Monzeglio, Hope, NMENV

ENTERED

From: Rajen, Gaurav [Gaurav.Rajen@wnr.com]
Sent: Thursday, August 27, 2009 4:58 PM
To: Monzeglio, Hope, NMENV; Chavez, Carl J, EMNRD
Cc: Riege, Ed; Johnson, Cheryl
Subject: 3rd Quarter NAPIS wells' analytical results
Attachments: 3rd quarter 2009.pdf

Dear Hope and Carl:

It is a pleasure to send you our 3rd quarter sampling results for the NAPIS wells. Please note that we were unable to collect samples from NAPIS-3 and KA-3 because of ongoing work in that section.

As we had been remiss in quick forwarding of these data in the past, I am sending you this report right away. We will be sending you our field data shortly.

Best regards,

Raj

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Thursday, August 27, 2009

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

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

RE: 3rd Quarter NAPIS Samples

Order No.: 0908181

Dear Gaurav Rajen:

Hall Environmental Analysis Laboratory, Inc. received 2 sample(s) on 8/12/2009 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites.

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,

Andy Freeman, Laboratory Manager

NM Lab # NM9425
AZ license # AZ0682
ORELAP Lab # NM100001
Texas Lab# T104704424-08-TX

4901 Hawkins NE ■ Suite D ■ Albuquerque, NM 87109
505.345.3975 ■ Fax 505.345.4107
www.hallenvironmental.com

Hall Environmental Analysis Laboratory, Inc.

Date: *27-Aug-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	NAPIS-1
Lab Order:	0908181	**Collection Date:**	8/11/2009 9:48:00 AM
Project:	3rd Quarter NAPIS Samples	**Date Received:**	8/12/2009
Lab ID:	0908181-01	**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	8/13/2009
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/13/2009
Surr: DNOP	119	58-140		%REC	1	8/13/2009
						Analyst: **NSB**
EPA METHOD 8015B: GASOLINE RANGE						
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/22/2009 5:43:43 PM
Surr: BFB	78.2	55.2-107		%REC	1	8/22/2009 5:43:43 PM
						Analyst: **JMP**
EPA METHOD 8310: PAHS						
Naphthalene	ND	2.0		µg/L	1	8/20/2009 3:43:41 PM
1-Methylnaphthalene	ND	2.0		µg/L	1	8/20/2009 3:43:41 PM
2-Methylnaphthalene	ND	2.0		µg/L	1	8/20/2009 3:43:41 PM
Acenaphthylene	ND	2.5		µg/L	1	8/20/2009 3:43:41 PM
Acenaphthene	ND	5.0		µg/L	1	8/20/2009 3:43:41 PM
Fluorene	ND	0.80		µg/L	1	8/20/2009 3:43:41 PM
Phenanthrene	ND	0.60		µg/L	1	8/20/2009 3:43:41 PM
Anthracene	ND	0.60		µg/L	1	8/20/2009 3:43:41 PM
Fluoranthene	ND	0.30		µg/L	1	8/20/2009 3:43:41 PM
Pyrene	ND	0.30		µg/L	1	8/20/2009 3:43:41 PM
Benz(a)anthracene	ND	0.070		µg/L	1	8/20/2009 3:43:41 PM
Chrysene	ND	0.20		µg/L	1	8/20/2009 3:43:41 PM
Benzo(b)fluoranthene	ND	0.10		µg/L	1	8/20/2009 3:43:41 PM
Benzo(k)fluoranthene	ND	0.070		µg/L	1	8/20/2009 3:43:41 PM
Benzo(a)pyrene	ND	0.070		µg/L	1	8/20/2009 3:43:41 PM
Dibenz(a,h)anthracene	ND	0.070		µg/L	1	8/20/2009 3:43:41 PM
Benzo(g,h,i)perylene	ND	0.080		µg/L	1	8/20/2009 3:43:41 PM
Indeno(1,2,3-cd)pyrene	ND	0.080		µg/L	1	8/20/2009 3:43:41 PM
Surr: Benzo(e)pyrene	73.8	28.3-111		%REC	1	8/20/2009 3:43:41 PM
						Analyst: **LJB**
EPA METHOD 300.0: ANIONS						
Fluoride	1.2	0.10		mg/L	1	8/12/2009 5:46:49 PM
Chloride	160	2.0		mg/L	20	8/12/2009 6:04:13 PM
Nitrogen, Nitrate (As N)	0.54	0.10		mg/L	1	8/12/2009 5:46:49 PM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	8/12/2009 5:46:49 PM
Sulfate	93	10		mg/L	20	8/12/2009 6:04:13 PM
						Analyst: **MMS**
EPA METHOD 7470: MERCURY						
Mercury	ND	0.00020		mg/L	1	8/13/2009 4:11:17 PM
						Analyst: **TES**
EPA 6010B: TOTAL RECOVERABLE METALS						
Arsenic	ND	0.020		mg/L	1	8/24/2009 6:10:32 PM
Barium	0.11	0.020		mg/L	1	8/24/2009 6:10:32 PM

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

Hall Environmental Analysis Laboratory, Inc.

Date: *27-Aug-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	NAPIS-1
Lab Order:	0908181	**Collection Date:**	8/11/2009 9:48:00 AM
Project:	3rd Quarter NAPIS Samples	**Date Received:**	8/12/2009
Lab ID:	0908181-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **TES**
Cadmium	ND	0.0020		mg/L	1	8/24/2009 6:10:32 PM
Calcium	56	1.0		mg/L	1	8/24/2009 6:10:32 PM
Chromium	ND	0.0060		mg/L	1	8/24/2009 6:10:32 PM
Lead	ND	0.0050		mg/L	1	8/24/2009 6:10:32 PM
Magnesium	11	1.0		mg/L	1	8/24/2009 6:10:32 PM
Potassium	1.7	1.0		mg/L	1	8/24/2009 6:10:32 PM
Selenium	ND	0.050		mg/L	1	8/24/2009 6:10:32 PM
Silver	ND	0.0050		mg/L	1	8/24/2009 6:10:32 PM
Sodium	380	5.0		mg/L	5	8/25/2009 6:19:04 PM
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **DAM**
Benzene	ND	1.0		µg/L	1	8/24/2009 1:40:16 PM
Toluene	ND	1.0		µg/L	1	8/24/2009 1:40:16 PM
Ethylbenzene	ND	1.0		µg/L	1	8/24/2009 1:40:16 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/24/2009 1:40:16 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/24/2009 1:40:16 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/24/2009 1:40:16 PM
Xylenes, Total	ND	2.0		µg/L	1	8/24/2009 1:40:16 PM
Surr: 4-Bromofluorobenzene	99.6	60.1-133		%REC	1	8/24/2009 1:40:16 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **DAM**
Specific Conductance	1800	0.010		µmhos/cm	1	8/13/2009
SM4500-H+B: PH						Analyst: **DAM**
pH	7.67	0.1		pH units	1	8/13/2009

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

Hall Environmental Analysis Laboratory, Inc.

Date: *27-Aug-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	NAPIS-2
Lab Order:	0908181	**Collection Date:**	8/11/2009 10:19:00 AM
Project:	3rd Quarter NAPIS Samples	**Date Received:**	8/12/2009
Lab ID:	0908181-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
						Analyst: **SCC**
EPA METHOD 8015B: DIESEL RANGE						
Diesel Range Organics (DRO)	2.9	1.0		mg/L	1	8/13/2009
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/13/2009
Surr: DNOP	127	58-140		%REC	1	8/13/2009
						Analyst: **NSB**
EPA METHOD 8015B: GASOLINE RANGE						
Gasoline Range Organics (GRO)	0.62	0.50		mg/L	10	8/22/2009 6:44:40 PM
Surr: BFB	76.5	55.2-107		%REC	10	8/22/2009 6:44:40 PM
						Analyst: **JMP**
EPA METHOD 8310: PAHS						
Naphthalene	ND	2.0		µg/L	1	8/20/2009 4:03:52 PM
1-Methylnaphthalene	ND	2.0		µg/L	1	8/20/2009 4:03:52 PM
2-Methylnaphthalene	ND	2.0		µg/L	1	8/20/2009 4:03:52 PM
Acenaphthylene	ND	2.5		µg/L	1	8/20/2009 4:03:52 PM
Acenaphthene	ND	5.0		µg/L	1	8/20/2009 4:03:52 PM
Fluorene	7.3	0.80		µg/L	1	8/20/2009 4:03:52 PM
Phenanthrene	3.7	0.60		µg/L	1	8/20/2009 4:03:52 PM
Anthracene	ND	0.60		µg/L	1	8/20/2009 4:03:52 PM
Fluoranthene	ND	0.30		µg/L	1	8/20/2009 4:03:52 PM
Pyrene	ND	0.30		µg/L	1	8/20/2009 4:03:52 PM
Benz(a)anthracene	ND	0.070		µg/L	1	8/20/2009 4:03:52 PM
Chrysene	ND	0.20		µg/L	1	8/20/2009 4:03:52 PM
Benzo(b)fluoranthene	ND	0.10		µg/L	1	8/20/2009 4:03:52 PM
Benzo(k)fluoranthene	ND	0.070		µg/L	1	8/20/2009 4:03:52 PM
Benzo(a)pyrene	ND	0.070		µg/L	1	8/20/2009 4:03:52 PM
Dibenz(a,h)anthracene	ND	0.070		µg/L	1	8/20/2009 4:03:52 PM
Benzo(g,h,i)perylene	ND	0.080		µg/L	1	8/20/2009 4:03:52 PM
Indeno(1,2,3-cd)pyrene	ND	0.080		µg/L	1	8/20/2009 4:03:52 PM
Surr: Benzo(e)pyrene	78.0	28.3-111		%REC	1	8/20/2009 4:03:52 PM
						Analyst: **LJB**
EPA METHOD 300.0: ANIONS						
Fluoride	1.7	0.10		mg/L	1	8/12/2009 6:21:38 PM
Chloride	250	2.0		mg/L	20	8/12/2009 6:39:02 PM
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	8/12/2009 6:21:38 PM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	8/12/2009 6:21:38 PM
Sulfate	17	0.50		mg/L	1	8/12/2009 6:21:38 PM
						Analyst: **MMS**
EPA METHOD 7470: MERCURY						
Mercury	ND	0.00020		mg/L	1	8/13/2009 4:13:06 PM
						Analyst: **IC**
EPA 6010B: TOTAL RECOVERABLE METALS						
Arsenic	ND	0.020		mg/L	1	8/25/2009 1:51:37 PM
Barium	0.94	0.020		mg/L	1	8/24/2009 6:45:27 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: *27-Aug-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	NAPIS-2
Lab Order:	0908181	**Collection Date:**	8/11/2009 10:19:00 AM
Project:	3rd Quarter NAPIS Samples	**Date Received:**	8/12/2009
Lab ID:	0908181-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **IC**
Cadmium	ND	0.0020		mg/L	1	8/24/2009 6:45:27 PM
Calcium	57	1.0		mg/L	1	8/24/2009 6:45:27 PM
Chromium	ND	0.0060		mg/L	1	8/24/2009 6:45:27 PM
Lead	ND	0.0050		mg/L	1	8/24/2009 6:45:27 PM
Magnesium	11	1.0		mg/L	1	8/24/2009 6:45:27 PM
Potassium	ND	1.0		mg/L	1	8/24/2009 6:45:27 PM
Selenium	ND	0.050		mg/L	1	8/25/2009 1:51:37 PM
Silver	ND	0.0050		mg/L	1	8/24/2009 6:45:27 PM
Sodium	300	5.0		mg/L	5	8/25/2009 6:22:18 PM
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **DAM**
Benzene	57	10		µg/L	10	8/24/2009 2:08:26 PM
Toluene	ND	10		µg/L	10	8/24/2009 2:08:26 PM
Ethylbenzene	22	10		µg/L	10	8/24/2009 2:08:26 PM
Methyl tert-butyl ether (MTBE)	89	10		µg/L	10	8/24/2009 2:08:26 PM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	8/24/2009 2:08:26 PM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	8/24/2009 2:08:26 PM
Xylenes, Total	ND	20		µg/L	10	8/24/2009 2:08:26 PM
Surr: 4-Bromofluorobenzene	98.7	60.1-133		%REC	10	8/24/2009 2:08:26 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **DAM**
Specific Conductance	1500	0.010		µmhos/cm	1	8/13/2009
SM4500-H+B: PH						Analyst: **DAM**
pH	7.56	0.1		pH units	1	8/13/2009

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 3rd Quarter NAPIS Samples

Work Order: 0908181

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 300.0: Anions											
Sample ID: MB		*MBLK*				Batch ID: **R34895**		Analysis Date:	8/12/2009 10:10:37 AM		
Chloride	ND	mg/L	0.10								
Nitrogen, Nitrate (As N)	ND	mg/L	0.10								
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50								
Sulfate	ND	mg/L	0.50								
Sample ID: LCS		*LCS*				Batch ID: **R34895**		Analysis Date:	8/12/2009 10:28:02 AM		
Chloride	5.171	mg/L	0.10	5	0	103	90	110			
Nitrogen, Nitrate (As N)	2.612	mg/L	0.10	2.5	0	104	90	110			
Phosphorus, Orthophosphate (As P)	5.094	mg/L	0.50	5	0	102	90	110			
Sulfate	10.48	mg/L	0.50	10	0	105	90	110			
Sample ID: LCS-b		*LCS*				Batch ID: **R34895**		Analysis Date:	8/12/2009 1:08:16 PM		
Fluoride	0.4877	mg/L	0.10	0.5	0	97.5	90	110			
Method: EPA Method 8015B: Diesel Range											
Sample ID: MB-19860		*MBLK*				Batch ID: **19860**		Analysis Date:		8/13/2009	
Diesel Range Organics (DRO)	ND	mg/L	1.0								
Motor Oil Range Organics (MRO)	ND	mg/L	5.0								
Sample ID: LCS-19860		*LCS*				Batch ID: **19860**		Analysis Date:		8/13/2009	
Diesel Range Organics (DRO)	5.182	mg/L	1.0	5	0	104	74	157			
Sample ID: LCSD-19860		*LCSD*				Batch ID: **19860**		Analysis Date:		8/13/2009	
Diesel Range Organics (DRO)	4.775	mg/L	1.0	5	0	95.5	74	157	8.16	23	
Method: EPA Method 8015B: Gasoline Range											
Sample ID: 5ML RB		*MBLK*				Batch ID: **R34999**		Analysis Date:	8/22/2009 10:41:16 AM		
Gasoline Range Organics (GRO)	ND	mg/L	0.050								
Sample ID: 2.5UG GRO LCS		*LCS*				Batch ID: **R34999**		Analysis Date:	8/22/2009 8:51:38 PM		
Gasoline Range Organics (GRO)	0.4364	mg/L	0.050	0.5	0	87.3	80	115			
Sample ID: 2.5UG GRO LCSD		*LCSD*				Batch ID: **R34999**		Analysis Date:	8/22/2009 9:21:59 PM		
Gasoline Range Organics (GRO)	0.4482	mg/L	0.050	0.5	0	89.6	80	115	2.67	8.39	

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 3rd Quarter NAPIS Samples **Work Order:** 0908181

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8310: PAHs											
Sample ID: MB-19856		*MBLK*				Batch ID:	**19856**	Analysis Date:		8/20/2009 1:22:31 PM	
Naphthalene	ND	µg/L	2.0								
1-Methylnaphthalene	ND	µg/L	2.0								
2-Methylnaphthalene	ND	µg/L	2.0								
Acenaphthylene	ND	µg/L	2.5								
Acenaphthene	ND	µg/L	5.0								
Fluorene	ND	µg/L	0.80								
Phenanthrene	ND	µg/L	0.60								
Anthracene	ND	µg/L	0.60								
Fluoranthene	ND	µg/L	0.30								
Pyrene	ND	µg/L	0.30								
Benz(a)anthracene	ND	µg/L	0.070								
Chrysene	ND	µg/L	0.20								
Benzo(b)fluoranthene	ND	µg/L	0.10								
Benzo(k)fluoranthene	ND	µg/L	0.070								
Benzo(a)pyrene	ND	µg/L	0.070								
Dibenz(a,h)anthracene	ND	µg/L	0.070								
Benzo(g,h,i)perylene	ND	µg/L	0.080								
Indeno(1,2,3-cd)pyrene	ND	µg/L	0.080								
Sample ID: LCS-19856		*LCS*				Batch ID:	**19856**	Analysis Date:		8/20/2009 1:42:40 PM	
Naphthalene	51.40	µg/L	2.0	80	0	64.3	20.5	109			
1-Methylnaphthalene	52.19	µg/L	2.0	80.2	0	65.1	23.1	116			
2-Methylnaphthalene	51.38	µg/L	2.0	80	0	64.2	19.5	112			
Acenaphthylene	55.46	µg/L	2.5	80.2	0	69.2	27.5	119			
Acenaphthene	58.10	µg/L	5.0	80	0	72.6	31	117			
Fluorene	4.560	µg/L	0.80	8.02	0	56.9	17.1	109			
Phenanthrene	2.710	µg/L	0.60	4.02	0	67.4	25.5	112			
Anthracene	2.880	µg/L	0.60	4.02	0	71.6	25.8	119			
Fluoranthene	5.680	µg/L	0.30	8.02	0	70.8	27.2	122			
Pyrene	5.390	µg/L	0.30	8.02	0	67.2	24.1	118			
Benz(a)anthracene	0.5600	µg/L	0.070	0.802	0	69.8	31.1	125			
Chrysene	2.800	µg/L	0.20	4.02	0	69.7	32.8	119			
Benzo(b)fluoranthene	0.6800	µg/L	0.10	1.002	0	67.9	24.4	117			
Benzo(k)fluoranthene	0.3800	µg/L	0.070	0.5	0	76.0	28.4	132			
Benzo(a)pyrene	0.3300	µg/L	0.070	0.502	0	65.7	32.4	119			
Dibenz(a,h)anthracene	0.6800	µg/L	0.070	1.002	0	67.9	33.9	120			
Benzo(g,h,i)perylene	0.6600	µg/L	0.080	1	0	66.0	35.2	113			
Indeno(1,2,3-cd)pyrene	1.370	µg/L	0.080	2.004	0	68.4	33.6	115			
Sample ID: LCSD-19856		*LCSD*				Batch ID:	**19856**	Analysis Date:		8/20/2009 2:02:48 PM	
Naphthalene	37.36	µg/L	2.0	80	0	46.7	20.5	109	31.6	32.1	
1-Methylnaphthalene	41.86	µg/L	2.0	80.2	0	52.2	23.1	116	22.0	32.7	
2-Methylnaphthalene	39.99	µg/L	2.0	80	0	50.0	19.5	112	24.9	34	
Acenaphthylene	44.78	µg/L	2.5	80.2	0	55.8	27.5	119	21.3	38.8	
Acenaphthene	48.26	µg/L	5.0	80	0	60.3	31	117	18.5	38.6	
Fluorene	4.580	µg/L	0.80	8.02	0	57.1	17.1	109	0.438	29.3	

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 3rd Quarter NAPIS Samples

Work Order: 0908181

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8310: PAHs						Batch ID:	**19856**	Analysis Date:		8/20/2009 2:02:48 PM	
Sample ID: LCSD-19856		*LCSD*									
Phenanthrene	2.640	µg/L	0.60	4.02	0	65.7	25.5	112	2.62	25	
Anthracene	2.780	µg/L	0.60	4.02	0	69.2	25.8	119	3.53	23.9	
Fluoranthene	5.920	µg/L	0.30	8.02	0	73.8	27.2	122	4.14	15.7	
Pyrene	5.320	µg/L	0.30	8.02	0	66.3	24.1	118	1.31	15.3	
Benz(a)anthracene	0.5500	µg/L	0.070	0.802	0	68.6	31.1	125	1.80	19	
Chrysene	2.770	µg/L	0.20	4.02	0	68.9	32.8	119	1.08	16.6	
Benzo(b)fluoranthene	0.6700	µg/L	0.10	1.002	0	66.9	24.4	117	1.48	21.7	
Benzo(k)fluoranthene	0.3700	µg/L	0.070	0.5	0	74.0	28.4	132	2.67	19.4	
Benzo(a)pyrene	0.3300	µg/L	0.070	0.502	0	65.7	32.4	119	0	16.7	
Dibenz(a,h)anthracene	0.6700	µg/L	0.070	1.002	0	66.9	33.9	120	1.48	17.3	
Benzo(g,h,i)perylene	0.6700	µg/L	0.080	1	0	67.0	35.2	113	1.50	18	
Indeno(1,2,3-cd)pyrene	1.360	µg/L	0.080	2.004	0	67.9	33.6	115	0.733	17.7	
Method: EPA Method 7470: Mercury						Batch ID:	**19865**	Analysis Date:		8/13/2009 3:48:01 PM	
Sample ID: MB-19865		*MBLK*									
Mercury	ND	mg/L	0.00020								
						Batch ID:	**19865**	Analysis Date:		8/13/2009 3:49:45 PM	
Sample ID: LCS-19865		*LCS*									
Mercury	0.004923	mg/L	0.00020	0.005	4E-05	97.6	80	120			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 3rd Quarter NAPIS Samples
Work Order: 0908181

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA 6010B: Total Recoverable Metals											
Sample ID: MB-19916		*MBLK*				Batch ID:	**19916**	Analysis Date:	8/24/2009 5:35:46 PM		
Arsenic	ND	mg/L	0.020								
Barium	ND	mg/L	0.010								
Cadmium	ND	mg/L	0.0020								
Calcium	ND	mg/L	0.50								
Chromium	ND	mg/L	0.0060								
Lead	ND	mg/L	0.0050								
Magnesium	ND	mg/L	0.50								
Potassium	ND	mg/L	1.0								
Selenium	ND	mg/L	0.050								
Silver	ND	mg/L	0.0050								
Sample ID: MB-19916		*MBLK*				Batch ID:	**19916**	Analysis Date:	8/25/2009 6:09:25 PM		
Sodium	ND	mg/L	0.50								
Sample ID: LCS-19916		*LCS*				Batch ID:	**19916**	Analysis Date:	8/24/2009 5:39:03 PM		
Arsenic	0.4941	mg/L	0.020	0.5	0	98.8	80	120			
Barium	0.4933	mg/L	0.010	0.5	0.0008	98.5	80	120			
Cadmium	0.4938	mg/L	0.0020	0.5	0.0005	98.7	80	120			
Calcium	50.43	mg/L	0.50	50	0	101	80	120			
Chromium	0.4925	mg/L	0.0060	0.5	0	98.5	80	120			
Lead	0.4872	mg/L	0.0050	0.5	0	97.4	80	120			
Magnesium	50.86	mg/L	0.50	50	0	102	80	120			
Potassium	54.21	mg/L	1.0	50	0	108	80	120			
Selenium	0.4866	mg/L	0.050	0.5	0	97.3	80	120			
Silver	0.5082	mg/L	0.0050	0.5	0.003	101	80	120			
Sample ID: LCS-19916		*LCS*				Batch ID:	**19916**	Analysis Date:	8/25/2009 6:12:39 PM		
Sodium	54.43	mg/L	0.50	50	0	109	80	120			

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 3rd Quarter NAPIS Samples

Work Order: 0908181

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260: Volatiles Short List											
Sample ID: 5ml rb		*MBLK*				Batch ID:	**R35018**	Analysis Date:		8/24/2009 9:26:37 AM	
Benzene	ND	µg/L	1.0								
Toluene	ND	µg/L	1.0								
Ethylbenzene	ND	µg/L	1.0								
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0								
1,2,4-Trimethylbenzene	ND	µg/L	1.0								
1,3,5-Trimethylbenzene	ND	µg/L	1.0								
Xylenes, Total	ND	µg/L	2.0								
Sample ID: 100ng lcs		*LCS*				Batch ID:	**R35018**	Analysis Date:		8/24/2009 10:22:59 AM	
Benzene	21.94	µg/L	1.0	20	0	110	86.8	120			
Toluene	19.09	µg/L	1.0	20	0	95.4	64.1	127			
Sample ID: 100ng lcsd		*LCSD*				Batch ID:	**R35018**	Analysis Date:		8/25/2009 4:39:05 AM	
Benzene	21.34	µg/L	1.0	20	0	107	86.8	120	2.81	20	

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name **WESTERN REFINING GALLU** Date Received: **8/12/2009**

Work Order Number **0908181** Received by: TLS

Checklist completed by: _____ 8/12/09 Sample ID labels checked by: _____

Signature Date Initials

Matrix: Carrier name: UPS

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	N/A ☑	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Water - VOA vials have zero headspace? No VOA vials submitted ☐		Yes ☑	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☑	No ☐	N/A ☐	
Water - pH acceptable upon receipt?	Yes ☑	No ☑	N/A ☐	
Container/Temp Blank temperature?	4.8°	*<6° C Acceptable* If given sufficient time to cool.		

Number of preserved bottles checked for pH: 4

(<2) >12 unless noted below.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: Added 1ml HNO3 to sample 0908181-01C (2 bottles) for acceptable ph. AS 8/12

Corrective Action _____

Chain-of-Custody Record

Client: Western Refining Gallup Refinery

Mailing Address: R-3 BOX 7 Gallup, NM 87301

Phone #: 505 722 3833

email or Fax#: 505 722 0210

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:
☒ Standard ☐ Rush _____

Project Name: 3rd QTR Napis Samples

Project #:

Project Manager: G. Rajen

Sampler: Cheryl Johnson

On Ice: ☒ Yes ☐ No

Sample Temperature: 4.3

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	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 0903161	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals Total	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	GenChem				Air Bubbles (Y or N)
8/11/09	0948	H20	NAPIS-1			1	X	X	X			X	X					X				
8/11/09	1019	H20	NAPIS-2			2	X		X			X	X					X				

Date:	Time:	Relinquished by:	Received by:	Date	Time
8/11/09	1130			8/12/09	1005
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks: GenChem: Cations, Anions, pH Cond.

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.