R30681		Analysis Date: 10/14/2008 9:45:36 AM		
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0						

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

Chain-of-Custody Record

Client: **WESTERN-Refining**
Gallup Refinery
 Address: **RT 3 Box 9**
GALLUP NM 87301
 Phone #: **505 722 3227**
 email or Fax#: **505 722 3839**

QA/QC Package:
 Standard Level 4 (Full Validation)
 Other _____
 EDD (Type) _____

Turn-Around Time:
 Standard Rush _____

Project Name:
NAPIS

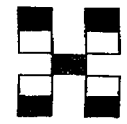
Project #: **NAPIS1 NAPIS 2**
NAPIS 3

Project Manager:
GAUTAU RAJEN

Sampler: **A DORSEY**

On Ice: Yes No

Sample Temperature: _____



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com
 4901 Hawkins NE - Albuquerque, NM 87109
 Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMB's (8021)B	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8260)	8310 (PNA or PAH)	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	COD	6010C RCIOMETH	Air Bubbles (Y or N)	
9/30/08	2:00	NAPIS-1	1-500ml	H ₂ SO ₄	0810065 -1													X		
9/30/08	2:00	NAPIS-1	1-500ml	HNO ₃	-1													X		
9/30/08	2:00	NAPIS-1	3-40ml	HCL	-1-2	X														
9/30/08	2:00	NAPIS-1	3-40ml	HCL	-1-2		X													
9/30/08	2:25	NAPIS-2	1-500ml	H ₂ SO ₄	-2-B												X			
9/30/08	2:25	NAPIS-2	3-40ml	HCL	-2-B	X														
9/30/08	2:25	NAPIS-2	3-40ml	HCL	-2-B		X													

Date: 9/30/08 Time: _____ Relinquished by: *[Signature]* Received by: *[Signature]* 9:10 10/3/08

Date: _____ Time: _____ Relinquished by: _____ Received by: _____

Remarks: _____

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.