

AP-111

AGWMR (9)

2014

Anatek Labs, Inc.

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Client: HALL ENVIRONMENTAL ANALYSIS LAB
Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

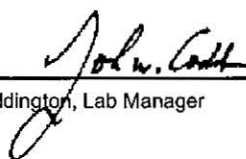
Batch #: 141114030
Project Name: 1411475

Analytical Results Report

Sample Number	141114030-001	Sampling Date	11/11/2014	Date/Time Received	11/14/2014 11:45 AM
Client Sample ID	1411475-002H / OAPIS-1	Sampling Time	5:00 PM		
Matrix	Water				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	0.0587	mg/L	0.01	11/18/2014	CRW	EPA 335.4	

Authorized Signature


John Coddington, Lab Manager

MCL EPA's Maximum Contaminant Level
ND Not Detected
PQL Practical Quantitation Limit

This report shall not be reproduced except in full, without the written approval of the laboratory.
The results reported relate only to the samples indicated.
Soil/solid results are reported on a dry-weight basis unless otherwise noted.

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Address: 4901 HAWKINS NE SUITE D
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Batch #: 141114030
Project Name: 1411475

Analytical Results Report Quality Control Data

Lab Control Sample

Parameter	LCS Result	Units	LCS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
Cyanide	0.503	mg/L	0.5	100.6	90-110	11/18/2014	11/18/2014

Matrix Spike

Sample Number	Parameter	Sample Result	MS Result	Units	MS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
141113037-007	Cyanide	ND	0.507	mg/L	0.5	101.4	90-110	11/18/2014	11/18/2014

Matrix Spike Duplicate

Parameter	MSD Result	Units	MSD Spike	%Rec	%RPD	AR %RPD	Prep Date	Analysis Date
Cyanide	0.493	mg/L	0.5	98.6	2.8	0-20	11/18/2014	11/18/2014

Method Blank

Parameter	Result	Units	PQL	Prep Date	Analysis Date
Cyanide	ND	mg/L	0.01	11/18/2014	11/18/2014

AR Acceptable Range
ND Not Detected
PQL Practical Quantitation Limit
RPD Relative Percentage Difference

Comments:

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411475

05-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R22599	RunNo:	22599					
Prep Date:		Analysis Date:	11/16/2014	SeqNo:	666147	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R22599	RunNo:	22599					
Prep Date:		Analysis Date:	11/16/2014	SeqNo:	666149	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R22599	RunNo:	22599					
Prep Date:		Analysis Date:	11/16/2014	SeqNo:	666151	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	99.2	85	115			
Cadmium	0.50	0.0020	0.5000	0	99.5	85	115			
Calcium	45	1.0	50.00	0	90.8	85	115			
Chromium	0.48	0.0060	0.5000	0	96.9	85	115			
Copper	0.49	0.0060	0.5000	0	98.1	85	115			
Iron	0.48	0.020	0.5000	0	95.4	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411475

05-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	LCS		SampType: LCS			TestCode: EPA Method 200.7: Dissolved Metals				
Client ID:	LCSW		Batch ID: R22599			RunNo: 22599				
Prep Date:	Analysis Date: 11/16/2014			SeqNo: 666151		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Magnesium	45	1.0	50.00	0	89.1	85	115			
Manganese	0.47	0.0020	0.5000	0	94.7	85	115			
Potassium	43	1.0	50.00	0	86.4	85	115			
Silver	0.11	0.0050	0.1000	0	105	85	115			
Zinc	0.50	0.010	0.5000	0	99.2	85	115			

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: R22599		RunNo: 22599					
Prep Date:			Analysis Date: 11/16/2014		SeqNo: 666152		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.55	0.0020	0.5000	0	109	85	115			
Cadmium	0.55	0.0020	0.5000	0	110	85	115			
Calcium	56	1.0	50.00	0	113	85	115			
Chromium	0.54	0.0060	0.5000	0	108	85	115			
Copper	0.55	0.0060	0.5000	0	109	85	115			
Iron	0.53	0.020	0.5000	0	107	85	115			
Magnesium	56	1.0	50.00	0	112	85	115			
Manganese	0.52	0.0020	0.5000	0	104	85	115			
Potassium	54	1.0	50.00	0	109	85	115			
Silver	0.12	0.0050	0.1000	0	117	85	115			S
Zinc	0.54	0.010	0.5000	0	109	85	115			

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID: R22614			RunNo: 22614					
Prep Date:		Analysis Date: 11/18/2014			SeqNo: 666850		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	ND	0.020								

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: R22614		RunNo: 22614					
Prep Date:			Analysis Date: 11/18/2014		SeqNo: 666851		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.50	0.020	0.5000	0	99.7	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411475

05-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R22752	RunNo:	22752					
Prep Date:		Analysis Date:	11/24/2014	SeqNo:	671318	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	ND	1.0								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R22752	RunNo:	22752					
Prep Date:		Analysis Date:	11/24/2014	SeqNo:	671319	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	52	1.0	50.00	0	104	85	115			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R22752	RunNo:	22752					
Prep Date:		Analysis Date:	11/24/2014	SeqNo:	671320	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	ND	1.0								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R22752	RunNo:	22752					
Prep Date:		Analysis Date:	11/24/2014	SeqNo:	671321	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	50	1.0	50.00	0	99.6	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411475

05-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	MB-16416		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 16416		RunNo: 22614					
Prep Date:	11/17/2014		Analysis Date: 11/18/2014		SeqNo: 666852		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	LCS-16416		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 16416		RunNo: 22614					
Prep Date:	11/17/2014		Analysis Date: 11/18/2014		SeqNo: 666853		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.51	0.0020	0.5000	0	101	85	115			
Cadmium	0.51	0.0020	0.5000	0	102	85	115			
Chromium	0.50	0.0060	0.5000	0	100	85	115			
Copper	0.51	0.0060	0.5000	0	101	85	115			
Iron	0.50	0.020	0.5000	0	101	85	115			
Manganese	0.49	0.0020	0.5000	0	98.1	85	115			
Silver	0.11	0.0050	0.1000	0	111	85	115			
Zinc	0.50	0.010	0.5000	0	101	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411475

05-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R22774		RunNo: 22774					
Prep Date:			Analysis Date: 11/24/2014		SeqNo: 672122		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.023	0.0010	0.02500	0	92.5	85	115			
Lead	0.024	0.0010	0.02500	0	94.4	85	115			
Selenium	0.022	0.0010	0.02500	0	89.7	85	115			
Uranium	0.024	0.0010	0.02500	0	95.2	85	115			

Sample ID	LCS			SampType: LCS		TestCode: EPA 200.8: Dissolved Metals				
Client ID:	LCSW			Batch ID: R22774		RunNo: 22774				
Prep Date:				Analysis Date: 11/24/2014		SeqNo: 672123		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	97.3	85	115			
Lead	0.024	0.0010	0.02500	0	97.3	85	115			
Selenium	0.024	0.0010	0.02500	0	95.2	85	115			
Uranium	0.024	0.0010	0.02500	0	94.8	85	115			

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R22774			RunNo: 22774					
Prep Date:		Analysis Date: 11/24/2014			SeqNo: 672124		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R22774			RunNo: 22774					
Prep Date:		Analysis Date: 11/24/2014			SeqNo: 672125		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID	1411475-002FMS			SampType: MS		TestCode: EPA 200.8: Dissolved Metals				
Client ID:	OAPIS-1			Batch ID: R22788		RunNo: 22788				
Prep Date:				Analysis Date: 11/25/2014		SeqNo: 672513		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411475

05-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	1411475-002FMS		SampType: MS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	OAPIS-1		Batch ID: R22788		RunNo: 22788					
Prep Date:			Analysis Date: 11/25/2014		SeqNo: 672513		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.027	0.0010	0.02500	0.0008898	104	70	130			

Sample ID	1411475-002FMS		SampType: MS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	OAPIS-1		Batch ID: R22788		RunNo: 22788					
Prep Date:			Analysis Date: 11/25/2014		SeqNo: 672514		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.15	0.0050	0.1250	0.02169	104	70	130			

Sample ID	1411475-002FMSD		SampType: MSD		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	OAPIS-1		Batch ID: R22788		RunNo: 22788					
Prep Date:			Analysis Date: 11/25/2014		SeqNo: 672515		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.027	0.0010	0.02500	0.0008898	106	70	130	1.74	20	

Sample ID	1411475-002FMSD			SampType:	MSD		TestCode:	EPA 200.8: Dissolved Metals			
Client ID:	OAPIS-1			Batch ID:	R22788		RunNo:	22788			
Prep Date:				Analysis Date:	11/25/2014		SeqNo:	672516		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Uranium	0.15	0.0050	0.1250	0.02169	103	70	130	0.862	20		

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R22788		RunNo: 22788					
Prep Date:			Analysis Date: 11/25/2014		SeqNo: 672517		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	97.1	85	115			
Lead	0.024	0.0010	0.02500	0	97.4	85	115			
Selenium	0.024	0.0010	0.02500	0	96.5	85	115			
Uranium	0.025	0.0010	0.02500	0	98.7	85	115			

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R22788			RunNo: 22788					
Prep Date:		Analysis Date: 11/25/2014			SeqNo: 672518		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								

Qualifiers:

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411475

05-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals						
Client ID:	PBW	Batch ID: R22788			RunNo: 22788						
Prep Date:		Analysis Date: 11/25/2014			SeqNo: 672518		Units: mg/L				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium		ND	0.0010								
Uranium		ND	0.0010								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411475

05-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	LLLCS-16416	SampType:	LCSLL	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	BatchQC	Batch ID:	16416	RunNo:	22609					
Prep Date:	11/17/2014	Analysis Date:	11/18/2014	SeqNo:	666765	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	98.5	85	115			
Lead	0.026	0.0010	0.02500	0	106	85	115			
Selenium	0.024	0.0010	0.02500	0	96.6	85	115			
Uranium	0.026	0.0010	0.02500	0	106	85	115			

Sample ID	MB-16416	SampType:	MBLK	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	PBW	Batch ID:	16416	RunNo:	22609					
Prep Date:	11/17/2014	Analysis Date:	11/18/2014	SeqNo:	666767	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411475

05-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	MB-16511		SampType: MBLK		TestCode: EPA Method 245.1: Mercury					
Client ID:	PBW		Batch ID: 16511		RunNo: 22710					
Prep Date:	11/21/2014		Analysis Date: 11/21/2014		SeqNo: 669836		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercurv	ND	0.00020								

Sample ID	LCS-16511		SampType: LCS		TestCode: EPA Method 245.1: Mercury					
Client ID:	LCSW		Batch ID: 16511		RunNo: 22710					
Prep Date:	11/21/2014		Analysis Date: 11/21/2014		SeqNo: 669837		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0051	0.00020	0.005000	0	102	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411475

05-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R22539	RunNo:	22539					
Prep Date:		Analysis Date:	11/13/2014	SeqNo:	664550	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R22539	RunNo:	22539					
Prep Date:		Analysis Date:	11/13/2014	SeqNo:	664551	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.50	0.10	0.5000	0	100	90	110			
Bromide	2.4	0.10	2.500	0	94.9	90	110			
Phosphorus, Orthophosphate (As P	4.8	0.50	5.000	0	96.8	90	110			
Sulfate	10	0.50	10.00	0	99.5	90	110			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R22539	RunNo:	22539					
Prep Date:		Analysis Date:	11/14/2014	SeqNo:	664604	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R22539	RunNo:	22539					
Prep Date:		Analysis Date:	11/14/2014	SeqNo:	664605	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.50	0.10	0.5000	0	100	90	110			
Bromide	2.3	0.10	2.500	0	92.2	90	110			
Phosphorus, Orthophosphate (As P	4.7	0.50	5.000	0	94.9	90	110			
Sulfate	9.5	0.50	10.00	0	95.4	90	110			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R22782	RunNo:	22782					
Prep Date:		Analysis Date:	11/24/2014	SeqNo:	672326	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411475

05-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R22782	RunNo:	22782					
Prep Date:		Analysis Date:	11/24/2014	SeqNo:	672326	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R22782	RunNo:	22782					
Prep Date:		Analysis Date:	11/24/2014	SeqNo:	672327	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.3	0.20	3.500	0	94.6	90	110			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R22899	RunNo:	22899					
Prep Date:		Analysis Date:	12/2/2014	SeqNo:	676194	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R22899	RunNo:	22899					
Prep Date:		Analysis Date:	12/2/2014	SeqNo:	676195	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	94.1	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411475

05-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	MB-16356		SampType: MBLK		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	PBW		Batch ID: 16356		RunNo: 22538					
Prep Date:	11/12/2014		Analysis Date: 11/14/2014		SeqNo: 665412		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	1.2		1.000		122	59	141			

Sample ID	LCS-16356		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	LCSW		Batch ID: 16356		RunNo: 22538					
Prep Date:	11/12/2014		Analysis Date: 11/14/2014		SeqNo: 665425		Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	0.73		0.5000		145	59	141			S

Sample ID	MB-16415		SampType: MBLK		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	PBW		Batch ID: 16415		RunNo: 22594					
Prep Date:	11/17/2014		Analysis Date: 11/18/2014		SeqNo: 666747		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.0		1.000		101	59	141			

Sample ID	LCS-16415		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	LCSW		Batch ID: 16415		RunNo: 22594					
Prep Date:	11/17/2014		Analysis Date: 11/18/2014		SeqNo: 666748		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.7	1.0	5.000	0	93.6	69.7	142			
Surr: DNOP	0.60		0.5000		119	59	141			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411475

05-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	5ML RB		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBW		Batch ID: R22533		RunNo: 22533					
Prep Date:			Analysis Date: 11/13/2014		SeqNo: 664414		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	17		20.00		86.0	80	120			

Sample ID	2.5UG GRO LCS		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSW		Batch ID: R22533		RunNo: 22533					
Prep Date:			Analysis Date: 11/13/2014		SeqNo: 664415		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.48	0.050	0.5000	0	95.0	80	120			
Surr: BFB	19		20.00		93.2	80	120			

Sample ID	5ML RB	SampType: MBLK			TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBW	Batch ID: R22544			RunNo: 22544					
Prep Date:		Analysis Date: 11/14/2014			SeqNo: 665051		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	18		20.00		87.8	80	120			

Sample ID	2.5UG GRO LCS		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSW		Batch ID: R22544		RunNo: 22544					
Prep Date:			Analysis Date: 11/14/2014		SeqNo: 665052		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.47	0.050	0.5000	0	93.8	80	120			
Surr: BFB	18		20.00		91.7	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411475

05-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBW	Batch ID:	R22533	RunNo:	22533					
Prep Date:		Analysis Date:	11/13/2014	SeqNo:	664457	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	2.5								
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
Surr: 4-Bromofluorobenzene	21		20.00		104	66.6	167			

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSW	Batch ID:	R22533	RunNo:	22533					
Prep Date:		Analysis Date:	11/13/2014	SeqNo:	664458	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	21	2.5	20.00	0	105	67.4	147			
Benzene	21	1.0	20.00	0	105	80	120			
Toluene	21	1.0	20.00	0	106	80	120			
Ethylbenzene	21	1.0	20.00	0	107	80	120			
Xylenes, Total	65	2.0	60.00	0	108	80	120			
1,2,4-Trimethylbenzene	21	1.0	20.00	0	107	80	120			
1,3,5-Trimethylbenzene	22	1.0	20.00	0	108	80	120			
Surr: 4-Bromofluorobenzene	21		20.00		103	66.6	167			

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBW	Batch ID:	R22544	RunNo:	22544					
Prep Date:		Analysis Date:	11/14/2014	SeqNo:	664757	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	21		20.00		106	66.6	167			

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSW	Batch ID:	R22544	RunNo:	22544					
Prep Date:		Analysis Date:	11/14/2014	SeqNo:	664758	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	21		20.00		106	66.6	167			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411475

05-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	5ml rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R22531	RunNo:	22531					
Prep Date:		Analysis Date:	11/13/2014	SeqNo:	664345	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411475

05-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	5ml rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R22531			RunNo: 22531					
Prep Date:		Analysis Date: 11/13/2014			SeqNo: 664345		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	8.5		10.00		85.1	70	130			
Surr: 4-Bromofluorobenzene	8.7		10.00		86.6	70	130			
Surr: Dibromofluoromethane	9.1		10.00		91.0	70	130			
Surr: Toluene-d8	9.1		10.00		91.4	70	130			

Sample ID	100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R22531			RunNo: 22531					
Prep Date:		Analysis Date: 11/13/2014			SeqNo: 664347		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	23	1.0	20.00	0	117	70	130			
Toluene	22	1.0	20.00	0	110	80	120			
Chlorobenzene	19	1.0	20.00	0	95.6	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411475

05-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R22531			RunNo: 22531					
Prep Date:		Analysis Date: 11/13/2014			SeqNo: 664347		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	22	1.0	20.00	0	111	82.6	131			
Trichloroethene (TCE)	20	1.0	20.00	0	102	70	130			
Surr: 1,2-Dichloroethane-d4	8.2		10.00		82.0	70	130			
Surr: 4-Bromofluorobenzene	8.1		10.00		80.7	70	130			
Surr: Dibromofluoromethane	9.0		10.00		90.5	70	130			
Surr: Toluene-d8	9.1		10.00		90.7	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411475

05-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	mb-16377		SampType: MBLK		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	PBW		Batch ID: 16377		RunNo: 22600					
Prep Date:	11/13/2014		Analysis Date: 11/17/2014		SeqNo: 666318		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411475

05-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	mb-16377		SampType: MBLK		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	PBW		Batch ID: 16377		RunNo: 22600					
Prep Date:	11/13/2014		Analysis Date: 11/17/2014		SeqNo: 666318	Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	95		200.0		47.6	17.6	104			
Surr: Phenol-d5	96		200.0		48.2	17.7	89.9			
Surr: 2,4,6-Tribromophenol	75		200.0		37.5	16.3	122			
Surr: Nitrobenzene-d5	67		100.0		67.1	45.3	117			
Surr: 2-Fluorobiphenyl	61		100.0		61.2	43	113			
Surr: 4-Terphenyl-d14	73		100.0		72.5	47.6	122			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411475

05-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	lcs-16377		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 16377		RunNo: 22600					
Prep Date:	11/13/2014		Analysis Date: 11/17/2014		SeqNo: 666368		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	66	10	100.0	0	66.2	47.9	114			
4-Chloro-3-methylphenol	160	10	200.0	0	82.4	51.7	122			
2-Chlorophenol	140	10	200.0	0	69.9	40.7	113			
1,4-Dichlorobenzene	44	10	100.0	0	44.3	39.6	99.9			
2,4-Dinitrotoluene	68	10	100.0	0	68.0	40.8	113			
N-Nitrosodi-n-propylamine	74	10	100.0	0	74.3	51.2	111			
4-Nitrophenol	100	10	200.0	0	50.6	15.7	86.9			
Pentachlorophenol	130	20	200.0	0	67.5	21.6	104			
Phenol	90	10	200.0	0	44.8	28.6	71.7			
Pyrene	78	10	100.0	0	77.8	54.2	128			
1,2,4-Trichlorobenzene	50	10	100.0	0	50.0	40.9	101			
Surr: 2-Fluorophenol	94		200.0		47.0	17.6	104			
Surr: Phenol-d5	77		200.0		38.5	17.7	89.9			
Surr: 2,4,6-Tribromophenol	160		200.0		80.7	16.3	122			
Surr: Nitrobenzene-d5	69		100.0		69.3	45.3	117			
Surr: 2-Fluorobiphenyl	65		100.0		64.8	43	113			
Surr: 4-Terphenyl-d14	85		100.0		85.0	47.6	122			

Sample ID	lcsd-16377		SampType: LCSD		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02		Batch ID: 16377		RunNo: 22600					
Prep Date:	11/13/2014		Analysis Date: 11/17/2014		SeqNo: 666369		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	67	10	100.0	0	67.5	47.9	114	1.98	27.2	
4-Chloro-3-methylphenol	160	10	200.0	0	81.4	51.7	122	1.26	25.9	
2-Chlorophenol	140	10	200.0	0	68.2	40.7	113	2.40	22.5	
1,4-Dichlorobenzene	49	10	100.0	0	49.0	39.6	99.9	10.2	24.6	
2,4-Dinitrotoluene	69	10	100.0	0	68.8	40.8	113	1.20	25.3	
N-Nitrosodi-n-propylamine	74	10	100.0	0	74.3	51.2	111	0.0269	23.6	
4-Nitrophenol	130	10	200.0	0	63.4	15.7	86.9	22.5	34.7	
Pentachlorophenol	130	20	200.0	0	67.5	21.6	104	0.0148	32.8	
Phenol	100	10	200.0	0	52.0	28.6	71.7	14.9	25.5	
Pyrene	77	10	100.0	0	77.4	54.2	128	0.567	31.4	
1,2,4-Trichlorobenzene	54	10	100.0	0	53.7	40.9	101	7.13	25.9	
Surr: 2-Fluorophenol	110		200.0		53.4	17.6	104	0	0	
Surr: Phenol-d5	93		200.0		46.6	17.7	89.9	0	0	
Surr: 2,4,6-Tribromophenol	160		200.0		80.9	16.3	122	0	0	
Surr: Nitrobenzene-d5	70		100.0		70.1	45.3	117	0	0	
Surr: 2-Fluorobiphenyl	70		100.0		69.5	43	113	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411475

05-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	lcsd-16377		SampType: LCSD		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02		Batch ID: 16377		RunNo: 22600					
Prep Date:	11/13/2014		Analysis Date: 11/17/2014		SeqNo: 666369		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14	81		100.0		81.3	47.6	122	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1411475

RcptNo: 1

Received by/date:

[Signature]

11/12/14

Logged By:

Ashley Gallegos

11/12/2014 4:12:00 PM

[Signature]

Completed By:

Ashley Gallegos

11/13/2014 9:25:06 AM

[Signature]

Reviewed By:

[Signature]

11/13/14

Chain of Custody

1. Custody seals intact on sample bottles?

Yes ☒

No ☐

Not Present ☐

2. Is Chain of Custody complete?

Yes ☒

No ☐

Not Present ☐

3. How was the sample delivered?

Courier

Log In

4. Was an attempt made to cool the samples?

Yes ☒

No ☐

NA ☐

5. Were all samples received at a temperature of >0° C to 6.0° C

Yes ☒

No ☐

NA ☐

6. Sample(s) in proper container(s)?

Yes ☒

No ☐

7. Sufficient sample volume for indicated test(s)?

Yes ☒

No ☐

8. Are samples (except VOA and ONG) properly preserved?

Yes ☒

No ☐

9. Was preservative added to bottles?

Yes ☒

No ☒

NA ☐

10. VOA vials have zero headspace?

Yes ☒

No ☐

No VOA Vials ☐

11. Were any sample containers received broken?

Yes ☐

No ☒

dissolved metals analysis, added 0.4ml HNO₃ to -001B + -002F

12. Does paperwork match bottle labels?

Yes ☒

No ☐

(Note discrepancies on chain of custody)

13. Are matrices correctly identified on Chain of Custody?

Yes ☒

No ☐

14. Is it clear what analyses were requested?

Yes ☒

No ☐

15. Were all holding times able to be met?

Yes ☒

No ☐

(If no, notify customer for authorization.)

CS 11/13/14
Sample -002A (all vials) have bubbles
of preserved bottles checked for pH: *5*
(*<2 or >12 unless noted*)
Adjusted? *yes*
Checked by: *CS*
11/13/14

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order?

Yes ☒

No ☐

NA ☐

Person Notified: Cheryl Johnson

Date: 11/13/2014

By Whom: Anne Thorne

Via: ☒ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: E Coli Sample was rejected

Client Instructions: See Section 19.

17. Additional remarks:

E. Coli Sample for -001 was rejected, sample was too dark even after dilution per Stephanie

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Client: Western Refining Company

GALLUP REFINERY

Mailing Address:

‡ Giant Crossing Road, Gallup, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-863-0930

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation:

☐ NELAP ☐ Other☐ EDD (Type)

Turn-Around Time:

☒ Standard ☐ Rush

Project Name:

Q4 2014

Project #:

East/West Oil LDUs, GWM-1-2-3 and OAPIS-1

Project Manager:

C. JOHNSON (cheryl.johnson@wnr.com)

Sampler:

On Ice: ☒ Yes ☐ No

Sample Temperature: 110

Date:	Time:	Relinquished by:	Received by:	Date	Time	Remarks:
11-12-14	0630	Pat Lander	[Signature]	11/12/14	6:30	
Date:	Time:	Relinquished by:	Received by:	Date	Time	
11-12-14	11/12	[Signature]	[Signature]	11/12/14	11/12	



HALL ENVIRONMENTAL ANALYSIS LABORATORY

WWW.PHARMJOURNAL.COM

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

[illegible]

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.



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

December 05, 2014

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: Q4 2014

OrderNo.: 1411451

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 7 sample(s) on 11/12/2014 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Case Narrative

WO#: 1411451
Date: 12/5/2014

CLIENT: Western Refining Southwest, Gallup
Project: Q4 2014

Analytical Comments Regarding BOD:
The method blank(s) had a DO depletion >0.2mg/L.

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411451

Date Reported: 12/5/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-1

Project: Q4 2014

Collection Date: 11/12/2014 9:50:00 AM

Lab ID: 1411451-001

Matrix: AQUEOUS

Received Date: 11/12/2014 4:12:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGP
Fluoride	24	10	*	mg/L	100	11/13/2014 5:58:29 PM	R22539
Chloride	4200	250		mg/L	500	11/24/2014 9:34:17 PM	R22776
Nitrogen, Nitrite (As N)	ND	10		mg/L	100	11/13/2014 5:58:29 PM	R22539
Bromide	3.4	1.0		mg/L	10	11/13/2014 5:46:04 PM	R22539
Nitrogen, Nitrate (As N)	ND	1.0		mg/L	10	11/13/2014 5:46:04 PM	R22539
Phosphorus, Orthophosphate (As P)	ND	5.0		mg/L	10	11/13/2014 5:46:04 PM	R22539
Sulfate	5800	250		mg/L	500	11/24/2014 9:34:17 PM	R22776
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.12	0.010		mg/L	5	11/16/2014 7:46:25 PM	R22599
Cadmium	ND	0.010		mg/L	5	11/16/2014 7:46:25 PM	R22599
Calcium	730	10		mg/L	10	11/16/2014 7:48:15 PM	R22599
Chromium	0.036	0.030		mg/L	5	11/16/2014 7:46:25 PM	R22599
Copper	ND	0.030		mg/L	5	11/16/2014 7:46:25 PM	R22599
Iron	1.2	0.10	*	mg/L	5	11/16/2014 7:46:25 PM	R22599
Magnesium	370	5.0		mg/L	5	11/16/2014 7:46:25 PM	R22599
Manganese	0.66	0.010	*	mg/L	5	11/16/2014 7:46:25 PM	R22599
Potassium	230	5.0		mg/L	5	11/16/2014 7:46:25 PM	R22599
Silver	ND	0.025		mg/L	5	11/16/2014 7:46:25 PM	R22599
Sodium	3300	50		mg/L	50	11/24/2014 12:00:50 PM	R22752
Zinc	0.058	0.050		mg/L	5	11/16/2014 7:46:25 PM	R22599
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.13	0.0020		mg/L	1	11/18/2014 3:05:20 PM	16416
Cadmium	ND	0.0020		mg/L	1	11/18/2014 3:05:20 PM	16416
Chromium	0.048	0.0060		mg/L	1	11/18/2014 3:05:20 PM	16416
Copper	ND	0.0060		mg/L	1	11/18/2014 3:05:20 PM	16416
Iron	2.2	0.10	*	mg/L	5	11/18/2014 3:06:57 PM	16416
Manganese	0.68	0.0020	*	mg/L	1	11/18/2014 3:05:20 PM	16416
Silver	ND	0.0050		mg/L	1	11/18/2014 3:05:20 PM	16416
Zinc	0.059	0.010		mg/L	1	11/18/2014 3:05:20 PM	16416
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.041	0.010	*	mg/L	10	11/17/2014 3:56:59 PM	R22589
Lead	ND	0.010		mg/L	10	11/24/2014 5:04:48 PM	R22774
Selenium	0.013	0.010		mg/L	10	11/17/2014 3:56:59 PM	R22589
Uranium	ND	0.010		mg/L	10	11/24/2014 5:04:48 PM	R22774
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.047	0.0050	*	mg/L	5	11/18/2014 2:17:34 PM	16416
Lead	ND	0.0050		mg/L	5	11/18/2014 2:17:34 PM	16416

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411451

Date Reported: 12/5/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-1

Project: Q4 2014

Collection Date: 11/12/2014 9:50:00 AM

Lab ID: 1411451-001

Matrix: AQUEOUS

Received Date: 11/12/2014 4:12:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Selenium	0.017	0.0050		mg/L	5	11/18/2014 2:17:34 PM	16416
Uranium	ND	0.0050		mg/L	5	11/18/2014 2:17:34 PM	16416
EPA METHOD 245.1: MERCURY							Analyst: MMD
Mercury	0.00032	0.00020		mg/L	1	11/21/2014 2:53:46 PM	16511
SM5210B: BOD							Analyst: SMS
Biochemical Oxygen Demand	240	2.0		mg/L	1	11/18/2014 2:28:00 PM	16371
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377
Acenaphthylene	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377
Aniline	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377
Anthracene	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377
Azobenzene	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377
Benz(a)anthracene	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377
Benzo(a)pyrene	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377
Benzo(b)fluoranthene	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377
Benzo(g,h,i)perylene	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377
Benzo(k)fluoranthene	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377
Benzoic acid	ND	100		µg/L	1	11/17/2014 4:36:15 PM	16377
Benzyl alcohol	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377
Bis(2-chloroethyl)ether	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377
4-Bromophenyl phenyl ether	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377
Butyl benzyl phthalate	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377
Carbazole	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377
4-Chloro-3-methylphenol	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377
4-Chloroaniline	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377
2-Chloronaphthalene	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377
2-Chlorophenol	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377
Chrysene	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377
Di-n-butyl phthalate	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377
Di-n-octyl phthalate	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377
Dibenz(a,h)anthracene	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377
Dibenzofuran	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377
1,2-Dichlorobenzene	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377
1,3-Dichlorobenzene	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411451

Date Reported: 12/5/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-1

Project: Q4 2014

Collection Date: 11/12/2014 9:50:00 AM

Lab ID: 1411451-001

Matrix: AQUEOUS

Received Date: 11/12/2014 4:12:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
1,4-Dichlorobenzene	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377
3,3'-Dichlorobenzidine	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377
Diethyl phthalate	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377
Dimethyl phthalate	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377
2,4-Dichlorophenol	ND	100		µg/L	1	11/17/2014 4:36:15 PM	16377
2,4-Dimethylphenol	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	11/17/2014 4:36:15 PM	16377
2,4-Dinitrophenol	ND	100		µg/L	1	11/17/2014 4:36:15 PM	16377
2,4-Dinitrotoluene	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377
2,6-Dinitrotoluene	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377
Fluoranthene	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377
Fluorene	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377
Hexachlorobenzene	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377
Hexachlorobutadiene	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377
Hexachlorocyclopentadiene	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377
Hexachloroethane	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377
Isophorone	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377
1-Methylnaphthalene	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377
2-Methylnaphthalene	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377
2-Methylphenol	62	50		µg/L	1	11/17/2014 4:36:15 PM	16377
3+4-Methylphenol	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377
N-Nitrosodimethylamine	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377
N-Nitrosodiphenylamine	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377
Naphthalene	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377
2-Nitroaniline	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377
3-Nitroaniline	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377
4-Nitroaniline	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377
Nitrobenzene	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377
2-Nitrophenol	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377
4-Nitrophenol	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377
Pentachlorophenol	ND	100		µg/L	1	11/17/2014 4:36:15 PM	16377
Phenanthrene	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377
Phenol	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377
Pyrene	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377
Pyridine	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377
1,2,4-Trichlorobenzene	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377
2,4,5-Trichlorophenol	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 4 of 53
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411451

Date Reported: 12/5/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-1

Project: Q4 2014

Collection Date: 11/12/2014 9:50:00 AM

Lab ID: 1411451-001

Matrix: AQUEOUS

Received Date: 11/12/2014 4:12:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
2,4,6-Trichlorophenol	ND	50		µg/L	1	11/17/2014 4:36:15 PM	16377
Surr: 2-Fluorophenol	71.2	17.6-104		%REC	1	11/17/2014 4:36:15 PM	16377
Surr: Phenol-d5	56.9	17.7-89.9		%REC	1	11/17/2014 4:36:15 PM	16377
Surr: 2,4,6-Tribromophenol	78.9	16.3-122		%REC	1	11/17/2014 4:36:15 PM	16377
Surr: Nitrobenzene-d5	82.2	45.3-117		%REC	1	11/17/2014 4:36:15 PM	16377
Surr: 2-Fluorobiphenyl	81.5	43-113		%REC	1	11/17/2014 4:36:15 PM	16377
Surr: 4-Terphenyl-d14	76.9	47.6-122		%REC	1	11/17/2014 4:36:15 PM	16377
EPA METHOD 8260B: VOLATILES							Analyst: KJH
Benzene	ND	10		µg/L	10	11/19/2014 4:53:41 PM	R22653
Toluene	ND	10		µg/L	10	11/19/2014 4:53:41 PM	R22653
Ethylbenzene	ND	10		µg/L	10	11/19/2014 4:53:41 PM	R22653
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	11/19/2014 4:53:41 PM	R22653
1,2,4-Trimethylbenzene	ND	10		µg/L	10	11/19/2014 4:53:41 PM	R22653
1,3,5-Trimethylbenzene	ND	10		µg/L	10	11/19/2014 4:53:41 PM	R22653
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	11/19/2014 4:53:41 PM	R22653
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	11/19/2014 4:53:41 PM	R22653
Naphthalene	ND	20		µg/L	10	11/19/2014 4:53:41 PM	R22653
1-Methylnaphthalene	ND	40		µg/L	10	11/19/2014 4:53:41 PM	R22653
2-Methylnaphthalene	ND	40		µg/L	10	11/19/2014 4:53:41 PM	R22653
Acetone	ND	100		µg/L	10	11/19/2014 4:53:41 PM	R22653
Bromobenzene	ND	10		µg/L	10	11/19/2014 4:53:41 PM	R22653
Bromodichloromethane	ND	10		µg/L	10	11/19/2014 4:53:41 PM	R22653
Bromoform	ND	10		µg/L	10	11/19/2014 4:53:41 PM	R22653
Bromomethane	ND	30		µg/L	10	11/19/2014 4:53:41 PM	R22653
2-Butanone	ND	100		µg/L	10	11/19/2014 4:53:41 PM	R22653
Carbon disulfide	ND	100		µg/L	10	11/19/2014 4:53:41 PM	R22653
Carbon Tetrachloride	ND	10		µg/L	10	11/19/2014 4:53:41 PM	R22653
Chlorobenzene	ND	10		µg/L	10	11/19/2014 4:53:41 PM	R22653
Chloroethane	ND	20		µg/L	10	11/19/2014 4:53:41 PM	R22653
Chloroform	ND	10		µg/L	10	11/19/2014 4:53:41 PM	R22653
Chloromethane	ND	30		µg/L	10	11/19/2014 4:53:41 PM	R22653
2-Chlorotoluene	ND	10		µg/L	10	11/19/2014 4:53:41 PM	R22653
4-Chlorotoluene	ND	10		µg/L	10	11/19/2014 4:53:41 PM	R22653
cis-1,2-DCE	ND	10		µg/L	10	11/19/2014 4:53:41 PM	R22653
cis-1,3-Dichloropropene	ND	10		µg/L	10	11/19/2014 4:53:41 PM	R22653
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	11/19/2014 4:53:41 PM	R22653
Dibromochloromethane	ND	10		µg/L	10	11/19/2014 4:53:41 PM	R22653
Dibromomethane	ND	10		µg/L	10	11/19/2014 4:53:41 PM	R22653
1,2-Dichlorobenzene	ND	10		µg/L	10	11/19/2014 4:53:41 PM	R22653

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411451

Date Reported: 12/5/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-1

Project: Q4 2014

Collection Date: 11/12/2014 9:50:00 AM

Lab ID: 1411451-001

Matrix: AQUEOUS

Received Date: 11/12/2014 4:12:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: KJH
1,3-Dichlorobenzene	ND	10		µg/L	10	11/19/2014 4:53:41 PM	R22653
1,4-Dichlorobenzene	ND	10		µg/L	10	11/19/2014 4:53:41 PM	R22653
Dichlorodifluoromethane	ND	10		µg/L	10	11/19/2014 4:53:41 PM	R22653
1,1-Dichloroethane	ND	10		µg/L	10	11/19/2014 4:53:41 PM	R22653
1,1-Dichloroethene	ND	10		µg/L	10	11/19/2014 4:53:41 PM	R22653
1,2-Dichloropropane	ND	10		µg/L	10	11/19/2014 4:53:41 PM	R22653
1,3-Dichloropropane	ND	10		µg/L	10	11/19/2014 4:53:41 PM	R22653
2,2-Dichloropropane	ND	20		µg/L	10	11/19/2014 4:53:41 PM	R22653
1,1-Dichloropropene	ND	10		µg/L	10	11/19/2014 4:53:41 PM	R22653
Hexachlorobutadiene	ND	10		µg/L	10	11/19/2014 4:53:41 PM	R22653
2-Hexanone	ND	100		µg/L	10	11/19/2014 4:53:41 PM	R22653
Isopropylbenzene	ND	10		µg/L	10	11/19/2014 4:53:41 PM	R22653
4-Isopropyltoluene	ND	10		µg/L	10	11/19/2014 4:53:41 PM	R22653
4-Methyl-2-pentanone	ND	100		µg/L	10	11/19/2014 4:53:41 PM	R22653
Methylene Chloride	ND	30		µg/L	10	11/19/2014 4:53:41 PM	R22653
n-Butylbenzene	ND	30		µg/L	10	11/19/2014 4:53:41 PM	R22653
n-Propylbenzene	ND	10		µg/L	10	11/19/2014 4:53:41 PM	R22653
sec-Butylbenzene	ND	10		µg/L	10	11/19/2014 4:53:41 PM	R22653
Styrene	ND	10		µg/L	10	11/19/2014 4:53:41 PM	R22653
tert-Butylbenzene	ND	10		µg/L	10	11/19/2014 4:53:41 PM	R22653
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	11/19/2014 4:53:41 PM	R22653
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	11/19/2014 4:53:41 PM	R22653
Tetrachloroethene (PCE)	ND	10		µg/L	10	11/19/2014 4:53:41 PM	R22653
trans-1,2-DCE	ND	10		µg/L	10	11/19/2014 4:53:41 PM	R22653
trans-1,3-Dichloropropene	ND	10		µg/L	10	11/19/2014 4:53:41 PM	R22653
1,2,3-Trichlorobenzene	ND	10		µg/L	10	11/19/2014 4:53:41 PM	R22653
1,2,4-Trichlorobenzene	ND	10		µg/L	10	11/19/2014 4:53:41 PM	R22653
1,1,1-Trichloroethane	ND	10		µg/L	10	11/19/2014 4:53:41 PM	R22653
1,1,2-Trichloroethane	ND	10		µg/L	10	11/19/2014 4:53:41 PM	R22653
Trichloroethene (TCE)	ND	10		µg/L	10	11/19/2014 4:53:41 PM	R22653
Trichlorofluoromethane	ND	10		µg/L	10	11/19/2014 4:53:41 PM	R22653
1,2,3-Trichloropropane	ND	20		µg/L	10	11/19/2014 4:53:41 PM	R22653
Vinyl chloride	ND	10		µg/L	10	11/19/2014 4:53:41 PM	R22653
Xylenes, Total	ND	15		µg/L	10	11/19/2014 4:53:41 PM	R22653
Surr: 1,2-Dichloroethane-d4	100	70-130		%REC	10	11/19/2014 4:53:41 PM	R22653
Surr: 4-Bromofluorobenzene	99.2	70-130		%REC	10	11/19/2014 4:53:41 PM	R22653
Surr: Dibromofluoromethane	94.5	70-130		%REC	10	11/19/2014 4:53:41 PM	R22653
Surr: Toluene-d8	92.1	70-130		%REC	10	11/19/2014 4:53:41 PM	R22653

SM2510B: SPECIFIC CONDUCTANCE

Analyst: JRR

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411451

Date Reported: 12/5/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-1

Project: Q4 2014

Collection Date: 11/12/2014 9:50:00 AM

Lab ID: 1411451-001

Matrix: AQUEOUS

Received Date: 11/12/2014 4:12:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM2510B: SPECIFIC CONDUCTANCE							Analyst: JRR
Conductivity	17000	0.050		µmhos/cm	5	11/21/2014 7:00:08 PM	R22735
SM4500-H+B: PH							Analyst: JRR
pH	8.00	1.68	H	pH units	1	11/13/2014 9:46:15 PM	R22543

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 7 of 53
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411451

Date Reported: 12/5/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-2

Project: Q4 2014

Collection Date: 11/12/2014 10:55:00 AM

Lab ID: 1411451-002

Matrix: AQUEOUS

Received Date: 11/12/2014 4:12:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGP
Fluoride	40	10	*	mg/L	100	11/13/2014 6:23:17 PM	R22539
Chloride	2400	100		mg/L	200	11/24/2014 9:46:41 PM	R22776
Nitrogen, Nitrite (As N)	ND	10		mg/L	100	11/13/2014 6:23:17 PM	R22539
Bromide	ND	1.0		mg/L	10	11/13/2014 6:10:53 PM	R22539
Nitrogen, Nitrate (As N)	ND	1.0		mg/L	10	11/13/2014 6:10:53 PM	R22539
Phosphorus, Orthophosphate (As P)	ND	5.0		mg/L	10	11/13/2014 6:10:53 PM	R22539
Sulfate	1300	50		mg/L	100	11/13/2014 6:23:17 PM	R22539
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.076	0.0020		mg/L	1	11/16/2014 7:50:22 PM	R22599
Cadmium	ND	0.0020		mg/L	1	11/16/2014 7:50:22 PM	R22599
Calcium	230	5.0		mg/L	5	11/16/2014 7:52:11 PM	R22599
Chromium	0.0099	0.0060		mg/L	1	11/16/2014 7:50:22 PM	R22599
Copper	ND	0.0060		mg/L	1	11/16/2014 7:50:22 PM	R22599
Iron	1.4	0.10	*	mg/L	5	11/16/2014 7:52:11 PM	R22599
Magnesium	54	1.0		mg/L	1	11/16/2014 7:50:22 PM	R22599
Manganese	0.21	0.0020	*	mg/L	1	11/16/2014 7:50:22 PM	R22599
Potassium	160	5.0		mg/L	5	11/16/2014 7:52:11 PM	R22599
Silver	ND	0.0050		mg/L	1	11/16/2014 7:50:22 PM	R22599
Sodium	1700	20		mg/L	20	11/24/2014 12:02:46 PM	R22752
Zinc	0.056	0.010		mg/L	1	11/16/2014 7:50:22 PM	R22599
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.11	0.0020		mg/L	1	11/18/2014 3:08:52 PM	16416
Cadmium	ND	0.0020		mg/L	1	11/18/2014 3:08:52 PM	16416
Chromium	0.012	0.0060		mg/L	1	11/18/2014 3:08:52 PM	16416
Copper	ND	0.0060		mg/L	1	11/18/2014 3:08:52 PM	16416
Iron	2.8	0.10	*	mg/L	5	11/18/2014 3:10:26 PM	16416
Manganese	0.24	0.0020	*	mg/L	1	11/18/2014 3:08:52 PM	16416
Silver	ND	0.0050		mg/L	1	11/18/2014 3:08:52 PM	16416
Zinc	0.025	0.010		mg/L	1	11/18/2014 3:08:52 PM	16416
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.011	0.010	*	mg/L	10	11/24/2014 5:07:54 PM	R22774
Lead	ND	0.010		mg/L	10	11/24/2014 5:07:54 PM	R22774
Selenium	ND	0.010		mg/L	10	11/24/2014 5:07:54 PM	R22774
Uranium	ND	0.010		mg/L	10	11/24/2014 5:07:54 PM	R22774
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.020	*	mg/L	20	12/3/2014 2:20:05 PM	16416
Lead	0.0020	0.0010		mg/L	1	11/18/2014 2:21:04 PM	16416

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411451

Date Reported: 12/5/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-2

Project: Q4 2014

Collection Date: 11/12/2014 10:55:00 AM

Lab ID: 1411451-002

Matrix: AQUEOUS

Received Date: 11/12/2014 4:12:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Selenium	ND	0.020		mg/L	20	12/3/2014 2:20:05 PM	16416
Uranium	0.0071	0.0010		mg/L	1	11/18/2014 2:21:04 PM	16416
EPA METHOD 245.1: MERCURY							Analyst: MMD
Mercury	ND	0.00020		mg/L	1	11/21/2014 2:55:37 PM	16511
SM5210B: BOD							Analyst: SMS
Biochemical Oxygen Demand	170	2.0		mg/L	1	11/18/2014 2:28:00 PM	16371
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377
Acenaphthylene	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377
Aniline	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377
Anthracene	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377
Azobenzene	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377
Benz(a)anthracene	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377
Benzo(a)pyrene	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377
Benzo(b)fluoranthene	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377
Benzo(g,h,i)perylene	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377
Benzo(k)fluoranthene	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377
Benzoic acid	ND	100		µg/L	1	11/17/2014 5:03:46 PM	16377
Benzyl alcohol	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377
Bis(2-chloroethyl)ether	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377
4-Bromophenyl phenyl ether	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377
Butyl benzyl phthalate	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377
Carbazole	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377
4-Chloro-3-methylphenol	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377
4-Chloroaniline	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377
2-Chloronaphthalene	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377
2-Chlorophenol	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377
Chrysene	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377
Di-n-butyl phthalate	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377
Di-n-octyl phthalate	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377
Dibenz(a,h)anthracene	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377
Dibenzofuran	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377
1,2-Dichlorobenzene	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377
1,3-Dichlorobenzene	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411451

Date Reported: 12/5/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-2

Project: Q4 2014

Collection Date: 11/12/2014 10:55:00 AM

Lab ID: 1411451-002

Matrix: AQUEOUS

Received Date: 11/12/2014 4:12:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
1,4-Dichlorobenzene	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377
3,3'-Dichlorobenzidine	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377
Diethyl phthalate	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377
Dimethyl phthalate	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377
2,4-Dichlorophenol	ND	100		µg/L	1	11/17/2014 5:03:46 PM	16377
2,4-Dimethylphenol	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	11/17/2014 5:03:46 PM	16377
2,4-Dinitrophenol	ND	100		µg/L	1	11/17/2014 5:03:46 PM	16377
2,4-Dinitrotoluene	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377
2,6-Dinitrotoluene	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377
Fluoranthene	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377
Fluorene	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377
Hexachlorobenzene	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377
Hexachlorobutadiene	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377
Hexachlorocyclopentadiene	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377
Hexachloroethane	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377
Isophorone	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377
1-Methylnaphthalene	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377
2-Methylnaphthalene	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377
2-Methylphenol	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377
3+4-Methylphenol	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377
N-Nitrosodimethylamine	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377
N-Nitrosodiphenylamine	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377
Naphthalene	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377
2-Nitroaniline	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377
3-Nitroaniline	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377
4-Nitroaniline	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377
Nitrobenzene	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377
2-Nitrophenol	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377
4-Nitrophenol	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377
Pentachlorophenol	ND	100		µg/L	1	11/17/2014 5:03:46 PM	16377
Phenanthrene	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377
Phenol	58	50		µg/L	1	11/17/2014 5:03:46 PM	16377
Pyrene	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377
Pyridine	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377
1,2,4-Trichlorobenzene	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377
2,4,5-Trichlorophenol	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411451

Date Reported: 12/5/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-2

Project: Q4 2014

Collection Date: 11/12/2014 10:55:00 AM

Lab ID: 1411451-002

Matrix: AQUEOUS

Received Date: 11/12/2014 4:12:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
2,4,6-Trichlorophenol	ND	50		µg/L	1	11/17/2014 5:03:46 PM	16377
Surr: 2-Fluorophenol	64.4	17.6-104		%REC	1	11/17/2014 5:03:46 PM	16377
Surr: Phenol-d5	51.1	17.7-89.9		%REC	1	11/17/2014 5:03:46 PM	16377
Surr: 2,4,6-Tribromophenol	86.5	16.3-122		%REC	1	11/17/2014 5:03:46 PM	16377
Surr: Nitrobenzene-d5	82.5	45.3-117		%REC	1	11/17/2014 5:03:46 PM	16377
Surr: 2-Fluorobiphenyl	76.3	43-113		%REC	1	11/17/2014 5:03:46 PM	16377
Surr: 4-Terphenyl-d14	81.8	47.6-122		%REC	1	11/17/2014 5:03:46 PM	16377
EPA METHOD 8260B: VOLATILES							Analyst: KJH
Benzene	ND	10		µg/L	10	11/19/2014 5:23:33 PM	R22653
Toluene	ND	10		µg/L	10	11/19/2014 5:23:33 PM	R22653
Ethylbenzene	ND	10		µg/L	10	11/19/2014 5:23:33 PM	R22653
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	11/19/2014 5:23:33 PM	R22653
1,2,4-Trimethylbenzene	ND	10		µg/L	10	11/19/2014 5:23:33 PM	R22653
1,3,5-Trimethylbenzene	ND	10		µg/L	10	11/19/2014 5:23:33 PM	R22653
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	11/19/2014 5:23:33 PM	R22653
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	11/19/2014 5:23:33 PM	R22653
Naphthalene	ND	20		µg/L	10	11/19/2014 5:23:33 PM	R22653
1-Methylnaphthalene	ND	40		µg/L	10	11/19/2014 5:23:33 PM	R22653
2-Methylnaphthalene	ND	40		µg/L	10	11/19/2014 5:23:33 PM	R22653
Acetone	ND	100		µg/L	10	11/19/2014 5:23:33 PM	R22653
Bromobenzene	ND	10		µg/L	10	11/19/2014 5:23:33 PM	R22653
Bromodichloromethane	ND	10		µg/L	10	11/19/2014 5:23:33 PM	R22653
Bromoform	ND	10		µg/L	10	11/19/2014 5:23:33 PM	R22653
Bromomethane	ND	30		µg/L	10	11/19/2014 5:23:33 PM	R22653
2-Butanone	ND	100		µg/L	10	11/19/2014 5:23:33 PM	R22653
Carbon disulfide	ND	100		µg/L	10	11/19/2014 5:23:33 PM	R22653
Carbon Tetrachloride	ND	10		µg/L	10	11/19/2014 5:23:33 PM	R22653
Chlorobenzene	ND	10		µg/L	10	11/19/2014 5:23:33 PM	R22653
Chloroethane	ND	20		µg/L	10	11/19/2014 5:23:33 PM	R22653
Chloroform	ND	10		µg/L	10	11/19/2014 5:23:33 PM	R22653
Chloromethane	ND	30		µg/L	10	11/19/2014 5:23:33 PM	R22653
2-Chlorotoluene	ND	10		µg/L	10	11/19/2014 5:23:33 PM	R22653
4-Chlorotoluene	ND	10		µg/L	10	11/19/2014 5:23:33 PM	R22653
cis-1,2-DCE	ND	10		µg/L	10	11/19/2014 5:23:33 PM	R22653
cis-1,3-Dichloropropene	ND	10		µg/L	10	11/19/2014 5:23:33 PM	R22653
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	11/19/2014 5:23:33 PM	R22653
Dibromochloromethane	ND	10		µg/L	10	11/19/2014 5:23:33 PM	R22653
Dibromomethane	ND	10		µg/L	10	11/19/2014 5:23:33 PM	R22653
1,2-Dichlorobenzene	ND	10		µg/L	10	11/19/2014 5:23:33 PM	R22653

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411451

Date Reported: 12/5/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-2

Project: Q4 2014

Collection Date: 11/12/2014 10:55:00 AM

Lab ID: 1411451-002

Matrix: AQUEOUS

Received Date: 11/12/2014 4:12:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: KJH
1,3-Dichlorobenzene	ND	10		µg/L	10	11/19/2014 5:23:33 PM	R22653
1,4-Dichlorobenzene	ND	10		µg/L	10	11/19/2014 5:23:33 PM	R22653
Dichlorodifluoromethane	ND	10		µg/L	10	11/19/2014 5:23:33 PM	R22653
1,1-Dichloroethane	ND	10		µg/L	10	11/19/2014 5:23:33 PM	R22653
1,1-Dichloroethene	ND	10		µg/L	10	11/19/2014 5:23:33 PM	R22653
1,2-Dichloropropane	ND	10		µg/L	10	11/19/2014 5:23:33 PM	R22653
1,3-Dichloropropane	ND	10		µg/L	10	11/19/2014 5:23:33 PM	R22653
2,2-Dichloropropane	ND	20		µg/L	10	11/19/2014 5:23:33 PM	R22653
1,1-Dichloropropene	ND	10		µg/L	10	11/19/2014 5:23:33 PM	R22653
Hexachlorobutadiene	ND	10		µg/L	10	11/19/2014 5:23:33 PM	R22653
2-Hexanone	ND	100		µg/L	10	11/19/2014 5:23:33 PM	R22653
Isopropylbenzene	ND	10		µg/L	10	11/19/2014 5:23:33 PM	R22653
4-Isopropyltoluene	ND	10		µg/L	10	11/19/2014 5:23:33 PM	R22653
4-Methyl-2-pentanone	ND	100		µg/L	10	11/19/2014 5:23:33 PM	R22653
Methylene Chloride	ND	30		µg/L	10	11/19/2014 5:23:33 PM	R22653
n-Butylbenzene	ND	30		µg/L	10	11/19/2014 5:23:33 PM	R22653
n-Propylbenzene	ND	10		µg/L	10	11/19/2014 5:23:33 PM	R22653
sec-Butylbenzene	ND	10		µg/L	10	11/19/2014 5:23:33 PM	R22653
Styrene	ND	10		µg/L	10	11/19/2014 5:23:33 PM	R22653
tert-Butylbenzene	ND	10		µg/L	10	11/19/2014 5:23:33 PM	R22653
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	11/19/2014 5:23:33 PM	R22653
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	11/19/2014 5:23:33 PM	R22653
Tetrachloroethene (PCE)	ND	10		µg/L	10	11/19/2014 5:23:33 PM	R22653
trans-1,2-DCE	ND	10		µg/L	10	11/19/2014 5:23:33 PM	R22653
trans-1,3-Dichloropropene	ND	10		µg/L	10	11/19/2014 5:23:33 PM	R22653
1,2,3-Trichlorobenzene	ND	10		µg/L	10	11/19/2014 5:23:33 PM	R22653
1,2,4-Trichlorobenzene	ND	10		µg/L	10	11/19/2014 5:23:33 PM	R22653
1,1,1-Trichloroethane	ND	10		µg/L	10	11/19/2014 5:23:33 PM	R22653
1,1,2-Trichloroethane	ND	10		µg/L	10	11/19/2014 5:23:33 PM	R22653
Trichloroethene (TCE)	ND	10		µg/L	10	11/19/2014 5:23:33 PM	R22653
Trichlorofluoromethane	ND	10		µg/L	10	11/19/2014 5:23:33 PM	R22653
1,2,3-Trichloropropane	ND	20		µg/L	10	11/19/2014 5:23:33 PM	R22653
Vinyl chloride	ND	10		µg/L	10	11/19/2014 5:23:33 PM	R22653
Xylenes, Total	ND	15		µg/L	10	11/19/2014 5:23:33 PM	R22653
Surr: 1,2-Dichloroethane-d4	101	70-130		%REC	10	11/19/2014 5:23:33 PM	R22653
Surr: 4-Bromofluorobenzene	96.7	70-130		%REC	10	11/19/2014 5:23:33 PM	R22653
Surr: Dibromofluoromethane	97.6	70-130		%REC	10	11/19/2014 5:23:33 PM	R22653
Surr: Toluene-d8	97.9	70-130		%REC	10	11/19/2014 5:23:33 PM	R22653

SM2510B: SPECIFIC CONDUCTANCE

Analyst: JRR

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411451

Date Reported: 12/5/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-2

Project: Q4 2014

Collection Date: 11/12/2014 10:55:00 AM

Lab ID: 1411451-002

Matrix: AQUEOUS

Received Date: 11/12/2014 4:12:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM2510B: SPECIFIC CONDUCTANCE							Analyst: JRR
Conductivity	8900	0.010		µmhos/cm	1	11/13/2014 9:50:17 PM	R22543
SM4500-H+B: PH							Analyst: JRR
pH	7.97	1.68	H	pH units	1	11/13/2014 9:50:17 PM	R22543

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 13 of 53
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411451

Date Reported: 12/5/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-3

Project: Q4 2014

Collection Date: 11/12/2014 11:30:00 AM

Lab ID: 1411451-003

Matrix: AQUEOUS

Received Date: 11/12/2014 4:12:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGP
Fluoride	34	1.0	*	mg/L	10	11/13/2014 7:00:32 PM	R22539
Chloride	4000	250		mg/L	500	11/24/2014 9:59:06 PM	R22776
Nitrogen, Nitrite (As N)	ND	10		mg/L	100	11/13/2014 7:12:57 PM	R22539
Bromide	1.0	1.0		mg/L	10	11/13/2014 7:00:32 PM	R22539
Nitrogen, Nitrate (As N)	ND	1.0		mg/L	10	11/13/2014 7:00:32 PM	R22539
Phosphorus, Orthophosphate (As P)	ND	5.0		mg/L	10	11/13/2014 7:00:32 PM	R22539
Sulfate	1300	50		mg/L	100	11/13/2014 7:12:57 PM	R22539
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.10	0.0020		mg/L	1	11/16/2014 7:54:09 PM	R22599
Cadmium	ND	0.0020		mg/L	1	11/16/2014 7:54:09 PM	R22599
Calcium	370	5.0		mg/L	5	11/16/2014 7:55:42 PM	R22599
Chromium	0.0091	0.0060		mg/L	1	11/16/2014 7:54:09 PM	R22599
Copper	ND	0.0060		mg/L	1	11/16/2014 7:54:09 PM	R22599
Iron	1.6	0.10	*	mg/L	5	11/16/2014 7:55:42 PM	R22599
Magnesium	92	1.0		mg/L	1	11/16/2014 7:54:09 PM	R22599
Manganese	0.23	0.0020	*	mg/L	1	11/16/2014 7:54:09 PM	R22599
Potassium	160	5.0		mg/L	5	11/16/2014 7:55:42 PM	R22599
Silver	ND	0.0050		mg/L	1	11/16/2014 7:54:09 PM	R22599
Sodium	2500	50		mg/L	50	11/24/2014 12:04:38 PM	R22752
Zinc	0.016	0.010		mg/L	1	11/16/2014 7:54:09 PM	R22599
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.10	0.0020		mg/L	1	11/18/2014 3:12:26 PM	16416
Cadmium	ND	0.0020		mg/L	1	11/18/2014 3:12:26 PM	16416
Chromium	0.0098	0.0060		mg/L	1	11/18/2014 3:12:26 PM	16416
Copper	ND	0.0060		mg/L	1	11/18/2014 3:12:26 PM	16416
Iron	1.9	0.10	*	mg/L	5	11/18/2014 3:24:49 PM	16416
Manganese	0.23	0.0020	*	mg/L	1	11/18/2014 3:12:26 PM	16416
Silver	ND	0.0050		mg/L	1	11/18/2014 3:12:26 PM	16416
Zinc	0.020	0.010		mg/L	1	11/18/2014 3:12:26 PM	16416
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.012	0.010	*	mg/L	10	11/24/2014 5:17:14 PM	R22774
Lead	ND	0.010		mg/L	10	11/24/2014 5:17:14 PM	R22774
Selenium	ND	0.010		mg/L	10	11/24/2014 5:17:14 PM	R22774
Uranium	ND	0.010		mg/L	10	11/24/2014 5:17:14 PM	R22774
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.020	*	mg/L	20	12/3/2014 2:23:10 PM	16416
Lead	ND	0.020		mg/L	20	12/3/2014 2:23:10 PM	16416

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411451

Date Reported: 12/5/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-3

Project: Q4 2014

Collection Date: 11/12/2014 11:30:00 AM

Lab ID: 1411451-003

Matrix: AQUEOUS

Received Date: 11/12/2014 4:12:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Selenium	ND	0.020		mg/L	20	12/3/2014 2:23:10 PM	16416
Uranium	ND	0.020		mg/L	20	12/3/2014 2:23:10 PM	16416
EPA METHOD 245.1: MERCURY							Analyst: MMD
Mercury	ND	0.00020		mg/L	1	11/21/2014 2:57:21 PM	16511
SM5210B: BOD							Analyst: SMS
Biochemical Oxygen Demand	120	2.0		mg/L	1	11/18/2014 2:28:00 PM	16371
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377
Acenaphthylene	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377
Aniline	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377
Anthracene	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377
Azobenzene	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377
Benz(a)anthracene	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377
Benzo(a)pyrene	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377
Benzo(b)fluoranthene	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377
Benzo(g,h,i)perylene	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377
Benzo(k)fluoranthene	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377
Benzoic acid	ND	100		µg/L	1	11/17/2014 5:31:18 PM	16377
Benzyl alcohol	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377
Bis(2-chloroethyl)ether	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377
4-Bromophenyl phenyl ether	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377
Butyl benzyl phthalate	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377
Carbazole	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377
4-Chloro-3-methylphenol	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377
4-Chloroaniline	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377
2-Chloronaphthalene	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377
2-Chlorophenol	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377
Chrysene	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377
Di-n-butyl phthalate	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377
Di-n-octyl phthalate	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377
Dibenz(a,h)anthracene	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377
Dibenzofuran	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377
1,2-Dichlorobenzene	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377
1,3-Dichlorobenzene	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411451

Date Reported: 12/5/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-3

Project: Q4 2014

Collection Date: 11/12/2014 11:30:00 AM

Lab ID: 1411451-003

Matrix: AQUEOUS

Received Date: 11/12/2014 4:12:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
1,4-Dichlorobenzene	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377
3,3'-Dichlorobenzidine	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377
Diethyl phthalate	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377
Dimethyl phthalate	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377
2,4-Dichlorophenol	ND	100		µg/L	1	11/17/2014 5:31:18 PM	16377
2,4-Dimethylphenol	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	11/17/2014 5:31:18 PM	16377
2,4-Dinitrophenol	ND	100		µg/L	1	11/17/2014 5:31:18 PM	16377
2,4-Dinitrotoluene	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377
2,6-Dinitrotoluene	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377
Fluoranthene	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377
Fluorene	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377
Hexachlorobenzene	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377
Hexachlorobutadiene	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377
Hexachlorocyclopentadiene	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377
Hexachloroethane	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377
Isophorone	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377
1-Methylnaphthalene	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377
2-Methylnaphthalene	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377
2-Methylphenol	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377
3+4-Methylphenol	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377
N-Nitrosodimethylamine	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377
N-Nitrosodiphenylamine	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377
Naphthalene	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377
2-Nitroaniline	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377
3-Nitroaniline	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377
4-Nitroaniline	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377
Nitrobenzene	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377
2-Nitrophenol	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377
4-Nitrophenol	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377
Pentachlorophenol	ND	100		µg/L	1	11/17/2014 5:31:18 PM	16377
Phenanthrene	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377
Phenol	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377
Pyrene	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377
Pyridine	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377
1,2,4-Trichlorobenzene	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377
2,4,5-Trichlorophenol	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411451

Date Reported: 12/5/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-3

Project: Q4 2014

Collection Date: 11/12/2014 11:30:00 AM

Lab ID: 1411451-003

Matrix: AQUEOUS

Received Date: 11/12/2014 4:12:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
2,4,6-Trichlorophenol	ND	50		µg/L	1	11/17/2014 5:31:18 PM	16377
Surr: 2-Fluorophenol	59.0	17.6-104		%REC	1	11/17/2014 5:31:18 PM	16377
Surr: Phenol-d5	45.0	17.7-89.9		%REC	1	11/17/2014 5:31:18 PM	16377
Surr: 2,4,6-Tribromophenol	83.7	16.3-122		%REC	1	11/17/2014 5:31:18 PM	16377
Surr: Nitrobenzene-d5	77.5	45.3-117		%REC	1	11/17/2014 5:31:18 PM	16377
Surr: 2-Fluorobiphenyl	73.0	43-113		%REC	1	11/17/2014 5:31:18 PM	16377
Surr: 4-Terphenyl-d14	79.0	47.6-122		%REC	1	11/17/2014 5:31:18 PM	16377
EPA METHOD 8260B: VOLATILES							Analyst: KJH
Benzene	ND	10		µg/L	10	11/19/2014 5:53:25 PM	R22653
Toluene	ND	10		µg/L	10	11/19/2014 5:53:25 PM	R22653
Ethylbenzene	ND	10		µg/L	10	11/19/2014 5:53:25 PM	R22653
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	11/19/2014 5:53:25 PM	R22653
1,2,4-Trimethylbenzene	ND	10		µg/L	10	11/19/2014 5:53:25 PM	R22653
1,3,5-Trimethylbenzene	ND	10		µg/L	10	11/19/2014 5:53:25 PM	R22653
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	11/19/2014 5:53:25 PM	R22653
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	11/19/2014 5:53:25 PM	R22653
Naphthalene	ND	20		µg/L	10	11/19/2014 5:53:25 PM	R22653
1-Methylnaphthalene	ND	40		µg/L	10	11/19/2014 5:53:25 PM	R22653
2-Methylnaphthalene	ND	40		µg/L	10	11/19/2014 5:53:25 PM	R22653
Acetone	ND	100		µg/L	10	11/19/2014 5:53:25 PM	R22653
Bromobenzene	ND	10		µg/L	10	11/19/2014 5:53:25 PM	R22653
Bromodichloromethane	ND	10		µg/L	10	11/19/2014 5:53:25 PM	R22653
Bromoform	ND	10		µg/L	10	11/19/2014 5:53:25 PM	R22653
Bromomethane	ND	30		µg/L	10	11/19/2014 5:53:25 PM	R22653
2-Butanone	ND	100		µg/L	10	11/19/2014 5:53:25 PM	R22653
Carbon disulfide	ND	100		µg/L	10	11/19/2014 5:53:25 PM	R22653
Carbon Tetrachloride	ND	10		µg/L	10	11/19/2014 5:53:25 PM	R22653
Chlorobenzene	ND	10		µg/L	10	11/19/2014 5:53:25 PM	R22653
Chloroethane	ND	20		µg/L	10	11/19/2014 5:53:25 PM	R22653
Chloroform	ND	10		µg/L	10	11/19/2014 5:53:25 PM	R22653
Chloromethane	ND	30		µg/L	10	11/19/2014 5:53:25 PM	R22653
2-Chlorotoluene	ND	10		µg/L	10	11/19/2014 5:53:25 PM	R22653
4-Chlorotoluene	ND	10		µg/L	10	11/19/2014 5:53:25 PM	R22653
cis-1,2-DCE	ND	10		µg/L	10	11/19/2014 5:53:25 PM	R22653
cis-1,3-Dichloropropene	ND	10		µg/L	10	11/19/2014 5:53:25 PM	R22653
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	11/19/2014 5:53:25 PM	R22653
Dibromochloromethane	ND	10		µg/L	10	11/19/2014 5:53:25 PM	R22653
Dibromomethane	ND	10		µg/L	10	11/19/2014 5:53:25 PM	R22653
1,2-Dichlorobenzene	ND	10		µg/L	10	11/19/2014 5:53:25 PM	R22653

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411451

Date Reported: 12/5/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-3

Project: Q4 2014

Collection Date: 11/12/2014 11:30:00 AM

Lab ID: 1411451-003

Matrix: AQUEOUS

Received Date: 11/12/2014 4:12:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: KJH
1,3-Dichlorobenzene	ND	10		µg/L	10	11/19/2014 5:53:25 PM	R22653
1,4-Dichlorobenzene	ND	10		µg/L	10	11/19/2014 5:53:25 PM	R22653
Dichlorodifluoromethane	ND	10		µg/L	10	11/19/2014 5:53:25 PM	R22653
1,1-Dichloroethane	ND	10		µg/L	10	11/19/2014 5:53:25 PM	R22653
1,1-Dichloroethene	ND	10		µg/L	10	11/19/2014 5:53:25 PM	R22653
1,2-Dichloropropane	ND	10		µg/L	10	11/19/2014 5:53:25 PM	R22653
1,3-Dichloropropane	ND	10		µg/L	10	11/19/2014 5:53:25 PM	R22653
2,2-Dichloropropane	ND	20		µg/L	10	11/19/2014 5:53:25 PM	R22653
1,1-Dichloropropene	ND	10		µg/L	10	11/19/2014 5:53:25 PM	R22653
Hexachlorobutadiene	ND	10		µg/L	10	11/19/2014 5:53:25 PM	R22653
2-Hexanone	ND	100		µg/L	10	11/19/2014 5:53:25 PM	R22653
Isopropylbenzene	ND	10		µg/L	10	11/19/2014 5:53:25 PM	R22653
4-Isopropyltoluene	ND	10		µg/L	10	11/19/2014 5:53:25 PM	R22653
4-Methyl-2-pentanone	ND	100		µg/L	10	11/19/2014 5:53:25 PM	R22653
Methylene Chloride	ND	30		µg/L	10	11/19/2014 5:53:25 PM	R22653
n-Butylbenzene	ND	30		µg/L	10	11/19/2014 5:53:25 PM	R22653
n-Propylbenzene	ND	10		µg/L	10	11/19/2014 5:53:25 PM	R22653
sec-Butylbenzene	ND	10		µg/L	10	11/19/2014 5:53:25 PM	R22653
Styrene	ND	10		µg/L	10	11/19/2014 5:53:25 PM	R22653
tert-Butylbenzene	ND	10		µg/L	10	11/19/2014 5:53:25 PM	R22653
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	11/19/2014 5:53:25 PM	R22653
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	11/19/2014 5:53:25 PM	R22653
Tetrachloroethene (PCE)	ND	10		µg/L	10	11/19/2014 5:53:25 PM	R22653
trans-1,2-DCE	ND	10		µg/L	10	11/19/2014 5:53:25 PM	R22653
trans-1,3-Dichloropropene	ND	10		µg/L	10	11/19/2014 5:53:25 PM	R22653
1,2,3-Trichlorobenzene	ND	10		µg/L	10	11/19/2014 5:53:25 PM	R22653
1,2,4-Trichlorobenzene	ND	10		µg/L	10	11/19/2014 5:53:25 PM	R22653
1,1,1-Trichloroethane	ND	10		µg/L	10	11/19/2014 5:53:25 PM	R22653
1,1,2-Trichloroethane	ND	10		µg/L	10	11/19/2014 5:53:25 PM	R22653
Trichloroethene (TCE)	ND	10		µg/L	10	11/19/2014 5:53:25 PM	R22653
Trichlorofluoromethane	ND	10		µg/L	10	11/19/2014 5:53:25 PM	R22653
1,2,3-Trichloropropane	ND	20		µg/L	10	11/19/2014 5:53:25 PM	R22653
Vinyl chloride	ND	10		µg/L	10	11/19/2014 5:53:25 PM	R22653
Xylenes, Total	ND	15		µg/L	10	11/19/2014 5:53:25 PM	R22653
Surr: 1,2-Dichloroethane-d4	100	70-130		%REC	10	11/19/2014 5:53:25 PM	R22653
Surr: 4-Bromofluorobenzene	94.4	70-130		%REC	10	11/19/2014 5:53:25 PM	R22653
Surr: Dibromofluoromethane	98.6	70-130		%REC	10	11/19/2014 5:53:25 PM	R22653
Surr: Toluene-d8	92.4	70-130		%REC	10	11/19/2014 5:53:25 PM	R22653

SM2510B: SPECIFIC CONDUCTANCE

Analyst: **JRR**

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411451

Date Reported: 12/5/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-3

Project: Q4 2014

Collection Date: 11/12/2014 11:30:00 AM

Lab ID: 1411451-003

Matrix: AQUEOUS

Received Date: 11/12/2014 4:12:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM2510B: SPECIFIC CONDUCTANCE							Analyst: JRR
Conductivity	12000	0.050		µmhos/cm	5	11/21/2014 7:08:25 PM	R22735
SM4500-H+B: PH							Analyst: JRR
pH	7.85	1.68	H	pH units	1	11/13/2014 9:54:23 PM	R22543

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 19 of 53
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411451

Date Reported: 12/5/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-4

Project: Q4 2014

Collection Date: 11/12/2014 12:00:00 PM

Lab ID: 1411451-004

Matrix: AQUEOUS

Received Date: 11/12/2014 4:12:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGP
Fluoride	33	1.0	*	mg/L	10	11/13/2014 7:25:22 PM	R22539
Chloride	4200	250		mg/L	500	11/24/2014 10:11:31 PM	R22776
Nitrogen, Nitrite (As N)	ND	10		mg/L	100	11/13/2014 7:37:47 PM	R22539
Bromide	1.1	1.0		mg/L	10	11/13/2014 7:25:22 PM	R22539
Nitrogen, Nitrate (As N)	ND	1.0		mg/L	10	11/13/2014 7:25:22 PM	R22539
Phosphorus, Orthophosphate (As P)	ND	5.0		mg/L	10	11/13/2014 7:25:22 PM	R22539
Sulfate	1300	50		mg/L	100	11/13/2014 7:37:47 PM	R22539
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.11	0.0020		mg/L	1	11/16/2014 8:04:51 PM	R22599
Cadmium	ND	0.0020		mg/L	1	11/16/2014 8:04:51 PM	R22599
Calcium	370	5.0		mg/L	5	11/16/2014 8:06:32 PM	R22599
Chromium	0.010	0.0060		mg/L	1	11/16/2014 8:04:51 PM	R22599
Copper	ND	0.0060		mg/L	1	11/16/2014 8:04:51 PM	R22599
Iron	1.3	0.10	*	mg/L	5	11/16/2014 8:06:32 PM	R22599
Magnesium	97	1.0		mg/L	1	11/16/2014 8:04:51 PM	R22599
Manganese	0.27	0.0020	*	mg/L	1	11/16/2014 8:04:51 PM	R22599
Potassium	160	5.0		mg/L	5	11/16/2014 8:06:32 PM	R22599
Silver	ND	0.0050		mg/L	1	11/16/2014 8:04:51 PM	R22599
Sodium	2600	50		mg/L	50	11/24/2014 12:06:34 PM	R22752
Zinc	0.017	0.010		mg/L	1	11/16/2014 8:04:51 PM	R22599
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.11	0.0020		mg/L	1	11/18/2014 3:30:53 PM	16416
Cadmium	ND	0.0020		mg/L	1	11/18/2014 3:30:53 PM	16416
Chromium	0.010	0.0060		mg/L	1	11/18/2014 3:30:53 PM	16416
Copper	ND	0.0060		mg/L	1	11/18/2014 3:30:53 PM	16416
Iron	1.7	0.10	*	mg/L	5	11/18/2014 3:32:28 PM	16416
Manganese	0.28	0.0020	*	mg/L	1	11/18/2014 3:30:53 PM	16416
Silver	ND	0.0050		mg/L	1	11/18/2014 3:30:53 PM	16416
Zinc	0.023	0.010		mg/L	1	11/20/2014 3:57:41 PM	16416
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.012	0.010	*	mg/L	10	11/25/2014 1:27:10 PM	R22788
Lead	0.0013	0.0010		mg/L	1	11/25/2014 1:02:15 PM	R22788
Selenium	0.011	0.010		mg/L	10	11/25/2014 1:27:10 PM	R22788
Uranium	0.0039	0.0010		mg/L	1	11/25/2014 1:02:15 PM	R22788
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.020	*	mg/L	20	12/3/2014 2:26:15 PM	16416
Lead	ND	0.020		mg/L	20	12/3/2014 2:26:15 PM	16416

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411451

Date Reported: 12/5/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-4

Project: Q4 2014

Collection Date: 11/12/2014 12:00:00 PM

Lab ID: 1411451-004

Matrix: AQUEOUS

Received Date: 11/12/2014 4:12:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Selenium	ND	0.020		mg/L	20	12/3/2014 2:26:15 PM	16416
Uranium	ND	0.020		mg/L	20	12/3/2014 2:26:15 PM	16416
EPA METHOD 245.1: MERCURY							Analyst: MMD
Mercury	ND	0.00020		mg/L	1	11/21/2014 2:59:04 PM	16511
SM5210B: BOD							Analyst: SMS
Biochemical Oxygen Demand	120	2.0		mg/L	1	11/18/2014 2:28:00 PM	16371
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377
Acenaphthylene	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377
Aniline	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377
Anthracene	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377
Azobenzene	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377
Benz(a)anthracene	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377
Benzo(a)pyrene	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377
Benzo(b)fluoranthene	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377
Benzo(g,h,i)perylene	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377
Benzo(k)fluoranthene	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377
Benzoic acid	ND	100		µg/L	1	11/17/2014 5:58:45 PM	16377
Benzyl alcohol	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377
Bis(2-chloroethyl)ether	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377
4-Bromophenyl phenyl ether	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377
Butyl benzyl phthalate	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377
Carbazole	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377
4-Chloro-3-methylphenol	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377
4-Chloroaniline	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377
2-Chloronaphthalene	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377
2-Chlorophenol	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377
Chrysene	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377
Di-n-butyl phthalate	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377
Di-n-octyl phthalate	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377
Dibenz(a,h)anthracene	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377
Dibenzofuran	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377
1,2-Dichlorobenzene	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377
1,3-Dichlorobenzene	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411451

Date Reported: 12/5/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-4

Project: Q4 2014

Collection Date: 11/12/2014 12:00:00 PM

Lab ID: 1411451-004

Matrix: AQUEOUS

Received Date: 11/12/2014 4:12:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
1,4-Dichlorobenzene	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377
3,3'-Dichlorobenzidine	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377
Diethyl phthalate	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377
Dimethyl phthalate	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377
2,4-Dichlorophenol	ND	100		µg/L	1	11/17/2014 5:58:45 PM	16377
2,4-Dimethylphenol	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	11/17/2014 5:58:45 PM	16377
2,4-Dinitrophenol	ND	100		µg/L	1	11/17/2014 5:58:45 PM	16377
2,4-Dinitrotoluene	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377
2,6-Dinitrotoluene	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377
Fluoranthene	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377
Fluorene	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377
Hexachlorobenzene	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377
Hexachlorobutadiene	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377
Hexachlorocyclopentadiene	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377
Hexachloroethane	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377
Isophorone	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377
1-Methylnaphthalene	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377
2-Methylnaphthalene	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377
2-Methylphenol	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377
3+4-Methylphenol	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377
N-Nitrosodimethylamine	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377
N-Nitrosodiphenylamine	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377
Naphthalene	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377
2-Nitroaniline	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377
3-Nitroaniline	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377
4-Nitroaniline	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377
Nitrobenzene	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377
2-Nitrophenol	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377
4-Nitrophenol	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377
Pentachlorophenol	ND	100		µg/L	1	11/17/2014 5:58:45 PM	16377
Phenanthrene	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377
Phenol	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377
Pyrene	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377
Pyridine	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377
1,2,4-Trichlorobenzene	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377
2,4,5-Trichlorophenol	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411451

Date Reported: 12/5/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-4

Project: Q4 2014

Collection Date: 11/12/2014 12:00:00 PM

Lab ID: 1411451-004

Matrix: AQUEOUS

Received Date: 11/12/2014 4:12:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
2,4,6-Trichlorophenol	ND	50		µg/L	1	11/17/2014 5:58:45 PM	16377
Surr: 2-Fluorophenol	59.4	17.6-104		%REC	1	11/17/2014 5:58:45 PM	16377
Surr: Phenol-d5	49.4	17.7-89.9		%REC	1	11/17/2014 5:58:45 PM	16377
Surr: 2,4,6-Tribromophenol	80.6	16.3-122		%REC	1	11/17/2014 5:58:45 PM	16377
Surr: Nitrobenzene-d5	78.7	45.3-117		%REC	1	11/17/2014 5:58:45 PM	16377
Surr: 2-Fluorobiphenyl	74.5	43-113		%REC	1	11/17/2014 5:58:45 PM	16377
Surr: 4-Terphenyl-d14	76.4	47.6-122		%REC	1	11/17/2014 5:58:45 PM	16377
EPA METHOD 8260B: VOLATILES							Analyst: KJH
Benzene	ND	10		µg/L	10	11/19/2014 6:23:13 PM	R22653
Toluene	ND	10		µg/L	10	11/19/2014 6:23:13 PM	R22653
Ethylbenzene	ND	10		µg/L	10	11/19/2014 6:23:13 PM	R22653
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	11/19/2014 6:23:13 PM	R22653
1,2,4-Trimethylbenzene	ND	10		µg/L	10	11/19/2014 6:23:13 PM	R22653
1,3,5-Trimethylbenzene	ND	10		µg/L	10	11/19/2014 6:23:13 PM	R22653
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	11/19/2014 6:23:13 PM	R22653
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	11/19/2014 6:23:13 PM	R22653
Naphthalene	ND	20		µg/L	10	11/19/2014 6:23:13 PM	R22653
1-Methylnaphthalene	ND	40		µg/L	10	11/19/2014 6:23:13 PM	R22653
2-Methylnaphthalene	ND	40		µg/L	10	11/19/2014 6:23:13 PM	R22653
Acetone	ND	100		µg/L	10	11/19/2014 6:23:13 PM	R22653
Bromobenzene	ND	10		µg/L	10	11/19/2014 6:23:13 PM	R22653
Bromodichloromethane	ND	10		µg/L	10	11/19/2014 6:23:13 PM	R22653
Bromoform	ND	10		µg/L	10	11/19/2014 6:23:13 PM	R22653
Bromomethane	ND	30		µg/L	10	11/19/2014 6:23:13 PM	R22653
2-Butanone	ND	100		µg/L	10	11/19/2014 6:23:13 PM	R22653
Carbon disulfide	ND	100		µg/L	10	11/19/2014 6:23:13 PM	R22653
Carbon Tetrachloride	ND	10		µg/L	10	11/19/2014 6:23:13 PM	R22653
Chlorobenzene	ND	10		µg/L	10	11/19/2014 6:23:13 PM	R22653
Chloroethane	ND	20		µg/L	10	11/19/2014 6:23:13 PM	R22653
Chloroform	ND	10		µg/L	10	11/19/2014 6:23:13 PM	R22653
Chloromethane	ND	30		µg/L	10	11/19/2014 6:23:13 PM	R22653
2-Chlorotoluene	ND	10		µg/L	10	11/19/2014 6:23:13 PM	R22653
4-Chlorotoluene	ND	10		µg/L	10	11/19/2014 6:23:13 PM	R22653
cis-1,2-DCE	ND	10		µg/L	10	11/19/2014 6:23:13 PM	R22653
cis-1,3-Dichloropropene	ND	10		µg/L	10	11/19/2014 6:23:13 PM	R22653
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	11/19/2014 6:23:13 PM	R22653
Dibromochloromethane	ND	10		µg/L	10	11/19/2014 6:23:13 PM	R22653
Dibromomethane	ND	10		µg/L	10	11/19/2014 6:23:13 PM	R22653
1,2-Dichlorobenzene	ND	10		µg/L	10	11/19/2014 6:23:13 PM	R22653

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411451

Date Reported: 12/5/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-4

Project: Q4 2014

Collection Date: 11/12/2014 12:00:00 PM

Lab ID: 1411451-004

Matrix: AQUEOUS

Received Date: 11/12/2014 4:12:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: KJH
1,3-Dichlorobenzene	ND	10		µg/L	10	11/19/2014 6:23:13 PM	R22653
1,4-Dichlorobenzene	ND	10		µg/L	10	11/19/2014 6:23:13 PM	R22653
Dichlorodifluoromethane	ND	10		µg/L	10	11/19/2014 6:23:13 PM	R22653
1,1-Dichloroethane	ND	10		µg/L	10	11/19/2014 6:23:13 PM	R22653
1,1-Dichloroethene	ND	10		µg/L	10	11/19/2014 6:23:13 PM	R22653
1,2-Dichloropropane	ND	10		µg/L	10	11/19/2014 6:23:13 PM	R22653
1,3-Dichloropropane	ND	10		µg/L	10	11/19/2014 6:23:13 PM	R22653
2,2-Dichloropropane	ND	20		µg/L	10	11/19/2014 6:23:13 PM	R22653
1,1-Dichloropropene	ND	10		µg/L	10	11/19/2014 6:23:13 PM	R22653
Hexachlorobutadiene	ND	10		µg/L	10	11/19/2014 6:23:13 PM	R22653
2-Hexanone	ND	100		µg/L	10	11/19/2014 6:23:13 PM	R22653
Isopropylbenzene	ND	10		µg/L	10	11/19/2014 6:23:13 PM	R22653
4-Isopropyltoluene	ND	10		µg/L	10	11/19/2014 6:23:13 PM	R22653
4-Methyl-2-pentanone	ND	100		µg/L	10	11/19/2014 6:23:13 PM	R22653
Methylene Chloride	ND	30		µg/L	10	11/19/2014 6:23:13 PM	R22653
n-Butylbenzene	ND	30		µg/L	10	11/19/2014 6:23:13 PM	R22653
n-Propylbenzene	ND	10		µg/L	10	11/19/2014 6:23:13 PM	R22653
sec-Butylbenzene	ND	10		µg/L	10	11/19/2014 6:23:13 PM	R22653
Styrene	ND	10		µg/L	10	11/19/2014 6:23:13 PM	R22653
tert-Butylbenzene	ND	10		µg/L	10	11/19/2014 6:23:13 PM	R22653
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	11/19/2014 6:23:13 PM	R22653
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	11/19/2014 6:23:13 PM	R22653
Tetrachloroethene (PCE)	ND	10		µg/L	10	11/19/2014 6:23:13 PM	R22653
trans-1,2-DCE	ND	10		µg/L	10	11/19/2014 6:23:13 PM	R22653
trans-1,3-Dichloropropene	ND	10		µg/L	10	11/19/2014 6:23:13 PM	R22653
1,2,3-Trichlorobenzene	ND	10		µg/L	10	11/19/2014 6:23:13 PM	R22653
1,2,4-Trichlorobenzene	ND	10		µg/L	10	11/19/2014 6:23:13 PM	R22653
1,1,1-Trichloroethane	ND	10		µg/L	10	11/19/2014 6:23:13 PM	R22653
1,1,2-Trichloroethane	ND	10		µg/L	10	11/19/2014 6:23:13 PM	R22653
Trichloroethene (TCE)	ND	10		µg/L	10	11/19/2014 6:23:13 PM	R22653
Trichlorofluoromethane	ND	10		µg/L	10	11/19/2014 6:23:13 PM	R22653
1,2,3-Trichloropropane	ND	20		µg/L	10	11/19/2014 6:23:13 PM	R22653
Vinyl chloride	ND	10		µg/L	10	11/19/2014 6:23:13 PM	R22653
Xylenes, Total	ND	15		µg/L	10	11/19/2014 6:23:13 PM	R22653
Surr: 1,2-Dichloroethane-d4	94.7	70-130		%REC	10	11/19/2014 6:23:13 PM	R22653
Surr: 4-Bromofluorobenzene	94.1	70-130		%REC	10	11/19/2014 6:23:13 PM	R22653
Surr: Dibromofluoromethane	91.5	70-130		%REC	10	11/19/2014 6:23:13 PM	R22653
Surr: Toluene-d8	96.1	70-130		%REC	10	11/19/2014 6:23:13 PM	R22653

SM2510B: SPECIFIC CONDUCTANCE

Analyst: **JRR**

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411451

Date Reported: 12/5/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EP-4

Project: Q4 2014

Collection Date: 11/12/2014 12:00:00 PM

Lab ID: 1411451-004

Matrix: AQUEOUS

Received Date: 11/12/2014 4:12:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM2510B: SPECIFIC CONDUCTANCE							Analyst: JRR
Conductivity	13000	0.050		µmhos/cm	5	11/24/2014 6:04:08 PM	R22777
SM4500-H+B: PH							Analyst: JRR
pH	7.91	1.68	H	pH units	1	11/13/2014 9:58:38 PM	R22543

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 25 of 53
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411451

Date Reported: 12/5/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FB-111214

Project: Q4 2014

Collection Date: 11/12/2014 1:25:00 PM

Lab ID: 1411451-005

Matrix: AQUEOUS

Received Date: 11/12/2014 4:12:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: KJH
Benzene	ND	1.0		µg/L	1	11/19/2014 6:53:06 PM	R22653
Toluene	ND	1.0		µg/L	1	11/19/2014 6:53:06 PM	R22653
Ethylbenzene	ND	1.0		µg/L	1	11/19/2014 6:53:06 PM	R22653
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	11/19/2014 6:53:06 PM	R22653
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/19/2014 6:53:06 PM	R22653
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/19/2014 6:53:06 PM	R22653
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/19/2014 6:53:06 PM	R22653
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/19/2014 6:53:06 PM	R22653
Naphthalene	ND	2.0		µg/L	1	11/19/2014 6:53:06 PM	R22653
1-Methylnaphthalene	ND	4.0		µg/L	1	11/19/2014 6:53:06 PM	R22653
2-Methylnaphthalene	ND	4.0		µg/L	1	11/19/2014 6:53:06 PM	R22653
Acetone	ND	10		µg/L	1	11/19/2014 6:53:06 PM	R22653
Bromobenzene	ND	1.0		µg/L	1	11/19/2014 6:53:06 PM	R22653
Bromodichloromethane	ND	1.0		µg/L	1	11/19/2014 6:53:06 PM	R22653
Bromoform	ND	1.0		µg/L	1	11/19/2014 6:53:06 PM	R22653
Bromomethane	ND	3.0		µg/L	1	11/19/2014 6:53:06 PM	R22653
2-Butanone	ND	10		µg/L	1	11/19/2014 6:53:06 PM	R22653
Carbon disulfide	ND	10		µg/L	1	11/19/2014 6:53:06 PM	R22653
Carbon Tetrachloride	ND	1.0		µg/L	1	11/19/2014 6:53:06 PM	R22653
Chlorobenzene	ND	1.0		µg/L	1	11/19/2014 6:53:06 PM	R22653
Chloroethane	ND	2.0		µg/L	1	11/19/2014 6:53:06 PM	R22653
Chloroform	ND	1.0		µg/L	1	11/19/2014 6:53:06 PM	R22653
Chloromethane	ND	3.0		µg/L	1	11/19/2014 6:53:06 PM	R22653
2-Chlorotoluene	ND	1.0		µg/L	1	11/19/2014 6:53:06 PM	R22653
4-Chlorotoluene	ND	1.0		µg/L	1	11/19/2014 6:53:06 PM	R22653
cis-1,2-DCE	ND	1.0		µg/L	1	11/19/2014 6:53:06 PM	R22653
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/19/2014 6:53:06 PM	R22653
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/19/2014 6:53:06 PM	R22653
Dibromochloromethane	ND	1.0		µg/L	1	11/19/2014 6:53:06 PM	R22653
Dibromomethane	ND	1.0		µg/L	1	11/19/2014 6:53:06 PM	R22653
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/19/2014 6:53:06 PM	R22653
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/19/2014 6:53:06 PM	R22653
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/19/2014 6:53:06 PM	R22653
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/19/2014 6:53:06 PM	R22653
1,1-Dichloroethane	ND	1.0		µg/L	1	11/19/2014 6:53:06 PM	R22653
1,1-Dichloroethene	ND	1.0		µg/L	1	11/19/2014 6:53:06 PM	R22653
1,2-Dichloropropane	ND	1.0		µg/L	1	11/19/2014 6:53:06 PM	R22653
1,3-Dichloropropane	ND	1.0		µg/L	1	11/19/2014 6:53:06 PM	R22653
2,2-Dichloropropane	ND	2.0		µg/L	1	11/19/2014 6:53:06 PM	R22653

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411451

Date Reported: 12/5/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FB-111214

Project: Q4 2014

Collection Date: 11/12/2014 1:25:00 PM

Lab ID: 1411451-005

Matrix: AQUEOUS

Received Date: 11/12/2014 4:12:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: KJH
1,1-Dichloropropene	ND	1.0		µg/L	1	11/19/2014 6:53:06 PM	R22653
Hexachlorobutadiene	ND	1.0		µg/L	1	11/19/2014 6:53:06 PM	R22653
2-Hexanone	ND	10		µg/L	1	11/19/2014 6:53:06 PM	R22653
Isopropylbenzene	ND	1.0		µg/L	1	11/19/2014 6:53:06 PM	R22653
4-Isopropyltoluene	ND	1.0		µg/L	1	11/19/2014 6:53:06 PM	R22653
4-Methyl-2-pentanone	ND	10		µg/L	1	11/19/2014 6:53:06 PM	R22653
Methylene Chloride	ND	3.0		µg/L	1	11/19/2014 6:53:06 PM	R22653
n-Butylbenzene	ND	3.0		µg/L	1	11/19/2014 6:53:06 PM	R22653
n-Propylbenzene	ND	1.0		µg/L	1	11/19/2014 6:53:06 PM	R22653
sec-Butylbenzene	ND	1.0		µg/L	1	11/19/2014 6:53:06 PM	R22653
Styrene	ND	1.0		µg/L	1	11/19/2014 6:53:06 PM	R22653
tert-Butylbenzene	ND	1.0		µg/L	1	11/19/2014 6:53:06 PM	R22653
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/19/2014 6:53:06 PM	R22653
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/19/2014 6:53:06 PM	R22653
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/19/2014 6:53:06 PM	R22653
trans-1,2-DCE	ND	1.0		µg/L	1	11/19/2014 6:53:06 PM	R22653
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/19/2014 6:53:06 PM	R22653
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/19/2014 6:53:06 PM	R22653
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/19/2014 6:53:06 PM	R22653
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/19/2014 6:53:06 PM	R22653
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/19/2014 6:53:06 PM	R22653
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/19/2014 6:53:06 PM	R22653
Trichlorofluoromethane	ND	1.0		µg/L	1	11/19/2014 6:53:06 PM	R22653
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/19/2014 6:53:06 PM	R22653
Vinyl chloride	ND	1.0		µg/L	1	11/19/2014 6:53:06 PM	R22653
Xylenes, Total	ND	1.5		µg/L	1	11/19/2014 6:53:06 PM	R22653
Surr: 1,2-Dichloroethane-d4	103	70-130		%REC	1	11/19/2014 6:53:06 PM	R22653
Surr: 4-Bromofluorobenzene	102	70-130		%REC	1	11/19/2014 6:53:06 PM	R22653
Surr: Dibromofluoromethane	103	70-130		%REC	1	11/19/2014 6:53:06 PM	R22653
Surr: Toluene-d8	98.0	70-130		%REC	1	11/19/2014 6:53:06 PM	R22653

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411451

Date Reported: 12/5/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BD-111214

Project: Q4 2014

Collection Date: 11/12/2014

Lab ID: 1411451-006

Matrix: AQUEOUS

Received Date: 11/12/2014 4:12:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
Acenaphthylene	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
Aniline	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
Anthracene	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
Azobenzene	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
Benz(a)anthracene	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
Benzo(a)pyrene	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
Benzo(b)fluoranthene	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
Benzo(g,h,i)perylene	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
Benzo(k)fluoranthene	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
Benzoic acid	ND	100		µg/L	1	11/17/2014 6:26:15 PM	16377
Benzyl alcohol	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
Bis(2-chloroethyl)ether	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
4-Bromophenyl phenyl ether	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
Butyl benzyl phthalate	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
Carbazole	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
4-Chloro-3-methylphenol	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
4-Chloroaniline	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
2-Chloronaphthalene	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
2-Chlorophenol	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
Chrysene	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
Di-n-butyl phthalate	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
Di-n-octyl phthalate	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
Dibenz(a,h)anthracene	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
Dibenzofuran	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
1,2-Dichlorobenzene	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
1,3-Dichlorobenzene	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
1,4-Dichlorobenzene	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
3,3'-Dichlorobenzidine	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
Diethyl phthalate	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
Dimethyl phthalate	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
2,4-Dichlorophenol	ND	100		µg/L	1	11/17/2014 6:26:15 PM	16377
2,4-Dimethylphenol	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	11/17/2014 6:26:15 PM	16377
2,4-Dinitrophenol	ND	100		µg/L	1	11/17/2014 6:26:15 PM	16377

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411451

Date Reported: 12/5/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BD-111214

Project: Q4 2014

Collection Date: 11/12/2014

Lab ID: 1411451-006

Matrix: AQUEOUS

Received Date: 11/12/2014 4:12:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
2,4-Dinitrotoluene	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
2,6-Dinitrotoluene	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
Fluoranthene	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
Fluorene	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
Hexachlorobenzene	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
Hexachlorobutadiene	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
Hexachlorocyclopentadiene	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
Hexachloroethane	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
Isophorone	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
1-Methylnaphthalene	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
2-Methylnaphthalene	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
2-Methylphenol	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
3+4-Methylphenol	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
N-Nitrosodimethylamine	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
N-Nitrosodiphenylamine	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
Naphthalene	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
2-Nitroaniline	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
3-Nitroaniline	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
4-Nitroaniline	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
Nitrobenzene	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
2-Nitrophenol	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
4-Nitrophenol	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
Pentachlorophenol	ND	100		µg/L	1	11/17/2014 6:26:15 PM	16377
Phenanthrene	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
Phenol	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
Pyrene	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
Pyridine	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
1,2,4-Trichlorobenzene	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
2,4,5-Trichlorophenol	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
2,4,6-Trichlorophenol	ND	50		µg/L	1	11/17/2014 6:26:15 PM	16377
Surr: 2-Fluorophenol	52.7	17.6-104		%REC	1	11/17/2014 6:26:15 PM	16377
Surr: Phenol-d5	41.5	17.7-89.9		%REC	1	11/17/2014 6:26:15 PM	16377
Surr: 2,4,6-Tribromophenol	68.0	16.3-122		%REC	1	11/17/2014 6:26:15 PM	16377
Surr: Nitrobenzene-d5	67.8	45.3-117		%REC	1	11/17/2014 6:26:15 PM	16377
Surr: 2-Fluorobiphenyl	61.0	43-113		%REC	1	11/17/2014 6:26:15 PM	16377
Surr: 4-Terphenyl-d14	69.2	47.6-122		%REC	1	11/17/2014 6:26:15 PM	16377

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411451

Date Reported: 12/5/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TB-102

Project: Q4 2014

Collection Date:

Lab ID: 1411451-007

Matrix: TRIP BLANK

Received Date: 11/12/2014 4:12:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: KJH	
Benzene	ND	1.0		µg/L	1	11/19/2014 7:22:57 PM	R22653
Toluene	ND	1.0		µg/L	1	11/19/2014 7:22:57 PM	R22653
Ethylbenzene	ND	1.0		µg/L	1	11/19/2014 7:22:57 PM	R22653
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	11/19/2014 7:22:57 PM	R22653
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/19/2014 7:22:57 PM	R22653
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/19/2014 7:22:57 PM	R22653
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/19/2014 7:22:57 PM	R22653
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/19/2014 7:22:57 PM	R22653
Naphthalene	ND	2.0		µg/L	1	11/19/2014 7:22:57 PM	R22653
1-Methylnaphthalene	ND	4.0		µg/L	1	11/19/2014 7:22:57 PM	R22653
2-Methylnaphthalene	ND	4.0		µg/L	1	11/19/2014 7:22:57 PM	R22653
Acetone	ND	10		µg/L	1	11/19/2014 7:22:57 PM	R22653
Bromobenzene	ND	1.0		µg/L	1	11/19/2014 7:22:57 PM	R22653
Bromodichloromethane	ND	1.0		µg/L	1	11/19/2014 7:22:57 PM	R22653
Bromoform	ND	1.0		µg/L	1	11/19/2014 7:22:57 PM	R22653
Bromomethane	ND	3.0		µg/L	1	11/19/2014 7:22:57 PM	R22653
2-Butanone	ND	10		µg/L	1	11/19/2014 7:22:57 PM	R22653
Carbon disulfide	ND	10		µg/L	1	11/19/2014 7:22:57 PM	R22653
Carbon Tetrachloride	ND	1.0		µg/L	1	11/19/2014 7:22:57 PM	R22653
Chlorobenzene	ND	1.0		µg/L	1	11/19/2014 7:22:57 PM	R22653
Chloroethane	ND	2.0		µg/L	1	11/19/2014 7:22:57 PM	R22653
Chloroform	ND	1.0		µg/L	1	11/19/2014 7:22:57 PM	R22653
Chloromethane	ND	3.0		µg/L	1	11/19/2014 7:22:57 PM	R22653
2-Chlorotoluene	ND	1.0		µg/L	1	11/19/2014 7:22:57 PM	R22653
4-Chlorotoluene	ND	1.0		µg/L	1	11/19/2014 7:22:57 PM	R22653
cis-1,2-DCE	ND	1.0		µg/L	1	11/19/2014 7:22:57 PM	R22653
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/19/2014 7:22:57 PM	R22653
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/19/2014 7:22:57 PM	R22653
Dibromochloromethane	ND	1.0		µg/L	1	11/19/2014 7:22:57 PM	R22653
Dibromomethane	ND	1.0		µg/L	1	11/19/2014 7:22:57 PM	R22653
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/19/2014 7:22:57 PM	R22653
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/19/2014 7:22:57 PM	R22653
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/19/2014 7:22:57 PM	R22653
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/19/2014 7:22:57 PM	R22653
1,1-Dichloroethane	ND	1.0		µg/L	1	11/19/2014 7:22:57 PM	R22653
1,1-Dichloroethene	ND	1.0		µg/L	1	11/19/2014 7:22:57 PM	R22653
1,2-Dichloropropane	ND	1.0		µg/L	1	11/19/2014 7:22:57 PM	R22653
1,3-Dichloropropane	ND	1.0		µg/L	1	11/19/2014 7:22:57 PM	R22653
2,2-Dichloropropane	ND	2.0		µg/L	1	11/19/2014 7:22:57 PM	R22653

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411451

Date Reported: 12/5/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TB-102

Project: Q4 2014

Collection Date:

Lab ID: 1411451-007

Matrix: TRIP BLANK

Received Date: 11/12/2014 4:12:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: KJH
1,1-Dichloropropene	ND	1.0		µg/L	1	11/19/2014 7:22:57 PM	R22653
Hexachlorobutadiene	ND	1.0		µg/L	1	11/19/2014 7:22:57 PM	R22653
2-Hexanone	ND	10		µg/L	1	11/19/2014 7:22:57 PM	R22653
Isopropylbenzene	ND	1.0		µg/L	1	11/19/2014 7:22:57 PM	R22653
4-Isopropyltoluene	ND	1.0		µg/L	1	11/19/2014 7:22:57 PM	R22653
4-Methyl-2-pentanone	ND	10		µg/L	1	11/19/2014 7:22:57 PM	R22653
Methylene Chloride	ND	3.0		µg/L	1	11/19/2014 7:22:57 PM	R22653
n-Butylbenzene	ND	3.0		µg/L	1	11/19/2014 7:22:57 PM	R22653
n-Propylbenzene	ND	1.0		µg/L	1	11/19/2014 7:22:57 PM	R22653
sec-Butylbenzene	ND	1.0		µg/L	1	11/19/2014 7:22:57 PM	R22653
Styrene	ND	1.0		µg/L	1	11/19/2014 7:22:57 PM	R22653
tert-Butylbenzene	ND	1.0		µg/L	1	11/19/2014 7:22:57 PM	R22653
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/19/2014 7:22:57 PM	R22653
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/19/2014 7:22:57 PM	R22653
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/19/2014 7:22:57 PM	R22653
trans-1,2-DCE	ND	1.0		µg/L	1	11/19/2014 7:22:57 PM	R22653
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/19/2014 7:22:57 PM	R22653
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/19/2014 7:22:57 PM	R22653
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/19/2014 7:22:57 PM	R22653
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/19/2014 7:22:57 PM	R22653
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/19/2014 7:22:57 PM	R22653
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/19/2014 7:22:57 PM	R22653
Trichlorofluoromethane	ND	1.0		µg/L	1	11/19/2014 7:22:57 PM	R22653
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/19/2014 7:22:57 PM	R22653
Vinyl chloride	ND	1.0		µg/L	1	11/19/2014 7:22:57 PM	R22653
Xylenes, Total	ND	1.5		µg/L	1	11/19/2014 7:22:57 PM	R22653
Surr: 1,2-Dichloroethane-d4	102	70-130		%REC	1	11/19/2014 7:22:57 PM	R22653
Surr: 4-Bromofluorobenzene	107	70-130		%REC	1	11/19/2014 7:22:57 PM	R22653
Surr: Dibromofluoromethane	101	70-130		%REC	1	11/19/2014 7:22:57 PM	R22653
Surr: Toluene-d8	102	70-130		%REC	1	11/19/2014 7:22:57 PM	R22653

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	



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

November 19, 2014

Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

Date Received : November 14, 2014
Description :

Sample ID : 1411451-001G EP-1

Collected By :
Collection Date : 11/12/14 09:50

ESC Sample # : L733771-01

Site ID :

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	1700	50.	mg/l	410.4	11/19/14	5

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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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

November 19, 2014

Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

Date Received : November 14, 2014
Description :
Sample ID : 1411451-002G EP-2
Collected By :
Collection Date : 11/12/14 10:55

ESC Sample # : 1733771-02

Site ID :

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	580	10.	mg/l	410.4	11/19/14	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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Est. 1970

REPORT OF ANALYSIS

November 19, 2014

Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

Date Received : November 14, 2014
Description :
Sample ID : 1411451-003G EP-3
Collected By :
Collection Date : 11/12/14 11:30

ESC Sample # : L733771-03

Site ID :

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	590	10.	mg/l	410.4	11/19/14	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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Est. 1970

REPORT OF ANALYSIS

November 19, 2014

Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

Date Received : November 14, 2014
Description :
Sample ID : 1411451-004G EP-4
Collected By :
Collection Date : 11/13/14 12:00

ESC Sample # : L733771-04

Site ID :

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	670	10.	mg/l	410.4	11/19/14	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 11/19/14 15:37 Printed: 11/19/14 15:37



YOUR LAB OF CHOICE

Hall Environmental Analysis Laboratory

4901 Hawkins NE

Albuquerque, NM 87109

Quality Assurance Report
Level II

L733771

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

November 19, 2014

Analyte	Result	Laboratory Blank Units	% Rec	Limit	Batch	Date Analyzed
COD	< 10	mg/l			WG755289	11/19/14 12:12

Analyte	Units	Result	Duplicate Duplicate	RPD	Limit	Ref Samp	Batch
COD	mg/l	410.	410.	0.0	5	L733939-08	WG755289
COD	mg/l	9600	9600	0.0	5	L733485-01	WG755289

Analyte	Units	Laboratory Control Sample Known Val	Result	% Rec	Limit	Batch
COD	mg/l	183	189.	103.	90-110	WG755289

Analyte	Units	Result	Ref	%Rec	Limit	RPD	Limit	Batch
COD	mg/l	189.	189.	103.	90-110	0.0	5	WG755289

Analyte	Units	MS Res	Matrix Spike Ref Res	TV	% Rec	Limit	Ref Samp	Batch
COD	mg/l	699.	260.	400	110.	90-110	L733812-01	WG755289

Analyte	Units	MSD	Matrix Spike Duplicate Ref	%Rec	Limit	RPD	Limit	Ref Samp	Batch
COD	mg/l	700.	699.	110.	90-110	0.143	5	L733812-01	WG755289

Batch number /Run number / Sample number cross reference

WG755289: R3005377: L733771-01 02 03 04

* * Calculations are performed prior to rounding of reported values.

* Performance of this Analyte is outside of established criteria.

For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411451

05-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R22599	RunNo:	22599					
Prep Date:		Analysis Date:	11/16/2014	SeqNo:	666147	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R22599	RunNo:	22599					
Prep Date:		Analysis Date:	11/16/2014	SeqNo:	666149	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R22599	RunNo:	22599					
Prep Date:		Analysis Date:	11/16/2014	SeqNo:	666151	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	99.2	85	115			
Cadmium	0.50	0.0020	0.5000	0	99.5	85	115			
Calcium	45	1.0	50.00	0	90.8	85	115			
Chromium	0.48	0.0060	0.5000	0	96.9	85	115			
Copper	0.49	0.0060	0.5000	0	98.1	85	115			
Iron	0.48	0.020	0.5000	0	95.4	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411451

05-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	LCS		SampType: LCS			TestCode: EPA Method 200.7: Dissolved Metals				
Client ID:	LCSW		Batch ID: R22599			RunNo: 22599				
Prep Date:	Analysis Date: 11/16/2014			SeqNo: 666151		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Magnesium	45	1.0	50.00	0	89.1	85	115			
Manganese	0.47	0.0020	0.5000	0	94.7	85	115			
Potassium	43	1.0	50.00	0	86.4	85	115			
Silver	0.11	0.0050	0.1000	0	105	85	115			
Zinc	0.50	0.010	0.5000	0	99.2	85	115			

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: R22599		RunNo: 22599					
Prep Date:			Analysis Date: 11/16/2014		SeqNo: 666152		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.55	0.0020	0.5000	0	109	85	115			
Cadmium	0.55	0.0020	0.5000	0	110	85	115			
Calcium	56	1.0	50.00	0	113	85	115			
Chromium	0.54	0.0060	0.5000	0	108	85	115			
Copper	0.55	0.0060	0.5000	0	109	85	115			
Iron	0.53	0.020	0.5000	0	107	85	115			
Magnesium	56	1.0	50.00	0	112	85	115			
Manganese	0.52	0.0020	0.5000	0	104	85	115			
Potassium	54	1.0	50.00	0	109	85	115			
Silver	0.12	0.0050	0.1000	0	117	85	115			S
Zinc	0.54	0.010	0.5000	0	109	85	115			

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID: R22752			RunNo: 22752					
Prep Date:		Analysis Date: 11/24/2014			SeqNo: 671318		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	ND	1.0								

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: R22752		RunNo: 22752					
Prep Date:			Analysis Date: 11/24/2014		SeqNo: 671319		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	52	1.0	50.00	0	104	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411451

05-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID: R22752			RunNo: 22752					
Prep Date:		Analysis Date: 11/24/2014			SeqNo: 671320		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	ND	1.0								

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: R22752		RunNo: 22752					
Prep Date:			Analysis Date: 11/24/2014		SeqNo: 671321		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	50	1.0	50.00	0	99.6	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411451

05-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	MB-16416		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 16416		RunNo: 22614					
Prep Date:	11/17/2014		Analysis Date: 11/18/2014		SeqNo: 666852		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	LCS-16416		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 16416		RunNo: 22614					
Prep Date:	11/17/2014		Analysis Date: 11/18/2014		SeqNo: 666853		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.51	0.0020	0.5000	0	101	85	115			
Cadmium	0.51	0.0020	0.5000	0	102	85	115			
Chromium	0.50	0.0060	0.5000	0	100	85	115			
Copper	0.51	0.0060	0.5000	0	101	85	115			
Iron	0.50	0.020	0.5000	0	101	85	115			
Manganese	0.49	0.0020	0.5000	0	98.1	85	115			
Silver	0.11	0.0050	0.1000	0	111	85	115			
Zinc	0.50	0.010	0.5000	0	101	85	115			

Sample ID	1411451-003FMS		SampType: MS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	EP-3		Batch ID: 16416		RunNo: 22614					
Prep Date:	11/17/2014		Analysis Date: 11/18/2014		SeqNo: 666871		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.57	0.0020	0.5000	0.1032	93.9	70	130			
Cadmium	0.50	0.0020	0.5000	0	101	70	130			
Chromium	0.49	0.0060	0.5000	0.009810	95.9	70	130			
Copper	0.57	0.0060	0.5000	0	113	70	130			
Manganese	0.69	0.0020	0.5000	0.2346	91.2	70	130			
Silver	0.12	0.0050	0.1000	0	118	70	130			
Zinc	0.49	0.010	0.5000	0.01982	94.2	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411451

05-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	1411451-003FMSD		SampType: MSD		TestCode: EPA Method 200.7: Total Metals					
Client ID:	EP-3		Batch ID: 16416		RunNo: 22614					
Prep Date:	11/17/2014		Analysis Date: 11/18/2014		SeqNo: 666872		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.57	0.0020	0.5000	0.1032	93.1	70	130	0.717	20	
Cadmium	0.50	0.0020	0.5000	0	99.4	70	130	1.36	20	
Chromium	0.48	0.0060	0.5000	0.009810	94.1	70	130	1.84	20	
Copper	0.58	0.0060	0.5000	0	116	70	130	2.02	20	
Manganese	0.69	0.0020	0.5000	0.2346	90.8	70	130	0.293	20	
Silver	0.12	0.0050	0.1000	0	119	70	130	0.702	20	
Zinc	0.47	0.010	0.5000	0.01982	90.6	70	130	3.66	20	

Sample ID	1411451-003FMS		SampType: MS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	EP-3		Batch ID: 16416		RunNo: 22614					
Prep Date:	11/17/2014		Analysis Date: 11/18/2014		SeqNo: 666877		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	2.3	0.10	0.5000	1.877	76.4	70	130			

Sample ID	1411451-003FMSD		SampType: MSD		TestCode: EPA Method 200.7: Total Metals					
Client ID:	EP-3		Batch ID: 16416		RunNo: 22614					
Prep Date:	11/17/2014		Analysis Date: 11/18/2014		SeqNo: 666878		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	2.3	0.10	0.5000	1.877	79.9	70	130	0.770	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411451

05-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R22589		RunNo: 22589					
Prep Date:			Analysis Date: 11/17/2014		SeqNo: 665959		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	96.0	85	115			
Selenium	0.023	0.0010	0.02500	0	93.9	85	115			

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R22589		RunNo: 22589					
Prep Date:			Analysis Date: 11/17/2014		SeqNo: 665960		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	101	85	115			
Selenium	0.026	0.0010	0.02500	0	103	85	115			

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R22589			RunNo: 22589					
Prep Date:		Analysis Date: 11/17/2014			SeqNo: 665963		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R22589			RunNo: 22589					
Prep Date:		Analysis Date: 11/17/2014			SeqNo: 665964		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

Sample ID	LCS			SampType: LCS		TestCode: EPA 200.8: Dissolved Metals				
Client ID:	LCSW			Batch ID: R22774		RunNo: 22774				
Prep Date:				Analysis Date: 11/24/2014		SeqNo: 672122		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.023	0.0010	0.02500	0	92.5	85	115			
Lead	0.024	0.0010	0.02500	0	94.4	85	115			
Selenium	0.022	0.0010	0.02500	0	89.7	85	115			
Uranium	0.024	0.0010	0.02500	0	95.2	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411451

05-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	LCS			SampType: LCS		TestCode: EPA 200.8: Dissolved Metals				
Client ID:	LCSW			Batch ID: R22774		RunNo: 22774				
Prep Date:				Analysis Date: 11/24/2014		SeqNo: 672123		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	97.3	85	115			
Lead	0.024	0.0010	0.02500	0	97.3	85	115			
Selenium	0.024	0.0010	0.02500	0	95.2	85	115			
Uranium	0.024	0.0010	0.02500	0	94.8	85	115			

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R22774			RunNo: 22774					
Prep Date:		Analysis Date: 11/24/2014			SeqNo: 672124		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R22774			RunNo: 22774					
Prep Date:		Analysis Date: 11/24/2014			SeqNo: 672125		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID	LCS			SampType: LCS		TestCode: EPA 200.8: Dissolved Metals				
Client ID:	LCSW			Batch ID: R22788		RunNo: 22788				
Prep Date:				Analysis Date: 11/25/2014		SeqNo: 672517		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	97.1	85	115			
Lead	0.024	0.0010	0.02500	0	97.4	85	115			
Selenium	0.024	0.0010	0.02500	0	96.5	85	115			
Uranium	0.025	0.0010	0.02500	0	98.7	85	115			

Sample ID	MB		SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals				
Client ID:	PBW		Batch ID: R22788			RunNo: 22788				
Prep Date:			Analysis Date: 11/25/2014			SeqNo: 672518		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411451

05-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	R22788	RunNo:	22788					
Prep Date:		Analysis Date:	11/25/2014	SeqNo:	672518	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411451

05-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	LLLCS-16416		SampType: LCSLL		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	BatchQC		Batch ID: 16416		RunNo: 22609					
Prep Date:	11/17/2014		Analysis Date: 11/18/2014		SeqNo: 666765		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	98.5	85	115			
Lead	0.026	0.0010	0.02500	0	106	85	115			
Selenium	0.024	0.0010	0.02500	0	96.6	85	115			
Uranium	0.026	0.0010	0.02500	0	106	85	115			

Sample ID	MB-16416		SampType: MBLK		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	PBW		Batch ID: 16416		RunNo: 22609					
Prep Date:	11/17/2014		Analysis Date: 11/18/2014		SeqNo: 666767		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411451

05-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	MB-16511		SampType: MBLK		TestCode: EPA Method 245.1: Mercury					
Client ID:	PBW		Batch ID: 16511		RunNo: 22710					
Prep Date:	11/21/2014		Analysis Date: 11/21/2014		SeqNo: 669836		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercurv	ND	0.00020								

Sample ID	LCS-16511		SampType: LCS		TestCode: EPA Method 245.1: Mercury					
Client ID:	LCSW		Batch ID: 16511		RunNo: 22710					
Prep Date:	11/21/2014		Analysis Date: 11/21/2014		SeqNo: 669837		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0051	0.00020	0.005000	0	102	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411451

05-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID MB	SampType: MBLK			TestCode: EPA Method 300.0: Anions						
Client ID: PBW	Batch ID: R22539			RunNo: 22539						
Prep Date:	Analysis Date: 11/13/2014			SeqNo: 664550		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P)	ND	0.50								
Sulfate	ND	0.50								

Sample ID LCS	SampType: LCS			TestCode: EPA Method 300.0: Anions						
Client ID: LCSW	Batch ID: R22539			RunNo: 22539						
Prep Date:	Analysis Date: 11/13/2014			SeqNo: 664551		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.50	0.10	0.5000	0	100	90	110			
Nitrogen, Nitrite (As N)	0.95	0.10	1.000	0	95.3	90	110			
Bromide	2.4	0.10	2.500	0	94.9	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	101	90	110			
Phosphorus, Orthophosphate (As P)	4.8	0.50	5.000	0	96.8	90	110			
Sulfate	10	0.50	10.00	0	99.5	90	110			

Sample ID MB	SampType: MBLK			TestCode: EPA Method 300.0: Anions						
Client ID: PBW	Batch ID: R22539			RunNo: 22539						
Prep Date:	Analysis Date: 11/14/2014			SeqNo: 664604		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P)	ND	0.50								
Sulfate	ND	0.50								

Sample ID LCS	SampType: LCS			TestCode: EPA Method 300.0: Anions						
Client ID: LCSW	Batch ID: R22539			RunNo: 22539						
Prep Date:	Analysis Date: 11/14/2014			SeqNo: 664605		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.50	0.10	0.5000	0	100	90	110			
Nitrogen, Nitrite (As N)	0.92	0.10	1.000	0	91.8	90	110			
Bromide	2.3	0.10	2.500	0	92.2	90	110			
Nitrogen, Nitrate (As N)	2.4	0.10	2.500	0	97.4	90	110			

Qualifiers:

- | | |
|---|--|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits | ND Not Detected at the Reporting Limit |
| O RSD is greater than RSDlimit | P Sample pH greater than 2. |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S Spike Recovery outside accepted recovery limits | |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411451

05-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSW		Batch ID: R22539		RunNo: 22539					
Prep Date:			Analysis Date: 11/14/2014		SeqNo: 664605		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phosphorus, Orthophosphate (As P	4.7	0.50	5.000	0	94.9	90	110			
Sulfate	9.5	0.50	10.00	0	95.4	90	110			

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID: R22776			RunNo: 22776					
Prep Date:		Analysis Date: 11/24/2014			SeqNo: 672163		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Sulfate	ND	0.50								

Sample ID	LCS		SampType: LCS			TestCode: EPA Method 300.0: Anions				
Client ID:	LCSW		Batch ID: R22776			RunNo: 22776				
Prep Date:			Analysis Date: 11/24/2014			SeqNo: 672164		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.6	0.50	5.000	0	92.5	90	110			
Sulfate	9.6	0.50	10.00	0	95.8	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411451

05-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	5mL-rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R22653			RunNo: 22653					
Prep Date:		Analysis Date: 11/19/2014			SeqNo: 668056		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411451

05-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	5mL-rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R22653	RunNo:	22653					
Prep Date:		Analysis Date:	11/19/2014	SeqNo:	668056	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		99.9	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		100	70	130			
Surr: Dibromofluoromethane	9.7		10.00		97.4	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID	100ng lcs	SampType:	LCS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID:	R22653	RunNo:	22653					
Prep Date:		Analysis Date:	11/19/2014	SeqNo:	668058	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	103	70	130			
Toluene	23	1.0	20.00	0	116	80	120			
Chlorobenzene	21	1.0	20.00	0	104	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411451

05-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	100ng lcs		SampType: LCS		TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW		Batch ID: R22653		RunNo: 22653					
Prep Date:			Analysis Date: 11/19/2014		SeqNo: 668058		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	23	1.0	20.00	0	117	82.6	131			
Trichloroethene (TCE)	19	1.0	20.00	0	96.3	70	130			
Surr: 1,2-Dichloroethane-d4	9.1		10.00		91.0	70	130			
Surr: 4-Bromofluorobenzene	9.5		10.00		95.4	70	130			
Surr: Dibromofluoromethane	8.7		10.00		87.1	70	130			
Surr: Toluene-d8	9.6		10.00		96.5	70	130			

Sample ID	b2	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R22653			RunNo: 22653					
Prep Date:		Analysis Date: 11/19/2014			SeqNo: 668101		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411451

05-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID b2	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW	Batch ID: R22653			RunNo: 22653						
Prep Date:	Analysis Date: 11/19/2014			SeqNo: 668101		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.8		10.00		97.8	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411451

05-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID b2	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW	Batch ID: R22653			RunNo: 22653						
Prep Date:	Analysis Date: 11/19/2014			SeqNo: 668101		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	9.8		10.00		98.0	70	130			
Surr: Dibromofluoromethane	9.5		10.00		94.8	70	130			
Surr: Toluene-d8	9.4		10.00		94.3	70	130			

Sample ID 100ng lcs2	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES						
Client ID: LCSW	Batch ID: R22653			RunNo: 22653						
Prep Date:	Analysis Date: 11/19/2014			SeqNo: 668103		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	24	1.0	20.00	0	122	70	130			
Toluene	24	1.0	20.00	0	118	80	120			
Chlorobenzene	22	1.0	20.00	0	109	70	130			
1,1-Dichloroethene	26	1.0	20.00	0	129	82.6	131			
Trichloroethene (TCE)	22	1.0	20.00	0	109	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		99.7	70	130			
Surr: 4-Bromofluorobenzene	9.2		10.00		92.2	70	130			
Surr: Dibromofluoromethane	9.9		10.00		99.3	70	130			
Surr: Toluene-d8	10		10.00		104	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411451

05-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	mb-16377		SampType: MBLK		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	PBW		Batch ID: 16377		RunNo: 22600					
Prep Date:	11/13/2014		Analysis Date: 11/17/2014		SeqNo: 666318	Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411451

05-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	mb-16377		SampType: MBLK		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	PBW		Batch ID: 16377		RunNo: 22600					
Prep Date:	11/13/2014		Analysis Date: 11/17/2014		SeqNo: 666318		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	95		200.0		47.6	17.6	104			
Surr: Phenol-d5	96		200.0		48.2	17.7	89.9			
Surr: 2,4,6-Tribromophenol	75		200.0		37.5	16.3	122			
Surr: Nitrobenzene-d5	67		100.0		67.1	45.3	117			
Surr: 2-Fluorobiphenyl	61		100.0		61.2	43	113			
Surr: 4-Terphenyl-d14	73		100.0		72.5	47.6	122			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411451

05-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	lcs-16377		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 16377		RunNo: 22600					
Prep Date:	11/13/2014		Analysis Date: 11/17/2014		SeqNo: 666368		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	66	10	100.0	0	66.2	47.9	114			
4-Chloro-3-methylphenol	160	10	200.0	0	82.4	51.7	122			
2-Chlorophenol	140	10	200.0	0	69.9	40.7	113			
1,4-Dichlorobenzene	44	10	100.0	0	44.3	39.6	99.9			
2,4-Dinitrotoluene	68	10	100.0	0	68.0	40.8	113			
N-Nitrosodi-n-propylamine	74	10	100.0	0	74.3	51.2	111			
4-Nitrophenol	100	10	200.0	0	50.6	15.7	86.9			
Pentachlorophenol	130	20	200.0	0	67.5	21.6	104			
Phenol	90	10	200.0	0	44.8	28.6	71.7			
Pyrene	78	10	100.0	0	77.8	54.2	128			
1,2,4-Trichlorobenzene	50	10	100.0	0	50.0	40.9	101			
Surr: 2-Fluorophenol	94		200.0		47.0	17.6	104			
Surr: Phenol-d5	77		200.0		38.5	17.7	89.9			
Surr: 2,4,6-Tribromophenol	160		200.0		80.7	16.3	122			
Surr: Nitrobenzene-d5	69		100.0		69.3	45.3	117			
Surr: 2-Fluorobiphenyl	65		100.0		64.8	43	113			
Surr: 4-Terphenyl-d14	85		100.0		85.0	47.6	122			

Sample ID	lcsd-16377		SampType: LCSD		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02		Batch ID: 16377		RunNo: 22600					
Prep Date:	11/13/2014		Analysis Date: 11/17/2014		SeqNo: 666369		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	67	10	100.0	0	67.5	47.9	114	1.98	27.2	
4-Chloro-3-methylphenol	160	10	200.0	0	81.4	51.7	122	1.26	25.9	
2-Chlorophenol	140	10	200.0	0	68.2	40.7	113	2.40	22.5	
1,4-Dichlorobenzene	49	10	100.0	0	49.0	39.6	99.9	10.2	24.6	
2,4-Dinitrotoluene	69	10	100.0	0	68.8	40.8	113	1.20	25.3	
N-Nitrosodi-n-propylamine	74	10	100.0	0	74.3	51.2	111	0.0269	23.6	
4-Nitrophenol	130	10	200.0	0	63.4	15.7	86.9	22.5	34.7	
Pentachlorophenol	130	20	200.0	0	67.5	21.6	104	0.0148	32.8	
Phenol	100	10	200.0	0	52.0	28.6	71.7	14.9	25.5	
Pyrene	77	10	100.0	0	77.4	54.2	128	0.567	31.4	
1,2,4-Trichlorobenzene	54	10	100.0	0	53.7	40.9	101	7.13	25.9	
Surr: 2-Fluorophenol	110		200.0		53.4	17.6	104	0	0	
Surr: Phenol-d5	93		200.0		46.6	17.7	89.9	0	0	
Surr: 2,4,6-Tribromophenol	160		200.0		80.9	16.3	122	0	0	
Surr: Nitrobenzene-d5	70		100.0		70.1	45.3	117	0	0	
Surr: 2-Fluorobiphenyl	70		100.0		69.5	43	113	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411451

05-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	lcsd-16377		SampType: LCSD		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02		Batch ID: 16377		RunNo: 22600					
Prep Date:	11/13/2014		Analysis Date: 11/17/2014		SeqNo: 666369		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14	81		100.0		81.3	47.6	122	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411451

05-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	MB-16371		SampType: MBLK		TestCode: SM5210B: BOD					
Client ID:	PBW		Batch ID: 16371		RunNo: 22705					
Prep Date:	11/13/2014		Analysis Date: 11/18/2014		SeqNo: 669659		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	2.0								

Sample ID	MB--16371		SampType: MBLK		TestCode: SM5210B: BOD					
Client ID:	PBW		Batch ID: 16371		RunNo: 22705					
Prep Date:	11/13/2014		Analysis Date: 11/18/2014		SeqNo: 669660		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	2.0								

Sample ID	LCS-16371		SampType: LCS		TestCode: SM5210B: BOD					
Client ID:	LCSW		Batch ID: 16371		RunNo: 22705					
Prep Date:	11/13/2014		Analysis Date: 11/18/2014		SeqNo: 669661		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	200	2.0	198.0	0	100	89.6	126			

Sample ID	LCSD-16371		SampType: LCSD		TestCode: SM5210B: BOD					
Client ID:	LCSS02		Batch ID: 16371		RunNo: 22705					
Prep Date:	11/13/2014		Analysis Date: 11/18/2014		SeqNo: 669662		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	220	2.0	198.0	0	111	89.6	126	10.3	31.9	

Sample ID	1411451-001CDUP		SampType: DUP		TestCode: SM5210B: BOD					
Client ID:	EP-1		Batch ID: 16371		RunNo: 22705					
Prep Date:	11/13/2014		Analysis Date: 11/18/2014		SeqNo: 669664		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	220	2.0						8.77	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1411451

RcptNo: 1

Received by/date:

Logged By: Ashley Gallegos

11/12/2014 4:12:00 PM

Completed By: Ashley Gallegos

11/13/2014 8:21:13 AM

Reviewed By:

Chain of Custody

1. Custody seals intact on sample bottles?

Yes ☒

No ☐

Not Present ☐

2. Is Chain of Custody complete?

Yes ☒

No ☐

Not Present ☐

3. How was the sample delivered?

Courier

Log In

4. Was an attempt made to cool the samples?

Yes ☒

No ☐

NA ☐

5. Were all samples received at a temperature of >0° C to 6.0°C

Yes ☒

No ☐

NA ☐

6. Sample(s) in proper container(s)?

Yes ☒

No ☐

7. Sufficient sample volume for indicated test(s)?

Yes ☒

No ☐

8. Are samples (except VOA and ONG) properly preserved?

Yes ☒

No ☐

9. Was preservative added to bottles?

Yes ☐

No ☒

NA ☐

10. VOA vials have zero headspace?

Yes ☒

No ☐

No VOA Vials ☐

11. Were any sample containers received broken?

Yes ☐

No ☒

12. Does paperwork match bottle labels?

Yes ☒

No ☐

(Note discrepancies on chain of custody)

13. Are matrices correctly identified on Chain of Custody?

Yes ☒

No ☐

14. Is it clear what analyses were requested?

Yes ☒

No ☐

15. Were all holding times able to be met?

Yes ☒

No ☐

(If no, notify customer for authorization.)

of preserved
bottles checked
for pH:

16

(<2 or >12 unless noted)

Adjusted? yes

Checked by:

CS
(see below)

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order?

Yes ☒

No ☐

NA ☐

Person Notified: Cheryl Johnson

Date: 11/13/2014

By Whom: Anne Thorne

Via: ☒ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: E Coli Sample was rejected

Client Instructions: See Section 19.

17. Additional remarks:

E. Coli Sample for -001 was rejected, sample was too dark even after dilution per Stephanie. Poured off for 300 analysis into a 500ml bottle for -002D, -003D and -004D from each BOD bottle. For metals analy added 1 ml HNO₃ to -001F and -003 for acceptable pH. -CS 11/13/14

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Client: Western Refining Company

GALLUP REFINERY

Mailing Address:

2 Giant Crossing Road, Gallup, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-863-0930

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation:

☐ NELAP ☐ Other _____

☐ EDD (Type) _____

☒ Standard ☐ Rush

Q4 2014

Project #:

Evaporation Ponds

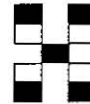
Project Manager:

C. JOHNSON (cheryl.johnson@wnr.com)

Sampler:

On Ice: ☒ Yes ☐ No

Sample Temperature: 10



www.nationenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

[illegible]

Date:	Time:	Relinquished by:	Received by:	Date	Time
11-12-14	1340	Pak Lander ES Pak Lander	[Signature]	11/12/14	1:00
Date:	Time:	Relinquished by:	Received by:	Date	Time
11-12-14	1617	[Signature]	[Signature]	11/12/14	1617

Remarks: Gen. Chem. - anions,
cations, pH, EC / AT 11/13/14

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.



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

March 27, 2014

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: Q1-2014 Groundwater Sampling

OrderNo.: 1403475

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 3 sample(s) on 3/12/2014 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1403475

Date Reported: 3/27/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: GW-1

Project: Q1-2014 Groundwater Sampling

Collection Date: 3/11/2014 9:10:00 AM

Lab ID: 1403475-001

Matrix: AQUEOUS

Received Date: 3/12/2014 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	3.3	1.0		mg/L	1	3/13/2014 1:01:04 PM	12126
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/13/2014 1:01:04 PM	12126
Surr: DNOP	121	62.7-145		%REC	1	3/13/2014 1:01:04 PM	12126
EPA METHOD 8015D: GASOLINE RANGE							Analyst: JMP
Gasoline Range Organics (GRO)	0.66	0.050		mg/L	1	3/13/2014 1:54:49 PM	R17305
Surr: BFB	1060	80.4-118	S	%REC	1	3/13/2014 1:54:49 PM	R17305
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	2.6	1.0		mg/L	10	3/14/2014 6:18:17 AM	R17314
Chloride	930	50		mg/L	100	3/14/2014 6:30:42 AM	R17314
Bromide	2.9	1.0		mg/L	10	3/14/2014 6:18:17 AM	R17314
Phosphorus, Orthophosphate (As P)	ND	5.0	H	mg/L	10	3/14/2014 6:18:17 AM	R17314
Sulfate	180	5.0		mg/L	10	3/14/2014 6:18:17 AM	R17314
Nitrate+Nitrite as N	ND	1.0		mg/L	5	3/17/2014 6:25:54 PM	R17389
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.47	0.0020		mg/L	1	3/17/2014 3:09:04 PM	R17380
Cadmium	ND	0.0020		mg/L	1	3/17/2014 3:09:04 PM	R17380
Chromium	ND	0.0060		mg/L	1	3/17/2014 3:09:04 PM	R17380
Copper	ND	0.0060		mg/L	1	3/17/2014 4:34:45 PM	R17380
Iron	2.4	0.10	*	mg/L	5	3/17/2014 3:10:43 PM	R17380
Manganese	2.5	0.010	*	mg/L	5	3/17/2014 3:10:43 PM	R17380
Silver	ND	0.0050		mg/L	1	3/17/2014 3:09:04 PM	R17380
Zinc	0.021	0.010		mg/L	1	3/17/2014 4:34:45 PM	R17380
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.49	0.0020		mg/L	1	3/13/2014 6:53:46 PM	12161
Cadmium	ND	0.0020		mg/L	1	3/13/2014 6:53:46 PM	12161
Calcium	250	5.0		mg/L	5	3/13/2014 6:55:30 PM	12161
Chromium	ND	0.0060		mg/L	1	3/13/2014 6:53:46 PM	12161
Copper	ND	0.0060		mg/L	1	3/13/2014 6:53:46 PM	12161
Iron	14	0.40	*	mg/L	20	3/14/2014 2:47:57 PM	12161
Magnesium	58	1.0		mg/L	1	3/13/2014 6:53:46 PM	12161
Manganese	2.5	0.010	*	mg/L	5	3/13/2014 6:55:30 PM	12161
Potassium	2.5	1.0		mg/L	1	3/14/2014 2:46:11 PM	12161
Silver	ND	0.0050		mg/L	1	3/13/2014 6:53:46 PM	12161
Sodium	1200	20		mg/L	20	3/14/2014 2:47:57 PM	12161
Zinc	0.018	0.010		mg/L	1	3/13/2014 6:53:46 PM	12161
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.081	0.010	*	mg/L	10	3/21/2014 4:14:56 PM	R17500

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1403475

Date Reported: 3/27/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: GW-1

Project: Q1-2014 Groundwater Sampling

Collection Date: 3/11/2014 9:10:00 AM

Lab ID: 1403475-001

Matrix: AQUEOUS

Received Date: 3/12/2014 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Lead	ND	0.0010		mg/L	1	3/18/2014 4:21:03 PM	R17401
Selenium	ND	0.010		mg/L	10	3/21/2014 4:14:56 PM	R17500
Uranium	0.015	0.010		mg/L	10	3/21/2014 4:14:56 PM	R17500
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.12	0.010	*	mg/L	10	3/14/2014 2:59:23 PM	12161
Lead	0.0062	0.0010		mg/L	1	3/14/2014 2:52:29 PM	12161
Selenium	0.015	0.010		mg/L	10	3/14/2014 2:59:23 PM	12161
Uranium	0.015	0.0010		mg/L	1	3/14/2014 2:52:29 PM	12161
EPA METHOD 245.1: MERCURY							Analyst: JML
Mercury	ND	0.00020		mg/L	1	3/24/2014 5:02:58 PM	12327
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Benzene	8.8	1.0		µg/L	1	3/13/2014 1:35:00 PM	R17299
Toluene	2.2	1.0		µg/L	1	3/13/2014 1:35:00 PM	R17299
Ethylbenzene	3.7	1.0		µg/L	1	3/13/2014 1:35:00 PM	R17299
Methyl tert-butyl ether (MTBE)	39	1.0		µg/L	1	3/13/2014 1:35:00 PM	R17299
1,2,4-Trimethylbenzene	7.0	1.0		µg/L	1	3/13/2014 1:35:00 PM	R17299
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	3/13/2014 1:35:00 PM	R17299
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	3/13/2014 1:35:00 PM	R17299
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	3/13/2014 1:35:00 PM	R17299
Naphthalene	ND	2.0		µg/L	1	3/13/2014 1:35:00 PM	R17299
1-Methylnaphthalene	6.8	4.0		µg/L	1	3/13/2014 1:35:00 PM	R17299
2-Methylnaphthalene	ND	4.0		µg/L	1	3/13/2014 1:35:00 PM	R17299
Acetone	ND	10		µg/L	1	3/13/2014 1:35:00 PM	R17299
Bromobenzene	ND	1.0		µg/L	1	3/13/2014 1:35:00 PM	R17299
Bromodichloromethane	ND	1.0		µg/L	1	3/13/2014 1:35:00 PM	R17299
Bromoform	ND	1.0		µg/L	1	3/13/2014 1:35:00 PM	R17299
Bromomethane	ND	3.0		µg/L	1	3/13/2014 1:35:00 PM	R17299
2-Butanone	ND	10		µg/L	1	3/13/2014 1:35:00 PM	R17299
Carbon disulfide	ND	10		µg/L	1	3/13/2014 1:35:00 PM	R17299
Carbon Tetrachloride	ND	1.0		µg/L	1	3/13/2014 1:35:00 PM	R17299
Chlorobenzene	ND	1.0		µg/L	1	3/13/2014 1:35:00 PM	R17299
Chloroethane	ND	2.0		µg/L	1	3/13/2014 1:35:00 PM	R17299
Chloroform	ND	1.0		µg/L	1	3/13/2014 1:35:00 PM	R17299
Chloromethane	ND	3.0		µg/L	1	3/13/2014 1:35:00 PM	R17299
2-Chlorotoluene	ND	1.0		µg/L	1	3/13/2014 1:35:00 PM	R17299
4-Chlorotoluene	ND	1.0		µg/L	1	3/13/2014 1:35:00 PM	R17299
cis-1,2-DCE	ND	1.0		µg/L	1	3/13/2014 1:35:00 PM	R17299
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	3/13/2014 1:35:00 PM	R17299

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1403475

Date Reported: 3/27/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: GW-1

Project: Q1-2014 Groundwater Sampling

Collection Date: 3/11/2014 9:10:00 AM

Lab ID: 1403475-001

Matrix: AQUEOUS

Received Date: 3/12/2014 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	3/13/2014 1:35:00 PM	R17299
Dibromochloromethane	ND	1.0		µg/L	1	3/13/2014 1:35:00 PM	R17299
Dibromomethane	ND	1.0		µg/L	1	3/13/2014 1:35:00 PM	R17299
1,2-Dichlorobenzene	ND	1.0		µg/L	1	3/13/2014 1:35:00 PM	R17299
1,3-Dichlorobenzene	ND	1.0		µg/L	1	3/13/2014 1:35:00 PM	R17299
1,4-Dichlorobenzene	ND	1.0		µg/L	1	3/13/2014 1:35:00 PM	R17299
Dichlorodifluoromethane	ND	1.0		µg/L	1	3/13/2014 1:35:00 PM	R17299
1,1-Dichloroethane	ND	1.0		µg/L	1	3/13/2014 1:35:00 PM	R17299
1,1-Dichloroethene	ND	1.0		µg/L	1	3/13/2014 1:35:00 PM	R17299
1,2-Dichloropropane	ND	1.0		µg/L	1	3/13/2014 1:35:00 PM	R17299
1,3-Dichloropropane	ND	1.0		µg/L	1	3/13/2014 1:35:00 PM	R17299
2,2-Dichloropropane	ND	2.0		µg/L	1	3/13/2014 1:35:00 PM	R17299
1,1-Dichloropropene	ND	1.0		µg/L	1	3/13/2014 1:35:00 PM	R17299
Hexachlorobutadiene	ND	1.0		µg/L	1	3/13/2014 1:35:00 PM	R17299
2-Hexanone	ND	10		µg/L	1	3/13/2014 1:35:00 PM	R17299
Isopropylbenzene	1.1	1.0		µg/L	1	3/13/2014 1:35:00 PM	R17299
4-Isopropyltoluene	ND	1.0		µg/L	1	3/13/2014 1:35:00 PM	R17299
4-Methyl-2-pentanone	ND	10		µg/L	1	3/13/2014 1:35:00 PM	R17299
Methylene Chloride	ND	3.0		µg/L	1	3/13/2014 1:35:00 PM	R17299
n-Butylbenzene	ND	3.0		µg/L	1	3/13/2014 1:35:00 PM	R17299
n-Propylbenzene	1.6	1.0		µg/L	1	3/13/2014 1:35:00 PM	R17299
sec-Butylbenzene	ND	1.0		µg/L	1	3/13/2014 1:35:00 PM	R17299
Styrene	ND	1.0		µg/L	1	3/13/2014 1:35:00 PM	R17299
tert-Butylbenzene	ND	1.0		µg/L	1	3/13/2014 1:35:00 PM	R17299
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	3/13/2014 1:35:00 PM	R17299
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	3/13/2014 1:35:00 PM	R17299
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	3/13/2014 1:35:00 PM	R17299
trans-1,2-DCE	ND	1.0		µg/L	1	3/13/2014 1:35:00 PM	R17299
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	3/13/2014 1:35:00 PM	R17299
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	3/13/2014 1:35:00 PM	R17299
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	3/13/2014 1:35:00 PM	R17299
1,1,1-Trichloroethane	ND	1.0		µg/L	1	3/13/2014 1:35:00 PM	R17299
1,1,2-Trichloroethane	ND	1.0		µg/L	1	3/13/2014 1:35:00 PM	R17299
Trichloroethene (TCE)	ND	1.0		µg/L	1	3/13/2014 1:35:00 PM	R17299
Trichlorofluoromethane	ND	1.0		µg/L	1	3/13/2014 1:35:00 PM	R17299
1,2,3-Trichloropropane	ND	2.0		µg/L	1	3/13/2014 1:35:00 PM	R17299
Vinyl chloride	ND	1.0		µg/L	1	3/13/2014 1:35:00 PM	R17299
Xylenes, Total	15	1.5		µg/L	1	3/13/2014 1:35:00 PM	R17299
Surr: 1,2-Dichloroethane-d4	105	70-130		%REC	1	3/13/2014 1:35:00 PM	R17299

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1403475**

Date Reported: 3/27/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: GWM-1

Project: Q1-2014 Groundwater Sampling

Collection Date: 3/11/2014 9:10:00 AM

Lab ID: 1403475-001

Matrix: AQUEOUS

Received Date: 3/12/2014 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: cadg	
Surr: 4-Bromofluorobenzene	95.6	70-130		%REC	1	3/13/2014 1:35:00 PM	R17299
Surr: Dibromofluoromethane	101	70-130		%REC	1	3/13/2014 1:35:00 PM	R17299
Surr: Toluene-d8	98.2	70-130		%REC	1	3/13/2014 1:35:00 PM	R17299

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 4 of 21
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1403475

Date Reported: 3/27/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FB-Group#2

Project: Q1-2014 Groundwater Sampling

Collection Date: 3/11/2014 8:50:00 AM

Lab ID: 1403475-002

Matrix: AQUEOUS

Received Date: 3/12/2014 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Benzene	ND	1.0		µg/L	1	3/13/2014 3:30:04 PM	R17299
Toluene	ND	1.0		µg/L	1	3/13/2014 3:30:04 PM	R17299
Ethylbenzene	ND	1.0		µg/L	1	3/13/2014 3:30:04 PM	R17299
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	3/13/2014 3:30:04 PM	R17299
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	3/13/2014 3:30:04 PM	R17299
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	3/13/2014 3:30:04 PM	R17299
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	3/13/2014 3:30:04 PM	R17299
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	3/13/2014 3:30:04 PM	R17299
Naphthalene	ND	2.0		µg/L	1	3/13/2014 3:30:04 PM	R17299
1-Methylnaphthalene	ND	4.0		µg/L	1	3/13/2014 3:30:04 PM	R17299
2-Methylnaphthalene	ND	4.0		µg/L	1	3/13/2014 3:30:04 PM	R17299
Acetone	ND	10		µg/L	1	3/13/2014 3:30:04 PM	R17299
Bromobenzene	ND	1.0		µg/L	1	3/13/2014 3:30:04 PM	R17299
Bromodichloromethane	ND	1.0		µg/L	1	3/13/2014 3:30:04 PM	R17299
Bromoform	ND	1.0		µg/L	1	3/13/2014 3:30:04 PM	R17299
Bromomethane	ND	3.0		µg/L	1	3/13/2014 3:30:04 PM	R17299
2-Butanone	ND	10		µg/L	1	3/13/2014 3:30:04 PM	R17299
Carbon disulfide	ND	10		µg/L	1	3/13/2014 3:30:04 PM	R17299
Carbon Tetrachloride	ND	1.0		µg/L	1	3/13/2014 3:30:04 PM	R17299
Chlorobenzene	ND	1.0		µg/L	1	3/13/2014 3:30:04 PM	R17299
Chloroethane	ND	2.0		µg/L	1	3/13/2014 3:30:04 PM	R17299
Chloroform	ND	1.0		µg/L	1	3/13/2014 3:30:04 PM	R17299
Chloromethane	ND	3.0		µg/L	1	3/13/2014 3:30:04 PM	R17299
2-Chlorotoluene	ND	1.0		µg/L	1	3/13/2014 3:30:04 PM	R17299
4-Chlorotoluene	ND	1.0		µg/L	1	3/13/2014 3:30:04 PM	R17299
cis-1,2-DCE	ND	1.0		µg/L	1	3/13/2014 3:30:04 PM	R17299
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	3/13/2014 3:30:04 PM	R17299
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	3/13/2014 3:30:04 PM	R17299
Dibromochloromethane	ND	1.0		µg/L	1	3/13/2014 3:30:04 PM	R17299
Dibromomethane	ND	1.0		µg/L	1	3/13/2014 3:30:04 PM	R17299
1,2-Dichlorobenzene	ND	1.0		µg/L	1	3/13/2014 3:30:04 PM	R17299
1,3-Dichlorobenzene	ND	1.0		µg/L	1	3/13/2014 3:30:04 PM	R17299
1,4-Dichlorobenzene	ND	1.0		µg/L	1	3/13/2014 3:30:04 PM	R17299
Dichlorodifluoromethane	ND	1.0		µg/L	1	3/13/2014 3:30:04 PM	R17299
1,1-Dichloroethane	ND	1.0		µg/L	1	3/13/2014 3:30:04 PM	R17299
1,1-Dichloroethene	ND	1.0		µg/L	1	3/13/2014 3:30:04 PM	R17299
1,2-Dichloropropane	ND	1.0		µg/L	1	3/13/2014 3:30:04 PM	R17299
1,3-Dichloropropane	ND	1.0		µg/L	1	3/13/2014 3:30:04 PM	R17299
2,2-Dichloropropane	ND	2.0		µg/L	1	3/13/2014 3:30:04 PM	R17299

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 5 of 21
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1403475

Date Reported: 3/27/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FB-Group#2

Project: Q1-2014 Groundwater Sampling

Collection Date: 3/11/2014 8:50:00 AM

Lab ID: 1403475-002

Matrix: AQUEOUS

Received Date: 3/12/2014 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
1,1-Dichloropropene	ND	1.0		µg/L	1	3/13/2014 3:30:04 PM	R17299
Hexachlorobutadiene	ND	1.0		µg/L	1	3/13/2014 3:30:04 PM	R17299
2-Hexanone	ND	10		µg/L	1	3/13/2014 3:30:04 PM	R17299
Isopropylbenzene	ND	1.0		µg/L	1	3/13/2014 3:30:04 PM	R17299
4-Isopropyltoluene	ND	1.0		µg/L	1	3/13/2014 3:30:04 PM	R17299
4-Methyl-2-pentanone	ND	10		µg/L	1	3/13/2014 3:30:04 PM	R17299
Methylene Chloride	ND	3.0		µg/L	1	3/13/2014 3:30:04 PM	R17299
n-Butylbenzene	ND	3.0		µg/L	1	3/13/2014 3:30:04 PM	R17299
n-Propylbenzene	ND	1.0		µg/L	1	3/13/2014 3:30:04 PM	R17299
sec-Butylbenzene	ND	1.0		µg/L	1	3/13/2014 3:30:04 PM	R17299
Styrene	ND	1.0		µg/L	1	3/13/2014 3:30:04 PM	R17299
tert-Butylbenzene	ND	1.0		µg/L	1	3/13/2014 3:30:04 PM	R17299
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	3/13/2014 3:30:04 PM	R17299
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	3/13/2014 3:30:04 PM	R17299
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	3/13/2014 3:30:04 PM	R17299
trans-1,2-DCE	ND	1.0		µg/L	1	3/13/2014 3:30:04 PM	R17299
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	3/13/2014 3:30:04 PM	R17299
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	3/13/2014 3:30:04 PM	R17299
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	3/13/2014 3:30:04 PM	R17299
1,1,1-Trichloroethane	ND	1.0		µg/L	1	3/13/2014 3:30:04 PM	R17299
1,1,2-Trichloroethane	ND	1.0		µg/L	1	3/13/2014 3:30:04 PM	R17299
Trichloroethene (TCE)	ND	1.0		µg/L	1	3/13/2014 3:30:04 PM	R17299
Trichlorofluoromethane	ND	1.0		µg/L	1	3/13/2014 3:30:04 PM	R17299
1,2,3-Trichloropropane	ND	2.0		µg/L	1	3/13/2014 3:30:04 PM	R17299
Vinyl chloride	ND	1.0		µg/L	1	3/13/2014 3:30:04 PM	R17299
Xylenes, Total	ND	1.5		µg/L	1	3/13/2014 3:30:04 PM	R17299
Surr: 1,2-Dichloroethane-d4	105	70-130		%REC	1	3/13/2014 3:30:04 PM	R17299
Surr: 4-Bromofluorobenzene	98.8	70-130		%REC	1	3/13/2014 3:30:04 PM	R17299
Surr: Dibromofluoromethane	101	70-130		%REC	1	3/13/2014 3:30:04 PM	R17299
Surr: Toluene-d8	100	70-130		%REC	1	3/13/2014 3:30:04 PM	R17299

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1403475

Date Reported: 3/27/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Trip Blank

Project: Q1-2014 Groundwater Sampling

Collection Date:

Lab ID: 1403475-003

Matrix: AQUEOUS

Received Date: 3/12/2014 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RANGE							Analyst: JMP
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	3/13/2014 1:24:41 PM	R17305
Surr: BFB	104	80.4-118		%REC	1	3/13/2014 1:24:41 PM	R17305
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Benzene	ND	1.0		µg/L	1	3/13/2014 3:58:46 PM	R17299
Toluene	ND	1.0		µg/L	1	3/13/2014 3:58:46 PM	R17299
Ethylbenzene	ND	1.0		µg/L	1	3/13/2014 3:58:46 PM	R17299
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	3/13/2014 3:58:46 PM	R17299
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	3/13/2014 3:58:46 PM	R17299
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	3/13/2014 3:58:46 PM	R17299
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	3/13/2014 3:58:46 PM	R17299
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	3/13/2014 3:58:46 PM	R17299
Naphthalene	ND	2.0		µg/L	1	3/13/2014 3:58:46 PM	R17299
1-Methylnaphthalene	ND	4.0		µg/L	1	3/13/2014 3:58:46 PM	R17299
2-Methylnaphthalene	ND	4.0		µg/L	1	3/13/2014 3:58:46 PM	R17299
Acetone	ND	10		µg/L	1	3/13/2014 3:58:46 PM	R17299
Bromobenzene	ND	1.0		µg/L	1	3/13/2014 3:58:46 PM	R17299
Bromodichloromethane	ND	1.0		µg/L	1	3/13/2014 3:58:46 PM	R17299
Bromoform	ND	1.0		µg/L	1	3/13/2014 3:58:46 PM	R17299
Bromomethane	ND	3.0		µg/L	1	3/13/2014 3:58:46 PM	R17299
2-Butanone	ND	10		µg/L	1	3/13/2014 3:58:46 PM	R17299
Carbon disulfide	ND	10		µg/L	1	3/13/2014 3:58:46 PM	R17299
Carbon Tetrachloride	ND	1.0		µg/L	1	3/13/2014 3:58:46 PM	R17299
Chlorobenzene	ND	1.0		µg/L	1	3/13/2014 3:58:46 PM	R17299
Chloroethane	ND	2.0		µg/L	1	3/13/2014 3:58:46 PM	R17299
Chloroform	ND	1.0		µg/L	1	3/13/2014 3:58:46 PM	R17299
Chloromethane	ND	3.0		µg/L	1	3/13/2014 3:58:46 PM	R17299
2-Chlorotoluene	ND	1.0		µg/L	1	3/13/2014 3:58:46 PM	R17299
4-Chlorotoluene	ND	1.0		µg/L	1	3/13/2014 3:58:46 PM	R17299
cis-1,2-DCE	ND	1.0		µg/L	1	3/13/2014 3:58:46 PM	R17299
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	3/13/2014 3:58:46 PM	R17299
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	3/13/2014 3:58:46 PM	R17299
Dibromochloromethane	ND	1.0		µg/L	1	3/13/2014 3:58:46 PM	R17299
Dibromomethane	ND	1.0		µg/L	1	3/13/2014 3:58:46 PM	R17299
1,2-Dichlorobenzene	ND	1.0		µg/L	1	3/13/2014 3:58:46 PM	R17299
1,3-Dichlorobenzene	ND	1.0		µg/L	1	3/13/2014 3:58:46 PM	R17299
1,4-Dichlorobenzene	ND	1.0		µg/L	1	3/13/2014 3:58:46 PM	R17299
Dichlorodifluoromethane	ND	1.0		µg/L	1	3/13/2014 3:58:46 PM	R17299
1,1-Dichloroethane	ND	1.0		µg/L	1	3/13/2014 3:58:46 PM	R17299
1,1-Dichloroethene	ND	1.0		µg/L	1	3/13/2014 3:58:46 PM	R17299

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1403475

Date Reported: 3/27/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Trip Blank

Project: Q1-2014 Groundwater Sampling

Collection Date:

Lab ID: 1403475-003

Matrix: AQUEOUS

Received Date: 3/12/2014 11:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
1,2-Dichloropropane	ND	1.0		µg/L	1	3/13/2014 3:58:46 PM	R17299
1,3-Dichloropropane	ND	1.0		µg/L	1	3/13/2014 3:58:46 PM	R17299
2,2-Dichloropropane	ND	2.0		µg/L	1	3/13/2014 3:58:46 PM	R17299
1,1-Dichloropropene	ND	1.0		µg/L	1	3/13/2014 3:58:46 PM	R17299
Hexachlorobutadiene	ND	1.0		µg/L	1	3/13/2014 3:58:46 PM	R17299
2-Hexanone	ND	10		µg/L	1	3/13/2014 3:58:46 PM	R17299
Isopropylbenzene	ND	1.0		µg/L	1	3/13/2014 3:58:46 PM	R17299
4-Isopropyltoluene	ND	1.0		µg/L	1	3/13/2014 3:58:46 PM	R17299
4-Methyl-2-pentanone	ND	10		µg/L	1	3/13/2014 3:58:46 PM	R17299
Methylene Chloride	ND	3.0		µg/L	1	3/13/2014 3:58:46 PM	R17299
n-Butylbenzene	ND	3.0		µg/L	1	3/13/2014 3:58:46 PM	R17299
n-Propylbenzene	ND	1.0		µg/L	1	3/13/2014 3:58:46 PM	R17299
sec-Butylbenzene	ND	1.0		µg/L	1	3/13/2014 3:58:46 PM	R17299
Styrene	ND	1.0		µg/L	1	3/13/2014 3:58:46 PM	R17299
tert-Butylbenzene	ND	1.0		µg/L	1	3/13/2014 3:58:46 PM	R17299
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	3/13/2014 3:58:46 PM	R17299
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	3/13/2014 3:58:46 PM	R17299
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	3/13/2014 3:58:46 PM	R17299
trans-1,2-DCE	ND	1.0		µg/L	1	3/13/2014 3:58:46 PM	R17299
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	3/13/2014 3:58:46 PM	R17299
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	3/13/2014 3:58:46 PM	R17299
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	3/13/2014 3:58:46 PM	R17299
1,1,1-Trichloroethane	ND	1.0		µg/L	1	3/13/2014 3:58:46 PM	R17299
1,1,2-Trichloroethane	ND	1.0		µg/L	1	3/13/2014 3:58:46 PM	R17299
Trichloroethene (TCE)	ND	1.0		µg/L	1	3/13/2014 3:58:46 PM	R17299
Trichlorofluoromethane	ND	1.0		µg/L	1	3/13/2014 3:58:46 PM	R17299
1,2,3-Trichloropropane	ND	2.0		µg/L	1	3/13/2014 3:58:46 PM	R17299
Vinyl chloride	ND	1.0		µg/L	1	3/13/2014 3:58:46 PM	R17299
Xylenes, Total	ND	1.5		µg/L	1	3/13/2014 3:58:46 PM	R17299
Surr: 1,2-Dichloroethane-d4	104	70-130		%REC	1	3/13/2014 3:58:46 PM	R17299
Surr: 4-Bromofluorobenzene	102	70-130		%REC	1	3/13/2014 3:58:46 PM	R17299
Surr: Dibromofluoromethane	99.7	70-130		%REC	1	3/13/2014 3:58:46 PM	R17299
Surr: Toluene-d8	100	70-130		%REC	1	3/13/2014 3:58:46 PM	R17299

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 8 of 21
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1403475

27-Mar-14

Client: Western Refining Southwest, Gallup

Project: Q1-2014 Groundwater Sampling

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R17380	RunNo:	17380					
Prep Date:		Analysis Date:	3/17/2014	SeqNo:	500508	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R17380	RunNo:	17380					
Prep Date:		Analysis Date:	3/17/2014	SeqNo:	500509	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.51	0.0020	0.5000	0	101	85	115			
Cadmium	0.51	0.0020	0.5000	0	102	85	115			
Chromium	0.50	0.0060	0.5000	0	99.8	85	115			
Copper	0.49	0.0060	0.5000	0	98.9	85	115			
Iron	0.50	0.020	0.5000	0	100	85	115			
Manganese	0.49	0.0020	0.5000	0	98.7	85	115			
Silver	0.10	0.0050	0.1000	0	104	85	115			
Zinc	0.50	0.010	0.5000	0	101	85	115			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R17380	RunNo:	17380					
Prep Date:		Analysis Date:	3/17/2014	SeqNo:	500673	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1403475

27-Mar-14

Client: Western Refining Southwest, Gallup

Project: Q1-2014 Groundwater Sampling

Sample ID	LCS		SampType: LCS			TestCode: EPA Method 200.7: Dissolved Metals				
Client ID:	LCSW		Batch ID: R17380			RunNo: 17380				
Prep Date:	Analysis Date: 3/17/2014			SeqNo: 500674		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	99.4	85	115			
Cadmium	0.50	0.0020	0.5000	0	99.6	85	115			
Chromium	0.49	0.0060	0.5000	0	97.2	85	115			
Copper	0.49	0.0060	0.5000	0	97.8	85	115			
Iron	0.49	0.020	0.5000	0	98.3	85	115			
Manganese	0.48	0.0020	0.5000	0	96.9	85	115			
Silver	0.10	0.0050	0.1000	0	102	85	115			
Zinc	0.49	0.010	0.5000	0	97.6	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1403475

27-Mar-14

Client: Western Refining Southwest, Gallup

Project: Q1-2014 Groundwater Sampling

Sample ID	MB-12161		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 12161		RunNo: 17291					
Prep Date:	3/13/2014		Analysis Date: 3/13/2014		SeqNo: 498280		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID	LCS-12161		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 12161		RunNo: 17291					
Prep Date:	3/13/2014		Analysis Date: 3/13/2014		SeqNo: 498281		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	99.8	85	115			
Cadmium	0.50	0.0020	0.5000	0	99.5	85	115			
Calcium	50	1.0	50.00	0	99.6	85	115			
Chromium	0.49	0.0060	0.5000	0	98.2	85	115			
Copper	0.49	0.0060	0.5000	0	99.0	85	115			
Iron	0.51	0.020	0.5000	0	103	85	115			
Magnesium	49	1.0	50.00	0	98.9	85	115			
Manganese	0.50	0.0020	0.5000	0	99.5	85	115			
Potassium	49	1.0	50.00	0	97.4	85	115			
Silver	0.098	0.0050	0.1000	0	97.7	85	115			
Sodium	49	1.0	50.00	0	98.3	85	115			
Zinc	0.51	0.010	0.5000	0	102	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1403475

27-Mar-14

Client: Western Refining Southwest, Gallup

Project: Q1-2014 Groundwater Sampling

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R17401		RunNo: 17401					
Prep Date:			Analysis Date: 3/18/2014		SeqNo: 501192		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.025	0.0010	0.02500	0	102	85	115			

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R17401		RunNo: 17401					
Prep Date:			Analysis Date: 3/18/2014		SeqNo: 501193		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.025	0.0010	0.02500	0	101	85	115			

Sample ID	MB	SampType:	MBLK		TestCode:	EPA 200.8: Dissolved Metals				
Client ID:	PBW	Batch ID:	R17401		RunNo:	17401				
Prep Date:		Analysis Date:	3/18/2014		SeqNo:	501194		Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.0010								

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals						
Client ID:	PBW	Batch ID: R17401			RunNo: 17401						
Prep Date:		Analysis Date: 3/18/2014			SeqNo: 501195		Units: mg/L				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead		ND	0.0010								

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R17500		RunNo: 17500					
Prep Date:			Analysis Date: 3/21/2014		SeqNo: 504188		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	95.7	85	115			
Selenium	0.024	0.0010	0.02500	0	96.9	85	115			
Uranium	0.024	0.0010	0.02500	0	94.2	85	115			

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R17500		RunNo: 17500					
Prep Date:			Analysis Date: 3/21/2014		SeqNo: 504189		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.022	0.0010	0.02500	0	89.7	85	115			
Selenium	0.023	0.0010	0.02500	0	93.5	85	115			
Uranium	0.023	0.0010	0.02500	0	93.9	85	115			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1403475

27-Mar-14

Client: Western Refining Southwest, Gallup

Project: Q1-2014 Groundwater Sampling

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	R17500	RunNo:	17500					
Prep Date:		Analysis Date:	3/21/2014	SeqNo:	504190	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	R17500	RunNo:	17500					
Prep Date:		Analysis Date:	3/21/2014	SeqNo:	504191	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1403475

27-Mar-14

Client: Western Refining Southwest, Gallup

Project: Q1-2014 Groundwater Sampling

Sample ID	LLLCS-12161		SampType: LCSLL		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	BatchQC		Batch ID: 12161		RunNo: 17331					
Prep Date:	3/13/2014		Analysis Date: 3/14/2014		SeqNo: 499089		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	95.6	85	115			
Lead	0.024	0.0010	0.02500	0	97.9	85	115			
Selenium	0.023	0.0010	0.02500	0	93.5	85	115			
Uranium	0.024	0.0010	0.02500	0	97.4	85	115			

Sample ID	MB-12161		SampType: MBLK		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	PBW		Batch ID: 12161		RunNo: 17331					
Prep Date:	3/13/2014		Analysis Date: 3/14/2014		SeqNo: 499090		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1403475

27-Mar-14

Client: Western Refining Southwest, Gallup

Project: Q1-2014 Groundwater Sampling

Sample ID	MB-12327	SampType:	MBLK	TestCode:	EPA Method 245.1: Mercury					
Client ID:	PBW	Batch ID:	12327	RunNo:	17527					
Prep Date:	3/24/2014	Analysis Date:	3/24/2014	SeqNo:	505296	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-12327	SampType:	LCS	TestCode:	EPA Method 245.1: Mercury					
Client ID:	LCSW	Batch ID:	12327	RunNo:	17527					
Prep Date:	3/24/2014	Analysis Date:	3/24/2014	SeqNo:	505297	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0050	0.00020	0.005000	0	101	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1403475

27-Mar-14

Client: Western Refining Southwest, Gallup

Project: Q1-2014 Groundwater Sampling

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R17314	RunNo:	17314					
Prep Date:		Analysis Date:	3/13/2014	SeqNo:	498585	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R17314	RunNo:	17314					
Prep Date:		Analysis Date:	3/13/2014	SeqNo:	498586	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.50	0.10	0.5000	0	99.6	90	110			
Chloride	4.6	0.50	5.000	0	92.5	90	110			
Bromide	2.4	0.10	2.500	0	94.7	90	110			
Phosphorus, Orthophosphate (As P	4.8	0.50	5.000	0	95.4	90	110			
Sulfate	9.3	0.50	10.00	0	93.3	90	110			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R17389	RunNo:	17389					
Prep Date:		Analysis Date:	3/17/2014	SeqNo:	500825	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R17389	RunNo:	17389					
Prep Date:		Analysis Date:	3/17/2014	SeqNo:	500826	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.6	0.20	3.500	0	102	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1403475

27-Mar-14

Client: Western Refining Southwest, Gallup

Project: Q1-2014 Groundwater Sampling

Sample ID	MB-12126		SampType: MBLK		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	PBW		Batch ID: 12126		RunNo: 17240					
Prep Date:	3/11/2014		Analysis Date: 3/12/2014		SeqNo: 497468		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.1		1.000		112	62.7	145			

Sample ID	LCS-12126		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	LCSW		Batch ID: 12126		RunNo: 17240					
Prep Date:	3/11/2014		Analysis Date: 3/12/2014		SeqNo: 497472		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.2	1.0	5.000	0	103	78.6	146			
Surr: DNOP	0.56		0.5000		111	62.7	145			

Sample ID	LCSD-12126		SampType: LCSD		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	LCSS02		Batch ID: 12126		RunNo: 17240					
Prep Date:	3/11/2014		Analysis Date: 3/12/2014		SeqNo: 497474		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.3	1.0	5.000	0	107	78.6	146	3.44	26.5	
Surr: DNOP	0.57		0.5000		113	62.7	145	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1403475

27-Mar-14

Client: Western Refining Southwest, Gallup

Project: Q1-2014 Groundwater Sampling

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBW	Batch ID:	R17305	RunNo:	17305					
Prep Date:		Analysis Date:	3/13/2014	SeqNo:	498410	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	21		20.00		105	80.4	118			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSW	Batch ID:	R17305	RunNo:	17305					
Prep Date:		Analysis Date:	3/13/2014	SeqNo:	498411	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.53	0.050	0.5000	0	106	80	120			
Surr: BFB	23		20.00		113	80.4	118			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1403475

27-Mar-14

Client: Western Refining Southwest, Gallup

Project: Q1-2014 Groundwater Sampling

Sample ID	5mL rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R17299			RunNo: 17299					
Prep Date:		Analysis Date: 3/13/2014			SeqNo: 498323		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1403475

27-Mar-14

Client: Western Refining Southwest, Gallup

Project: Q1-2014 Groundwater Sampling

Sample ID	5mL rb	SampType: MBLK				TestCode: EPA Method 8260B: VOLATILES				
Client ID:	PBW	Batch ID: R17299				RunNo: 17299				
Prep Date:		Analysis Date: 3/13/2014				SeqNo: 498323	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		104	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	10		10.00		101	70	130			
Surr: Toluene-d8	10		10.00		99.7	70	130			

Sample ID	100ng lcs	SampType: LCS				TestCode: EPA Method 8260B: VOLATILES				
Client ID:	LCSW	Batch ID: R17299				RunNo: 17299				
Prep Date:		Analysis Date: 3/13/2014				SeqNo: 498325	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	23	1.0	20.00	0	116	70	130			
Toluene	21	1.0	20.00	0	105	80	120			
Chlorobenzene	20	1.0	20.00	0	100	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1403475

27-Mar-14

Client: Western Refining Southwest, Gallup

Project: Q1-2014 Groundwater Sampling

Sample ID 100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES						
Client ID: LCSW	Batch ID: R17299			RunNo: 17299						
Prep Date:	Analysis Date: 3/13/2014			SeqNo: 498325		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	23	1.0	20.00	0	114	90	143			
Trichloroethene (TCE)	19	1.0	20.00	0	96.0	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		103	70	130			
Surr: 4-Bromofluorobenzene	9.9		10.00		98.9	70	130			
Surr: Dibromofluoromethane	10		10.00		101	70	130			
Surr: Toluene-d8	9.5		10.00		95.3	70	130			

Sample ID 1403475-001a ms	SampType: MS			TestCode: EPA Method 8260B: VOLATILES						
Client ID: GWM-1	Batch ID: R17299			RunNo: 17299						
Prep Date:	Analysis Date: 3/13/2014			SeqNo: 498342		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	25	1.0	20.00	8.777	81.3	70	130			
Toluene	17	1.0	20.00	2.210	72.6	67.5	123			
Chlorobenzene	15	1.0	20.00	0	72.6	70	130			
1,1-Dichloroethene	14	1.0	20.00	0	70.9	81.9	134			S
Trichloroethene (TCE)	13	1.0	20.00	0	65.3	70	130			S
Surr: 1,2-Dichloroethane-d4	11		10.00		106	70	130			
Surr: 4-Bromofluorobenzene	9.6		10.00		95.5	70	130			
Surr: Dibromofluoromethane	10		10.00		103	70	130			
Surr: Toluene-d8	9.7		10.00		97.3	70	130			

Sample ID 1403475-001a msd	SampType: MSD			TestCode: EPA Method 8260B: VOLATILES						
Client ID: GWM-1	Batch ID: R17299			RunNo: 17299						
Prep Date:	Analysis Date: 3/13/2014			SeqNo: 498343		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	25	1.0	20.00	8.777	82.1	70	130	0.643	20	
Toluene	18	1.0	20.00	2.210	79.3	67.5	123	7.72	20	
Chlorobenzene	15	1.0	20.00	0	75.7	70	130	4.15	20	
1,1-Dichloroethene	13	1.0	20.00	0	67.0	81.9	134	5.69	20	S
Trichloroethene (TCE)	13	1.0	20.00	0	64.1	70	130	1.85	20	S
Surr: 1,2-Dichloroethane-d4	10		10.00		103	70	130	0	0	
Surr: 4-Bromofluorobenzene	8.9		10.00		89.4	70	130	0	0	
Surr: Dibromofluoromethane	9.8		10.00		98.4	70	130	0	0	
Surr: Toluene-d8	10		10.00		101	70	130	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
 E Value above quantitation range
 J Analyte detected below quantitation limits
 O RSD is greater than RSDlimit
 R RPD outside accepted recovery limits
 S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit
 P Sample pH greater than 2.
 RL Reporting Detection Limit

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1403475

RcptNo: 1

Received by/date:

KMS 03/12/14

Logged By: Michelle Garcia

3/12/2014 11:10:00 AM

Michelle Garcia

Completed By: Michelle Garcia

3/12/2014 12:20:24 PM

Michelle Garcia

Reviewed By:

IO

03/12/14

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☒ No ☐ Not Present ☐
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Client

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☒ No ☐ No VOA Vials ☐
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐

of preserved bottles checked for pH: 3
(<2 or >12 unless noted)
Adjusted? yes
Checked by: mg

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:

Date:

By Whom:

Via:

☐ eMail

☐ Phone

☐ Fax

☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

Poured off from unpreserved for -001 and -002 dissolved metals.
Added 0.5mL HNO₃ for acceptable pH. Held in login for 24 hrs. mg-03/15

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.0	Good	Not Present			

[illegible]

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.



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

December 11, 2014

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: Q4 2014

OrderNo.: 1411601

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 2 sample(s) on 11/15/2014 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

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

Andy Freeman

Laboratory Manager

4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411601

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: GWM-1

Project: Q4 2014

Collection Date: 11/13/2014 1:25:00 PM

Lab ID: 1411601-001

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: JME
Diesel Range Organics (DRO)	2.3	1.0		mg/L	1	11/18/2014 8:44:39 PM	16415
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/18/2014 8:44:39 PM	16415
Surr: DNOP	101	59-141		%REC	1	11/18/2014 8:44:39 PM	16415
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	0.50	0.050	P	mg/L	1	11/19/2014 12:47:24 AM	R22618
Surr: BFB	693	80-120	SP	%REC	1	11/19/2014 12:47:24 AM	R22618
EPA METHOD 300.0: ANIONS							Analyst: LGP
Fluoride	1.8	1.0		mg/L	10	11/17/2014 10:45:34 PM	R22603
Chloride	1000	50		mg/L	100	11/17/2014 10:58:00 PM	R22603
Bromide	2.7	1.0		mg/L	10	11/17/2014 10:45:34 PM	R22603
Phosphorus, Orthophosphate (As P)	ND	5.0	H	mg/L	10	11/17/2014 10:45:34 PM	R22603
Sulfate	85	5.0		mg/L	10	11/17/2014 10:45:34 PM	R22603
Nitrate+Nitrite as N	ND	1.0		mg/L	5	11/26/2014 6:45:47 AM	R22809
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.45	0.0020		mg/L	1	11/24/2014 7:08:40 PM	R22755
Cadmium	ND	0.0020		mg/L	1	11/24/2014 7:08:40 PM	R22755
Calcium	250	5.0		mg/L	5	11/24/2014 7:10:25 PM	R22755
Chromium	ND	0.0060		mg/L	1	11/24/2014 7:08:40 PM	R22755
Copper	ND	0.0060		mg/L	1	11/24/2014 7:08:40 PM	R22755
Iron	15	0.40	*	mg/L	20	11/25/2014 2:41:27 PM	R22813
Magnesium	59	1.0		mg/L	1	11/24/2014 7:08:40 PM	R22755
Manganese	2.3	0.010	*	mg/L	5	11/24/2014 7:10:25 PM	R22755
Potassium	2.1	1.0		mg/L	1	11/24/2014 7:08:40 PM	R22755
Silver	ND	0.0050		mg/L	1	11/24/2014 7:08:40 PM	R22755
Sodium	1100	20		mg/L	20	11/25/2014 2:41:27 PM	R22813
Zinc	0.029	0.010		mg/L	1	11/24/2014 7:08:40 PM	R22755
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.51	0.0020		mg/L	1	11/20/2014 6:54:36 PM	16487
Cadmium	ND	0.0020		mg/L	1	11/20/2014 6:54:36 PM	16487
Chromium	ND	0.0060		mg/L	1	11/20/2014 6:54:36 PM	16487
Copper	0.0082	0.0060		mg/L	1	11/20/2014 6:54:36 PM	16487
Iron	17	1.0	*	mg/L	50	11/21/2014 6:05:21 PM	16487
Manganese	2.2	0.010	*	mg/L	5	11/21/2014 6:03:34 PM	16487
Silver	ND	0.0050		mg/L	1	11/20/2014 6:54:36 PM	16487
Zinc	0.027	0.010		mg/L	1	11/20/2014 6:54:36 PM	16487
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.14	0.010	*	mg/L	10	12/2/2014 3:53:30 PM	R22885

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411601

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: GWM-1

Project: Q4 2014

Collection Date: 11/13/2014 1:25:00 PM

Lab ID: 1411601-001

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Lead	ND	0.010		mg/L	10	12/2/2014 3:53:30 PM	R22885
Selenium	ND	0.010		mg/L	10	12/2/2014 3:53:30 PM	R22885
Uranium	0.014	0.010		mg/L	10	12/2/2014 3:53:30 PM	R22885
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.16	0.050	*	mg/L	50	12/3/2014 3:43:33 PM	16487
Lead	0.013	0.0010		mg/L	1	11/26/2014 3:25:02 PM	16487
Selenium	ND	0.050		mg/L	50	12/3/2014 3:43:33 PM	16487
Uranium	0.015	0.0010		mg/L	1	11/26/2014 3:25:02 PM	16487
EPA METHOD 245.1: MERCURY							Analyst: MMD
Mercury	ND	0.00020		mg/L	1	11/26/2014 3:15:46 PM	16593
EPA METHOD 8260B: VOLATILES							Analyst: KJH
Benzene	12	5.0		µg/L	5	11/20/2014 4:31:24 PM	R22685
Toluene	ND	5.0		µg/L	5	11/20/2014 4:31:24 PM	R22685
Ethylbenzene	5.7	5.0		µg/L	5	11/20/2014 4:31:24 PM	R22685
Methyl tert-butyl ether (MTBE)	50	5.0		µg/L	5	11/20/2014 4:31:24 PM	R22685
1,2,4-Trimethylbenzene	5.7	5.0		µg/L	5	11/20/2014 4:31:24 PM	R22685
1,3,5-Trimethylbenzene	ND	5.0		µg/L	5	11/20/2014 4:31:24 PM	R22685
1,2-Dichloroethane (EDC)	27	5.0		µg/L	5	11/20/2014 4:31:24 PM	R22685
1,2-Dibromoethane (EDB)	ND	5.0		µg/L	5	11/20/2014 4:31:24 PM	R22685
Naphthalene	ND	10		µg/L	5	11/20/2014 4:31:24 PM	R22685
1-Methylnaphthalene	ND	20		µg/L	5	11/20/2014 4:31:24 PM	R22685
2-Methylnaphthalene	ND	20		µg/L	5	11/20/2014 4:31:24 PM	R22685
Acetone	ND	50		µg/L	5	11/20/2014 4:31:24 PM	R22685
Bromobenzene	ND	5.0		µg/L	5	11/20/2014 4:31:24 PM	R22685
Bromodichloromethane	ND	5.0		µg/L	5	11/20/2014 4:31:24 PM	R22685
Bromoform	ND	5.0		µg/L	5	11/20/2014 4:31:24 PM	R22685
Bromomethane	ND	15		µg/L	5	11/20/2014 4:31:24 PM	R22685
2-Butanone	ND	50		µg/L	5	11/20/2014 4:31:24 PM	R22685
Carbon disulfide	ND	50		µg/L	5	11/20/2014 4:31:24 PM	R22685
Carbon Tetrachloride	ND	5.0		µg/L	5	11/20/2014 4:31:24 PM	R22685
Chlorobenzene	ND	5.0		µg/L	5	11/20/2014 4:31:24 PM	R22685
Chloroethane	ND	10		µg/L	5	11/20/2014 4:31:24 PM	R22685
Chloroform	ND	5.0		µg/L	5	11/20/2014 4:31:24 PM	R22685
Chloromethane	ND	15		µg/L	5	11/20/2014 4:31:24 PM	R22685
2-Chlorotoluene	ND	5.0		µg/L	5	11/20/2014 4:31:24 PM	R22685
4-Chlorotoluene	ND	5.0		µg/L	5	11/20/2014 4:31:24 PM	R22685
cis-1,2-DCE	ND	5.0		µg/L	5	11/20/2014 4:31:24 PM	R22685
cis-1,3-Dichloropropene	ND	5.0		µg/L	5	11/20/2014 4:31:24 PM	R22685

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411601

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: GWM-1

Project: Q4 2014

Collection Date: 11/13/2014 1:25:00 PM

Lab ID: 1411601-001

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: KJH	
1,2-Dibromo-3-chloropropane	ND	10		µg/L	5	11/20/2014 4:31:24 PM	R22685
Dibromochloromethane	ND	5.0		µg/L	5	11/20/2014 4:31:24 PM	R22685
Dibromomethane	ND	5.0		µg/L	5	11/20/2014 4:31:24 PM	R22685
1,2-Dichlorobenzene	ND	5.0		µg/L	5	11/20/2014 4:31:24 PM	R22685
1,3-Dichlorobenzene	ND	5.0		µg/L	5	11/20/2014 4:31:24 PM	R22685
1,4-Dichlorobenzene	ND	5.0		µg/L	5	11/20/2014 4:31:24 PM	R22685
Dichlorodifluoromethane	ND	5.0		µg/L	5	11/20/2014 4:31:24 PM	R22685
1,1-Dichloroethane	ND	5.0		µg/L	5	11/20/2014 4:31:24 PM	R22685
1,1-Dichloroethene	ND	5.0		µg/L	5	11/20/2014 4:31:24 PM	R22685
1,2-Dichloropropane	ND	5.0		µg/L	5	11/20/2014 4:31:24 PM	R22685
1,3-Dichloropropane	ND	5.0		µg/L	5	11/20/2014 4:31:24 PM	R22685
2,2-Dichloropropane	ND	10		µg/L	5	11/20/2014 4:31:24 PM	R22685
1,1-Dichloropropene	ND	5.0		µg/L	5	11/20/2014 4:31:24 PM	R22685
Hexachlorobutadiene	ND	5.0		µg/L	5	11/20/2014 4:31:24 PM	R22685
2-Hexanone	ND	50		µg/L	5	11/20/2014 4:31:24 PM	R22685
Isopropylbenzene	ND	5.0		µg/L	5	11/20/2014 4:31:24 PM	R22685
4-Isopropyltoluene	ND	5.0		µg/L	5	11/20/2014 4:31:24 PM	R22685
4-Methyl-2-pentanone	ND	50		µg/L	5	11/20/2014 4:31:24 PM	R22685
Methylene Chloride	ND	15		µg/L	5	11/20/2014 4:31:24 PM	R22685
n-Butylbenzene	ND	15		µg/L	5	11/20/2014 4:31:24 PM	R22685
n-Propylbenzene	ND	5.0		µg/L	5	11/20/2014 4:31:24 PM	R22685
sec-Butylbenzene	ND	5.0		µg/L	5	11/20/2014 4:31:24 PM	R22685
Styrene	ND	5.0		µg/L	5	11/20/2014 4:31:24 PM	R22685
tert-Butylbenzene	ND	5.0		µg/L	5	11/20/2014 4:31:24 PM	R22685
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	5	11/20/2014 4:31:24 PM	R22685
1,1,2,2-Tetrachloroethane	ND	10		µg/L	5	11/20/2014 4:31:24 PM	R22685
Tetrachloroethene (PCE)	ND	5.0		µg/L	5	11/20/2014 4:31:24 PM	R22685
trans-1,2-DCE	ND	5.0		µg/L	5	11/20/2014 4:31:24 PM	R22685
trans-1,3-Dichloropropene	ND	5.0		µg/L	5	11/20/2014 4:31:24 PM	R22685
1,2,3-Trichlorobenzene	ND	5.0		µg/L	5	11/20/2014 4:31:24 PM	R22685
1,2,4-Trichlorobenzene	ND	5.0		µg/L	5	11/20/2014 4:31:24 PM	R22685
1,1,1-Trichloroethane	ND	5.0		µg/L	5	11/20/2014 4:31:24 PM	R22685
1,1,2-Trichloroethane	ND	5.0		µg/L	5	11/20/2014 4:31:24 PM	R22685
Trichloroethene (TCE)	ND	5.0		µg/L	5	11/20/2014 4:31:24 PM	R22685
Trichlorofluoromethane	ND	5.0		µg/L	5	11/20/2014 4:31:24 PM	R22685
1,2,3-Trichloropropane	ND	10		µg/L	5	11/20/2014 4:31:24 PM	R22685
Vinyl chloride	ND	5.0		µg/L	5	11/20/2014 4:31:24 PM	R22685
Xylenes, Total	23	7.5		µg/L	5	11/20/2014 4:31:24 PM	R22685
Surr: 1,2-Dichloroethane-d4	91.9	70-130		%REC	5	11/20/2014 4:31:24 PM	R22685

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1411601**

Date Reported: **12/11/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: GWM-1

Project: Q4 2014

Collection Date: 11/13/2014 1:25:00 PM

Lab ID: 1411601-001

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: KJH	
Surr: 4-Bromofluorobenzene	90.6	70-130		%REC	5	11/20/2014 4:31:24 PM	R22685
Surr: Dibromofluoromethane	94.9	70-130		%REC	5	11/20/2014 4:31:24 PM	R22685
Surr: Toluene-d8	96.9	70-130		%REC	5	11/20/2014 4:31:24 PM	R22685

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 4 of 26
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411601

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TB-500

Project: Q4 2014

Collection Date: 11/14/2014

Lab ID: 1411601-002

Matrix: TRIP BLANK

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	11/19/2014 1:14:25 AM	R22618
Surr: BFB	90.1	80-120		%REC	1	11/19/2014 1:14:25 AM	R22618
EPA METHOD 8260B: VOLATILES							Analyst: KJH
Benzene	ND	1.0		µg/L	1	11/20/2014 8:16:59 AM	R22653
Toluene	ND	1.0		µg/L	1	11/20/2014 8:16:59 AM	R22653
Ethylbenzene	ND	1.0		µg/L	1	11/20/2014 8:16:59 AM	R22653
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	11/20/2014 8:16:59 AM	R22653
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/20/2014 8:16:59 AM	R22653
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/20/2014 8:16:59 AM	R22653
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/20/2014 8:16:59 AM	R22653
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/20/2014 8:16:59 AM	R22653
Naphthalene	ND	2.0		µg/L	1	11/20/2014 8:16:59 AM	R22653
1-Methylnaphthalene	ND	4.0		µg/L	1	11/20/2014 8:16:59 AM	R22653
2-Methylnaphthalene	ND	4.0		µg/L	1	11/20/2014 8:16:59 AM	R22653
Acetone	ND	10		µg/L	1	11/20/2014 8:16:59 AM	R22653
Bromobenzene	ND	1.0		µg/L	1	11/20/2014 8:16:59 AM	R22653
Bromodichloromethane	ND	1.0		µg/L	1	11/20/2014 8:16:59 AM	R22653
Bromoform	ND	1.0		µg/L	1	11/20/2014 8:16:59 AM	R22653
Bromomethane	ND	3.0		µg/L	1	11/20/2014 8:16:59 AM	R22653
2-Butanone	ND	10		µg/L	1	11/20/2014 8:16:59 AM	R22653
Carbon disulfide	ND	10		µg/L	1	11/20/2014 8:16:59 AM	R22653
Carbon Tetrachloride	ND	1.0		µg/L	1	11/20/2014 8:16:59 AM	R22653
Chlorobenzene	ND	1.0		µg/L	1	11/20/2014 8:16:59 AM	R22653
Chloroethane	ND	2.0		µg/L	1	11/20/2014 8:16:59 AM	R22653
Chloroform	ND	1.0		µg/L	1	11/20/2014 8:16:59 AM	R22653
Chloromethane	ND	3.0		µg/L	1	11/20/2014 8:16:59 AM	R22653
2-Chlorotoluene	ND	1.0		µg/L	1	11/20/2014 8:16:59 AM	R22653
4-Chlorotoluene	ND	1.0		µg/L	1	11/20/2014 8:16:59 AM	R22653
cis-1,2-DCE	ND	1.0		µg/L	1	11/20/2014 8:16:59 AM	R22653
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/20/2014 8:16:59 AM	R22653
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/20/2014 8:16:59 AM	R22653
Dibromochloromethane	ND	1.0		µg/L	1	11/20/2014 8:16:59 AM	R22653
Dibromomethane	ND	1.0		µg/L	1	11/20/2014 8:16:59 AM	R22653
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/20/2014 8:16:59 AM	R22653
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/20/2014 8:16:59 AM	R22653
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/20/2014 8:16:59 AM	R22653
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/20/2014 8:16:59 AM	R22653
1,1-Dichloroethane	ND	1.0		µg/L	1	11/20/2014 8:16:59 AM	R22653
1,1-Dichloroethene	ND	1.0		µg/L	1	11/20/2014 8:16:59 AM	R22653

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411601

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TB-500

Project: Q4 2014

Collection Date: 11/14/2014

Lab ID: 1411601-002

Matrix: TRIP BLANK

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: KJH
1,2-Dichloropropane	ND	1.0		µg/L	1	11/20/2014 8:16:59 AM	R22653
1,3-Dichloropropane	ND	1.0		µg/L	1	11/20/2014 8:16:59 AM	R22653
2,2-Dichloropropane	ND	2.0		µg/L	1	11/20/2014 8:16:59 AM	R22653
1,1-Dichloropropene	ND	1.0		µg/L	1	11/20/2014 8:16:59 AM	R22653
Hexachlorobutadiene	ND	1.0		µg/L	1	11/20/2014 8:16:59 AM	R22653
2-Hexanone	ND	10		µg/L	1	11/20/2014 8:16:59 AM	R22653
Isopropylbenzene	ND	1.0		µg/L	1	11/20/2014 8:16:59 AM	R22653
4-Isopropyltoluene	ND	1.0		µg/L	1	11/20/2014 8:16:59 AM	R22653
4-Methyl-2-pentanone	ND	10		µg/L	1	11/20/2014 8:16:59 AM	R22653
Methylene Chloride	ND	3.0		µg/L	1	11/20/2014 8:16:59 AM	R22653
n-Butylbenzene	ND	3.0		µg/L	1	11/20/2014 8:16:59 AM	R22653
n-Propylbenzene	ND	1.0		µg/L	1	11/20/2014 8:16:59 AM	R22653
sec-Butylbenzene	ND	1.0		µg/L	1	11/20/2014 8:16:59 AM	R22653
Styrene	ND	1.0		µg/L	1	11/20/2014 8:16:59 AM	R22653
tert-Butylbenzene	ND	1.0		µg/L	1	11/20/2014 8:16:59 AM	R22653
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/20/2014 8:16:59 AM	R22653
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/20/2014 8:16:59 AM	R22653
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/20/2014 8:16:59 AM	R22653
trans-1,2-DCE	ND	1.0		µg/L	1	11/20/2014 8:16:59 AM	R22653
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/20/2014 8:16:59 AM	R22653
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/20/2014 8:16:59 AM	R22653
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/20/2014 8:16:59 AM	R22653
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/20/2014 8:16:59 AM	R22653
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/20/2014 8:16:59 AM	R22653
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/20/2014 8:16:59 AM	R22653
Trichlorofluoromethane	ND	1.0		µg/L	1	11/20/2014 8:16:59 AM	R22653
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/20/2014 8:16:59 AM	R22653
Vinyl chloride	ND	1.0		µg/L	1	11/20/2014 8:16:59 AM	R22653
Xylenes, Total	ND	1.5		µg/L	1	11/20/2014 8:16:59 AM	R22653
Surr: 1,2-Dichloroethane-d4	90.7	70-130		%REC	1	11/20/2014 8:16:59 AM	R22653
Surr: 4-Bromofluorobenzene	103	70-130		%REC	1	11/20/2014 8:16:59 AM	R22653
Surr: Dibromofluoromethane	88.4	70-130		%REC	1	11/20/2014 8:16:59 AM	R22653
Surr: Toluene-d8	91.8	70-130		%REC	1	11/20/2014 8:16:59 AM	R22653

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411601

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID: R22755			RunNo: 22755					
Prep Date:		Analysis Date: 11/24/2014			SeqNo: 671448		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: R22755		RunNo: 22755					
Prep Date:			Analysis Date: 11/24/2014		SeqNo: 671449		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	96.6	85	115			
Cadmium	0.49	0.0020	0.5000	0	97.8	85	115			
Calcium	50	1.0	50.00	0	100	85	115			
Chromium	0.48	0.0060	0.5000	0	96.1	85	115			
Copper	0.49	0.0060	0.5000	0	97.6	85	115			
Magnesium	50	1.0	50.00	0	101	85	115			
Manganese	0.47	0.0020	0.5000	0	93.5	85	115			
Potassium	49	1.0	50.00	0	97.3	85	115			
Silver	0.10	0.0050	0.1000	0	104	85	115			
Zinc	0.48	0.010	0.5000	0	96.3	85	115			

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID: R22813			RunNo: 22813					
Prep Date:		Analysis Date: 11/25/2014			SeqNo: 673337		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	ND	0.020								
Sodium	ND	1.0								

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: R22813		RunNo: 22813					
Prep Date:			Analysis Date: 11/25/2014		SeqNo: 673338		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411601

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	LCS	SampType: LCS			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW	Batch ID: R22813			RunNo: 22813					
Prep Date:		Analysis Date: 11/25/2014			SeqNo: 673338		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.50	0.020	0.5000	0	100	85	115			
Sodium	51	1.0	50.00	0	101	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411601

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	MB-16487		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 16487		RunNo: 22687					
Prep Date:	11/20/2014		Analysis Date: 11/20/2014		SeqNo: 669092		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	LCS-16487		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 16487		RunNo: 22687					
Prep Date:	11/20/2014		Analysis Date: 11/20/2014		SeqNo: 669093		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.0	85	115			
Cadmium	0.50	0.0020	0.5000	0	99.0	85	115			
Chromium	0.48	0.0060	0.5000	0	96.8	85	115			
Copper	0.49	0.0060	0.5000	0	98.9	85	115			
Iron	0.51	0.020	0.5000	0	101	85	115			
Manganese	0.48	0.0020	0.5000	0	95.7	85	115			
Silver	0.11	0.0050	0.1000	0	108	85	115			
Zinc	0.48	0.010	0.5000	0	96.7	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411601

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID LCS	SampType: LCS			TestCode: EPA 200.8: Dissolved Metals						
Client ID: LCSW	Batch ID: R22885			RunNo: 22885						
Prep Date:	Analysis Date: 12/2/2014			SeqNo: 675799			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	98.7	85	115			
Lead	0.025	0.0010	0.02500	0	101	85	115			
Selenium	0.024	0.0010	0.02500	0	94.3	85	115			
Uranium	0.026	0.0010	0.02500	0	103	85	115			

Sample ID LCS	SampType: LCS			TestCode: EPA 200.8: Dissolved Metals						
Client ID: LCSW	Batch ID: R22885			RunNo: 22885						
Prep Date:	Analysis Date: 12/2/2014			SeqNo: 675800			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	100	85	115			
Lead	0.025	0.0010	0.02500	0	98.4	85	115			
Selenium	0.024	0.0010	0.02500	0	95.6	85	115			
Uranium	0.026	0.0010	0.02500	0	102	85	115			

Sample ID MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals						
Client ID: PBW	Batch ID: R22885			RunNo: 22885						
Prep Date:	Analysis Date: 12/2/2014			SeqNo: 675801			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals						
Client ID: PBW	Batch ID: R22885			RunNo: 22885						
Prep Date:	Analysis Date: 12/2/2014			SeqNo: 675802			Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
 E Value above quantitation range
 J Analyte detected below quantitation limits
 O RSD is greater than RSDlimit
 R RPD outside accepted recovery limits
 S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit
 P Sample pH greater than 2.
 RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411601

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	LLLCS-16487		SampType: LCSLL		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	BatchQC		Batch ID: 16487		RunNo: 22842					
Prep Date:	11/20/2014		Analysis Date: 11/26/2014		SeqNo: 674131		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0	103	85	115			
Lead	0.026	0.0010	0.02500	0	105	85	115			
Selenium	0.025	0.0010	0.02500	0	101	85	115			
Uranium	0.026	0.0010	0.02500	0	104	85	115			

Sample ID	MB-16487	SampType: MBLK			TestCode: 200.8 ICPMS Metals:Total					
Client ID:	PBW	Batch ID: 16487			RunNo: 22842					
Prep Date:	11/20/2014	Analysis Date: 11/26/2014			SeqNo: 674136		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411601

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	MB-16593		SampType: MBLK		TestCode: EPA Method 245.1: Mercury					
Client ID:	PBW		Batch ID: 16593		RunNo: 22825					
Prep Date:	11/26/2014		Analysis Date: 11/26/2014		SeqNo: 673696		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercurv	ND	0.00020								

Sample ID	LCS-16593		SampType: LCS		TestCode: EPA Method 245.1: Mercury					
Client ID:	LCSW		Batch ID: 16593		RunNo: 22825					
Prep Date:	11/26/2014		Analysis Date: 11/26/2014		SeqNo: 673697		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0051	0.00020	0.005000	0	102	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411601

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R22603	RunNo:	22603					
Prep Date:		Analysis Date:	11/17/2014	SeqNo:	666596	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R22603	RunNo:	22603					
Prep Date:		Analysis Date:	11/17/2014	SeqNo:	666597	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.48	0.10	0.5000	0	96.7	90	110			
Chloride	4.8	0.50	5.000	0	95.8	90	110			
Bromide	2.5	0.10	2.500	0	99.7	90	110			
Phosphorus, Orthophosphate (As P	4.9	0.50	5.000	0	97.5	90	110			
Sulfate	9.6	0.50	10.00	0	96.1	90	110			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R22603	RunNo:	22603					
Prep Date:		Analysis Date:	11/18/2014	SeqNo:	666650	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R22603	RunNo:	22603					
Prep Date:		Analysis Date:	11/18/2014	SeqNo:	666651	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.49	0.10	0.5000	0	97.4	90	110			
Chloride	4.9	0.50	5.000	0	97.5	90	110			
Bromide	2.5	0.10	2.500	0	102	90	110			
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	99.7	90	110			
Sulfate	9.8	0.50	10.00	0	98.2	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411601

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R22809	RunNo:	22809					
Prep Date:		Analysis Date:	11/25/2014	SeqNo:	673181	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R22809	RunNo:	22809					
Prep Date:		Analysis Date:	11/25/2014	SeqNo:	673182	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.5	0.20	3.500	0	101	90	110			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R22809	RunNo:	22809					
Prep Date:		Analysis Date:	11/26/2014	SeqNo:	673237	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R22809	RunNo:	22809					
Prep Date:		Analysis Date:	11/26/2014	SeqNo:	673238	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.5	0.20	3.500	0	100	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411601

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	MB-16415		SampType: MBLK		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	PBW		Batch ID: 16415		RunNo: 22594					
Prep Date:	11/17/2014		Analysis Date: 11/18/2014		SeqNo: 666747		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.0		1.000		101	59	141			

Sample ID	LCS-16415		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	LCSW		Batch ID: 16415		RunNo: 22594					
Prep Date:	11/17/2014		Analysis Date: 11/18/2014		SeqNo: 666748		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.7	1.0	5.000	0	93.6	69.7	142			
Surr: DNOP	0.60		0.5000		119	59	141			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411601

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	5ML RB		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBW		Batch ID: R22618		RunNo: 22618					
Prep Date:			Analysis Date: 11/18/2014		SeqNo: 667070		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	18		20.00		88.4	80	120			

Sample ID	2.5UG GRO LCS		SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSW		Batch ID: R22618		RunNo: 22618					
Prep Date:			Analysis Date: 11/18/2014		SeqNo: 667071		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.46	0.050	0.5000	0	91.8	80	120			
Surr: BFB	19		20.00		94.0	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411601

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	5mL-rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R22653	RunNo:	22653					
Prep Date:		Analysis Date:	11/19/2014	SeqNo:	668056	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411601

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	5mL-rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R22653			RunNo: 22653					
Prep Date:		Analysis Date: 11/19/2014			SeqNo: 668056		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		99.9	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		100	70	130			
Surr: Dibromofluoromethane	9.7		10.00		97.4	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID	100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R22653			RunNo: 22653					
Prep Date:		Analysis Date: 11/19/2014			SeqNo: 668058		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	103	70	130			
Toluene	23	1.0	20.00	0	116	80	120			
Chlorobenzene	21	1.0	20.00	0	104	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411601

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	100ng lcs		SampType: LCS		TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW		Batch ID: R22653		RunNo: 22653					
Prep Date:			Analysis Date: 11/19/2014		SeqNo: 668058		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	23	1.0	20.00	0	117	82.6	131			
Trichloroethene (TCE)	19	1.0	20.00	0	96.3	70	130			
Surr: 1,2-Dichloroethane-d4	9.1		10.00		91.0	70	130			
Surr: 4-Bromofluorobenzene	9.5		10.00		95.4	70	130			
Surr: Dibromofluoromethane	8.7		10.00		87.1	70	130			
Surr: Toluene-d8	9.6		10.00		96.5	70	130			

Sample ID	b2	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R22653			RunNo: 22653					
Prep Date:		Analysis Date: 11/19/2014			SeqNo: 668101		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411601

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID b2	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW	Batch ID: R22653			RunNo: 22653						
Prep Date:	Analysis Date: 11/19/2014			SeqNo: 668101		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.8		10.00		97.8	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411601

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID b2	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW	Batch ID: R22653			RunNo: 22653						
Prep Date:	Analysis Date: 11/19/2014			SeqNo: 668101		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	9.8		10.00		98.0	70	130			
Surr: Dibromofluoromethane	9.5		10.00		94.8	70	130			
Surr: Toluene-d8	9.4		10.00		94.3	70	130			

Sample ID 100ng lcs2	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES						
Client ID: LCSW	Batch ID: R22653			RunNo: 22653						
Prep Date:	Analysis Date: 11/19/2014			SeqNo: 668103		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	24	1.0	20.00	0	122	70	130			
Toluene	24	1.0	20.00	0	118	80	120			
Chlorobenzene	22	1.0	20.00	0	109	70	130			
1,1-Dichloroethene	26	1.0	20.00	0	129	82.6	131			
Trichloroethene (TCE)	22	1.0	20.00	0	109	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		99.7	70	130			
Surr: 4-Bromofluorobenzene	9.2		10.00		92.2	70	130			
Surr: Dibromofluoromethane	9.9		10.00		99.3	70	130			
Surr: Toluene-d8	10		10.00		104	70	130			

Sample ID 5mL-rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW	Batch ID: R22685			RunNo: 22685						
Prep Date:	Analysis Date: 11/20/2014			SeqNo: 668946		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411601

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	5mL-rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R22685	RunNo:	22685					
Prep Date:		Analysis Date:	11/20/2014	SeqNo:	668946	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.

E Value above quantitation range

J Analyte detected below quantitation limits

O RSD is greater than RSDlimit

R RPD outside accepted recovery limits

S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

P Sample pH greater than 2.

RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411601

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID 5mL-rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW	Batch ID: R22685			RunNo: 22685						
Prep Date:	Analysis Date: 11/20/2014			SeqNo: 668946		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.0		10.00		90.3	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		100	70	130			
Surr: Dibromofluoromethane	8.9		10.00		89.4	70	130			
Surr: Toluene-d8	9.1		10.00		91.5	70	130			

Sample ID 100ng Lcs200ngAnn	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES						
Client ID: LCSW	Batch ID: R22685			RunNo: 22685						
Prep Date:	Analysis Date: 11/20/2014			SeqNo: 668948		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	103	70	130			
Toluene	22	1.0	20.00	0	111	80	120			
Chlorobenzene	21	1.0	20.00	0	103	70	130			
1,1-Dichloroethene	22	1.0	20.00	0	109	82.6	131			
Trichloroethene (TCE)	20	1.0	20.00	0	100	70	130			
Surr: 1,2-Dichloroethane-d4	9.9		10.00		99.0	70	130			
Surr: 4-Bromofluorobenzene	9.0		10.00		90.4	70	130			
Surr: Dibromofluoromethane	9.4		10.00		93.5	70	130			
Surr: Toluene-d8	9.9		10.00		98.7	70	130			

Sample ID b2	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW	Batch ID: R22685			RunNo: 22685						
Prep Date:	Analysis Date: 11/20/2014			SeqNo: 668977		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411601

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	b2	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R22685	RunNo:	22685					
Prep Date:		Analysis Date:	11/20/2014	SeqNo:	668977	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411601

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID b2	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW	Batch ID: R22685			RunNo: 22685						
Prep Date:	Analysis Date: 11/20/2014			SeqNo: 668977		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		102	70	130			
Surr: 4-Bromofluorobenzene	9.1		10.00		91.2	70	130			
Surr: Dibromofluoromethane	9.6		10.00		95.7	70	130			
Surr: Toluene-d8	8.8		10.00		88.3	70	130			

Sample ID 100ng lcs2	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES						
Client ID: LCSW	Batch ID: R22685			RunNo: 22685						
Prep Date:	Analysis Date: 11/21/2014			SeqNo: 668979		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	107	70	130			
Toluene	22	1.0	20.00	0	109	80	120			
Chlorobenzene	20	1.0	20.00	0	101	70	130			
1,1-Dichloroethene	23	1.0	20.00	0	116	82.6	131			
Trichloroethene (TCE)	21	1.0	20.00	0	105	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		99.7	70	130			
Surr: 4-Bromofluorobenzene	9.9		10.00		98.9	70	130			
Surr: Dibromofluoromethane	9.2		10.00		92.0	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411601

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	100ng lcs2	SampType:	LCS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID:	R22685	RunNo:	22685					
Prep Date:		Analysis Date:	11/21/2014	SeqNo:	668979	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Toluene-d8	10		10.00		99.6	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1411601

RcptNo: 1

Received by/date:

SM

11/15/14

Logged By:

Ashley Gallegos

11/15/2014 9:15:00 AM

Ag

Completed By:

Ashley Gallegos

11/17/2014 9:57:19 AM

Ag

Reviewed By:

CS

11/17/14

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Courier

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☒
9. Was preservative added to bottles? Yes ☒ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☒ No ☐ No VOA Vials ☐
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐

METAL ANALYSIS: Added 1 mL HNO_3 to 0.001 F + 0.4 mL HNO_3 to 0.001 FOL ACCORDING TO PH. 11/17/14 1530

of preserved bottles checked for pH: 3
(<2 or >12 unless noted)
Adjusted? YES
Checked by: [Signature]

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:		Date:	
By Whom:		Via:	☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:			
Client Instructions:			

17. Additional remarks:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.9	Good	Yes			

Chain-of-Custody Record

Client: Western Refining Company

GALLUP REFINERY

Mailing Address:

2 Giant Crossing Road, Gallup, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-863-0930

QA/QC Package:

☐ Standard

☐ Level 4 (Full Validation)

Accreditation:

☐ NELAP

☐ Other

☐ EDD (Type)

Turn-Around Time:

☒ Standard

☐ Rush

Project Name:

Q4 2014

Project #:

East/West/Oil LDUs, GWM-1,-2,-3, and OAPIS-1

Project Manager:

C. JOHNSON (cheryl.johnson@wnr.com)

Sampler:

On Ice: ☒ Yes

☐ No

Sample Temperature: 1.9°C



**HALL ENVIRONMENTAL
ANALYSIS LABO**

www.hallenvironmentallab.com

4901 Hawkins NE - Albuquerque, NM 87106

Tel. 505-345-3975 Fax 505-345-4100

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	8260 + MTBE	8021 + MTBE	8015B extended	8270 + phenoles	WQCC metals - total	WQCC metals - dissolved (filtered)	major cations/anions	cyanide
11-13-14	1325	AA	GWM-1	10		14111601 - 001	X		X		X	X	X	
11-14-14	—	AA	TB-500	3		- 002	X							

Date:

Time:

Relinquished by:

11-15-14

845

Pakhandess Pakhandess

Received by:

Date

Time

Received by:

Date

Time

Remarks:



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

July 10, 2014

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 2014 2nd Quarter

OrderNo.: 1406362

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 4 sample(s) on 6/6/2014 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

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

Andy Freeman

Laboratory Manager

4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1406362

Date Reported: 7/10/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: GW-1

Project: 2014 2nd Quarter

Collection Date: 6/5/2014 11:12:00 AM

Lab ID: 1406362-001

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	3.4	1.0		mg/L	1	6/11/2014 5:03:49 AM	13583
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/11/2014 5:03:49 AM	13583
Surr: DNOP	97.8	62.7-145		%REC	1	6/11/2014 5:03:49 AM	13583
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	0.56	0.050		mg/L	1	6/12/2014 11:46:20 PM	R19229
Surr: BFB	909	70.9-130	S	%REC	1	6/12/2014 11:46:20 PM	R19229
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	2.2	0.50		mg/L	5	6/9/2014 5:14:45 PM	R19165
Chloride	890	50		mg/L	100	6/11/2014 1:28:27 AM	R19191
Bromide	2.5	0.50		mg/L	5	6/9/2014 5:14:45 PM	R19165
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	6/9/2014 5:14:45 PM	R19165
Sulfate	94	2.5		mg/L	5	6/9/2014 5:14:45 PM	R19165
Nitrate+Nitrite as N	ND	1.0		mg/L	5	6/10/2014 12:54:02 AM	R19165
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.56	0.0020		mg/L	1	6/10/2014 5:37:35 PM	R19167
Cadmium	ND	0.0020		mg/L	1	6/10/2014 5:37:35 PM	R19167
Chromium	ND	0.0060		mg/L	1	6/10/2014 5:37:35 PM	R19167
Copper	ND	0.0060		mg/L	1	6/10/2014 5:37:35 PM	R19167
Iron	12	0.40	*	mg/L	20	6/12/2014 4:24:32 PM	R19227
Manganese	2.6	0.010	*	mg/L	5	6/10/2014 5:39:21 PM	R19167
Silver	ND	0.0050		mg/L	1	6/12/2014 4:22:48 PM	R19227
Zinc	0.065	0.010		mg/L	1	6/10/2014 5:37:35 PM	R19167
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.54	0.010		mg/L	5	6/18/2014 12:29:38 PM	13717
Cadmium	ND	0.0020		mg/L	1	6/17/2014 1:58:53 PM	13717
Calcium	260	5.0		mg/L	5	6/18/2014 12:29:38 PM	13717
Chromium	ND	0.0060		mg/L	1	6/17/2014 1:58:53 PM	13717
Copper	ND	0.0060		mg/L	1	6/17/2014 1:58:53 PM	13717
Iron	13	0.40	*B	mg/L	20	6/18/2014 12:34:01 PM	13717
Magnesium	61	5.0		mg/L	5	6/18/2014 12:29:38 PM	13717
Manganese	2.5	0.010	*	mg/L	5	6/18/2014 12:29:38 PM	13717
Potassium	7.3	1.0		mg/L	1	6/17/2014 1:58:53 PM	13717
Silver	ND	0.0050		mg/L	1	6/18/2014 5:33:38 PM	13717
Sodium	1100	20		mg/L	20	6/18/2014 5:39:09 PM	13717
Zinc	0.021	0.010		mg/L	1	6/18/2014 12:25:10 PM	13717
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.13	0.0050	*	mg/L	5	6/18/2014 2:48:18 PM	R19364

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.
	E	Value above quantitation range
	J	Analyte detected below quantitation limits
	O	RSD is greater than RSDlimit
	R	RPD outside accepted recovery limits
	S	Spike Recovery outside accepted recovery limits

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2.
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1406362

Date Reported: 7/10/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: GW-1

Project: 2014 2nd Quarter

Collection Date: 6/5/2014 11:12:00 AM

Lab ID: 1406362-001

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Lead	ND	0.0050		mg/L	5	6/18/2014 2:48:18 PM	R19364
Selenium	0.018	0.0050		mg/L	5	6/18/2014 2:48:18 PM	R19364
Uranium	0.011	0.0050		mg/L	5	6/19/2014 5:24:22 PM	R19391
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.13	0.0050	*	mg/L	5	6/17/2014 3:34:36 PM	13717
Lead	0.0080	0.0050		mg/L	5	6/17/2014 3:34:36 PM	13717
Selenium	0.019	0.0050		mg/L	5	6/17/2014 3:34:36 PM	13717
Uranium	0.012	0.0050		mg/L	5	6/17/2014 3:34:36 PM	13717
EPA METHOD 245.1: MERCURY							Analyst: DBD
Mercury	ND	0.00020		mg/L	1	6/17/2014 10:54:08 AM	13722
EPA METHOD 8260B: VOLATILES							Analyst: KJH
Benzene	11	1.0		µg/L	1	6/11/2014 3:59:04 PM	R19204
Toluene	2.1	1.0		µg/L	1	6/11/2014 3:59:04 PM	R19204
Ethylbenzene	4.8	1.0		µg/L	1	6/11/2014 3:59:04 PM	R19204
Methyl tert-butyl ether (MTBE)	51	1.0		µg/L	1	6/11/2014 3:59:04 PM	R19204
1,2,4-Trimethylbenzene	11	1.0		µg/L	1	6/11/2014 3:59:04 PM	R19204
1,3,5-Trimethylbenzene	1.2	1.0		µg/L	1	6/11/2014 3:59:04 PM	R19204
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/11/2014 3:59:04 PM	R19204
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/11/2014 3:59:04 PM	R19204
Naphthalene	ND	2.0		µg/L	1	6/11/2014 3:59:04 PM	R19204
1-Methylnaphthalene	12	4.0		µg/L	1	6/11/2014 3:59:04 PM	R19204
2-Methylnaphthalene	ND	4.0		µg/L	1	6/11/2014 3:59:04 PM	R19204
Acetone	20	10		µg/L	1	6/11/2014 3:59:04 PM	R19204
Bromobenzene	ND	1.0		µg/L	1	6/11/2014 3:59:04 PM	R19204
Bromodichloromethane	ND	1.0		µg/L	1	6/11/2014 3:59:04 PM	R19204
Bromoform	ND	1.0		µg/L	1	6/11/2014 3:59:04 PM	R19204
Bromomethane	ND	3.0		µg/L	1	6/11/2014 3:59:04 PM	R19204
2-Butanone	ND	10		µg/L	1	6/11/2014 3:59:04 PM	R19204
Carbon disulfide	ND	10		µg/L	1	6/11/2014 3:59:04 PM	R19204
Carbon Tetrachloride	ND	1.0		µg/L	1	6/11/2014 3:59:04 PM	R19204
Chlorobenzene	ND	1.0		µg/L	1	6/11/2014 3:59:04 PM	R19204
Chloroethane	ND	2.0		µg/L	1	6/11/2014 3:59:04 PM	R19204
Chloroform	ND	1.0		µg/L	1	6/11/2014 3:59:04 PM	R19204
Chloromethane	ND	3.0		µg/L	1	6/11/2014 3:59:04 PM	R19204
2-Chlorotoluene	ND	1.0		µg/L	1	6/11/2014 3:59:04 PM	R19204
4-Chlorotoluene	ND	1.0		µg/L	1	6/11/2014 3:59:04 PM	R19204
cis-1,2-DCE	ND	1.0		µg/L	1	6/11/2014 3:59:04 PM	R19204
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/11/2014 3:59:04 PM	R19204

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1406362

Date Reported: 7/10/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: GW-1

Project: 2014 2nd Quarter

Collection Date: 6/5/2014 11:12:00 AM

Lab ID: 1406362-001

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: KJH			
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/11/2014 3:59:04 PM	R19204
Dibromochloromethane	ND	1.0		µg/L	1	6/11/2014 3:59:04 PM	R19204
Dibromomethane	ND	1.0		µg/L	1	6/11/2014 3:59:04 PM	R19204
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/11/2014 3:59:04 PM	R19204
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/11/2014 3:59:04 PM	R19204
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/11/2014 3:59:04 PM	R19204
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/11/2014 3:59:04 PM	R19204
1,1-Dichloroethane	ND	1.0		µg/L	1	6/11/2014 3:59:04 PM	R19204
1,1-Dichloroethene	ND	1.0		µg/L	1	6/11/2014 3:59:04 PM	R19204
1,2-Dichloropropane	ND	1.0		µg/L	1	6/11/2014 3:59:04 PM	R19204
1,3-Dichloropropane	ND	1.0		µg/L	1	6/11/2014 3:59:04 PM	R19204
2,2-Dichloropropane	ND	2.0		µg/L	1	6/11/2014 3:59:04 PM	R19204
1,1-Dichloropropene	ND	1.0		µg/L	1	6/11/2014 3:59:04 PM	R19204
Hexachlorobutadiene	ND	1.0		µg/L	1	6/11/2014 3:59:04 PM	R19204
2-Hexanone	ND	10		µg/L	1	6/11/2014 3:59:04 PM	R19204
Isopropylbenzene	1.7	1.0		µg/L	1	6/11/2014 3:59:04 PM	R19204
4-Isopropyltoluene	ND	1.0		µg/L	1	6/11/2014 3:59:04 PM	R19204
4-Methyl-2-pentanone	ND	10		µg/L	1	6/11/2014 3:59:04 PM	R19204
Methylene Chloride	ND	3.0		µg/L	1	6/11/2014 3:59:04 PM	R19204
n-Butylbenzene	ND	3.0		µg/L	1	6/11/2014 3:59:04 PM	R19204
n-Propylbenzene	2.1	1.0		µg/L	1	6/11/2014 3:59:04 PM	R19204
sec-Butylbenzene	1.0	1.0		µg/L	1	6/11/2014 3:59:04 PM	R19204
Styrene	ND	1.0		µg/L	1	6/11/2014 3:59:04 PM	R19204
tert-Butylbenzene	ND	1.0		µg/L	1	6/11/2014 3:59:04 PM	R19204
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/11/2014 3:59:04 PM	R19204
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/11/2014 3:59:04 PM	R19204
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/11/2014 3:59:04 PM	R19204
trans-1,2-DCE	ND	1.0		µg/L	1	6/11/2014 3:59:04 PM	R19204
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/11/2014 3:59:04 PM	R19204
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/11/2014 3:59:04 PM	R19204
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/11/2014 3:59:04 PM	R19204
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/11/2014 3:59:04 PM	R19204
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/11/2014 3:59:04 PM	R19204
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/11/2014 3:59:04 PM	R19204
Trichlorofluoromethane	ND	1.0		µg/L	1	6/11/2014 3:59:04 PM	R19204
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/11/2014 3:59:04 PM	R19204
Vinyl chloride	ND	1.0		µg/L	1	6/11/2014 3:59:04 PM	R19204
Xylenes, Total	19	1.5		µg/L	1	6/11/2014 3:59:04 PM	R19204
Surr: 1,2-Dichloroethane-d4	89.0	70-130		%REC	1	6/11/2014 3:59:04 PM	R19204

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	Page 3 of 34
	E Value above quantitation range	H Holding times for preparation or analysis exceeded	
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit	
	O RSD is greater than RSDlimit	P Sample pH greater than 2.	
	R RPD outside accepted recovery limits	RL Reporting Detection Limit	
	S Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1406362**

Date Reported: **7/10/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: GWM-1

Project: 2014 2nd Quarter

Collection Date: 6/5/2014 11:12:00 AM

Lab ID: 1406362-001

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: KJH	
Surr: 4-Bromofluorobenzene	94.6	70-130		%REC	1	6/11/2014 3:59:04 PM	R19204
Surr: Dibromofluoromethane	105	70-130		%REC	1	6/11/2014 3:59:04 PM	R19204
Surr: Toluene-d8	94.4	70-130		%REC	1	6/11/2014 3:59:04 PM	R19204

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 4 of 34
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1406362

Date Reported: 7/10/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OAPIS-1

Project: 2014 2nd Quarter

Collection Date: 6/5/2014 10:30:00 AM

Lab ID: 1406362-002

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	11	1.0		mg/L	1	6/11/2014 10:38:54 PM	13583
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/11/2014 10:38:54 PM	13583
Surr: DNOP	111	62.7-145		%REC	1	6/11/2014 10:38:54 PM	13583
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	0.70	0.050		mg/L	1	6/13/2014 12:16:33 AM	R19229
Surr: BFB	238	70.9-130	S	%REC	1	6/13/2014 12:16:33 AM	R19229
EPA METHOD 300.0: ANIONS							Analyst: JRR
Fluoride	1.3	0.50		mg/L	5	6/9/2014 5:39:35 PM	R19165
Chloride	1400	250		mg/L	500	6/11/2014 1:40:52 AM	R19191
Bromide	6.1	0.50		mg/L	5	6/9/2014 5:39:35 PM	R19165
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	6/9/2014 5:39:35 PM	R19165
Sulfate	22	2.5		mg/L	5	6/9/2014 5:39:35 PM	R19165
Nitrate+Nitrite as N	ND	2.0		mg/L	10	6/24/2014 8:07:53 PM	R19500
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.80	0.0020		mg/L	1	6/10/2014 5:41:02 PM	R19167
Cadmium	ND	0.0020		mg/L	1	6/10/2014 5:41:02 PM	R19167
Chromium	0.0082	0.0060		mg/L	1	6/10/2014 5:41:02 PM	R19167
Copper	0.025	0.0060		mg/L	1	6/10/2014 5:41:02 PM	R19167
Iron	10	0.40	*	mg/L	20	6/12/2014 4:28:06 PM	R19227
Manganese	2.2	0.010	*	mg/L	5	6/10/2014 5:42:47 PM	R19167
Silver	ND	0.0050		mg/L	1	6/12/2014 4:26:24 PM	R19227
Zinc	0.10	0.010		mg/L	1	6/10/2014 5:41:02 PM	R19167
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.93	0.0020		mg/L	1	6/17/2014 2:05:59 PM	13717
Cadmium	ND	0.0020		mg/L	1	6/17/2014 2:05:59 PM	13717
Calcium	180	5.0		mg/L	5	6/18/2014 12:37:14 PM	13717
Chromium	0.022	0.0060		mg/L	1	6/17/2014 2:05:59 PM	13717
Copper	0.060	0.0060		mg/L	1	6/17/2014 2:05:59 PM	13717
Iron	12	1.0	*B	mg/L	50	6/18/2014 12:38:42 PM	13717
Magnesium	33	1.0		mg/L	1	6/17/2014 2:05:59 PM	13717
Manganese	2.4	0.010	*	mg/L	5	6/18/2014 12:37:14 PM	13717
Potassium	11	1.0		mg/L	1	6/17/2014 2:05:59 PM	13717
Silver	ND	0.0050		mg/L	1	6/18/2014 5:41:02 PM	13717
Sodium	1300	50		mg/L	50	6/18/2014 5:42:57 PM	13717
Zinc	0.15	0.010		mg/L	1	6/18/2014 12:35:37 PM	13717
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.011	0.010	*	mg/L	10	7/8/2014 5:14:59 PM	R19751

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1406362

Date Reported: 7/10/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OAPIS-1

Project: 2014 2nd Quarter

Collection Date: 6/5/2014 10:30:00 AM

Lab ID: 1406362-002

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Lead	0.020	0.0050	*	mg/L	5	6/18/2014 2:58:16 PM	R19364
Selenium	0.014	0.010		mg/L	10	7/8/2014 5:14:59 PM	R19751
Uranium	0.039	0.010	*	mg/L	10	7/8/2014 5:14:59 PM	R19751
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.016	0.0050	*	mg/L	5	6/17/2014 3:39:35 PM	13717
Lead	0.029	0.0050	*	mg/L	5	6/17/2014 3:39:35 PM	13717
Selenium	0.035	0.0050		mg/L	5	6/17/2014 3:39:35 PM	13717
Uranium	0.034	0.0050	*	mg/L	5	6/17/2014 3:39:35 PM	13717
EPA METHOD 245.1: MERCURY							Analyst: DBD
Mercury	ND	0.00020		mg/L	1	6/17/2014 10:55:55 AM	13722
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	6/10/2014 7:44:23 PM	13597
Acenaphthylene	ND	10		µg/L	1	6/10/2014 7:44:23 PM	13597
Aniline	ND	10		µg/L	1	6/10/2014 7:44:23 PM	13597
Anthracene	ND	10		µg/L	1	6/10/2014 7:44:23 PM	13597
Azobenzene	ND	10		µg/L	1	6/10/2014 7:44:23 PM	13597
Benz(a)anthracene	ND	10		µg/L	1	6/10/2014 7:44:23 PM	13597
Benzo(a)pyrene	ND	10		µg/L	1	6/10/2014 7:44:23 PM	13597
Benzo(b)fluoranthene	ND	10		µg/L	1	6/10/2014 7:44:23 PM	13597
Benzo(g,h,i)perylene	ND	10		µg/L	1	6/10/2014 7:44:23 PM	13597
Benzo(k)fluoranthene	ND	10		µg/L	1	6/10/2014 7:44:23 PM	13597
Benzoic acid	ND	20		µg/L	1	6/10/2014 7:44:23 PM	13597
Benzyl alcohol	ND	10		µg/L	1	6/10/2014 7:44:23 PM	13597
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	6/10/2014 7:44:23 PM	13597
Bis(2-chloroethyl)ether	ND	10		µg/L	1	6/10/2014 7:44:23 PM	13597
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	6/10/2014 7:44:23 PM	13597
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	6/10/2014 7:44:23 PM	13597
4-Bromophenyl phenyl ether	ND	10		µg/L	1	6/10/2014 7:44:23 PM	13597
Butyl benzyl phthalate	ND	10		µg/L	1	6/10/2014 7:44:23 PM	13597
Carbazole	ND	10		µg/L	1	6/10/2014 7:44:23 PM	13597
4-Chloro-3-methylphenol	ND	10		µg/L	1	6/10/2014 7:44:23 PM	13597
4-Chloroaniline	ND	10		µg/L	1	6/10/2014 7:44:23 PM	13597
2-Chloronaphthalene	ND	10		µg/L	1	6/10/2014 7:44:23 PM	13597
2-Chlorophenol	ND	10		µg/L	1	6/10/2014 7:44:23 PM	13597
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	6/10/2014 7:44:23 PM	13597
Chrysene	ND	10		µg/L	1	6/10/2014 7:44:23 PM	13597
Di-n-butyl phthalate	ND	10		µg/L	1	6/10/2014 7:44:23 PM	13597
Di-n-octyl phthalate	ND	10		µg/L	1	6/10/2014 7:44:23 PM	13597

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1406362

Date Reported: 7/10/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OAPIS-1

Project: 2014 2nd Quarter

Collection Date: 6/5/2014 10:30:00 AM

Lab ID: 1406362-002

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Dibenz(a,h)anthracene	ND	10		µg/L	1	6/10/2014 7:44:23 PM	13597
Dibenzofuran	ND	10		µg/L	1	6/10/2014 7:44:23 PM	13597
1,2-Dichlorobenzene	ND	10		µg/L	1	6/10/2014 7:44:23 PM	13597
1,3-Dichlorobenzene	ND	10		µg/L	1	6/10/2014 7:44:23 PM	13597
1,4-Dichlorobenzene	ND	10		µg/L	1	6/10/2014 7:44:23 PM	13597
3,3'-Dichlorobenzidine	ND	10		µg/L	1	6/10/2014 7:44:23 PM	13597
Diethyl phthalate	ND	10		µg/L	1	6/10/2014 7:44:23 PM	13597
Dimethyl phthalate	ND	10		µg/L	1	6/10/2014 7:44:23 PM	13597
2,4-Dichlorophenol	ND	20		µg/L	1	6/10/2014 7:44:23 PM	13597
2,4-Dimethylphenol	32	10		µg/L	1	6/10/2014 7:44:23 PM	13597
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	6/10/2014 7:44:23 PM	13597
2,4-Dinitrophenol	ND	20		µg/L	1	6/10/2014 7:44:23 PM	13597
2,4-Dinitrotoluene	ND	10		µg/L	1	6/10/2014 7:44:23 PM	13597
2,6-Dinitrotoluene	ND	10		µg/L	1	6/10/2014 7:44:23 PM	13597
Fluoranthene	ND	10		µg/L	1	6/10/2014 7:44:23 PM	13597
Fluorene	ND	10		µg/L	1	6/10/2014 7:44:23 PM	13597
Hexachlorobenzene	ND	10		µg/L	1	6/10/2014 7:44:23 PM	13597
Hexachlorobutadiene	ND	10		µg/L	1	6/10/2014 7:44:23 PM	13597
Hexachlorocyclopentadiene	ND	10		µg/L	1	6/10/2014 7:44:23 PM	13597
Hexachloroethane	ND	10		µg/L	1	6/10/2014 7:44:23 PM	13597
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	6/10/2014 7:44:23 PM	13597
Isophorone	ND	10		µg/L	1	6/10/2014 7:44:23 PM	13597
1-Methylnaphthalene	ND	10		µg/L	1	6/10/2014 7:44:23 PM	13597
2-Methylnaphthalene	ND	10		µg/L	1	6/10/2014 7:44:23 PM	13597
2-Methylphenol	ND	20		µg/L	1	6/10/2014 7:44:23 PM	13597
3+4-Methylphenol	ND	10		µg/L	1	6/10/2014 7:44:23 PM	13597
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	6/10/2014 7:44:23 PM	13597
N-Nitrosodimethylamine	ND	10		µg/L	1	6/10/2014 7:44:23 PM	13597
N-Nitrosodiphenylamine	ND	10		µg/L	1	6/10/2014 7:44:23 PM	13597
Naphthalene	ND	10		µg/L	1	6/10/2014 7:44:23 PM	13597
2-Nitroaniline	ND	10		µg/L	1	6/10/2014 7:44:23 PM	13597
3-Nitroaniline	ND	10		µg/L	1	6/10/2014 7:44:23 PM	13597
4-Nitroaniline	ND	10		µg/L	1	6/10/2014 7:44:23 PM	13597
Nitrobenzene	ND	10		µg/L	1	6/10/2014 7:44:23 PM	13597
2-Nitrophenol	ND	10		µg/L	1	6/10/2014 7:44:23 PM	13597
4-Nitrophenol	ND	10		µg/L	1	6/10/2014 7:44:23 PM	13597
Pentachlorophenol	ND	20		µg/L	1	6/10/2014 7:44:23 PM	13597
Phenanthrene	ND	10		µg/L	1	6/10/2014 7:44:23 PM	13597
Phenol	ND	10		µg/L	1	6/10/2014 7:44:23 PM	13597

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 7 of 34
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1406362

Date Reported: 7/10/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OAPIS-1

Project: 2014 2nd Quarter

Collection Date: 6/5/2014 10:30:00 AM

Lab ID: 1406362-002

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES				Analyst: DAM			
Pyrene	ND	10		µg/L	1	6/10/2014 7:44:23 PM	13597
Pyridine	ND	10		µg/L	1	6/10/2014 7:44:23 PM	13597
1,2,4-Trichlorobenzene	ND	10		µg/L	1	6/10/2014 7:44:23 PM	13597
2,4,5-Trichlorophenol	ND	10		µg/L	1	6/10/2014 7:44:23 PM	13597
2,4,6-Trichlorophenol	ND	10		µg/L	1	6/10/2014 7:44:23 PM	13597
Surr: 2-Fluorophenol	45.1	12.1-85.8		%REC	1	6/10/2014 7:44:23 PM	13597
Surr: Phenol-d5	40.3	17.7-65.8		%REC	1	6/10/2014 7:44:23 PM	13597
Surr: 2,4,6-Tribromophenol	70.6	26-138		%REC	1	6/10/2014 7:44:23 PM	13597
Surr: Nitrobenzene-d5	79.6	47.5-119		%REC	1	6/10/2014 7:44:23 PM	13597
Surr: 2-Fluorobiphenyl	73.3	48.1-106		%REC	1	6/10/2014 7:44:23 PM	13597
Surr: 4-Terphenyl-d14	74.0	44-113		%REC	1	6/10/2014 7:44:23 PM	13597
EPA METHOD 8260B: VOLATILES				Analyst: KJH			
Benzene	96	2.0		µg/L	2	6/11/2014 12:15:11 PM	R19204
Toluene	ND	2.0		µg/L	2	6/11/2014 12:15:11 PM	R19204
Ethylbenzene	10	2.0		µg/L	2	6/11/2014 12:15:11 PM	R19204
Methyl tert-butyl ether (MTBE)	360	2.0		µg/L	2	6/11/2014 12:15:11 PM	R19204
1,2,4-Trimethylbenzene	6.6	2.0		µg/L	2	6/11/2014 12:15:11 PM	R19204
1,3,5-Trimethylbenzene	ND	2.0		µg/L	2	6/11/2014 12:15:11 PM	R19204
1,2-Dichloroethane (EDC)	ND	2.0		µg/L	2	6/11/2014 12:15:11 PM	R19204
1,2-Dibromoethane (EDB)	ND	2.0		µg/L	2	6/11/2014 12:15:11 PM	R19204
Naphthalene	ND	4.0		µg/L	2	6/11/2014 12:15:11 PM	R19204
1-Methylnaphthalene	30	8.0		µg/L	2	6/11/2014 12:15:11 PM	R19204
2-Methylnaphthalene	ND	8.0		µg/L	2	6/11/2014 12:15:11 PM	R19204
Acetone	ND	20		µg/L	2	6/11/2014 12:15:11 PM	R19204
Bromobenzene	ND	2.0		µg/L	2	6/11/2014 12:15:11 PM	R19204
Bromodichloromethane	ND	2.0		µg/L	2	6/11/2014 12:15:11 PM	R19204
Bromoform	ND	2.0		µg/L	2	6/11/2014 12:15:11 PM	R19204
Bromomethane	ND	6.0		µg/L	2	6/11/2014 12:15:11 PM	R19204
2-Butanone	ND	20		µg/L	2	6/11/2014 12:15:11 PM	R19204
Carbon disulfide	ND	20		µg/L	2	6/11/2014 12:15:11 PM	R19204
Carbon Tetrachloride	ND	2.0		µg/L	2	6/11/2014 12:15:11 PM	R19204
Chlorobenzene	ND	2.0		µg/L	2	6/11/2014 12:15:11 PM	R19204
Chloroethane	ND	4.0		µg/L	2	6/11/2014 12:15:11 PM	R19204
Chloroform	ND	2.0		µg/L	2	6/11/2014 12:15:11 PM	R19204
Chloromethane	ND	6.0		µg/L	2	6/11/2014 12:15:11 PM	R19204
2-Chlorotoluene	ND	2.0		µg/L	2	6/11/2014 12:15:11 PM	R19204
4-Chlorotoluene	ND	2.0		µg/L	2	6/11/2014 12:15:11 PM	R19204
cis-1,2-DCE	ND	2.0		µg/L	2	6/11/2014 12:15:11 PM	R19204
cis-1,3-Dichloropropene	ND	2.0		µg/L	2	6/11/2014 12:15:11 PM	R19204

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1406362

Date Reported: 7/10/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OAPIS-1

Project: 2014 2nd Quarter

Collection Date: 6/5/2014 10:30:00 AM

Lab ID: 1406362-002

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: KJH
1,2-Dibromo-3-chloropropane	ND	4.0		µg/L	2	6/11/2014 12:15:11 PM	R19204
Dibromochloromethane	ND	2.0		µg/L	2	6/11/2014 12:15:11 PM	R19204
Dibromomethane	ND	2.0		µg/L	2	6/11/2014 12:15:11 PM	R19204
1,2-Dichlorobenzene	ND	2.0		µg/L	2	6/11/2014 12:15:11 PM	R19204
1,3-Dichlorobenzene	ND	2.0		µg/L	2	6/11/2014 12:15:11 PM	R19204
1,4-Dichlorobenzene	ND	2.0		µg/L	2	6/11/2014 12:15:11 PM	R19204
Dichlorodifluoromethane	ND	2.0		µg/L	2	6/11/2014 12:15:11 PM	R19204
1,1-Dichloroethane	ND	2.0		µg/L	2	6/11/2014 12:15:11 PM	R19204
1,1-Dichloroethene	ND	2.0		µg/L	2	6/11/2014 12:15:11 PM	R19204
1,2-Dichloropropane	ND	2.0		µg/L	2	6/11/2014 12:15:11 PM	R19204
1,3-Dichloropropane	ND	2.0		µg/L	2	6/11/2014 12:15:11 PM	R19204
2,2-Dichloropropane	ND	4.0		µg/L	2	6/11/2014 12:15:11 PM	R19204
1,1-Dichloropropene	ND	2.0		µg/L	2	6/11/2014 12:15:11 PM	R19204
Hexachlorobutadiene	ND	2.0		µg/L	2	6/11/2014 12:15:11 PM	R19204
2-Hexanone	ND	20		µg/L	2	6/11/2014 12:15:11 PM	R19204
Isopropylbenzene	2.2	2.0		µg/L	2	6/11/2014 12:15:11 PM	R19204
4-Isopropyltoluene	ND	2.0		µg/L	2	6/11/2014 12:15:11 PM	R19204
4-Methyl-2-pentanone	ND	20		µg/L	2	6/11/2014 12:15:11 PM	R19204
Methylene Chloride	ND	6.0		µg/L	2	6/11/2014 12:15:11 PM	R19204
n-Butylbenzene	ND	6.0		µg/L	2	6/11/2014 12:15:11 PM	R19204
n-Propylbenzene	2.3	2.0		µg/L	2	6/11/2014 12:15:11 PM	R19204
sec-Butylbenzene	ND	2.0		µg/L	2	6/11/2014 12:15:11 PM	R19204
Styrene	ND	2.0		µg/L	2	6/11/2014 12:15:11 PM	R19204
tert-Butylbenzene	ND	2.0		µg/L	2	6/11/2014 12:15:11 PM	R19204
1,1,1,2-Tetrachloroethane	ND	2.0		µg/L	2	6/11/2014 12:15:11 PM	R19204
1,1,2,2-Tetrachloroethane	ND	4.0		µg/L	2	6/11/2014 12:15:11 PM	R19204
Tetrachloroethene (PCE)	ND	2.0		µg/L	2	6/11/2014 12:15:11 PM	R19204
trans-1,2-DCE	ND	2.0		µg/L	2	6/11/2014 12:15:11 PM	R19204
trans-1,3-Dichloropropene	ND	2.0		µg/L	2	6/11/2014 12:15:11 PM	R19204
1,2,3-Trichlorobenzene	ND	2.0		µg/L	2	6/11/2014 12:15:11 PM	R19204
1,2,4-Trichlorobenzene	ND	2.0		µg/L	2	6/11/2014 12:15:11 PM	R19204
1,1,1-Trichloroethane	ND	2.0		µg/L	2	6/11/2014 12:15:11 PM	R19204
1,1,2-Trichloroethane	ND	2.0		µg/L	2	6/11/2014 12:15:11 PM	R19204
Trichloroethene (TCE)	ND	2.0		µg/L	2	6/11/2014 12:15:11 PM	R19204
Trichlorofluoromethane	ND	2.0		µg/L	2	6/11/2014 12:15:11 PM	R19204
1,2,3-Trichloropropane	ND	4.0		µg/L	2	6/11/2014 12:15:11 PM	R19204
Vinyl chloride	ND	2.0		µg/L	2	6/11/2014 12:15:11 PM	R19204
Xylenes, Total	4.9	3.0		µg/L	2	6/11/2014 12:15:11 PM	R19204
Surr: 1,2-Dichloroethane-d4	91.5	70-130		%REC	2	6/11/2014 12:15:11 PM	R19204

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1406362**

Date Reported: 7/10/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: OAPIS-1

Project: 2014 2nd Quarter

Collection Date: 6/5/2014 10:30:00 AM

Lab ID: 1406362-002

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: KJH	
Surr: 4-Bromofluorobenzene	95.7	70-130		%REC	2	6/11/2014 12:15:11 PM	R19204
Surr: Dibromofluoromethane	108	70-130		%REC	2	6/11/2014 12:15:11 PM	R19204
Surr: Toluene-d8	88.5	70-130		%REC	2	6/11/2014 12:15:11 PM	R19204

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 10 of 34
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1406362

Date Reported: 7/10/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FB-GROUP2-6/5/14

Project: 2014 2nd Quarter

Collection Date: 6/5/2014 12:20:00 PM

Lab ID: 1406362-003

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: KJH
Benzene	ND	1.0		µg/L	1	6/11/2014 4:26:59 PM	R19204
Toluene	ND	1.0		µg/L	1	6/11/2014 4:26:59 PM	R19204
Ethylbenzene	ND	1.0		µg/L	1	6/11/2014 4:26:59 PM	R19204
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/11/2014 4:26:59 PM	R19204
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/11/2014 4:26:59 PM	R19204
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/11/2014 4:26:59 PM	R19204
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/11/2014 4:26:59 PM	R19204
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/11/2014 4:26:59 PM	R19204
Naphthalene	ND	2.0		µg/L	1	6/11/2014 4:26:59 PM	R19204
1-Methylnaphthalene	ND	4.0		µg/L	1	6/11/2014 4:26:59 PM	R19204
2-Methylnaphthalene	ND	4.0		µg/L	1	6/11/2014 4:26:59 PM	R19204
Acetone	ND	10		µg/L	1	6/11/2014 4:26:59 PM	R19204
Bromobenzene	ND	1.0		µg/L	1	6/11/2014 4:26:59 PM	R19204
Bromodichloromethane	ND	1.0		µg/L	1	6/11/2014 4:26:59 PM	R19204
Bromoform	ND	1.0		µg/L	1	6/11/2014 4:26:59 PM	R19204
Bromomethane	ND	3.0		µg/L	1	6/11/2014 4:26:59 PM	R19204
2-Butanone	ND	10		µg/L	1	6/11/2014 4:26:59 PM	R19204
Carbon disulfide	ND	10		µg/L	1	6/11/2014 4:26:59 PM	R19204
Carbon Tetrachloride	ND	1.0		µg/L	1	6/11/2014 4:26:59 PM	R19204
Chlorobenzene	ND	1.0		µg/L	1	6/11/2014 4:26:59 PM	R19204
Chloroethane	ND	2.0		µg/L	1	6/11/2014 4:26:59 PM	R19204
Chloroform	ND	1.0		µg/L	1	6/11/2014 4:26:59 PM	R19204
Chloromethane	ND	3.0		µg/L	1	6/11/2014 4:26:59 PM	R19204
2-Chlorotoluene	ND	1.0		µg/L	1	6/11/2014 4:26:59 PM	R19204
4-Chlorotoluene	ND	1.0		µg/L	1	6/11/2014 4:26:59 PM	R19204
cis-1,2-DCE	ND	1.0		µg/L	1	6/11/2014 4:26:59 PM	R19204
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/11/2014 4:26:59 PM	R19204
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/11/2014 4:26:59 PM	R19204
Dibromochloromethane	ND	1.0		µg/L	1	6/11/2014 4:26:59 PM	R19204
Dibromomethane	ND	1.0		µg/L	1	6/11/2014 4:26:59 PM	R19204
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/11/2014 4:26:59 PM	R19204
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/11/2014 4:26:59 PM	R19204
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/11/2014 4:26:59 PM	R19204
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/11/2014 4:26:59 PM	R19204
1,1-Dichloroethane	ND	1.0		µg/L	1	6/11/2014 4:26:59 PM	R19204
1,1-Dichloroethene	ND	1.0		µg/L	1	6/11/2014 4:26:59 PM	R19204
1,2-Dichloropropane	ND	1.0		µg/L	1	6/11/2014 4:26:59 PM	R19204
1,3-Dichloropropane	ND	1.0		µg/L	1	6/11/2014 4:26:59 PM	R19204
2,2-Dichloropropane	ND	2.0		µg/L	1	6/11/2014 4:26:59 PM	R19204

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1406362

Date Reported: 7/10/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FB-GROUP2-6/5/14

Project: 2014 2nd Quarter

Collection Date: 6/5/2014 12:20:00 PM

Lab ID: 1406362-003

Matrix: AQUEOUS

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: KJH			
1,1-Dichloropropene	ND	1.0		µg/L	1	6/11/2014 4:26:59 PM	R19204
Hexachlorobutadiene	ND	1.0		µg/L	1	6/11/2014 4:26:59 PM	R19204
2-Hexanone	ND	10		µg/L	1	6/11/2014 4:26:59 PM	R19204
Isopropylbenzene	ND	1.0		µg/L	1	6/11/2014 4:26:59 PM	R19204
4-Isopropyltoluene	ND	1.0		µg/L	1	6/11/2014 4:26:59 PM	R19204
4-Methyl-2-pentanone	ND	10		µg/L	1	6/11/2014 4:26:59 PM	R19204
Methylene Chloride	ND	3.0		µg/L	1	6/11/2014 4:26:59 PM	R19204
n-Butylbenzene	ND	3.0		µg/L	1	6/11/2014 4:26:59 PM	R19204
n-Propylbenzene	ND	1.0		µg/L	1	6/11/2014 4:26:59 PM	R19204
sec-Butylbenzene	ND	1.0		µg/L	1	6/11/2014 4:26:59 PM	R19204
Styrene	ND	1.0		µg/L	1	6/11/2014 4:26:59 PM	R19204
tert-Butylbenzene	ND	1.0		µg/L	1	6/11/2014 4:26:59 PM	R19204
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/11/2014 4:26:59 PM	R19204
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/11/2014 4:26:59 PM	R19204
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/11/2014 4:26:59 PM	R19204
trans-1,2-DCE	ND	1.0		µg/L	1	6/11/2014 4:26:59 PM	R19204
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/11/2014 4:26:59 PM	R19204
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/11/2014 4:26:59 PM	R19204
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/11/2014 4:26:59 PM	R19204
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/11/2014 4:26:59 PM	R19204
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/11/2014 4:26:59 PM	R19204
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/11/2014 4:26:59 PM	R19204
Trichlorofluoromethane	ND	1.0		µg/L	1	6/11/2014 4:26:59 PM	R19204
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/11/2014 4:26:59 PM	R19204
Vinyl chloride	ND	1.0		µg/L	1	6/11/2014 4:26:59 PM	R19204
Xylenes, Total	ND	1.5		µg/L	1	6/11/2014 4:26:59 PM	R19204
Surr: 1,2-Dichloroethane-d4	90.1	70-130		%REC	1	6/11/2014 4:26:59 PM	R19204
Surr: 4-Bromofluorobenzene	93.4	70-130		%REC	1	6/11/2014 4:26:59 PM	R19204
Surr: Dibromofluoromethane	99.0	70-130		%REC	1	6/11/2014 4:26:59 PM	R19204
Surr: Toluene-d8	87.9	70-130		%REC	1	6/11/2014 4:26:59 PM	R19204

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1406362

Date Reported: 7/10/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TB #1

Project: 2014 2nd Quarter

Collection Date:

Lab ID: 1406362-004

Matrix: TRIP BLANK

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	6/13/2014 12:46:40 AM	R19229
Surr: BFB	103	70.9-130		%REC	1	6/13/2014 12:46:40 AM	R19229
EPA METHOD 8260B: VOLATILES							Analyst: KJH
Benzene	ND	1.0		µg/L	1	6/11/2014 5:51:03 PM	R19204
Toluene	ND	1.0		µg/L	1	6/11/2014 5:51:03 PM	R19204
Ethylbenzene	ND	1.0		µg/L	1	6/11/2014 5:51:03 PM	R19204
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/11/2014 5:51:03 PM	R19204
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/11/2014 5:51:03 PM	R19204
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/11/2014 5:51:03 PM	R19204
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/11/2014 5:51:03 PM	R19204
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/11/2014 5:51:03 PM	R19204
Naphthalene	ND	2.0		µg/L	1	6/11/2014 5:51:03 PM	R19204
1-Methylnaphthalene	ND	4.0		µg/L	1	6/11/2014 5:51:03 PM	R19204
2-Methylnaphthalene	ND	4.0		µg/L	1	6/11/2014 5:51:03 PM	R19204
Acetone	ND	10		µg/L	1	6/11/2014 5:51:03 PM	R19204
Bromobenzene	ND	1.0		µg/L	1	6/11/2014 5:51:03 PM	R19204
Bromodichloromethane	ND	1.0		µg/L	1	6/11/2014 5:51:03 PM	R19204
Bromoform	ND	1.0		µg/L	1	6/11/2014 5:51:03 PM	R19204
Bromomethane	ND	3.0		µg/L	1	6/11/2014 5:51:03 PM	R19204
2-Butanone	ND	10		µg/L	1	6/11/2014 5:51:03 PM	R19204
Carbon disulfide	ND	10		µg/L	1	6/11/2014 5:51:03 PM	R19204
Carbon Tetrachloride	ND	1.0		µg/L	1	6/11/2014 5:51:03 PM	R19204
Chlorobenzene	ND	1.0		µg/L	1	6/11/2014 5:51:03 PM	R19204
Chloroethane	ND	2.0		µg/L	1	6/11/2014 5:51:03 PM	R19204
Chloroform	ND	1.0		µg/L	1	6/11/2014 5:51:03 PM	R19204
Chloromethane	ND	3.0		µg/L	1	6/11/2014 5:51:03 PM	R19204
2-Chlorotoluene	ND	1.0		µg/L	1	6/11/2014 5:51:03 PM	R19204
4-Chlorotoluene	ND	1.0		µg/L	1	6/11/2014 5:51:03 PM	R19204
cis-1,2-DCE	ND	1.0		µg/L	1	6/11/2014 5:51:03 PM	R19204
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/11/2014 5:51:03 PM	R19204
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/11/2014 5:51:03 PM	R19204
Dibromochloromethane	ND	1.0		µg/L	1	6/11/2014 5:51:03 PM	R19204
Dibromomethane	ND	1.0		µg/L	1	6/11/2014 5:51:03 PM	R19204
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/11/2014 5:51:03 PM	R19204
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/11/2014 5:51:03 PM	R19204
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/11/2014 5:51:03 PM	R19204
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/11/2014 5:51:03 PM	R19204
1,1-Dichloroethane	ND	1.0		µg/L	1	6/11/2014 5:51:03 PM	R19204
1,1-Dichloroethene	ND	1.0		µg/L	1	6/11/2014 5:51:03 PM	R19204

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1406362

Date Reported: 7/10/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TB #1

Project: 2014 2nd Quarter

Collection Date:

Lab ID: 1406362-004

Matrix: TRIP BLANK

Received Date: 6/6/2014 3:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: KJH			
1,2-Dichloropropane	ND	1.0		µg/L	1	6/11/2014 5:51:03 PM	R19204
1,3-Dichloropropane	ND	1.0		µg/L	1	6/11/2014 5:51:03 PM	R19204
2,2-Dichloropropane	ND	2.0		µg/L	1	6/11/2014 5:51:03 PM	R19204
1,1-Dichloropropene	ND	1.0		µg/L	1	6/11/2014 5:51:03 PM	R19204
Hexachlorobutadiene	ND	1.0		µg/L	1	6/11/2014 5:51:03 PM	R19204
2-Hexanone	ND	10		µg/L	1	6/11/2014 5:51:03 PM	R19204
Isopropylbenzene	ND	1.0		µg/L	1	6/11/2014 5:51:03 PM	R19204
4-Isopropyltoluene	ND	1.0		µg/L	1	6/11/2014 5:51:03 PM	R19204
4-Methyl-2-pentanone	ND	10		µg/L	1	6/11/2014 5:51:03 PM	R19204
Methylene Chloride	ND	3.0		µg/L	1	6/11/2014 5:51:03 PM	R19204
n-Butylbenzene	ND	3.0		µg/L	1	6/11/2014 5:51:03 PM	R19204
n-Propylbenzene	ND	1.0		µg/L	1	6/11/2014 5:51:03 PM	R19204
sec-Butylbenzene	ND	1.0		µg/L	1	6/11/2014 5:51:03 PM	R19204
Styrene	ND	1.0		µg/L	1	6/11/2014 5:51:03 PM	R19204
tert-Butylbenzene	ND	1.0		µg/L	1	6/11/2014 5:51:03 PM	R19204
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/11/2014 5:51:03 PM	R19204
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/11/2014 5:51:03 PM	R19204
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/11/2014 5:51:03 PM	R19204
trans-1,2-DCE	ND	1.0		µg/L	1	6/11/2014 5:51:03 PM	R19204
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/11/2014 5:51:03 PM	R19204
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/11/2014 5:51:03 PM	R19204
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/11/2014 5:51:03 PM	R19204
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/11/2014 5:51:03 PM	R19204
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/11/2014 5:51:03 PM	R19204
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/11/2014 5:51:03 PM	R19204
Trichlorofluoromethane	ND	1.0		µg/L	1	6/11/2014 5:51:03 PM	R19204
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/11/2014 5:51:03 PM	R19204
Vinyl chloride	ND	1.0		µg/L	1	6/11/2014 5:51:03 PM	R19204
Xylenes, Total	ND	1.5		µg/L	1	6/11/2014 5:51:03 PM	R19204
Surr: 1,2-Dichloroethane-d4	90.5	70-130		%REC	1	6/11/2014 5:51:03 PM	R19204
Surr: 4-Bromofluorobenzene	89.8	70-130		%REC	1	6/11/2014 5:51:03 PM	R19204
Surr: Dibromofluoromethane	103	70-130		%REC	1	6/11/2014 5:51:03 PM	R19204
Surr: Toluene-d8	86.2	70-130		%REC	1	6/11/2014 5:51:03 PM	R19204

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: HALL ENVIRONMENTAL ANALYSIS LAB
Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

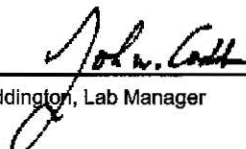
Batch #: 140611023
Project Name: 1406362

Analytical Results Report

Sample Number	140611023-001	Sampling Date	6/5/2014	Date/Time Received	6/10/2014 1:15 PM
Client Sample ID	1406362-002H / OAPIS-1	Sampling Time	10:30 AM		
Matrix	Water				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	0.0753	mg/L	0.01	6/12/2014	CRW	EPA 335.4	

Authorized Signature


John Coddington, Lab Manager

MCL EPA's Maximum Contaminant Level
ND Not Detected
PQL Practical Quantitation Limit

This report shall not be reproduced except in full, without the written approval of the laboratory.
The results reported relate only to the samples indicated.
Soil/solid results are reported on a dry-weight basis unless otherwise noted.

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406362

10-Jul-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R19167	RunNo:	19167					
Prep Date:		Analysis Date:	6/10/2014	SeqNo:	554043	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Manganese	ND	0.0020								
Zinc	ND	0.010								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R19167	RunNo:	19167					
Prep Date:		Analysis Date:	6/10/2014	SeqNo:	554044	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	99.4	85	115			
Cadmium	0.49	0.0020	0.5000	0	98.8	85	115			
Chromium	0.50	0.0060	0.5000	0	99.6	85	115			
Copper	0.49	0.0060	0.5000	0	97.1	85	115			
Manganese	0.50	0.0020	0.5000	0	100	85	115			
Zinc	0.53	0.010	0.5000	0	106	85	115			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R19227	RunNo:	19227					
Prep Date:		Analysis Date:	6/12/2014	SeqNo:	555952	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	ND	0.020								
Silver	ND	0.0050								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R19227	RunNo:	19227					
Prep Date:		Analysis Date:	6/12/2014	SeqNo:	555953	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.52	0.020	0.5000	0	104	85	115			
Silver	0.099	0.0050	0.1000	0	98.8	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406362

10-Jul-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	1406362-001FMS		SampType: MS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	GWM-1		Batch ID: 13717		RunNo: 19331					
Prep Date:	6/16/2014		Analysis Date: 6/17/2014		SeqNo: 558722		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.53	0.0020	0.5000	0	105	70	130			
Chromium	0.49	0.0060	0.5000	0.003110	97.2	70	130			
Copper	0.52	0.0060	0.5000	0	104	70	130			
Potassium	64	1.0	50.00	7.281	113	70	130			

Sample ID	1406362-001FMSD		SampType: MSD		TestCode: EPA Method 200.7: Total Metals					
Client ID:	GWM-1		Batch ID: 13717		RunNo: 19331					
Prep Date:	6/16/2014		Analysis Date: 6/17/2014		SeqNo: 558723		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.51	0.0020	0.5000	0	103	70	130	2.74	20	
Chromium	0.47	0.0060	0.5000	0.003110	94.3	70	130	2.99	20	
Copper	0.51	0.0060	0.5000	0	102	70	130	2.10	20	
Potassium	63	1.0	50.00	7.281	111	70	130	1.41	20	

Sample ID	MB-13717	SampType: MBLK			TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW	Batch ID: 13717			RunNo: 19331					
Prep Date:	6/16/2014	Analysis Date: 6/17/2014			SeqNo: 558754		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID	LCS-13717			SampType:	LCS		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	LCSW			Batch ID:	13717		RunNo:	19331			
Prep Date:	6/16/2014			Analysis Date:	6/17/2014		SeqNo:	558755		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Barium	0.50	0.0020	0.5000	0	99.6	85	115				
Cadmium	0.49	0.0020	0.5000	0	98.4	85	115				
Calcium	51	1.0	50.00	0	101	85	115				
Chromium	0.49	0.0060	0.5000	0	97.5	85	115				

Qualifiers:

- | | |
|---|--|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits | ND Not Detected at the Reporting Limit |
| O RSD is greater than RSDlimit | P Sample pH greater than 2. |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S Spike Recovery outside accepted recovery limits | |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406362

10-Jul-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	LCS-13717		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 13717		RunNo: 19331					
Prep Date:	6/16/2014		Analysis Date: 6/17/2014		SeqNo: 558755		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.49	0.0060	0.5000	0	97.9	85	115			
Magnesium	51	1.0	50.00	0	101	85	115			
Manganese	0.51	0.0020	0.5000	0	101	85	115			
Silver	0.098	0.0050	0.1000	0	98.0	85	115			
Sodium	50	1.0	50.00	0	99.8	85	115			
Zinc	0.51	0.010	0.5000	0	103	85	115			

Sample ID	MB-13717		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 13717		RunNo: 19331					
Prep Date:	6/16/2014		Analysis Date: 6/17/2014		SeqNo: 558756		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Potassium	ND	1.0								

Sample ID	LCS-13717		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 13717		RunNo: 19331					
Prep Date:	6/16/2014		Analysis Date: 6/17/2014		SeqNo: 558757		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Potassium	50	1.0	50.00	0	99.7	85	115			

Sample ID	1406362-001FMS		SampType: MS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	GWM-1		Batch ID: 13717		RunNo: 19357					
Prep Date:	6/16/2014		Analysis Date: 6/18/2014		SeqNo: 559758		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.51	0.010	0.5000	0.02140	97.5	70	130			

Sample ID	1406362-001FMSD		SampType: MSD		TestCode: EPA Method 200.7: Total Metals					
Client ID:	GWM-1		Batch ID: 13717		RunNo: 19357					
Prep Date:	6/16/2014		Analysis Date: 6/18/2014		SeqNo: 559759		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.50	0.010	0.5000	0.02140	95.4	70	130	2.13	20	

Sample ID	1406362-001FMS		SampType: MS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	GWM-1		Batch ID: 13717		RunNo: 19357					
Prep Date:	6/16/2014		Analysis Date: 6/18/2014		SeqNo: 559761		Units: mg/L			
Analyte	Result	POL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

- | | |
|---|--|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits | ND Not Detected at the Reporting Limit |
| O RSD is greater than RSDlimit | P Sample pH greater than 2. |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S Spike Recovery outside accepted recovery limits | |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406362

10-Jul-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	1406362-001FMS		SampType:	MS		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	GWM-1		Batch ID:	13717		RunNo:	19357			
Prep Date:	6/16/2014		Analysis Date:	6/18/2014		SeqNo:	559761		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	1.1	0.010	0.5000	0.5388	105	70	130			
Calcium	310	5.0	50.00	263.5	98.4	70	130			
Magnesium	110	5.0	50.00	60.59	93.1	70	130			
Manganese	3.0	0.010	0.5000	2.489	94.4	70	130			

Sample ID	1406362-001FMSD		SampType:	MSD		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	GWM-1		Batch ID:	13717		RunNo:	19357			
Prep Date:	6/16/2014		Analysis Date:	6/18/2014		SeqNo:	559762		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	1.0	0.010	0.5000	0.5388	99.7	70	130	2.52	20	
Calcium	300	5.0	50.00	263.5	80.8	70	130	2.85	20	
Magnesium	100	5.0	50.00	60.59	87.6	70	130	2.59	20	
Manganese	2.9	0.010	0.5000	2.489	82.5	70	130	2.04	20	

Sample ID	MB-13717		SampType:	MBLK		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	PBW		Batch ID:	13717		RunNo:	19357			
Prep Date:	6/16/2014		Analysis Date:	6/18/2014		SeqNo:	559813		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.021	0.020								

Sample ID	LCS-13717		SampType:	LCS		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	LCSW		Batch ID:	13717		RunNo:	19357			
Prep Date:	6/16/2014		Analysis Date:	6/18/2014		SeqNo:	559814		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.53	0.020	0.5000	0	107	85	115			B

Sample ID	1406362-001FMS		SampType:	MS		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	GWM-1		Batch ID:	13717		RunNo:	19365			
Prep Date:	6/16/2014		Analysis Date:	6/18/2014		SeqNo:	560142		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.11	0.0050	0.1000	0	109	70	130			

Qualifiers:

- | | |
|---|--|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits | ND Not Detected at the Reporting Limit |
| O RSD is greater than RSDlimit | P Sample pH greater than 2. |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S Spike Recovery outside accepted recovery limits | |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406362

10-Jul-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	1406362-001FMSD	SampType:	MSD	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	GWM-1	Batch ID:	13717	RunNo:	19365					
Prep Date:	6/16/2014	Analysis Date:	6/18/2014	SeqNo:	560143	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.11	0.0050	0.1000	0	106	70	130	2.78	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406362

10-Jul-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	1406362-001GMS			SampType:	MS		TestCode:	EPA 200.8: Dissolved Metals			
Client ID:	GWM-1			Batch ID:	R19364		RunNo:	19364			
Prep Date:				Analysis Date:	6/18/2014		SeqNo:	560064		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.25	0.0050	0.1250	0.1336	91.1	70	130				
Lead	0.12	0.0050	0.1250	0.004431	96.0	70	130				
Selenium	0.13	0.0050	0.1250	0.01846	85.8	70	130				

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R19364		RunNo: 19364					
Prep Date:			Analysis Date: 6/18/2014		SeqNo: 560092		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	96.5	85	115			
Lead	0.024	0.0010	0.02500	0	94.8	85	115			
Selenium	0.024	0.0010	0.02500	0	97.6	85	115			

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R19364		RunNo: 19364					
Prep Date:			Analysis Date: 6/18/2014		SeqNo: 560093		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.022	0.0010	0.02500	0	89.7	85	115			
Lead	0.023	0.0010	0.02500	0	93.9	85	115			

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R19364			RunNo: 19364					
Prep Date:		Analysis Date: 6/18/2014			SeqNo: 560094		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R19364			RunNo: 19364					
Prep Date:		Analysis Date: 6/18/2014			SeqNo: 560095		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406362

10-Jul-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	1406362-001GMS		SampType: MS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	GWM-1		Batch ID: R19391		RunNo: 19391					
Prep Date:			Analysis Date: 6/19/2014		SeqNo: 561027		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.14	0.0050	0.1250	0.01063	104	70	130			

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R19391		RunNo: 19391					
Prep Date:			Analysis Date: 6/19/2014		SeqNo: 561037		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.024	0.0010	0.02500	0	96.0	85	115			

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R19391			RunNo: 19391					
Prep Date:		Analysis Date: 6/19/2014			SeqNo: 561038		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0010								

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R19751		RunNo: 19751					
Prep Date:			Analysis Date: 7/8/2014		SeqNo: 573741		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.023	0.0010	0.02500	0	93.7	85	115			
Selenium	0.021	0.0010	0.02500	0	85.2	85	115			
Uranium	0.026	0.0010	0.02500	0	103	85	115			

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R19751			RunNo: 19751					
Prep Date:		Analysis Date: 7/8/2014			SeqNo: 573742		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406362

10-Jul-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	1406362-002FMSLL		SampType:	MSLL		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	OAPIS-1		Batch ID:	13717		RunNo:	19343			
Prep Date:	6/16/2014		Analysis Date:	6/17/2014		SeqNo:	559177		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.041	0.0050	0.02500	0.01573	100	70	130			
Lead	0.050	0.0050	0.02500	0.02910	81.7	70	130			
Selenium	0.057	0.0050	0.02500	0.03513	87.4	70	130			
Uranium	0.061	0.0050	0.02500	0.03434	107	70	130			

Sample ID	LL LCS-13717		SampType:	LCSLL		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	BatchQC		Batch ID:	13717		RunNo:	19343			
Prep Date:	6/16/2014		Analysis Date:	6/17/2014		SeqNo:	559197		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	101	85	115			
Lead	0.025	0.0010	0.02500	0	98.4	85	115			
Selenium	0.025	0.0010	0.02500	0	100	85	115			
Uranium	0.023	0.0010	0.02500	0	93.0	85	115			

Sample ID	MB-13717		SampType:	MBLK		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	PBW		Batch ID:	13717		RunNo:	19343			
Prep Date:	6/16/2014		Analysis Date:	6/17/2014		SeqNo:	559199		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406362

10-Jul-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	MB-13722	SampType:	MBLK	TestCode:	EPA Method 245.1: Mercury					
Client ID:	PBW	Batch ID:	13722	RunNo:	19315					
Prep Date:	6/16/2014	Analysis Date:	6/17/2014	SeqNo:	558343	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-13722	SampType:	LCS	TestCode:	EPA Method 245.1: Mercury					
Client ID:	LCSW	Batch ID:	13722	RunNo:	19315					
Prep Date:	6/16/2014	Analysis Date:	6/17/2014	SeqNo:	558344	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	0	98.8	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406362

10-Jul-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R19165	RunNo:	19165					
Prep Date:		Analysis Date:	6/9/2014	SeqNo:	553915	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R19165	RunNo:	19165					
Prep Date:		Analysis Date:	6/9/2014	SeqNo:	553916	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.49	0.10	0.5000	0	97.4	90	110			
Bromide	2.4	0.10	2.500	0	96.2	90	110			
Phosphorus, Orthophosphate (As P	4.7	0.50	5.000	0	94.9	90	110			
Sulfate	9.4	0.50	10.00	0	93.5	90	110			
Nitrate+Nitrite as N	3.3	0.20	3.500	0	95.7	90	110			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R19191	RunNo:	19191					
Prep Date:		Analysis Date:	6/10/2014	SeqNo:	554760	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R19191	RunNo:	19191					
Prep Date:		Analysis Date:	6/10/2014	SeqNo:	554761	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.6	0.50	5.000	0	91.7	90	110			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R19500	RunNo:	19500					
Prep Date:		Analysis Date:	6/24/2014	SeqNo:	564242	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406362

10-Jul-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	LCS	SampType: LCS			TestCode: EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID: R19500			RunNo: 19500					
Prep Date:		Analysis Date: 6/24/2014			SeqNo: 564243		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.5	0.20	3.500	0	100	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406362

10-Jul-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	MB-13583		SampType: MBLK		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	PBW		Batch ID: 13583		RunNo: 19152					
Prep Date:	6/9/2014		Analysis Date: 6/11/2014		SeqNo: 554465		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.0		1.000		103	62.7	145			

Sample ID	LCS-13583		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	LCSW		Batch ID: 13583		RunNo: 19152					
Prep Date:	6/9/2014		Analysis Date: 6/11/2014		SeqNo: 554466		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.9	1.0	5.000	0	97.4	78.6	146			
Surr: DNOP	0.46		0.5000		91.3	62.7	145			

Sample ID	LCSD-13583		SampType: LCSD		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	LCSS02		Batch ID: 13583		RunNo: 19152					
Prep Date:	6/9/2014		Analysis Date: 6/11/2014		SeqNo: 554468		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.4	1.0	5.000	0	89.0	78.6	146	9.06	26.5	
Surr: DNOP	0.44		0.5000		88.0	62.7	145	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406362

10-Jul-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBW	Batch ID:	R19229	RunNo:	19229					
Prep Date:		Analysis Date:	6/12/2014	SeqNo:	556148	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	19		20.00		94.8	70.9	130			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSW	Batch ID:	R19229	RunNo:	19229					
Prep Date:		Analysis Date:	6/12/2014	SeqNo:	556149	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.47	0.050	0.5000	0	93.6	80	120			
Surr: BFB	21		20.00		105	70.9	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406362

10-Jul-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	5mL-rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R19204			RunNo: 19204					
Prep Date:		Analysis Date: 6/11/2014			SeqNo: 555320		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406362

10-Jul-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	5mL-rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R19204			RunNo: 19204					
Prep Date:		Analysis Date: 6/11/2014			SeqNo: 555320		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.3		10.00		92.7	70	130			
Surr: 4-Bromofluorobenzene	9.2		10.00		91.8	70	130			
Surr: Dibromofluoromethane	10		10.00		102	70	130			
Surr: Toluene-d8	8.8		10.00		87.8	70	130			

Sample ID	100ng lcsb	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R19204			RunNo: 19204					
Prep Date:		Analysis Date: 6/11/2014			SeqNo: 555350		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	107	70	130			
Toluene	20	1.0	20.00	0	102	80	120			
Chlorobenzene	21	1.0	20.00	0	105	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406362

10-Jul-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID 100ng lcsb	SampType: LCS				TestCode: EPA Method 8260B: VOLATILES					
Client ID: LCSW	Batch ID: R19204				RunNo: 19204					
Prep Date:	Analysis Date: 6/11/2014				SeqNo: 555350	Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	21	1.0	20.00	0	104	82.6	131			
Trichloroethene (TCE)	20	1.0	20.00	0	102	70	130			
Surr: 1,2-Dichloroethane-d4	9.1		10.00		90.7	70	130			
Surr: 4-Bromofluorobenzene	9.1		10.00		91.1	70	130			
Surr: Dibromofluoromethane	10		10.00		100	70	130			
Surr: Toluene-d8	8.8		10.00		88.3	70	130			

Sample ID 1406362-003a ms	SampType: MS				TestCode: EPA Method 8260B: VOLATILES					
Client ID: FB-GROUP2-6/5/14	Batch ID: R19204				RunNo: 19204					
Prep Date:	Analysis Date: 6/11/2014				SeqNo: 555356	Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	106	70	130			
Toluene	19	1.0	20.00	0	93.1	67.5	123			
Chlorobenzene	19	1.0	20.00	0	97.2	70	130			
1,1-Dichloroethene	21	1.0	20.00	0	103	81.9	134			
Trichloroethene (TCE)	23	1.0	20.00	0	114	70	130			
Surr: 1,2-Dichloroethane-d4	9.0		10.00		89.6	70	130			
Surr: 4-Bromofluorobenzene	9.1		10.00		90.9	70	130			
Surr: Dibromofluoromethane	11		10.00		106	70	130			
Surr: Toluene-d8	8.7		10.00		86.6	70	130			

Sample ID 1406362-003a msd	SampType: MSD				TestCode: EPA Method 8260B: VOLATILES					
Client ID: FB-GROUP2-6/5/14	Batch ID: R19204				RunNo: 19204					
Prep Date:	Analysis Date: 6/11/2014				SeqNo: 555357	Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	102	70	130	3.62	20	
Toluene	19	1.0	20.00	0	97.0	67.5	123	4.04	20	
Chlorobenzene	20	1.0	20.00	0	101	70	130	4.02	20	
1,1-Dichloroethene	20	1.0	20.00	0	101	81.9	134	1.88	20	
Trichloroethene (TCE)	22	1.0	20.00	0	110	70	130	4.30	20	
Surr: 1,2-Dichloroethane-d4	9.1		10.00		90.9	70	130	0	0	
Surr: 4-Bromofluorobenzene	9.3		10.00		93.4	70	130	0	0	
Surr: Dibromofluoromethane	10		10.00		101	70	130	0	0	
Surr: Toluene-d8	8.8		10.00		88.0	70	130	0	0	

Qualifiers:

- | | |
|---|--|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits | ND Not Detected at the Reporting Limit |
| O RSD is greater than RSDlimit | P Sample pH greater than 2. |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S Spike Recovery outside accepted recovery limits | |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406362

10-Jul-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	mb-13597		SampType: MBLK		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	PBW		Batch ID: 13597		RunNo: 19174					
Prep Date:	6/10/2014		Analysis Date: 6/10/2014		SeqNo: 554254		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406362

10-Jul-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	mb-13597		SampType: MBLK			TestCode: EPA Method 8270C: Semivolatiles				
Client ID:	PBW		Batch ID: 13597			RunNo: 19174				
Prep Date:	6/10/2014		Analysis Date: 6/10/2014			SeqNo: 554254	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	20								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	130		200.0		62.8	12.1	85.8			
Surr: Phenol-d5	110		200.0		54.1	17.7	65.8			
Surr: 2,4,6-Tribromophenol	180		200.0		88.5	26	138			
Surr: Nitrobenzene-d5	98		100.0		98.1	47.5	119			
Surr: 2-Fluorobiphenyl	97		100.0		96.7	48.1	106			
Surr: 4-Terphenyl-d14	96		100.0		96.2	44	113			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406362

10-Jul-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	lcs-13597		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 13597		RunNo: 19174					
Prep Date:	6/10/2014		Analysis Date: 6/10/2014		SeqNo: 554255		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	74	10	100.0	0	74.1	50.3	109			
4-Chloro-3-methylphenol	140	10	200.0	0	67.6	51.2	113			
2-Chlorophenol	120	10	200.0	0	57.6	48.5	104			
1,4-Dichlorobenzene	69	10	100.0	0	68.8	39.5	106			
2,4-Dinitrotoluene	69	10	100.0	0	68.7	45.4	107			
N-Nitrosodi-n-propylamine	77	10	100.0	0	77.1	50.4	119			
4-Nitrophenol	70	10	200.0	0	35.1	15.5	62.2			
Pentachlorophenol	71	20	200.0	0	35.5	23.5	93.5			
Phenol	97	10	200.0	0	48.7	26.8	65.6			
Pyrene	81	10	100.0	0	81.4	54.4	108			
1,2,4-Trichlorobenzene	67	10	100.0	0	66.7	39.9	106			
Surr: 2-Fluorophenol	88		200.0		43.8	12.1	85.8			
Surr: Phenol-d5	110		200.0		53.2	17.7	65.8			
Surr: 2,4,6-Tribromophenol	93		200.0		46.5	26	138			
Surr: Nitrobenzene-d5	75		100.0		74.8	47.5	119			
Surr: 2-Fluorobiphenyl	72		100.0		72.0	48.1	106			
Surr: 4-Terphenyl-d14	75		100.0		75.4	44	113			

Sample ID	lcsd-13597		SampType: LCSD		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02		Batch ID: 13597		RunNo: 19174					
Prep Date:	6/10/2014		Analysis Date: 6/10/2014		SeqNo: 554256		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	67	10	100.0	0	66.7	50.3	109	10.4	27.2	
4-Chloro-3-methylphenol	140	10	200.0	0	68.5	51.2	113	1.34	25.9	
2-Chlorophenol	100	10	200.0	0	51.9	48.5	104	10.5	22.5	
1,4-Dichlorobenzene	60	10	100.0	0	60.2	39.5	106	13.3	24.6	
2,4-Dinitrotoluene	65	10	100.0	0	65.2	45.4	107	5.17	25.3	
N-Nitrosodi-n-propylamine	65	10	100.0	0	64.6	50.4	119	17.6	23.6	
4-Nitrophenol	73	10	200.0	0	36.3	15.5	62.2	3.33	34.7	
Pentachlorophenol	66	20	200.0	0	33.1	23.5	93.5	7.12	32.8	
Phenol	93	10	200.0	0	46.3	26.8	65.6	5.03	25.5	
Pyrene	91	10	100.0	0	91.4	54.4	108	11.6	31.4	
1,2,4-Trichlorobenzene	58	10	100.0	0	58.0	39.9	106	13.9	25.9	
Surr: 2-Fluorophenol	84		200.0		41.9	12.1	85.8	0	0	
Surr: Phenol-d5	99		200.0		49.7	17.7	65.8	0	0	
Surr: 2,4,6-Tribromophenol	82		200.0		40.8	26	138	0	0	
Surr: Nitrobenzene-d5	66		100.0		65.8	47.5	119	0	0	
Surr: 2-Fluorobiphenyl	64		100.0		63.7	48.1	106	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1406362

10-Jul-14

Client: Western Refining Southwest, Gallup

Project: 2014 2nd Quarter

Sample ID	lcsd-13597	SampType:	LCSD	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02	Batch ID:	13597	RunNo:	19174					
Prep Date:	6/10/2014	Analysis Date:	6/10/2014	SeqNo:	554256	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14	74		100.0		73.9	44	113	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

Chain-of-Custody Record

Client: Western Refining Company

GALLUP REFINERY

Mailing Address:

92 Giant Crossing Road, Gallup, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-863-0930

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation:

☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:

☒ Standard ☐ Rush

Project Name:

2014 2nd Quarter

Project #:

GWM / OAPIS

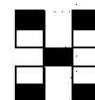
Project Manager:

C. JOHNSON (cheryl.johnson@wnr.com)

Sampler:

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.0



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.	8260+MTBE	8015B extended	8270 + Phenols	WQCC Metals - Total	WQCC Metals - Dissolved (Filtered)	Major Cations/Anions	Cyanide	Air Bubbles (Y or N)
6/5/14	1112	H2O	GWM-1			1406362 -001	X	X	X	X	X	X		
		H2O	GWM-2				X	X	X	X	X	X		
		H2O	GWM-3				X	X	X	X	X	X		
6/5/14	1030	H2O	OAPIS-1			-002	X	X	X	X	X	X	X	
6/5/14	1220	H2O	FB-GROUP 2-6/5/14			-003	X	X	X	X	X	X	X	
		H2O	FB #1			-004	X	X	X	X	X	X	X	
		H2O	FB #2				X	X	X	X	X	X	X	
		H2O	FB #3				X	X	X	X	X	X	X	
		H2O	FB #4				X	X	X	X	X	X	X	
		H2O	FB #5				X	X	X	X	X	X	X	
		H2O	FB #6				X	X	X	X	X	X	X	

Date: 6/6/14 Time: 1550 Relinquished by: Pax Landers Received by: Mike Cp Date: 06/06/14 Time: 1550

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

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.



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

December 04, 2014

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: Q4 2014

OrderNo.: 1411472

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 6 sample(s) on 11/12/2014 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411472

Date Reported: 12/4/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: KA-3

Project: Q4 2014

Collection Date: 11/11/2014 1:13:00 PM

Lab ID: 1411472-001

Matrix: AQUEOUS

Received Date: 11/12/2014 4:12:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	11/14/2014 11:23:14 PM	16356
Surr: DNOP	93.7	59-141		%REC	1	11/14/2014 11:23:14 PM	16356
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	11/13/2014 12:52:31 PM	R22533
Surr: BFB	87.5	80-120		%REC	1	11/13/2014 12:52:31 PM	R22533
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	13	2.5		µg/L	1	11/13/2014 12:52:31 PM	R22533
Benzene	ND	1.0		µg/L	1	11/13/2014 12:52:31 PM	R22533
Toluene	ND	1.0		µg/L	1	11/13/2014 12:52:31 PM	R22533
Ethylbenzene	ND	1.0		µg/L	1	11/13/2014 12:52:31 PM	R22533
Xylenes, Total	ND	2.0		µg/L	1	11/13/2014 12:52:31 PM	R22533
Surr: 4-Bromofluorobenzene	103	66.6-167		%REC	1	11/13/2014 12:52:31 PM	R22533
EPA METHOD 300.0: ANIONS							Analyst: LGP
Fluoride	1.1	0.10		mg/L	1	11/13/2014 8:39:49 PM	R22539
Chloride	160	10		mg/L	20	11/13/2014 8:52:14 PM	R22539
Bromide	1.2	0.10		mg/L	1	11/13/2014 8:39:49 PM	R22539
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	11/13/2014 8:39:49 PM	R22539
Sulfate	54	10		mg/L	20	11/13/2014 8:52:14 PM	R22539
Nitrate+Nitrite as N	ND	1.0		mg/L	5	11/24/2014 9:24:11 PM	R22782
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Calcium	67	1.0		mg/L	1	11/16/2014 8:34:55 PM	R22599
Magnesium	11	1.0		mg/L	1	11/16/2014 8:34:55 PM	R22599
Potassium	ND	1.0		mg/L	1	11/16/2014 8:34:55 PM	R22599
Sodium	310	5.0		mg/L	5	11/16/2014 8:36:43 PM	R22599
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377
Acenaphthylene	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377
Aniline	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377
Anthracene	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377
Azobenzene	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377
Benz(a)anthracene	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377
Benzo(a)pyrene	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377
Benzo(b)fluoranthene	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377
Benzo(k)fluoranthene	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377
Benzoic acid	ND	20		µg/L	1	11/17/2014 6:53:35 PM	16377
Benzyl alcohol	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411472

Date Reported: 12/4/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: KA-3

Project: Q4 2014

Collection Date: 11/11/2014 1:13:00 PM

Lab ID: 1411472-001

Matrix: AQUEOUS

Received Date: 11/12/2014 4:12:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377
Butyl benzyl phthalate	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377
Carbazole	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377
4-Chloroaniline	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377
2-Chloronaphthalene	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377
2-Chlorophenol	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377
Chrysene	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377
Di-n-butyl phthalate	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377
Di-n-octyl phthalate	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377
Dibenzofuran	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377
1,2-Dichlorobenzene	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377
1,3-Dichlorobenzene	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377
1,4-Dichlorobenzene	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377
Diethyl phthalate	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377
Dimethyl phthalate	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377
2,4-Dichlorophenol	ND	20		µg/L	1	11/17/2014 6:53:35 PM	16377
2,4-Dimethylphenol	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/17/2014 6:53:35 PM	16377
2,4-Dinitrophenol	ND	20		µg/L	1	11/17/2014 6:53:35 PM	16377
2,4-Dinitrotoluene	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377
2,6-Dinitrotoluene	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377
Fluoranthene	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377
Fluorene	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377
Hexachlorobenzene	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377
Hexachlorobutadiene	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377
Hexachloroethane	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377
Isophorone	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377
1-Methylnaphthalene	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377
2-Methylnaphthalene	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 2 of 36
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411472

Date Reported: 12/4/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: KA-3

Project: Q4 2014

Collection Date: 11/11/2014 1:13:00 PM

Lab ID: 1411472-001

Matrix: AQUEOUS

Received Date: 11/12/2014 4:12:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
2-Methylphenol	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377
3+4-Methylphenol	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377
N-Nitrosodimethylamine	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377
Naphthalene	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377
2-Nitroaniline	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377
3-Nitroaniline	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377
4-Nitroaniline	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377
Nitrobenzene	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377
2-Nitrophenol	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377
4-Nitrophenol	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377
Pentachlorophenol	ND	20		µg/L	1	11/17/2014 6:53:35 PM	16377
Phenanthrene	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377
Phenol	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377
Pyrene	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377
Pyridine	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/17/2014 6:53:35 PM	16377
Surr: 2-Fluorophenol	52.1	17.6-104		%REC	1	11/17/2014 6:53:35 PM	16377
Surr: Phenol-d5	43.0	17.7-89.9		%REC	1	11/17/2014 6:53:35 PM	16377
Surr: 2,4,6-Tribromophenol	74.5	16.3-122		%REC	1	11/17/2014 6:53:35 PM	16377
Surr: Nitrobenzene-d5	72.6	45.3-117		%REC	1	11/17/2014 6:53:35 PM	16377
Surr: 2-Fluorobiphenyl	71.8	43-113		%REC	1	11/17/2014 6:53:35 PM	16377
Surr: 4-Terphenyl-d14	80.9	47.6-122		%REC	1	11/17/2014 6:53:35 PM	16377

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 3 of 36
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411472

Date Reported: 12/4/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-2

Project: Q4 2014

Collection Date: 11/11/2014 1:50:00 PM

Lab ID: 1411472-002

Matrix: AQUEOUS

Received Date: 11/12/2014 4:12:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: JME
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	11/18/2014 10:14:16 PM	16415
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/18/2014 10:14:16 PM	16415
Surr: DNOP	100	59-141		%REC	1	11/18/2014 10:14:16 PM	16415
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	0.60	0.050		mg/L	1	11/13/2014 2:14:02 PM	R22533
Surr: BFB	134	80-120	S	%REC	1	11/13/2014 2:14:02 PM	R22533
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	340	25		µg/L	10	11/17/2014 11:16:19 AM	R22597
Benzene	16	1.0		µg/L	1	11/13/2014 2:14:02 PM	R22533
Toluene	ND	1.0		µg/L	1	11/13/2014 2:14:02 PM	R22533
Ethylbenzene	5.2	1.0		µg/L	1	11/13/2014 2:14:02 PM	R22533
Xylenes, Total	ND	2.0		µg/L	1	11/13/2014 2:14:02 PM	R22533
Surr: 4-Bromofluorobenzene	125	66.6-167		%REC	1	11/13/2014 2:14:02 PM	R22533
EPA METHOD 300.0: ANIONS							Analyst: LGP
Fluoride	1.6	0.50		mg/L	5	11/13/2014 9:29:28 PM	R22539
Chloride	330	10		mg/L	20	11/13/2014 9:41:52 PM	R22539
Bromide	1.4	0.50		mg/L	5	11/13/2014 9:29:28 PM	R22539
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	11/13/2014 9:29:28 PM	R22539
Sulfate	11	2.5		mg/L	5	11/13/2014 9:29:28 PM	R22539
Nitrate+Nitrite as N	ND	1.0		mg/L	5	11/24/2014 9:36:36 PM	R22782
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.27	0.0020		mg/L	1	11/16/2014 8:38:34 PM	R22599
Cadmium	ND	0.0020		mg/L	1	11/16/2014 8:38:34 PM	R22599
Calcium	99	1.0		mg/L	1	11/16/2014 8:38:34 PM	R22599
Chromium	ND	0.0060		mg/L	1	11/16/2014 8:38:34 PM	R22599
Copper	ND	0.0060		mg/L	1	11/16/2014 8:38:34 PM	R22599
Iron	1.8	0.10	*	mg/L	5	11/16/2014 8:40:09 PM	R22599
Magnesium	18	1.0		mg/L	1	11/16/2014 8:38:34 PM	R22599
Manganese	1.3	0.010	*	mg/L	5	11/16/2014 8:40:09 PM	R22599
Potassium	ND	1.0		mg/L	1	11/16/2014 8:38:34 PM	R22599
Silver	ND	0.0050		mg/L	1	11/16/2014 8:38:34 PM	R22599
Sodium	410	5.0		mg/L	5	11/16/2014 8:40:09 PM	R22599
Zinc	0.019	0.010		mg/L	1	11/16/2014 8:38:34 PM	R22599
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	1.7	0.010		mg/L	5	11/18/2014 3:39:52 PM	16416
Cadmium	ND	0.0020		mg/L	1	11/18/2014 3:38:14 PM	16416
Chromium	ND	0.0060		mg/L	1	11/18/2014 3:38:14 PM	16416

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411472

Date Reported: 12/4/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-2

Project: Q4 2014

Collection Date: 11/11/2014 1:50:00 PM

Lab ID: 1411472-002

Matrix: AQUEOUS

Received Date: 11/12/2014 4:12:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Copper	ND	0.0060		mg/L	1	11/18/2014 3:38:14 PM	16416
Iron	2.9	0.10	*	mg/L	5	11/18/2014 3:39:52 PM	16416
Manganese	1.4	0.010	*	mg/L	5	11/18/2014 3:39:52 PM	16416
Silver	ND	0.0050		mg/L	1	11/18/2014 3:38:14 PM	16416
Zinc	0.013	0.010		mg/L	1	11/20/2014 4:01:14 PM	16416
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0076	0.0050		mg/L	5	11/25/2014 1:05:21 PM	R22788
Lead	ND	0.0010		mg/L	1	11/24/2014 5:32:42 PM	R22774
Selenium	0.0062	0.0050		mg/L	5	11/25/2014 1:05:21 PM	R22788
Uranium	ND	0.0010		mg/L	1	11/24/2014 5:32:42 PM	R22774
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	11/26/2014 6:03:22 PM	16416
Lead	ND	0.0010		mg/L	1	11/18/2014 2:38:32 PM	16416
Selenium	ND	0.010		mg/L	10	11/26/2014 6:03:22 PM	16416
Uranium	ND	0.0010		mg/L	1	11/18/2014 2:38:32 PM	16416
EPA METHOD 245.1: MERCURY							Analyst: MMD
Mercury	ND	0.00020		mg/L	1	11/21/2014 3:08:01 PM	16511
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377
Acenaphthylene	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377
Aniline	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377
Anthracene	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377
Azobenzene	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377
Benz(a)anthracene	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377
Benzo(a)pyrene	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377
Benzo(b)fluoranthene	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377
Benzo(g,h,i)perylene	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377
Benzo(k)fluoranthene	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377
Benzoic acid	ND	100		µg/L	1	11/17/2014 7:20:48 PM	16377
Benzyl alcohol	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377
Bis(2-chloroethyl)ether	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377
4-Bromophenyl phenyl ether	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377
Butyl benzyl phthalate	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377
Carbazole	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 5 of 36
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411472

Date Reported: 12/4/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-2

Project: Q4 2014

Collection Date: 11/11/2014 1:50:00 PM

Lab ID: 1411472-002

Matrix: AQUEOUS

Received Date: 11/12/2014 4:12:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
4-Chloro-3-methylphenol	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377
4-Chloroaniline	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377
2-Chloronaphthalene	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377
2-Chlorophenol	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377
Chrysene	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377
Di-n-butyl phthalate	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377
Di-n-octyl phthalate	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377
Dibenz(a,h)anthracene	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377
Dibenzofuran	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377
1,2-Dichlorobenzene	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377
1,3-Dichlorobenzene	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377
1,4-Dichlorobenzene	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377
3,3'-Dichlorobenzidine	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377
Diethyl phthalate	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377
Dimethyl phthalate	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377
2,4-Dichlorophenol	ND	100		µg/L	1	11/17/2014 7:20:48 PM	16377
2,4-Dimethylphenol	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	11/17/2014 7:20:48 PM	16377
2,4-Dinitrophenol	ND	100		µg/L	1	11/17/2014 7:20:48 PM	16377
2,4-Dinitrotoluene	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377
2,6-Dinitrotoluene	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377
Fluoranthene	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377
Fluorene	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377
Hexachlorobenzene	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377
Hexachlorobutadiene	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377
Hexachlorocyclopentadiene	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377
Hexachloroethane	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377
Isophorone	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377
1-Methylnaphthalene	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377
2-Methylnaphthalene	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377
2-Methylphenol	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377
3+4-Methylphenol	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377
N-Nitrosodimethylamine	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377
N-Nitrosodiphenylamine	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377
Naphthalene	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377
2-Nitroaniline	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 6 of 36
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411472

Date Reported: 12/4/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-2

Project: Q4 2014

Collection Date: 11/11/2014 1:50:00 PM

Lab ID: 1411472-002

Matrix: AQUEOUS

Received Date: 11/12/2014 4:12:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
3-Nitroaniline	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377
4-Nitroaniline	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377
Nitrobenzene	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377
2-Nitrophenol	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377
4-Nitrophenol	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377
Pentachlorophenol	ND	100		µg/L	1	11/17/2014 7:20:48 PM	16377
Phenanthrene	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377
Phenol	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377
Pyrene	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377
Pyridine	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377
1,2,4-Trichlorobenzene	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377
2,4,5-Trichlorophenol	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377
2,4,6-Trichlorophenol	ND	50		µg/L	1	11/17/2014 7:20:48 PM	16377
Surr: 2-Fluorophenol	48.2	17.6-104		%REC	1	11/17/2014 7:20:48 PM	16377
Surr: Phenol-d5	39.7	17.7-89.9		%REC	1	11/17/2014 7:20:48 PM	16377
Surr: 2,4,6-Tribromophenol	73.0	16.3-122		%REC	1	11/17/2014 7:20:48 PM	16377
Surr: Nitrobenzene-d5	63.7	45.3-117		%REC	1	11/17/2014 7:20:48 PM	16377
Surr: 2-Fluorobiphenyl	61.9	43-113		%REC	1	11/17/2014 7:20:48 PM	16377
Surr: 4-Terphenyl-d14	72.3	47.6-122		%REC	1	11/17/2014 7:20:48 PM	16377

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 7 of 36
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411472

Date Reported: 12/4/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-1

Project: Q4 2014

Collection Date: 11/11/2014 3:10:00 PM

Lab ID: 1411472-003

Matrix: AQUEOUS

Received Date: 11/12/2014 4:12:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	11/15/2014 12:06:01 AM	16356
Surr: DNOP	109	59-141		%REC	1	11/15/2014 12:06:01 AM	16356
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	11/13/2014 4:02:41 PM	R22533
Surr: BFB	88.8	80-120		%REC	1	11/13/2014 4:02:41 PM	R22533
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	11/13/2014 4:02:41 PM	R22533
Benzene	ND	1.0		µg/L	1	11/13/2014 4:02:41 PM	R22533
Toluene	ND	1.0		µg/L	1	11/13/2014 4:02:41 PM	R22533
Ethylbenzene	ND	1.0		µg/L	1	11/13/2014 4:02:41 PM	R22533
Xylenes, Total	ND	2.0		µg/L	1	11/13/2014 4:02:41 PM	R22533
Surr: 4-Bromofluorobenzene	105	66.6-167		%REC	1	11/13/2014 4:02:41 PM	R22533
EPA METHOD 300.0: ANIONS							Analyst: LGP
Fluoride	0.69	0.10		mg/L	1	11/13/2014 9:54:17 PM	R22539
Chloride	110	10		mg/L	20	11/13/2014 10:06:42 PM	R22539
Bromide	1.5	0.10		mg/L	1	11/13/2014 9:54:17 PM	R22539
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	11/13/2014 9:54:17 PM	R22539
Sulfate	130	10		mg/L	20	11/13/2014 10:06:42 PM	R22539
Nitrate+Nitrite as N	5.1	1.0		mg/L	5	11/24/2014 9:49:01 PM	R22782
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.12	0.0020		mg/L	1	11/16/2014 8:41:58 PM	R22599
Cadmium	ND	0.0020		mg/L	1	11/16/2014 8:41:58 PM	R22599
Calcium	93	1.0		mg/L	1	11/16/2014 8:41:58 PM	R22599
Chromium	ND	0.0060		mg/L	1	11/16/2014 8:41:58 PM	R22599
Copper	ND	0.0060		mg/L	1	11/16/2014 8:41:58 PM	R22599
Iron	ND	0.020		mg/L	1	11/16/2014 8:41:58 PM	R22599
Magnesium	16	1.0		mg/L	1	11/16/2014 8:41:58 PM	R22599
Manganese	0.065	0.0020	*	mg/L	1	11/16/2014 8:41:58 PM	R22599
Potassium	ND	1.0		mg/L	1	11/16/2014 8:41:58 PM	R22599
Silver	ND	0.0050		mg/L	1	11/16/2014 8:41:58 PM	R22599
Sodium	320	5.0		mg/L	5	11/16/2014 8:43:50 PM	R22599
Zinc	0.050	0.010		mg/L	1	11/16/2014 8:41:58 PM	R22599
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.13	0.0020		mg/L	1	11/18/2014 3:41:46 PM	16416
Cadmium	ND	0.0020		mg/L	1	11/18/2014 3:41:46 PM	16416
Chromium	ND	0.0060		mg/L	1	11/18/2014 3:41:46 PM	16416
Copper	ND	0.0060		mg/L	1	11/18/2014 3:41:46 PM	16416

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411472

Date Reported: 12/4/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-1

Project: Q4 2014

Collection Date: 11/11/2014 3:10:00 PM

Lab ID: 1411472-003

Matrix: AQUEOUS

Received Date: 11/12/2014 4:12:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Iron	0.79	0.020	*	mg/L	1	11/18/2014 3:41:46 PM	16416
Manganese	0.24	0.0020	*	mg/L	1	11/18/2014 3:41:46 PM	16416
Silver	ND	0.0050		mg/L	1	11/18/2014 3:41:46 PM	16416
Zinc	0.010	0.010		mg/L	1	11/20/2014 4:02:52 PM	16416
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	11/25/2014 1:42:42 PM	R22788
Lead	ND	0.0010		mg/L	1	11/24/2014 5:35:48 PM	R22774
Selenium	ND	0.010		mg/L	10	11/25/2014 1:42:42 PM	R22788
Uranium	0.012	0.0010		mg/L	1	11/24/2014 5:35:48 PM	R22774
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	11/26/2014 6:06:51 PM	16416
Lead	0.0010	0.0010		mg/L	1	11/18/2014 2:42:01 PM	16416
Selenium	ND	0.010		mg/L	10	11/26/2014 6:06:51 PM	16416
Uranium	0.022	0.0010		mg/L	1	11/18/2014 2:42:01 PM	16416
EPA METHOD 245.1: MERCURY							Analyst: MMD
Mercury	ND	0.00020		mg/L	1	11/21/2014 3:09:47 PM	16511
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377
Acenaphthylene	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377
Aniline	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377
Anthracene	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377
Azobenzene	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377
Benz(a)anthracene	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377
Benzo(a)pyrene	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377
Benzo(b)fluoranthene	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377
Benzo(k)fluoranthene	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377
Benzoic acid	ND	20		µg/L	1	11/17/2014 7:48:03 PM	16377
Benzyl alcohol	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377
Butyl benzyl phthalate	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377
Carbazole	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 9 of 36
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411472

Date Reported: 12/4/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-1

Project: Q4 2014

Collection Date: 11/11/2014 3:10:00 PM

Lab ID: 1411472-003

Matrix: AQUEOUS

Received Date: 11/12/2014 4:12:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
4-Chloroaniline	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377
2-Chloronaphthalene	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377
2-Chlorophenol	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377
Chrysene	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377
Di-n-butyl phthalate	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377
Di-n-octyl phthalate	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377
Dibenzofuran	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377
1,2-Dichlorobenzene	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377
1,3-Dichlorobenzene	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377
1,4-Dichlorobenzene	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377
Diethyl phthalate	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377
Dimethyl phthalate	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377
2,4-Dichlorophenol	ND	20		µg/L	1	11/17/2014 7:48:03 PM	16377
2,4-Dimethylphenol	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/17/2014 7:48:03 PM	16377
2,4-Dinitrophenol	ND	20		µg/L	1	11/17/2014 7:48:03 PM	16377
2,4-Dinitrotoluene	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377
2,6-Dinitrotoluene	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377
Fluoranthene	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377
Fluorene	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377
Hexachlorobenzene	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377
Hexachlorobutadiene	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377
Hexachloroethane	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377
Isophorone	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377
1-Methylnaphthalene	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377
2-Methylnaphthalene	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377
2-Methylphenol	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377
3+4-Methylphenol	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377
N-Nitrosodimethylamine	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377
Naphthalene	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377
2-Nitroaniline	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377
3-Nitroaniline	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411472

Date Reported: 12/4/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: NAPIS-1

Project: Q4 2014

Collection Date: 11/11/2014 3:10:00 PM

Lab ID: 1411472-003

Matrix: AQUEOUS

Received Date: 11/12/2014 4:12:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: DAM	
4-Nitroaniline	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377
Nitrobenzene	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377
2-Nitrophenol	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377
4-Nitrophenol	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377
Pentachlorophenol	ND	20		µg/L	1	11/17/2014 7:48:03 PM	16377
Phenanthrene	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377
Phenol	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377
Pyrene	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377
Pyridine	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/17/2014 7:48:03 PM	16377
Surr: 2-Fluorophenol	59.1	17.6-104		%REC	1	11/17/2014 7:48:03 PM	16377
Surr: Phenol-d5	48.6	17.7-89.9		%REC	1	11/17/2014 7:48:03 PM	16377
Surr: 2,4,6-Tribromophenol	78.9	16.3-122		%REC	1	11/17/2014 7:48:03 PM	16377
Surr: Nitrobenzene-d5	79.6	45.3-117		%REC	1	11/17/2014 7:48:03 PM	16377
Surr: 2-Fluorobiphenyl	74.0	43-113		%REC	1	11/17/2014 7:48:03 PM	16377
Surr: 4-Terphenyl-d14	81.3	47.6-122		%REC	1	11/17/2014 7:48:03 PM	16377

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411472

Date Reported: 12/4/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BD-111114

Project: Q4 2014

Collection Date: 11/11/2014

Lab ID: 1411472-004

Matrix: AQUEOUS

Received Date: 11/12/2014 4:12:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
Acenaphthylene	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
Aniline	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
Anthracene	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
Azobenzene	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
Benz(a)anthracene	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
Benzo(a)pyrene	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
Benzo(b)fluoranthene	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
Benzo(g,h,i)perylene	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
Benzo(k)fluoranthene	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
Benzoic acid	ND	100		µg/L	1	11/17/2014 8:15:22 PM	16377
Benzyl alcohol	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
Bis(2-chloroethyl)ether	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
4-Bromophenyl phenyl ether	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
Butyl benzyl phthalate	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
Carbazole	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
4-Chloro-3-methylphenol	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
4-Chloroaniline	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
2-Chloronaphthalene	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
2-Chlorophenol	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
Chrysene	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
Di-n-butyl phthalate	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
Di-n-octyl phthalate	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
Dibenz(a,h)anthracene	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
Dibenzofuran	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
1,2-Dichlorobenzene	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
1,3-Dichlorobenzene	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
1,4-Dichlorobenzene	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
3,3'-Dichlorobenzidine	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
Diethyl phthalate	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
Dimethyl phthalate	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
2,4-Dichlorophenol	ND	100		µg/L	1	11/17/2014 8:15:22 PM	16377
2,4-Dimethylphenol	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	11/17/2014 8:15:22 PM	16377
2,4-Dinitrophenol	ND	100		µg/L	1	11/17/2014 8:15:22 PM	16377

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411472

Date Reported: 12/4/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BD-111114

Project: Q4 2014

Collection Date: 11/11/2014

Lab ID: 1411472-004

Matrix: AQUEOUS

Received Date: 11/12/2014 4:12:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
2,4-Dinitrotoluene	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
2,6-Dinitrotoluene	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
Fluoranthene	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
Fluorene	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
Hexachlorobenzene	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
Hexachlorobutadiene	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
Hexachlorocyclopentadiene	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
Hexachloroethane	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
Isophorone	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
1-Methylnaphthalene	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
2-Methylnaphthalene	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
2-Methylphenol	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
3+4-Methylphenol	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
N-Nitrosodimethylamine	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
N-Nitrosodiphenylamine	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
Naphthalene	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
2-Nitroaniline	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
3-Nitroaniline	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
4-Nitroaniline	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
Nitrobenzene	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
2-Nitrophenol	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
4-Nitrophenol	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
Pentachlorophenol	ND	100		µg/L	1	11/17/2014 8:15:22 PM	16377
Phenanthrene	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
Phenol	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
Pyrene	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
Pyridine	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
1,2,4-Trichlorobenzene	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
2,4,5-Trichlorophenol	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
2,4,6-Trichlorophenol	ND	50		µg/L	1	11/17/2014 8:15:22 PM	16377
Surr: 2-Fluorophenol	59.2	17.6-104		%REC	1	11/17/2014 8:15:22 PM	16377
Surr: Phenol-d5	44.9	17.7-89.9		%REC	1	11/17/2014 8:15:22 PM	16377
Surr: 2,4,6-Tribromophenol	81.0	16.3-122		%REC	1	11/17/2014 8:15:22 PM	16377
Surr: Nitrobenzene-d5	77.8	45.3-117		%REC	1	11/17/2014 8:15:22 PM	16377
Surr: 2-Fluorobiphenyl	73.1	43-113		%REC	1	11/17/2014 8:15:22 PM	16377
Surr: 4-Terphenyl-d14	81.0	47.6-122		%REC	1	11/17/2014 8:15:22 PM	16377

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411472

Date Reported: 12/4/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TB-101

Project: Q4 2014

Collection Date: 11/11/2014

Lab ID: 1411472-005

Matrix: TRIP BLANK

Received Date: 11/12/2014 4:12:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	11/13/2014 4:29:48 PM	R22533
Benzene	ND	1.0		µg/L	1	11/13/2014 4:29:48 PM	R22533
Toluene	ND	1.0		µg/L	1	11/13/2014 4:29:48 PM	R22533
Ethylbenzene	ND	1.0		µg/L	1	11/13/2014 4:29:48 PM	R22533
Xylenes, Total	ND	2.0		µg/L	1	11/13/2014 4:29:48 PM	R22533
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/13/2014 4:29:48 PM	R22533
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/13/2014 4:29:48 PM	R22533
Surr: 4-Bromofluorobenzene	104	66.6-167		%REC	1	11/13/2014 4:29:48 PM	R22533

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 14 of 36
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411472

Date Reported: 12/4/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FB-111114

Project: Q4 2014

Collection Date: 11/11/2014 1:00:00 PM

Lab ID: 1411472-006

Matrix: AQUEOUS

Received Date: 11/12/2014 4:12:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
Benzene	ND	1.0		µg/L	1	11/13/2014 5:18:19 PM	R22531
Toluene	ND	1.0		µg/L	1	11/13/2014 5:18:19 PM	R22531
Ethylbenzene	ND	1.0		µg/L	1	11/13/2014 5:18:19 PM	R22531
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	11/13/2014 5:18:19 PM	R22531
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/13/2014 5:18:19 PM	R22531
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/13/2014 5:18:19 PM	R22531
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/13/2014 5:18:19 PM	R22531
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/13/2014 5:18:19 PM	R22531
Naphthalene	ND	2.0		µg/L	1	11/13/2014 5:18:19 PM	R22531
1-Methylnaphthalene	ND	4.0		µg/L	1	11/13/2014 5:18:19 PM	R22531
2-Methylnaphthalene	ND	4.0		µg/L	1	11/13/2014 5:18:19 PM	R22531
Acetone	ND	10		µg/L	1	11/13/2014 5:18:19 PM	R22531
Bromobenzene	ND	1.0		µg/L	1	11/13/2014 5:18:19 PM	R22531
Bromodichloromethane	ND	1.0		µg/L	1	11/13/2014 5:18:19 PM	R22531
Bromoform	ND	1.0		µg/L	1	11/13/2014 5:18:19 PM	R22531
Bromomethane	ND	3.0		µg/L	1	11/13/2014 5:18:19 PM	R22531
2-Butanone	ND	10		µg/L	1	11/13/2014 5:18:19 PM	R22531
Carbon disulfide	ND	10		µg/L	1	11/13/2014 5:18:19 PM	R22531
Carbon Tetrachloride	ND	1.0		µg/L	1	11/13/2014 5:18:19 PM	R22531
Chlorobenzene	ND	1.0		µg/L	1	11/13/2014 5:18:19 PM	R22531
Chloroethane	ND	2.0		µg/L	1	11/13/2014 5:18:19 PM	R22531
Chloroform	ND	1.0		µg/L	1	11/13/2014 5:18:19 PM	R22531
Chloromethane	ND	3.0		µg/L	1	11/13/2014 5:18:19 PM	R22531
2-Chlorotoluene	ND	1.0		µg/L	1	11/13/2014 5:18:19 PM	R22531
4-Chlorotoluene	ND	1.0		µg/L	1	11/13/2014 5:18:19 PM	R22531
cis-1,2-DCE	ND	1.0		µg/L	1	11/13/2014 5:18:19 PM	R22531
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/13/2014 5:18:19 PM	R22531
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/13/2014 5:18:19 PM	R22531
Dibromochloromethane	ND	1.0		µg/L	1	11/13/2014 5:18:19 PM	R22531
Dibromomethane	ND	1.0		µg/L	1	11/13/2014 5:18:19 PM	R22531
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/13/2014 5:18:19 PM	R22531
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/13/2014 5:18:19 PM	R22531
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/13/2014 5:18:19 PM	R22531
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/13/2014 5:18:19 PM	R22531
1,1-Dichloroethane	ND	1.0		µg/L	1	11/13/2014 5:18:19 PM	R22531
1,1-Dichloroethene	ND	1.0		µg/L	1	11/13/2014 5:18:19 PM	R22531
1,2-Dichloropropane	ND	1.0		µg/L	1	11/13/2014 5:18:19 PM	R22531
1,3-Dichloropropane	ND	1.0		µg/L	1	11/13/2014 5:18:19 PM	R22531
2,2-Dichloropropane	ND	2.0		µg/L	1	11/13/2014 5:18:19 PM	R22531

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411472

Date Reported: 12/4/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FB-111114

Project: Q4 2014

Collection Date: 11/11/2014 1:00:00 PM

Lab ID: 1411472-006

Matrix: AQUEOUS

Received Date: 11/12/2014 4:12:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: DJF
1,1-Dichloropropene	ND	1.0		µg/L	1	11/13/2014 5:18:19 PM	R22531
Hexachlorobutadiene	ND	1.0		µg/L	1	11/13/2014 5:18:19 PM	R22531
2-Hexanone	ND	10		µg/L	1	11/13/2014 5:18:19 PM	R22531
Isopropylbenzene	ND	1.0		µg/L	1	11/13/2014 5:18:19 PM	R22531
4-Isopropyltoluene	ND	1.0		µg/L	1	11/13/2014 5:18:19 PM	R22531
4-Methyl-2-pentanone	ND	10		µg/L	1	11/13/2014 5:18:19 PM	R22531
Methylene Chloride	ND	3.0		µg/L	1	11/13/2014 5:18:19 PM	R22531
n-Butylbenzene	ND	3.0		µg/L	1	11/13/2014 5:18:19 PM	R22531
n-Propylbenzene	ND	1.0		µg/L	1	11/13/2014 5:18:19 PM	R22531
sec-Butylbenzene	ND	1.0		µg/L	1	11/13/2014 5:18:19 PM	R22531
Styrene	ND	1.0		µg/L	1	11/13/2014 5:18:19 PM	R22531
tert-Butylbenzene	ND	1.0		µg/L	1	11/13/2014 5:18:19 PM	R22531
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/13/2014 5:18:19 PM	R22531
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/13/2014 5:18:19 PM	R22531
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/13/2014 5:18:19 PM	R22531
trans-1,2-DCE	ND	1.0		µg/L	1	11/13/2014 5:18:19 PM	R22531
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/13/2014 5:18:19 PM	R22531
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/13/2014 5:18:19 PM	R22531
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/13/2014 5:18:19 PM	R22531
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/13/2014 5:18:19 PM	R22531
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/13/2014 5:18:19 PM	R22531
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/13/2014 5:18:19 PM	R22531
Trichlorofluoromethane	ND	1.0		µg/L	1	11/13/2014 5:18:19 PM	R22531
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/13/2014 5:18:19 PM	R22531
Vinyl chloride	ND	1.0		µg/L	1	11/13/2014 5:18:19 PM	R22531
Xylenes, Total	ND	1.5		µg/L	1	11/13/2014 5:18:19 PM	R22531
Surr: 1,2-Dichloroethane-d4	84.7	70-130		%REC	1	11/13/2014 5:18:19 PM	R22531
Surr: 4-Bromofluorobenzene	78.2	70-130		%REC	1	11/13/2014 5:18:19 PM	R22531
Surr: Dibromofluoromethane	92.4	70-130		%REC	1	11/13/2014 5:18:19 PM	R22531
Surr: Toluene-d8	89.1	70-130		%REC	1	11/13/2014 5:18:19 PM	R22531

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411472

04-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID: R22599			RunNo: 22599					
Prep Date:		Analysis Date: 11/16/2014			SeqNo: 666147		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID: R22599			RunNo: 22599					
Prep Date:		Analysis Date: 11/16/2014			SeqNo: 666149		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: R22599		RunNo: 22599					
Prep Date:			Analysis Date: 11/16/2014		SeqNo: 666151		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	99.2	85	115			
Cadmium	0.50	0.0020	0.5000	0	99.5	85	115			
Calcium	45	1.0	50.00	0	90.8	85	115			
Chromium	0.48	0.0060	0.5000	0	96.9	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411472

04-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	LCS		SampType: LCS			TestCode: EPA Method 200.7: Dissolved Metals				
Client ID:	LCSW		Batch ID: R22599			RunNo: 22599				
Prep Date:	Analysis Date: 11/16/2014			SeqNo: 666151		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.49	0.0060	0.5000	0	98.1	85	115			
Iron	0.48	0.020	0.5000	0	95.4	85	115			
Magnesium	45	1.0	50.00	0	89.1	85	115			
Manganese	0.47	0.0020	0.5000	0	94.7	85	115			
Potassium	43	1.0	50.00	0	86.4	85	115			
Silver	0.11	0.0050	0.1000	0	105	85	115			
Sodium	44	1.0	50.00	0	87.9	85	115			
Zinc	0.50	0.010	0.5000	0	99.2	85	115			

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: R22599		RunNo: 22599					
Prep Date:			Analysis Date: 11/16/2014		SeqNo: 666152		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.55	0.0020	0.5000	0	109	85	115			
Cadmium	0.55	0.0020	0.5000	0	110	85	115			
Calcium	56	1.0	50.00	0	113	85	115			
Chromium	0.54	0.0060	0.5000	0	108	85	115			
Copper	0.55	0.0060	0.5000	0	109	85	115			
Iron	0.53	0.020	0.5000	0	107	85	115			
Magnesium	56	1.0	50.00	0	112	85	115			
Manganese	0.52	0.0020	0.5000	0	104	85	115			
Potassium	54	1.0	50.00	0	109	85	115			
Silver	0.12	0.0050	0.1000	0	117	85	115			S
Sodium	55	1.0	50.00	0	111	85	115			
Zinc	0.54	0.010	0.5000	0	109	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411472

04-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	MB-16416		SampType: MBLK		TestCode: EPA Method 200.7: Total Metals					
Client ID:	PBW		Batch ID: 16416		RunNo: 22614					
Prep Date:	11/17/2014		Analysis Date: 11/18/2014		SeqNo: 666852		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	LCS-16416		SampType: LCS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	LCSW		Batch ID: 16416		RunNo: 22614					
Prep Date:	11/17/2014		Analysis Date: 11/18/2014		SeqNo: 666853		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.51	0.0020	0.5000	0	101	85	115			
Cadmium	0.51	0.0020	0.5000	0	102	85	115			
Chromium	0.50	0.0060	0.5000	0	100	85	115			
Copper	0.51	0.0060	0.5000	0	101	85	115			
Iron	0.50	0.020	0.5000	0	101	85	115			
Manganese	0.49	0.0020	0.5000	0	98.1	85	115			
Silver	0.11	0.0050	0.1000	0	111	85	115			
Zinc	0.50	0.010	0.5000	0	101	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411472

04-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R22774		RunNo: 22774					
Prep Date:			Analysis Date: 11/24/2014		SeqNo: 672122		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.024	0.0010	0.02500	0	94.4	85	115			
Uranium	0.024	0.0010	0.02500	0	95.2	85	115			

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R22774		RunNo: 22774					
Prep Date:			Analysis Date: 11/24/2014		SeqNo: 672123		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.024	0.0010	0.02500	0	97.3	85	115			
Uranium	0.024	0.0010	0.02500	0	94.8	85	115			

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R22774			RunNo: 22774					
Prep Date:		Analysis Date: 11/24/2014			SeqNo: 672124		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.0010								
Uranium	ND	0.0010								

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R22774			RunNo: 22774					
Prep Date:		Analysis Date: 11/24/2014			SeqNo: 672125		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.0010								
Uranium	ND	0.0010								

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R22788		RunNo: 22788					
Prep Date:			Analysis Date: 11/25/2014		SeqNo: 672517		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	97.1	85	115			
Selenium	0.024	0.0010	0.02500	0	96.5	85	115			

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R22788			RunNo: 22788					
Prep Date:		Analysis Date: 11/25/2014			SeqNo: 672518		Units: mg/L			
Analyte	Result	POL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411472

04-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals						
Client ID:	PBW	Batch ID: R22788			RunNo: 22788						
Prep Date:		Analysis Date: 11/25/2014			SeqNo: 672518		Units: mg/L				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic		ND	0.0010								
Selenium		ND	0.0010								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411472

04-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	LLLCS-16416		SampType: LCSLL		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	BatchQC		Batch ID: 16416		RunNo: 22609					
Prep Date:	11/17/2014		Analysis Date: 11/18/2014		SeqNo: 666765		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	98.5	85	115			
Lead	0.026	0.0010	0.02500	0	106	85	115			
Selenium	0.024	0.0010	0.02500	0	96.6	85	115			
Uranium	0.026	0.0010	0.02500	0	106	85	115			

Sample ID	MB-16416		SampType: MBLK		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	PBW		Batch ID: 16416		RunNo: 22609					
Prep Date:	11/17/2014		Analysis Date: 11/18/2014		SeqNo: 666767		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411472

04-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	MB-16511		SampType: MBLK		TestCode: EPA Method 245.1: Mercury					
Client ID:	PBW		Batch ID: 16511		RunNo: 22710					
Prep Date:	11/21/2014		Analysis Date: 11/21/2014		SeqNo: 669836		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercurv	ND	0.00020								

Sample ID	LCS-16511		SampType: LCS		TestCode: EPA Method 245.1: Mercury					
Client ID:	LCSW		Batch ID: 16511		RunNo: 22710					
Prep Date:	11/21/2014		Analysis Date: 11/21/2014		SeqNo: 669837		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0051	0.00020	0.005000	0	102	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411472

04-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R22539	RunNo:	22539					
Prep Date:		Analysis Date:	11/13/2014	SeqNo:	664550	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R22539	RunNo:	22539					
Prep Date:		Analysis Date:	11/13/2014	SeqNo:	664551	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.50	0.10	0.5000	0	100	90	110			
Chloride	4.8	0.50	5.000	0	96.6	90	110			
Bromide	2.4	0.10	2.500	0	94.9	90	110			
Phosphorus, Orthophosphate (As P	4.8	0.50	5.000	0	96.8	90	110			
Sulfate	10	0.50	10.00	0	99.5	90	110			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R22539	RunNo:	22539					
Prep Date:		Analysis Date:	11/14/2014	SeqNo:	664604	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R22539	RunNo:	22539					
Prep Date:		Analysis Date:	11/14/2014	SeqNo:	664605	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.50	0.10	0.5000	0	100	90	110			
Chloride	4.7	0.50	5.000	0	93.3	90	110			
Bromide	2.3	0.10	2.500	0	92.2	90	110			
Phosphorus, Orthophosphate (As P	4.7	0.50	5.000	0	94.9	90	110			
Sulfate	9.5	0.50	10.00	0	95.4	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411472

04-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R22782	RunNo:	22782					
Prep Date:		Analysis Date:	11/24/2014	SeqNo:	672326	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R22782	RunNo:	22782					
Prep Date:		Analysis Date:	11/24/2014	SeqNo:	672327	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.3	0.20	3.500	0	94.6	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411472

04-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	MB-16356		SampType: MBLK		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	PBW		Batch ID: 16356		RunNo: 22538					
Prep Date:	11/12/2014		Analysis Date: 11/14/2014		SeqNo: 665412		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.2		1.000		122	59	141			

Sample ID	LCS-16356		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	LCSW		Batch ID: 16356		RunNo: 22538					
Prep Date:	11/12/2014		Analysis Date: 11/14/2014		SeqNo: 665425		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	6.0	1.0	5.000	0	121	69.7	142			
Surr: DNOP	0.73		0.5000		145	59	141			S

Sample ID	MB-16415		SampType: MBLK		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	PBW		Batch ID: 16415		RunNo: 22594					
Prep Date:	11/17/2014		Analysis Date: 11/18/2014		SeqNo: 666747		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.0		1.000		101	59	141			

Sample ID	LCS-16415		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	LCSW		Batch ID: 16415		RunNo: 22594					
Prep Date:	11/17/2014		Analysis Date: 11/18/2014		SeqNo: 666748		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.7	1.0	5.000	0	93.6	69.7	142			
Surr: DNOP	0.60		0.5000		119	59	141			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411472

04-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID 5ML RB	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBW	Batch ID: R22533		RunNo: 22533							
Prep Date:	Analysis Date: 11/13/2014		SeqNo: 664414		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	17		20.00		86.0	80	120			

Sample ID 2.5UG GRO LCS	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSW	Batch ID: R22533		RunNo: 22533							
Prep Date:	Analysis Date: 11/13/2014		SeqNo: 664415		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.48	0.050	0.5000	0	95.0	80	120			
Surr: BFB	19		20.00		93.2	80	120			

Sample ID 1411472-001AMS	SampType: MS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: KA-3	Batch ID: R22533		RunNo: 22533							
Prep Date:	Analysis Date: 11/13/2014		SeqNo: 664428		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.49	0.050	0.5000	0	98.7	70.4	127			
Surr: BFB	20		20.00		98.2	80	120			

Sample ID 1411472-001AMSD	SampType: MSD		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: KA-3	Batch ID: R22533		RunNo: 22533							
Prep Date:	Analysis Date: 11/13/2014		SeqNo: 664438		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.48	0.050	0.5000	0	96.7	70.4	127	2.09	20	
Surr: BFB	19		20.00		96.1	80	120	0	0	

Sample ID 5ML RB	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBW	Batch ID: R22597		RunNo: 22597							
Prep Date:	Analysis Date: 11/17/2014		SeqNo: 666073		Units: %REC					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	17		20.00		85.8	80	120			

Sample ID 2.5UG GRO LCS	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSW	Batch ID: R22597		RunNo: 22597							
Prep Date:	Analysis Date: 11/17/2014		SeqNo: 666074		Units: %REC					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	19		20.00		93.0	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411472

04-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBW	Batch ID:	R22533	RunNo:	22533					
Prep Date:		Analysis Date:	11/13/2014	SeqNo:	664457	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	2.5								
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
Surr: 4-Bromofluorobenzene	21		20.00		104	66.6	167			

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSW	Batch ID:	R22533	RunNo:	22533					
Prep Date:		Analysis Date:	11/13/2014	SeqNo:	664458	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	21	2.5	20.00	0	105	67.4	147			
Benzene	21	1.0	20.00	0	105	80	120			
Toluene	21	1.0	20.00	0	106	80	120			
Ethylbenzene	21	1.0	20.00	0	107	80	120			
Xylenes, Total	65	2.0	60.00	0	108	80	120			
1,2,4-Trimethylbenzene	21	1.0	20.00	0	107	80	120			
1,3,5-Trimethylbenzene	22	1.0	20.00	0	108	80	120			
Surr: 4-Bromofluorobenzene	21		20.00		103	66.6	167			

Sample ID	1411472-002AMS	SampType:	MS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	NAPIS-2	Batch ID:	R22533	RunNo:	22533					
Prep Date:		Analysis Date:	11/13/2014	SeqNo:	664461	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	300	2.5	20.00	281.5	117	45.4	143			E
Benzene	34	1.0	20.00	16.30	90.2	80	120			
Toluene	22	1.0	20.00	0.6200	108	80	120			
Ethylbenzene	27	1.0	20.00	5.178	107	79.7	126			
Xylenes, Total	68	2.0	60.00	1.756	110	80	120			
1,2,4-Trimethylbenzene	23	1.0	20.00	1.442	108	80.3	122			
1,3,5-Trimethylbenzene	22	1.0	20.00	0.4160	109	80	120			
Surr: 4-Bromofluorobenzene	25		20.00		126	66.6	167			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411472

04-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	1411472-002AMSD		SampType:	MSD		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	NAPIS-2		Batch ID:	R22533		RunNo:	22533			
Prep Date:			Analysis Date:	11/13/2014		SeqNo:	664462	Units:	µg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	300	2.5	20.00	281.5	101	45.4	143	1.04	20	E
Benzene	33	1.0	20.00	16.30	85.8	80	120	2.62	20	
Toluene	22	1.0	20.00	0.6200	105	80	120	3.17	20	
Ethylbenzene	26	1.0	20.00	5.178	104	79.7	126	1.65	20	
Xylenes, Total	67	2.0	60.00	1.756	108	80	120	1.85	20	
1,2,4-Trimethylbenzene	23	1.0	20.00	1.442	107	80.3	122	1.38	20	
1,3,5-Trimethylbenzene	22	1.0	20.00	0.4160	108	80	120	0.901	20	
Surr: 4-Bromofluorobenzene	25		20.00		125	66.6	167	0	0	

Sample ID	5ML RB		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBW		Batch ID:	R22597		RunNo:	22597			
Prep Date:			Analysis Date:	11/17/2014		SeqNo:	666092	Units:	µg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	2.5								
Surr: 4-Bromofluorobenzene	21		20.00		106	66.6	167			

Sample ID	100NG BTEX LCS		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSW		Batch ID:	R22597		RunNo:	22597			
Prep Date:			Analysis Date:	11/17/2014		SeqNo:	666093	Units:	µg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	21	2.5	20.00	0	105	67.4	147			
Surr: 4-Bromofluorobenzene	21		20.00		105	66.6	167			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411472

04-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	5ml rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R22531			RunNo: 22531					
Prep Date:		Analysis Date: 11/13/2014			SeqNo: 664345		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.

E Value above quantitation range

J Analyte detected below quantitation limits

O RSD is greater than RSDlimit

R RPD outside accepted recovery limits

S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

P Sample pH greater than 2.

RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411472

04-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	5ml rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R22531			RunNo: 22531					
Prep Date:	Analysis Date: 11/13/2014			SeqNo: 664345		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	8.5		10.00		85.1	70	130			
Surr: 4-Bromofluorobenzene	8.7		10.00		86.6	70	130			
Surr: Dibromofluoromethane	9.1		10.00		91.0	70	130			
Surr: Toluene-d8	9.1		10.00		91.4	70	130			

Sample ID	100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R22531			RunNo: 22531					
Prep Date:		Analysis Date: 11/13/2014			SeqNo: 664347		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	23	1.0	20.00	0	117	70	130			
Toluene	22	1.0	20.00	0	110	80	120			
Chlorobenzene	19	1.0	20.00	0	95.6	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411472

04-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R22531			RunNo: 22531					
Prep Date:		Analysis Date: 11/13/2014			SeqNo: 664347		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	22	1.0	20.00	0	111	82.6	131			
Trichloroethene (TCE)	20	1.0	20.00	0	102	70	130			
Surr: 1,2-Dichloroethane-d4	8.2		10.00		82.0	70	130			
Surr: 4-Bromofluorobenzene	8.1		10.00		80.7	70	130			
Surr: Dibromofluoromethane	9.0		10.00		90.5	70	130			
Surr: Toluene-d8	9.1		10.00		90.7	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411472

04-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	mb-16377		SampType: MBLK		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	PBW		Batch ID: 16377		RunNo: 22600					
Prep Date:	11/13/2014		Analysis Date: 11/17/2014		SeqNo: 666318		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411472

04-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	mb-16377		SampType: MBLK		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	PBW		Batch ID: 16377		RunNo: 22600					
Prep Date:	11/13/2014		Analysis Date: 11/17/2014		SeqNo: 666318	Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	95		200.0		47.6	17.6	104			
Surr: Phenol-d5	96		200.0		48.2	17.7	89.9			
Surr: 2,4,6-Tribromophenol	75		200.0		37.5	16.3	122			
Surr: Nitrobenzene-d5	67		100.0		67.1	45.3	117			
Surr: 2-Fluorobiphenyl	61		100.0		61.2	43	113			
Surr: 4-Terphenyl-d14	73		100.0		72.5	47.6	122			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411472

04-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	lcs-16377		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 16377		RunNo: 22600					
Prep Date:	11/13/2014		Analysis Date: 11/17/2014		SeqNo: 666368		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	66	10	100.0	0	66.2	47.9	114			
4-Chloro-3-methylphenol	160	10	200.0	0	82.4	51.7	122			
2-Chlorophenol	140	10	200.0	0	69.9	40.7	113			
1,4-Dichlorobenzene	44	10	100.0	0	44.3	39.6	99.9			
2,4-Dinitrotoluene	68	10	100.0	0	68.0	40.8	113			
N-Nitrosodi-n-propylamine	74	10	100.0	0	74.3	51.2	111			
4-Nitrophenol	100	10	200.0	0	50.6	15.7	86.9			
Pentachlorophenol	130	20	200.0	0	67.5	21.6	104			
Phenol	90	10	200.0	0	44.8	28.6	71.7			
Pyrene	78	10	100.0	0	77.8	54.2	128			
1,2,4-Trichlorobenzene	50	10	100.0	0	50.0	40.9	101			
Surr: 2-Fluorophenol	94		200.0		47.0	17.6	104			
Surr: Phenol-d5	77		200.0		38.5	17.7	89.9			
Surr: 2,4,6-Tribromophenol	160		200.0		80.7	16.3	122			
Surr: Nitrobenzene-d5	69		100.0		69.3	45.3	117			
Surr: 2-Fluorobiphenyl	65		100.0		64.8	43	113			
Surr: 4-Terphenyl-d14	85		100.0		85.0	47.6	122			

Sample ID	lcsd-16377		SampType: LCSD		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02		Batch ID: 16377		RunNo: 22600					
Prep Date:	11/13/2014		Analysis Date: 11/17/2014		SeqNo: 666369		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	67	10	100.0	0	67.5	47.9	114	1.98	27.2	
4-Chloro-3-methylphenol	160	10	200.0	0	81.4	51.7	122	1.26	25.9	
2-Chlorophenol	140	10	200.0	0	68.2	40.7	113	2.40	22.5	
1,4-Dichlorobenzene	49	10	100.0	0	49.0	39.6	99.9	10.2	24.6	
2,4-Dinitrotoluene	69	10	100.0	0	68.8	40.8	113	1.20	25.3	
N-Nitrosodi-n-propylamine	74	10	100.0	0	74.3	51.2	111	0.0269	23.6	
4-Nitrophenol	130	10	200.0	0	63.4	15.7	86.9	22.5	34.7	
Pentachlorophenol	130	20	200.0	0	67.5	21.6	104	0.0148	32.8	
Phenol	100	10	200.0	0	52.0	28.6	71.7	14.9	25.5	
Pyrene	77	10	100.0	0	77.4	54.2	128	0.567	31.4	
1,2,4-Trichlorobenzene	54	10	100.0	0	53.7	40.9	101	7.13	25.9	
Surr: 2-Fluorophenol	110		200.0		53.4	17.6	104	0	0	
Surr: Phenol-d5	93		200.0		46.6	17.7	89.9	0	0	
Surr: 2,4,6-Tribromophenol	160		200.0		80.9	16.3	122	0	0	
Surr: Nitrobenzene-d5	70		100.0		70.1	45.3	117	0	0	
Surr: 2-Fluorobiphenyl	70		100.0		69.5	43	113	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411472

04-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	lcsd-16377		SampType: LCSD		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02		Batch ID: 16377		RunNo: 22600					
Prep Date:	11/13/2014		Analysis Date: 11/17/2014		SeqNo: 666369		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14	81		100.0		81.3	47.6	122	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1411472

RcptNo: 1

Received by/date:

[Signature] 11/12/14

Logged By:

Ashley Gallegos

11/12/2014 4:12:00 PM

Completed By:

Ashley Gallegos

11/13/2014 8:53:00 AM

Reviewed By:

[Signature]

11/13/14

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☒ No ☐ Not Present ☐
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Courier

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☒ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☒ No ☐
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☒ No ☐

of preserved bottles checked for pH: 7
(≤2 or >12 unless noted)

Adjusted? YES

Checked by: CS

r dissolved metals analysis, added 0.4 ml HNO₃ to -001D, -002D, & -003D for an acceptable pH. Held in login for 24 hours. -CS 11/13/14

plus -001A (5 of 6), -002A (all vials), -003A (4 and 5 of 6) and -005A (all vials) have bubbles. -CS 11/13/14

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☒ No ☐ NA ☐

Person Notified: Cheryl Johnson

Date: 11/13/2014

By Whom: Anne Thorne

Via: ☒ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: E Coli Sample was rejected

Client Instructions: See Section 19.

17. Additional remarks:

E. Coli Sample for -001 was rejected, sample was too dark even after dilution per Stephanie

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: Western Refining Company

GALLUP REFINERY

Mailing Address:

1 Giant Crossing Road, Gallup, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-863-0930

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation:

☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:

☒ Standard ☐ Rush

Project Name:

Q4 2014

Project #:

NAPIS-1, -2, -3, KA-3

Project Manager:

C. JOHNSON (cheryl.johnson@wnr.com)

Sampler:

On Ice: ☒ Yes ☐ No

Sample Temperature: 10



**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.	8021 + MTBE	8015B extended	8270 + phenols	WCCC Metals - Total	WCCC Metals - Dissolved - Filtered	Major Cations/Anions	Air Bubbles (Y or N)
11-11-14	1313	AK	KA-3	9		1411472	X	X	X			X	
11-11-14	1350		NAPIS - 2	11		-002	X	X	X	X	X		
11-11-14	1510		NAPIS - 1	11		-003	X	X	X	X	X		
11-11-14			NAPIS - 3										
11-11-14			BD-111114	1		-004			X				
11-11-14			TB-101	3		-005	X						
11-11-14	1300	✓	FB-111114	3		-006						X	

Date: 11-12-14 Time: 0630 Relinquished by: [Signature] Received by: [Signature] Date: 11-12-14 Time: 1:00

Date: 11-12-14 Time: 1112 Relinquished by: [Signature] Received by: [Signature] Date: 11-12-14 Time: 1012

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 noted on the analytical report.



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

March 21, 2014

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: Q1-2014 Groundwater Sampling

OrderNo.: 1403355

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 4 sample(s) on 3/10/2014 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1403355

Date Reported: 3/21/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: East LDU

Project: Q1-2014 Groundwater Sampling

Collection Date: 3/10/2014 8:50:00 AM

Lab ID: 1403355-001

Matrix: AQUEOUS

Received Date: 3/10/2014 4:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	310	10		mg/L	10	3/12/2014 12:45:06 PM	12114
Motor Oil Range Organics (MRO)	ND	50		mg/L	10	3/12/2014 12:45:06 PM	12114
Surr: DNOP	0	62.7-145	S	%REC	10	3/12/2014 12:45:06 PM	12114
EPA METHOD 8015D: GASOLINE RANGE							Analyst: JMP
Gasoline Range Organics (GRO)	200	10		mg/L	200	3/12/2014 4:21:18 PM	R17271
Surr: BFB	147	80.4-118	S	%REC	200	3/12/2014 4:21:18 PM	R17271
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	500		µg/L	200	3/17/2014 4:11:42 PM	R17360
Benzene	9800	200		µg/L	200	3/12/2014 4:21:18 PM	R17271
Toluene	27000	2000		µg/L	2E	3/17/2014 3:41:40 PM	R17360
Ethylbenzene	3800	200		µg/L	200	3/12/2014 4:21:18 PM	R17271
Xylenes, Total	25000	400		µg/L	200	3/12/2014 4:21:18 PM	R17271
1,2,4-Trimethylbenzene	5800	200		µg/L	200	3/12/2014 4:21:18 PM	R17271
1,3,5-Trimethylbenzene	1900	200		µg/L	200	3/12/2014 4:21:18 PM	R17271
Surr: 4-Bromofluorobenzene	121	82.9-139		%REC	200	3/12/2014 4:21:18 PM	R17271
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.19	0.0020		mg/L	1	3/13/2014 1:58:50 PM	R17289
Cadmium	ND	0.0020		mg/L	1	3/13/2014 1:58:50 PM	R17289
Chromium	0.71	0.0060	*	mg/L	1	3/13/2014 1:58:50 PM	R17289
Copper	ND	0.0060		mg/L	1	3/13/2014 1:58:50 PM	R17289
Iron	2.9	0.10	*	mg/L	5	3/13/2014 2:00:25 PM	R17289
Manganese	3.0	0.010	*	mg/L	5	3/13/2014 2:00:25 PM	R17289
Silver	ND	0.0050		mg/L	1	3/17/2014 2:08:37 PM	R17380
Zinc	0.11	0.010		mg/L	1	3/13/2014 1:58:50 PM	R17289
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.20	0.0020		mg/L	1	3/13/2014 6:31:33 PM	12161
Cadmium	ND	0.0020		mg/L	1	3/13/2014 6:31:33 PM	12161
Chromium	0.71	0.0060	*	mg/L	1	3/13/2014 6:31:33 PM	12161
Copper	ND	0.0060		mg/L	1	3/13/2014 6:31:33 PM	12161
Iron	4.4	0.10	*	mg/L	5	3/13/2014 6:33:13 PM	12161
Manganese	3.1	0.010	*	mg/L	5	3/13/2014 6:33:13 PM	12161
Silver	ND	0.0050		mg/L	1	3/13/2014 6:31:33 PM	12161
Zinc	0.12	0.010		mg/L	1	3/13/2014 6:31:33 PM	12161
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	3/19/2014 2:39:13 PM	R17423
Lead	ND	0.010		mg/L	10	3/18/2014 3:22:49 PM	R17401
Selenium	0.051	0.010	*	mg/L	10	3/19/2014 2:39:13 PM	R17423

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1403355

Date Reported: 3/21/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: East LDU

Project: Q1-2014 Groundwater Sampling

Collection Date: 3/10/2014 8:50:00 AM

Lab ID: 1403355-001

Matrix: AQUEOUS

Received Date: 3/10/2014 4:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Uranium	ND	0.010		mg/L	10	3/18/2014 3:22:49 PM	R17401
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0093	0.0050		mg/L	5	3/14/2014 2:14:24 PM	12161
Lead	ND	0.0050		mg/L	5	3/14/2014 2:14:24 PM	12161
Selenium	ND	0.0050		mg/L	5	3/14/2014 2:14:24 PM	12161
Uranium	ND	0.0050		mg/L	5	3/14/2014 2:14:24 PM	12161
EPA METHOD 245.1: MERCURY							Analyst: JML
Mercury	0.00022	0.00020		mg/L	1	3/12/2014 12:56:47 PM	12133

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 2 of 24
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1403355

Date Reported: 3/21/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: West LDU

Project: Q1-2014 Groundwater Sampling

Collection Date: 3/10/2014 9:10:00 AM

Lab ID: 1403355-002

Matrix: AQUEOUS

Received Date: 3/10/2014 4:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	14	1.0		mg/L	1	3/12/2014 7:48:21 PM	12114
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/12/2014 7:48:21 PM	12114
Surr: DNOP	125	62.7-145		%REC	1	3/12/2014 7:48:21 PM	12114
EPA METHOD 8015D: GASOLINE RANGE							Analyst: JMP
Gasoline Range Organics (GRO)	13	5.0		mg/L	100	3/12/2014 4:51:22 PM	R17271
Surr: BFB	103	80.4-118		%REC	100	3/12/2014 4:51:22 PM	R17271
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	250		µg/L	100	3/18/2014 5:17:07 PM	R17409
Benzene	700	100		µg/L	100	3/12/2014 4:51:22 PM	R17271
Toluene	140	100		µg/L	100	3/12/2014 4:51:22 PM	R17271
Ethylbenzene	170	100		µg/L	100	3/12/2014 4:51:22 PM	R17271
Xylenes, Total	3300	200		µg/L	100	3/12/2014 4:51:22 PM	R17271
1,2,4-Trimethylbenzene	570	100		µg/L	100	3/12/2014 4:51:22 PM	R17271
1,3,5-Trimethylbenzene	190	100		µg/L	100	3/12/2014 4:51:22 PM	R17271
Surr: 4-Bromofluorobenzene	116	82.9-139		%REC	100	3/12/2014 4:51:22 PM	R17271
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS
Barium	0.061	0.0020		mg/L	1	3/13/2014 2:02:19 PM	R17289
Cadmium	ND	0.0020		mg/L	1	3/13/2014 2:02:19 PM	R17289
Chromium	0.11	0.0060	*	mg/L	1	3/13/2014 2:02:19 PM	R17289
Copper	ND	0.0060		mg/L	1	3/13/2014 2:02:19 PM	R17289
Iron	2.6	0.10	*	mg/L	5	3/13/2014 2:10:41 PM	R17289
Manganese	3.6	0.010	*	mg/L	5	3/13/2014 2:10:41 PM	R17289
Silver	ND	0.0050		mg/L	1	3/17/2014 2:10:12 PM	R17380
Zinc	0.088	0.010		mg/L	1	3/13/2014 2:02:19 PM	R17289
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.069	0.0020		mg/L	1	3/13/2014 6:35:14 PM	12161
Cadmium	ND	0.0020		mg/L	1	3/13/2014 6:35:14 PM	12161
Chromium	0.15	0.0060	*	mg/L	1	3/13/2014 6:35:14 PM	12161
Copper	ND	0.0060		mg/L	1	3/13/2014 6:35:14 PM	12161
Iron	9.0	0.20	*	mg/L	10	3/14/2014 2:40:31 PM	12161
Manganese	3.8	0.010	*	mg/L	5	3/13/2014 6:36:54 PM	12161
Silver	ND	0.0050		mg/L	1	3/13/2014 6:35:14 PM	12161
Zinc	0.68	0.010		mg/L	1	3/13/2014 6:35:14 PM	12161
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0010		mg/L	1	3/19/2014 2:41:59 PM	R17423
Lead	ND	0.0010		mg/L	1	3/18/2014 3:27:32 PM	R17401
Selenium	0.0023	0.0010		mg/L	1	3/19/2014 2:41:59 PM	R17423

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1403355

Date Reported: 3/21/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: West LDU

Project: Q1-2014 Groundwater Sampling

Collection Date: 3/10/2014 9:10:00 AM

Lab ID: 1403355-002

Matrix: AQUEOUS

Received Date: 3/10/2014 4:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Uranium	ND	0.0010		mg/L	1	3/18/2014 3:27:32 PM	R17401
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	3/14/2014 2:28:11 PM	12161
Lead	ND	0.0010		mg/L	1	3/14/2014 2:17:51 PM	12161
Selenium	ND	0.0050		mg/L	5	3/14/2014 2:28:11 PM	12161
Uranium	ND	0.0010		mg/L	1	3/14/2014 2:17:51 PM	12161
EPA METHOD 245.1: MERCURY							Analyst: JML
Mercury	ND	0.00020		mg/L	1	3/12/2014 12:58:32 PM	12133

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 4 of 24
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1403355

Date Reported: 3/21/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FB-Group#1-

Project: Q1-2014 Groundwater Sampling

Collection Date: 3/10/2014 8:20:00 AM

Lab ID: 1403355-003

Matrix: AQUEOUS

Received Date: 3/10/2014 4:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: KJH
Benzene	ND	1.0		µg/L	1	3/11/2014 9:47:44 PM	R17242
Toluene	ND	1.0		µg/L	1	3/11/2014 9:47:44 PM	R17242
Ethylbenzene	ND	1.0		µg/L	1	3/11/2014 9:47:44 PM	R17242
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	3/11/2014 9:47:44 PM	R17242
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	3/11/2014 9:47:44 PM	R17242
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	3/11/2014 9:47:44 PM	R17242
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	3/11/2014 9:47:44 PM	R17242
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	3/11/2014 9:47:44 PM	R17242
Naphthalene	ND	2.0		µg/L	1	3/11/2014 9:47:44 PM	R17242
1-Methylnaphthalene	ND	4.0		µg/L	1	3/11/2014 9:47:44 PM	R17242
2-Methylnaphthalene	ND	4.0		µg/L	1	3/11/2014 9:47:44 PM	R17242
Acetone	ND	10		µg/L	1	3/11/2014 9:47:44 PM	R17242
Bromobenzene	ND	1.0		µg/L	1	3/11/2014 9:47:44 PM	R17242
Bromodichloromethane	ND	1.0		µg/L	1	3/11/2014 9:47:44 PM	R17242
Bromoform	ND	1.0		µg/L	1	3/11/2014 9:47:44 PM	R17242
Bromomethane	ND	3.0		µg/L	1	3/11/2014 9:47:44 PM	R17242
2-Butanone	ND	10		µg/L	1	3/11/2014 9:47:44 PM	R17242
Carbon disulfide	ND	10		µg/L	1	3/11/2014 9:47:44 PM	R17242
Carbon Tetrachloride	ND	1.0		µg/L	1	3/11/2014 9:47:44 PM	R17242
Chlorobenzene	ND	1.0		µg/L	1	3/11/2014 9:47:44 PM	R17242
Chloroethane	ND	2.0		µg/L	1	3/11/2014 9:47:44 PM	R17242
Chloroform	ND	1.0		µg/L	1	3/11/2014 9:47:44 PM	R17242
Chloromethane	ND	3.0		µg/L	1	3/11/2014 9:47:44 PM	R17242
2-Chlorotoluene	ND	1.0		µg/L	1	3/11/2014 9:47:44 PM	R17242
4-Chlorotoluene	ND	1.0		µg/L	1	3/11/2014 9:47:44 PM	R17242
cis-1,2-DCE	ND	1.0		µg/L	1	3/11/2014 9:47:44 PM	R17242
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	3/11/2014 9:47:44 PM	R17242
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	3/11/2014 9:47:44 PM	R17242
Dibromochloromethane	ND	1.0		µg/L	1	3/11/2014 9:47:44 PM	R17242
Dibromomethane	ND	1.0		µg/L	1	3/11/2014 9:47:44 PM	R17242
1,2-Dichlorobenzene	ND	1.0		µg/L	1	3/11/2014 9:47:44 PM	R17242
1,3-Dichlorobenzene	ND	1.0		µg/L	1	3/11/2014 9:47:44 PM	R17242
1,4-Dichlorobenzene	ND	1.0		µg/L	1	3/11/2014 9:47:44 PM	R17242
Dichlorodifluoromethane	ND	1.0		µg/L	1	3/11/2014 9:47:44 PM	R17242
1,1-Dichloroethane	ND	1.0		µg/L	1	3/11/2014 9:47:44 PM	R17242
1,1-Dichloroethene	ND	1.0		µg/L	1	3/11/2014 9:47:44 PM	R17242
1,2-Dichloropropane	ND	1.0		µg/L	1	3/11/2014 9:47:44 PM	R17242
1,3-Dichloropropane	ND	1.0		µg/L	1	3/11/2014 9:47:44 PM	R17242
2,2-Dichloropropane	ND	2.0		µg/L	1	3/11/2014 9:47:44 PM	R17242

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1403355

Date Reported: 3/21/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FB-Group#1-

Project: Q1-2014 Groundwater Sampling

Collection Date: 3/10/2014 8:20:00 AM

Lab ID: 1403355-003

Matrix: AQUEOUS

Received Date: 3/10/2014 4:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: KJH
1,1-Dichloropropene	ND	1.0		µg/L	1	3/11/2014 9:47:44 PM	R17242
Hexachlorobutadiene	ND	1.0		µg/L	1	3/11/2014 9:47:44 PM	R17242
2-Hexanone	ND	10		µg/L	1	3/11/2014 9:47:44 PM	R17242
Isopropylbenzene	ND	1.0		µg/L	1	3/11/2014 9:47:44 PM	R17242
4-Isopropyltoluene	ND	1.0		µg/L	1	3/11/2014 9:47:44 PM	R17242
4-Methyl-2-pentanone	ND	10		µg/L	1	3/11/2014 9:47:44 PM	R17242
Methylene Chloride	ND	3.0		µg/L	1	3/11/2014 9:47:44 PM	R17242
n-Butylbenzene	ND	3.0		µg/L	1	3/11/2014 9:47:44 PM	R17242
n-Propylbenzene	ND	1.0		µg/L	1	3/11/2014 9:47:44 PM	R17242
sec-Butylbenzene	ND	1.0		µg/L	1	3/11/2014 9:47:44 PM	R17242
Styrene	ND	1.0		µg/L	1	3/11/2014 9:47:44 PM	R17242
tert-Butylbenzene	ND	1.0		µg/L	1	3/11/2014 9:47:44 PM	R17242
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	3/11/2014 9:47:44 PM	R17242
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	3/11/2014 9:47:44 PM	R17242
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	3/11/2014 9:47:44 PM	R17242
trans-1,2-DCE	ND	1.0		µg/L	1	3/11/2014 9:47:44 PM	R17242
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	3/11/2014 9:47:44 PM	R17242
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	3/11/2014 9:47:44 PM	R17242
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	3/11/2014 9:47:44 PM	R17242
1,1,1-Trichloroethane	ND	1.0		µg/L	1	3/11/2014 9:47:44 PM	R17242
1,1,2-Trichloroethane	ND	1.0		µg/L	1	3/11/2014 9:47:44 PM	R17242
Trichloroethene (TCE)	ND	1.0		µg/L	1	3/11/2014 9:47:44 PM	R17242
Trichlorofluoromethane	ND	1.0		µg/L	1	3/11/2014 9:47:44 PM	R17242
1,2,3-Trichloropropane	ND	2.0		µg/L	1	3/11/2014 9:47:44 PM	R17242
Vinyl chloride	ND	1.0		µg/L	1	3/11/2014 9:47:44 PM	R17242
Xylenes, Total	ND	1.5		µg/L	1	3/11/2014 9:47:44 PM	R17242
Surr: 1,2-Dichloroethane-d4	94.6	70-130		%REC	1	3/11/2014 9:47:44 PM	R17242
Surr: 4-Bromofluorobenzene	97.6	70-130		%REC	1	3/11/2014 9:47:44 PM	R17242
Surr: Dibromofluoromethane	99.1	70-130		%REC	1	3/11/2014 9:47:44 PM	R17242
Surr: Toluene-d8	91.7	70-130		%REC	1	3/11/2014 9:47:44 PM	R17242

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1403355

Date Reported: 3/21/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Trip Blank

Project: Q1-2014 Groundwater Sampling

Collection Date:

Lab ID: 1403355-004

Matrix:

Received Date: 3/10/2014 4:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: KJH
Benzene	ND	1.0		µg/L	1	3/11/2014 10:15:31 PM	R17242
Toluene	ND	1.0		µg/L	1	3/11/2014 10:15:31 PM	R17242
Ethylbenzene	ND	1.0		µg/L	1	3/11/2014 10:15:31 PM	R17242
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	3/11/2014 10:15:31 PM	R17242
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	3/11/2014 10:15:31 PM	R17242
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	3/11/2014 10:15:31 PM	R17242
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	3/11/2014 10:15:31 PM	R17242
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	3/11/2014 10:15:31 PM	R17242
Naphthalene	ND	2.0		µg/L	1	3/11/2014 10:15:31 PM	R17242
1-Methylnaphthalene	ND	4.0		µg/L	1	3/11/2014 10:15:31 PM	R17242
2-Methylnaphthalene	ND	4.0		µg/L	1	3/11/2014 10:15:31 PM	R17242
Acetone	ND	10		µg/L	1	3/11/2014 10:15:31 PM	R17242
Bromobenzene	ND	1.0		µg/L	1	3/11/2014 10:15:31 PM	R17242
Bromodichloromethane	ND	1.0		µg/L	1	3/11/2014 10:15:31 PM	R17242
Bromoform	ND	1.0		µg/L	1	3/11/2014 10:15:31 PM	R17242
Bromomethane	ND	3.0		µg/L	1	3/11/2014 10:15:31 PM	R17242
2-Butanone	ND	10		µg/L	1	3/11/2014 10:15:31 PM	R17242
Carbon disulfide	ND	10		µg/L	1	3/11/2014 10:15:31 PM	R17242
Carbon Tetrachloride	ND	1.0		µg/L	1	3/11/2014 10:15:31 PM	R17242
Chlorobenzene	ND	1.0		µg/L	1	3/11/2014 10:15:31 PM	R17242
Chloroethane	ND	2.0		µg/L	1	3/11/2014 10:15:31 PM	R17242
Chloroform	ND	1.0		µg/L	1	3/11/2014 10:15:31 PM	R17242
Chloromethane	ND	3.0		µg/L	1	3/11/2014 10:15:31 PM	R17242
2-Chlorotoluene	ND	1.0		µg/L	1	3/11/2014 10:15:31 PM	R17242
4-Chlorotoluene	ND	1.0		µg/L	1	3/11/2014 10:15:31 PM	R17242
cis-1,2-DCE	ND	1.0		µg/L	1	3/11/2014 10:15:31 PM	R17242
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	3/11/2014 10:15:31 PM	R17242
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	3/11/2014 10:15:31 PM	R17242
Dibromochloromethane	ND	1.0		µg/L	1	3/11/2014 10:15:31 PM	R17242
Dibromomethane	ND	1.0		µg/L	1	3/11/2014 10:15:31 PM	R17242
1,2-Dichlorobenzene	ND	1.0		µg/L	1	3/11/2014 10:15:31 PM	R17242
1,3-Dichlorobenzene	ND	1.0		µg/L	1	3/11/2014 10:15:31 PM	R17242
1,4-Dichlorobenzene	ND	1.0		µg/L	1	3/11/2014 10:15:31 PM	R17242
Dichlorodifluoromethane	ND	1.0		µg/L	1	3/11/2014 10:15:31 PM	R17242
1,1-Dichloroethane	ND	1.0		µg/L	1	3/11/2014 10:15:31 PM	R17242
1,1-Dichloroethene	ND	1.0		µg/L	1	3/11/2014 10:15:31 PM	R17242
1,2-Dichloropropane	ND	1.0		µg/L	1	3/11/2014 10:15:31 PM	R17242
1,3-Dichloropropane	ND	1.0		µg/L	1	3/11/2014 10:15:31 PM	R17242
2,2-Dichloropropane	ND	2.0		µg/L	1	3/11/2014 10:15:31 PM	R17242

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 7 of 24
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1403355

Date Reported: 3/21/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Trip Blank

Project: Q1-2014 Groundwater Sampling

Collection Date:

Lab ID: 1403355-004

Matrix:

Received Date: 3/10/2014 4:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: KJH			
1,1-Dichloropropene	ND	1.0		µg/L	1	3/11/2014 10:15:31 PM	R17242
Hexachlorobutadiene	ND	1.0		µg/L	1	3/11/2014 10:15:31 PM	R17242
2-Hexanone	ND	10		µg/L	1	3/11/2014 10:15:31 PM	R17242
Isopropylbenzene	ND	1.0		µg/L	1	3/11/2014 10:15:31 PM	R17242
4-Isopropyltoluene	ND	1.0		µg/L	1	3/11/2014 10:15:31 PM	R17242
4-Methyl-2-pentanone	ND	10		µg/L	1	3/11/2014 10:15:31 PM	R17242
Methylene Chloride	ND	3.0		µg/L	1	3/11/2014 10:15:31 PM	R17242
n-Butylbenzene	ND	3.0		µg/L	1	3/11/2014 10:15:31 PM	R17242
n-Propylbenzene	ND	1.0		µg/L	1	3/11/2014 10:15:31 PM	R17242
sec-Butylbenzene	ND	1.0		µg/L	1	3/11/2014 10:15:31 PM	R17242
Styrene	ND	1.0		µg/L	1	3/11/2014 10:15:31 PM	R17242
tert-Butylbenzene	ND	1.0		µg/L	1	3/11/2014 10:15:31 PM	R17242
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	3/11/2014 10:15:31 PM	R17242
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	3/11/2014 10:15:31 PM	R17242
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	3/11/2014 10:15:31 PM	R17242
trans-1,2-DCE	ND	1.0		µg/L	1	3/11/2014 10:15:31 PM	R17242
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	3/11/2014 10:15:31 PM	R17242
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	3/11/2014 10:15:31 PM	R17242
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	3/11/2014 10:15:31 PM	R17242
1,1,1-Trichloroethane	ND	1.0		µg/L	1	3/11/2014 10:15:31 PM	R17242
1,1,2-Trichloroethane	ND	1.0		µg/L	1	3/11/2014 10:15:31 PM	R17242
Trichloroethene (TCE)	ND	1.0		µg/L	1	3/11/2014 10:15:31 PM	R17242
Trichlorofluoromethane	ND	1.0		µg/L	1	3/11/2014 10:15:31 PM	R17242
1,2,3-Trichloropropane	ND	2.0		µg/L	1	3/11/2014 10:15:31 PM	R17242
Vinyl chloride	ND	1.0		µg/L	1	3/11/2014 10:15:31 PM	R17242
Xylenes, Total	ND	1.5		µg/L	1	3/11/2014 10:15:31 PM	R17242
Surr: 1,2-Dichloroethane-d4	93.4	70-130		%REC	1	3/11/2014 10:15:31 PM	R17242
Surr: 4-Bromofluorobenzene	95.2	70-130		%REC	1	3/11/2014 10:15:31 PM	R17242
Surr: Dibromofluoromethane	98.3	70-130		%REC	1	3/11/2014 10:15:31 PM	R17242
Surr: Toluene-d8	90.8	70-130		%REC	1	3/11/2014 10:15:31 PM	R17242

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 8 of 24
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1403355

21-Mar-14

Client: Western Refining Southwest, Gallup

Project: Q1-2014 Groundwater Sampling

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID: R17289			RunNo: 17289					
Prep Date:		Analysis Date: 3/13/2014			SeqNo: 498058		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Zinc	ND	0.010								

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: R17289		RunNo: 17289					
Prep Date:			Analysis Date: 3/13/2014		SeqNo: 498059		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	97.9	85	115			
Cadmium	0.49	0.0020	0.5000	0	98.4	85	115			
Chromium	0.48	0.0060	0.5000	0	96.2	85	115			
Copper	0.48	0.0060	0.5000	0	96.5	85	115			
Iron	0.48	0.020	0.5000	0	95.5	85	115			
Manganese	0.48	0.0020	0.5000	0	95.4	85	115			
Zinc	0.49	0.010	0.5000	0	97.2	85	115			

Sample ID	1403420-008AMS		SampType: MS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: R17289		RunNo: 17289					
Prep Date:			Analysis Date: 3/13/2014		SeqNo: 498099		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	3.7	0.050	2.500	1.186	102	70	130			

Sample ID	1403420-008AMSD		SampType: MSD		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: R17289		RunNo: 17289					
Prep Date:			Analysis Date: 3/13/2014		SeqNo: 498100		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	3.7	0.050	2.500	1.186	99.3	70	130	1.98	20	

Sample ID	1403477-001BMS		SampType: MS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: R17289		RunNo: 17289					
Prep Date:			Analysis Date: 3/13/2014		SeqNo: 498102		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1403355

21-Mar-14

Client: Western Refining Southwest, Gallup

Project: Q1-2014 Groundwater Sampling

Sample ID	1403477-001BMS		SampType: MS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: R17289		RunNo: 17289					
Prep Date:			Analysis Date: 3/13/2014		SeqNo: 498102		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.55	0.020	0.5000	0.1063	88.6	70	130			

Sample ID	1403477-001BMSD		SampType: MSD		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: R17289		RunNo: 17289					
Prep Date:			Analysis Date: 3/13/2014		SeqNo: 498103		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.57	0.020	0.5000	0.1063	92.0	70	130	3.10	20	

Sample ID	MB	SampType: MBLK		TestCode: EPA Method 200.7: Dissolved Metals						
Client ID:	PBW	Batch ID: R17380		RunNo: 17380						
Prep Date:		Analysis Date: 3/17/2014		SeqNo: 500508		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.0050								

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: R17380		RunNo: 17380					
Prep Date:			Analysis Date: 3/17/2014		SeqNo: 500509		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.10	0.0050	0.1000	0	104	85	115			

Sample ID	1403615-002AMS		SampType: MS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: R17380		RunNo: 17380					
Prep Date:			Analysis Date: 3/17/2014		SeqNo: 500562		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.092	0.0050	0.1000	0	92.4	70	130			

Sample ID	1403615-002AMSD		SampType: MSD		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: R17380		RunNo: 17380					
Prep Date:			Analysis Date: 3/17/2014		SeqNo: 500563		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.093	0.0050	0.1000	0	92.6	70	130	0.205	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1403355

21-Mar-14

Client: Western Refining Southwest, Gallup

Project: Q1-2014 Groundwater Sampling

Sample ID	1403615-014AMS		SampType: MS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC		Batch ID: R17380		RunNo: 17380					
Prep Date:			Analysis Date: 3/17/2014		SeqNo: 500614		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.090	0.0050	0.1000	0	90.4	70	130			

Sample ID	1403615-014AMSD			SampType:	MSD		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	BatchQC			Batch ID:	R17380		RunNo:	17380			
Prep Date:				Analysis Date:	3/17/2014		SeqNo:	500616		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Silver	0.095	0.0050	0.1000	0	95.0	70	130	4.94	20		

Sample ID	MB	SampType: MBLK		TestCode: EPA Method 200.7: Dissolved Metals						
Client ID:	PBW	Batch ID: R17380		RunNo: 17380						
Prep Date:		Analysis Date: 3/17/2014		SeqNo: 500673		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.0050								

Sample ID	LCS		SampType: LCS		TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW		Batch ID: R17380		RunNo: 17380					
Prep Date:			Analysis Date: 3/17/2014		SeqNo: 500674		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.10	0.0050	0.1000	0	102	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1403355

21-Mar-14

Client: Western Refining Southwest, Gallup

Project: Q1-2014 Groundwater Sampling

Sample ID	1403477-001CMS	SampType:	MS	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	BatchQC	Batch ID:	12161	RunNo:	17291					
Prep Date:	3/13/2014	Analysis Date:	3/13/2014	SeqNo:	498270	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.57	0.0060	0.5000	0.07530	98.8	70	130			
Iron	0.61	0.020	0.5000	0.2546	70.8	70	130			
Manganese	0.52	0.0020	0.5000	0.007770	102	70	130			

Sample ID	1403477-001CMSD	SampType:	MSD	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	BatchQC	Batch ID:	12161	RunNo:	17291					
Prep Date:	3/13/2014	Analysis Date:	3/13/2014	SeqNo:	498271	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.58	0.0060	0.5000	0.07530	101	70	130	2.01	20	
Iron	0.63	0.020	0.5000	0.2546	74.8	70	130	3.25	20	
Manganese	0.52	0.0020	0.5000	0.007770	102	70	130	0.815	20	

Sample ID	MB-12161	SampType:	MBLK	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	PBW	Batch ID:	12161	RunNo:	17291					
Prep Date:	3/13/2014	Analysis Date:	3/13/2014	SeqNo:	498280	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	LCS-12161	SampType:	LCS	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	LCSW	Batch ID:	12161	RunNo:	17291					
Prep Date:	3/13/2014	Analysis Date:	3/13/2014	SeqNo:	498281	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	99.8	85	115			
Cadmium	0.50	0.0020	0.5000	0	99.5	85	115			
Chromium	0.49	0.0060	0.5000	0	98.2	85	115			
Copper	0.49	0.0060	0.5000	0	99.0	85	115			
Iron	0.51	0.020	0.5000	0	103	85	115			
Manganese	0.50	0.0020	0.5000	0	99.5	85	115			
Silver	0.098	0.0050	0.1000	0	97.7	85	115			
Zinc	0.51	0.010	0.5000	0	102	85	115			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1403355

21-Mar-14

Client: Western Refining Southwest, Gallup

Project: Q1-2014 Groundwater Sampling

Sample ID	1403420-008AMS		SampType: MS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC		Batch ID: R17401		RunNo: 17401					
Prep Date:			Analysis Date: 3/18/2014		SeqNo: 501189		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.026	0.0010	0.02500	0.0003984	104	70	130			

Sample ID	1403420-008AMSD		SampType: MSD		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	BatchQC		Batch ID: R17401		RunNo: 17401					
Prep Date:			Analysis Date: 3/18/2014		SeqNo: 501190		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.027	0.0010	0.02500	0.0003984	105	70	130	0.894	20	

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R17401		RunNo: 17401					
Prep Date:			Analysis Date: 3/18/2014		SeqNo: 501192		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.025	0.0010	0.02500	0	102	85	115			
Uranium	0.025	0.0010	0.02500	0	100	85	115			

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R17401		RunNo: 17401					
Prep Date:			Analysis Date: 3/18/2014		SeqNo: 501193		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.025	0.0010	0.02500	0	101	85	115			
Uranium	0.028	0.0010	0.02500	0	110	85	115			

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R17401			RunNo: 17401					
Prep Date:		Analysis Date: 3/18/2014			SeqNo: 501194		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.0010								
Uranium	ND	0.0010								

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R17401			RunNo: 17401					
Prep Date:		Analysis Date: 3/18/2014			SeqNo: 501195		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.0010								
Uranium	ND	0.0010								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1403355

21-Mar-14

Client: Western Refining Southwest, Gallup

Project: Q1-2014 Groundwater Sampling

Sample ID 1403273-002AMS	SampType: MS			TestCode: EPA 200.8: Dissolved Metals						
Client ID: BatchQC	Batch ID: R17423			RunNo: 17423						
Prep Date:	Analysis Date: 3/19/2014			SeqNo: 501959		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.12	0.0050	0.1250	0.003578	94.3	70	130			

Sample ID 1403420-008AMS	SampType: MS			TestCode: EPA 200.8: Dissolved Metals						
Client ID: BatchQC	Batch ID: R17423			RunNo: 17423						
Prep Date:	Analysis Date: 3/19/2014			SeqNo: 501996		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.13	0.0050	0.1250	0.0009073	101	70	130			
Selenium	0.13	0.0050	0.1250	0.001602	99.9	70	130			

Sample ID LCS	SampType: LCS			TestCode: EPA 200.8: Dissolved Metals						
Client ID: LCSW	Batch ID: R17423			RunNo: 17423						
Prep Date:	Analysis Date: 3/19/2014			SeqNo: 502016		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	97.7	85	115			
Selenium	0.024	0.0010	0.02500	0	97.2	85	115			

Sample ID LCS	SampType: LCS			TestCode: EPA 200.8: Dissolved Metals						
Client ID: LCSW	Batch ID: R17423			RunNo: 17423						
Prep Date:	Analysis Date: 3/19/2014			SeqNo: 502017		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.1	85	115			
Selenium	0.024	0.0010	0.02500	0	97.2	85	115			

Sample ID MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals						
Client ID: PBW	Batch ID: R17423			RunNo: 17423						
Prep Date:	Analysis Date: 3/19/2014			SeqNo: 502018		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

Sample ID MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals						
Client ID: PBW	Batch ID: R17423			RunNo: 17423						
Prep Date:	Analysis Date: 3/19/2014			SeqNo: 502019		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1403355

21-Mar-14

Client: Western Refining Southwest, Gallup**Project:** Q1-2014 Groundwater Sampling

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	R17423	RunNo:	17423					
Prep Date:		Analysis Date:	3/19/2014	SeqNo:	502019	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0010								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1403355

21-Mar-14

Client: Western Refining Southwest, Gallup

Project: Q1-2014 Groundwater Sampling

Sample ID	LLLCS-12161	SampType:	LCSLL	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	BatchQC	Batch ID:	12161	RunNo:	17331					
Prep Date:	3/13/2014	Analysis Date:	3/14/2014	SeqNo:	499089	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	95.6	85	115			
Lead	0.024	0.0010	0.02500	0	97.9	85	115			
Selenium	0.023	0.0010	0.02500	0	93.5	85	115			
Uranium	0.024	0.0010	0.02500	0	97.4	85	115			

Sample ID	MB-12161	SampType:	MBLK	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	PBW	Batch ID:	12161	RunNo:	17331					
Prep Date:	3/13/2014	Analysis Date:	3/14/2014	SeqNo:	499090	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1403355

21-Mar-14

Client: Western Refining Southwest, Gallup

Project: Q1-2014 Groundwater Sampling

Sample ID	MB-12133		SampType: MBLK		TestCode: EPA Method 245.1: Mercury					
Client ID:	PBW		Batch ID: 12133		RunNo: 17250					
Prep Date:	3/11/2014		Analysis Date: 3/12/2014		SeqNo: 496787		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercurv	ND	0.00020								

Sample ID	LCS-12133		SampType: LCS		TestCode: EPA Method 245.1: Mercury					
Client ID:	LCSW		Batch ID: 12133		RunNo: 17250					
Prep Date:	3/11/2014		Analysis Date: 3/12/2014		SeqNo: 496788		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0053	0.00020	0.005000	0	106	80	120			

Sample ID	1403329-004AMS		SampType: MS		TestCode: EPA Method 245.1: Mercury					
Client ID:	BatchQC		Batch ID: 12133		RunNo: 17250					
Prep Date:	3/11/2014		Analysis Date: 3/12/2014		SeqNo: 496797		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0054	0.00020	0.005000	0	107	75	125			

Sample ID	1403329-004AMSD			SampType:	MSD		TestCode:	EPA Method 245.1: Mercury			
Client ID:	BatchQC			Batch ID:	12133		RunNo:	17250			
Prep Date:	3/11/2014			Analysis Date:	3/12/2014		SeqNo:	496798		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Mercury	0.0053	0.00020	0.005000	0	107	75	125	0.541	20		

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1403355

21-Mar-14

Client: Western Refining Southwest, Gallup

Project: Q1-2014 Groundwater Sampling

Sample ID	MB-12114		SampType: MBLK		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	PBW		Batch ID: 12114		RunNo: 17227					
Prep Date:	3/11/2014		Analysis Date: 3/12/2014		SeqNo: 496413		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.0		1.000		99.8	62.7	145			

Sample ID	LCSD-12114		SampType: LCSD		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	LCSS02		Batch ID: 12114		RunNo: 17227					
Prep Date:	3/11/2014		Analysis Date: 3/12/2014		SeqNo: 496415		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.6	1.0	5.000	0	112	78.6	146	34.2	26.5	R
Surr: DNOP	0.62		0.5000		123	62.7	145	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1403355

21-Mar-14

Client: Western Refining Southwest, Gallup

Project: Q1-2014 Groundwater Sampling

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBW	Batch ID:	R17271	RunNo:	17271					
Prep Date:		Analysis Date:	3/12/2014	SeqNo:	497471	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	19		20.00		95.6	80.4	118			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSW	Batch ID:	R17271	RunNo:	17271					
Prep Date:		Analysis Date:	3/12/2014	SeqNo:	497473	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.46	0.050	0.5000	0	91.1	80	120			
Surr: BFB	21		20.00		104	80.4	118			

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBW	Batch ID:	R17409	RunNo:	17409					
Prep Date:		Analysis Date:	3/18/2014	SeqNo:	501470	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	18		20.00		90.7	80.4	118			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSW	Batch ID:	R17409	RunNo:	17409					
Prep Date:		Analysis Date:	3/18/2014	SeqNo:	501483	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	20		20.00		98.0	80.4	118			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1403355

21-Mar-14

Client: Western Refining Southwest, Gallup

Project: Q1-2014 Groundwater Sampling

Sample ID	5ML RB	SampType: MBLK			TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBW	Batch ID: R17271			RunNo: 17271					
Prep Date:		Analysis Date: 3/12/2014			SeqNo: 497509		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
Surr: 4-Bromofluorobenzene	22		20.00		108	82.9	139			

Sample ID	100NG BTEX LCS		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSW		Batch ID: R17271		RunNo: 17271					
Prep Date:			Analysis Date: 3/12/2014		SeqNo: 497510		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	103	80	120			
Toluene	20	1.0	20.00	0	102	80	120			
Ethylbenzene	20	1.0	20.00	0	101	80	120			
Xylenes, Total	61	2.0	60.00	0	101	80	120			
1,2,4-Trimethylbenzene	19	1.0	20.00	0	96.0	80	120			
1,3,5-Trimethylbenzene	20	1.0	20.00	0	99.7	80	120			
Surr: 4-Bromofluorobenzene	23		20.00		116	82.9	139			

Sample ID	5ML RB	SampType: MBLK			TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBW	Batch ID: R17360			RunNo: 17360					
Prep Date:		Analysis Date: 3/17/2014			SeqNo: 500230		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	2.5								
Toluene	ND	1.0								
Surr: 4-Bromofluorobenzene	20		20.00		99.2	82.9	139			

Sample ID	100NG BTEX LCS		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSW		Batch ID: R17360		RunNo: 17360					
Prep Date:			Analysis Date: 3/17/2014		SeqNo: 500231		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	22	2.5	20.00	0	108	71.1	128			
Toluene	21	1.0	20.00	0	105	80	120			
Surr: 4-Bromofluorobenzene	14		20.00		71.2	82.9	139			S

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1403355

21-Mar-14

Client: Western Refining Southwest, Gallup

Project: Q1-2014 Groundwater Sampling

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBW	Batch ID:	R17409	RunNo:	17409					
Prep Date:		Analysis Date:	3/18/2014	SeqNo:	501509	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	2.5								
Surr: 4-Bromofluorobenzene	20		20.00		99.0	82.9	139			

Sample ID	100NG BTEX LCS	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSW	Batch ID:	R17409	RunNo:	17409					
Prep Date:		Analysis Date:	3/18/2014	SeqNo:	501510	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	19	2.5	20.00	0	96.4	71.1	128			
Surr: 4-Bromofluorobenzene	19		20.00		93.3	82.9	139			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1403355

21-Mar-14

Client: Western Refining Southwest, Gallup

Project: Q1-2014 Groundwater Sampling

Sample ID	5ml-rb2	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R17242			RunNo: 17242					
Prep Date:		Analysis Date: 3/11/2014			SeqNo: 496423		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1403355

21-Mar-14

Client: Western Refining Southwest, Gallup

Project: Q1-2014 Groundwater Sampling

Sample ID	5ml-rb2	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R17242			RunNo: 17242					
Prep Date:		Analysis Date: 3/11/2014			SeqNo: 496423		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.3		10.00		93.0	70	130			
Surr: 4-Bromofluorobenzene	9.4		10.00		94.4	70	130			
Surr: Dibromofluoromethane	8.1		10.00		80.5	70	130			
Surr: Toluene-d8	9.3		10.00		93.0	70	130			

Sample ID	1403257-002A MS	SampType:	MS	TestCode: EPA Method 8260B: VOLATILES						
Client ID:	BatchQC	Batch ID:	R17242	RunNo: 17242						
Prep Date:		Analysis Date:	3/11/2014	SeqNo: 496441			Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	120	1.0	20.00	129.6	-29.2	70	130			ES
Toluene	23	1.0	20.00	0.7750	109	67.5	123			
Chlorobenzene	22	1.0	20.00	0	110	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1403355

21-Mar-14

Client: Western Refining Southwest, Gallup

Project: Q1-2014 Groundwater Sampling

Sample ID	1403257-002A MS		SampType: MS		TestCode: EPA Method 8260B: VOLATILES					
Client ID:	BatchQC		Batch ID: R17242		RunNo: 17242					
Prep Date:			Analysis Date: 3/11/2014		SeqNo: 496441		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	24	1.0	20.00	0	119	81.9	134			
Trichloroethene (TCE)	22	1.0	20.00	0	110	70	130			
Surr: 1,2-Dichloroethane-d4	9.1		10.00		91.1	70	130			
Surr: 4-Bromofluorobenzene	9.5		10.00		94.6	70	130			
Surr: Dibromofluoromethane	9.8		10.00		98.3	70	130			
Surr: Toluene-d8	9.3		10.00		93.1	70	130			

Sample ID 1403257-002A MSD		SampType: MSD		TestCode: EPA Method 8260B: VOLATILES						
Client ID: BatchQC		Batch ID: R17242		RunNo: 17242						
Prep Date:		Analysis Date: 3/11/2014		SeqNo: 496442		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	120	1.0	20.00	129.6	-31.5	70	130	0.381	20	ES
Toluene	22	1.0	20.00	0.7750	108	67.5	123	0.677	20	
Chlorobenzene	21	1.0	20.00	0	107	70	130	2.67	20	
1,1-Dichloroethene	22	1.0	20.00	0	112	81.9	134	5.96	20	
Trichloroethene (TCE)	22	1.0	20.00	0	111	70	130	0.261	20	
Surr: 1,2-Dichloroethane-d4	9.4		10.00		93.7	70	130	0	0	
Surr: 4-Bromofluorobenzene	9.4		10.00		94.0	70	130	0	0	
Surr: Dibromofluoromethane	9.8		10.00		98.0	70	130	0	0	
Surr: Toluene-d8	9.4		10.00		94.2	70	130	0	0	

Sample ID	100ngLCS200ngAnn			SampType: LCS	TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW		Batch ID: R17242		RunNo: 17242					
Prep Date:			Analysis Date: 3/11/2014		SeqNo: 496454		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	110	70	130			
Toluene	19	1.0	20.00	0	96.9	80	120			
Chlorobenzene	19	1.0	20.00	0	94.8	70	130			
1,1-Dichloroethene	22	1.0	20.00	0	109	90	143			
Trichloroethene (TCE)	20	1.0	20.00	0	102	70	130			
Surr: 1,2-Dichloroethane-d4	9.4		10.00		93.7	70	130			
Surr: 4-Bromofluorobenzene	9.1		10.00		91.2	70	130			
Surr: Dibromofluoromethane	8.6		10.00		85.8	70	130			
Surr: Toluene-d8	9.0		10.00		90.5	70	130			

Qualifiers:

- | | |
|---|--|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits | ND Not Detected at the Reporting Limit |
| O RSD is greater than RSDlimit | P Sample pH greater than 2. |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S Spike Recovery outside accepted recovery limits | |

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1403355

RcptNo: 1

Received by/date:

Logged By: Lindsay Mangin

3/10/2014 4:10:00 PM

Completed By: Lindsay Mangin

3/10/2014 4:50:33 PM

Reviewed By:

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☒ No ☐ Not Present ☐
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Client

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☒
9. Was preservative added to bottles? Yes ☒ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☒ No ☐ No VOA Vials ☐
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐

metals analysis! Added 1mL HNO₃ to -001D for acceptable pH. 03/11/14

of preserved bottles checked for pH: 4
Adjusted? Yes
Checked by: [Signature]

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:	Date:
By Whom:	Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:	
Client Instructions:	

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	4.6	Good	Not Present			

Chain-of-Custody Record		Turn-Around Time:
Client: Western Refining		☐ Standard ☐ Rush
Mailing Address: Rt 3 Box 7 Gallup, NM 87301		Project Name Q1-2014 Groundwater Sampling
Phone #: 505-722-3833		Project #: Quarterly Sampling
email or Fax#: 505-722-0210		Project Manager: Cheryl Johnson
QA/QC Package: ☐ Standard ☐ Level 4 (Full Validation)		Sampler:
Accreditation: ☐ NELAP ☐ Other		On Ice: ☒ Yes ☐ No
☐ EDD (Type)		Sample Temperature: 4.0

Sample Temperature: 4.0

8015B (DRO/GRO)			WQCC Metals (Total and Dissolved)	Air Bubbles (Y or N)
X	X	X		
X	X	X		
X	X	X		
			X	
X			X	

[illegible]

Date:	Time:	Relinquished by:	Received by:	Date	Time
3/19/14	1610	Don Raper	[Signature]	03/10/14	1111
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:	
----------	--



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

October 03, 2014

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 2014 3rd QUARTER-RESAMPLE

OrderNo.: 1409D07

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 3 sample(s) on 9/25/2014 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

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

Andy Freeman

Laboratory Manager

4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1409D07

Date Reported: 10/3/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-04

Project: 2014 3rd QUARTER-RESAMPLE

Collection Date: 9/24/2014 8:15:00 AM

Lab ID: 1409D07-001

Matrix: AQUEOUS

Received Date: 9/25/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	9/30/2014 1:42:49 AM	15566
Acenaphthylene	ND	10		µg/L	1	9/30/2014 1:42:49 AM	15566
Aniline	ND	10		µg/L	1	9/30/2014 1:42:49 AM	15566
Anthracene	ND	10		µg/L	1	9/30/2014 1:42:49 AM	15566
Azobenzene	ND	10		µg/L	1	9/30/2014 1:42:49 AM	15566
Benz(a)anthracene	ND	10		µg/L	1	9/30/2014 1:42:49 AM	15566
Benzo(a)pyrene	ND	10		µg/L	1	9/30/2014 1:42:49 AM	15566
Benzo(b)fluoranthene	ND	10		µg/L	1	9/30/2014 1:42:49 AM	15566
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/30/2014 1:42:49 AM	15566
Benzo(k)fluoranthene	ND	10		µg/L	1	9/30/2014 1:42:49 AM	15566
Benzoic acid	ND	20		µg/L	1	9/30/2014 1:42:49 AM	15566
Benzyl alcohol	ND	10		µg/L	1	9/30/2014 1:42:49 AM	15566
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/30/2014 1:42:49 AM	15566
Bis(2-chloroethyl)ether	ND	10		µg/L	1	9/30/2014 1:42:49 AM	15566
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	9/30/2014 1:42:49 AM	15566
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	9/30/2014 1:42:49 AM	15566
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/30/2014 1:42:49 AM	15566
Butyl benzyl phthalate	ND	10		µg/L	1	9/30/2014 1:42:49 AM	15566
Carbazole	ND	10		µg/L	1	9/30/2014 1:42:49 AM	15566
4-Chloro-3-methylphenol	ND	10		µg/L	1	9/30/2014 1:42:49 AM	15566
4-Chloroaniline	ND	10		µg/L	1	9/30/2014 1:42:49 AM	15566
2-Chloronaphthalene	ND	10		µg/L	1	9/30/2014 1:42:49 AM	15566
2-Chlorophenol	ND	10		µg/L	1	9/30/2014 1:42:49 AM	15566
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	9/30/2014 1:42:49 AM	15566
Chrysene	ND	10		µg/L	1	9/30/2014 1:42:49 AM	15566
Di-n-butyl phthalate	ND	10		µg/L	1	9/30/2014 1:42:49 AM	15566
Di-n-octyl phthalate	ND	20		µg/L	1	9/30/2014 1:42:49 AM	15566
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/30/2014 1:42:49 AM	15566
Dibenzofuran	ND	10		µg/L	1	9/30/2014 1:42:49 AM	15566
1,2-Dichlorobenzene	ND	10		µg/L	1	9/30/2014 1:42:49 AM	15566
1,3-Dichlorobenzene	ND	10		µg/L	1	9/30/2014 1:42:49 AM	15566
1,4-Dichlorobenzene	ND	10		µg/L	1	9/30/2014 1:42:49 AM	15566
3,3'-Dichlorobenzidine	ND	10		µg/L	1	9/30/2014 1:42:49 AM	15566
Diethyl phthalate	ND	10		µg/L	1	9/30/2014 1:42:49 AM	15566
Dimethyl phthalate	ND	10		µg/L	1	9/30/2014 1:42:49 AM	15566
2,4-Dichlorophenol	ND	20		µg/L	1	9/30/2014 1:42:49 AM	15566
2,4-Dimethylphenol	ND	10		µg/L	1	9/30/2014 1:42:49 AM	15566
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	9/30/2014 1:42:49 AM	15566
2,4-Dinitrophenol	ND	20		µg/L	1	9/30/2014 1:42:49 AM	15566

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	Page 1 of 9
	E Value above quantitation range	H Holding times for preparation or analysis exceeded	
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit	
	O RSD is greater than RSDlimit	P Sample pH greater than 2.	
	R RPD outside accepted recovery limits	RL Reporting Detection Limit	
	S Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1409D07

Date Reported: 10/3/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-04

Project: 2014 3rd QUARTER-RESAMPLE

Collection Date: 9/24/2014 8:15:00 AM

Lab ID: 1409D07-001

Matrix: AQUEOUS

Received Date: 9/25/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
2,4-Dinitrotoluene	ND	10		µg/L	1	9/30/2014 1:42:49 AM	15566
2,6-Dinitrotoluene	ND	10		µg/L	1	9/30/2014 1:42:49 AM	15566
Fluoranthene	ND	10		µg/L	1	9/30/2014 1:42:49 AM	15566
Fluorene	ND	10		µg/L	1	9/30/2014 1:42:49 AM	15566
Hexachlorobenzene	ND	10		µg/L	1	9/30/2014 1:42:49 AM	15566
Hexachlorobutadiene	ND	10		µg/L	1	9/30/2014 1:42:49 AM	15566
Hexachlorocyclopentadiene	ND	10		µg/L	1	9/30/2014 1:42:49 AM	15566
Hexachloroethane	ND	10		µg/L	1	9/30/2014 1:42:49 AM	15566
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/30/2014 1:42:49 AM	15566
Isophorone	ND	10		µg/L	1	9/30/2014 1:42:49 AM	15566
1-Methylnaphthalene	130	10		µg/L	1	9/30/2014 1:42:49 AM	15566
2-Methylnaphthalene	160	10		µg/L	1	9/30/2014 1:42:49 AM	15566
2-Methylphenol	ND	20		µg/L	1	9/30/2014 1:42:49 AM	15566
3+4-Methylphenol	ND	10		µg/L	1	9/30/2014 1:42:49 AM	15566
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/30/2014 1:42:49 AM	15566
N-Nitrosodimethylamine	ND	10		µg/L	1	9/30/2014 1:42:49 AM	15566
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/30/2014 1:42:49 AM	15566
Naphthalene	190	10		µg/L	1	9/30/2014 1:42:49 AM	15566
2-Nitroaniline	ND	10		µg/L	1	9/30/2014 1:42:49 AM	15566
3-Nitroaniline	ND	10		µg/L	1	9/30/2014 1:42:49 AM	15566
4-Nitroaniline	ND	10		µg/L	1	9/30/2014 1:42:49 AM	15566
Nitrobenzene	ND	10		µg/L	1	9/30/2014 1:42:49 AM	15566
2-Nitrophenol	ND	10		µg/L	1	9/30/2014 1:42:49 AM	15566
4-Nitrophenol	ND	10		µg/L	1	9/30/2014 1:42:49 AM	15566
Pentachlorophenol	ND	20		µg/L	1	9/30/2014 1:42:49 AM	15566
Phenanthrene	ND	10		µg/L	1	9/30/2014 1:42:49 AM	15566
Phenol	ND	10		µg/L	1	9/30/2014 1:42:49 AM	15566
Pyrene	ND	10		µg/L	1	9/30/2014 1:42:49 AM	15566
Pyridine	ND	10		µg/L	1	9/30/2014 1:42:49 AM	15566
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/30/2014 1:42:49 AM	15566
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/30/2014 1:42:49 AM	15566
2,4,6-Trichlorophenol	ND	10		µg/L	1	9/30/2014 1:42:49 AM	15566
Surr: 2-Fluorophenol	68.8	12.1-85.8		%REC	1	9/30/2014 1:42:49 AM	15566
Surr: Phenol-d5	65.6	17.7-65.8		%REC	1	9/30/2014 1:42:49 AM	15566
Surr: 2,4,6-Tribromophenol	97.0	26-138		%REC	1	9/30/2014 1:42:49 AM	15566
Surr: Nitrobenzene-d5	86.1	47.5-119		%REC	1	9/30/2014 1:42:49 AM	15566
Surr: 2-Fluorobiphenyl	85.3	48.1-106		%REC	1	9/30/2014 1:42:49 AM	15566
Surr: 4-Terphenyl-d14	90.1	44-113		%REC	1	9/30/2014 1:42:49 AM	15566

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	Page 2 of 9
	E Value above quantitation range	H Holding times for preparation or analysis exceeded	
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit	
	O RSD is greater than RSDlimit	P Sample pH greater than 2.	
	R RPD outside accepted recovery limits	RL Reporting Detection Limit	
	S Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1409D07

Date Reported: 10/3/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-11

Project: 2014 3rd QUARTER-RESAMPLE

Collection Date: 9/24/2014 8:45:00 AM

Lab ID: 1409D07-002

Matrix: AQUEOUS

Received Date: 9/25/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	9/30/2014 2:10:16 AM	15566
Acenaphthylene	ND	10		µg/L	1	9/30/2014 2:10:16 AM	15566
Aniline	27	10		µg/L	1	9/30/2014 2:10:16 AM	15566
Anthracene	ND	10		µg/L	1	9/30/2014 2:10:16 AM	15566
Azobenzene	ND	10		µg/L	1	9/30/2014 2:10:16 AM	15566
Benz(a)anthracene	ND	10		µg/L	1	9/30/2014 2:10:16 AM	15566
Benzo(a)pyrene	ND	10		µg/L	1	9/30/2014 2:10:16 AM	15566
Benzo(b)fluoranthene	ND	10		µg/L	1	9/30/2014 2:10:16 AM	15566
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/30/2014 2:10:16 AM	15566
Benzo(k)fluoranthene	ND	10		µg/L	1	9/30/2014 2:10:16 AM	15566
Benzoic acid	ND	20		µg/L	1	9/30/2014 2:10:16 AM	15566
Benzyl alcohol	ND	10		µg/L	1	9/30/2014 2:10:16 AM	15566
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/30/2014 2:10:16 AM	15566
Bis(2-chloroethyl)ether	ND	10		µg/L	1	9/30/2014 2:10:16 AM	15566
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	9/30/2014 2:10:16 AM	15566
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	9/30/2014 2:10:16 AM	15566
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/30/2014 2:10:16 AM	15566
Butyl benzyl phthalate	ND	10		µg/L	1	9/30/2014 2:10:16 AM	15566
Carbazole	ND	10		µg/L	1	9/30/2014 2:10:16 AM	15566
4-Chloro-3-methylphenol	ND	10		µg/L	1	9/30/2014 2:10:16 AM	15566
4-Chloroaniline	ND	10		µg/L	1	9/30/2014 2:10:16 AM	15566
2-Chloronaphthalene	ND	10		µg/L	1	9/30/2014 2:10:16 AM	15566
2-Chlorophenol	ND	10		µg/L	1	9/30/2014 2:10:16 AM	15566
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	9/30/2014 2:10:16 AM	15566
Chrysene	ND	10		µg/L	1	9/30/2014 2:10:16 AM	15566
Di-n-butyl phthalate	ND	10		µg/L	1	9/30/2014 2:10:16 AM	15566
Di-n-octyl phthalate	ND	20		µg/L	1	9/30/2014 2:10:16 AM	15566
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/30/2014 2:10:16 AM	15566
Dibenzofuran	ND	10		µg/L	1	9/30/2014 2:10:16 AM	15566
1,2-Dichlorobenzene	ND	10		µg/L	1	9/30/2014 2:10:16 AM	15566
1,3-Dichlorobenzene	ND	10		µg/L	1	9/30/2014 2:10:16 AM	15566
1,4-Dichlorobenzene	ND	10		µg/L	1	9/30/2014 2:10:16 AM	15566
3,3'-Dichlorobenzidine	ND	10		µg/L	1	9/30/2014 2:10:16 AM	15566
Diethyl phthalate	ND	10		µg/L	1	9/30/2014 2:10:16 AM	15566
Dimethyl phthalate	ND	10		µg/L	1	9/30/2014 2:10:16 AM	15566
2,4-Dichlorophenol	ND	20		µg/L	1	9/30/2014 2:10:16 AM	15566
2,4-Dimethylphenol	190	10		µg/L	1	9/30/2014 2:10:16 AM	15566
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	9/30/2014 2:10:16 AM	15566
2,4-Dinitrophenol	ND	20		µg/L	1	9/30/2014 2:10:16 AM	15566

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 3 of 9
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1409D07

Date Reported: 10/3/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-11

Project: 2014 3rd QUARTER-RESAMPLE

Collection Date: 9/24/2014 8:45:00 AM

Lab ID: 1409D07-002

Matrix: AQUEOUS

Received Date: 9/25/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC	
2,4-Dinitrotoluene	ND	10		µg/L	1	9/30/2014 2:10:16 AM	15566
2,6-Dinitrotoluene	ND	10		µg/L	1	9/30/2014 2:10:16 AM	15566
Fluoranthene	ND	10		µg/L	1	9/30/2014 2:10:16 AM	15566
Fluorene	ND	10		µg/L	1	9/30/2014 2:10:16 AM	15566
Hexachlorobenzene	ND	10		µg/L	1	9/30/2014 2:10:16 AM	15566
Hexachlorobutadiene	ND	10		µg/L	1	9/30/2014 2:10:16 AM	15566
Hexachlorocyclopentadiene	ND	10		µg/L	1	9/30/2014 2:10:16 AM	15566
Hexachloroethane	ND	10		µg/L	1	9/30/2014 2:10:16 AM	15566
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/30/2014 2:10:16 AM	15566
Isophorone	ND	10		µg/L	1	9/30/2014 2:10:16 AM	15566
1-Methylnaphthalene	24	10		µg/L	1	9/30/2014 2:10:16 AM	15566
2-Methylnaphthalene	22	10		µg/L	1	9/30/2014 2:10:16 AM	15566
2-Methylphenol	350	40		µg/L	2	9/30/2014 2:08:45 PM	15566
3+4-Methylphenol	240	20		µg/L	2	9/30/2014 2:08:45 PM	15566
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/30/2014 2:10:16 AM	15566
N-Nitrosodimethylamine	ND	10		µg/L	1	9/30/2014 2:10:16 AM	15566
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/30/2014 2:10:16 AM	15566
Naphthalene	67	10		µg/L	1	9/30/2014 2:10:16 AM	15566
2-Nitroaniline	ND	10		µg/L	1	9/30/2014 2:10:16 AM	15566
3-Nitroaniline	ND	10		µg/L	1	9/30/2014 2:10:16 AM	15566
4-Nitroaniline	ND	10		µg/L	1	9/30/2014 2:10:16 AM	15566
Nitrobenzene	ND	10		µg/L	1	9/30/2014 2:10:16 AM	15566
2-Nitrophenol	ND	10		µg/L	1	9/30/2014 2:10:16 AM	15566
4-Nitrophenol	ND	10		µg/L	1	9/30/2014 2:10:16 AM	15566
Pentachlorophenol	ND	20		µg/L	1	9/30/2014 2:10:16 AM	15566
Phenanthrene	ND	10		µg/L	1	9/30/2014 2:10:16 AM	15566
Phenol	78	10		µg/L	1	9/30/2014 2:10:16 AM	15566
Pyrene	ND	10		µg/L	1	9/30/2014 2:10:16 AM	15566
Pyridine	ND	10		µg/L	1	9/30/2014 2:10:16 AM	15566
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/30/2014 2:10:16 AM	15566
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/30/2014 2:10:16 AM	15566
2,4,6-Trichlorophenol	ND	10		µg/L	1	9/30/2014 2:10:16 AM	15566
Surr: 2-Fluorophenol	50.9	12.1-85.8		%REC	1	9/30/2014 2:10:16 AM	15566
Surr: Phenol-d5	66.7	17.7-65.8	S	%REC	1	9/30/2014 2:10:16 AM	15566
Surr: 2,4,6-Tribromophenol	87.3	26-138		%REC	1	9/30/2014 2:10:16 AM	15566
Surr: Nitrobenzene-d5	97.4	47.5-119		%REC	1	9/30/2014 2:10:16 AM	15566
Surr: 2-Fluorobiphenyl	88.6	48.1-106		%REC	1	9/30/2014 2:10:16 AM	15566
Surr: 4-Terphenyl-d14	92.8	44-113		%REC	1	9/30/2014 2:10:16 AM	15566

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1409D07

Date Reported: 10/3/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BD-MKTF RE-SAMPLE

Project: 2014 3rd QUARTER-RESAMPLE

Collection Date: 9/24/2014 8:00:00 AM

Lab ID: 1409D07-003

Matrix: AQUEOUS

Received Date: 9/25/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	9/30/2014 2:37:43 AM	15566
Acenaphthylene	ND	10		µg/L	1	9/30/2014 2:37:43 AM	15566
Aniline	ND	10		µg/L	1	9/30/2014 2:37:43 AM	15566
Anthracene	ND	10		µg/L	1	9/30/2014 2:37:43 AM	15566
Azobenzene	ND	10		µg/L	1	9/30/2014 2:37:43 AM	15566
Benz(a)anthracene	ND	10		µg/L	1	9/30/2014 2:37:43 AM	15566
Benzo(a)pyrene	ND	10		µg/L	1	9/30/2014 2:37:43 AM	15566
Benzo(b)fluoranthene	ND	10		µg/L	1	9/30/2014 2:37:43 AM	15566
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/30/2014 2:37:43 AM	15566
Benzo(k)fluoranthene	ND	10		µg/L	1	9/30/2014 2:37:43 AM	15566
Benzoic acid	ND	20		µg/L	1	9/30/2014 2:37:43 AM	15566
Benzyl alcohol	ND	10		µg/L	1	9/30/2014 2:37:43 AM	15566
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/30/2014 2:37:43 AM	15566
Bis(2-chloroethyl)ether	ND	10		µg/L	1	9/30/2014 2:37:43 AM	15566
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	9/30/2014 2:37:43 AM	15566
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	9/30/2014 2:37:43 AM	15566
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/30/2014 2:37:43 AM	15566
Butyl benzyl phthalate	ND	10		µg/L	1	9/30/2014 2:37:43 AM	15566
Carbazole	ND	10		µg/L	1	9/30/2014 2:37:43 AM	15566
4-Chloro-3-methylphenol	ND	10		µg/L	1	9/30/2014 2:37:43 AM	15566
4-Chloroaniline	ND	10		µg/L	1	9/30/2014 2:37:43 AM	15566
2-Chloronaphthalene	ND	10		µg/L	1	9/30/2014 2:37:43 AM	15566
2-Chlorophenol	ND	10		µg/L	1	9/30/2014 2:37:43 AM	15566
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	9/30/2014 2:37:43 AM	15566
Chrysene	ND	10		µg/L	1	9/30/2014 2:37:43 AM	15566
Di-n-butyl phthalate	ND	10		µg/L	1	9/30/2014 2:37:43 AM	15566
Di-n-octyl phthalate	ND	20		µg/L	1	9/30/2014 2:37:43 AM	15566
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/30/2014 2:37:43 AM	15566
Dibenzofuran	ND	10		µg/L	1	9/30/2014 2:37:43 AM	15566
1,2-Dichlorobenzene	ND	10		µg/L	1	9/30/2014 2:37:43 AM	15566
1,3-Dichlorobenzene	ND	10		µg/L	1	9/30/2014 2:37:43 AM	15566
1,4-Dichlorobenzene	ND	10		µg/L	1	9/30/2014 2:37:43 AM	15566
3,3'-Dichlorobenzidine	ND	10		µg/L	1	9/30/2014 2:37:43 AM	15566
Diethyl phthalate	ND	10		µg/L	1	9/30/2014 2:37:43 AM	15566
Dimethyl phthalate	ND	10		µg/L	1	9/30/2014 2:37:43 AM	15566
2,4-Dichlorophenol	ND	20		µg/L	1	9/30/2014 2:37:43 AM	15566
2,4-Dimethylphenol	ND	10		µg/L	1	9/30/2014 2:37:43 AM	15566
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	9/30/2014 2:37:43 AM	15566
2,4-Dinitrophenol	ND	20		µg/L	1	9/30/2014 2:37:43 AM	15566

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 5 of 9
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1409D07

Date Reported: 10/3/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BD-MKTF RE-SAMPLE

Project: 2014 3rd QUARTER-RESAMPLE

Collection Date: 9/24/2014 8:00:00 AM

Lab ID: 1409D07-003

Matrix: AQUEOUS

Received Date: 9/25/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
2,4-Dinitrotoluene	ND	10		µg/L	1	9/30/2014 2:37:43 AM	15566
2,6-Dinitrotoluene	ND	10		µg/L	1	9/30/2014 2:37:43 AM	15566
Fluoranthene	ND	10		µg/L	1	9/30/2014 2:37:43 AM	15566
Fluorene	ND	10		µg/L	1	9/30/2014 2:37:43 AM	15566
Hexachlorobenzene	ND	10		µg/L	1	9/30/2014 2:37:43 AM	15566
Hexachlorobutadiene	ND	10		µg/L	1	9/30/2014 2:37:43 AM	15566
Hexachlorocyclopentadiene	ND	10		µg/L	1	9/30/2014 2:37:43 AM	15566
Hexachloroethane	ND	10		µg/L	1	9/30/2014 2:37:43 AM	15566
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/30/2014 2:37:43 AM	15566
Isophorone	ND	10		µg/L	1	9/30/2014 2:37:43 AM	15566
1-Methylnaphthalene	120	10		µg/L	1	9/30/2014 2:37:43 AM	15566
2-Methylnaphthalene	150	10		µg/L	1	9/30/2014 2:37:43 AM	15566
2-Methylphenol	ND	20		µg/L	1	9/30/2014 2:37:43 AM	15566
3+4-Methylphenol	ND	10		µg/L	1	9/30/2014 2:37:43 AM	15566
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/30/2014 2:37:43 AM	15566
N-Nitrosodimethylamine	ND	10		µg/L	1	9/30/2014 2:37:43 AM	15566
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/30/2014 2:37:43 AM	15566
Naphthalene	170	10		µg/L	1	9/30/2014 2:37:43 AM	15566
2-Nitroaniline	ND	10		µg/L	1	9/30/2014 2:37:43 AM	15566
3-Nitroaniline	ND	10		µg/L	1	9/30/2014 2:37:43 AM	15566
4-Nitroaniline	ND	10		µg/L	1	9/30/2014 2:37:43 AM	15566
Nitrobenzene	ND	10		µg/L	1	9/30/2014 2:37:43 AM	15566
2-Nitrophenol	ND	10		µg/L	1	9/30/2014 2:37:43 AM	15566
4-Nitrophenol	ND	10		µg/L	1	9/30/2014 2:37:43 AM	15566
Pentachlorophenol	ND	20		µg/L	1	9/30/2014 2:37:43 AM	15566
Phenanthrene	ND	10		µg/L	1	9/30/2014 2:37:43 AM	15566
Phenol	ND	10		µg/L	1	9/30/2014 2:37:43 AM	15566
Pyrene	ND	10		µg/L	1	9/30/2014 2:37:43 AM	15566
Pyridine	ND	10		µg/L	1	9/30/2014 2:37:43 AM	15566
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/30/2014 2:37:43 AM	15566
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/30/2014 2:37:43 AM	15566
2,4,6-Trichlorophenol	ND	10		µg/L	1	9/30/2014 2:37:43 AM	15566
Surr: 2-Fluorophenol	62.0	12.1-85.8		%REC	1	9/30/2014 2:37:43 AM	15566
Surr: Phenol-d5	60.1	17.7-65.8		%REC	1	9/30/2014 2:37:43 AM	15566
Surr: 2,4,6-Tribromophenol	95.7	26-138		%REC	1	9/30/2014 2:37:43 AM	15566
Surr: Nitrobenzene-d5	80.1	47.5-119		%REC	1	9/30/2014 2:37:43 AM	15566
Surr: 2-Fluorobiphenyl	79.7	48.1-106		%REC	1	9/30/2014 2:37:43 AM	15566
Surr: 4-Terphenyl-d14	86.4	44-113		%REC	1	9/30/2014 2:37:43 AM	15566

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409D07

03-Oct-14

Client: Western Refining Southwest, Gallup

Project: 2014 3rd QUARTER-RESAMPLE

Sample ID	mb-15566	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	15566	RunNo:	21529					
Prep Date:	9/29/2014	Analysis Date:	9/29/2014	SeqNo:	630020	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	20								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409D07

03-Oct-14

Client: Western Refining Southwest, Gallup

Project: 2014 3rd QUARTER-RESAMPLE

Sample ID	mb-15566	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBW	Batch ID:	15566	RunNo:	21529					
Prep Date:	9/29/2014	Analysis Date:	9/29/2014	SeqNo:	630020	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	20								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	130		200.0		66.1	12.1	85.8			
Surr: Phenol-d5	110		200.0		57.0	17.7	65.8			
Surr: 2,4,6-Tribromophenol	170		200.0		83.4	26	138			
Surr: Nitrobenzene-d5	76		100.0		76.4	47.5	119			
Surr: 2-Fluorobiphenyl	72		100.0		72.5	48.1	106			
Surr: 4-Terphenyl-d14	86		100.0		85.8	44	113			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409D07

03-Oct-14

Client: Western Refining Southwest, Gallup

Project: 2014 3rd QUARTER-RESAMPLE

Sample ID	lcs-15566		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 15566		RunNo: 21529					
Prep Date:	9/29/2014		Analysis Date: 9/29/2014		SeqNo: 630021		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	80	10	100.0	0	80.2	47.9	114			
4-Chloro-3-methylphenol	170	10	200.0	0	86.9	51.7	122			
2-Chlorophenol	160	10	200.0	0	79.9	40.7	113			
1,4-Dichlorobenzene	68	10	100.0	0	67.6	39.6	99.9			
2,4-Dinitrotoluene	82	10	100.0	0	81.6	40.8	113			
N-Nitrosodi-n-propylamine	76	10	100.0	0	75.7	51.2	111			
4-Nitrophenol	140	10	200.0	0	69.3	15.7	86.9			
Pentachlorophenol	140	20	200.0	0	69.9	21.6	104			
Phenol	130	10	200.0	0	65.2	28.6	71.7			
Pyrene	89	10	100.0	0	89.4	54.2	128			
1,2,4-Trichlorobenzene	75	10	100.0	0	75.3	40.9	101			
Surr: 2-Fluorophenol	120		200.0		61.2	12.1	85.8			
Surr: Phenol-d5	110		200.0		55.4	17.7	65.8			
Surr: 2,4,6-Tribromophenol	170		200.0		86.0	26	138			
Surr: Nitrobenzene-d5	81		100.0		80.6	47.5	119			
Surr: 2-Fluorobiphenyl	76		100.0		75.9	48.1	106			
Surr: 4-Terphenyl-d14	92		100.0		92.1	44	113			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1409D07

RcptNo: 1

Received by/date:	<u>MG</u>	<u>09/25/14</u>
Logged By:	Lindsay Mangin	9/25/2014 4:00:00 PM
Completed By:	Lindsay Mangin	9/26/2014 7:37:40 AM
Reviewed By:	<u>mg</u>	<u>09/26/14</u>

Chain of Custody

- Custody seals intact on sample bottles? Yes ☒ No ☐ Not Present ☐
- Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
- How was the sample delivered? Courier

Log In

- Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
- Were all samples received at a temperature of >0° C to 6.0°C Yes ☒ No ☐ NA ☐
- Sample(s) in proper container(s)? Yes ☒ No ☐
- Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
- Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
- Was preservative added to bottles? Yes ☐ No ☒ NA ☐
- VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
- Were any sample containers received broken? Yes ☐ No ☒
- Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
- Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
- Is it clear what analyses were requested? Yes ☒ No ☐
- Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐

of preserved bottles checked for pH: _____
(<2 or >12 unless noted)
Adjusted? _____
Checked by: _____

Special Handling (if applicable)

- Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:	_____	Date:	_____
By Whom:	_____	Via:	☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:	_____		
Client Instructions:	_____		

- Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: Western Refining Company

GALLUP REFINERY

Mailing Address:

92 GIANT CROSSING ROAD, GALLUP, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-863-0930

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation:

☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:

X Standard ☐ Rush

Project Name:

2014 3rd QUARTER - RESAMPLE

MKTF-04 / MKTF-11 / BLIND DUPLICATE

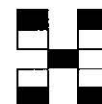
Project Manager:

C. JOHNSON (cheryl.johnson@wnr.com)

Sampler: C. JOHNSON

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.0°



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.	8260+MTBE	8015B EXTENDED	8270 + Phenols	WQCC Metals - Total	WQCC Metals - Dissolved (Filtered)	Major Cations/Anions								Air Bubbles (Y or N)
9/24/2014	0815	H2O	MKTF-04	MISC	MISC	-001			X											
9/24/2014	0845	H2O	MKTF-11	MISC	MISC	-002			X											
				1-L AMBER	NONE															
9/24/2014	0800	H2O	BD - MKTF RE-SAMPLE			-003			X											
	15:20/2014																			

Date: 9/25/2014	Time: 1030	Relinquished by:	Received by:	Date: 9/25/2014	Time: 1130	Remarks: 8270 RE-SAMPLED. Original samples exceeded holding time.
Date: 9/25/2014	Time: 1600	Relinquished by:	Received by:	Date: 09/25/2014	Time: 1600	

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.



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

October 06, 2014

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-0231
FAX: (505) 722-0210

RE: 2014 3rd QUARTER MKTF WELLS

OrderNo.: 1409D05

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 8 sample(s) on 9/25/2014 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1409D05

Date Reported: 10/6/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-23

Project: 2014 3rd QUARTER MKTF WELLS

Collection Date: 9/23/2014 2:00:00 PM

Lab ID: 1409D05-001

Matrix: AQUEOUS

Received Date: 9/25/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	14	1.0		mg/L	1	9/27/2014 4:31:50 AM	15542
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	9/27/2014 4:31:50 AM	15542
Surr: DNOP	108	59-141		%REC	1	9/27/2014 4:31:50 AM	15542
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	23	5.0		mg/L	100	10/3/2014 5:17:52 PM	R21651
Surr: BFB	94.2	70.9-130		%REC	100	10/3/2014 5:17:52 PM	R21651
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	9/29/2014 10:56:57 PM	15566
Acenaphthylene	ND	10		µg/L	1	9/29/2014 10:56:57 PM	15566
Aniline	ND	10		µg/L	1	9/29/2014 10:56:57 PM	15566
Anthracene	ND	10		µg/L	1	9/29/2014 10:56:57 PM	15566
Azobenzene	ND	10		µg/L	1	9/29/2014 10:56:57 PM	15566
Benz(a)anthracene	ND	10		µg/L	1	9/29/2014 10:56:57 PM	15566
Benzo(a)pyrene	ND	10		µg/L	1	9/29/2014 10:56:57 PM	15566
Benzo(b)fluoranthene	ND	10		µg/L	1	9/29/2014 10:56:57 PM	15566
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/29/2014 10:56:57 PM	15566
Benzo(k)fluoranthene	ND	10		µg/L	1	9/29/2014 10:56:57 PM	15566
Benzoic acid	ND	20		µg/L	1	9/29/2014 10:56:57 PM	15566
Benzyl alcohol	ND	10		µg/L	1	9/29/2014 10:56:57 PM	15566
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/29/2014 10:56:57 PM	15566
Bis(2-chloroethyl)ether	ND	10		µg/L	1	9/29/2014 10:56:57 PM	15566
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	9/29/2014 10:56:57 PM	15566
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	9/29/2014 10:56:57 PM	15566
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/29/2014 10:56:57 PM	15566
Butyl benzyl phthalate	ND	10		µg/L	1	9/29/2014 10:56:57 PM	15566
Carbazole	ND	10		µg/L	1	9/29/2014 10:56:57 PM	15566
4-Chloro-3-methylphenol	ND	10		µg/L	1	9/29/2014 10:56:57 PM	15566
4-Chloroaniline	ND	10		µg/L	1	9/29/2014 10:56:57 PM	15566
2-Chloronaphthalene	ND	10		µg/L	1	9/29/2014 10:56:57 PM	15566
2-Chlorophenol	ND	10		µg/L	1	9/29/2014 10:56:57 PM	15566
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	9/29/2014 10:56:57 PM	15566
Chrysene	ND	10		µg/L	1	9/29/2014 10:56:57 PM	15566
Di-n-butyl phthalate	ND	10		µg/L	1	9/29/2014 10:56:57 PM	15566
Di-n-octyl phthalate	ND	20		µg/L	1	9/29/2014 10:56:57 PM	15566
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/29/2014 10:56:57 PM	15566
Dibenzofuran	ND	10		µg/L	1	9/29/2014 10:56:57 PM	15566
1,2-Dichlorobenzene	ND	10		µg/L	1	9/29/2014 10:56:57 PM	15566
1,3-Dichlorobenzene	ND	10		µg/L	1	9/29/2014 10:56:57 PM	15566

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	Page 1 of 39
	E Value above quantitation range	H Holding times for preparation or analysis exceeded	
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit	
	O RSD is greater than RSDlimit	P Sample pH greater than 2.	
	R RPD outside accepted recovery limits	RL Reporting Detection Limit	
	S Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1409D05

Date Reported: 10/6/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-23

Project: 2014 3rd QUARTER MKTF WELLS

Collection Date: 9/23/2014 2:00:00 PM

Lab ID: 1409D05-001

Matrix: AQUEOUS

Received Date: 9/25/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES				Analyst: JDC			
1,4-Dichlorobenzene	ND	10		µg/L	1	9/29/2014 10:56:57 PM	15566
3,3'-Dichlorobenzidine	ND	10		µg/L	1	9/29/2014 10:56:57 PM	15566
Diethyl phthalate	ND	10		µg/L	1	9/29/2014 10:56:57 PM	15566
Dimethyl phthalate	ND	10		µg/L	1	9/29/2014 10:56:57 PM	15566
2,4-Dichlorophenol	ND	20		µg/L	1	9/29/2014 10:56:57 PM	15566
2,4-Dimethylphenol	27	10		µg/L	1	9/29/2014 10:56:57 PM	15566
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	9/29/2014 10:56:57 PM	15566
2,4-Dinitrophenol	ND	20		µg/L	1	9/29/2014 10:56:57 PM	15566
2,4-Dinitrotoluene	ND	10		µg/L	1	9/29/2014 10:56:57 PM	15566
2,6-Dinitrotoluene	ND	10		µg/L	1	9/29/2014 10:56:57 PM	15566
Fluoranthene	ND	10		µg/L	1	9/29/2014 10:56:57 PM	15566
Fluorene	ND	10		µg/L	1	9/29/2014 10:56:57 PM	15566
Hexachlorobenzene	ND	10		µg/L	1	9/29/2014 10:56:57 PM	15566
Hexachlorobutadiene	ND	10		µg/L	1	9/29/2014 10:56:57 PM	15566
Hexachlorocyclopentadiene	ND	10		µg/L	1	9/29/2014 10:56:57 PM	15566
Hexachloroethane	ND	10		µg/L	1	9/29/2014 10:56:57 PM	15566
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/29/2014 10:56:57 PM	15566
Isophorone	ND	10		µg/L	1	9/29/2014 10:56:57 PM	15566
1-Methylnaphthalene	75	10		µg/L	1	9/29/2014 10:56:57 PM	15566
2-Methylnaphthalene	79	10		µg/L	1	9/29/2014 10:56:57 PM	15566
2-Methylphenol	34	20		µg/L	1	9/29/2014 10:56:57 PM	15566
3+4-Methylphenol	25	10		µg/L	1	9/29/2014 10:56:57 PM	15566
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/29/2014 10:56:57 PM	15566
N-Nitrosodimethylamine	ND	10		µg/L	1	9/29/2014 10:56:57 PM	15566
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/29/2014 10:56:57 PM	15566
Naphthalene	130	10		µg/L	1	9/29/2014 10:56:57 PM	15566
2-Nitroaniline	ND	10		µg/L	1	9/29/2014 10:56:57 PM	15566
3-Nitroaniline	ND	10		µg/L	1	9/29/2014 10:56:57 PM	15566
4-Nitroaniline	ND	10		µg/L	1	9/29/2014 10:56:57 PM	15566
Nitrobenzene	ND	10		µg/L	1	9/29/2014 10:56:57 PM	15566
2-Nitrophenol	ND	10		µg/L	1	9/29/2014 10:56:57 PM	15566
4-Nitrophenol	ND	10		µg/L	1	9/29/2014 10:56:57 PM	15566
Pentachlorophenol	ND	20		µg/L	1	9/29/2014 10:56:57 PM	15566
Phenanthrene	ND	10		µg/L	1	9/29/2014 10:56:57 PM	15566
Phenol	22	10		µg/L	1	9/29/2014 10:56:57 PM	15566
Pyrene	ND	10		µg/L	1	9/29/2014 10:56:57 PM	15566
Pyridine	ND	10		µg/L	1	9/29/2014 10:56:57 PM	15566
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/29/2014 10:56:57 PM	15566
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/29/2014 10:56:57 PM	15566

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.
	E Value above quantitation range
	J Analyte detected below quantitation limits
	O RSD is greater than RSDlimit
	R RPD outside accepted recovery limits
	S Spike Recovery outside accepted recovery limits

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2.
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1409D05**

Date Reported: **10/6/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-23

Project: 2014 3rd QUARTER MKTF WELLS

Collection Date: 9/23/2014 2:00:00 PM

Lab ID: 1409D05-001

Matrix: AQUEOUS

Received Date: 9/25/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
2,4,6-Trichlorophenol	ND	10		µg/L	1	9/29/2014 10:56:57 PM	15566
Surr: 2-Fluorophenol	60.2	12.1-85.8		%REC	1	9/29/2014 10:56:57 PM	15566
Surr: Phenol-d5	56.6	17.7-65.8		%REC	1	9/29/2014 10:56:57 PM	15566
Surr: 2,4,6-Tribromophenol	105	26-138		%REC	1	9/29/2014 10:56:57 PM	15566
Surr: Nitrobenzene-d5	89.4	47.5-119		%REC	1	9/29/2014 10:56:57 PM	15566
Surr: 2-Fluorobiphenyl	88.5	48.1-106		%REC	1	9/29/2014 10:56:57 PM	15566
Surr: 4-Terphenyl-d14	94.7	44-113		%REC	1	9/29/2014 10:56:57 PM	15566
EPA METHOD 8260B: VOLATILES							Analyst: KJH
Benzene	2700	100		µg/L	100	10/3/2014 12:17:51 PM	R21646
Toluene	1400	100		µg/L	100	10/3/2014 12:17:51 PM	R21646
Ethylbenzene	340	10		µg/L	10	10/3/2014 12:47:26 PM	R21646
Methyl tert-butyl ether (MTBE)	480	10		µg/L	10	10/3/2014 12:47:26 PM	R21646
1,2,4-Trimethylbenzene	540	10		µg/L	10	10/3/2014 12:47:26 PM	R21646
1,3,5-Trimethylbenzene	150	10		µg/L	10	10/3/2014 12:47:26 PM	R21646
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	10/3/2014 12:47:26 PM	R21646
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	10/3/2014 12:47:26 PM	R21646
Naphthalene	100	20		µg/L	10	10/3/2014 12:47:26 PM	R21646
1-Methylnaphthalene	ND	40		µg/L	10	10/3/2014 12:47:26 PM	R21646
2-Methylnaphthalene	41	40		µg/L	10	10/3/2014 12:47:26 PM	R21646
Acetone	ND	100		µg/L	10	10/3/2014 12:47:26 PM	R21646
Bromobenzene	ND	10		µg/L	10	10/3/2014 12:47:26 PM	R21646
Bromodichloromethane	ND	10		µg/L	10	10/3/2014 12:47:26 PM	R21646
Bromoform	ND	10		µg/L	10	10/3/2014 12:47:26 PM	R21646
Bromomethane	ND	30		µg/L	10	10/3/2014 12:47:26 PM	R21646
2-Butanone	ND	100		µg/L	10	10/3/2014 12:47:26 PM	R21646
Carbon disulfide	ND	100		µg/L	10	10/3/2014 12:47:26 PM	R21646
Carbon Tetrachloride	ND	10		µg/L	10	10/3/2014 12:47:26 PM	R21646
Chlorobenzene	ND	10		µg/L	10	10/3/2014 12:47:26 PM	R21646
Chloroethane	ND	20		µg/L	10	10/3/2014 12:47:26 PM	R21646
Chloroform	ND	10		µg/L	10	10/3/2014 12:47:26 PM	R21646
Chloromethane	ND	30		µg/L	10	10/3/2014 12:47:26 PM	R21646
2-Chlorotoluene	ND	10		µg/L	10	10/3/2014 12:47:26 PM	R21646
4-Chlorotoluene	ND	10		µg/L	10	10/3/2014 12:47:26 PM	R21646
cis-1,2-DCE	29	10		µg/L	10	10/3/2014 12:47:26 PM	R21646
cis-1,3-Dichloropropene	ND	10		µg/L	10	10/3/2014 12:47:26 PM	R21646
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	10/3/2014 12:47:26 PM	R21646
Dibromochloromethane	ND	10		µg/L	10	10/3/2014 12:47:26 PM	R21646
Dibromomethane	ND	10		µg/L	10	10/3/2014 12:47:26 PM	R21646
1,2-Dichlorobenzene	ND	10		µg/L	10	10/3/2014 12:47:26 PM	R21646

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1409D05

Date Reported: 10/6/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-23

Project: 2014 3rd QUARTER MKTF WELLS

Collection Date: 9/23/2014 2:00:00 PM

Lab ID: 1409D05-001

Matrix: AQUEOUS

Received Date: 9/25/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: KJH			
1,3-Dichlorobenzene	ND	10		µg/L	10	10/3/2014 12:47:26 PM	R21646
1,4-Dichlorobenzene	ND	10		µg/L	10	10/3/2014 12:47:26 PM	R21646
Dichlorodifluoromethane	ND	10		µg/L	10	10/3/2014 12:47:26 PM	R21646
1,1-Dichloroethane	92	10		µg/L	10	10/3/2014 12:47:26 PM	R21646
1,1-Dichloroethene	47	10		µg/L	10	10/3/2014 12:47:26 PM	R21646
1,2-Dichloropropane	ND	10		µg/L	10	10/3/2014 12:47:26 PM	R21646
1,3-Dichloropropane	ND	10		µg/L	10	10/3/2014 12:47:26 PM	R21646
2,2-Dichloropropane	ND	20		µg/L	10	10/3/2014 12:47:26 PM	R21646
1,1-Dichloropropene	ND	10		µg/L	10	10/3/2014 12:47:26 PM	R21646
Hexachlorobutadiene	ND	10		µg/L	10	10/3/2014 12:47:26 PM	R21646
2-Hexanone	ND	100		µg/L	10	10/3/2014 12:47:26 PM	R21646
Isopropylbenzene	26	10		µg/L	10	10/3/2014 12:47:26 PM	R21646
4-Isopropyltoluene	ND	10		µg/L	10	10/3/2014 12:47:26 PM	R21646
4-Methyl-2-pentanone	ND	100		µg/L	10	10/3/2014 12:47:26 PM	R21646
Methylene Chloride	ND	30		µg/L	10	10/3/2014 12:47:26 PM	R21646
n-Butylbenzene	ND	30		µg/L	10	10/3/2014 12:47:26 PM	R21646
n-Propylbenzene	58	10		µg/L	10	10/3/2014 12:47:26 PM	R21646
sec-Butylbenzene	ND	10		µg/L	10	10/3/2014 12:47:26 PM	R21646
Styrene	ND	10		µg/L	10	10/3/2014 12:47:26 PM	R21646
tert-Butylbenzene	ND	10		µg/L	10	10/3/2014 12:47:26 PM	R21646
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	10/3/2014 12:47:26 PM	R21646
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	10/3/2014 12:47:26 PM	R21646
Tetrachloroethene (PCE)	ND	10		µg/L	10	10/3/2014 12:47:26 PM	R21646
trans-1,2-DCE	ND	10		µg/L	10	10/3/2014 12:47:26 PM	R21646
trans-1,3-Dichloropropene	ND	10		µg/L	10	10/3/2014 12:47:26 PM	R21646
1,2,3-Trichlorobenzene	ND	10		µg/L	10	10/3/2014 12:47:26 PM	R21646
1,2,4-Trichlorobenzene	ND	10		µg/L	10	10/3/2014 12:47:26 PM	R21646
1,1,1-Trichloroethane	24	10		µg/L	10	10/3/2014 12:47:26 PM	R21646
1,1,2-Trichloroethane	ND	10		µg/L	10	10/3/2014 12:47:26 PM	R21646
Trichloroethene (TCE)	ND	10		µg/L	10	10/3/2014 12:47:26 PM	R21646
Trichlorofluoromethane	ND	10		µg/L	10	10/3/2014 12:47:26 PM	R21646
1,2,3-Trichloropropane	ND	20		µg/L	10	10/3/2014 12:47:26 PM	R21646
Vinyl chloride	ND	10		µg/L	10	10/3/2014 12:47:26 PM	R21646
Xylenes, Total	1600	15		µg/L	10	10/3/2014 12:47:26 PM	R21646
Surr: 1,2-Dichloroethane-d4	93.9	70-130		%REC	10	10/3/2014 12:47:26 PM	R21646
Surr: 4-Bromofluorobenzene	109	70-130		%REC	10	10/3/2014 12:47:26 PM	R21646
Surr: Dibromofluoromethane	92.9	70-130		%REC	10	10/3/2014 12:47:26 PM	R21646
Surr: Toluene-d8	94.7	70-130		%REC	10	10/3/2014 12:47:26 PM	R21646

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1409D05

Date Reported: 10/6/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-33

Project: 2014 3rd QUARTER MKTF WELLS

Collection Date: 9/23/2014 2:30:00 PM

Lab ID: 1409D05-002

Matrix: AQUEOUS

Received Date: 9/25/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	9/27/2014 5:01:50 AM	15542
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	9/27/2014 5:01:50 AM	15542
Surr: DNOP	117	59-141		%REC	1	9/27/2014 5:01:50 AM	15542
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	0.25	0.050		mg/L	1	10/3/2014 5:48:07 PM	R21651
Surr: BFB	84.0	70.9-130		%REC	1	10/3/2014 5:48:07 PM	R21651
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	9/29/2014 11:24:42 PM	15566
Acenaphthylene	ND	10		µg/L	1	9/29/2014 11:24:42 PM	15566
Aniline	ND	10		µg/L	1	9/29/2014 11:24:42 PM	15566
Anthracene	ND	10		µg/L	1	9/29/2014 11:24:42 PM	15566
Azobenzene	ND	10		µg/L	1	9/29/2014 11:24:42 PM	15566
Benz(a)anthracene	ND	10		µg/L	1	9/29/2014 11:24:42 PM	15566
Benzo(a)pyrene	ND	10		µg/L	1	9/29/2014 11:24:42 PM	15566
Benzo(b)fluoranthene	ND	10		µg/L	1	9/29/2014 11:24:42 PM	15566
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/29/2014 11:24:42 PM	15566
Benzo(k)fluoranthene	ND	10		µg/L	1	9/29/2014 11:24:42 PM	15566
Benzoic acid	ND	20		µg/L	1	9/29/2014 11:24:42 PM	15566
Benzyl alcohol	ND	10		µg/L	1	9/29/2014 11:24:42 PM	15566
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/29/2014 11:24:42 PM	15566
Bis(2-chloroethyl)ether	ND	10		µg/L	1	9/29/2014 11:24:42 PM	15566
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	9/29/2014 11:24:42 PM	15566
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	9/29/2014 11:24:42 PM	15566
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/29/2014 11:24:42 PM	15566
Butyl benzyl phthalate	ND	10		µg/L	1	9/29/2014 11:24:42 PM	15566
Carbazole	ND	10		µg/L	1	9/29/2014 11:24:42 PM	15566
4-Chloro-3-methylphenol	ND	10		µg/L	1	9/29/2014 11:24:42 PM	15566
4-Chloroaniline	ND	10		µg/L	1	9/29/2014 11:24:42 PM	15566
2-Chloronaphthalene	ND	10		µg/L	1	9/29/2014 11:24:42 PM	15566
2-Chlorophenol	ND	10		µg/L	1	9/29/2014 11:24:42 PM	15566
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	9/29/2014 11:24:42 PM	15566
Chrysene	ND	10		µg/L	1	9/29/2014 11:24:42 PM	15566
Di-n-butyl phthalate	ND	10		µg/L	1	9/29/2014 11:24:42 PM	15566
Di-n-octyl phthalate	ND	20		µg/L	1	9/29/2014 11:24:42 PM	15566
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/29/2014 11:24:42 PM	15566
Dibenzofuran	ND	10		µg/L	1	9/29/2014 11:24:42 PM	15566
1,2-Dichlorobenzene	ND	10		µg/L	1	9/29/2014 11:24:42 PM	15566
1,3-Dichlorobenzene	ND	10		µg/L	1	9/29/2014 11:24:42 PM	15566

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.
	E Value above quantitation range
	J Analyte detected below quantitation limits
	O RSD is greater than RSDlimit
	R RPD outside accepted recovery limits
	S Spike Recovery outside accepted recovery limits

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2.
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1409D05**

Date Reported: **10/6/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-33

Project: 2014 3rd QUARTER MKTF WELLS

Collection Date: 9/23/2014 2:30:00 PM

Lab ID: 1409D05-002

Matrix: AQUEOUS

Received Date: 9/25/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
1,4-Dichlorobenzene	ND	10		µg/L	1	9/29/2014 11:24:42 PM	15566
3,3'-Dichlorobenzidine	ND	10		µg/L	1	9/29/2014 11:24:42 PM	15566
Diethyl phthalate	ND	10		µg/L	1	9/29/2014 11:24:42 PM	15566
Dimethyl phthalate	ND	10		µg/L	1	9/29/2014 11:24:42 PM	15566
2,4-Dichlorophenol	ND	20		µg/L	1	9/29/2014 11:24:42 PM	15566
2,4-Dimethylphenol	ND	10		µg/L	1	9/29/2014 11:24:42 PM	15566
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	9/29/2014 11:24:42 PM	15566
2,4-Dinitrophenol	ND	20		µg/L	1	9/29/2014 11:24:42 PM	15566
2,4-Dinitrotoluene	ND	10		µg/L	1	9/29/2014 11:24:42 PM	15566
2,6-Dinitrotoluene	ND	10		µg/L	1	9/29/2014 11:24:42 PM	15566
Fluoranthene	ND	10		µg/L	1	9/29/2014 11:24:42 PM	15566
Fluorene	ND	10		µg/L	1	9/29/2014 11:24:42 PM	15566
Hexachlorobenzene	ND	10		µg/L	1	9/29/2014 11:24:42 PM	15566
Hexachlorobutadiene	ND	10		µg/L	1	9/29/2014 11:24:42 PM	15566
Hexachlorocyclopentadiene	ND	10		µg/L	1	9/29/2014 11:24:42 PM	15566
Hexachloroethane	ND	10		µg/L	1	9/29/2014 11:24:42 PM	15566
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/29/2014 11:24:42 PM	15566
Isophorone	ND	10		µg/L	1	9/29/2014 11:24:42 PM	15566
1-Methylnaphthalene	ND	10		µg/L	1	9/29/2014 11:24:42 PM	15566
2-Methylnaphthalene	ND	10		µg/L	1	9/29/2014 11:24:42 PM	15566
2-Methylphenol	ND	20		µg/L	1	9/29/2014 11:24:42 PM	15566
3+4-Methylphenol	ND	10		µg/L	1	9/29/2014 11:24:42 PM	15566
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/29/2014 11:24:42 PM	15566
N-Nitrosodimethylamine	ND	10		µg/L	1	9/29/2014 11:24:42 PM	15566
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/29/2014 11:24:42 PM	15566
Naphthalene	ND	10		µg/L	1	9/29/2014 11:24:42 PM	15566
2-Nitroaniline	ND	10		µg/L	1	9/29/2014 11:24:42 PM	15566
3-Nitroaniline	ND	10		µg/L	1	9/29/2014 11:24:42 PM	15566
4-Nitroaniline	ND	10		µg/L	1	9/29/2014 11:24:42 PM	15566
Nitrobenzene	ND	10		µg/L	1	9/29/2014 11:24:42 PM	15566
2-Nitrophenol	ND	10		µg/L	1	9/29/2014 11:24:42 PM	15566
4-Nitrophenol	ND	10		µg/L	1	9/29/2014 11:24:42 PM	15566
Pentachlorophenol	ND	20		µg/L	1	9/29/2014 11:24:42 PM	15566
Phenanthrene	ND	10		µg/L	1	9/29/2014 11:24:42 PM	15566
Phenol	ND	10		µg/L	1	9/29/2014 11:24:42 PM	15566
Pyrene	ND	10		µg/L	1	9/29/2014 11:24:42 PM	15566
Pyridine	ND	10		µg/L	1	9/29/2014 11:24:42 PM	15566
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/29/2014 11:24:42 PM	15566
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/29/2014 11:24:42 PM	15566

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	Page 6 of 39
	E Value above quantitation range	H Holding times for preparation or analysis exceeded	
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit	
	O RSD is greater than RSDlimit	P Sample pH greater than 2.	
	R RPD outside accepted recovery limits	RL Reporting Detection Limit	
	S Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1409D05

Date Reported: 10/6/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-33

Project: 2014 3rd QUARTER MKTF WELLS

Collection Date: 9/23/2014 2:30:00 PM

Lab ID: 1409D05-002

Matrix: AQUEOUS

Received Date: 9/25/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
2,4,6-Trichlorophenol	ND	10		µg/L	1	9/29/2014 11:24:42 PM	15566
Surr: 2-Fluorophenol	70.7	12.1-85.8		%REC	1	9/29/2014 11:24:42 PM	15566
Surr: Phenol-d5	64.8	17.7-65.8		%REC	1	9/29/2014 11:24:42 PM	15566
Surr: 2,4,6-Tribromophenol	79.1	26-138		%REC	1	9/29/2014 11:24:42 PM	15566
Surr: Nitrobenzene-d5	89.5	47.5-119		%REC	1	9/29/2014 11:24:42 PM	15566
Surr: 2-Fluorobiphenyl	83.1	48.1-106		%REC	1	9/29/2014 11:24:42 PM	15566
Surr: 4-Terphenyl-d14	85.2	44-113		%REC	1	9/29/2014 11:24:42 PM	15566
EPA METHOD 8260B: VOLATILES							Analyst: KJH
Benzene	ND	5.0		µg/L	5	10/3/2014 1:46:37 PM	R21646
Toluene	ND	5.0		µg/L	5	10/3/2014 1:46:37 PM	R21646
Ethylbenzene	ND	5.0		µg/L	5	10/3/2014 1:46:37 PM	R21646
Methyl tert-butyl ether (MTBE)	450	5.0		µg/L	5	10/3/2014 1:46:37 PM	R21646
1,2,4-Trimethylbenzene	ND	5.0		µg/L	5	10/3/2014 1:46:37 PM	R21646
1,3,5-Trimethylbenzene	ND	5.0		µg/L	5	10/3/2014 1:46:37 PM	R21646
1,2-Dichloroethane (EDC)	ND	5.0		µg/L	5	10/3/2014 1:46:37 PM	R21646
1,2-Dibromoethane (EDB)	ND	5.0		µg/L	5	10/3/2014 1:46:37 PM	R21646
Naphthalene	ND	10		µg/L	5	10/3/2014 1:46:37 PM	R21646
1-Methylnaphthalene	ND	20		µg/L	5	10/3/2014 1:46:37 PM	R21646
2-Methylnaphthalene	ND	20		µg/L	5	10/3/2014 1:46:37 PM	R21646
Acetone	ND	50		µg/L	5	10/3/2014 1:46:37 PM	R21646
Bromobenzene	ND	5.0		µg/L	5	10/3/2014 1:46:37 PM	R21646
Bromodichloromethane	ND	5.0		µg/L	5	10/3/2014 1:46:37 PM	R21646
Bromoform	ND	5.0		µg/L	5	10/3/2014 1:46:37 PM	R21646
Bromomethane	ND	15		µg/L	5	10/3/2014 1:46:37 PM	R21646
2-Butanone	ND	50		µg/L	5	10/3/2014 1:46:37 PM	R21646
Carbon disulfide	ND	50		µg/L	5	10/3/2014 1:46:37 PM	R21646
Carbon Tetrachloride	ND	5.0		µg/L	5	10/3/2014 1:46:37 PM	R21646
Chlorobenzene	ND	5.0		µg/L	5	10/3/2014 1:46:37 PM	R21646
Chloroethane	ND	10		µg/L	5	10/3/2014 1:46:37 PM	R21646
Chloroform	ND	5.0		µg/L	5	10/3/2014 1:46:37 PM	R21646
Chloromethane	ND	15		µg/L	5	10/3/2014 1:46:37 PM	R21646
2-Chlorotoluene	ND	5.0		µg/L	5	10/3/2014 1:46:37 PM	R21646
4-Chlorotoluene	ND	5.0		µg/L	5	10/3/2014 1:46:37 PM	R21646
cis-1,2-DCE	ND	5.0		µg/L	5	10/3/2014 1:46:37 PM	R21646
cis-1,3-Dichloropropene	ND	5.0		µg/L	5	10/3/2014 1:46:37 PM	R21646
1,2-Dibromo-3-chloropropane	ND	10		µg/L	5	10/3/2014 1:46:37 PM	R21646
Dibromochloromethane	ND	5.0		µg/L	5	10/3/2014 1:46:37 PM	R21646
Dibromomethane	ND	5.0		µg/L	5	10/3/2014 1:46:37 PM	R21646
1,2-Dichlorobenzene	ND	5.0		µg/L	5	10/3/2014 1:46:37 PM	R21646

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	Page 7 of 39
	E Value above quantitation range	H Holding times for preparation or analysis exceeded	
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit	
	O RSD is greater than RSDlimit	P Sample pH greater than 2.	
	R RPD outside accepted recovery limits	RL Reporting Detection Limit	
	S Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1409D05

Date Reported: 10/6/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-33

Project: 2014 3rd QUARTER MKTF WELLS

Collection Date: 9/23/2014 2:30:00 PM

Lab ID: 1409D05-002

Matrix: AQUEOUS

Received Date: 9/25/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: KJH
1,3-Dichlorobenzene	ND	5.0		µg/L	5	10/3/2014 1:46:37 PM	R21646
1,4-Dichlorobenzene	ND	5.0		µg/L	5	10/3/2014 1:46:37 PM	R21646
Dichlorodifluoromethane	ND	5.0		µg/L	5	10/3/2014 1:46:37 PM	R21646
1,1-Dichloroethane	ND	5.0		µg/L	5	10/3/2014 1:46:37 PM	R21646
1,1-Dichloroethene	ND	5.0		µg/L	5	10/3/2014 1:46:37 PM	R21646
1,2-Dichloropropane	ND	5.0		µg/L	5	10/3/2014 1:46:37 PM	R21646
1,3-Dichloropropane	ND	5.0		µg/L	5	10/3/2014 1:46:37 PM	R21646
2,2-Dichloropropane	ND	10		µg/L	5	10/3/2014 1:46:37 PM	R21646
1,1-Dichloropropene	ND	5.0		µg/L	5	10/3/2014 1:46:37 PM	R21646
Hexachlorobutadiene	ND	5.0		µg/L	5	10/3/2014 1:46:37 PM	R21646
2-Hexanone	ND	50		µg/L	5	10/3/2014 1:46:37 PM	R21646
Isopropylbenzene	ND	5.0		µg/L	5	10/3/2014 1:46:37 PM	R21646
4-Isopropyltoluene	ND	5.0		µg/L	5	10/3/2014 1:46:37 PM	R21646
4-Methyl-2-pentanone	ND	50		µg/L	5	10/3/2014 1:46:37 PM	R21646
Methylene Chloride	ND	15		µg/L	5	10/3/2014 1:46:37 PM	R21646
n-Butylbenzene	ND	15		µg/L	5	10/3/2014 1:46:37 PM	R21646
n-Propylbenzene	ND	5.0		µg/L	5	10/3/2014 1:46:37 PM	R21646
sec-Butylbenzene	ND	5.0		µg/L	5	10/3/2014 1:46:37 PM	R21646
Styrene	ND	5.0		µg/L	5	10/3/2014 1:46:37 PM	R21646
tert-Butylbenzene	ND	5.0		µg/L	5	10/3/2014 1:46:37 PM	R21646
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	5	10/3/2014 1:46:37 PM	R21646
1,1,2,2-Tetrachloroethane	ND	10		µg/L	5	10/3/2014 1:46:37 PM	R21646
Tetrachloroethene (PCE)	ND	5.0		µg/L	5	10/3/2014 1:46:37 PM	R21646
trans-1,2-DCE	ND	5.0		µg/L	5	10/3/2014 1:46:37 PM	R21646
trans-1,3-Dichloropropene	ND	5.0		µg/L	5	10/3/2014 1:46:37 PM	R21646
1,2,3-Trichlorobenzene	ND	5.0		µg/L	5	10/3/2014 1:46:37 PM	R21646
1,2,4-Trichlorobenzene	ND	5.0		µg/L	5	10/3/2014 1:46:37 PM	R21646
1,1,1-Trichloroethane	ND	5.0		µg/L	5	10/3/2014 1:46:37 PM	R21646
1,1,2-Trichloroethane	ND	5.0		µg/L	5	10/3/2014 1:46:37 PM	R21646
Trichloroethene (TCE)	ND	5.0		µg/L	5	10/3/2014 1:46:37 PM	R21646
Trichlorofluoromethane	ND	5.0		µg/L	5	10/3/2014 1:46:37 PM	R21646
1,2,3-Trichloropropane	ND	10		µg/L	5	10/3/2014 1:46:37 PM	R21646
Vinyl chloride	ND	5.0		µg/L	5	10/3/2014 1:46:37 PM	R21646
Xylenes, Total	ND	7.5		µg/L	5	10/3/2014 1:46:37 PM	R21646
Surr: 1,2-Dichloroethane-d4	87.4	70-130		%REC	5	10/3/2014 1:46:37 PM	R21646
Surr: 4-Bromofluorobenzene	106	70-130		%REC	5	10/3/2014 1:46:37 PM	R21646
Surr: Dibromofluoromethane	89.3	70-130		%REC	5	10/3/2014 1:46:37 PM	R21646
Surr: Toluene-d8	96.7	70-130		%REC	5	10/3/2014 1:46:37 PM	R21646

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	
	E Value above quantitation range	H Holding times for preparation or analysis exceeded	
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit	Page 8 of 39
	O RSD is greater than RSDlimit	P Sample pH greater than 2.	
	R RPD outside accepted recovery limits	RL Reporting Detection Limit	
	S Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1409D05

Date Reported: 10/6/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-32

Project: 2014 3rd QUARTER MKTF WELLS

Collection Date: 9/23/2014 2:55:00 PM

Lab ID: 1409D05-003

Matrix: AQUEOUS

Received Date: 9/25/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	9/27/2014 5:31:17 AM	15542
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	9/27/2014 5:31:17 AM	15542
Surr: DNOP	120	59-141		%REC	1	9/27/2014 5:31:17 AM	15542
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	0.23	0.050		mg/L	1	10/3/2014 6:18:13 PM	R21651
Surr: BFB	104	70.9-130		%REC	1	10/3/2014 6:18:13 PM	R21651
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	9/29/2014 11:52:26 PM	15566
Acenaphthylene	ND	10		µg/L	1	9/29/2014 11:52:26 PM	15566
Aniline	ND	10		µg/L	1	9/29/2014 11:52:26 PM	15566
Anthracene	ND	10		µg/L	1	9/29/2014 11:52:26 PM	15566
Azobenzene	ND	10		µg/L	1	9/29/2014 11:52:26 PM	15566
Benz(a)anthracene	ND	10		µg/L	1	9/29/2014 11:52:26 PM	15566
Benzo(a)pyrene	ND	10		µg/L	1	9/29/2014 11:52:26 PM	15566
Benzo(b)fluoranthene	ND	10		µg/L	1	9/29/2014 11:52:26 PM	15566
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/29/2014 11:52:26 PM	15566
Benzo(k)fluoranthene	ND	10		µg/L	1	9/29/2014 11:52:26 PM	15566
Benzoic acid	ND	20		µg/L	1	9/29/2014 11:52:26 PM	15566
Benzyl alcohol	ND	10		µg/L	1	9/29/2014 11:52:26 PM	15566
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/29/2014 11:52:26 PM	15566
Bis(2-chloroethyl)ether	ND	10		µg/L	1	9/29/2014 11:52:26 PM	15566
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	9/29/2014 11:52:26 PM	15566
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	9/29/2014 11:52:26 PM	15566
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/29/2014 11:52:26 PM	15566
Butyl benzyl phthalate	ND	10		µg/L	1	9/29/2014 11:52:26 PM	15566
Carbazole	ND	10		µg/L	1	9/29/2014 11:52:26 PM	15566
4-Chloro-3-methylphenol	ND	10		µg/L	1	9/29/2014 11:52:26 PM	15566
4-Chloroaniline	ND	10		µg/L	1	9/29/2014 11:52:26 PM	15566
2-Chloronaphthalene	ND	10		µg/L	1	9/29/2014 11:52:26 PM	15566
2-Chlorophenol	ND	10		µg/L	1	9/29/2014 11:52:26 PM	15566
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	9/29/2014 11:52:26 PM	15566
Chrysene	ND	10		µg/L	1	9/29/2014 11:52:26 PM	15566
Di-n-butyl phthalate	ND	10		µg/L	1	9/29/2014 11:52:26 PM	15566
Di-n-octyl phthalate	ND	20		µg/L	1	9/29/2014 11:52:26 PM	15566
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/29/2014 11:52:26 PM	15566
Dibenzofuran	ND	10		µg/L	1	9/29/2014 11:52:26 PM	15566
1,2-Dichlorobenzene	ND	10		µg/L	1	9/29/2014 11:52:26 PM	15566
1,3-Dichlorobenzene	ND	10		µg/L	1	9/29/2014 11:52:26 PM	15566

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.
	E Value above quantitation range
	J Analyte detected below quantitation limits
	O RSD is greater than RSDlimit
	R RPD outside accepted recovery limits
	S Spike Recovery outside accepted recovery limits

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2.
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1409D05

Date Reported: 10/6/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-32

Project: 2014 3rd QUARTER MKTF WELLS

Collection Date: 9/23/2014 2:55:00 PM

Lab ID: 1409D05-003

Matrix: AQUEOUS

Received Date: 9/25/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
1,4-Dichlorobenzene	ND	10		µg/L	1	9/29/2014 11:52:26 PM	15566
3,3'-Dichlorobenzidine	ND	10		µg/L	1	9/29/2014 11:52:26 PM	15566
Diethyl phthalate	ND	10		µg/L	1	9/29/2014 11:52:26 PM	15566
Dimethyl phthalate	ND	10		µg/L	1	9/29/2014 11:52:26 PM	15566
2,4-Dichlorophenol	ND	20		µg/L	1	9/29/2014 11:52:26 PM	15566
2,4-Dimethylphenol	ND	10		µg/L	1	9/29/2014 11:52:26 PM	15566
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	9/29/2014 11:52:26 PM	15566
2,4-Dinitrophenol	ND	20		µg/L	1	9/29/2014 11:52:26 PM	15566
2,4-Dinitrotoluene	ND	10		µg/L	1	9/29/2014 11:52:26 PM	15566
2,6-Dinitrotoluene	ND	10		µg/L	1	9/29/2014 11:52:26 PM	15566
Fluoranthene	ND	10		µg/L	1	9/29/2014 11:52:26 PM	15566
Fluorene	ND	10		µg/L	1	9/29/2014 11:52:26 PM	15566
Hexachlorobenzene	ND	10		µg/L	1	9/29/2014 11:52:26 PM	15566
Hexachlorobutadiene	ND	10		µg/L	1	9/29/2014 11:52:26 PM	15566
Hexachlorocyclopentadiene	ND	10		µg/L	1	9/29/2014 11:52:26 PM	15566
Hexachloroethane	ND	10		µg/L	1	9/29/2014 11:52:26 PM	15566
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/29/2014 11:52:26 PM	15566
Isophorone	ND	10		µg/L	1	9/29/2014 11:52:26 PM	15566
1-Methylnaphthalene	ND	10		µg/L	1	9/29/2014 11:52:26 PM	15566
2-Methylnaphthalene	ND	10		µg/L	1	9/29/2014 11:52:26 PM	15566
2-Methylphenol	ND	20		µg/L	1	9/29/2014 11:52:26 PM	15566
3+4-Methylphenol	ND	10		µg/L	1	9/29/2014 11:52:26 PM	15566
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/29/2014 11:52:26 PM	15566
N-Nitrosodimethylamine	ND	10		µg/L	1	9/29/2014 11:52:26 PM	15566
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/29/2014 11:52:26 PM	15566
Naphthalene	ND	10		µg/L	1	9/29/2014 11:52:26 PM	15566
2-Nitroaniline	ND	10		µg/L	1	9/29/2014 11:52:26 PM	15566
3-Nitroaniline	ND	10		µg/L	1	9/29/2014 11:52:26 PM	15566
4-Nitroaniline	ND	10		µg/L	1	9/29/2014 11:52:26 PM	15566
Nitrobenzene	ND	10		µg/L	1	9/29/2014 11:52:26 PM	15566
2-Nitrophenol	ND	10		µg/L	1	9/29/2014 11:52:26 PM	15566
4-Nitrophenol	ND	10		µg/L	1	9/29/2014 11:52:26 PM	15566
Pentachlorophenol	ND	20		µg/L	1	9/29/2014 11:52:26 PM	15566
Phenanthrene	ND	10		µg/L	1	9/29/2014 11:52:26 PM	15566
Phenol	ND	10		µg/L	1	9/29/2014 11:52:26 PM	15566
Pyrene	ND	10		µg/L	1	9/29/2014 11:52:26 PM	15566
Pyridine	ND	10		µg/L	1	9/29/2014 11:52:26 PM	15566
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/29/2014 11:52:26 PM	15566
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/29/2014 11:52:26 PM	15566

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1409D05

Date Reported: 10/6/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-32

Project: 2014 3rd QUARTER MKTF WELLS

Collection Date: 9/23/2014 2:55:00 PM

Lab ID: 1409D05-003

Matrix: AQUEOUS

Received Date: 9/25/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
2,4,6-Trichlorophenol	ND	10		µg/L	1	9/29/2014 11:52:26 PM	15566
Surr: 2-Fluorophenol	69.8	12.1-85.8		%REC	1	9/29/2014 11:52:26 PM	15566
Surr: Phenol-d5	62.5	17.7-65.8		%REC	1	9/29/2014 11:52:26 PM	15566
Surr: 2,4,6-Tribromophenol	73.7	26-138		%REC	1	9/29/2014 11:52:26 PM	15566
Surr: Nitrobenzene-d5	84.0	47.5-119		%REC	1	9/29/2014 11:52:26 PM	15566
Surr: 2-Fluorobiphenyl	76.1	48.1-106		%REC	1	9/29/2014 11:52:26 PM	15566
Surr: 4-Terphenyl-d14	76.9	44-113		%REC	1	9/29/2014 11:52:26 PM	15566
EPA METHOD 8260B: VOLATILES							Analyst: KJH
Benzene	ND	5.0		µg/L	5	10/3/2014 3:15:25 PM	R21646
Toluene	ND	5.0		µg/L	5	10/3/2014 3:15:25 PM	R21646
Ethylbenzene	ND	5.0		µg/L	5	10/3/2014 3:15:25 PM	R21646
Methyl tert-butyl ether (MTBE)	320	5.0		µg/L	5	10/3/2014 3:15:25 PM	R21646
1,2,4-Trimethylbenzene	ND	5.0		µg/L	5	10/3/2014 3:15:25 PM	R21646
1,3,5-Trimethylbenzene	ND	5.0		µg/L	5	10/3/2014 3:15:25 PM	R21646
1,2-Dichloroethane (EDC)	29	5.0		µg/L	5	10/3/2014 3:15:25 PM	R21646
1,2-Dibromoethane (EDB)	ND	5.0		µg/L	5	10/3/2014 3:15:25 PM	R21646
Naphthalene	ND	10		µg/L	5	10/3/2014 3:15:25 PM	R21646
1-Methylnaphthalene	ND	20		µg/L	5	10/3/2014 3:15:25 PM	R21646
2-Methylnaphthalene	ND	20		µg/L	5	10/3/2014 3:15:25 PM	R21646
Acetone	ND	50		µg/L	5	10/3/2014 3:15:25 PM	R21646
Bromobenzene	ND	5.0		µg/L	5	10/3/2014 3:15:25 PM	R21646
Bromodichloromethane	ND	5.0		µg/L	5	10/3/2014 3:15:25 PM	R21646
Bromoform	ND	5.0		µg/L	5	10/3/2014 3:15:25 PM	R21646
Bromomethane	ND	15		µg/L	5	10/3/2014 3:15:25 PM	R21646
2-Butanone	ND	50		µg/L	5	10/3/2014 3:15:25 PM	R21646
Carbon disulfide	ND	50		µg/L	5	10/3/2014 3:15:25 PM	R21646
Carbon Tetrachloride	ND	5.0		µg/L	5	10/3/2014 3:15:25 PM	R21646
Chlorobenzene	ND	5.0		µg/L	5	10/3/2014 3:15:25 PM	R21646
Chloroethane	ND	10		µg/L	5	10/3/2014 3:15:25 PM	R21646
Chloroform	ND	5.0		µg/L	5	10/3/2014 3:15:25 PM	R21646
Chloromethane	ND	15		µg/L	5	10/3/2014 3:15:25 PM	R21646
2-Chlorotoluene	ND	5.0		µg/L	5	10/3/2014 3:15:25 PM	R21646
4-Chlorotoluene	ND	5.0		µg/L	5	10/3/2014 3:15:25 PM	R21646
cis-1,2-DCE	ND	5.0		µg/L	5	10/3/2014 3:15:25 PM	R21646
cis-1,3-Dichloropropene	ND	5.0		µg/L	5	10/3/2014 3:15:25 PM	R21646
1,2-Dibromo-3-chloropropane	ND	10		µg/L	5	10/3/2014 3:15:25 PM	R21646
Dibromochloromethane	ND	5.0		µg/L	5	10/3/2014 3:15:25 PM	R21646
Dibromomethane	ND	5.0		µg/L	5	10/3/2014 3:15:25 PM	R21646
1,2-Dichlorobenzene	ND	5.0		µg/L	5	10/3/2014 3:15:25 PM	R21646

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	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1409D05

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CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-32

Project: 2014 3rd QUARTER MKTF WELLS

Collection Date: 9/23/2014 2:55:00 PM

Lab ID: 1409D05-003

Matrix: AQUEOUS

Received Date: 9/25/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES					Analyst: KJH		
1,3-Dichlorobenzene	ND	5.0		µg/L	5	10/3/2014 3:15:25 PM	R21646
1,4-Dichlorobenzene	ND	5.0		µg/L	5	10/3/2014 3:15:25 PM	R21646
Dichlorodifluoromethane	ND	5.0		µg/L	5	10/3/2014 3:15:25 PM	R21646
1,1-Dichloroethane	23	5.0		µg/L	5	10/3/2014 3:15:25 PM	R21646
1,1-Dichloroethene	54	5.0		µg/L	5	10/3/2014 3:15:25 PM	R21646
1,2-Dichloropropane	ND	5.0		µg/L	5	10/3/2014 3:15:25 PM	R21646
1,3-Dichloropropane	ND	5.0		µg/L	5	10/3/2014 3:15:25 PM	R21646
2,2-Dichloropropane	ND	10		µg/L	5	10/3/2014 3:15:25 PM	R21646
1,1-Dichloropropene	ND	5.0		µg/L	5	10/3/2014 3:15:25 PM	R21646
Hexachlorobutadiene	ND	5.0		µg/L	5	10/3/2014 3:15:25 PM	R21646
2-Hexanone	ND	50		µg/L	5	10/3/2014 3:15:25 PM	R21646
Isopropylbenzene	ND	5.0		µg/L	5	10/3/2014 3:15:25 PM	R21646
4-Isopropyltoluene	ND	5.0		µg/L	5	10/3/2014 3:15:25 PM	R21646
4-Methyl-2-pentanone	ND	50		µg/L	5	10/3/2014 3:15:25 PM	R21646
Methylene Chloride	ND	15		µg/L	5	10/3/2014 3:15:25 PM	R21646
n-Butylbenzene	ND	15		µg/L	5	10/3/2014 3:15:25 PM	R21646
n-Propylbenzene	ND	5.0		µg/L	5	10/3/2014 3:15:25 PM	R21646
sec-Butylbenzene	ND	5.0		µg/L	5	10/3/2014 3:15:25 PM	R21646
Styrene	ND	5.0		µg/L	5	10/3/2014 3:15:25 PM	R21646
tert-Butylbenzene	ND	5.0		µg/L	5	10/3/2014 3:15:25 PM	R21646
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	5	10/3/2014 3:15:25 PM	R21646
1,1,2,2-Tetrachloroethane	ND	10		µg/L	5	10/3/2014 3:15:25 PM	R21646
Tetrachloroethene (PCE)	ND	5.0		µg/L	5	10/3/2014 3:15:25 PM	R21646
trans-1,2-DCE	ND	5.0		µg/L	5	10/3/2014 3:15:25 PM	R21646
trans-1,3-Dichloropropene	ND	5.0		µg/L	5	10/3/2014 3:15:25 PM	R21646
1,2,3-Trichlorobenzene	ND	5.0		µg/L	5	10/3/2014 3:15:25 PM	R21646
1,2,4-Trichlorobenzene	ND	5.0		µg/L	5	10/3/2014 3:15:25 PM	R21646
1,1,1-Trichloroethane	ND	5.0		µg/L	5	10/3/2014 3:15:25 PM	R21646
1,1,2-Trichloroethane	ND	5.0		µg/L	5	10/3/2014 3:15:25 PM	R21646
Trichloroethene (TCE)	ND	5.0		µg/L	5	10/3/2014 3:15:25 PM	R21646
Trichlorofluoromethane	ND	5.0		µg/L	5	10/3/2014 3:15:25 PM	R21646
1,2,3-Trichloropropane	ND	10		µg/L	5	10/3/2014 3:15:25 PM	R21646
Vinyl chloride	ND	5.0		µg/L	5	10/3/2014 3:15:25 PM	R21646
Xylenes, Total	ND	7.5		µg/L	5	10/3/2014 3:15:25 PM	R21646
Surr: 1,2-Dichloroethane-d4	91.0	70-130		%REC	5	10/3/2014 3:15:25 PM	R21646
Surr: 4-Bromofluorobenzene	102	70-130		%REC	5	10/3/2014 3:15:25 PM	R21646
Surr: Dibromofluoromethane	87.9	70-130		%REC	5	10/3/2014 3:15:25 PM	R21646
Surr: Toluene-d8	93.8	70-130		%REC	5	10/3/2014 3:15:25 PM	R21646

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	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1409D05**

Date Reported: **10/6/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-31

Project: 2014 3rd QUARTER MKTF WELLS

Collection Date: 9/23/2014 3:10:00 PM

Lab ID: 1409D05-004

Matrix: AQUEOUS

Received Date: 9/25/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	9/27/2014 6:00:44 AM	15542
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	9/27/2014 6:00:44 AM	15542
Surr: DNOP	126	59-141		%REC	1	9/27/2014 6:00:44 AM	15542
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	0.061	0.050		mg/L	1	10/3/2014 6:48:15 PM	R21651
Surr: BFB	93.4	70.9-130		%REC	1	10/3/2014 6:48:15 PM	R21651
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	12		µg/L	1	9/30/2014 4:32:53 PM	15605
Acenaphthylene	ND	12		µg/L	1	9/30/2014 4:32:53 PM	15605
Aniline	ND	12		µg/L	1	9/30/2014 4:32:53 PM	15605
Anthracene	ND	12		µg/L	1	9/30/2014 4:32:53 PM	15605
Azobenzene	ND	12		µg/L	1	9/30/2014 4:32:53 PM	15605
Benz(a)anthracene	ND	12		µg/L	1	9/30/2014 4:32:53 PM	15605
Benzo(a)pyrene	ND	12		µg/L	1	9/30/2014 4:32:53 PM	15605
Benzo(b)fluoranthene	ND	12		µg/L	1	9/30/2014 4:32:53 PM	15605
Benzo(g,h,i)perylene	ND	12		µg/L	1	9/30/2014 4:32:53 PM	15605
Benzo(k)fluoranthene	ND	12		µg/L	1	9/30/2014 4:32:53 PM	15605
Benzoic acid	ND	25		µg/L	1	9/30/2014 4:32:53 PM	15605
Benzyl alcohol	ND	12		µg/L	1	9/30/2014 4:32:53 PM	15605
Bis(2-chloroethoxy)methane	ND	12		µg/L	1	9/30/2014 4:32:53 PM	15605
Bis(2-chloroethyl)ether	ND	12		µg/L	1	9/30/2014 4:32:53 PM	15605
Bis(2-chloroisopropyl)ether	ND	12		µg/L	1	9/30/2014 4:32:53 PM	15605
Bis(2-ethylhexyl)phthalate	ND	12		µg/L	1	9/30/2014 4:32:53 PM	15605
4-Bromophenyl phenyl ether	ND	12		µg/L	1	9/30/2014 4:32:53 PM	15605
Butyl benzyl phthalate	ND	12		µg/L	1	9/30/2014 4:32:53 PM	15605
Carbazole	ND	12		µg/L	1	9/30/2014 4:32:53 PM	15605
4-Chloro-3-methylphenol	ND	12		µg/L	1	9/30/2014 4:32:53 PM	15605
4-Chloroaniline	ND	12		µg/L	1	9/30/2014 4:32:53 PM	15605
2-Chloronaphthalene	ND	12		µg/L	1	9/30/2014 4:32:53 PM	15605
2-Chlorophenol	ND	12		µg/L	1	9/30/2014 4:32:53 PM	15605
4-Chlorophenyl phenyl ether	ND	12		µg/L	1	9/30/2014 4:32:53 PM	15605
Chrysene	ND	12		µg/L	1	9/30/2014 4:32:53 PM	15605
Di-n-butyl phthalate	ND	12		µg/L	1	9/30/2014 4:32:53 PM	15605
Di-n-octyl phthalate	ND	25		µg/L	1	9/30/2014 4:32:53 PM	15605
Dibenz(a,h)anthracene	ND	12		µg/L	1	9/30/2014 4:32:53 PM	15605
Dibenzofuran	ND	12		µg/L	1	9/30/2014 4:32:53 PM	15605
1,2-Dichlorobenzene	ND	12		µg/L	1	9/30/2014 4:32:53 PM	15605
1,3-Dichlorobenzene	ND	12		µg/L	1	9/30/2014 4:32:53 PM	15605

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Analytical Report

Lab Order **1409D05**

Date Reported: **10/6/2014**

CLIENT: Western Refining Southwest, Gallup

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Project: 2014 3rd QUARTER MKTF WELLS

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Matrix: AQUEOUS

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Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
1,4-Dichlorobenzene	ND	12		µg/L	1	9/30/2014 4:32:53 PM	15605
3,3'-Dichlorobenzidine	ND	12		µg/L	1	9/30/2014 4:32:53 PM	15605
Diethyl phthalate	ND	12		µg/L	1	9/30/2014 4:32:53 PM	15605
Dimethyl phthalate	ND	12		µg/L	1	9/30/2014 4:32:53 PM	15605
2,4-Dichlorophenol	ND	25		µg/L	1	9/30/2014 4:32:53 PM	15605
2,4-Dimethylphenol	ND	12		µg/L	1	9/30/2014 4:32:53 PM	15605
4,6-Dinitro-2-methylphenol	ND	25		µg/L	1	9/30/2014 4:32:53 PM	15605
2,4-Dinitrophenol	ND	25		µg/L	1	9/30/2014 4:32:53 PM	15605
2,4-Dinitrotoluene	ND	12		µg/L	1	9/30/2014 4:32:53 PM	15605
2,6-Dinitrotoluene	ND	12		µg/L	1	9/30/2014 4:32:53 PM	15605
Fluoranthene	ND	12		µg/L	1	9/30/2014 4:32:53 PM	15605
Fluorene	ND	12		µg/L	1	9/30/2014 4:32:53 PM	15605
Hexachlorobenzene	ND	12		µg/L	1	9/30/2014 4:32:53 PM	15605
Hexachlorobutadiene	ND	12		µg/L	1	9/30/2014 4:32:53 PM	15605
Hexachlorocyclopentadiene	ND	12		µg/L	1	9/30/2014 4:32:53 PM	15605
Hexachloroethane	ND	12		µg/L	1	9/30/2014 4:32:53 PM	15605
Indeno(1,2,3-cd)pyrene	ND	12		µg/L	1	9/30/2014 4:32:53 PM	15605
Isophorone	ND	12		µg/L	1	9/30/2014 4:32:53 PM	15605
1-Methylnaphthalene	ND	12		µg/L	1	9/30/2014 4:32:53 PM	15605
2-Methylnaphthalene	ND	12		µg/L	1	9/30/2014 4:32:53 PM	15605
2-Methylphenol	ND	25		µg/L	1	9/30/2014 4:32:53 PM	15605
3+4-Methylphenol	ND	12		µg/L	1	9/30/2014 4:32:53 PM	15605
N-Nitrosodi-n-propylamine	ND	12		µg/L	1	9/30/2014 4:32:53 PM	15605
N-Nitrosodimethylamine	ND	12		µg/L	1	9/30/2014 4:32:53 PM	15605
N-Nitrosodiphenylamine	ND	12		µg/L	1	9/30/2014 4:32:53 PM	15605
Naphthalene	ND	12		µg/L	1	9/30/2014 4:32:53 PM	15605
2-Nitroaniline	ND	12		µg/L	1	9/30/2014 4:32:53 PM	15605
3-Nitroaniline	ND	12		µg/L	1	9/30/2014 4:32:53 PM	15605
4-Nitroaniline	ND	12		µg/L	1	9/30/2014 4:32:53 PM	15605
Nitrobenzene	ND	12		µg/L	1	9/30/2014 4:32:53 PM	15605
2-Nitrophenol	ND	12		µg/L	1	9/30/2014 4:32:53 PM	15605
4-Nitrophenol	ND	12		µg/L	1	9/30/2014 4:32:53 PM	15605
Pentachlorophenol	ND	25		µg/L	1	9/30/2014 4:32:53 PM	15605
Phenanthrene	ND	12		µg/L	1	9/30/2014 4:32:53 PM	15605
Phenol	ND	12		µg/L	1	9/30/2014 4:32:53 PM	15605
Pyrene	ND	12		µg/L	1	9/30/2014 4:32:53 PM	15605
Pyridine	ND	12		µg/L	1	9/30/2014 4:32:53 PM	15605
1,2,4-Trichlorobenzene	ND	12		µg/L	1	9/30/2014 4:32:53 PM	15605
2,4,5-Trichlorophenol	ND	12		µg/L	1	9/30/2014 4:32:53 PM	15605

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	Page 14 of 39
	E Value above quantitation range	H Holding times for preparation or analysis exceeded	
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit	
	O RSD is greater than RSDlimit	P Sample pH greater than 2.	
	R RPD outside accepted recovery limits	RL Reporting Detection Limit	
	S Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1409D05**

Date Reported: **10/6/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-31

Project: 2014 3rd QUARTER MKTF WELLS

Collection Date: 9/23/2014 3:10:00 PM

Lab ID: 1409D05-004

Matrix: AQUEOUS

Received Date: 9/25/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
2,4,6-Trichlorophenol	ND	12		µg/L	1	9/30/2014 4:32:53 PM	15605
Surr: 2-Fluorophenol	47.9	12.1-85.8		%REC	1	9/30/2014 4:32:53 PM	15605
Surr: Phenol-d5	53.2	17.7-65.8		%REC	1	9/30/2014 4:32:53 PM	15605
Surr: 2,4,6-Tribromophenol	33.3	26-138		%REC	1	9/30/2014 4:32:53 PM	15605
Surr: Nitrobenzene-d5	83.1	47.5-119		%REC	1	9/30/2014 4:32:53 PM	15605
Surr: 2-Fluorobiphenyl	71.6	48.1-106		%REC	1	9/30/2014 4:32:53 PM	15605
Surr: 4-Terphenyl-d14	79.5	44-113		%REC	1	9/30/2014 4:32:53 PM	15605
EPA METHOD 8260B: VOLATILES							Analyst: KJH
Benzene	ND	1.0		µg/L	1	10/3/2014 3:45:04 PM	R21646
Toluene	ND	1.0		µg/L	1	10/3/2014 3:45:04 PM	R21646
Ethylbenzene	ND	1.0		µg/L	1	10/3/2014 3:45:04 PM	R21646
Methyl tert-butyl ether (MTBE)	55	1.0		µg/L	1	10/3/2014 3:45:04 PM	R21646
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	10/3/2014 3:45:04 PM	R21646
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	10/3/2014 3:45:04 PM	R21646
1,2-Dichloroethane (EDC)	13	1.0		µg/L	1	10/3/2014 3:45:04 PM	R21646
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	10/3/2014 3:45:04 PM	R21646
Naphthalene	ND	2.0		µg/L	1	10/3/2014 3:45:04 PM	R21646
1-Methylnaphthalene	ND	4.0		µg/L	1	10/3/2014 3:45:04 PM	R21646
2-Methylnaphthalene	ND	4.0		µg/L	1	10/3/2014 3:45:04 PM	R21646
Acetone	ND	10		µg/L	1	10/3/2014 3:45:04 PM	R21646
Bromobenzene	ND	1.0		µg/L	1	10/3/2014 3:45:04 PM	R21646
Bromodichloromethane	ND	1.0		µg/L	1	10/3/2014 3:45:04 PM	R21646
Bromoform	ND	1.0		µg/L	1	10/3/2014 3:45:04 PM	R21646
Bromomethane	ND	3.0		µg/L	1	10/3/2014 3:45:04 PM	R21646
2-Butanone	ND	10		µg/L	1	10/3/2014 3:45:04 PM	R21646
Carbon disulfide	ND	10		µg/L	1	10/3/2014 3:45:04 PM	R21646
Carbon Tetrachloride	ND	1.0		µg/L	1	10/3/2014 3:45:04 PM	R21646
Chlorobenzene	ND	1.0		µg/L	1	10/3/2014 3:45:04 PM	R21646
Chloroethane	ND	2.0		µg/L	1	10/3/2014 3:45:04 PM	R21646
Chloroform	ND	1.0		µg/L	1	10/3/2014 3:45:04 PM	R21646
Chloromethane	ND	3.0		µg/L	1	10/3/2014 3:45:04 PM	R21646
2-Chlorotoluene	ND	1.0		µg/L	1	10/3/2014 3:45:04 PM	R21646
4-Chlorotoluene	ND	1.0		µg/L	1	10/3/2014 3:45:04 PM	R21646
cis-1,2-DCE	1.8	1.0		µg/L	1	10/3/2014 3:45:04 PM	R21646
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	10/3/2014 3:45:04 PM	R21646
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	10/3/2014 3:45:04 PM	R21646
Dibromochloromethane	ND	1.0		µg/L	1	10/3/2014 3:45:04 PM	R21646
Dibromomethane	ND	1.0		µg/L	1	10/3/2014 3:45:04 PM	R21646
1,2-Dichlorobenzene	ND	1.0		µg/L	1	10/3/2014 3:45:04 PM	R21646

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.
	E Value above quantitation range
	J Analyte detected below quantitation limits
	O RSD is greater than RSDlimit
	R RPD outside accepted recovery limits
	S Spike Recovery outside accepted recovery limits

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2.
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1409D05

Date Reported: 10/6/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-31

Project: 2014 3rd QUARTER MKTF WELLS

Collection Date: 9/23/2014 3:10:00 PM

Lab ID: 1409D05-004

Matrix: AQUEOUS

Received Date: 9/25/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES				Analyst: KJH			
1,3-Dichlorobenzene	ND	1.0		µg/L	1	10/3/2014 3:45:04 PM	R21646
1,4-Dichlorobenzene	ND	1.0		µg/L	1	10/3/2014 3:45:04 PM	R21646
Dichlorodifluoromethane	ND	1.0		µg/L	1	10/3/2014 3:45:04 PM	R21646
1,1-Dichloroethane	22	1.0		µg/L	1	10/3/2014 3:45:04 PM	R21646
1,1-Dichloroethene	41	1.0		µg/L	1	10/3/2014 3:45:04 PM	R21646
1,2-Dichloropropane	ND	1.0		µg/L	1	10/3/2014 3:45:04 PM	R21646
1,3-Dichloropropane	ND	1.0		µg/L	1	10/3/2014 3:45:04 PM	R21646
2,2-Dichloropropane	ND	2.0		µg/L	1	10/3/2014 3:45:04 PM	R21646
1,1-Dichloropropene	ND	1.0		µg/L	1	10/3/2014 3:45:04 PM	R21646
Hexachlorobutadiene	ND	1.0		µg/L	1	10/3/2014 3:45:04 PM	R21646
2-Hexanone	ND	10		µg/L	1	10/3/2014 3:45:04 PM	R21646
Isopropylbenzene	ND	1.0		µg/L	1	10/3/2014 3:45:04 PM	R21646
4-Isopropyltoluene	ND	1.0		µg/L	1	10/3/2014 3:45:04 PM	R21646
4-Methyl-2-pentanone	ND	10		µg/L	1	10/3/2014 3:45:04 PM	R21646
Methylene Chloride	ND	3.0		µg/L	1	10/3/2014 3:45:04 PM	R21646
n-Butylbenzene	ND	3.0		µg/L	1	10/3/2014 3:45:04 PM	R21646
n-Propylbenzene	ND	1.0		µg/L	1	10/3/2014 3:45:04 PM	R21646
sec-Butylbenzene	ND	1.0		µg/L	1	10/3/2014 3:45:04 PM	R21646
Styrene	ND	1.0		µg/L	1	10/3/2014 3:45:04 PM	R21646
tert-Butylbenzene	ND	1.0		µg/L	1	10/3/2014 3:45:04 PM	R21646
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	10/3/2014 3:45:04 PM	R21646
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	10/3/2014 3:45:04 PM	R21646
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	10/3/2014 3:45:04 PM	R21646
trans-1,2-DCE	ND	1.0		µg/L	1	10/3/2014 3:45:04 PM	R21646
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	10/3/2014 3:45:04 PM	R21646
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	10/3/2014 3:45:04 PM	R21646
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	10/3/2014 3:45:04 PM	R21646
1,1,1-Trichloroethane	3.7	1.0		µg/L	1	10/3/2014 3:45:04 PM	R21646
1,1,2-Trichloroethane	1.6	1.0		µg/L	1	10/3/2014 3:45:04 PM	R21646
Trichloroethene (TCE)	2.4	1.0		µg/L	1	10/3/2014 3:45:04 PM	R21646
Trichlorofluoromethane	ND	1.0		µg/L	1	10/3/2014 3:45:04 PM	R21646
1,2,3-Trichloropropane	ND	2.0		µg/L	1	10/3/2014 3:45:04 PM	R21646
Vinyl chloride	ND	1.0		µg/L	1	10/3/2014 3:45:04 PM	R21646
Xylenes, Total	ND	1.5		µg/L	1	10/3/2014 3:45:04 PM	R21646
Surr: 1,2-Dichloroethane-d4	92.1	70-130		%REC	1	10/3/2014 3:45:04 PM	R21646
Surr: 4-Bromofluorobenzene	107	70-130		%REC	1	10/3/2014 3:45:04 PM	R21646
Surr: Dibromofluoromethane	87.9	70-130		%REC	1	10/3/2014 3:45:04 PM	R21646
Surr: Toluene-d8	92.7	70-130		%REC	1	10/3/2014 3:45:04 PM	R21646

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.
	E Value above quantitation range
	J Analyte detected below quantitation limits
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	R RPD outside accepted recovery limits
	S Spike Recovery outside accepted recovery limits

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2.
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1409D05

Date Reported: 10/6/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-25

Project: 2014 3rd QUARTER MKTF WELLS

Collection Date: 9/23/2014 3:30:00 PM

Lab ID: 1409D05-005

Matrix: AQUEOUS

Received Date: 9/25/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: BCN
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	9/27/2014 6:30:19 AM	15542
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	9/27/2014 6:30:19 AM	15542
Surr: DNOP	125	59-141		%REC	1	9/27/2014 6:30:19 AM	15542
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	5.8	1.0		mg/L	20	10/4/2014 1:19:58 AM	R21651
Surr: BFB	105	70.9-130		%REC	20	10/4/2014 1:19:58 AM	R21651
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	9/30/2014 12:47:41 AM	15566
Acenaphthylene	ND	10		µg/L	1	9/30/2014 12:47:41 AM	15566
Aniline	ND	10		µg/L	1	9/30/2014 12:47:41 AM	15566
Anthracene	ND	10		µg/L	1	9/30/2014 12:47:41 AM	15566
Azobenzene	ND	10		µg/L	1	9/30/2014 12:47:41 AM	15566
Benz(a)anthracene	ND	10		µg/L	1	9/30/2014 12:47:41 AM	15566
Benzo(a)pyrene	ND	10		µg/L	1	9/30/2014 12:47:41 AM	15566
Benzo(b)fluoranthene	ND	10		µg/L	1	9/30/2014 12:47:41 AM	15566
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/30/2014 12:47:41 AM	15566
Benzo(k)fluoranthene	ND	10		µg/L	1	9/30/2014 12:47:41 AM	15566
Benzoic acid	ND	20		µg/L	1	9/30/2014 12:47:41 AM	15566
Benzyl alcohol	ND	10		µg/L	1	9/30/2014 12:47:41 AM	15566
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/30/2014 12:47:41 AM	15566
Bis(2-chloroethyl)ether	ND	10		µg/L	1	9/30/2014 12:47:41 AM	15566
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	9/30/2014 12:47:41 AM	15566
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	9/30/2014 12:47:41 AM	15566
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/30/2014 12:47:41 AM	15566
Butyl benzyl phthalate	ND	10		µg/L	1	9/30/2014 12:47:41 AM	15566
Carbazole	ND	10		µg/L	1	9/30/2014 12:47:41 AM	15566
4-Chloro-3-methylphenol	ND	10		µg/L	1	9/30/2014 12:47:41 AM	15566
4-Chloroaniline	ND	10		µg/L	1	9/30/2014 12:47:41 AM	15566
2-Chloronaphthalene	ND	10		µg/L	1	9/30/2014 12:47:41 AM	15566
2-Chlorophenol	ND	10		µg/L	1	9/30/2014 12:47:41 AM	15566
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	9/30/2014 12:47:41 AM	15566
Chrysene	ND	10		µg/L	1	9/30/2014 12:47:41 AM	15566
Di-n-butyl phthalate	ND	10		µg/L	1	9/30/2014 12:47:41 AM	15566
Di-n-octyl phthalate	ND	20		µg/L	1	9/30/2014 12:47:41 AM	15566
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/30/2014 12:47:41 AM	15566
Dibenzofuran	ND	10		µg/L	1	9/30/2014 12:47:41 AM	15566
1,2-Dichlorobenzene	ND	10		µg/L	1	9/30/2014 12:47:41 AM	15566
1,3-Dichlorobenzene	ND	10		µg/L	1	9/30/2014 12:47:41 AM	15566

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1409D05

Date Reported: 10/6/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-25

Project: 2014 3rd QUARTER MKTF WELLS

Collection Date: 9/23/2014 3:30:00 PM

Lab ID: 1409D05-005

Matrix: AQUEOUS

Received Date: 9/25/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
1,4-Dichlorobenzene	ND	10		µg/L	1	9/30/2014 12:47:41 AM	15566
3,3'-Dichlorobenzidine	ND	10		µg/L	1	9/30/2014 12:47:41 AM	15566
Diethyl phthalate	ND	10		µg/L	1	9/30/2014 12:47:41 AM	15566
Dimethyl phthalate	ND	10		µg/L	1	9/30/2014 12:47:41 AM	15566
2,4-Dichlorophenol	ND	20		µg/L	1	9/30/2014 12:47:41 AM	15566
2,4-Dimethylphenol	ND	10		µg/L	1	9/30/2014 12:47:41 AM	15566
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	9/30/2014 12:47:41 AM	15566
2,4-Dinitrophenol	ND	20		µg/L	1	9/30/2014 12:47:41 AM	15566
2,4-Dinitrotoluene	ND	10		µg/L	1	9/30/2014 12:47:41 AM	15566
2,6-Dinitrotoluene	ND	10		µg/L	1	9/30/2014 12:47:41 AM	15566
Fluoranthene	ND	10		µg/L	1	9/30/2014 12:47:41 AM	15566
Fluorene	ND	10		µg/L	1	9/30/2014 12:47:41 AM	15566
Hexachlorobenzene	ND	10		µg/L	1	9/30/2014 12:47:41 AM	15566
Hexachlorobutadiene	ND	10		µg/L	1	9/30/2014 12:47:41 AM	15566
Hexachlorocyclopentadiene	ND	10		µg/L	1	9/30/2014 12:47:41 AM	15566
Hexachloroethane	ND	10		µg/L	1	9/30/2014 12:47:41 AM	15566
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/30/2014 12:47:41 AM	15566
Isophorone	ND	10		µg/L	1	9/30/2014 12:47:41 AM	15566
1-Methylnaphthalene	ND	10		µg/L	1	9/30/2014 12:47:41 AM	15566
2-Methylnaphthalene	ND	10		µg/L	1	9/30/2014 12:47:41 AM	15566
2-Methylphenol	ND	20		µg/L	1	9/30/2014 12:47:41 AM	15566
3+4-Methylphenol	ND	10		µg/L	1	9/30/2014 12:47:41 AM	15566
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/30/2014 12:47:41 AM	15566
N-Nitrosodimethylamine	ND	10		µg/L	1	9/30/2014 12:47:41 AM	15566
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/30/2014 12:47:41 AM	15566
Naphthalene	ND	10		µg/L	1	9/30/2014 12:47:41 AM	15566
2-Nitroaniline	ND	10		µg/L	1	9/30/2014 12:47:41 AM	15566
3-Nitroaniline	ND	10		µg/L	1	9/30/2014 12:47:41 AM	15566
4-Nitroaniline	ND	10		µg/L	1	9/30/2014 12:47:41 AM	15566
Nitrobenzene	ND	10		µg/L	1	9/30/2014 12:47:41 AM	15566
2-Nitrophenol	ND	10		µg/L	1	9/30/2014 12:47:41 AM	15566
4-Nitrophenol	ND	10		µg/L	1	9/30/2014 12:47:41 AM	15566
Pentachlorophenol	ND	20		µg/L	1	9/30/2014 12:47:41 AM	15566
Phenanthrene	ND	10		µg/L	1	9/30/2014 12:47:41 AM	15566
Phenol	ND	10		µg/L	1	9/30/2014 12:47:41 AM	15566
Pyrene	ND	10		µg/L	1	9/30/2014 12:47:41 AM	15566
Pyridine	ND	10		µg/L	1	9/30/2014 12:47:41 AM	15566
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/30/2014 12:47:41 AM	15566
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/30/2014 12:47:41 AM	15566

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1409D05

Date Reported: 10/6/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-25

Project: 2014 3rd QUARTER MKTF WELLS

Collection Date: 9/23/2014 3:30:00 PM

Lab ID: 1409D05-005

Matrix: AQUEOUS

Received Date: 9/25/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
2,4,6-Trichlorophenol	ND	10		µg/L	1	9/30/2014 12:47:41 AM	15566
Surr: 2-Fluorophenol	85.6	12.1-85.8		%REC	1	9/30/2014 12:47:41 AM	15566
Surr: Phenol-d5	81.9	17.7-65.8	S	%REC	1	9/30/2014 12:47:41 AM	15566
Surr: 2,4,6-Tribromophenol	99.6	26-138		%REC	1	9/30/2014 12:47:41 AM	15566
Surr: Nitrobenzene-d5	107	47.5-119		%REC	1	9/30/2014 12:47:41 AM	15566
Surr: 2-Fluorobiphenyl	101	48.1-106		%REC	1	9/30/2014 12:47:41 AM	15566
Surr: 4-Terphenyl-d14	97.0	44-113		%REC	1	9/30/2014 12:47:41 AM	15566
EPA METHOD 8260B: VOLATILES							Analyst: KJH
Benzene	530	10		µg/L	10	10/3/2014 4:14:45 PM	R21646
Toluene	ND	10		µg/L	10	10/3/2014 4:14:45 PM	R21646
Ethylbenzene	12	10		µg/L	10	10/3/2014 4:14:45 PM	R21646
Methyl tert-butyl ether (MTBE)	230	10		µg/L	10	10/3/2014 4:14:45 PM	R21646
1,2,4-Trimethylbenzene	ND	10		µg/L	10	10/3/2014 4:14:45 PM	R21646
1,3,5-Trimethylbenzene	ND	10		µg/L	10	10/3/2014 4:14:45 PM	R21646
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	10/3/2014 4:14:45 PM	R21646
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	10/3/2014 4:14:45 PM	R21646
Naphthalene	ND	20		µg/L	10	10/3/2014 4:14:45 PM	R21646
1-Methylnaphthalene	ND	40		µg/L	10	10/3/2014 4:14:45 PM	R21646
2-Methylnaphthalene	ND	40		µg/L	10	10/3/2014 4:14:45 PM	R21646
Acetone	ND	100		µg/L	10	10/3/2014 4:14:45 PM	R21646
Bromobenzene	ND	10		µg/L	10	10/3/2014 4:14:45 PM	R21646
Bromodichloromethane	ND	10		µg/L	10	10/3/2014 4:14:45 PM	R21646
Bromoform	ND	10		µg/L	10	10/3/2014 4:14:45 PM	R21646
Bromomethane	ND	30		µg/L	10	10/3/2014 4:14:45 PM	R21646
2-Butanone	ND	100		µg/L	10	10/3/2014 4:14:45 PM	R21646
Carbon disulfide	ND	100		µg/L	10	10/3/2014 4:14:45 PM	R21646
Carbon Tetrachloride	ND	10		µg/L	10	10/3/2014 4:14:45 PM	R21646
Chlorobenzene	ND	10		µg/L	10	10/3/2014 4:14:45 PM	R21646
Chloroethane	ND	20		µg/L	10	10/3/2014 4:14:45 PM	R21646
Chloroform	ND	10		µg/L	10	10/3/2014 4:14:45 PM	R21646
Chloromethane	ND	30		µg/L	10	10/3/2014 4:14:45 PM	R21646
2-Chlorotoluene	ND	10		µg/L	10	10/3/2014 4:14:45 PM	R21646
4-Chlorotoluene	ND	10		µg/L	10	10/3/2014 4:14:45 PM	R21646
cis-1,2-DCE	46	10		µg/L	10	10/3/2014 4:14:45 PM	R21646
cis-1,3-Dichloropropene	ND	10		µg/L	10	10/3/2014 4:14:45 PM	R21646
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	10/3/2014 4:14:45 PM	R21646
Dibromochloromethane	ND	10		µg/L	10	10/3/2014 4:14:45 PM	R21646
Dibromomethane	ND	10		µg/L	10	10/3/2014 4:14:45 PM	R21646
1,2-Dichlorobenzene	ND	10		µg/L	10	10/3/2014 4:14:45 PM	R21646

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1409D05

Date Reported: 10/6/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-25

Project: 2014 3rd QUARTER MKTF WELLS

Collection Date: 9/23/2014 3:30:00 PM

Lab ID: 1409D05-005

Matrix: AQUEOUS

Received Date: 9/25/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES					Analyst: KJH		
1,3-Dichlorobenzene	ND	10		µg/L	10	10/3/2014 4:14:45 PM	R21646
1,4-Dichlorobenzene	ND	10		µg/L	10	10/3/2014 4:14:45 PM	R21646
Dichlorodifluoromethane	ND	10		µg/L	10	10/3/2014 4:14:45 PM	R21646
1,1-Dichloroethane	250	10		µg/L	10	10/3/2014 4:14:45 PM	R21646
1,1-Dichloroethene	100	10		µg/L	10	10/3/2014 4:14:45 PM	R21646
1,2-Dichloropropane	ND	10		µg/L	10	10/3/2014 4:14:45 PM	R21646
1,3-Dichloropropane	ND	10		µg/L	10	10/3/2014 4:14:45 PM	R21646
2,2-Dichloropropane	ND	20		µg/L	10	10/3/2014 4:14:45 PM	R21646
1,1-Dichloropropene	ND	10		µg/L	10	10/3/2014 4:14:45 PM	R21646
Hexachlorobutadiene	ND	10		µg/L	10	10/3/2014 4:14:45 PM	R21646
2-Hexanone	ND	100		µg/L	10	10/3/2014 4:14:45 PM	R21646
Isopropylbenzene	38	10		µg/L	10	10/3/2014 4:14:45 PM	R21646
4-Isopropyltoluene	ND	10		µg/L	10	10/3/2014 4:14:45 PM	R21646
4-Methyl-2-pentanone	ND	100		µg/L	10	10/3/2014 4:14:45 PM	R21646
Methylene Chloride	ND	30		µg/L	10	10/3/2014 4:14:45 PM	R21646
n-Butylbenzene	ND	30		µg/L	10	10/3/2014 4:14:45 PM	R21646
n-Propylbenzene	41	10		µg/L	10	10/3/2014 4:14:45 PM	R21646
sec-Butylbenzene	ND	10		µg/L	10	10/3/2014 4:14:45 PM	R21646
Styrene	ND	10		µg/L	10	10/3/2014 4:14:45 PM	R21646
tert-Butylbenzene	ND	10		µg/L	10	10/3/2014 4:14:45 PM	R21646
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	10/3/2014 4:14:45 PM	R21646
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	10/3/2014 4:14:45 PM	R21646
Tetrachloroethene (PCE)	ND	10		µg/L	10	10/3/2014 4:14:45 PM	R21646
trans-1,2-DCE	ND	10		µg/L	10	10/3/2014 4:14:45 PM	R21646
trans-1,3-Dichloropropene	ND	10		µg/L	10	10/3/2014 4:14:45 PM	R21646
1,2,3-Trichlorobenzene	ND	10		µg/L	10	10/3/2014 4:14:45 PM	R21646
1,2,4-Trichlorobenzene	ND	10		µg/L	10	10/3/2014 4:14:45 PM	R21646
1,1,1-Trichloroethane	30	10		µg/L	10	10/3/2014 4:14:45 PM	R21646
1,1,2-Trichloroethane	ND	10		µg/L	10	10/3/2014 4:14:45 PM	R21646
Trichloroethene (TCE)	24	10		µg/L	10	10/3/2014 4:14:45 PM	R21646
Trichlorofluoromethane	ND	10		µg/L	10	10/3/2014 4:14:45 PM	R21646
1,2,3-Trichloropropane	ND	20		µg/L	10	10/3/2014 4:14:45 PM	R21646
Vinyl chloride	ND	10		µg/L	10	10/3/2014 4:14:45 PM	R21646
Xylenes, Total	ND	15		µg/L	10	10/3/2014 4:14:45 PM	R21646
Surr: 1,2-Dichloroethane-d4	92.1	70-130		%REC	10	10/3/2014 4:14:45 PM	R21646
Surr: 4-Bromofluorobenzene	104	70-130		%REC	10	10/3/2014 4:14:45 PM	R21646
Surr: Dibromofluoromethane	96.2	70-130		%REC	10	10/3/2014 4:14:45 PM	R21646
Surr: Toluene-d8	90.0	70-130		%REC	10	10/3/2014 4:14:45 PM	R21646

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	Page 20 of 39
E	Value above quantitation range	H Holding times for preparation or analysis exceeded	
J	Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit	
O	RSD is greater than RSDlimit	P Sample pH greater than 2.	
R	RPD outside accepted recovery limits	RL Reporting Detection Limit	
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1409D05

Date Reported: 10/6/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Trip Blank

Project: 2014 3rd QUARTER MKTF WELLS

Collection Date: 9/23/2014 1:00:00 PM

Lab ID: 1409D05-006

Matrix: TRIP BLANK

Received Date: 9/25/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	10/4/2014 1:49:46 AM	R21651
Surr: BFB	87.8	70.9-130		%REC	1	10/4/2014 1:49:46 AM	R21651
EPA METHOD 8260B: VOLATILES							Analyst: KJH
Benzene	ND	1.0		µg/L	1	10/3/2014 4:44:24 PM	R21646
Toluene	ND	1.0		µg/L	1	10/3/2014 4:44:24 PM	R21646
Ethylbenzene	ND	1.0		µg/L	1	10/3/2014 4:44:24 PM	R21646
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	10/3/2014 4:44:24 PM	R21646
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	10/3/2014 4:44:24 PM	R21646
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	10/3/2014 4:44:24 PM	R21646
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	10/3/2014 4:44:24 PM	R21646
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	10/3/2014 4:44:24 PM	R21646
Naphthalene	ND	2.0		µg/L	1	10/3/2014 4:44:24 PM	R21646
1-Methylnaphthalene	ND	4.0		µg/L	1	10/3/2014 4:44:24 PM	R21646
2-Methylnaphthalene	ND	4.0		µg/L	1	10/3/2014 4:44:24 PM	R21646
Acetone	ND	10		µg/L	1	10/3/2014 4:44:24 PM	R21646
Bromobenzene	ND	1.0		µg/L	1	10/3/2014 4:44:24 PM	R21646
Bromodichloromethane	ND	1.0		µg/L	1	10/3/2014 4:44:24 PM	R21646
Bromoform	ND	1.0		µg/L	1	10/3/2014 4:44:24 PM	R21646
Bromomethane	ND	3.0		µg/L	1	10/3/2014 4:44:24 PM	R21646
2-Butanone	ND	10		µg/L	1	10/3/2014 4:44:24 PM	R21646
Carbon disulfide	ND	10		µg/L	1	10/3/2014 4:44:24 PM	R21646
Carbon Tetrachloride	ND	1.0		µg/L	1	10/3/2014 4:44:24 PM	R21646
Chlorobenzene	ND	1.0		µg/L	1	10/3/2014 4:44:24 PM	R21646
Chloroethane	ND	2.0		µg/L	1	10/3/2014 4:44:24 PM	R21646
Chloroform	ND	1.0		µg/L	1	10/3/2014 4:44:24 PM	R21646
Chloromethane	ND	3.0		µg/L	1	10/3/2014 4:44:24 PM	R21646
2-Chlorotoluene	ND	1.0		µg/L	1	10/3/2014 4:44:24 PM	R21646
4-Chlorotoluene	ND	1.0		µg/L	1	10/3/2014 4:44:24 PM	R21646
cis-1,2-DCE	ND	1.0		µg/L	1	10/3/2014 4:44:24 PM	R21646
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	10/3/2014 4:44:24 PM	R21646
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	10/3/2014 4:44:24 PM	R21646
Dibromochloromethane	ND	1.0		µg/L	1	10/3/2014 4:44:24 PM	R21646
Dibromomethane	ND	1.0		µg/L	1	10/3/2014 4:44:24 PM	R21646
1,2-Dichlorobenzene	ND	1.0		µg/L	1	10/3/2014 4:44:24 PM	R21646
1,3-Dichlorobenzene	ND	1.0		µg/L	1	10/3/2014 4:44:24 PM	R21646
1,4-Dichlorobenzene	ND	1.0		µg/L	1	10/3/2014 4:44:24 PM	R21646
Dichlorodifluoromethane	ND	1.0		µg/L	1	10/3/2014 4:44:24 PM	R21646
1,1-Dichloroethane	ND	1.0		µg/L	1	10/3/2014 4:44:24 PM	R21646
1,1-Dichloroethene	ND	1.0		µg/L	1	10/3/2014 4:44:24 PM	R21646

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1409D05

Date Reported: 10/6/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Trip Blank

Project: 2014 3rd QUARTER MKTF WELLS

Collection Date: 9/23/2014 1:00:00 PM

Lab ID: 1409D05-006

Matrix: TRIP BLANK

Received Date: 9/25/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: KJH
1,2-Dichloropropane	ND	1.0		µg/L	1	10/3/2014 4:44:24 PM	R21646
1,3-Dichloropropane	ND	1.0		µg/L	1	10/3/2014 4:44:24 PM	R21646
2,2-Dichloropropane	ND	2.0		µg/L	1	10/3/2014 4:44:24 PM	R21646
1,1-Dichloropropene	ND	1.0		µg/L	1	10/3/2014 4:44:24 PM	R21646
Hexachlorobutadiene	ND	1.0		µg/L	1	10/3/2014 4:44:24 PM	R21646
2-Hexanone	ND	10		µg/L	1	10/3/2014 4:44:24 PM	R21646
Isopropylbenzene	ND	1.0		µg/L	1	10/3/2014 4:44:24 PM	R21646
4-Isopropyltoluene	ND	1.0		µg/L	1	10/3/2014 4:44:24 PM	R21646
4-Methyl-2-pentanone	ND	10		µg/L	1	10/3/2014 4:44:24 PM	R21646
Methylene Chloride	ND	3.0		µg/L	1	10/3/2014 4:44:24 PM	R21646
n-Butylbenzene	ND	3.0		µg/L	1	10/3/2014 4:44:24 PM	R21646
n-Propylbenzene	ND	1.0		µg/L	1	10/3/2014 4:44:24 PM	R21646
sec-Butylbenzene	ND	1.0		µg/L	1	10/3/2014 4:44:24 PM	R21646
Styrene	ND	1.0		µg/L	1	10/3/2014 4:44:24 PM	R21646
tert-Butylbenzene	ND	1.0		µg/L	1	10/3/2014 4:44:24 PM	R21646
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	10/3/2014 4:44:24 PM	R21646
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	10/3/2014 4:44:24 PM	R21646
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	10/3/2014 4:44:24 PM	R21646
trans-1,2-DCE	ND	1.0		µg/L	1	10/3/2014 4:44:24 PM	R21646
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	10/3/2014 4:44:24 PM	R21646
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	10/3/2014 4:44:24 PM	R21646
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	10/3/2014 4:44:24 PM	R21646
1,1,1-Trichloroethane	ND	1.0		µg/L	1	10/3/2014 4:44:24 PM	R21646
1,1,2-Trichloroethane	ND	1.0		µg/L	1	10/3/2014 4:44:24 PM	R21646
Trichloroethene (TCE)	ND	1.0		µg/L	1	10/3/2014 4:44:24 PM	R21646
Trichlorofluoromethane	ND	1.0		µg/L	1	10/3/2014 4:44:24 PM	R21646
1,2,3-Trichloropropane	ND	2.0		µg/L	1	10/3/2014 4:44:24 PM	R21646
Vinyl chloride	ND	1.0		µg/L	1	10/3/2014 4:44:24 PM	R21646
Xylenes, Total	ND	1.5		µg/L	1	10/3/2014 4:44:24 PM	R21646
Surr: 1,2-Dichloroethane-d4	88.8	70-130		%REC	1	10/3/2014 4:44:24 PM	R21646
Surr: 4-Bromofluorobenzene	103	70-130		%REC	1	10/3/2014 4:44:24 PM	R21646
Surr: Dibromofluoromethane	88.8	70-130		%REC	1	10/3/2014 4:44:24 PM	R21646
Surr: Toluene-d8	97.7	70-130		%REC	1	10/3/2014 4:44:24 PM	R21646

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1409D05

Date Reported: 10/6/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2014 3rd QUARTER MKTF WELLS

Collection Date: 9/23/2014 1:00:00 PM

Lab ID: 1409D05-007

Matrix: AQUEOUS

Received Date: 9/25/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: KJH
Benzene	ND	1.0		µg/L	1	10/3/2014 5:14:01 PM	R21646
Toluene	ND	1.0		µg/L	1	10/3/2014 5:14:01 PM	R21646
Ethylbenzene	ND	1.0		µg/L	1	10/3/2014 5:14:01 PM	R21646
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	10/3/2014 5:14:01 PM	R21646
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	10/3/2014 5:14:01 PM	R21646
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	10/3/2014 5:14:01 PM	R21646
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	10/3/2014 5:14:01 PM	R21646
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	10/3/2014 5:14:01 PM	R21646
Naphthalene	ND	2.0		µg/L	1	10/3/2014 5:14:01 PM	R21646
1-Methylnaphthalene	ND	4.0		µg/L	1	10/3/2014 5:14:01 PM	R21646
2-Methylnaphthalene	ND	4.0		µg/L	1	10/3/2014 5:14:01 PM	R21646
Acetone	ND	10		µg/L	1	10/3/2014 5:14:01 PM	R21646
Bromobenzene	ND	1.0		µg/L	1	10/3/2014 5:14:01 PM	R21646
Bromodichloromethane	ND	1.0		µg/L	1	10/3/2014 5:14:01 PM	R21646
Bromoform	ND	1.0		µg/L	1	10/3/2014 5:14:01 PM	R21646
Bromomethane	ND	3.0		µg/L	1	10/3/2014 5:14:01 PM	R21646
2-Butanone	ND	10		µg/L	1	10/3/2014 5:14:01 PM	R21646
Carbon disulfide	ND	10		µg/L	1	10/3/2014 5:14:01 PM	R21646
Carbon Tetrachloride	ND	1.0		µg/L	1	10/3/2014 5:14:01 PM	R21646
Chlorobenzene	ND	1.0		µg/L	1	10/3/2014 5:14:01 PM	R21646
Chloroethane	ND	2.0		µg/L	1	10/3/2014 5:14:01 PM	R21646
Chloroform	ND	1.0		µg/L	1	10/3/2014 5:14:01 PM	R21646
Chloromethane	ND	3.0		µg/L	1	10/3/2014 5:14:01 PM	R21646
2-Chlorotoluene	ND	1.0		µg/L	1	10/3/2014 5:14:01 PM	R21646
4-Chlorotoluene	ND	1.0		µg/L	1	10/3/2014 5:14:01 PM	R21646
cis-1,2-DCE	ND	1.0		µg/L	1	10/3/2014 5:14:01 PM	R21646
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	10/3/2014 5:14:01 PM	R21646
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	10/3/2014 5:14:01 PM	R21646
Dibromochloromethane	ND	1.0		µg/L	1	10/3/2014 5:14:01 PM	R21646
Dibromomethane	ND	1.0		µg/L	1	10/3/2014 5:14:01 PM	R21646
1,2-Dichlorobenzene	ND	1.0		µg/L	1	10/3/2014 5:14:01 PM	R21646
1,3-Dichlorobenzene	ND	1.0		µg/L	1	10/3/2014 5:14:01 PM	R21646
1,4-Dichlorobenzene	ND	1.0		µg/L	1	10/3/2014 5:14:01 PM	R21646
Dichlorodifluoromethane	ND	1.0		µg/L	1	10/3/2014 5:14:01 PM	R21646
1,1-Dichloroethane	ND	1.0		µg/L	1	10/3/2014 5:14:01 PM	R21646
1,1-Dichloroethene	ND	1.0		µg/L	1	10/3/2014 5:14:01 PM	R21646
1,2-Dichloropropane	ND	1.0		µg/L	1	10/3/2014 5:14:01 PM	R21646
1,3-Dichloropropane	ND	1.0		µg/L	1	10/3/2014 5:14:01 PM	R21646
2,2-Dichloropropane	ND	2.0		µg/L	1	10/3/2014 5:14:01 PM	R21646

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1409D05**

Date Reported: **10/6/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Field Blank

Project: 2014 3rd QUARTER MKTF WELLS

Collection Date: 9/23/2014 1:00:00 PM

Lab ID: 1409D05-007

Matrix: AQUEOUS

Received Date: 9/25/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: KJH
1,1-Dichloropropene	ND	1.0		µg/L	1	10/3/2014 5:14:01 PM	R21646
Hexachlorobutadiene	ND	1.0		µg/L	1	10/3/2014 5:14:01 PM	R21646
2-Hexanone	ND	10		µg/L	1	10/3/2014 5:14:01 PM	R21646
Isopropylbenzene	ND	1.0		µg/L	1	10/3/2014 5:14:01 PM	R21646
4-Isopropyltoluene	ND	1.0		µg/L	1	10/3/2014 5:14:01 PM	R21646
4-Methyl-2-pentanone	ND	10		µg/L	1	10/3/2014 5:14:01 PM	R21646
Methylene Chloride	ND	3.0		µg/L	1	10/3/2014 5:14:01 PM	R21646
n-Butylbenzene	ND	3.0		µg/L	1	10/3/2014 5:14:01 PM	R21646
n-Propylbenzene	ND	1.0		µg/L	1	10/3/2014 5:14:01 PM	R21646
sec-Butylbenzene	ND	1.0		µg/L	1	10/3/2014 5:14:01 PM	R21646
Styrene	ND	1.0		µg/L	1	10/3/2014 5:14:01 PM	R21646
tert-Butylbenzene	ND	1.0		µg/L	1	10/3/2014 5:14:01 PM	R21646
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	10/3/2014 5:14:01 PM	R21646
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	10/3/2014 5:14:01 PM	R21646
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	10/3/2014 5:14:01 PM	R21646
trans-1,2-DCE	ND	1.0		µg/L	1	10/3/2014 5:14:01 PM	R21646
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	10/3/2014 5:14:01 PM	R21646
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	10/3/2014 5:14:01 PM	R21646
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	10/3/2014 5:14:01 PM	R21646
1,1,1-Trichloroethane	ND	1.0		µg/L	1	10/3/2014 5:14:01 PM	R21646
1,1,2-Trichloroethane	ND	1.0		µg/L	1	10/3/2014 5:14:01 PM	R21646
Trichloroethene (TCE)	ND	1.0		µg/L	1	10/3/2014 5:14:01 PM	R21646
Trichlorofluoromethane	ND	1.0		µg/L	1	10/3/2014 5:14:01 PM	R21646
1,2,3-Trichloropropane	ND	2.0		µg/L	1	10/3/2014 5:14:01 PM	R21646
Vinyl chloride	ND	1.0		µg/L	1	10/3/2014 5:14:01 PM	R21646
Xylenes, Total	ND	1.5		µg/L	1	10/3/2014 5:14:01 PM	R21646
Surr: 1,2-Dichloroethane-d4	85.3	70-130		%REC	1	10/3/2014 5:14:01 PM	R21646
Surr: 4-Bromofluorobenzene	93.5	70-130		%REC	1	10/3/2014 5:14:01 PM	R21646
Surr: Dibromofluoromethane	88.0	70-130		%REC	1	10/3/2014 5:14:01 PM	R21646
Surr: Toluene-d8	91.8	70-130		%REC	1	10/3/2014 5:14:01 PM	R21646

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1409D05

Date Reported: 10/6/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BD-MKTF-9/23/14

Project: 2014 3rd QUARTER MKTF WELLS

Collection Date: 9/23/2014

Lab ID: 1409D05-008

Matrix: AQUEOUS

Received Date: 9/25/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: JDC
Acenaphthene	ND	10		µg/L	1	9/30/2014 1:15:17 AM	15566
Acenaphthylene	ND	10		µg/L	1	9/30/2014 1:15:17 AM	15566
Aniline	ND	10		µg/L	1	9/30/2014 1:15:17 AM	15566
Anthracene	ND	10		µg/L	1	9/30/2014 1:15:17 AM	15566
Azobenzene	ND	10		µg/L	1	9/30/2014 1:15:17 AM	15566
Benz(a)anthracene	ND	10		µg/L	1	9/30/2014 1:15:17 AM	15566
Benzo(a)pyrene	ND	10		µg/L	1	9/30/2014 1:15:17 AM	15566
Benzo(b)fluoranthene	ND	10		µg/L	1	9/30/2014 1:15:17 AM	15566
Benzo(g,h,i)perylene	ND	10		µg/L	1	9/30/2014 1:15:17 AM	15566
Benzo(k)fluoranthene	ND	10		µg/L	1	9/30/2014 1:15:17 AM	15566
Benzoic acid	ND	20		µg/L	1	9/30/2014 1:15:17 AM	15566
Benzyl alcohol	ND	10		µg/L	1	9/30/2014 1:15:17 AM	15566
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	9/30/2014 1:15:17 AM	15566
Bis(2-chloroethyl)ether	ND	10		µg/L	1	9/30/2014 1:15:17 AM	15566
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	9/30/2014 1:15:17 AM	15566
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	9/30/2014 1:15:17 AM	15566
4-Bromophenyl phenyl ether	ND	10		µg/L	1	9/30/2014 1:15:17 AM	15566
Butyl benzyl phthalate	ND	10		µg/L	1	9/30/2014 1:15:17 AM	15566
Carbazole	ND	10		µg/L	1	9/30/2014 1:15:17 AM	15566
4-Chloro-3-methylphenol	ND	10		µg/L	1	9/30/2014 1:15:17 AM	15566
4-Chloroaniline	ND	10		µg/L	1	9/30/2014 1:15:17 AM	15566
2-Chloronaphthalene	ND	10		µg/L	1	9/30/2014 1:15:17 AM	15566
2-Chlorophenol	ND	10		µg/L	1	9/30/2014 1:15:17 AM	15566
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	9/30/2014 1:15:17 AM	15566
Chrysene	ND	10		µg/L	1	9/30/2014 1:15:17 AM	15566
Di-n-butyl phthalate	ND	10		µg/L	1	9/30/2014 1:15:17 AM	15566
Di-n-octyl phthalate	ND	20		µg/L	1	9/30/2014 1:15:17 AM	15566
Dibenz(a,h)anthracene	ND	10		µg/L	1	9/30/2014 1:15:17 AM	15566
Dibenzofuran	ND	10		µg/L	1	9/30/2014 1:15:17 AM	15566
1,2-Dichlorobenzene	ND	10		µg/L	1	9/30/2014 1:15:17 AM	15566
1,3-Dichlorobenzene	ND	10		µg/L	1	9/30/2014 1:15:17 AM	15566
1,4-Dichlorobenzene	ND	10		µg/L	1	9/30/2014 1:15:17 AM	15566
3,3'-Dichlorobenzidine	ND	10		µg/L	1	9/30/2014 1:15:17 AM	15566
Diethyl phthalate	ND	10		µg/L	1	9/30/2014 1:15:17 AM	15566
Dimethyl phthalate	ND	10		µg/L	1	9/30/2014 1:15:17 AM	15566
2,4-Dichlorophenol	ND	20		µg/L	1	9/30/2014 1:15:17 AM	15566
2,4-Dimethylphenol	ND	10		µg/L	1	9/30/2014 1:15:17 AM	15566
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	9/30/2014 1:15:17 AM	15566
2,4-Dinitrophenol	ND	20		µg/L	1	9/30/2014 1:15:17 AM	15566

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1409D05**

Date Reported: **10/6/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BD-MKTF-9/23/14

Project: 2014 3rd QUARTER MKTF WELLS

Collection Date: 9/23/2014

Lab ID: 1409D05-008

Matrix: AQUEOUS

Received Date: 9/25/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES				Analyst: JDC			
2,4-Dinitrotoluene	ND	10		µg/L	1	9/30/2014 1:15:17 AM	15566
2,6-Dinitrotoluene	ND	10		µg/L	1	9/30/2014 1:15:17 AM	15566
Fluoranthene	ND	10		µg/L	1	9/30/2014 1:15:17 AM	15566
Fluorene	ND	10		µg/L	1	9/30/2014 1:15:17 AM	15566
Hexachlorobenzene	ND	10		µg/L	1	9/30/2014 1:15:17 AM	15566
Hexachlorobutadiene	ND	10		µg/L	1	9/30/2014 1:15:17 AM	15566
Hexachlorocyclopentadiene	ND	10		µg/L	1	9/30/2014 1:15:17 AM	15566
Hexachloroethane	ND	10		µg/L	1	9/30/2014 1:15:17 AM	15566
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	9/30/2014 1:15:17 AM	15566
Isophorone	ND	10		µg/L	1	9/30/2014 1:15:17 AM	15566
1-Methylnaphthalene	ND	10		µg/L	1	9/30/2014 1:15:17 AM	15566
2-Methylnaphthalene	ND	10		µg/L	1	9/30/2014 1:15:17 AM	15566
2-Methylphenol	ND	20		µg/L	1	9/30/2014 1:15:17 AM	15566
3+4-Methylphenol	ND	10		µg/L	1	9/30/2014 1:15:17 AM	15566
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	9/30/2014 1:15:17 AM	15566
N-Nitrosodimethylamine	ND	10		µg/L	1	9/30/2014 1:15:17 AM	15566
N-Nitrosodiphenylamine	ND	10		µg/L	1	9/30/2014 1:15:17 AM	15566
Naphthalene	ND	10		µg/L	1	9/30/2014 1:15:17 AM	15566
2-Nitroaniline	ND	10		µg/L	1	9/30/2014 1:15:17 AM	15566
3-Nitroaniline	ND	10		µg/L	1	9/30/2014 1:15:17 AM	15566
4-Nitroaniline	ND	10		µg/L	1	9/30/2014 1:15:17 AM	15566
Nitrobenzene	ND	10		µg/L	1	9/30/2014 1:15:17 AM	15566
2-Nitrophenol	ND	10		µg/L	1	9/30/2014 1:15:17 AM	15566
4-Nitrophenol	ND	10		µg/L	1	9/30/2014 1:15:17 AM	15566
Pentachlorophenol	ND	20		µg/L	1	9/30/2014 1:15:17 AM	15566
Phenanthrene	ND	10		µg/L	1	9/30/2014 1:15:17 AM	15566
Phenol	ND	10		µg/L	1	9/30/2014 1:15:17 AM	15566
Pyrene	ND	10		µg/L	1	9/30/2014 1:15:17 AM	15566
Pyridine	ND	10		µg/L	1	9/30/2014 1:15:17 AM	15566
1,2,4-Trichlorobenzene	ND	10		µg/L	1	9/30/2014 1:15:17 AM	15566
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/30/2014 1:15:17 AM	15566
2,4,6-Trichlorophenol	ND	10		µg/L	1	9/30/2014 1:15:17 AM	15566
Surr: 2-Fluorophenol	67.1	12.1-85.8		%REC	1	9/30/2014 1:15:17 AM	15566
Surr: Phenol-d5	64.8	17.7-65.8		%REC	1	9/30/2014 1:15:17 AM	15566
Surr: 2,4,6-Tribromophenol	78.8	26-138		%REC	1	9/30/2014 1:15:17 AM	15566
Surr: Nitrobenzene-d5	82.3	47.5-119		%REC	1	9/30/2014 1:15:17 AM	15566
Surr: 2-Fluorobiphenyl	79.3	48.1-106		%REC	1	9/30/2014 1:15:17 AM	15566
Surr: 4-Terphenyl-d14	80.3	44-113		%REC	1	9/30/2014 1:15:17 AM	15566

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409D05

06-Oct-14

Client: Western Refining Southwest, Gallup
Project: 2014 3rd QUARTER MKTF WELLS

Sample ID: MB-15542	SampType: MBLK	TestCode: EPA Method 8015D: Diesel Range								
Client ID: PBW	Batch ID: 15542	RunNo: 21478								
Prep Date: 9/26/2014	Analysis Date: 9/26/2014	SeqNo: 629535	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	0.76		1.000		76.0	59	141			

Sample ID: LCS-15542	SampType: LCS	TestCode: EPA Method 8015D: Diesel Range								
Client ID: LCSW	Batch ID: 15542	RunNo: 21478								
Prep Date: 9/26/2014	Analysis Date: 9/26/2014	SeqNo: 629536	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.5	1.0	5.000	0	90.9	69.7	142			
Surr: DNOP	0.45		0.5000		89.5	59	141			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409D05

06-Oct-14

Client: Western Refining Southwest, Gallup
Project: 2014 3rd QUARTER MKTF WELLS

Sample ID: 5ML RB	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBW	Batch ID: R21651		RunNo: 21651							
Prep Date:	Analysis Date: 10/3/2014		SeqNo: 635933		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	18		20.00		88.3	70.9	130			

Sample ID: 2.5UG GRO LCS	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSW	Batch ID: R21651		RunNo: 21651							
Prep Date:	Analysis Date: 10/3/2014		SeqNo: 635934		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.46	0.050	0.5000	0	91.4	80	120			
Surr: BFB	20		20.00		101	70.9	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409D05

06-Oct-14

Client: Western Refining Southwest, Gallup

Project: 2014 3rd QUARTER MKTF WELLS

Sample ID: 5mL-rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW	Batch ID: R21646			RunNo: 21646						
Prep Date:	Analysis Date: 10/3/2014			SeqNo: 635260		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409D05

06-Oct-14

Client: Western Refining Southwest, Gallup

Project: 2014 3rd QUARTER MKTF WELLS

Sample ID: 5mL-rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW	Batch ID: R21646			RunNo: 21646						
Prep Date:	Analysis Date: 10/3/2014			SeqNo: 635260		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.1		10.00		90.7	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		106	70	130			
Surr: Dibromofluoromethane	9.3		10.00		93.1	70	130			
Surr: Toluene-d8	9.1		10.00		90.7	70	130			

Sample ID: 100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES						
Client ID: LCSW	Batch ID: R21646			RunNo: 21646						
Prep Date:	Analysis Date: 10/3/2014			SeqNo: 635262		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	98.4	70	130			
Toluene	19	1.0	20.00	0	96.4	80	120			
Chlorobenzene	20	1.0	20.00	0	102	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409D05

06-Oct-14

Client: Western Refining Southwest, Gallup

Project: 2014 3rd QUARTER MKTF WELLS

Sample ID: 100ng lcs	SampType: LCS		TestCode: EPA Method 8260B: VOLATILES							
Client ID: LCSW	Batch ID: R21646		RunNo: 21646							
Prep Date:	Analysis Date: 10/3/2014		SeqNo: 635262		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	22	1.0	20.00	0	109	82.6	131			
Trichloroethene (TCE)	19	1.0	20.00	0	92.8	70	130			
Surr: 1,2-Dichloroethane-d4	5.1		10.00		51.1	70	130			S
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	8.7		10.00		87.5	70	130			
Surr: Toluene-d8	9.6		10.00		95.6	70	130			

Sample ID: 100ng lcs2	SampType: LCS		TestCode: EPA Method 8260B: VOLATILES							
Client ID: LCSW	Batch ID: R21646		RunNo: 21646							
Prep Date:	Analysis Date: 10/3/2014		SeqNo: 635612		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	99.9	70	130			
Toluene	19	1.0	20.00	0	95.9	80	120			
Chlorobenzene	19	1.0	20.00	0	96.2	70	130			
1,1-Dichloroethene	22	1.0	20.00	0	112	82.6	131			
Trichloroethene (TCE)	19	1.0	20.00	0	95.6	70	130			
Surr: 1,2-Dichloroethane-d4	9.2		10.00		91.6	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		99.6	70	130			
Surr: Dibromofluoromethane	8.8		10.00		87.8	70	130			
Surr: Toluene-d8	9.3		10.00		93.3	70	130			

Sample ID: b3	SampType: MBLK		TestCode: EPA Method 8260B: VOLATILES							
Client ID: PBW	Batch ID: R21646		RunNo: 21646							
Prep Date:	Analysis Date: 10/3/2014		SeqNo: 635614		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409D05

06-Oct-14

Client: Western Refining Southwest, Gallup

Project: 2014 3rd QUARTER MKTF WELLS

Sample ID: b3	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW	Batch ID: R21646			RunNo: 21646						
Prep Date:	Analysis Date: 10/3/2014			SeqNo: 635614	Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409D05

06-Oct-14

Client: Western Refining Southwest, Gallup
Project: 2014 3rd QUARTER MKTF WELLS

Sample ID: b3	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES						
Client ID: PBW	Batch ID: R21646			RunNo: 21646						
Prep Date:	Analysis Date: 10/3/2014			SeqNo: 635614		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.7		10.00		96.6	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		106	70	130			
Surr: Dibromofluoromethane	9.4		10.00		94.1	70	130			
Surr: Toluene-d8	9.7		10.00		97.4	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409D05

06-Oct-14

Client: Western Refining Southwest, Gallup

Project: 2014 3rd QUARTER MKTF WELLS

Sample ID: mb-15566	SampType: MBLK	TestCode: EPA Method 8270C: Semivolatiles								
Client ID: PBW	Batch ID: 15566	RunNo: 21529								
Prep Date: 9/29/2014	Analysis Date: 9/29/2014	SeqNo: 630020	Units: µg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	20								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409D05

06-Oct-14

Client: Western Refining Southwest, Gallup
Project: 2014 3rd QUARTER MKTF WELLS

Sample ID: mb-15566	SampType: MBLK			TestCode: EPA Method 8270C: Semivolatiles						
Client ID: PBW	Batch ID: 15566			RunNo: 21529						
Prep Date: 9/29/2014	Analysis Date: 9/29/2014			SeqNo: 630020	Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	20								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	130		200.0		66.1	12.1	85.8			
Surr: Phenol-d5	110		200.0		57.0	17.7	65.8			
Surr: 2,4,6-Tribromophenol	170		200.0		83.4	26	138			
Surr: Nitrobenzene-d5	76		100.0		76.4	47.5	119			
Surr: 2-Fluorobiphenyl	72		100.0		72.5	48.1	106			
Surr: 4-Terphenyl-d14	86		100.0		85.8	44	113			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409D05

06-Oct-14

Client: Western Refining Southwest, Gallup
Project: 2014 3rd QUARTER MKTF WELLS

Sample ID: Ics-15566	SampType: LCS			TestCode: EPA Method 8270C: Semivolatiles						
Client ID: LCSW	Batch ID: 15566			RunNo: 21529						
Prep Date: 9/29/2014	Analysis Date: 9/29/2014			SeqNo: 630021		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	80	10	100.0	0	80.2	47.9	114			
4-Chloro-3-methylphenol	170	10	200.0	0	86.9	51.7	122			
2-Chlorophenol	160	10	200.0	0	79.9	40.7	113			
1,4-Dichlorobenzene	68	10	100.0	0	67.6	39.6	99.9			
2,4-Dinitrotoluene	82	10	100.0	0	81.6	40.8	113			
N-Nitrosodi-n-propylamine	76	10	100.0	0	75.7	51.2	111			
4-Nitrophenol	140	10	200.0	0	69.3	15.7	86.9			
Pentachlorophenol	140	20	200.0	0	69.9	21.6	104			
Phenol	130	10	200.0	0	65.2	28.6	71.7			
Pyrene	89	10	100.0	0	89.4	54.2	128			
1,2,4-Trichlorobenzene	75	10	100.0	0	75.3	40.9	101			
Surr: 2-Fluorophenol	120		200.0		61.2	12.1	85.8			
Surr: Phenol-d5	110		200.0		55.4	17.7	65.8			
Surr: 2,4,6-Tribromophenol	170		200.0		86.0	26	138			
Surr: Nitrobenzene-d5	81		100.0		80.6	47.5	119			
Surr: 2-Fluorobiphenyl	76		100.0		75.9	48.1	106			
Surr: 4-Terphenyl-d14	92		100.0		92.1	44	113			

Sample ID: mb-15605	SampType: MBLK			TestCode: EPA Method 8270C: Semivolatiles						
Client ID: PBW	Batch ID: 15605			RunNo: 21556						
Prep Date: 9/30/2014	Analysis Date: 9/30/2014			SeqNo: 631137		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409D05

06-Oct-14

Client: Western Refining Southwest, Gallup
Project: 2014 3rd QUARTER MKTF WELLS

Sample ID: mb-15605	SampType: MBLK	TestCode: EPA Method 8270C: Semivolatiles								
Client ID: PBW	Batch ID: 15605	RunNo: 21556								
Prep Date: 9/30/2014	Analysis Date: 9/30/2014	SeqNo: 631137	Units: µg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	20								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	20								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409D05

06-Oct-14

Client: Western Refining Southwest, Gallup
Project: 2014 3rd QUARTER MKTF WELLS

Sample ID: mb-15605	SampType: MBLK			TestCode: EPA Method 8270C: Semivolatiles						
Client ID: PBW	Batch ID: 15605			RunNo: 21556						
Prep Date: 9/30/2014	Analysis Date: 9/30/2014			SeqNo: 631137		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	130		200.0		66.8	12.1	85.8			
Surr: Phenol-d5	120		200.0		59.1	17.7	65.8			
Surr: 2,4,6-Tribromophenol	140		200.0		72.2	26	138			
Surr: Nitrobenzene-d5	83		100.0		82.8	47.5	119			
Surr: 2-Fluorobiphenyl	72		100.0		71.7	48.1	106			
Surr: 4-Terphenyl-d14	91		100.0		91.3	44	113			

Sample ID: lcs-15605	SampType: LCS			TestCode: EPA Method 8270C: Semivolatiles						
Client ID: LCSW	Batch ID: 15605			RunNo: 21556						
Prep Date: 9/30/2014	Analysis Date: 9/30/2014			SeqNo: 631138		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	71	10	100.0	0	70.8	47.9	114			
4-Chloro-3-methylphenol	160	10	200.0	0	78.9	51.7	122			
2-Chlorophenol	140	10	200.0	0	69.5	40.7	113			
1,4-Dichlorobenzene	68	10	100.0	0	67.5	39.6	99.9			
2,4-Dinitrotoluene	61	10	100.0	0	60.7	40.8	113			
N-Nitrosodi-n-propylamine	68	10	100.0	0	67.5	51.2	111			
4-Nitrophenol	87	10	200.0	0	43.3	15.7	86.9			
Pentachlorophenol	88	20	200.0	0	44.0	21.6	104			
Phenol	110	10	200.0	0	53.6	28.6	71.7			
Pyrene	76	10	100.0	0	76.1	54.2	128			
1,2,4-Trichlorobenzene	74	10	100.0	0	74.4	40.9	101			

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit	P Sample pH greater than 2.
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1409D05

06-Oct-14

Client: Western Refining Southwest, Gallup
Project: 2014 3rd QUARTER MKTF WELLS

Sample ID: Ics-15605	SampType: LCS			TestCode: EPA Method 8270C: Semivolatiles						
Client ID: LCSW	Batch ID: 15605			RunNo: 21556						
Prep Date: 9/30/2014	Analysis Date: 9/30/2014			SeqNo: 631138		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2-Fluorophenol	100		200.0		51.2	12.1	85.8			
Surr: Phenol-d5	95		200.0		47.3	17.7	65.8			
Surr: 2,4,6-Tribromophenol	150		200.0		73.2	26	138			
Surr: Nitrobenzene-d5	73		100.0		72.9	47.5	119			
Surr: 2-Fluorobiphenyl	73		100.0		73.3	48.1	106			
Surr: 4-Terphenyl-d14	84		100.0		83.7	44	113			

Qualifiers:

- | | |
|---|--|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits | ND Not Detected at the Reporting Limit |
| O RSD is greater than RSDlimit | P Sample pH greater than 2. |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S Spike Recovery outside accepted recovery limits | |

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1409D05

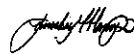
RcptNo: 1

Received by/date:

MG 09/25/14

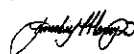
Logged By: Lindsay Mangin

9/25/2014 4:00:00 PM



Completed By: Lindsay Mangin

9/26/2014 7:13:41 AM



Reviewed By:

IO/CS

09/26/14

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☒ No ☐ Not Present ☐
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Courier

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☒ No ☐ No VOA Vials ☐
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐

of preserved
bottles checked
for pH: _____
(<2 or >12 unless noted)
Adjusted? _____
Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:

Date:

By Whom:

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: Western Refining Company

GALLUP REFINERY

Mailing Address:

92 GIANT CROSSING ROAD, GALLUP, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-863-0930

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation:

☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:

☒ Standard ☐ Rush

Project Name:

2014 3rd QUARTER MKTF WELLS

(MKTF - 23, 33, 32, 31, 25)

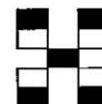
Project Manager:

C. JOHNSON (cheryl.johnson@wnr.com)

Sampler: C. JOHNSON

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.0



**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.	8260+MTBE	8015B EXTENDED	8270 + Phenols	WQCC Metals - Total	WQCC Metals - Dissolved (Filtered)	Major Cations/Anions											Air Bubbles (Y or N)
9/23/2014	1400	H2O	MKTF-23	MISC	MISC	-001	X	X	X														
9/23/2014	1430	H2O	MKTF-33	MISC	MISC	-002	X	X	X														
9/23/2014	1455	H2O	MKTF-32	MISC	NONE	-003	X	X	X														
9/23/2014	1510	H2O	MKTF-31	MISC		-004	X	X	X														
9/23/2014	1530	H2O	MKTF-25	MISC		-005	X	X	X														
9/23/2014	1300	H2O	TRIP BLANK			-006	X																
9/23/2014	1300	H2O	FIELD BLANK			-007	X																
9/23/2014		H2O	BD-MKTF-9/23/14	1L AMBER	NONE	-008			X														
Date: 9/25/2014	Time: 1030	Relinquished by: <i>[Signature]</i>		Received by: <i>[Signature]</i>		Date: 9/25/14	Remarks: 8270 RE-SAMPLED. Original samples exceeded holding time.																
Date: 9/25/14	Time: 1600	Relinquished by: <i>[Signature]</i>		Received by: <i>[Signature]</i>		Date: 09/25/14																	

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.



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

December 11, 2014

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: Q4 2014

OrderNo.: 1411590

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 16 sample(s) on 11/15/2014 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-10

Project: Q4 2014

Collection Date: 11/14/2014 10:10:00 AM

Lab ID: 1411590-001

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: JME
Diesel Range Organics (DRO)	74	10		mg/L	10	11/18/2014 11:43:11 PM	16415
Motor Oil Range Organics (MRO)	ND	50		mg/L	10	11/18/2014 11:43:11 PM	16415
Surr: DNOP	0	59-141	S	%REC	10	11/18/2014 11:43:11 PM	16415
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	84	2.5	P	mg/L	50	11/17/2014 6:07:14 PM	R22597
Surr: BFB	106	80-120	P	%REC	50	11/17/2014 6:07:14 PM	R22597
EPA METHOD 300.0: ANIONS							Analyst: LGP
Fluoride	270	10	*	mg/L	100	11/17/2014 4:20:46 PM	R22603
Chloride	260	50		mg/L	100	11/17/2014 4:20:46 PM	R22603
Bromide	ND	1.0		mg/L	10	11/17/2014 4:08:21 PM	R22603
Phosphorus, Orthophosphate (As P)	ND	5.0	H	mg/L	10	11/17/2014 4:08:21 PM	R22603
Sulfate	ND	5.0		mg/L	10	11/17/2014 4:08:21 PM	R22603
Nitrate+Nitrite as N	ND	2.0		mg/L	10	12/1/2014 10:17:27 PM	R22875
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	17	0.20	*	mg/L	100	11/25/2014 2:18:12 PM	R22813
Cadmium	ND	0.0020		mg/L	1	11/24/2014 6:11:29 PM	R22755
Calcium	780	10		mg/L	10	11/25/2014 2:16:23 PM	R22813
Chromium	ND	0.0060		mg/L	1	11/24/2014 6:11:29 PM	R22755
Copper	ND	0.0060		mg/L	1	11/24/2014 6:11:29 PM	R22755
Iron	67	2.0	*	mg/L	100	11/25/2014 2:18:12 PM	R22813
Magnesium	220	5.0		mg/L	5	11/24/2014 6:13:16 PM	R22755
Manganese	24	0.20	*	mg/L	100	11/25/2014 2:18:12 PM	R22813
Potassium	2.5	1.0		mg/L	1	11/24/2014 6:11:29 PM	R22755
Silver	ND	0.0050		mg/L	1	11/24/2014 6:11:29 PM	R22755
Sodium	550	10		mg/L	10	11/25/2014 2:16:23 PM	R22813
Zinc	0.018	0.010		mg/L	1	11/24/2014 6:11:29 PM	R22755
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	45	0.40	*	mg/L	100	11/21/2014 5:03:16 PM	16487
Cadmium	ND	0.0040		mg/L	1	11/20/2014 6:11:36 PM	16487
Chromium	0.099	0.012		mg/L	1	11/20/2014 6:11:36 PM	16487
Copper	0.24	0.012		mg/L	1	11/20/2014 6:11:36 PM	16487
Iron	250	8.0	*	mg/L	200	11/24/2014 11:38:56 AM	16487
Manganese	49	0.40	*	mg/L	100	11/21/2014 5:03:16 PM	16487
Silver	ND	0.010		mg/L	1	11/20/2014 6:11:36 PM	16487
Zinc	0.31	0.020		mg/L	1	11/20/2014 6:11:36 PM	16487
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	12/1/2014 3:49:28 PM	R22871

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-10

Project: Q4 2014

Collection Date: 11/14/2014 10:10:00 AM

Lab ID: 1411590-001

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Lead	ND	0.010		mg/L	10	12/1/2014 3:49:28 PM	R22871
Selenium	ND	0.010		mg/L	10	12/1/2014 3:49:28 PM	R22871
Uranium	ND	0.010		mg/L	10	12/1/2014 5:25:40 PM	R22871
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.040	*	mg/L	20	12/3/2014 3:06:29 PM	16487
Lead	0.58	0.040	*	mg/L	20	12/3/2014 3:06:29 PM	16487
Selenium	ND	0.040		mg/L	20	12/3/2014 3:06:29 PM	16487
Uranium	0.052	0.040	*	mg/L	20	12/3/2014 3:06:29 PM	16487
EPA METHOD 245.1: MERCURY							Analyst: MMD
Mercury	ND	0.00040		mg/L	1	11/26/2014 3:28:18 PM	16593
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	11/19/2014 5:48:20 PM	16427
Acenaphthylene	ND	10		µg/L	1	11/19/2014 5:48:20 PM	16427
Aniline	54	10		µg/L	1	11/19/2014 5:48:20 PM	16427
Anthracene	ND	10		µg/L	1	11/19/2014 5:48:20 PM	16427
Azobenzene	ND	10		µg/L	1	11/19/2014 5:48:20 PM	16427
Benz(a)anthracene	ND	10		µg/L	1	11/19/2014 5:48:20 PM	16427
Benzo(a)pyrene	ND	10		µg/L	1	11/19/2014 5:48:20 PM	16427
Benzo(b)fluoranthene	ND	10		µg/L	1	11/19/2014 5:48:20 PM	16427
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/19/2014 5:48:20 PM	16427
Benzo(k)fluoranthene	ND	10		µg/L	1	11/19/2014 5:48:20 PM	16427
Benzoic acid	ND	20		µg/L	1	11/19/2014 5:48:20 PM	16427
Benzyl alcohol	ND	10		µg/L	1	11/19/2014 5:48:20 PM	16427
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/19/2014 5:48:20 PM	16427
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/19/2014 5:48:20 PM	16427
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/19/2014 5:48:20 PM	16427
Bis(2-ethylhexyl)phthalate	10	10		µg/L	1	11/19/2014 5:48:20 PM	16427
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/19/2014 5:48:20 PM	16427
Butyl benzyl phthalate	ND	10		µg/L	1	11/19/2014 5:48:20 PM	16427
Carbazole	ND	10		µg/L	1	11/19/2014 5:48:20 PM	16427
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/19/2014 5:48:20 PM	16427
4-Chloroaniline	ND	10		µg/L	1	11/19/2014 5:48:20 PM	16427
2-Chloronaphthalene	ND	10		µg/L	1	11/19/2014 5:48:20 PM	16427
2-Chlorophenol	ND	10		µg/L	1	11/19/2014 5:48:20 PM	16427
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/19/2014 5:48:20 PM	16427
Chrysene	ND	10		µg/L	1	11/19/2014 5:48:20 PM	16427
Di-n-butyl phthalate	ND	10		µg/L	1	11/19/2014 5:48:20 PM	16427
Di-n-octyl phthalate	ND	10		µg/L	1	11/19/2014 5:48:20 PM	16427

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

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	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-10

Project: Q4 2014

Collection Date: 11/14/2014 10:10:00 AM

Lab ID: 1411590-001

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/19/2014 5:48:20 PM	16427
Dibenzofuran	ND	10		µg/L	1	11/19/2014 5:48:20 PM	16427
1,2-Dichlorobenzene	ND	10		µg/L	1	11/19/2014 5:48:20 PM	16427
1,3-Dichlorobenzene	ND	10		µg/L	1	11/19/2014 5:48:20 PM	16427
1,4-Dichlorobenzene	ND	10		µg/L	1	11/19/2014 5:48:20 PM	16427
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/19/2014 5:48:20 PM	16427
Diethyl phthalate	ND	10		µg/L	1	11/19/2014 5:48:20 PM	16427
Dimethyl phthalate	ND	10		µg/L	1	11/19/2014 5:48:20 PM	16427
2,4-Dichlorophenol	ND	20		µg/L	1	11/19/2014 5:48:20 PM	16427
2,4-Dimethylphenol	63	10		µg/L	1	11/19/2014 5:48:20 PM	16427
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/19/2014 5:48:20 PM	16427
2,4-Dinitrophenol	ND	20		µg/L	1	11/19/2014 5:48:20 PM	16427
2,4-Dinitrotoluene	ND	10		µg/L	1	11/19/2014 5:48:20 PM	16427
2,6-Dinitrotoluene	ND	10		µg/L	1	11/19/2014 5:48:20 PM	16427
Fluoranthene	ND	10		µg/L	1	11/19/2014 5:48:20 PM	16427
Fluorene	ND	10		µg/L	1	11/19/2014 5:48:20 PM	16427
Hexachlorobenzene	ND	10		µg/L	1	11/19/2014 5:48:20 PM	16427
Hexachlorobutadiene	ND	10		µg/L	1	11/19/2014 5:48:20 PM	16427
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/19/2014 5:48:20 PM	16427
Hexachloroethane	ND	10		µg/L	1	11/19/2014 5:48:20 PM	16427
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/19/2014 5:48:20 PM	16427
Isophorone	ND	10		µg/L	1	11/19/2014 5:48:20 PM	16427
1-Methylnaphthalene	46	10		µg/L	1	11/19/2014 5:48:20 PM	16427
2-Methylnaphthalene	51	10		µg/L	1	11/19/2014 5:48:20 PM	16427
2-Methylphenol	330	50		µg/L	5	11/20/2014 12:02:04 PM	16427
3+4-Methylphenol	400	50		µg/L	5	11/20/2014 12:02:04 PM	16427
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/19/2014 5:48:20 PM	16427
N-Nitrosodimethylamine	ND	10		µg/L	1	11/19/2014 5:48:20 PM	16427
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/19/2014 5:48:20 PM	16427
Naphthalene	99	10		µg/L	1	11/19/2014 5:48:20 PM	16427
2-Nitroaniline	ND	10		µg/L	1	11/19/2014 5:48:20 PM	16427
3-Nitroaniline	ND	10		µg/L	1	11/19/2014 5:48:20 PM	16427
4-Nitroaniline	ND	10		µg/L	1	11/19/2014 5:48:20 PM	16427
Nitrobenzene	ND	10		µg/L	1	11/19/2014 5:48:20 PM	16427
2-Nitrophenol	ND	10		µg/L	1	11/19/2014 5:48:20 PM	16427
4-Nitrophenol	ND	10		µg/L	1	11/19/2014 5:48:20 PM	16427
Pentachlorophenol	ND	20		µg/L	1	11/19/2014 5:48:20 PM	16427
Phenanthrene	ND	10		µg/L	1	11/19/2014 5:48:20 PM	16427
Phenol	290	50		µg/L	5	11/20/2014 12:02:04 PM	16427

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 3 of 98
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-10

Project: Q4 2014

Collection Date: 11/14/2014 10:10:00 AM

Lab ID: 1411590-001

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Pyrene	ND	10		µg/L	1	11/19/2014 5:48:20 PM	16427
Pyridine	ND	10		µg/L	1	11/19/2014 5:48:20 PM	16427
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/19/2014 5:48:20 PM	16427
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/19/2014 5:48:20 PM	16427
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/19/2014 5:48:20 PM	16427
Surr: 2-Fluorophenol	23.4	17.6-104		%REC	1	11/19/2014 5:48:20 PM	16427
Surr: Phenol-d5	48.6	17.7-89.9		%REC	1	11/19/2014 5:48:20 PM	16427
Surr: 2,4,6-Tribromophenol	68.3	16.3-122		%REC	1	11/19/2014 5:48:20 PM	16427
Surr: Nitrobenzene-d5	67.8	45.3-117		%REC	1	11/19/2014 5:48:20 PM	16427
Surr: 2-Fluorobiphenyl	65.8	43-113		%REC	1	11/19/2014 5:48:20 PM	16427
Surr: 4-Terphenyl-d14	60.7	47.6-122		%REC	1	11/19/2014 5:48:20 PM	16427
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Benzene	11000	200	P	µg/L	200	11/17/2014 7:05:41 PM	R22601
Toluene	20000	500	P	µg/L	500	11/18/2014 11:22:33 AM	R22619
Ethylbenzene	1700	200	P	µg/L	200	11/17/2014 7:05:41 PM	R22601
Methyl tert-butyl ether (MTBE)	ND	20	P	µg/L	20	11/17/2014 7:32:28 PM	R22601
1,2,4-Trimethylbenzene	1500	200	P	µg/L	200	11/17/2014 7:05:41 PM	R22601
1,3,5-Trimethylbenzene	570	20	P	µg/L	20	11/17/2014 7:32:28 PM	R22601
1,2-Dichloroethane (EDC)	ND	20	P	µg/L	20	11/17/2014 7:32:28 PM	R22601
1,2-Dibromoethane (EDB)	ND	20	P	µg/L	20	11/17/2014 7:32:28 PM	R22601
Naphthalene	360	40	P	µg/L	20	11/17/2014 7:32:28 PM	R22601
1-Methylnaphthalene	240	80	P	µg/L	20	11/17/2014 7:32:28 PM	R22601
2-Methylnaphthalene	380	80	P	µg/L	20	11/17/2014 7:32:28 PM	R22601
Acetone	ND	200	P	µg/L	20	11/17/2014 7:32:28 PM	R22601
Bromobenzene	ND	20	P	µg/L	20	11/17/2014 7:32:28 PM	R22601
Bromodichloromethane	ND	20	P	µg/L	20	11/17/2014 7:32:28 PM	R22601
Bromoform	ND	20	P	µg/L	20	11/17/2014 7:32:28 PM	R22601
Bromomethane	ND	60	P	µg/L	20	11/17/2014 7:32:28 PM	R22601
2-Butanone	ND	200	P	µg/L	20	11/17/2014 7:32:28 PM	R22601
Carbon disulfide	ND	200	P	µg/L	20	11/17/2014 7:32:28 PM	R22601
Carbon Tetrachloride	ND	20	P	µg/L	20	11/17/2014 7:32:28 PM	R22601
Chlorobenzene	ND	20	P	µg/L	20	11/17/2014 7:32:28 PM	R22601
Chloroethane	ND	40	P	µg/L	20	11/17/2014 7:32:28 PM	R22601
Chloroform	ND	20	P	µg/L	20	11/17/2014 7:32:28 PM	R22601
Chloromethane	ND	60	P	µg/L	20	11/17/2014 7:32:28 PM	R22601
2-Chlorotoluene	ND	20	P	µg/L	20	11/17/2014 7:32:28 PM	R22601
4-Chlorotoluene	ND	20	P	µg/L	20	11/17/2014 7:32:28 PM	R22601
cis-1,2-DCE	66	20	P	µg/L	20	11/17/2014 7:32:28 PM	R22601
cis-1,3-Dichloropropene	ND	20	P	µg/L	20	11/17/2014 7:32:28 PM	R22601

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-10

Project: Q4 2014

Collection Date: 11/14/2014 10:10:00 AM

Lab ID: 1411590-001

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
1,2-Dibromo-3-chloropropane	ND	40	P	µg/L	20	11/17/2014 7:32:28 PM	R22601
Dibromochloromethane	ND	20	P	µg/L	20	11/17/2014 7:32:28 PM	R22601
Dibromomethane	ND	20	P	µg/L	20	11/17/2014 7:32:28 PM	R22601
1,2-Dichlorobenzene	ND	20	P	µg/L	20	11/17/2014 7:32:28 PM	R22601
1,3-Dichlorobenzene	ND	20	P	µg/L	20	11/17/2014 7:32:28 PM	R22601
1,4-Dichlorobenzene	ND	20	P	µg/L	20	11/17/2014 7:32:28 PM	R22601
Dichlorodifluoromethane	ND	20	P	µg/L	20	11/17/2014 7:32:28 PM	R22601
1,1-Dichloroethane	39	20	P	µg/L	20	11/17/2014 7:32:28 PM	R22601
1,1-Dichloroethene	ND	20	P	µg/L	20	11/17/2014 7:32:28 PM	R22601
1,2-Dichloropropane	ND	20	P	µg/L	20	11/17/2014 7:32:28 PM	R22601
1,3-Dichloropropane	ND	20	P	µg/L	20	11/17/2014 7:32:28 PM	R22601
2,2-Dichloropropane	ND	40	P	µg/L	20	11/17/2014 7:32:28 PM	R22601
1,1-Dichloropropene	ND	20	P	µg/L	20	11/17/2014 7:32:28 PM	R22601
Hexachlorobutadiene	ND	20	P	µg/L	20	11/17/2014 7:32:28 PM	R22601
2-Hexanone	ND	200	P	µg/L	20	11/17/2014 7:32:28 PM	R22601
Isopropylbenzene	120	20	P	µg/L	20	11/17/2014 7:32:28 PM	R22601
4-Isopropyltoluene	34	20	P	µg/L	20	11/17/2014 7:32:28 PM	R22601
4-Methyl-2-pentanone	ND	200	P	µg/L	20	11/17/2014 7:32:28 PM	R22601
Methylene Chloride	ND	60	P	µg/L	20	11/17/2014 7:32:28 PM	R22601
n-Butylbenzene	84	60	P	µg/L	20	11/17/2014 7:32:28 PM	R22601
n-Propylbenzene	360	20	P	µg/L	20	11/17/2014 7:32:28 PM	R22601
sec-Butylbenzene	40	20	P	µg/L	20	11/17/2014 7:32:28 PM	R22601
Styrene	ND	20	P	µg/L	20	11/17/2014 7:32:28 PM	R22601
tert-Butylbenzene	ND	20	P	µg/L	20	11/17/2014 7:32:28 PM	R22601
1,1,1,2-Tetrachloroethane	ND	20	P	µg/L	20	11/17/2014 7:32:28 PM	R22601
1,1,2,2-Tetrachloroethane	ND	40	P	µg/L	20	11/17/2014 7:32:28 PM	R22601
Tetrachloroethene (PCE)	ND	20	P	µg/L	20	11/17/2014 7:32:28 PM	R22601
trans-1,2-DCE	ND	20	P	µg/L	20	11/17/2014 7:32:28 PM	R22601
trans-1,3-Dichloropropene	ND	20	P	µg/L	20	11/17/2014 7:32:28 PM	R22601
1,2,3-Trichlorobenzene	ND	20	P	µg/L	20	11/17/2014 7:32:28 PM	R22601
1,2,4-Trichlorobenzene	ND	20	P	µg/L	20	11/17/2014 7:32:28 PM	R22601
1,1,1-Trichloroethane	ND	20	P	µg/L	20	11/17/2014 7:32:28 PM	R22601
1,1,2-Trichloroethane	ND	20	P	µg/L	20	11/17/2014 7:32:28 PM	R22601
Trichloroethene (TCE)	ND	20	P	µg/L	20	11/17/2014 7:32:28 PM	R22601
Trichlorofluoromethane	ND	20	P	µg/L	20	11/17/2014 7:32:28 PM	R22601
1,2,3-Trichloropropane	ND	40	P	µg/L	20	11/17/2014 7:32:28 PM	R22601
Vinyl chloride	ND	20	P	µg/L	20	11/17/2014 7:32:28 PM	R22601
Xylenes, Total	7600	300	P	µg/L	200	11/17/2014 7:05:41 PM	R22601
Surr: 1,2-Dichloroethane-d4	99.3	70-130	P	%REC	20	11/17/2014 7:32:28 PM	R22601

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-10

Project: Q4 2014

Collection Date: 11/14/2014 10:10:00 AM

Lab ID: 1411590-001

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: cadg	
Surr: 4-Bromofluorobenzene	92.2	70-130	P	%REC	20	11/17/2014 7:32:28 PM	R22601
Surr: Dibromofluoromethane	81.3	70-130	P	%REC	20	11/17/2014 7:32:28 PM	R22601
Surr: Toluene-d8	95.5	70-130	P	%REC	20	11/17/2014 7:32:28 PM	R22601

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 6 of 98
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-09

Project: Q4 2014

Collection Date: 11/14/2014 10:13:00 AM

Lab ID: 1411590-002

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: JME
Diesel Range Organics (DRO)	2.1	1.0		mg/L	1	11/19/2014 12:12:35 AM	16415
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/19/2014 12:12:35 AM	16415
Surr: DNOP	109	59-141		%REC	1	11/19/2014 12:12:35 AM	16415
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	4.4	0.50		mg/L	10	11/17/2014 7:29:15 PM	R22597
Surr: BFB	98.2	80-120		%REC	10	11/17/2014 7:29:15 PM	R22597
EPA METHOD 300.0: ANIONS							Analyst: LGP
Fluoride	ND	1.0		mg/L	10	11/17/2014 4:33:12 PM	R22603
Chloride	180	50		mg/L	100	11/17/2014 5:10:26 PM	R22603
Bromide	1.2	1.0		mg/L	10	11/17/2014 4:33:12 PM	R22603
Phosphorus, Orthophosphate (As P)	ND	5.0	H	mg/L	10	11/17/2014 4:33:12 PM	R22603
Sulfate	140	5.0		mg/L	10	11/17/2014 4:33:12 PM	R22603
Nitrate+Nitrite as N	ND	1.0		mg/L	5	11/26/2014 10:29:10 AM	R22848
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.34	0.0020		mg/L	1	11/24/2014 6:14:52 PM	R22755
Cadmium	ND	0.0020		mg/L	1	11/24/2014 6:14:52 PM	R22755
Calcium	160	5.0		mg/L	5	11/24/2014 6:16:29 PM	R22755
Chromium	ND	0.0060		mg/L	1	11/24/2014 6:14:52 PM	R22755
Copper	ND	0.030		mg/L	5	11/24/2014 6:16:29 PM	R22755
Iron	2.4	0.10	*	mg/L	5	11/24/2014 6:16:29 PM	R22755
Magnesium	30	1.0		mg/L	1	11/24/2014 6:14:52 PM	R22755
Manganese	2.8	0.010	*	mg/L	5	11/24/2014 6:16:29 PM	R22755
Potassium	ND	1.0		mg/L	1	11/24/2014 6:14:52 PM	R22755
Silver	ND	0.0050		mg/L	1	11/24/2014 6:14:52 PM	R22755
Sodium	240	5.0		mg/L	5	11/24/2014 6:16:29 PM	R22755
Zinc	0.017	0.010		mg/L	1	11/24/2014 6:14:52 PM	R22755
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.39	0.0020		mg/L	1	11/20/2014 6:22:30 PM	16487
Cadmium	ND	0.0020		mg/L	1	11/20/2014 6:22:30 PM	16487
Chromium	ND	0.0060		mg/L	1	11/20/2014 6:22:30 PM	16487
Copper	ND	0.0060		mg/L	1	11/20/2014 6:22:30 PM	16487
Iron	4.5	0.20	*	mg/L	10	11/21/2014 5:29:32 PM	16487
Manganese	2.7	0.010	*	mg/L	5	11/21/2014 5:24:02 PM	16487
Silver	ND	0.0050		mg/L	1	11/20/2014 6:22:30 PM	16487
Zinc	0.013	0.010		mg/L	1	11/20/2014 6:22:30 PM	16487
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	12/1/2014 3:52:34 PM	R22871

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-09

Project: Q4 2014

Collection Date: 11/14/2014 10:13:00 AM

Lab ID: 1411590-002

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Lead	ND	0.010		mg/L	10	12/1/2014 3:52:34 PM	R22871
Selenium	ND	0.010		mg/L	10	12/1/2014 3:52:34 PM	R22871
Uranium	ND	0.010		mg/L	10	12/1/2014 5:28:46 PM	R22871
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	11/26/2014 6:13:52 PM	16487
Lead	0.0053	0.0050		mg/L	5	11/26/2014 6:13:52 PM	16487
Selenium	ND	0.010		mg/L	10	12/3/2014 3:09:35 PM	16487
Uranium	0.010	0.010		mg/L	10	12/3/2014 3:09:35 PM	16487
EPA METHOD 245.1: MERCURY							Analyst: MMD
Mercury	ND	0.00020		mg/L	1	11/26/2014 2:50:05 PM	16593
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	11/19/2014 6:15:53 PM	16427
Acenaphthylene	ND	10		µg/L	1	11/19/2014 6:15:53 PM	16427
Aniline	ND	10		µg/L	1	11/19/2014 6:15:53 PM	16427
Anthracene	ND	10		µg/L	1	11/19/2014 6:15:53 PM	16427
Azobenzene	ND	10		µg/L	1	11/19/2014 6:15:53 PM	16427
Benz(a)anthracene	ND	10		µg/L	1	11/19/2014 6:15:53 PM	16427
Benzo(a)pyrene	ND	10		µg/L	1	11/19/2014 6:15:53 PM	16427
Benzo(b)fluoranthene	ND	10		µg/L	1	11/19/2014 6:15:53 PM	16427
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/19/2014 6:15:53 PM	16427
Benzo(k)fluoranthene	ND	10		µg/L	1	11/19/2014 6:15:53 PM	16427
Benzoic acid	ND	20		µg/L	1	11/19/2014 6:15:53 PM	16427
Benzyl alcohol	ND	10		µg/L	1	11/19/2014 6:15:53 PM	16427
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/19/2014 6:15:53 PM	16427
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/19/2014 6:15:53 PM	16427
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/19/2014 6:15:53 PM	16427
Bis(2-ethylhexyl)phthalate	11	10		µg/L	1	11/19/2014 6:15:53 PM	16427
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/19/2014 6:15:53 PM	16427
Butyl benzyl phthalate	ND	10		µg/L	1	11/19/2014 6:15:53 PM	16427
Carbazole	ND	10		µg/L	1	11/19/2014 6:15:53 PM	16427
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/19/2014 6:15:53 PM	16427
4-Chloroaniline	ND	10		µg/L	1	11/19/2014 6:15:53 PM	16427
2-Chloronaphthalene	ND	10		µg/L	1	11/19/2014 6:15:53 PM	16427
2-Chlorophenol	ND	10		µg/L	1	11/19/2014 6:15:53 PM	16427
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/19/2014 6:15:53 PM	16427
Chrysene	ND	10		µg/L	1	11/19/2014 6:15:53 PM	16427
Di-n-butyl phthalate	ND	10		µg/L	1	11/19/2014 6:15:53 PM	16427
Di-n-octyl phthalate	ND	10		µg/L	1	11/19/2014 6:15:53 PM	16427

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-09

Project: Q4 2014

Collection Date: 11/14/2014 10:13:00 AM

Lab ID: 1411590-002

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/19/2014 6:15:53 PM	16427
Dibenzofuran	ND	10		µg/L	1	11/19/2014 6:15:53 PM	16427
1,2-Dichlorobenzene	ND	10		µg/L	1	11/19/2014 6:15:53 PM	16427
1,3-Dichlorobenzene	ND	10		µg/L	1	11/19/2014 6:15:53 PM	16427
1,4-Dichlorobenzene	ND	10		µg/L	1	11/19/2014 6:15:53 PM	16427
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/19/2014 6:15:53 PM	16427
Diethyl phthalate	ND	10		µg/L	1	11/19/2014 6:15:53 PM	16427
Dimethyl phthalate	ND	10		µg/L	1	11/19/2014 6:15:53 PM	16427
2,4-Dichlorophenol	ND	20		µg/L	1	11/19/2014 6:15:53 PM	16427
2,4-Dimethylphenol	ND	10		µg/L	1	11/19/2014 6:15:53 PM	16427
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/19/2014 6:15:53 PM	16427
2,4-Dinitrophenol	ND	20		µg/L	1	11/19/2014 6:15:53 PM	16427
2,4-Dinitrotoluene	ND	10		µg/L	1	11/19/2014 6:15:53 PM	16427
2,6-Dinitrotoluene	ND	10		µg/L	1	11/19/2014 6:15:53 PM	16427
Fluoranthene	ND	10		µg/L	1	11/19/2014 6:15:53 PM	16427
Fluorene	ND	10		µg/L	1	11/19/2014 6:15:53 PM	16427
Hexachlorobenzene	ND	10		µg/L	1	11/19/2014 6:15:53 PM	16427
Hexachlorobutadiene	ND	10		µg/L	1	11/19/2014 6:15:53 PM	16427
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/19/2014 6:15:53 PM	16427
Hexachloroethane	ND	10		µg/L	1	11/19/2014 6:15:53 PM	16427
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/19/2014 6:15:53 PM	16427
Isophorone	ND	10		µg/L	1	11/19/2014 6:15:53 PM	16427
1-Methylnaphthalene	49	10		µg/L	1	11/19/2014 6:15:53 PM	16427
2-Methylnaphthalene	ND	10		µg/L	1	11/19/2014 6:15:53 PM	16427
2-Methylphenol	ND	10		µg/L	1	11/19/2014 6:15:53 PM	16427
3+4-Methylphenol	ND	10		µg/L	1	11/19/2014 6:15:53 PM	16427
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/19/2014 6:15:53 PM	16427
N-Nitrosodimethylamine	ND	10		µg/L	1	11/19/2014 6:15:53 PM	16427
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/19/2014 6:15:53 PM	16427
Naphthalene	21	10		µg/L	1	11/19/2014 6:15:53 PM	16427
2-Nitroaniline	ND	10		µg/L	1	11/19/2014 6:15:53 PM	16427
3-Nitroaniline	ND	10		µg/L	1	11/19/2014 6:15:53 PM	16427
4-Nitroaniline	ND	10		µg/L	1	11/19/2014 6:15:53 PM	16427
Nitrobenzene	ND	10		µg/L	1	11/19/2014 6:15:53 PM	16427
2-Nitrophenol	ND	10		µg/L	1	11/19/2014 6:15:53 PM	16427
4-Nitrophenol	ND	10		µg/L	1	11/19/2014 6:15:53 PM	16427
Pentachlorophenol	ND	20		µg/L	1	11/19/2014 6:15:53 PM	16427
Phenanthrene	ND	10		µg/L	1	11/19/2014 6:15:53 PM	16427
Phenol	ND	10		µg/L	1	11/19/2014 6:15:53 PM	16427

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 9 of 98
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-09

Project: Q4 2014

Collection Date: 11/14/2014 10:13:00 AM

Lab ID: 1411590-002

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Pyrene	ND	10		µg/L	1	11/19/2014 6:15:53 PM	16427
Pyridine	ND	10		µg/L	1	11/19/2014 6:15:53 PM	16427
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/19/2014 6:15:53 PM	16427
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/19/2014 6:15:53 PM	16427
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/19/2014 6:15:53 PM	16427
Surr: 2-Fluorophenol	74.6	17.6-104		%REC	1	11/19/2014 6:15:53 PM	16427
Surr: Phenol-d5	65.2	17.7-89.9		%REC	1	11/19/2014 6:15:53 PM	16427
Surr: 2,4,6-Tribromophenol	95.7	16.3-122		%REC	1	11/19/2014 6:15:53 PM	16427
Surr: Nitrobenzene-d5	84.3	45.3-117		%REC	1	11/19/2014 6:15:53 PM	16427
Surr: 2-Fluorobiphenyl	85.2	43-113		%REC	1	11/19/2014 6:15:53 PM	16427
Surr: 4-Terphenyl-d14	91.2	47.6-122		%REC	1	11/19/2014 6:15:53 PM	16427
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Benzene	810	10		µg/L	10	11/17/2014 9:46:35 PM	R22601
Toluene	33	10		µg/L	10	11/18/2014 11:49:20 AM	R22619
Ethylbenzene	150	10		µg/L	10	11/17/2014 9:46:35 PM	R22601
Methyl tert-butyl ether (MTBE)	770	10		µg/L	10	11/17/2014 9:46:35 PM	R22601
1,2,4-Trimethylbenzene	87	10		µg/L	10	11/17/2014 9:46:35 PM	R22601
1,3,5-Trimethylbenzene	ND	10		µg/L	10	11/17/2014 9:46:35 PM	R22601
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	11/17/2014 9:46:35 PM	R22601
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	11/17/2014 9:46:35 PM	R22601
Naphthalene	43	20		µg/L	10	11/17/2014 9:46:35 PM	R22601
1-Methylnaphthalene	110	40		µg/L	10	11/17/2014 9:46:35 PM	R22601
2-Methylnaphthalene	ND	40		µg/L	10	11/17/2014 9:46:35 PM	R22601
Acetone	ND	100		µg/L	10	11/17/2014 9:46:35 PM	R22601
Bromobenzene	ND	10		µg/L	10	11/17/2014 9:46:35 PM	R22601
Bromodichloromethane	ND	10		µg/L	10	11/17/2014 9:46:35 PM	R22601
Bromoform	ND	10		µg/L	10	11/17/2014 9:46:35 PM	R22601
Bromomethane	ND	30		µg/L	10	11/17/2014 9:46:35 PM	R22601
2-Butanone	ND	100		µg/L	10	11/17/2014 9:46:35 PM	R22601
Carbon disulfide	ND	100		µg/L	10	11/17/2014 9:46:35 PM	R22601
Carbon Tetrachloride	ND	10		µg/L	10	11/17/2014 9:46:35 PM	R22601
Chlorobenzene	ND	10		µg/L	10	11/17/2014 9:46:35 PM	R22601
Chloroethane	ND	20		µg/L	10	11/17/2014 9:46:35 PM	R22601
Chloroform	ND	10		µg/L	10	11/17/2014 9:46:35 PM	R22601
Chloromethane	ND	30		µg/L	10	11/17/2014 9:46:35 PM	R22601
2-Chlorotoluene	ND	10		µg/L	10	11/17/2014 9:46:35 PM	R22601
4-Chlorotoluene	ND	10		µg/L	10	11/17/2014 9:46:35 PM	R22601
cis-1,2-DCE	24	10		µg/L	10	11/17/2014 9:46:35 PM	R22601
cis-1,3-Dichloropropene	ND	10		µg/L	10	11/17/2014 9:46:35 PM	R22601

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-09

Project: Q4 2014

Collection Date: 11/14/2014 10:13:00 AM

Lab ID: 1411590-002

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES					Analyst: cadg		
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	11/17/2014 9:46:35 PM	R22601
Dibromochloromethane	ND	10		µg/L	10	11/17/2014 9:46:35 PM	R22601
Dibromomethane	ND	10		µg/L	10	11/17/2014 9:46:35 PM	R22601
1,2-Dichlorobenzene	ND	10		µg/L	10	11/17/2014 9:46:35 PM	R22601
1,3-Dichlorobenzene	ND	10		µg/L	10	11/17/2014 9:46:35 PM	R22601
1,4-Dichlorobenzene	ND	10		µg/L	10	11/17/2014 9:46:35 PM	R22601
Dichlorodifluoromethane	ND	10		µg/L	10	11/17/2014 9:46:35 PM	R22601
1,1-Dichloroethane	35	10		µg/L	10	11/17/2014 9:46:35 PM	R22601
1,1-Dichloroethene	68	10		µg/L	10	11/17/2014 9:46:35 PM	R22601
1,2-Dichloropropane	ND	10		µg/L	10	11/17/2014 9:46:35 PM	R22601
1,3-Dichloropropane	ND	10		µg/L	10	11/17/2014 9:46:35 PM	R22601
2,2-Dichloropropane	ND	20		µg/L	10	11/17/2014 9:46:35 PM	R22601
1,1-Dichloropropene	ND	10		µg/L	10	11/17/2014 9:46:35 PM	R22601
Hexachlorobutadiene	ND	10		µg/L	10	11/17/2014 9:46:35 PM	R22601
2-Hexanone	ND	100		µg/L	10	11/17/2014 9:46:35 PM	R22601
Isopropylbenzene	14	10		µg/L	10	11/17/2014 9:46:35 PM	R22601
4-Isopropyltoluene	ND	10		µg/L	10	11/17/2014 9:46:35 PM	R22601
4-Methyl-2-pentanone	ND	100		µg/L	10	11/17/2014 9:46:35 PM	R22601
Methylene Chloride	ND	30		µg/L	10	11/17/2014 9:46:35 PM	R22601
n-Butylbenzene	ND	30		µg/L	10	11/17/2014 9:46:35 PM	R22601
n-Propylbenzene	30	10		µg/L	10	11/17/2014 9:46:35 PM	R22601
sec-Butylbenzene	ND	10		µg/L	10	11/17/2014 9:46:35 PM	R22601
Styrene	ND	10		µg/L	10	11/17/2014 9:46:35 PM	R22601
tert-Butylbenzene	ND	10		µg/L	10	11/17/2014 9:46:35 PM	R22601
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	11/17/2014 9:46:35 PM	R22601
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	11/17/2014 9:46:35 PM	R22601
Tetrachloroethene (PCE)	ND	10		µg/L	10	11/17/2014 9:46:35 PM	R22601
trans-1,2-DCE	ND	10		µg/L	10	11/17/2014 9:46:35 PM	R22601
trans-1,3-Dichloropropene	ND	10		µg/L	10	11/17/2014 9:46:35 PM	R22601
1,2,3-Trichlorobenzene	ND	10		µg/L	10	11/17/2014 9:46:35 PM	R22601
1,2,4-Trichlorobenzene	ND	10		µg/L	10	11/17/2014 9:46:35 PM	R22601
1,1,1-Trichloroethane	96	10		µg/L	10	11/17/2014 9:46:35 PM	R22601
1,1,2-Trichloroethane	ND	10		µg/L	10	11/17/2014 9:46:35 PM	R22601
Trichloroethene (TCE)	11	10		µg/L	10	11/17/2014 9:46:35 PM	R22601
Trichlorofluoromethane	ND	10		µg/L	10	11/17/2014 9:46:35 PM	R22601
1,2,3-Trichloropropane	ND	20		µg/L	10	11/17/2014 9:46:35 PM	R22601
Vinyl chloride	ND	10		µg/L	10	11/17/2014 9:46:35 PM	R22601
Xylenes, Total	110	15		µg/L	10	11/17/2014 9:46:35 PM	R22601
Surr: 1,2-Dichloroethane-d4	104	70-130		%REC	10	11/17/2014 9:46:35 PM	R22601

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1411590**

Date Reported: **12/11/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-09

Project: Q4 2014

Collection Date: 11/14/2014 10:13:00 AM

Lab ID: 1411590-002

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Surr: 4-Bromofluorobenzene	94.3	70-130		%REC	10	11/17/2014 9:46:35 PM	R22601
Surr: Dibromofluoromethane	93.9	70-130		%REC	10	11/17/2014 9:46:35 PM	R22601
Surr: Toluene-d8	98.1	70-130		%REC	10	11/17/2014 9:46:35 PM	R22601

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 12 of 98
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-02

Project: Q4 2014

Collection Date: 11/14/2014 11:45:00 AM

Lab ID: 1411590-003

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: JME
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	11/17/2014 6:02:42 PM	16411
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/17/2014 6:02:42 PM	16411
Surr: DNOP	125	59-141		%REC	1	11/17/2014 6:02:42 PM	16411
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	0.61	0.050		mg/L	1	11/18/2014 12:32:38 PM	R22618
Surr: BFB	95.0	80-120		%REC	1	11/18/2014 12:32:38 PM	R22618
EPA METHOD 300.0: ANIONS							Analyst: LGP
Fluoride	ND	1.0		mg/L	10	11/17/2014 5:22:51 PM	R22603
Chloride	830	50		mg/L	100	11/17/2014 5:35:16 PM	R22603
Bromide	1.2	1.0		mg/L	10	11/17/2014 5:22:51 PM	R22603
Phosphorus, Orthophosphate (As P)	ND	5.0	H	mg/L	10	11/17/2014 5:22:51 PM	R22603
Sulfate	230	5.0		mg/L	10	11/17/2014 5:22:51 PM	R22603
Nitrate+Nitrite as N	ND	1.0		mg/L	5	11/26/2014 10:41:35 AM	R22848
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.13	0.0020		mg/L	1	11/24/2014 6:18:28 PM	R22755
Cadmium	ND	0.0020		mg/L	1	11/24/2014 6:18:28 PM	R22755
Calcium	100	5.0		mg/L	5	11/24/2014 6:20:25 PM	R22755
Chromium	ND	0.0060		mg/L	1	11/24/2014 6:18:28 PM	R22755
Copper	ND	0.0060		mg/L	1	11/24/2014 6:18:28 PM	R22755
Iron	2.2	0.10	*	mg/L	5	11/24/2014 6:20:25 PM	R22755
Magnesium	16	1.0		mg/L	1	11/24/2014 6:18:28 PM	R22755
Manganese	0.51	0.0020	*	mg/L	1	11/24/2014 6:18:28 PM	R22755
Potassium	4.2	1.0		mg/L	1	11/24/2014 6:18:28 PM	R22755
Silver	ND	0.0050		mg/L	1	11/24/2014 6:18:28 PM	R22755
Sodium	760	10		mg/L	10	11/25/2014 2:20:19 PM	R22813
Zinc	0.027	0.010		mg/L	1	11/24/2014 6:18:28 PM	R22755
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.22	0.0020		mg/L	1	11/20/2014 6:27:53 PM	16487
Cadmium	ND	0.0020		mg/L	1	11/20/2014 6:27:53 PM	16487
Chromium	ND	0.0060		mg/L	1	11/20/2014 6:27:53 PM	16487
Copper	0.012	0.0060		mg/L	1	11/20/2014 6:27:53 PM	16487
Iron	7.0	0.20	*	mg/L	10	11/21/2014 5:31:27 PM	16487
Manganese	0.68	0.0020	*	mg/L	1	11/20/2014 6:27:53 PM	16487
Silver	ND	0.0050		mg/L	1	11/20/2014 6:27:53 PM	16487
Zinc	0.030	0.010		mg/L	1	11/20/2014 6:27:53 PM	16487
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	12/1/2014 3:55:40 PM	R22871

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-02

Project: Q4 2014

Collection Date: 11/14/2014 11:45:00 AM

Lab ID: 1411590-003

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Lead	ND	0.010		mg/L	10	12/1/2014 3:55:40 PM	R22871
Selenium	ND	0.010		mg/L	10	12/1/2014 3:55:40 PM	R22871
Uranium	0.059	0.010	*	mg/L	10	12/1/2014 5:31:52 PM	R22871
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0059	0.0050		mg/L	5	11/26/2014 6:17:22 PM	16487
Lead	0.0079	0.0050		mg/L	5	11/26/2014 6:17:22 PM	16487
Selenium	ND	0.010		mg/L	10	12/3/2014 3:12:41 PM	16487
Uranium	0.073	0.010	*	mg/L	10	12/3/2014 3:12:41 PM	16487
EPA METHOD 245.1: MERCURY							Analyst: MMD
Mercury	ND	0.00020		mg/L	1	11/26/2014 2:51:52 PM	16593
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427
Acenaphthylene	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427
Aniline	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427
Anthracene	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427
Azobenzene	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427
Benz(a)anthracene	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427
Benzo(a)pyrene	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427
Benzo(b)fluoranthene	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427
Benzo(k)fluoranthene	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427
Benzoic acid	ND	20		µg/L	1	11/19/2014 6:43:21 PM	16427
Benzyl alcohol	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427
Bis(2-ethylhexyl)phthalate	11	10		µg/L	1	11/19/2014 6:43:21 PM	16427
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427
Butyl benzyl phthalate	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427
Carbazole	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427
4-Chloroaniline	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427
2-Chloronaphthalene	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427
2-Chlorophenol	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427
Chrysene	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427
Di-n-butyl phthalate	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427
Di-n-octyl phthalate	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-02

Project: Q4 2014

Collection Date: 11/14/2014 11:45:00 AM

Lab ID: 1411590-003

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427
Dibenzofuran	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427
1,2-Dichlorobenzene	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427
1,3-Dichlorobenzene	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427
1,4-Dichlorobenzene	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427
Diethyl phthalate	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427
Dimethyl phthalate	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427
2,4-Dichlorophenol	ND	20		µg/L	1	11/19/2014 6:43:21 PM	16427
2,4-Dimethylphenol	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/19/2014 6:43:21 PM	16427
2,4-Dinitrophenol	ND	20		µg/L	1	11/19/2014 6:43:21 PM	16427
2,4-Dinitrotoluene	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427
2,6-Dinitrotoluene	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427
Fluoranthene	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427
Fluorene	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427
Hexachlorobenzene	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427
Hexachlorobutadiene	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427
Hexachloroethane	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427
Isophorone	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427
1-Methylnaphthalene	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427
2-Methylnaphthalene	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427
2-Methylphenol	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427
3+4-Methylphenol	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427
N-Nitrosodimethylamine	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427
Naphthalene	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427
2-Nitroaniline	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427
3-Nitroaniline	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427
4-Nitroaniline	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427
Nitrobenzene	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427
2-Nitrophenol	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427
4-Nitrophenol	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427
Pentachlorophenol	ND	20		µg/L	1	11/19/2014 6:43:21 PM	16427
Phenanthrene	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427
Phenol	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-02

Project: Q4 2014

Collection Date: 11/14/2014 11:45:00 AM

Lab ID: 1411590-003

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Pyrene	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427
Pyridine	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/19/2014 6:43:21 PM	16427
Surr: 2-Fluorophenol	73.5	17.6-104		%REC	1	11/19/2014 6:43:21 PM	16427
Surr: Phenol-d5	64.8	17.7-89.9		%REC	1	11/19/2014 6:43:21 PM	16427
Surr: 2,4,6-Tribromophenol	90.6	16.3-122		%REC	1	11/19/2014 6:43:21 PM	16427
Surr: Nitrobenzene-d5	88.7	45.3-117		%REC	1	11/19/2014 6:43:21 PM	16427
Surr: 2-Fluorobiphenyl	84.7	43-113		%REC	1	11/19/2014 6:43:21 PM	16427
Surr: 4-Terphenyl-d14	94.4	47.6-122		%REC	1	11/19/2014 6:43:21 PM	16427
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Benzene	200	10		µg/L	10	11/17/2014 10:13:25 PM	R22601
Toluene	2.2	1.0		µg/L	1	11/18/2014 12:16:04 PM	R22619
Ethylbenzene	2.9	1.0		µg/L	1	11/17/2014 10:40:11 PM	R22601
Methyl tert-butyl ether (MTBE)	59	1.0		µg/L	1	11/17/2014 10:40:11 PM	R22601
1,2,4-Trimethylbenzene	2.1	1.0		µg/L	1	11/17/2014 10:40:11 PM	R22601
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/17/2014 10:40:11 PM	R22601
1,2-Dichloroethane (EDC)	16	1.0		µg/L	1	11/17/2014 10:40:11 PM	R22601
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/17/2014 10:40:11 PM	R22601
Naphthalene	ND	2.0		µg/L	1	11/17/2014 10:40:11 PM	R22601
1-Methylnaphthalene	ND	4.0		µg/L	1	11/17/2014 10:40:11 PM	R22601
2-Methylnaphthalene	ND	4.0		µg/L	1	11/17/2014 10:40:11 PM	R22601
Acetone	ND	10		µg/L	1	11/17/2014 10:40:11 PM	R22601
Bromobenzene	ND	1.0		µg/L	1	11/17/2014 10:40:11 PM	R22601
Bromodichloromethane	ND	1.0		µg/L	1	11/17/2014 10:40:11 PM	R22601
Bromoform	ND	1.0		µg/L	1	11/17/2014 10:40:11 PM	R22601
Bromomethane	ND	3.0		µg/L	1	11/17/2014 10:40:11 PM	R22601
2-Butanone	ND	10		µg/L	1	11/17/2014 10:40:11 PM	R22601
Carbon disulfide	ND	10		µg/L	1	11/17/2014 10:40:11 PM	R22601
Carbon Tetrachloride	ND	1.0		µg/L	1	11/17/2014 10:40:11 PM	R22601
Chlorobenzene	ND	1.0		µg/L	1	11/17/2014 10:40:11 PM	R22601
Chloroethane	ND	2.0		µg/L	1	11/17/2014 10:40:11 PM	R22601
Chloroform	ND	1.0		µg/L	1	11/17/2014 10:40:11 PM	R22601
Chloromethane	ND	3.0		µg/L	1	11/17/2014 10:40:11 PM	R22601
2-Chlorotoluene	ND	1.0		µg/L	1	11/17/2014 10:40:11 PM	R22601
4-Chlorotoluene	ND	1.0		µg/L	1	11/17/2014 10:40:11 PM	R22601
cis-1,2-DCE	11	1.0		µg/L	1	11/17/2014 10:40:11 PM	R22601
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/17/2014 10:40:11 PM	R22601

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-02

Project: Q4 2014

Collection Date: 11/14/2014 11:45:00 AM

Lab ID: 1411590-003

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/17/2014 10:40:11 PM	R22601
Dibromochloromethane	ND	1.0		µg/L	1	11/17/2014 10:40:11 PM	R22601
Dibromomethane	ND	1.0		µg/L	1	11/17/2014 10:40:11 PM	R22601
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/17/2014 10:40:11 PM	R22601
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/17/2014 10:40:11 PM	R22601
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/17/2014 10:40:11 PM	R22601
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/17/2014 10:40:11 PM	R22601
1,1-Dichloroethane	75	1.0		µg/L	1	11/17/2014 10:40:11 PM	R22601
1,1-Dichloroethene	78	1.0		µg/L	1	11/17/2014 10:40:11 PM	R22601
1,2-Dichloropropane	ND	1.0		µg/L	1	11/17/2014 10:40:11 PM	R22601
1,3-Dichloropropane	ND	1.0		µg/L	1	11/17/2014 10:40:11 PM	R22601
2,2-Dichloropropane	ND	2.0		µg/L	1	11/17/2014 10:40:11 PM	R22601
1,1-Dichloropropene	ND	1.0		µg/L	1	11/17/2014 10:40:11 PM	R22601
Hexachlorobutadiene	ND	1.0		µg/L	1	11/17/2014 10:40:11 PM	R22601
2-Hexanone	ND	10		µg/L	1	11/17/2014 10:40:11 PM	R22601
Isopropylbenzene	1.6	1.0		µg/L	1	11/17/2014 10:40:11 PM	R22601
4-Isopropyltoluene	ND	1.0		µg/L	1	11/17/2014 10:40:11 PM	R22601
4-Methyl-2-pentanone	ND	10		µg/L	1	11/17/2014 10:40:11 PM	R22601
Methylene Chloride	ND	3.0		µg/L	1	11/17/2014 10:40:11 PM	R22601
n-Butylbenzene	ND	3.0		µg/L	1	11/17/2014 10:40:11 PM	R22601
n-Propylbenzene	1.2	1.0		µg/L	1	11/17/2014 10:40:11 PM	R22601
sec-Butylbenzene	ND	1.0		µg/L	1	11/17/2014 10:40:11 PM	R22601
Styrene	ND	1.0		µg/L	1	11/17/2014 10:40:11 PM	R22601
tert-Butylbenzene	ND	1.0		µg/L	1	11/17/2014 10:40:11 PM	R22601
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/17/2014 10:40:11 PM	R22601
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/17/2014 10:40:11 PM	R22601
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/17/2014 10:40:11 PM	R22601
trans-1,2-DCE	ND	1.0		µg/L	1	11/17/2014 10:40:11 PM	R22601
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/17/2014 10:40:11 PM	R22601
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/17/2014 10:40:11 PM	R22601
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/17/2014 10:40:11 PM	R22601
1,1,1-Trichloroethane	3.6	1.0		µg/L	1	11/17/2014 10:40:11 PM	R22601
1,1,2-Trichloroethane	2.4	1.0		µg/L	1	11/17/2014 10:40:11 PM	R22601
Trichloroethene (TCE)	7.1	1.0		µg/L	1	11/17/2014 10:40:11 PM	R22601
Trichlorofluoromethane	ND	1.0		µg/L	1	11/17/2014 10:40:11 PM	R22601
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/17/2014 10:40:11 PM	R22601
Vinyl chloride	9.7	1.0		µg/L	1	11/17/2014 10:40:11 PM	R22601
Xylenes, Total	1.6	1.5		µg/L	1	11/17/2014 10:40:11 PM	R22601
Surr: 1,2-Dichloroethane-d4	102	70-130		%REC	1	11/17/2014 10:40:11 PM	R22601

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-02

Project: Q4 2014

Collection Date: 11/14/2014 11:45:00 AM

Lab ID: 1411590-003

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: cadg	
Surr: 4-Bromofluorobenzene	99.4	70-130		%REC	1	11/17/2014 10:40:11 PM	R22601
Surr: Dibromofluoromethane	95.3	70-130		%REC	1	11/17/2014 10:40:11 PM	R22601
Surr: Toluene-d8	98.2	70-130		%REC	1	11/17/2014 10:40:11 PM	R22601

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 18 of 98
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BD-111414

Project: Q4 2014

Collection Date: 11/14/2014

Lab ID: 1411590-004

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
Acenaphthylene	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
Aniline	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
Anthracene	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
Azobenzene	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
Benz(a)anthracene	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
Benzo(a)pyrene	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
Benzo(b)fluoranthene	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
Benzo(k)fluoranthene	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
Benzoic acid	ND	20		µg/L	1	11/19/2014 7:10:35 PM	16427
Benzyl alcohol	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
Butyl benzyl phthalate	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
Carbazole	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
4-Chloroaniline	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
2-Chloronaphthalene	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
2-Chlorophenol	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
Chrysene	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
Di-n-butyl phthalate	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
Di-n-octyl phthalate	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
Dibenzofuran	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
1,2-Dichlorobenzene	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
1,3-Dichlorobenzene	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
1,4-Dichlorobenzene	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
Diethyl phthalate	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
Dimethyl phthalate	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
2,4-Dichlorophenol	ND	20		µg/L	1	11/19/2014 7:10:35 PM	16427
2,4-Dimethylphenol	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/19/2014 7:10:35 PM	16427
2,4-Dinitrophenol	ND	20		µg/L	1	11/19/2014 7:10:35 PM	16427

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BD-111414

Project: Q4 2014

Collection Date: 11/14/2014

Lab ID: 1411590-004

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
2,4-Dinitrotoluene	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
2,6-Dinitrotoluene	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
Fluoranthene	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
Fluorene	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
Hexachlorobenzene	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
Hexachlorobutadiene	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
Hexachloroethane	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
Isophorone	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
1-Methylnaphthalene	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
2-Methylnaphthalene	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
2-Methylphenol	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
3+4-Methylphenol	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
N-Nitrosodimethylamine	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
Naphthalene	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
2-Nitroaniline	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
3-Nitroaniline	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
4-Nitroaniline	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
Nitrobenzene	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
2-Nitrophenol	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
4-Nitrophenol	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
Pentachlorophenol	ND	20		µg/L	1	11/19/2014 7:10:35 PM	16427
Phenanthrene	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
Phenol	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
Pyrene	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
Pyridine	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/19/2014 7:10:35 PM	16427
Surr: 2-Fluorophenol	85.6	17.6-104		%REC	1	11/19/2014 7:10:35 PM	16427
Surr: Phenol-d5	71.0	17.7-89.9		%REC	1	11/19/2014 7:10:35 PM	16427
Surr: 2,4,6-Tribromophenol	108	16.3-122		%REC	1	11/19/2014 7:10:35 PM	16427
Surr: Nitrobenzene-d5	94.4	45.3-117		%REC	1	11/19/2014 7:10:35 PM	16427
Surr: 2-Fluorobiphenyl	89.3	43-113		%REC	1	11/19/2014 7:10:35 PM	16427
Surr: 4-Terphenyl-d14	110	47.6-122		%REC	1	11/19/2014 7:10:35 PM	16427

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BD-111414

Project: Q4 2014

Collection Date: 11/14/2014

Lab ID: 1411590-005

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: DAM	
Acenaphthene	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
Acenaphthylene	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
Aniline	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
Anthracene	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
Azobenzene	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
Benz(a)anthracene	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
Benzo(a)pyrene	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
Benzo(b)fluoranthene	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
Benzo(k)fluoranthene	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
Benzoic acid	ND	20		µg/L	1	11/19/2014 7:38:01 PM	16427
Benzyl alcohol	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
Butyl benzyl phthalate	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
Carbazole	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
4-Chloroaniline	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
2-Chloronaphthalene	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
2-Chlorophenol	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
Chrysene	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
Di-n-butyl phthalate	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
Di-n-octyl phthalate	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
Dibenzofuran	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
1,2-Dichlorobenzene	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
1,3-Dichlorobenzene	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
1,4-Dichlorobenzene	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
Diethyl phthalate	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
Dimethyl phthalate	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
2,4-Dichlorophenol	ND	20		µg/L	1	11/19/2014 7:38:01 PM	16427
2,4-Dimethylphenol	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/19/2014 7:38:01 PM	16427
2,4-Dinitrophenol	ND	20		µg/L	1	11/19/2014 7:38:01 PM	16427

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BD-111414

Project: Q4 2014

Collection Date: 11/14/2014

Lab ID: 1411590-005

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
2,4-Dinitrotoluene	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
2,6-Dinitrotoluene	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
Fluoranthene	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
Fluorene	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
Hexachlorobenzene	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
Hexachlorobutadiene	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
Hexachloroethane	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
Isophorone	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
1-Methylnaphthalene	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
2-Methylnaphthalene	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
2-Methylphenol	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
3+4-Methylphenol	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
N-Nitrosodimethylamine	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
Naphthalene	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
2-Nitroaniline	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
3-Nitroaniline	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
4-Nitroaniline	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
Nitrobenzene	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
2-Nitrophenol	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
4-Nitrophenol	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
Pentachlorophenol	ND	20		µg/L	1	11/19/2014 7:38:01 PM	16427
Phenanthrene	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
Phenol	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
Pyrene	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
Pyridine	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/19/2014 7:38:01 PM	16427
Surr: 2-Fluorophenol	76.0	17.6-104		%REC	1	11/19/2014 7:38:01 PM	16427
Surr: Phenol-d5	65.2	17.7-89.9		%REC	1	11/19/2014 7:38:01 PM	16427
Surr: 2,4,6-Tribromophenol	79.5	16.3-122		%REC	1	11/19/2014 7:38:01 PM	16427
Surr: Nitrobenzene-d5	88.7	45.3-117		%REC	1	11/19/2014 7:38:01 PM	16427
Surr: 2-Fluorobiphenyl	84.0	43-113		%REC	1	11/19/2014 7:38:01 PM	16427
Surr: 4-Terphenyl-d14	82.8	47.6-122		%REC	1	11/19/2014 7:38:01 PM	16427

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-26

Project: Q4 2014

Collection Date: 11/14/2014 12:48:00 PM

Lab ID: 1411590-006

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: JME
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	11/17/2014 6:23:50 PM	16411
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/17/2014 6:23:50 PM	16411
Surr: DNOP	133	59-141		%REC	1	11/17/2014 6:23:50 PM	16411
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	2.0	0.25		mg/L	5	11/18/2014 12:29:17 AM	R22597
Surr: BFB	92.0	80-120		%REC	5	11/18/2014 12:29:17 AM	R22597
EPA METHOD 300.0: ANIONS							Analyst: LGP
Fluoride	ND	1.0		mg/L	10	11/17/2014 5:47:40 PM	R22603
Chloride	1500	50		mg/L	100	11/17/2014 6:00:04 PM	R22603
Bromide	1.2	1.0		mg/L	10	11/17/2014 5:47:40 PM	R22603
Phosphorus, Orthophosphate (As P)	ND	5.0	H	mg/L	10	11/17/2014 5:47:40 PM	R22603
Sulfate	160	5.0		mg/L	10	11/17/2014 5:47:40 PM	R22603
Nitrate+Nitrite as N	ND	2.0		mg/L	10	11/26/2014 10:53:59 AM	R22848
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.13	0.0020		mg/L	1	11/24/2014 6:22:52 PM	R22755
Cadmium	ND	0.0020		mg/L	1	11/24/2014 6:22:52 PM	R22755
Calcium	190	5.0		mg/L	5	11/24/2014 6:24:44 PM	R22755
Chromium	ND	0.0060		mg/L	1	11/24/2014 6:22:52 PM	R22755
Copper	ND	0.0060		mg/L	1	11/24/2014 6:22:52 PM	R22755
Iron	0.18	0.020		mg/L	1	11/24/2014 6:22:52 PM	R22755
Magnesium	31	1.0		mg/L	1	11/24/2014 6:22:52 PM	R22755
Manganese	1.4	0.010	*	mg/L	5	11/24/2014 6:24:44 PM	R22755
Potassium	4.3	1.0		mg/L	1	11/24/2014 6:22:52 PM	R22755
Silver	ND	0.0050		mg/L	1	11/24/2014 6:22:52 PM	R22755
Sodium	920	20		mg/L	20	11/25/2014 2:22:12 PM	R22813
Zinc	0.014	0.010		mg/L	1	11/24/2014 6:22:52 PM	R22755
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.15	0.0020		mg/L	1	11/20/2014 6:29:54 PM	16487
Cadmium	ND	0.0020		mg/L	1	11/20/2014 6:29:54 PM	16487
Chromium	ND	0.0060		mg/L	1	11/20/2014 6:29:54 PM	16487
Copper	ND	0.0060		mg/L	1	11/20/2014 6:29:54 PM	16487
Iron	1.3	0.10	*	mg/L	5	11/21/2014 5:33:25 PM	16487
Manganese	1.4	0.010	*	mg/L	5	11/21/2014 5:33:25 PM	16487
Silver	ND	0.0050		mg/L	1	11/20/2014 6:29:54 PM	16487
Zinc	0.014	0.010		mg/L	1	11/20/2014 6:29:54 PM	16487
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	12/1/2014 3:58:46 PM	R22871

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-26

Project: Q4 2014

Collection Date: 11/14/2014 12:48:00 PM

Lab ID: 1411590-006

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Lead	ND	0.010		mg/L	10	12/1/2014 3:58:46 PM	R22871
Selenium	ND	0.010		mg/L	10	12/1/2014 3:58:46 PM	R22871
Uranium	0.066	0.010	*	mg/L	10	12/1/2014 5:34:58 PM	R22871
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	11/26/2014 6:20:52 PM	16487
Lead	ND	0.0050		mg/L	5	11/26/2014 6:20:52 PM	16487
Selenium	ND	0.010		mg/L	10	12/3/2014 3:15:46 PM	16487
Uranium	0.077	0.010	*	mg/L	10	12/3/2014 3:15:46 PM	16487
EPA METHOD 245.1: MERCURY							Analyst: MMD
Mercury	ND	0.00020		mg/L	1	11/26/2014 2:53:39 PM	16593
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427
Acenaphthylene	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427
Aniline	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427
Anthracene	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427
Azobenzene	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427
Benz(a)anthracene	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427
Benzo(a)pyrene	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427
Benzo(b)fluoranthene	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427
Benzo(k)fluoranthene	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427
Benzoic acid	ND	20		µg/L	1	11/19/2014 8:05:26 PM	16427
Benzyl alcohol	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427
Butyl benzyl phthalate	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427
Carbazole	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427
4-Chloroaniline	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427
2-Chloronaphthalene	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427
2-Chlorophenol	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427
Chrysene	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427
Di-n-butyl phthalate	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427
Di-n-octyl phthalate	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-26

Project: Q4 2014

Collection Date: 11/14/2014 12:48:00 PM

Lab ID: 1411590-006

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427
Dibenzofuran	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427
1,2-Dichlorobenzene	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427
1,3-Dichlorobenzene	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427
1,4-Dichlorobenzene	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427
Diethyl phthalate	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427
Dimethyl phthalate	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427
2,4-Dichlorophenol	ND	20		µg/L	1	11/19/2014 8:05:26 PM	16427
2,4-Dimethylphenol	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/19/2014 8:05:26 PM	16427
2,4-Dinitrophenol	ND	20		µg/L	1	11/19/2014 8:05:26 PM	16427
2,4-Dinitrotoluene	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427
2,6-Dinitrotoluene	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427
Fluoranthene	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427
Fluorene	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427
Hexachlorobenzene	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427
Hexachlorobutadiene	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427
Hexachloroethane	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427
Isophorone	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427
1-Methylnaphthalene	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427
2-Methylnaphthalene	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427
2-Methylphenol	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427
3+4-Methylphenol	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427
N-Nitrosodimethylamine	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427
Naphthalene	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427
2-Nitroaniline	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427
3-Nitroaniline	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427
4-Nitroaniline	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427
Nitrobenzene	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427
2-Nitrophenol	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427
4-Nitrophenol	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427
Pentachlorophenol	ND	20		µg/L	1	11/19/2014 8:05:26 PM	16427
Phenanthrene	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427
Phenol	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-26

Project: Q4 2014

Collection Date: 11/14/2014 12:48:00 PM

Lab ID: 1411590-006

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Pyrene	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427
Pyridine	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/19/2014 8:05:26 PM	16427
Surr: 2-Fluorophenol	49.8	17.6-104		%REC	1	11/19/2014 8:05:26 PM	16427
Surr: Phenol-d5	48.4	17.7-89.9		%REC	1	11/19/2014 8:05:26 PM	16427
Surr: 2,4,6-Tribromophenol	76.8	16.3-122		%REC	1	11/19/2014 8:05:26 PM	16427
Surr: Nitrobenzene-d5	59.5	45.3-117		%REC	1	11/19/2014 8:05:26 PM	16427
Surr: 2-Fluorobiphenyl	64.8	43-113		%REC	1	11/19/2014 8:05:26 PM	16427
Surr: 4-Terphenyl-d14	86.8	47.6-122		%REC	1	11/19/2014 8:05:26 PM	16427
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Benzene	970	50		µg/L	50	11/18/2014 1:47:54 AM	R22601
Toluene	11	5.0		µg/L	5	11/18/2014 12:42:56 PM	R22619
Ethylbenzene	ND	5.0		µg/L	5	11/18/2014 12:42:56 PM	R22619
Methyl tert-butyl ether (MTBE)	94	5.0		µg/L	5	11/18/2014 12:42:56 PM	R22619
1,2,4-Trimethylbenzene	ND	5.0		µg/L	5	11/18/2014 12:42:56 PM	R22619
1,3,5-Trimethylbenzene	ND	5.0		µg/L	5	11/18/2014 12:42:56 PM	R22619
1,2-Dichloroethane (EDC)	9.3	5.0		µg/L	5	11/18/2014 12:42:56 PM	R22619
1,2-Dibromoethane (EDB)	ND	5.0		µg/L	5	11/18/2014 12:42:56 PM	R22619
Naphthalene	ND	10		µg/L	5	11/18/2014 12:42:56 PM	R22619
1-Methylnaphthalene	ND	20		µg/L	5	11/18/2014 12:42:56 PM	R22619
2-Methylnaphthalene	ND	20		µg/L	5	11/18/2014 12:42:56 PM	R22619
Acetone	ND	50		µg/L	5	11/18/2014 12:42:56 PM	R22619
Bromobenzene	ND	5.0		µg/L	5	11/18/2014 12:42:56 PM	R22619
Bromodichloromethane	ND	5.0		µg/L	5	11/18/2014 12:42:56 PM	R22619
Bromoform	ND	5.0		µg/L	5	11/18/2014 12:42:56 PM	R22619
Bromomethane	ND	15		µg/L	5	11/18/2014 12:42:56 PM	R22619
2-Butanone	ND	50		µg/L	5	11/18/2014 12:42:56 PM	R22619
Carbon disulfide	ND	50		µg/L	5	11/18/2014 12:42:56 PM	R22619
Carbon Tetrachloride	ND	5.0		µg/L	5	11/18/2014 12:42:56 PM	R22619
Chlorobenzene	ND	5.0		µg/L	5	11/18/2014 12:42:56 PM	R22619
Chloroethane	ND	10		µg/L	5	11/18/2014 12:42:56 PM	R22619
Chloroform	ND	5.0		µg/L	5	11/18/2014 12:42:56 PM	R22619
Chloromethane	ND	15		µg/L	5	11/18/2014 12:42:56 PM	R22619
2-Chlorotoluene	ND	5.0		µg/L	5	11/18/2014 12:42:56 PM	R22619
4-Chlorotoluene	ND	5.0		µg/L	5	11/18/2014 12:42:56 PM	R22619
cis-1,2-DCE	11	5.0		µg/L	5	11/18/2014 12:42:56 PM	R22619
cis-1,3-Dichloropropene	ND	5.0		µg/L	5	11/18/2014 12:42:56 PM	R22619

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-26

Project: Q4 2014

Collection Date: 11/14/2014 12:48:00 PM

Lab ID: 1411590-006

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES					Analyst: cadg		
1,2-Dibromo-3-chloropropane	ND	10		µg/L	5	11/18/2014 12:42:56 PM	R22619
Dibromochloromethane	ND	5.0		µg/L	5	11/18/2014 12:42:56 PM	R22619
Dibromomethane	ND	5.0		µg/L	5	11/18/2014 12:42:56 PM	R22619
1,2-Dichlorobenzene	ND	5.0		µg/L	5	11/18/2014 12:42:56 PM	R22619
1,3-Dichlorobenzene	ND	5.0		µg/L	5	11/18/2014 12:42:56 PM	R22619
1,4-Dichlorobenzene	ND	5.0		µg/L	5	11/18/2014 12:42:56 PM	R22619
Dichlorodifluoromethane	ND	5.0		µg/L	5	11/18/2014 12:42:56 PM	R22619
1,1-Dichloroethane	83	5.0		µg/L	5	11/18/2014 12:42:56 PM	R22619
1,1-Dichloroethene	43	5.0		µg/L	5	11/18/2014 12:42:56 PM	R22619
1,2-Dichloropropane	ND	5.0		µg/L	5	11/18/2014 12:42:56 PM	R22619
1,3-Dichloropropane	ND	5.0		µg/L	5	11/18/2014 12:42:56 PM	R22619
2,2-Dichloropropane	ND	10		µg/L	5	11/18/2014 12:42:56 PM	R22619
1,1-Dichloropropene	ND	5.0		µg/L	5	11/18/2014 12:42:56 PM	R22619
Hexachlorobutadiene	ND	5.0		µg/L	5	11/18/2014 12:42:56 PM	R22619
2-Hexanone	ND	50		µg/L	5	11/18/2014 12:42:56 PM	R22619
Isopropylbenzene	ND	5.0		µg/L	5	11/18/2014 12:42:56 PM	R22619
4-Isopropyltoluene	ND	5.0		µg/L	5	11/18/2014 12:42:56 PM	R22619
4-Methyl-2-pentanone	ND	50		µg/L	5	11/18/2014 12:42:56 PM	R22619
Methylene Chloride	ND	15		µg/L	5	11/18/2014 12:42:56 PM	R22619
n-Butylbenzene	ND	15		µg/L	5	11/18/2014 12:42:56 PM	R22619
n-Propylbenzene	ND	5.0		µg/L	5	11/18/2014 12:42:56 PM	R22619
sec-Butylbenzene	ND	5.0		µg/L	5	11/18/2014 12:42:56 PM	R22619
Styrene	ND	5.0		µg/L	5	11/18/2014 12:42:56 PM	R22619
tert-Butylbenzene	ND	5.0		µg/L	5	11/18/2014 12:42:56 PM	R22619
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	5	11/18/2014 12:42:56 PM	R22619
1,1,2,2-Tetrachloroethane	ND	10		µg/L	5	11/18/2014 12:42:56 PM	R22619
Tetrachloroethene (PCE)	ND	5.0		µg/L	5	11/18/2014 12:42:56 PM	R22619
trans-1,2-DCE	ND	5.0		µg/L	5	11/18/2014 12:42:56 PM	R22619
trans-1,3-Dichloropropene	ND	5.0		µg/L	5	11/18/2014 12:42:56 PM	R22619
1,2,3-Trichlorobenzene	ND	5.0		µg/L	5	11/18/2014 12:42:56 PM	R22619
1,2,4-Trichlorobenzene	ND	5.0		µg/L	5	11/18/2014 12:42:56 PM	R22619
1,1,1-Trichloroethane	ND	5.0		µg/L	5	11/18/2014 12:42:56 PM	R22619
1,1,2-Trichloroethane	ND	5.0		µg/L	5	11/18/2014 12:42:56 PM	R22619
Trichloroethene (TCE)	ND	5.0		µg/L	5	11/18/2014 12:42:56 PM	R22619
Trichlorofluoromethane	ND	5.0		µg/L	5	11/18/2014 12:42:56 PM	R22619
1,2,3-Trichloropropane	ND	10		µg/L	5	11/18/2014 12:42:56 PM	R22619
Vinyl chloride	17	5.0		µg/L	5	11/18/2014 12:42:56 PM	R22619
Xylenes, Total	ND	7.5		µg/L	5	11/18/2014 12:42:56 PM	R22619
Surr: 1,2-Dichloroethane-d4	112	70-130		%REC	5	11/18/2014 12:42:56 PM	R22619

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-26

Project: Q4 2014

Collection Date: 11/14/2014 12:48:00 PM

Lab ID: 1411590-006

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: cadg	
Surr: 4-Bromofluorobenzene	124	70-130		%REC	5	11/18/2014 12:42:56 PM	R22619
Surr: Dibromofluoromethane	102	70-130		%REC	5	11/18/2014 12:42:56 PM	R22619
Surr: Toluene-d8	101	70-130		%REC	5	11/18/2014 12:42:56 PM	R22619

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 28 of 98
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-27

Project: Q4 2014

Collection Date: 11/14/2014 12:21:00 PM

Lab ID: 1411590-007

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: JME
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	11/17/2014 6:44:47 PM	16411
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/17/2014 6:44:47 PM	16411
Surr: DNOP	135	59-141		%REC	1	11/17/2014 6:44:47 PM	16411
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	11/18/2014 12:56:37 AM	R22597
Surr: BFB	85.0	80-120		%REC	1	11/18/2014 12:56:37 AM	R22597
EPA METHOD 300.0: ANIONS							Analyst: LGP
Fluoride	ND	1.0		mg/L	10	11/17/2014 6:37:18 PM	R22603
Chloride	2500	100		mg/L	200	12/1/2014 9:27:48 PM	R22875
Bromide	1.8	1.0		mg/L	10	11/17/2014 6:37:18 PM	R22603
Phosphorus, Orthophosphate (As P)	ND	5.0	H	mg/L	10	11/17/2014 6:37:18 PM	R22603
Sulfate	470	50		mg/L	100	11/17/2014 6:49:42 PM	R22603
Nitrate+Nitrite as N	ND	2.0		mg/L	10	11/26/2014 11:06:24 AM	R22848
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.094	0.0020		mg/L	1	11/24/2014 6:34:24 PM	R22755
Cadmium	ND	0.0020		mg/L	1	11/24/2014 6:34:24 PM	R22755
Calcium	160	5.0		mg/L	5	11/24/2014 6:36:23 PM	R22755
Chromium	ND	0.0060		mg/L	1	11/24/2014 6:34:24 PM	R22755
Copper	ND	0.0060		mg/L	1	11/24/2014 6:34:24 PM	R22755
Iron	0.55	0.020	*	mg/L	1	11/24/2014 6:34:24 PM	R22755
Magnesium	26	1.0		mg/L	1	11/24/2014 6:34:24 PM	R22755
Manganese	0.28	0.0020	*	mg/L	1	11/24/2014 6:34:24 PM	R22755
Potassium	12	1.0		mg/L	1	11/24/2014 6:34:24 PM	R22755
Silver	ND	0.0050		mg/L	1	11/24/2014 6:34:24 PM	R22755
Sodium	1800	50		mg/L	50	11/25/2014 2:24:03 PM	R22813
Zinc	0.030	0.010		mg/L	1	11/24/2014 6:34:24 PM	R22755
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.13	0.0020		mg/L	1	11/20/2014 6:31:35 PM	16487
Cadmium	ND	0.0020		mg/L	1	11/20/2014 6:31:35 PM	16487
Chromium	ND	0.0060		mg/L	1	11/20/2014 6:31:35 PM	16487
Copper	ND	0.0060		mg/L	1	11/20/2014 6:31:35 PM	16487
Iron	3.4	0.20	*	mg/L	10	11/21/2014 5:35:24 PM	16487
Manganese	0.50	0.0020	*	mg/L	1	11/20/2014 6:31:35 PM	16487
Silver	ND	0.0050		mg/L	1	11/20/2014 6:31:35 PM	16487
Zinc	0.024	0.010		mg/L	1	11/20/2014 6:31:35 PM	16487
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	12/1/2014 4:01:51 PM	R22871

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-27

Project: Q4 2014

Collection Date: 11/14/2014 12:21:00 PM

Lab ID: 1411590-007

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Lead	ND	0.010		mg/L	10	12/1/2014 4:01:51 PM	R22871
Selenium	ND	0.010		mg/L	10	12/1/2014 4:01:51 PM	R22871
Uranium	0.075	0.010	*	mg/L	10	12/1/2014 5:38:03 PM	R22871
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	11/26/2014 6:24:21 PM	16487
Lead	ND	0.0050		mg/L	5	11/26/2014 6:24:21 PM	16487
Selenium	ND	0.010		mg/L	10	12/3/2014 3:18:51 PM	16487
Uranium	0.087	0.010	*	mg/L	10	12/3/2014 3:18:51 PM	16487
EPA METHOD 245.1: MERCURY							Analyst: MMD
Mercury	ND	0.00020		mg/L	1	11/26/2014 2:59:07 PM	16593
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427
Acenaphthylene	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427
Aniline	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427
Anthracene	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427
Azobenzene	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427
Benz(a)anthracene	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427
Benzo(a)pyrene	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427
Benzo(b)fluoranthene	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427
Benzo(k)fluoranthene	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427
Benzoic acid	ND	20		µg/L	1	11/19/2014 8:32:51 PM	16427
Benzyl alcohol	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427
Butyl benzyl phthalate	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427
Carbazole	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427
4-Chloroaniline	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427
2-Chloronaphthalene	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427
2-Chlorophenol	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427
Chrysene	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427
Di-n-butyl phthalate	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427
Di-n-octyl phthalate	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-27

Project: Q4 2014

Collection Date: 11/14/2014 12:21:00 PM

Lab ID: 1411590-007

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427
Dibenzofuran	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427
1,2-Dichlorobenzene	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427
1,3-Dichlorobenzene	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427
1,4-Dichlorobenzene	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427
Diethyl phthalate	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427
Dimethyl phthalate	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427
2,4-Dichlorophenol	ND	20		µg/L	1	11/19/2014 8:32:51 PM	16427
2,4-Dimethylphenol	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/19/2014 8:32:51 PM	16427
2,4-Dinitrophenol	ND	20		µg/L	1	11/19/2014 8:32:51 PM	16427
2,4-Dinitrotoluene	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427
2,6-Dinitrotoluene	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427
Fluoranthene	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427
Fluorene	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427
Hexachlorobenzene	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427
Hexachlorobutadiene	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427
Hexachloroethane	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427
Isophorone	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427
1-Methylnaphthalene	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427
2-Methylnaphthalene	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427
2-Methylphenol	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427
3+4-Methylphenol	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427
N-Nitrosodimethylamine	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427
Naphthalene	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427
2-Nitroaniline	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427
3-Nitroaniline	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427
4-Nitroaniline	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427
Nitrobenzene	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427
2-Nitrophenol	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427
4-Nitrophenol	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427
Pentachlorophenol	ND	20		µg/L	1	11/19/2014 8:32:51 PM	16427
Phenanthrene	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427
Phenol	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 31 of 98
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-27

Project: Q4 2014

Collection Date: 11/14/2014 12:21:00 PM

Lab ID: 1411590-007

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Pyrene	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427
Pyridine	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/19/2014 8:32:51 PM	16427
Surr: 2-Fluorophenol	72.2	17.6-104		%REC	1	11/19/2014 8:32:51 PM	16427
Surr: Phenol-d5	64.9	17.7-89.9		%REC	1	11/19/2014 8:32:51 PM	16427
Surr: 2,4,6-Tribromophenol	92.0	16.3-122		%REC	1	11/19/2014 8:32:51 PM	16427
Surr: Nitrobenzene-d5	92.3	45.3-117		%REC	1	11/19/2014 8:32:51 PM	16427
Surr: 2-Fluorobiphenyl	85.7	43-113		%REC	1	11/19/2014 8:32:51 PM	16427
Surr: 4-Terphenyl-d14	89.2	47.6-122		%REC	1	11/19/2014 8:32:51 PM	16427
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Benzene	ND	1.0		µg/L	1	11/18/2014 2:14:46 AM	R22601
Toluene	ND	1.0		µg/L	1	11/18/2014 2:14:46 AM	R22601
Ethylbenzene	ND	1.0		µg/L	1	11/18/2014 2:14:46 AM	R22601
Methyl tert-butyl ether (MTBE)	19	1.0		µg/L	1	11/18/2014 2:14:46 AM	R22601
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/18/2014 2:14:46 AM	R22601
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/18/2014 2:14:46 AM	R22601
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/18/2014 2:14:46 AM	R22601
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/18/2014 2:14:46 AM	R22601
Naphthalene	ND	2.0		µg/L	1	11/18/2014 2:14:46 AM	R22601
1-Methylnaphthalene	ND	4.0		µg/L	1	11/18/2014 2:14:46 AM	R22601
2-Methylnaphthalene	ND	4.0		µg/L	1	11/18/2014 2:14:46 AM	R22601
Acetone	ND	10		µg/L	1	11/18/2014 2:14:46 AM	R22601
Bromobenzene	ND	1.0		µg/L	1	11/18/2014 2:14:46 AM	R22601
Bromodichloromethane	ND	1.0		µg/L	1	11/18/2014 2:14:46 AM	R22601
Bromoform	ND	1.0		µg/L	1	11/18/2014 2:14:46 AM	R22601
Bromomethane	ND	3.0		µg/L	1	11/18/2014 2:14:46 AM	R22601
2-Butanone	ND	10		µg/L	1	11/18/2014 2:14:46 AM	R22601
Carbon disulfide	ND	10		µg/L	1	11/18/2014 2:14:46 AM	R22601
Carbon Tetrachloride	ND	1.0		µg/L	1	11/18/2014 2:14:46 AM	R22601
Chlorobenzene	ND	1.0		µg/L	1	11/18/2014 2:14:46 AM	R22601
Chloroethane	ND	2.0		µg/L	1	11/18/2014 2:14:46 AM	R22601
Chloroform	ND	1.0		µg/L	1	11/18/2014 2:14:46 AM	R22601
Chloromethane	ND	3.0		µg/L	1	11/18/2014 2:14:46 AM	R22601
2-Chlorotoluene	ND	1.0		µg/L	1	11/18/2014 2:14:46 AM	R22601
4-Chlorotoluene	ND	1.0		µg/L	1	11/18/2014 2:14:46 AM	R22601
cis-1,2-DCE	ND	1.0		µg/L	1	11/18/2014 2:14:46 AM	R22601
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/18/2014 2:14:46 AM	R22601

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-27

Project: Q4 2014

Collection Date: 11/14/2014 12:21:00 PM

Lab ID: 1411590-007

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/18/2014 2:14:46 AM	R22601
Dibromochloromethane	ND	1.0		µg/L	1	11/18/2014 2:14:46 AM	R22601
Dibromomethane	ND	1.0		µg/L	1	11/18/2014 2:14:46 AM	R22601
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/18/2014 2:14:46 AM	R22601
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/18/2014 2:14:46 AM	R22601
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/18/2014 2:14:46 AM	R22601
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/18/2014 2:14:46 AM	R22601
1,1-Dichloroethane	2.8	1.0		µg/L	1	11/18/2014 2:14:46 AM	R22601
1,1-Dichloroethene	ND	1.0		µg/L	1	11/18/2014 2:14:46 AM	R22601
1,2-Dichloropropane	ND	1.0		µg/L	1	11/18/2014 2:14:46 AM	R22601
1,3-Dichloropropane	ND	1.0		µg/L	1	11/18/2014 2:14:46 AM	R22601
2,2-Dichloropropane	ND	2.0		µg/L	1	11/18/2014 2:14:46 AM	R22601
1,1-Dichloropropene	ND	1.0		µg/L	1	11/18/2014 2:14:46 AM	R22601
Hexachlorobutadiene	ND	1.0		µg/L	1	11/18/2014 2:14:46 AM	R22601
2-Hexanone	ND	10		µg/L	1	11/18/2014 2:14:46 AM	R22601
Isopropylbenzene	ND	1.0		µg/L	1	11/18/2014 2:14:46 AM	R22601
4-Isopropyltoluene	ND	1.0		µg/L	1	11/18/2014 2:14:46 AM	R22601
4-Methyl-2-pentanone	ND	10		µg/L	1	11/18/2014 2:14:46 AM	R22601
Methylene Chloride	ND	3.0		µg/L	1	11/18/2014 2:14:46 AM	R22601
n-Butylbenzene	ND	3.0		µg/L	1	11/18/2014 2:14:46 AM	R22601
n-Propylbenzene	ND	1.0		µg/L	1	11/18/2014 2:14:46 AM	R22601
sec-Butylbenzene	ND	1.0		µg/L	1	11/18/2014 2:14:46 AM	R22601
Styrene	ND	1.0		µg/L	1	11/18/2014 2:14:46 AM	R22601
tert-Butylbenzene	ND	1.0		µg/L	1	11/18/2014 2:14:46 AM	R22601
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/18/2014 2:14:46 AM	R22601
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/18/2014 2:14:46 AM	R22601
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/18/2014 2:14:46 AM	R22601
trans-1,2-DCE	ND	1.0		µg/L	1	11/18/2014 2:14:46 AM	R22601
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/18/2014 2:14:46 AM	R22601
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/18/2014 2:14:46 AM	R22601
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/18/2014 2:14:46 AM	R22601
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/18/2014 2:14:46 AM	R22601
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/18/2014 2:14:46 AM	R22601
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/18/2014 2:14:46 AM	R22601
Trichlorofluoromethane	ND	1.0		µg/L	1	11/18/2014 2:14:46 AM	R22601
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/18/2014 2:14:46 AM	R22601
Vinyl chloride	ND	1.0		µg/L	1	11/18/2014 2:14:46 AM	R22601
Xylenes, Total	ND	1.5		µg/L	1	11/18/2014 2:14:46 AM	R22601
Surr: 1,2-Dichloroethane-d4	111	70-130		%REC	1	11/18/2014 2:14:46 AM	R22601

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-27

Project: Q4 2014

Collection Date: 11/14/2014 12:21:00 PM

Lab ID: 1411590-007

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Surr: 4-Bromofluorobenzene	134	70-130	S	%REC	1	11/18/2014 2:14:46 AM	R22601
Surr: Dibromofluoromethane	114	70-130		%REC	1	11/18/2014 2:14:46 AM	R22601
Surr: Toluene-d8	99.0	70-130		%REC	1	11/18/2014 2:14:46 AM	R22601

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 34 of 98
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-28

Project: Q4 2014

Collection Date: 11/14/2014 1:55:00 PM

Lab ID: 1411590-008

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: JME
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	11/17/2014 7:05:52 PM	16411
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/17/2014 7:05:52 PM	16411
Surr: DNOP	131	59-141		%REC	1	11/17/2014 7:05:52 PM	16411
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	11/18/2014 1:23:55 AM	R22597
Surr: BFB	88.1	80-120		%REC	1	11/18/2014 1:23:55 AM	R22597
EPA METHOD 300.0: ANIONS							Analyst: LGP
Fluoride	ND	1.0		mg/L	10	11/17/2014 7:02:07 PM	R22603
Chloride	540	50		mg/L	100	11/17/2014 7:14:32 PM	R22603
Bromide	2.7	1.0		mg/L	10	11/17/2014 7:02:07 PM	R22603
Phosphorus, Orthophosphate (As P)	ND	5.0	H	mg/L	10	11/17/2014 7:02:07 PM	R22603
Sulfate	260	5.0		mg/L	10	11/17/2014 7:02:07 PM	R22603
Nitrate+Nitrite as N	ND	1.0		mg/L	5	11/26/2014 11:18:48 AM	R22848
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.099	0.0020		mg/L	1	11/24/2014 6:38:23 PM	R22755
Cadmium	ND	0.0020		mg/L	1	11/24/2014 6:38:23 PM	R22755
Calcium	50	1.0		mg/L	1	11/24/2014 6:38:23 PM	R22755
Chromium	ND	0.0060		mg/L	1	11/24/2014 6:38:23 PM	R22755
Copper	ND	0.0060		mg/L	1	11/24/2014 6:38:23 PM	R22755
Iron	0.63	0.020	*	mg/L	1	11/24/2014 6:38:23 PM	R22755
Magnesium	9.2	1.0		mg/L	1	11/24/2014 6:38:23 PM	R22755
Manganese	0.32	0.0020	*	mg/L	1	11/24/2014 6:38:23 PM	R22755
Potassium	3.2	1.0		mg/L	1	11/24/2014 6:38:23 PM	R22755
Silver	ND	0.0050		mg/L	1	11/24/2014 6:38:23 PM	R22755
Sodium	640	10		mg/L	10	11/25/2014 2:31:54 PM	R22813
Zinc	0.038	0.010		mg/L	1	11/24/2014 6:38:23 PM	R22755
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.12	0.0020		mg/L	1	11/20/2014 6:33:24 PM	16487
Cadmium	ND	0.0020		mg/L	1	11/20/2014 6:33:24 PM	16487
Chromium	ND	0.0060		mg/L	1	11/20/2014 6:33:24 PM	16487
Copper	ND	0.0060		mg/L	1	11/20/2014 6:33:24 PM	16487
Iron	2.0	0.10	*	mg/L	5	11/21/2014 5:37:22 PM	16487
Manganese	0.38	0.0020	*	mg/L	1	11/20/2014 6:33:24 PM	16487
Silver	ND	0.0050		mg/L	1	11/20/2014 6:33:24 PM	16487
Zinc	0.015	0.010		mg/L	1	11/20/2014 6:33:24 PM	16487
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	12/2/2014 5:47:35 PM	R22885

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-28

Project: Q4 2014

Collection Date: 11/14/2014 1:55:00 PM

Lab ID: 1411590-008

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Lead	ND	0.0050		mg/L	5	12/2/2014 5:47:35 PM	R22885
Selenium	ND	0.020		mg/L	20	12/4/2014 11:58:45 AM	R22933
Uranium	0.12	0.0050	*	mg/L	5	12/2/2014 5:47:35 PM	R22885
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0054	0.0050		mg/L	5	11/26/2014 6:27:51 PM	16487
Lead	ND	0.0050		mg/L	5	11/26/2014 6:27:51 PM	16487
Selenium	ND	0.050		mg/L	5	11/26/2014 6:27:51 PM	16487
Uranium	0.11	0.010	*	mg/L	10	12/3/2014 3:28:07 PM	16487
EPA METHOD 245.1: MERCURY							Analyst: MMD
Mercury	ND	0.00020		mg/L	1	11/26/2014 3:01:00 PM	16593
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427
Acenaphthylene	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427
Aniline	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427
Anthracene	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427
Azobenzene	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427
Benz(a)anthracene	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427
Benzo(a)pyrene	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427
Benzo(b)fluoranthene	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427
Benzo(k)fluoranthene	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427
Benzoic acid	ND	20		µg/L	1	11/19/2014 9:00:24 PM	16427
Benzyl alcohol	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427
Butyl benzyl phthalate	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427
Carbazole	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427
4-Chloroaniline	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427
2-Chloronaphthalene	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427
2-Chlorophenol	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427
Chrysene	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427
Di-n-butyl phthalate	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427
Di-n-octyl phthalate	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-28

Project: Q4 2014

Collection Date: 11/14/2014 1:55:00 PM

Lab ID: 1411590-008

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: DAM	
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427
Dibenzofuran	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427
1,2-Dichlorobenzene	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427
1,3-Dichlorobenzene	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427
1,4-Dichlorobenzene	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427
Diethyl phthalate	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427
Dimethyl phthalate	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427
2,4-Dichlorophenol	ND	20		µg/L	1	11/19/2014 9:00:24 PM	16427
2,4-Dimethylphenol	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/19/2014 9:00:24 PM	16427
2,4-Dinitrophenol	ND	20		µg/L	1	11/19/2014 9:00:24 PM	16427
2,4-Dinitrotoluene	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427
2,6-Dinitrotoluene	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427
Fluoranthene	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427
Fluorene	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427
Hexachlorobenzene	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427
Hexachlorobutadiene	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427
Hexachloroethane	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427
Isophorone	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427
1-Methylnaphthalene	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427
2-Methylnaphthalene	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427
2-Methylphenol	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427
3+4-Methylphenol	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427
N-Nitrosodimethylamine	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427
Naphthalene	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427
2-Nitroaniline	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427
3-Nitroaniline	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427
4-Nitroaniline	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427
Nitrobenzene	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427
2-Nitrophenol	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427
4-Nitrophenol	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427
Pentachlorophenol	ND	20		µg/L	1	11/19/2014 9:00:24 PM	16427
Phenanthrene	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427
Phenol	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 37 of 98
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-28

Project: Q4 2014

Collection Date: 11/14/2014 1:55:00 PM

Lab ID: 1411590-008

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Pyrene	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427
Pyridine	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/19/2014 9:00:24 PM	16427
Surr: 2-Fluorophenol	70.2	17.6-104		%REC	1	11/19/2014 9:00:24 PM	16427
Surr: Phenol-d5	60.2	17.7-89.9		%REC	1	11/19/2014 9:00:24 PM	16427
Surr: 2,4,6-Tribromophenol	99.7	16.3-122		%REC	1	11/19/2014 9:00:24 PM	16427
Surr: Nitrobenzene-d5	91.8	45.3-117		%REC	1	11/19/2014 9:00:24 PM	16427
Surr: 2-Fluorobiphenyl	90.4	43-113		%REC	1	11/19/2014 9:00:24 PM	16427
Surr: 4-Terphenyl-d14	93.9	47.6-122		%REC	1	11/19/2014 9:00:24 PM	16427
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Benzene	ND	1.0		µg/L	1	11/18/2014 2:41:33 AM	R22601
Toluene	ND	1.0		µg/L	1	11/18/2014 2:41:33 AM	R22601
Ethylbenzene	ND	1.0		µg/L	1	11/18/2014 2:41:33 AM	R22601
Methyl tert-butyl ether (MTBE)	13	1.0		µg/L	1	11/18/2014 2:41:33 AM	R22601
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/18/2014 2:41:33 AM	R22601
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/18/2014 2:41:33 AM	R22601
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/18/2014 2:41:33 AM	R22601
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/18/2014 2:41:33 AM	R22601
Naphthalene	ND	2.0		µg/L	1	11/18/2014 2:41:33 AM	R22601
1-Methylnaphthalene	ND	4.0		µg/L	1	11/18/2014 2:41:33 AM	R22601
2-Methylnaphthalene	ND	4.0		µg/L	1	11/18/2014 2:41:33 AM	R22601
Acetone	ND	10		µg/L	1	11/18/2014 2:41:33 AM	R22601
Bromobenzene	ND	1.0		µg/L	1	11/18/2014 2:41:33 AM	R22601
Bromodichloromethane	ND	1.0		µg/L	1	11/18/2014 2:41:33 AM	R22601
Bromoform	ND	1.0		µg/L	1	11/18/2014 2:41:33 AM	R22601
Bromomethane	ND	3.0		µg/L	1	11/18/2014 2:41:33 AM	R22601
2-Butanone	ND	10		µg/L	1	11/18/2014 2:41:33 AM	R22601
Carbon disulfide	ND	10		µg/L	1	11/18/2014 2:41:33 AM	R22601
Carbon Tetrachloride	ND	1.0		µg/L	1	11/18/2014 2:41:33 AM	R22601
Chlorobenzene	ND	1.0		µg/L	1	11/18/2014 2:41:33 AM	R22601
Chloroethane	ND	2.0		µg/L	1	11/18/2014 2:41:33 AM	R22601
Chloroform	ND	1.0		µg/L	1	11/18/2014 2:41:33 AM	R22601
Chloromethane	ND	3.0		µg/L	1	11/18/2014 2:41:33 AM	R22601
2-Chlorotoluene	ND	1.0		µg/L	1	11/18/2014 2:41:33 AM	R22601
4-Chlorotoluene	ND	1.0		µg/L	1	11/18/2014 2:41:33 AM	R22601
cis-1,2-DCE	ND	1.0		µg/L	1	11/18/2014 2:41:33 AM	R22601
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/18/2014 2:41:33 AM	R22601

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-28

Project: Q4 2014

Collection Date: 11/14/2014 1:55:00 PM

Lab ID: 1411590-008

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/18/2014 2:41:33 AM	R22601
Dibromochloromethane	ND	1.0		µg/L	1	11/18/2014 2:41:33 AM	R22601
Dibromomethane	ND	1.0		µg/L	1	11/18/2014 2:41:33 AM	R22601
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/18/2014 2:41:33 AM	R22601
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/18/2014 2:41:33 AM	R22601
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/18/2014 2:41:33 AM	R22601
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/18/2014 2:41:33 AM	R22601
1,1-Dichloroethane	ND	1.0		µg/L	1	11/18/2014 2:41:33 AM	R22601
1,1-Dichloroethene	ND	1.0		µg/L	1	11/18/2014 2:41:33 AM	R22601
1,2-Dichloropropane	ND	1.0		µg/L	1	11/18/2014 2:41:33 AM	R22601
1,3-Dichloropropane	ND	1.0		µg/L	1	11/18/2014 2:41:33 AM	R22601
2,2-Dichloropropane	ND	2.0		µg/L	1	11/18/2014 2:41:33 AM	R22601
1,1-Dichloropropene	ND	1.0		µg/L	1	11/18/2014 2:41:33 AM	R22601
Hexachlorobutadiene	ND	1.0		µg/L	1	11/18/2014 2:41:33 AM	R22601
2-Hexanone	ND	10		µg/L	1	11/18/2014 2:41:33 AM	R22601
Isopropylbenzene	ND	1.0		µg/L	1	11/18/2014 2:41:33 AM	R22601
4-Isopropyltoluene	ND	1.0		µg/L	1	11/18/2014 2:41:33 AM	R22601
4-Methyl-2-pentanone	ND	10		µg/L	1	11/18/2014 2:41:33 AM	R22601
Methylene Chloride	ND	3.0		µg/L	1	11/18/2014 2:41:33 AM	R22601
n-Butylbenzene	ND	3.0		µg/L	1	11/18/2014 2:41:33 AM	R22601
n-Propylbenzene	ND	1.0		µg/L	1	11/18/2014 2:41:33 AM	R22601
sec-Butylbenzene	ND	1.0		µg/L	1	11/18/2014 2:41:33 AM	R22601
Styrene	ND	1.0		µg/L	1	11/18/2014 2:41:33 AM	R22601
tert-Butylbenzene	ND	1.0		µg/L	1	11/18/2014 2:41:33 AM	R22601
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/18/2014 2:41:33 AM	R22601
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/18/2014 2:41:33 AM	R22601
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/18/2014 2:41:33 AM	R22601
trans-1,2-DCE	ND	1.0		µg/L	1	11/18/2014 2:41:33 AM	R22601
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/18/2014 2:41:33 AM	R22601
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/18/2014 2:41:33 AM	R22601
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/18/2014 2:41:33 AM	R22601
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/18/2014 2:41:33 AM	R22601
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/18/2014 2:41:33 AM	R22601
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/18/2014 2:41:33 AM	R22601
Trichlorofluoromethane	ND	1.0		µg/L	1	11/18/2014 2:41:33 AM	R22601
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/18/2014 2:41:33 AM	R22601
Vinyl chloride	ND	1.0		µg/L	1	11/18/2014 2:41:33 AM	R22601
Xylenes, Total	ND	1.5		µg/L	1	11/18/2014 2:41:33 AM	R22601
Surr: 1,2-Dichloroethane-d4	105	70-130		%REC	1	11/18/2014 2:41:33 AM	R22601

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1411590**

Date Reported: **12/11/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-28

Project: Q4 2014

Collection Date: 11/14/2014 1:55:00 PM

Lab ID: 1411590-008

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: cadg	
Surr: 4-Bromofluorobenzene	139	70-130	S	%REC	1	11/18/2014 2:41:33 AM	R22601
Surr: Dibromofluoromethane	101	70-130		%REC	1	11/18/2014 2:41:33 AM	R22601
Surr: Toluene-d8	104	70-130		%REC	1	11/18/2014 2:41:33 AM	R22601

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 40 of 98
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-24

Project: Q4 2014

Collection Date: 11/14/2014 3:40:00 PM

Lab ID: 1411590-009

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: JME
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	11/17/2014 7:26:50 PM	16411
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/17/2014 7:26:50 PM	16411
Surr: DNOP	140	59-141		%REC	1	11/17/2014 7:26:50 PM	16411
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	5.7	0.50		mg/L	10	11/18/2014 1:51:30 AM	R22597
Surr: BFB	97.8	80-120		%REC	10	11/18/2014 1:51:30 AM	R22597
EPA METHOD 300.0: ANIONS							Analyst: LGP
Fluoride	ND	1.0		mg/L	10	11/17/2014 7:26:56 PM	R22603
Chloride	630	50		mg/L	100	11/17/2014 7:39:21 PM	R22603
Bromide	1.4	1.0		mg/L	10	11/17/2014 7:26:56 PM	R22603
Phosphorus, Orthophosphate (As P)	ND	5.0	H	mg/L	10	11/17/2014 7:26:56 PM	R22603
Sulfate	72	5.0		mg/L	10	11/17/2014 7:26:56 PM	R22603
Nitrate+Nitrite as N	ND	1.0		mg/L	5	11/26/2014 12:08:26 PM	R22848
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.29	0.0020		mg/L	1	11/24/2014 6:42:12 PM	R22755
Cadmium	ND	0.0020		mg/L	1	11/24/2014 6:42:12 PM	R22755
Calcium	120	5.0		mg/L	5	11/24/2014 6:43:47 PM	R22755
Chromium	ND	0.0060		mg/L	1	11/24/2014 6:42:12 PM	R22755
Copper	ND	0.0060		mg/L	1	11/24/2014 6:42:12 PM	R22755
Iron	4.4	0.10	*	mg/L	5	11/24/2014 6:43:47 PM	R22755
Magnesium	22	1.0		mg/L	1	11/24/2014 6:42:12 PM	R22755
Manganese	1.6	0.010	*	mg/L	5	11/24/2014 6:43:47 PM	R22755
Potassium	5.4	1.0		mg/L	1	11/24/2014 6:42:12 PM	R22755
Silver	ND	0.0050		mg/L	1	11/24/2014 6:42:12 PM	R22755
Sodium	550	10		mg/L	10	11/25/2014 2:33:50 PM	R22813
Zinc	0.018	0.010		mg/L	1	11/24/2014 6:42:12 PM	R22755
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.48	0.0020		mg/L	1	11/20/2014 6:35:07 PM	16487
Cadmium	ND	0.0020		mg/L	1	11/20/2014 6:35:07 PM	16487
Chromium	0.0098	0.0060		mg/L	1	11/20/2014 6:35:07 PM	16487
Copper	0.015	0.0060		mg/L	1	11/20/2014 6:35:07 PM	16487
Iron	6.9	0.20	*	mg/L	10	11/21/2014 5:48:14 PM	16487
Manganese	1.9	0.020	*	mg/L	10	11/21/2014 5:48:14 PM	16487
Silver	ND	0.0050		mg/L	1	11/20/2014 6:35:07 PM	16487
Zinc	0.026	0.010		mg/L	1	11/20/2014 6:35:07 PM	16487
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	12/2/2014 5:50:34 PM	R22885

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-24

Project: Q4 2014

Collection Date: 11/14/2014 3:40:00 PM

Lab ID: 1411590-009

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Lead	ND	0.0050		mg/L	5	12/2/2014 5:50:34 PM	R22885
Selenium	ND	0.0050		mg/L	5	12/2/2014 5:50:34 PM	R22885
Uranium	0.038	0.0050	*	mg/L	5	12/2/2014 5:50:34 PM	R22885
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	11/26/2014 6:41:53 PM	16487
Lead	0.012	0.0050		mg/L	5	11/26/2014 6:41:53 PM	16487
Selenium	ND	0.010		mg/L	10	12/3/2014 3:31:12 PM	16487
Uranium	0.038	0.010	*	mg/L	10	12/3/2014 3:31:12 PM	16487
EPA METHOD 245.1: MERCURY							Analyst: MMD
Mercury	ND	0.00020		mg/L	1	11/26/2014 3:06:32 PM	16593
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427
Acenaphthylene	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427
Aniline	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427
Anthracene	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427
Azobenzene	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427
Benz(a)anthracene	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427
Benzo(a)pyrene	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427
Benzo(b)fluoranthene	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427
Benzo(k)fluoranthene	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427
Benzoic acid	ND	20		µg/L	1	11/19/2014 9:27:49 PM	16427
Benzyl alcohol	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427
Bis(2-ethylhexyl)phthalate	11	10		µg/L	1	11/19/2014 9:27:49 PM	16427
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427
Butyl benzyl phthalate	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427
Carbazole	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427
4-Chloroaniline	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427
2-Chloronaphthalene	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427
2-Chlorophenol	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427
Chrysene	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427
Di-n-butyl phthalate	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427
Di-n-octyl phthalate	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-24

Project: Q4 2014

Collection Date: 11/14/2014 3:40:00 PM

Lab ID: 1411590-009

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427
Dibenzofuran	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427
1,2-Dichlorobenzene	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427
1,3-Dichlorobenzene	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427
1,4-Dichlorobenzene	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427
Diethyl phthalate	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427
Dimethyl phthalate	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427
2,4-Dichlorophenol	ND	20		µg/L	1	11/19/2014 9:27:49 PM	16427
2,4-Dimethylphenol	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/19/2014 9:27:49 PM	16427
2,4-Dinitrophenol	ND	20		µg/L	1	11/19/2014 9:27:49 PM	16427
2,4-Dinitrotoluene	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427
2,6-Dinitrotoluene	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427
Fluoranthene	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427
Fluorene	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427
Hexachlorobenzene	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427
Hexachlorobutadiene	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427
Hexachloroethane	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427
Isophorone	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427
1-Methylnaphthalene	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427
2-Methylnaphthalene	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427
2-Methylphenol	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427
3+4-Methylphenol	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427
N-Nitrosodimethylamine	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427
Naphthalene	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427
2-Nitroaniline	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427
3-Nitroaniline	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427
4-Nitroaniline	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427
Nitrobenzene	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427
2-Nitrophenol	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427
4-Nitrophenol	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427
Pentachlorophenol	ND	20		µg/L	1	11/19/2014 9:27:49 PM	16427
Phenanthrene	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427
Phenol	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-24

Project: Q4 2014

Collection Date: 11/14/2014 3:40:00 PM

Lab ID: 1411590-009

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Pyrene	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427
Pyridine	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/19/2014 9:27:49 PM	16427
Surr: 2-Fluorophenol	67.8	17.6-104		%REC	1	11/19/2014 9:27:49 PM	16427
Surr: Phenol-d5	60.9	17.7-89.9		%REC	1	11/19/2014 9:27:49 PM	16427
Surr: 2,4,6-Tribromophenol	87.6	16.3-122		%REC	1	11/19/2014 9:27:49 PM	16427
Surr: Nitrobenzene-d5	84.2	45.3-117		%REC	1	11/19/2014 9:27:49 PM	16427
Surr: 2-Fluorobiphenyl	79.9	43-113		%REC	1	11/19/2014 9:27:49 PM	16427
Surr: 4-Terphenyl-d14	85.2	47.6-122		%REC	1	11/19/2014 9:27:49 PM	16427
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Benzene	1600	50		µg/L	50	11/21/2014 2:11:57 PM	R22714
Toluene	9.5	1.0		µg/L	1	11/18/2014 3:34:59 AM	R22601
Ethylbenzene	49	1.0		µg/L	1	11/18/2014 3:34:59 AM	R22601
Methyl tert-butyl ether (MTBE)	63	1.0		µg/L	1	11/18/2014 3:34:59 AM	R22601
1,2,4-Trimethylbenzene	2.7	1.0		µg/L	1	11/18/2014 3:34:59 AM	R22601
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/18/2014 3:34:59 AM	R22601
1,2-Dichloroethane (EDC)	9.6	1.0		µg/L	1	11/18/2014 3:34:59 AM	R22601
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/18/2014 3:34:59 AM	R22601
Naphthalene	ND	2.0		µg/L	1	11/18/2014 3:34:59 AM	R22601
1-Methylnaphthalene	4.6	4.0		µg/L	1	11/18/2014 3:34:59 AM	R22601
2-Methylnaphthalene	ND	4.0		µg/L	1	11/18/2014 3:34:59 AM	R22601
Acetone	ND	10		µg/L	1	11/18/2014 3:34:59 AM	R22601
Bromobenzene	ND	1.0		µg/L	1	11/18/2014 3:34:59 AM	R22601
Bromodichloromethane	ND	1.0		µg/L	1	11/18/2014 3:34:59 AM	R22601
Bromoform	ND	1.0		µg/L	1	11/18/2014 3:34:59 AM	R22601
Bromomethane	ND	3.0		µg/L	1	11/18/2014 3:34:59 AM	R22601
2-Butanone	ND	10		µg/L	1	11/18/2014 3:34:59 AM	R22601
Carbon disulfide	ND	10		µg/L	1	11/18/2014 3:34:59 AM	R22601
Carbon Tetrachloride	ND	1.0		µg/L	1	11/18/2014 3:34:59 AM	R22601
Chlorobenzene	ND	1.0		µg/L	1	11/18/2014 3:34:59 AM	R22601
Chloroethane	ND	2.0		µg/L	1	11/18/2014 3:34:59 AM	R22601
Chloroform	ND	1.0		µg/L	1	11/18/2014 3:34:59 AM	R22601
Chloromethane	ND	3.0		µg/L	1	11/18/2014 3:34:59 AM	R22601
2-Chlorotoluene	ND	1.0		µg/L	1	11/18/2014 3:34:59 AM	R22601
4-Chlorotoluene	ND	1.0		µg/L	1	11/18/2014 3:34:59 AM	R22601
cis-1,2-DCE	39	1.0		µg/L	1	11/18/2014 3:34:59 AM	R22601
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/18/2014 3:34:59 AM	R22601

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-24

Project: Q4 2014

Collection Date: 11/14/2014 3:40:00 PM

Lab ID: 1411590-009

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/18/2014 3:34:59 AM	R22601
Dibromochloromethane	ND	1.0		µg/L	1	11/18/2014 3:34:59 AM	R22601
Dibromomethane	ND	1.0		µg/L	1	11/18/2014 3:34:59 AM	R22601
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/18/2014 3:34:59 AM	R22601
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/18/2014 3:34:59 AM	R22601
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/18/2014 3:34:59 AM	R22601
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/18/2014 3:34:59 AM	R22601
1,1-Dichloroethane	150	10		µg/L	10	11/18/2014 3:08:13 AM	R22601
1,1-Dichloroethene	58	1.0		µg/L	1	11/18/2014 3:34:59 AM	R22601
1,2-Dichloropropane	ND	1.0		µg/L	1	11/18/2014 3:34:59 AM	R22601
1,3-Dichloropropane	ND	1.0		µg/L	1	11/18/2014 3:34:59 AM	R22601
2,2-Dichloropropane	ND	2.0		µg/L	1	11/18/2014 3:34:59 AM	R22601
1,1-Dichloropropene	ND	1.0		µg/L	1	11/18/2014 3:34:59 AM	R22601
Hexachlorobutadiene	ND	1.0		µg/L	1	11/18/2014 3:34:59 AM	R22601
2-Hexanone	ND	10		µg/L	1	11/18/2014 3:34:59 AM	R22601
Isopropylbenzene	18	1.0		µg/L	1	11/18/2014 3:34:59 AM	R22601
4-Isopropyltoluene	ND	1.0		µg/L	1	11/18/2014 3:34:59 AM	R22601
4-Methyl-2-pentanone	ND	10		µg/L	1	11/18/2014 3:34:59 AM	R22601
Methylene Chloride	ND	3.0		µg/L	1	11/18/2014 3:34:59 AM	R22601
n-Butylbenzene	5.8	3.0		µg/L	1	11/18/2014 3:34:59 AM	R22601
n-Propylbenzene	28	1.0		µg/L	1	11/18/2014 3:34:59 AM	R22601
sec-Butylbenzene	4.0	1.0		µg/L	1	11/18/2014 3:34:59 AM	R22601
Styrene	ND	1.0		µg/L	1	11/18/2014 3:34:59 AM	R22601
tert-Butylbenzene	ND	1.0		µg/L	1	11/18/2014 3:34:59 AM	R22601
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/18/2014 3:34:59 AM	R22601
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/18/2014 3:34:59 AM	R22601
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/18/2014 3:34:59 AM	R22601
trans-1,2-DCE	ND	1.0		µg/L	1	11/18/2014 3:34:59 AM	R22601
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/18/2014 3:34:59 AM	R22601
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/18/2014 3:34:59 AM	R22601
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/18/2014 3:34:59 AM	R22601
1,1,1-Trichloroethane	4.6	1.0		µg/L	1	11/18/2014 3:34:59 AM	R22601
1,1,2-Trichloroethane	1.1	1.0		µg/L	1	11/18/2014 3:34:59 AM	R22601
Trichloroethene (TCE)	4.9	1.0		µg/L	1	11/18/2014 3:34:59 AM	R22601
Trichlorofluoromethane	ND	1.0		µg/L	1	11/18/2014 3:34:59 AM	R22601
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/18/2014 3:34:59 AM	R22601
Vinyl chloride	14	1.0		µg/L	1	11/18/2014 3:34:59 AM	R22601
Xylenes, Total	2.9	1.5		µg/L	1	11/18/2014 3:34:59 AM	R22601
Surr: 1,2-Dichloroethane-d4	103	70-130		%REC	1	11/18/2014 3:34:59 AM	R22601

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1411590**

Date Reported: **12/11/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-24

Project: Q4 2014

Collection Date: 11/14/2014 3:40:00 PM

Lab ID: 1411590-009

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: cadg	
Surr: 4-Bromofluorobenzene	93.9	70-130		%REC	1	11/18/2014 3:34:59 AM	R22601
Surr: Dibromofluoromethane	100	70-130		%REC	1	11/18/2014 3:34:59 AM	R22601
Surr: Toluene-d8	96.9	70-130		%REC	1	11/18/2014 3:34:59 AM	R22601

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 46 of 98
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-25

Project: Q4 2014

Collection Date: 11/14/2014 3:33:00 PM

Lab ID: 1411590-010

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: JME
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	11/19/2014 12:42:06 AM	16415
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/19/2014 12:42:06 AM	16415
Surr: DNOP	99.4	59-141		%REC	1	11/19/2014 12:42:06 AM	16415
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	4.8	0.50		mg/L	10	11/18/2014 2:18:38 AM	R22597
Surr: BFB	111	80-120		%REC	10	11/18/2014 2:18:38 AM	R22597
EPA METHOD 300.0: ANIONS							Analyst: LGP
Fluoride	ND	1.0		mg/L	10	11/17/2014 7:51:46 PM	R22603
Chloride	880	50		mg/L	100	11/17/2014 8:04:10 PM	R22603
Bromide	1.4	1.0		mg/L	10	11/17/2014 7:51:46 PM	R22603
Phosphorus, Orthophosphate (As P)	ND	5.0	H	mg/L	10	11/17/2014 7:51:46 PM	R22603
Sulfate	35	5.0		mg/L	10	11/17/2014 7:51:46 PM	R22603
Nitrate+Nitrite as N	ND	1.0		mg/L	5	11/26/2014 12:20:50 PM	R22848
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	0.28	0.0020		mg/L	1	11/24/2014 6:45:42 PM	R22755
Cadmium	ND	0.0020		mg/L	1	11/24/2014 6:45:42 PM	R22755
Calcium	150	5.0		mg/L	5	11/24/2014 6:47:36 PM	R22755
Chromium	ND	0.0060		mg/L	1	11/24/2014 6:45:42 PM	R22755
Copper	ND	0.0060		mg/L	1	11/24/2014 6:45:42 PM	R22755
Iron	0.21	0.020		mg/L	1	11/24/2014 6:45:42 PM	R22755
Magnesium	27	1.0		mg/L	1	11/24/2014 6:45:42 PM	R22755
Manganese	3.1	0.010	*	mg/L	5	11/24/2014 6:47:36 PM	R22755
Potassium	1.2	1.0		mg/L	1	11/24/2014 6:45:42 PM	R22755
Silver	ND	0.0050		mg/L	1	11/24/2014 6:45:42 PM	R22755
Sodium	640	10		mg/L	10	11/25/2014 2:35:46 PM	R22813
Zinc	0.10	0.010		mg/L	1	11/24/2014 6:45:42 PM	R22755
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.37	0.0020		mg/L	1	11/20/2014 6:36:48 PM	16487
Cadmium	ND	0.0020		mg/L	1	11/20/2014 6:36:48 PM	16487
Chromium	ND	0.0060		mg/L	1	11/20/2014 6:36:48 PM	16487
Copper	0.011	0.0060		mg/L	1	11/20/2014 6:36:48 PM	16487
Iron	2.7	0.20	*	mg/L	10	11/21/2014 5:50:11 PM	16487
Manganese	3.6	0.020	*	mg/L	10	11/21/2014 5:50:11 PM	16487
Silver	ND	0.0050		mg/L	1	11/20/2014 6:36:48 PM	16487
Zinc	0.013	0.010		mg/L	1	11/20/2014 6:36:48 PM	16487
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	12/2/2014 5:53:33 PM	R22885

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-25

Project: Q4 2014

Collection Date: 11/14/2014 3:33:00 PM

Lab ID: 1411590-010

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Lead	ND	0.0050		mg/L	5	12/2/2014 5:53:33 PM	R22885
Selenium	ND	0.0050		mg/L	5	12/2/2014 5:53:33 PM	R22885
Uranium	0.030	0.0050	*	mg/L	5	12/2/2014 5:53:33 PM	R22885
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	ND	0.0050		mg/L	5	11/26/2014 6:45:22 PM	16487
Lead	0.0074	0.0050		mg/L	5	11/26/2014 6:45:22 PM	16487
Selenium	ND	0.010		mg/L	10	12/3/2014 3:34:17 PM	16487
Uranium	0.030	0.010	*	mg/L	10	12/3/2014 3:34:17 PM	16487
EPA METHOD 245.1: MERCURY							Analyst: MMD
Mercury	ND	0.00020		mg/L	1	11/26/2014 3:08:22 PM	16593
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427
Acenaphthylene	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427
Aniline	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427
Anthracene	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427
Azobenzene	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427
Benz(a)anthracene	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427
Benzo(a)pyrene	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427
Benzo(b)fluoranthene	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427
Benzo(k)fluoranthene	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427
Benzoic acid	ND	20		µg/L	1	11/19/2014 9:55:09 PM	16427
Benzyl alcohol	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427
Butyl benzyl phthalate	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427
Carbazole	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427
4-Chloroaniline	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427
2-Chloronaphthalene	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427
2-Chlorophenol	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427
Chrysene	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427
Di-n-butyl phthalate	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427
Di-n-octyl phthalate	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-25

Project: Q4 2014

Collection Date: 11/14/2014 3:33:00 PM

Lab ID: 1411590-010

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427
Dibenzofuran	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427
1,2-Dichlorobenzene	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427
1,3-Dichlorobenzene	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427
1,4-Dichlorobenzene	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427
Diethyl phthalate	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427
Dimethyl phthalate	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427
2,4-Dichlorophenol	ND	20		µg/L	1	11/19/2014 9:55:09 PM	16427
2,4-Dimethylphenol	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/19/2014 9:55:09 PM	16427
2,4-Dinitrophenol	ND	20		µg/L	1	11/19/2014 9:55:09 PM	16427
2,4-Dinitrotoluene	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427
2,6-Dinitrotoluene	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427
Fluoranthene	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427
Fluorene	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427
Hexachlorobenzene	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427
Hexachlorobutadiene	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427
Hexachloroethane	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427
Isophorone	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427
1-Methylnaphthalene	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427
2-Methylnaphthalene	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427
2-Methylphenol	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427
3+4-Methylphenol	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427
N-Nitrosodimethylamine	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427
Naphthalene	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427
2-Nitroaniline	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427
3-Nitroaniline	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427
4-Nitroaniline	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427
Nitrobenzene	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427
2-Nitrophenol	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427
4-Nitrophenol	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427
Pentachlorophenol	ND	20		µg/L	1	11/19/2014 9:55:09 PM	16427
Phenanthrene	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427
Phenol	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-25

Project: Q4 2014

Collection Date: 11/14/2014 3:33:00 PM

Lab ID: 1411590-010

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Pyrene	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427
Pyridine	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/19/2014 9:55:09 PM	16427
Surr: 2-Fluorophenol	46.2	17.6-104		%REC	1	11/19/2014 9:55:09 PM	16427
Surr: Phenol-d5	44.2	17.7-89.9		%REC	1	11/19/2014 9:55:09 PM	16427
Surr: 2,4,6-Tribromophenol	75.8	16.3-122		%REC	1	11/19/2014 9:55:09 PM	16427
Surr: Nitrobenzene-d5	61.7	45.3-117		%REC	1	11/19/2014 9:55:09 PM	16427
Surr: 2-Fluorobiphenyl	58.3	43-113		%REC	1	11/19/2014 9:55:09 PM	16427
Surr: 4-Terphenyl-d14	79.3	47.6-122		%REC	1	11/19/2014 9:55:09 PM	16427
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Benzene	580	50		µg/L	50	11/18/2014 1:09:49 PM	R22619
Toluene	ND	5.0		µg/L	5	11/18/2014 4:28:29 AM	R22601
Ethylbenzene	23	5.0		µg/L	5	11/18/2014 4:28:29 AM	R22601
Methyl tert-butyl ether (MTBE)	180	5.0		µg/L	5	11/18/2014 4:28:29 AM	R22601
1,2,4-Trimethylbenzene	ND	5.0		µg/L	5	11/18/2014 4:28:29 AM	R22601
1,3,5-Trimethylbenzene	ND	5.0		µg/L	5	11/18/2014 4:28:29 AM	R22601
1,2-Dichloroethane (EDC)	12	5.0		µg/L	5	11/18/2014 4:28:29 AM	R22601
1,2-Dibromoethane (EDB)	ND	5.0		µg/L	5	11/18/2014 4:28:29 AM	R22601
Naphthalene	ND	10		µg/L	5	11/18/2014 4:28:29 AM	R22601
1-Methylnaphthalene	ND	20		µg/L	5	11/18/2014 4:28:29 AM	R22601
2-Methylnaphthalene	ND	20		µg/L	5	11/18/2014 4:28:29 AM	R22601
Acetone	ND	50		µg/L	5	11/18/2014 4:28:29 AM	R22601
Bromobenzene	ND	5.0		µg/L	5	11/18/2014 4:28:29 AM	R22601
Bromodichloromethane	ND	5.0		µg/L	5	11/18/2014 4:28:29 AM	R22601
Bromoform	ND	5.0		µg/L	5	11/18/2014 4:28:29 AM	R22601
Bromomethane	ND	15		µg/L	5	11/18/2014 4:28:29 AM	R22601
2-Butanone	ND	50		µg/L	5	11/18/2014 4:28:29 AM	R22601
Carbon disulfide	ND	50		µg/L	5	11/18/2014 4:28:29 AM	R22601
Carbon Tetrachloride	ND	5.0		µg/L	5	11/18/2014 4:28:29 AM	R22601
Chlorobenzene	ND	5.0		µg/L	5	11/18/2014 4:28:29 AM	R22601
Chloroethane	ND	10		µg/L	5	11/18/2014 4:28:29 AM	R22601
Chloroform	ND	5.0		µg/L	5	11/18/2014 4:28:29 AM	R22601
Chloromethane	ND	15		µg/L	5	11/18/2014 4:28:29 AM	R22601
2-Chlorotoluene	ND	5.0		µg/L	5	11/18/2014 4:28:29 AM	R22601
4-Chlorotoluene	ND	5.0		µg/L	5	11/18/2014 4:28:29 AM	R22601
cis-1,2-DCE	44	5.0		µg/L	5	11/18/2014 4:28:29 AM	R22601
cis-1,3-Dichloropropene	ND	5.0		µg/L	5	11/18/2014 4:28:29 AM	R22601

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-25

Project: Q4 2014

Collection Date: 11/14/2014 3:33:00 PM

Lab ID: 1411590-010

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
1,2-Dibromo-3-chloropropane	ND	10		µg/L	5	11/18/2014 4:28:29 AM	R22601
Dibromochloromethane	ND	5.0		µg/L	5	11/18/2014 4:28:29 AM	R22601
Dibromomethane	ND	5.0		µg/L	5	11/18/2014 4:28:29 AM	R22601
1,2-Dichlorobenzene	ND	5.0		µg/L	5	11/18/2014 4:28:29 AM	R22601
1,3-Dichlorobenzene	ND	5.0		µg/L	5	11/18/2014 4:28:29 AM	R22601
1,4-Dichlorobenzene	ND	5.0		µg/L	5	11/18/2014 4:28:29 AM	R22601
Dichlorodifluoromethane	ND	5.0		µg/L	5	11/18/2014 4:28:29 AM	R22601
1,1-Dichloroethane	230	5.0		µg/L	5	11/18/2014 4:28:29 AM	R22601
1,1-Dichloroethene	98	5.0		µg/L	5	11/18/2014 4:28:29 AM	R22601
1,2-Dichloropropane	ND	5.0		µg/L	5	11/18/2014 4:28:29 AM	R22601
1,3-Dichloropropane	ND	5.0		µg/L	5	11/18/2014 4:28:29 AM	R22601
2,2-Dichloropropane	ND	10		µg/L	5	11/18/2014 4:28:29 AM	R22601
1,1-Dichloropropene	ND	5.0		µg/L	5	11/18/2014 4:28:29 AM	R22601
Hexachlorobutadiene	ND	5.0		µg/L	5	11/18/2014 4:28:29 AM	R22601
2-Hexanone	ND	50		µg/L	5	11/18/2014 4:28:29 AM	R22601
Isopropylbenzene	40	5.0		µg/L	5	11/18/2014 4:28:29 AM	R22601
4-Isopropyltoluene	ND	5.0		µg/L	5	11/18/2014 4:28:29 AM	R22601
4-Methyl-2-pentanone	ND	50		µg/L	5	11/18/2014 4:28:29 AM	R22601
Methylene Chloride	ND	15		µg/L	5	11/18/2014 4:28:29 AM	R22601
n-Butylbenzene	ND	15		µg/L	5	11/18/2014 4:28:29 AM	R22601
n-Propylbenzene	37	5.0		µg/L	5	11/18/2014 4:28:29 AM	R22601
sec-Butylbenzene	6.6	5.0		µg/L	5	11/18/2014 4:28:29 AM	R22601
Styrene	ND	5.0		µg/L	5	11/18/2014 4:28:29 AM	R22601
tert-Butylbenzene	ND	5.0		µg/L	5	11/18/2014 4:28:29 AM	R22601
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	5	11/18/2014 4:28:29 AM	R22601
1,1,2,2-Tetrachloroethane	ND	10		µg/L	5	11/18/2014 4:28:29 AM	R22601
Tetrachloroethene (PCE)	ND	5.0		µg/L	5	11/18/2014 4:28:29 AM	R22601
trans-1,2-DCE	ND	5.0		µg/L	5	11/18/2014 4:28:29 AM	R22601
trans-1,3-Dichloropropene	ND	5.0		µg/L	5	11/18/2014 4:28:29 AM	R22601
1,2,3-Trichlorobenzene	ND	5.0		µg/L	5	11/18/2014 4:28:29 AM	R22601
1,2,4-Trichlorobenzene	ND	5.0		µg/L	5	11/18/2014 4:28:29 AM	R22601
1,1,1-Trichloroethane	23	5.0		µg/L	5	11/18/2014 4:28:29 AM	R22601
1,1,2-Trichloroethane	ND	5.0		µg/L	5	11/18/2014 4:28:29 AM	R22601
Trichloroethene (TCE)	27	5.0		µg/L	5	11/18/2014 4:28:29 AM	R22601
Trichlorofluoromethane	ND	5.0		µg/L	5	11/18/2014 4:28:29 AM	R22601
1,2,3-Trichloropropane	ND	10		µg/L	5	11/18/2014 4:28:29 AM	R22601
Vinyl chloride	46	5.0		µg/L	5	11/18/2014 4:28:29 AM	R22601
Xylenes, Total	ND	7.5		µg/L	5	11/18/2014 4:28:29 AM	R22601
Surr: 1,2-Dichloroethane-d4	108	70-130		%REC	5	11/18/2014 4:28:29 AM	R22601

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-25

Project: Q4 2014

Collection Date: 11/14/2014 3:33:00 PM

Lab ID: 1411590-010

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Surr: 4-Bromofluorobenzene	103	70-130		%REC	5	11/18/2014 4:28:29 AM	R22601
Surr: Dibromofluoromethane	97.3	70-130		%REC	5	11/18/2014 4:28:29 AM	R22601
Surr: Toluene-d8	96.7	70-130		%REC	5	11/18/2014 4:28:29 AM	R22601

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 52 of 98
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TB-501

Project: Q4 2014

Collection Date: 11/14/2014

Lab ID: 1411590-011

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	11/18/2014 2:45:45 AM	R22597
Surr: BFB	88.0	80-120		%REC	1	11/18/2014 2:45:45 AM	R22597
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Benzene	ND	1.0		µg/L	1	11/18/2014 4:55:14 AM	R22601
Toluene	ND	1.0		µg/L	1	11/18/2014 4:55:14 AM	R22601
Ethylbenzene	ND	1.0		µg/L	1	11/18/2014 4:55:14 AM	R22601
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	11/18/2014 4:55:14 AM	R22601
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/18/2014 4:55:14 AM	R22601
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/18/2014 4:55:14 AM	R22601
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/18/2014 4:55:14 AM	R22601
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/18/2014 4:55:14 AM	R22601
Naphthalene	ND	2.0		µg/L	1	11/18/2014 4:55:14 AM	R22601
1-Methylnaphthalene	ND	4.0		µg/L	1	11/18/2014 4:55:14 AM	R22601
2-Methylnaphthalene	ND	4.0		µg/L	1	11/18/2014 4:55:14 AM	R22601
Acetone	ND	10		µg/L	1	11/18/2014 4:55:14 AM	R22601
Bromobenzene	ND	1.0		µg/L	1	11/18/2014 4:55:14 AM	R22601
Bromodichloromethane	ND	1.0		µg/L	1	11/18/2014 4:55:14 AM	R22601
Bromoform	ND	1.0		µg/L	1	11/18/2014 4:55:14 AM	R22601
Bromomethane	ND	3.0		µg/L	1	11/18/2014 4:55:14 AM	R22601
2-Butanone	ND	10		µg/L	1	11/18/2014 4:55:14 AM	R22601
Carbon disulfide	ND	10		µg/L	1	11/18/2014 4:55:14 AM	R22601
Carbon Tetrachloride	ND	1.0		µg/L	1	11/18/2014 4:55:14 AM	R22601
Chlorobenzene	ND	1.0		µg/L	1	11/18/2014 4:55:14 AM	R22601
Chloroethane	ND	2.0		µg/L	1	11/18/2014 4:55:14 AM	R22601
Chloroform	ND	1.0		µg/L	1	11/18/2014 4:55:14 AM	R22601
Chloromethane	ND	3.0		µg/L	1	11/18/2014 4:55:14 AM	R22601
2-Chlorotoluene	ND	1.0		µg/L	1	11/18/2014 4:55:14 AM	R22601
4-Chlorotoluene	ND	1.0		µg/L	1	11/18/2014 4:55:14 AM	R22601
cis-1,2-DCE	ND	1.0		µg/L	1	11/18/2014 4:55:14 AM	R22601
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/18/2014 4:55:14 AM	R22601
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/18/2014 4:55:14 AM	R22601
Dibromochloromethane	ND	1.0		µg/L	1	11/18/2014 4:55:14 AM	R22601
Dibromomethane	ND	1.0		µg/L	1	11/18/2014 4:55:14 AM	R22601
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/18/2014 4:55:14 AM	R22601
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/18/2014 4:55:14 AM	R22601
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/18/2014 4:55:14 AM	R22601
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/18/2014 4:55:14 AM	R22601
1,1-Dichloroethane	ND	1.0		µg/L	1	11/18/2014 4:55:14 AM	R22601
1,1-Dichloroethene	ND	1.0		µg/L	1	11/18/2014 4:55:14 AM	R22601

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TB-501

Project: Q4 2014

Collection Date: 11/14/2014

Lab ID: 1411590-011

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
1,2-Dichloropropane	ND	1.0		µg/L	1	11/18/2014 4:55:14 AM	R22601
1,3-Dichloropropane	ND	1.0		µg/L	1	11/18/2014 4:55:14 AM	R22601
2,2-Dichloropropane	ND	2.0		µg/L	1	11/18/2014 4:55:14 AM	R22601
1,1-Dichloropropene	ND	1.0		µg/L	1	11/18/2014 4:55:14 AM	R22601
Hexachlorobutadiene	ND	1.0		µg/L	1	11/18/2014 4:55:14 AM	R22601
2-Hexanone	ND	10		µg/L	1	11/18/2014 4:55:14 AM	R22601
Isopropylbenzene	ND	1.0		µg/L	1	11/18/2014 4:55:14 AM	R22601
4-Isopropyltoluene	ND	1.0		µg/L	1	11/18/2014 4:55:14 AM	R22601
4-Methyl-2-pentanone	ND	10		µg/L	1	11/18/2014 4:55:14 AM	R22601
Methylene Chloride	ND	3.0		µg/L	1	11/18/2014 4:55:14 AM	R22601
n-Butylbenzene	ND	3.0		µg/L	1	11/18/2014 4:55:14 AM	R22601
n-Propylbenzene	ND	1.0		µg/L	1	11/18/2014 4:55:14 AM	R22601
sec-Butylbenzene	ND	1.0		µg/L	1	11/18/2014 4:55:14 AM	R22601
Styrene	ND	1.0		µg/L	1	11/18/2014 4:55:14 AM	R22601
tert-Butylbenzene	ND	1.0		µg/L	1	11/18/2014 4:55:14 AM	R22601
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/18/2014 4:55:14 AM	R22601
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/18/2014 4:55:14 AM	R22601
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/18/2014 4:55:14 AM	R22601
trans-1,2-DCE	ND	1.0		µg/L	1	11/18/2014 4:55:14 AM	R22601
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/18/2014 4:55:14 AM	R22601
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/18/2014 4:55:14 AM	R22601
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/18/2014 4:55:14 AM	R22601
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/18/2014 4:55:14 AM	R22601
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/18/2014 4:55:14 AM	R22601
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/18/2014 4:55:14 AM	R22601
Trichlorofluoromethane	ND	1.0		µg/L	1	11/18/2014 4:55:14 AM	R22601
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/18/2014 4:55:14 AM	R22601
Vinyl chloride	ND	1.0		µg/L	1	11/18/2014 4:55:14 AM	R22601
Xylenes, Total	ND	1.5		µg/L	1	11/18/2014 4:55:14 AM	R22601
Surr: 1,2-Dichloroethane-d4	104	70-130		%REC	1	11/18/2014 4:55:14 AM	R22601
Surr: 4-Bromofluorobenzene	138	70-130	S	%REC	1	11/18/2014 4:55:14 AM	R22601
Surr: Dibromofluoromethane	94.6	70-130		%REC	1	11/18/2014 4:55:14 AM	R22601
Surr: Toluene-d8	102	70-130		%REC	1	11/18/2014 4:55:14 AM	R22601

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-04

Project: Q4 2014

Collection Date: 11/13/2014 3:45:00 PM

Lab ID: 1411590-012

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: JME
Diesel Range Organics (DRO)	2.0	1.0		mg/L	1	11/19/2014 1:41:00 AM	16415
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/19/2014 1:41:00 AM	16415
Surr: DNOP	102	59-141		%REC	1	11/19/2014 1:41:00 AM	16415
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	4.2	0.50		mg/L	10	11/18/2014 3:12:52 AM	R22597
Surr: BFB	93.6	80-120		%REC	10	11/18/2014 3:12:52 AM	R22597
EPA METHOD 300.0: ANIONS							Analyst: LGP
Fluoride	ND	1.0		mg/L	10	11/17/2014 8:16:35 PM	R22603
Chloride	250	50		mg/L	100	11/17/2014 8:29:00 PM	R22603
Bromide	2.1	1.0		mg/L	10	11/17/2014 8:16:35 PM	R22603
Phosphorus, Orthophosphate (As P)	ND	5.0	H	mg/L	10	11/17/2014 8:16:35 PM	R22603
Sulfate	26	5.0		mg/L	10	11/17/2014 8:16:35 PM	R22603
Nitrate+Nitrite as N	ND	1.0		mg/L	5	11/26/2014 12:33:14 PM	R22848
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	1.3	0.010		mg/L	5	11/24/2014 6:51:14 PM	R22755
Cadmium	ND	0.0020		mg/L	1	11/24/2014 6:49:35 PM	R22755
Calcium	110	5.0		mg/L	5	11/24/2014 6:51:14 PM	R22755
Chromium	ND	0.0060		mg/L	1	11/24/2014 6:49:35 PM	R22755
Copper	ND	0.0060		mg/L	1	11/24/2014 6:49:35 PM	R22755
Iron	4.7	0.10	*	mg/L	5	11/24/2014 6:51:14 PM	R22755
Magnesium	27	1.0		mg/L	1	11/24/2014 6:49:35 PM	R22755
Manganese	1.8	0.010	*	mg/L	5	11/24/2014 6:51:14 PM	R22755
Potassium	1.4	1.0		mg/L	1	11/24/2014 6:49:35 PM	R22755
Silver	ND	0.0050		mg/L	1	11/24/2014 6:49:35 PM	R22755
Sodium	370	5.0		mg/L	5	11/24/2014 6:51:14 PM	R22755
Zinc	0.010	0.010		mg/L	1	11/24/2014 6:49:35 PM	R22755
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	1.9	0.010		mg/L	5	11/21/2014 5:52:07 PM	16487
Cadmium	ND	0.0020		mg/L	1	11/20/2014 6:38:35 PM	16487
Chromium	0.0086	0.0060		mg/L	1	11/20/2014 6:38:35 PM	16487
Copper	0.015	0.0060		mg/L	1	11/20/2014 6:38:35 PM	16487
Iron	15	1.0	*	mg/L	50	11/21/2014 5:53:51 PM	16487
Manganese	2.5	0.010	*	mg/L	5	11/21/2014 5:52:07 PM	16487
Silver	ND	0.0050		mg/L	1	11/20/2014 6:38:35 PM	16487
Zinc	0.030	0.010		mg/L	1	11/20/2014 6:38:35 PM	16487
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	0.0060	0.0050		mg/L	5	12/2/2014 5:56:32 PM	R22885

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	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-04

Project: Q4 2014

Collection Date: 11/13/2014 3:45:00 PM

Lab ID: 1411590-012

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Lead	ND	0.0050		mg/L	5	12/2/2014 5:56:32 PM	R22885
Selenium	ND	0.0050		mg/L	5	12/2/2014 5:56:32 PM	R22885
Uranium	0.013	0.0050		mg/L	5	12/2/2014 5:56:32 PM	R22885
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0079	0.0050		mg/L	5	11/26/2014 6:48:51 PM	16487
Lead	0.023	0.0050	*	mg/L	5	11/26/2014 6:48:51 PM	16487
Selenium	ND	0.050		mg/L	5	11/26/2014 6:48:51 PM	16487
Uranium	0.013	0.010		mg/L	10	12/3/2014 3:37:22 PM	16487
EPA METHOD 245.1: MERCURY							Analyst: MMD
Mercury	ND	0.00020		mg/L	1	11/26/2014 3:10:12 PM	16593
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	11/19/2014 10:22:27 PM	16427
Acenaphthylene	ND	10		µg/L	1	11/19/2014 10:22:27 PM	16427
Aniline	ND	10		µg/L	1	11/19/2014 10:22:27 PM	16427
Anthracene	ND	10		µg/L	1	11/19/2014 10:22:27 PM	16427
Azobenzene	ND	10		µg/L	1	11/19/2014 10:22:27 PM	16427
Benz(a)anthracene	ND	10		µg/L	1	11/19/2014 10:22:27 PM	16427
Benzo(a)pyrene	ND	10		µg/L	1	11/19/2014 10:22:27 PM	16427
Benzo(b)fluoranthene	ND	10		µg/L	1	11/19/2014 10:22:27 PM	16427
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/19/2014 10:22:27 PM	16427
Benzo(k)fluoranthene	ND	10		µg/L	1	11/19/2014 10:22:27 PM	16427
Benzoic acid	ND	20		µg/L	1	11/19/2014 10:22:27 PM	16427
Benzyl alcohol	ND	10		µg/L	1	11/19/2014 10:22:27 PM	16427
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/19/2014 10:22:27 PM	16427
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/19/2014 10:22:27 PM	16427
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/19/2014 10:22:27 PM	16427
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	11/19/2014 10:22:27 PM	16427
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/19/2014 10:22:27 PM	16427
Butyl benzyl phthalate	ND	10		µg/L	1	11/19/2014 10:22:27 PM	16427
Carbazole	17	10		µg/L	1	11/19/2014 10:22:27 PM	16427
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/19/2014 10:22:27 PM	16427
4-Chloroaniline	ND	10		µg/L	1	11/19/2014 10:22:27 PM	16427
2-Chloronaphthalene	ND	10		µg/L	1	11/19/2014 10:22:27 PM	16427
2-Chlorophenol	ND	10		µg/L	1	11/19/2014 10:22:27 PM	16427
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/19/2014 10:22:27 PM	16427
Chrysene	ND	10		µg/L	1	11/19/2014 10:22:27 PM	16427
Di-n-butyl phthalate	ND	10		µg/L	1	11/19/2014 10:22:27 PM	16427
Di-n-octyl phthalate	ND	10		µg/L	1	11/19/2014 10:22:27 PM	16427

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	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-04

Project: Q4 2014

Collection Date: 11/13/2014 3:45:00 PM

Lab ID: 1411590-012

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/19/2014 10:22:27 PM	16427
Dibenzofuran	ND	10		µg/L	1	11/19/2014 10:22:27 PM	16427
1,2-Dichlorobenzene	ND	10		µg/L	1	11/19/2014 10:22:27 PM	16427
1,3-Dichlorobenzene	ND	10		µg/L	1	11/19/2014 10:22:27 PM	16427
1,4-Dichlorobenzene	ND	10		µg/L	1	11/19/2014 10:22:27 PM	16427
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/19/2014 10:22:27 PM	16427
Diethyl phthalate	ND	10		µg/L	1	11/19/2014 10:22:27 PM	16427
Dimethyl phthalate	ND	10		µg/L	1	11/19/2014 10:22:27 PM	16427
2,4-Dichlorophenol	ND	20		µg/L	1	11/19/2014 10:22:27 PM	16427
2,4-Dimethylphenol	ND	10		µg/L	1	11/19/2014 10:22:27 PM	16427
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/19/2014 10:22:27 PM	16427
2,4-Dinitrophenol	ND	20		µg/L	1	11/19/2014 10:22:27 PM	16427
2,4-Dinitrotoluene	ND	10		µg/L	1	11/19/2014 10:22:27 PM	16427
2,6-Dinitrotoluene	ND	10		µg/L	1	11/19/2014 10:22:27 PM	16427
Fluoranthene	ND	10		µg/L	1	11/19/2014 10:22:27 PM	16427
Fluorene	ND	10		µg/L	1	11/19/2014 10:22:27 PM	16427
Hexachlorobenzene	ND	10		µg/L	1	11/19/2014 10:22:27 PM	16427
Hexachlorobutadiene	ND	10		µg/L	1	11/19/2014 10:22:27 PM	16427
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/19/2014 10:22:27 PM	16427
Hexachloroethane	ND	10		µg/L	1	11/19/2014 10:22:27 PM	16427
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/19/2014 10:22:27 PM	16427
Isophorone	ND	10		µg/L	1	11/19/2014 10:22:27 PM	16427
1-Methylnaphthalene	61	10		µg/L	1	11/19/2014 10:22:27 PM	16427
2-Methylnaphthalene	47	10		µg/L	1	11/19/2014 10:22:27 PM	16427
2-Methylphenol	ND	10		µg/L	1	11/19/2014 10:22:27 PM	16427
3+4-Methylphenol	ND	10		µg/L	1	11/19/2014 10:22:27 PM	16427
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/19/2014 10:22:27 PM	16427
N-Nitrosodimethylamine	ND	10		µg/L	1	11/19/2014 10:22:27 PM	16427
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/19/2014 10:22:27 PM	16427
Naphthalene	80	10		µg/L	1	11/19/2014 10:22:27 PM	16427
2-Nitroaniline	ND	10		µg/L	1	11/19/2014 10:22:27 PM	16427
3-Nitroaniline	ND	10		µg/L	1	11/19/2014 10:22:27 PM	16427
4-Nitroaniline	ND	10		µg/L	1	11/19/2014 10:22:27 PM	16427
Nitrobenzene	ND	10		µg/L	1	11/19/2014 10:22:27 PM	16427
2-Nitrophenol	ND	10		µg/L	1	11/19/2014 10:22:27 PM	16427
4-Nitrophenol	ND	10		µg/L	1	11/19/2014 10:22:27 PM	16427
Pentachlorophenol	ND	20		µg/L	1	11/19/2014 10:22:27 PM	16427
Phenanthrene	ND	10		µg/L	1	11/19/2014 10:22:27 PM	16427
Phenol	ND	10		µg/L	1	11/19/2014 10:22:27 PM	16427

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Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-04

Project: Q4 2014

Collection Date: 11/13/2014 3:45:00 PM

Lab ID: 1411590-012

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES				Analyst: DAM			
Pyrene	ND	10		µg/L	1	11/19/2014 10:22:27 PM	16427
Pyridine	ND	10		µg/L	1	11/19/2014 10:22:27 PM	16427
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/19/2014 10:22:27 PM	16427
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/19/2014 10:22:27 PM	16427
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/19/2014 10:22:27 PM	16427
Surr: 2-Fluorophenol	73.3	17.6-104		%REC	1	11/19/2014 10:22:27 PM	16427
Surr: Phenol-d5	67.3	17.7-89.9		%REC	1	11/19/2014 10:22:27 PM	16427
Surr: 2,4,6-Tribromophenol	94.2	16.3-122		%REC	1	11/19/2014 10:22:27 PM	16427
Surr: Nitrobenzene-d5	82.5	45.3-117		%REC	1	11/19/2014 10:22:27 PM	16427
Surr: 2-Fluorobiphenyl	84.7	43-113		%REC	1	11/19/2014 10:22:27 PM	16427
Surr: 4-Terphenyl-d14	86.7	47.6-122		%REC	1	11/19/2014 10:22:27 PM	16427
EPA METHOD 8260B: VOLATILES				Analyst: cadg			
Benzene	180	10		µg/L	10	11/18/2014 5:22:00 AM	R22601
Toluene	ND	10		µg/L	10	11/18/2014 5:22:00 AM	R22601
Ethylbenzene	280	10		µg/L	10	11/18/2014 5:22:00 AM	R22601
Methyl tert-butyl ether (MTBE)	1400	50		µg/L	50	11/18/2014 1:36:32 PM	R22619
1,2,4-Trimethylbenzene	200	10		µg/L	10	11/18/2014 5:22:00 AM	R22601
1,3,5-Trimethylbenzene	19	10		µg/L	10	11/18/2014 5:22:00 AM	R22601
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	11/18/2014 5:22:00 AM	R22601
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	11/18/2014 5:22:00 AM	R22601
Naphthalene	130	20		µg/L	10	11/18/2014 5:22:00 AM	R22601
1-Methylnaphthalene	95	40		µg/L	10	11/18/2014 5:22:00 AM	R22601
2-Methylnaphthalene	80	40		µg/L	10	11/18/2014 5:22:00 AM	R22601
Acetone	ND	100		µg/L	10	11/18/2014 5:22:00 AM	R22601
Bromobenzene	ND	10		µg/L	10	11/18/2014 5:22:00 AM	R22601
Bromodichloromethane	ND	10		µg/L	10	11/18/2014 5:22:00 AM	R22601
Bromoform	ND	10		µg/L	10	11/18/2014 5:22:00 AM	R22601
Bromomethane	ND	30		µg/L	10	11/18/2014 5:22:00 AM	R22601
2-Butanone	ND	100		µg/L	10	11/18/2014 5:22:00 AM	R22601
Carbon disulfide	ND	100		µg/L	10	11/18/2014 5:22:00 AM	R22601
Carbon Tetrachloride	ND	10		µg/L	10	11/18/2014 5:22:00 AM	R22601
Chlorobenzene	ND	10		µg/L	10	11/18/2014 5:22:00 AM	R22601
Chloroethane	ND	20		µg/L	10	11/18/2014 5:22:00 AM	R22601
Chloroform	ND	10		µg/L	10	11/18/2014 5:22:00 AM	R22601
Chloromethane	ND	30		µg/L	10	11/18/2014 5:22:00 AM	R22601
2-Chlorotoluene	ND	10		µg/L	10	11/18/2014 5:22:00 AM	R22601
4-Chlorotoluene	ND	10		µg/L	10	11/18/2014 5:22:00 AM	R22601
cis-1,2-DCE	14	10		µg/L	10	11/18/2014 5:22:00 AM	R22601
cis-1,3-Dichloropropene	ND	10		µg/L	10	11/18/2014 5:22:00 AM	R22601

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-04

Project: Q4 2014

Collection Date: 11/13/2014 3:45:00 PM

Lab ID: 1411590-012

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	11/18/2014 5:22:00 AM	R22601
Dibromochloromethane	ND	10		µg/L	10	11/18/2014 5:22:00 AM	R22601
Dibromomethane	ND	10		µg/L	10	11/18/2014 5:22:00 AM	R22601
1,2-Dichlorobenzene	ND	10		µg/L	10	11/18/2014 5:22:00 AM	R22601
1,3-Dichlorobenzene	ND	10		µg/L	10	11/18/2014 5:22:00 AM	R22601
1,4-Dichlorobenzene	ND	10		µg/L	10	11/18/2014 5:22:00 AM	R22601
Dichlorodifluoromethane	ND	10		µg/L	10	11/18/2014 5:22:00 AM	R22601
1,1-Dichloroethane	37	10		µg/L	10	11/18/2014 5:22:00 AM	R22601
1,1-Dichloroethene	59	10		µg/L	10	11/18/2014 5:22:00 AM	R22601
1,2-Dichloropropane	ND	10		µg/L	10	11/18/2014 5:22:00 AM	R22601
1,3-Dichloropropane	ND	10		µg/L	10	11/18/2014 5:22:00 AM	R22601
2,2-Dichloropropane	ND	20		µg/L	10	11/18/2014 5:22:00 AM	R22601
1,1-Dichloropropene	ND	10		µg/L	10	11/18/2014 5:22:00 AM	R22601
Hexachlorobutadiene	ND	10		µg/L	10	11/18/2014 5:22:00 AM	R22601
2-Hexanone	ND	100		µg/L	10	11/18/2014 5:22:00 AM	R22601
Isopropylbenzene	16	10		µg/L	10	11/18/2014 5:22:00 AM	R22601
4-Isopropyltoluene	ND	10		µg/L	10	11/18/2014 5:22:00 AM	R22601
4-Methyl-2-pentanone	ND	100		µg/L	10	11/18/2014 5:22:00 AM	R22601
Methylene Chloride	ND	30		µg/L	10	11/18/2014 5:22:00 AM	R22601
n-Butylbenzene	ND	30		µg/L	10	11/18/2014 5:22:00 AM	R22601
n-Propylbenzene	29	10		µg/L	10	11/18/2014 5:22:00 AM	R22601
sec-Butylbenzene	ND	10		µg/L	10	11/18/2014 5:22:00 AM	R22601
Styrene	ND	10		µg/L	10	11/18/2014 5:22:00 AM	R22601
tert-Butylbenzene	ND	10		µg/L	10	11/18/2014 5:22:00 AM	R22601
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	11/18/2014 5:22:00 AM	R22601
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	11/18/2014 5:22:00 AM	R22601
Tetrachloroethene (PCE)	ND	10		µg/L	10	11/18/2014 5:22:00 AM	R22601
trans-1,2-DCE	ND	10		µg/L	10	11/18/2014 5:22:00 AM	R22601
trans-1,3-Dichloropropene	ND	10		µg/L	10	11/18/2014 5:22:00 AM	R22601
1,2,3-Trichlorobenzene	ND	10		µg/L	10	11/18/2014 5:22:00 AM	R22601
1,2,4-Trichlorobenzene	ND	10		µg/L	10	11/18/2014 5:22:00 AM	R22601
1,1,1-Trichloroethane	ND	10		µg/L	10	11/18/2014 5:22:00 AM	R22601
1,1,2-Trichloroethane	ND	10		µg/L	10	11/18/2014 5:22:00 AM	R22601
Trichloroethene (TCE)	ND	10		µg/L	10	11/18/2014 5:22:00 AM	R22601
Trichlorofluoromethane	ND	10		µg/L	10	11/18/2014 5:22:00 AM	R22601
1,2,3-Trichloropropane	ND	20		µg/L	10	11/18/2014 5:22:00 AM	R22601
Vinyl chloride	ND	10		µg/L	10	11/18/2014 5:22:00 AM	R22601
Xylenes, Total	260	15		µg/L	10	11/18/2014 5:22:00 AM	R22601
Surr: 1,2-Dichloroethane-d4	99.8	70-130		%REC	10	11/18/2014 5:22:00 AM	R22601

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1411590**

Date Reported: **12/11/2014**

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-04

Project: Q4 2014

Collection Date: 11/13/2014 3:45:00 PM

Lab ID: 1411590-012

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Surr: 4-Bromofluorobenzene	91.4	70-130		%REC	10	11/18/2014 5:22:00 AM	R22601
Surr: Dibromofluoromethane	93.9	70-130		%REC	10	11/18/2014 5:22:00 AM	R22601
Surr: Toluene-d8	103	70-130		%REC	10	11/18/2014 5:22:00 AM	R22601

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 60 of 98
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-11

Project: Q4 2014

Collection Date: 11/13/2014 4:42:00 PM

Lab ID: 1411590-013

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE							Analyst: JME
Diesel Range Organics (DRO)	1.8	1.0		mg/L	1	11/19/2014 2:10:46 AM	16415
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/19/2014 2:10:46 AM	16415
Surr: DNOP	109	59-141		%REC	1	11/19/2014 2:10:46 AM	16415
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	35	2.5		mg/L	50	11/18/2014 3:40:00 AM	R22597
Surr: BFB	90.9	80-120		%REC	50	11/18/2014 3:40:00 AM	R22597
EPA METHOD 300.0: ANIONS							Analyst: LGP
Fluoride	6.5	1.0	*	mg/L	10	11/17/2014 9:06:15 PM	R22603
Chloride	780	50		mg/L	100	11/17/2014 9:18:40 PM	R22603
Bromide	ND	1.0		mg/L	10	11/17/2014 9:06:15 PM	R22603
Phosphorus, Orthophosphate (As P)	ND	5.0	H	mg/L	10	11/17/2014 9:06:15 PM	R22603
Sulfate	ND	5.0		mg/L	10	11/17/2014 9:06:15 PM	R22603
Nitrate+Nitrite as N	ND	1.0		mg/L	5	11/26/2014 12:45:39 PM	R22848
EPA METHOD 200.7: DISSOLVED METALS							Analyst: JLF
Barium	1.5	0.010		mg/L	5	11/24/2014 7:02:56 PM	R22755
Cadmium	ND	0.0020		mg/L	1	11/24/2014 7:01:06 PM	R22755
Calcium	120	5.0		mg/L	5	11/24/2014 7:02:56 PM	R22755
Chromium	ND	0.0060		mg/L	1	11/24/2014 7:01:06 PM	R22755
Copper	ND	0.0060		mg/L	1	11/24/2014 7:01:06 PM	R22755
Iron	3.4	0.10	*	mg/L	5	11/24/2014 7:02:56 PM	R22755
Magnesium	34	1.0		mg/L	1	11/24/2014 7:01:06 PM	R22755
Manganese	3.2	0.010	*	mg/L	5	11/24/2014 7:02:56 PM	R22755
Potassium	1.3	1.0		mg/L	1	11/24/2014 7:01:06 PM	R22755
Silver	ND	0.0050		mg/L	1	11/24/2014 7:01:06 PM	R22755
Sodium	660	10		mg/L	10	11/25/2014 2:37:39 PM	R22813
Zinc	0.019	0.010		mg/L	1	11/24/2014 7:01:06 PM	R22755
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	1.7	0.020		mg/L	10	11/21/2014 5:55:52 PM	16487
Cadmium	ND	0.0020		mg/L	1	11/20/2014 6:47:22 PM	16487
Chromium	ND	0.0060		mg/L	1	11/20/2014 6:47:22 PM	16487
Copper	ND	0.0060		mg/L	1	11/20/2014 6:47:22 PM	16487
Iron	5.8	0.20	*	mg/L	10	11/21/2014 5:55:52 PM	16487
Manganese	3.4	0.020	*	mg/L	10	11/21/2014 5:55:52 PM	16487
Silver	ND	0.0050		mg/L	1	11/20/2014 6:47:22 PM	16487
Zinc	0.012	0.010		mg/L	1	11/20/2014 6:47:22 PM	16487
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Arsenic	ND	0.010		mg/L	1	12/4/2014 11:43:48 AM	R22933

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-11

Project: Q4 2014

Collection Date: 11/13/2014 4:42:00 PM

Lab ID: 1411590-013

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS							Analyst: DBD
Lead	ND	0.0010		mg/L	1	12/4/2014 11:43:48 AM	R22933
Selenium	0.0051	0.0010		mg/L	1	12/4/2014 11:43:48 AM	R22933
Uranium	0.0033	0.0010		mg/L	1	12/4/2014 11:43:48 AM	R22933
200.8 ICPMS METALS:TOTAL							Analyst: DBD
Arsenic	0.0087	0.0050		mg/L	5	11/26/2014 3:14:31 PM	16487
Lead	ND	0.0050		mg/L	5	11/26/2014 3:14:31 PM	16487
Selenium	ND	0.0050		mg/L	5	11/26/2014 3:14:31 PM	16487
Uranium	ND	0.0050		mg/L	5	11/26/2014 3:14:31 PM	16487
EPA METHOD 245.1: MERCURY							Analyst: MMD
Mercury	ND	0.00020		mg/L	1	11/26/2014 3:12:03 PM	16593
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Acenaphthene	ND	10		µg/L	1	11/19/2014 10:49:55 PM	16427
Acenaphthylene	ND	10		µg/L	1	11/19/2014 10:49:55 PM	16427
Aniline	ND	10		µg/L	1	11/19/2014 10:49:55 PM	16427
Anthracene	ND	10		µg/L	1	11/19/2014 10:49:55 PM	16427
Azobenzene	ND	10		µg/L	1	11/19/2014 10:49:55 PM	16427
Benz(a)anthracene	ND	10		µg/L	1	11/19/2014 10:49:55 PM	16427
Benzo(a)pyrene	ND	10		µg/L	1	11/19/2014 10:49:55 PM	16427
Benzo(b)fluoranthene	ND	10		µg/L	1	11/19/2014 10:49:55 PM	16427
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/19/2014 10:49:55 PM	16427
Benzo(k)fluoranthene	ND	10		µg/L	1	11/19/2014 10:49:55 PM	16427
Benzoic acid	ND	20		µg/L	1	11/19/2014 10:49:55 PM	16427
Benzyl alcohol	ND	10		µg/L	1	11/19/2014 10:49:55 PM	16427
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/19/2014 10:49:55 PM	16427
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/19/2014 10:49:55 PM	16427
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/19/2014 10:49:55 PM	16427
Bis(2-ethylhexyl)phthalate	14	10		µg/L	1	11/19/2014 10:49:55 PM	16427
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/19/2014 10:49:55 PM	16427
Butyl benzyl phthalate	ND	10		µg/L	1	11/19/2014 10:49:55 PM	16427
Carbazole	ND	10		µg/L	1	11/19/2014 10:49:55 PM	16427
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/19/2014 10:49:55 PM	16427
4-Chloroaniline	ND	10		µg/L	1	11/19/2014 10:49:55 PM	16427
2-Chloronaphthalene	ND	10		µg/L	1	11/19/2014 10:49:55 PM	16427
2-Chlorophenol	ND	10		µg/L	1	11/19/2014 10:49:55 PM	16427
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/19/2014 10:49:55 PM	16427
Chrysene	ND	10		µg/L	1	11/19/2014 10:49:55 PM	16427
Di-n-butyl phthalate	ND	10		µg/L	1	11/19/2014 10:49:55 PM	16427
Di-n-octyl phthalate	ND	10		µg/L	1	11/19/2014 10:49:55 PM	16427

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-11

Project: Q4 2014

Collection Date: 11/13/2014 4:42:00 PM

Lab ID: 1411590-013

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/19/2014 10:49:55 PM	16427
Dibenzofuran	ND	10		µg/L	1	11/19/2014 10:49:55 PM	16427
1,2-Dichlorobenzene	ND	10		µg/L	1	11/19/2014 10:49:55 PM	16427
1,3-Dichlorobenzene	ND	10		µg/L	1	11/19/2014 10:49:55 PM	16427
1,4-Dichlorobenzene	ND	10		µg/L	1	11/19/2014 10:49:55 PM	16427
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/19/2014 10:49:55 PM	16427
Diethyl phthalate	ND	10		µg/L	1	11/19/2014 10:49:55 PM	16427
Dimethyl phthalate	ND	10		µg/L	1	11/19/2014 10:49:55 PM	16427
2,4-Dichlorophenol	ND	20		µg/L	1	11/19/2014 10:49:55 PM	16427
2,4-Dimethylphenol	12	10		µg/L	1	11/19/2014 10:49:55 PM	16427
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/19/2014 10:49:55 PM	16427
2,4-Dinitrophenol	ND	20		µg/L	1	11/19/2014 10:49:55 PM	16427
2,4-Dinitrotoluene	ND	10		µg/L	1	11/19/2014 10:49:55 PM	16427
2,6-Dinitrotoluene	ND	10		µg/L	1	11/19/2014 10:49:55 PM	16427
Fluoranthene	ND	10		µg/L	1	11/19/2014 10:49:55 PM	16427
Fluorene	ND	10		µg/L	1	11/19/2014 10:49:55 PM	16427
Hexachlorobenzene	ND	10		µg/L	1	11/19/2014 10:49:55 PM	16427
Hexachlorobutadiene	ND	10		µg/L	1	11/19/2014 10:49:55 PM	16427
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/19/2014 10:49:55 PM	16427
Hexachloroethane	ND	10		µg/L	1	11/19/2014 10:49:55 PM	16427
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/19/2014 10:49:55 PM	16427
Isophorone	ND	10		µg/L	1	11/19/2014 10:49:55 PM	16427
1-Methylnaphthalene	15	10		µg/L	1	11/19/2014 10:49:55 PM	16427
2-Methylnaphthalene	ND	10		µg/L	1	11/19/2014 10:49:55 PM	16427
2-Methylphenol	70	10		µg/L	1	11/19/2014 10:49:55 PM	16427
3+4-Methylphenol	46	10		µg/L	1	11/19/2014 10:49:55 PM	16427
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/19/2014 10:49:55 PM	16427
N-Nitrosodimethylamine	ND	10		µg/L	1	11/19/2014 10:49:55 PM	16427
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/19/2014 10:49:55 PM	16427
Naphthalene	31	10		µg/L	1	11/19/2014 10:49:55 PM	16427
2-Nitroaniline	ND	10		µg/L	1	11/19/2014 10:49:55 PM	16427
3-Nitroaniline	ND	10		µg/L	1	11/19/2014 10:49:55 PM	16427
4-Nitroaniline	ND	10		µg/L	1	11/19/2014 10:49:55 PM	16427
Nitrobenzene	ND	10		µg/L	1	11/19/2014 10:49:55 PM	16427
2-Nitrophenol	ND	10		µg/L	1	11/19/2014 10:49:55 PM	16427
4-Nitrophenol	ND	10		µg/L	1	11/19/2014 10:49:55 PM	16427
Pentachlorophenol	ND	20		µg/L	1	11/19/2014 10:49:55 PM	16427
Phenanthrene	ND	10		µg/L	1	11/19/2014 10:49:55 PM	16427
Phenol	20	10		µg/L	1	11/19/2014 10:49:55 PM	16427

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-11

Project: Q4 2014

Collection Date: 11/13/2014 4:42:00 PM

Lab ID: 1411590-013

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES				Analyst: DAM			
Pyrene	ND	10		µg/L	1	11/19/2014 10:49:55 PM	16427
Pyridine	ND	10		µg/L	1	11/19/2014 10:49:55 PM	16427
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/19/2014 10:49:55 PM	16427
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/19/2014 10:49:55 PM	16427
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/19/2014 10:49:55 PM	16427
Surr: 2-Fluorophenol	47.8	17.6-104		%REC	1	11/19/2014 10:49:55 PM	16427
Surr: Phenol-d5	56.2	17.7-89.9		%REC	1	11/19/2014 10:49:55 PM	16427
Surr: 2,4,6-Tribromophenol	70.0	16.3-122		%REC	1	11/19/2014 10:49:55 PM	16427
Surr: Nitrobenzene-d5	77.0	45.3-117		%REC	1	11/19/2014 10:49:55 PM	16427
Surr: 2-Fluorobiphenyl	80.6	43-113		%REC	1	11/19/2014 10:49:55 PM	16427
Surr: 4-Terphenyl-d14	63.1	47.6-122		%REC	1	11/19/2014 10:49:55 PM	16427
EPA METHOD 8260B: VOLATILES				Analyst: cadg			
Benzene	9500	200		µg/L	200	11/18/2014 5:48:44 AM	R22601
Toluene	8200	200		µg/L	200	11/18/2014 5:48:44 AM	R22601
Ethylbenzene	770	20		µg/L	20	11/18/2014 6:15:29 AM	R22601
Methyl tert-butyl ether (MTBE)	80	20		µg/L	20	11/18/2014 6:15:29 AM	R22601
1,2,4-Trimethylbenzene	400	20		µg/L	20	11/18/2014 6:15:29 AM	R22601
1,3,5-Trimethylbenzene	60	20		µg/L	20	11/18/2014 6:15:29 AM	R22601
1,2-Dichloroethane (EDC)	ND	20		µg/L	20	11/18/2014 6:15:29 AM	R22601
1,2-Dibromoethane (EDB)	ND	20		µg/L	20	11/18/2014 6:15:29 AM	R22601
Naphthalene	58	40		µg/L	20	11/18/2014 6:15:29 AM	R22601
1-Methylnaphthalene	ND	80		µg/L	20	11/18/2014 6:15:29 AM	R22601
2-Methylnaphthalene	ND	80		µg/L	20	11/18/2014 6:15:29 AM	R22601
Acetone	ND	200		µg/L	20	11/18/2014 6:15:29 AM	R22601
Bromobenzene	ND	20		µg/L	20	11/18/2014 6:15:29 AM	R22601
Bromodichloromethane	ND	20		µg/L	20	11/18/2014 6:15:29 AM	R22601
Bromoform	ND	20		µg/L	20	11/18/2014 6:15:29 AM	R22601
Bromomethane	ND	60		µg/L	20	11/18/2014 6:15:29 AM	R22601
2-Butanone	ND	200		µg/L	20	11/18/2014 6:15:29 AM	R22601
Carbon disulfide	ND	200		µg/L	20	11/18/2014 6:15:29 AM	R22601
Carbon Tetrachloride	ND	20		µg/L	20	11/18/2014 6:15:29 AM	R22601
Chlorobenzene	ND	20		µg/L	20	11/18/2014 6:15:29 AM	R22601
Chloroethane	ND	40		µg/L	20	11/18/2014 6:15:29 AM	R22601
Chloroform	ND	20		µg/L	20	11/18/2014 6:15:29 AM	R22601
Chloromethane	ND	60		µg/L	20	11/18/2014 6:15:29 AM	R22601
2-Chlorotoluene	ND	20		µg/L	20	11/18/2014 6:15:29 AM	R22601
4-Chlorotoluene	ND	20		µg/L	20	11/18/2014 6:15:29 AM	R22601
cis-1,2-DCE	ND	20		µg/L	20	11/18/2014 6:15:29 AM	R22601
cis-1,3-Dichloropropene	ND	20		µg/L	20	11/18/2014 6:15:29 AM	R22601

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-11

Project: Q4 2014

Collection Date: 11/13/2014 4:42:00 PM

Lab ID: 1411590-013

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
1,2-Dibromo-3-chloropropane	ND	40		µg/L	20	11/18/2014 6:15:29 AM	R22601
Dibromochloromethane	ND	20		µg/L	20	11/18/2014 6:15:29 AM	R22601
Dibromomethane	ND	20		µg/L	20	11/18/2014 6:15:29 AM	R22601
1,2-Dichlorobenzene	ND	20		µg/L	20	11/18/2014 6:15:29 AM	R22601
1,3-Dichlorobenzene	ND	20		µg/L	20	11/18/2014 6:15:29 AM	R22601
1,4-Dichlorobenzene	ND	20		µg/L	20	11/18/2014 6:15:29 AM	R22601
Dichlorodifluoromethane	ND	20		µg/L	20	11/18/2014 6:15:29 AM	R22601
1,1-Dichloroethane	47	20		µg/L	20	11/18/2014 6:15:29 AM	R22601
1,1-Dichloroethene	ND	20		µg/L	20	11/18/2014 6:15:29 AM	R22601
1,2-Dichloropropane	ND	20		µg/L	20	11/18/2014 6:15:29 AM	R22601
1,3-Dichloropropane	ND	20		µg/L	20	11/18/2014 6:15:29 AM	R22601
2,2-Dichloropropane	ND	40		µg/L	20	11/18/2014 6:15:29 AM	R22601
1,1-Dichloropropene	ND	20		µg/L	20	11/18/2014 6:15:29 AM	R22601
Hexachlorobutadiene	ND	20		µg/L	20	11/18/2014 6:15:29 AM	R22601
2-Hexanone	ND	200		µg/L	20	11/18/2014 6:15:29 AM	R22601
Isopropylbenzene	29	20		µg/L	20	11/18/2014 6:15:29 AM	R22601
4-Isopropyltoluene	ND	20		µg/L	20	11/18/2014 6:15:29 AM	R22601
4-Methyl-2-pentanone	ND	200		µg/L	20	11/18/2014 6:15:29 AM	R22601
Methylene Chloride	ND	60		µg/L	20	11/18/2014 6:15:29 AM	R22601
n-Butylbenzene	ND	60		µg/L	20	11/18/2014 6:15:29 AM	R22601
n-Propylbenzene	78	20		µg/L	20	11/18/2014 6:15:29 AM	R22601
sec-Butylbenzene	ND	20		µg/L	20	11/18/2014 6:15:29 AM	R22601
Styrene	ND	20		µg/L	20	11/18/2014 6:15:29 AM	R22601
tert-Butylbenzene	ND	20		µg/L	20	11/18/2014 6:15:29 AM	R22601
1,1,1,2-Tetrachloroethane	ND	20		µg/L	20	11/18/2014 6:15:29 AM	R22601
1,1,2,2-Tetrachloroethane	ND	40		µg/L	20	11/18/2014 6:15:29 AM	R22601
Tetrachloroethene (PCE)	ND	20		µg/L	20	11/18/2014 6:15:29 AM	R22601
trans-1,2-DCE	ND	20		µg/L	20	11/18/2014 6:15:29 AM	R22601
trans-1,3-Dichloropropene	ND	20		µg/L	20	11/18/2014 6:15:29 AM	R22601
1,2,3-Trichlorobenzene	ND	20		µg/L	20	11/18/2014 6:15:29 AM	R22601
1,2,4-Trichlorobenzene	ND	20		µg/L	20	11/18/2014 6:15:29 AM	R22601
1,1,1-Trichloroethane	ND	20		µg/L	20	11/18/2014 6:15:29 AM	R22601
1,1,2-Trichloroethane	ND	20		µg/L	20	11/18/2014 6:15:29 AM	R22601
Trichloroethene (TCE)	ND	20		µg/L	20	11/18/2014 6:15:29 AM	R22601
Trichlorofluoromethane	ND	20		µg/L	20	11/18/2014 6:15:29 AM	R22601
1,2,3-Trichloropropane	ND	40		µg/L	20	11/18/2014 6:15:29 AM	R22601
Vinyl chloride	54	20		µg/L	20	11/18/2014 6:15:29 AM	R22601
Xylenes, Total	2300	30		µg/L	20	11/18/2014 6:15:29 AM	R22601
Surr: 1,2-Dichloroethane-d4	107	70-130		%REC	20	11/18/2014 6:15:29 AM	R22601

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-11

Project: Q4 2014

Collection Date: 11/13/2014 4:42:00 PM

Lab ID: 1411590-013

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: cadg	
Surr: 4-Bromofluorobenzene	97.6	70-130		%REC	20	11/18/2014 6:15:29 AM	R22601
Surr: Dibromofluoromethane	92.2	70-130		%REC	20	11/18/2014 6:15:29 AM	R22601
Surr: Toluene-d8	102	70-130		%REC	20	11/18/2014 6:15:29 AM	R22601

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	Page 66 of 98
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit	
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EB-111414

Project: Q4 2014

Collection Date: 11/14/2014 3:45:00 PM

Lab ID: 1411590-014

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Benzene	ND	1.0		µg/L	1	11/18/2014 2:03:18 PM	R22619
Toluene	ND	1.0		µg/L	1	11/18/2014 2:03:18 PM	R22619
Ethylbenzene	ND	1.0		µg/L	1	11/18/2014 2:03:18 PM	R22619
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	11/18/2014 2:03:18 PM	R22619
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/18/2014 2:03:18 PM	R22619
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/18/2014 2:03:18 PM	R22619
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/18/2014 2:03:18 PM	R22619
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/18/2014 2:03:18 PM	R22619
Naphthalene	ND	2.0		µg/L	1	11/18/2014 2:03:18 PM	R22619
1-Methylnaphthalene	ND	4.0		µg/L	1	11/18/2014 2:03:18 PM	R22619
2-Methylnaphthalene	ND	4.0		µg/L	1	11/18/2014 2:03:18 PM	R22619
Acetone	ND	10		µg/L	1	11/18/2014 2:03:18 PM	R22619
Bromobenzene	ND	1.0		µg/L	1	11/18/2014 2:03:18 PM	R22619
Bromodichloromethane	ND	1.0		µg/L	1	11/18/2014 2:03:18 PM	R22619
Bromoform	ND	1.0		µg/L	1	11/18/2014 2:03:18 PM	R22619
Bromomethane	ND	3.0		µg/L	1	11/18/2014 2:03:18 PM	R22619
2-Butanone	ND	10		µg/L	1	11/18/2014 2:03:18 PM	R22619
Carbon disulfide	ND	10		µg/L	1	11/18/2014 2:03:18 PM	R22619
Carbon Tetrachloride	ND	1.0		µg/L	1	11/18/2014 2:03:18 PM	R22619
Chlorobenzene	ND	1.0		µg/L	1	11/18/2014 2:03:18 PM	R22619
Chloroethane	ND	2.0		µg/L	1	11/18/2014 2:03:18 PM	R22619
Chloroform	ND	1.0		µg/L	1	11/18/2014 2:03:18 PM	R22619
Chloromethane	ND	3.0		µg/L	1	11/18/2014 2:03:18 PM	R22619
2-Chlorotoluene	ND	1.0		µg/L	1	11/18/2014 2:03:18 PM	R22619
4-Chlorotoluene	ND	1.0		µg/L	1	11/18/2014 2:03:18 PM	R22619
cis-1,2-DCE	ND	1.0		µg/L	1	11/18/2014 2:03:18 PM	R22619
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/18/2014 2:03:18 PM	R22619
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/18/2014 2:03:18 PM	R22619
Dibromochloromethane	ND	1.0		µg/L	1	11/18/2014 2:03:18 PM	R22619
Dibromomethane	ND	1.0		µg/L	1	11/18/2014 2:03:18 PM	R22619
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/18/2014 2:03:18 PM	R22619
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/18/2014 2:03:18 PM	R22619
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/18/2014 2:03:18 PM	R22619
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/18/2014 2:03:18 PM	R22619
1,1-Dichloroethane	ND	1.0		µg/L	1	11/18/2014 2:03:18 PM	R22619
1,1-Dichloroethene	ND	1.0		µg/L	1	11/18/2014 2:03:18 PM	R22619
1,2-Dichloropropane	ND	1.0		µg/L	1	11/18/2014 2:03:18 PM	R22619
1,3-Dichloropropane	ND	1.0		µg/L	1	11/18/2014 2:03:18 PM	R22619
2,2-Dichloropropane	ND	2.0		µg/L	1	11/18/2014 2:03:18 PM	R22619

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: EB-111414

Project: Q4 2014

Collection Date: 11/14/2014 3:45:00 PM

Lab ID: 1411590-014

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
1,1-Dichloropropene	ND	1.0		µg/L	1	11/18/2014 2:03:18 PM	R22619
Hexachlorobutadiene	ND	1.0		µg/L	1	11/18/2014 2:03:18 PM	R22619
2-Hexanone	ND	10		µg/L	1	11/18/2014 2:03:18 PM	R22619
Isopropylbenzene	ND	1.0		µg/L	1	11/18/2014 2:03:18 PM	R22619
4-Isopropyltoluene	ND	1.0		µg/L	1	11/18/2014 2:03:18 PM	R22619
4-Methyl-2-pentanone	ND	10		µg/L	1	11/18/2014 2:03:18 PM	R22619
Methylene Chloride	ND	3.0		µg/L	1	11/18/2014 2:03:18 PM	R22619
n-Butylbenzene	ND	3.0		µg/L	1	11/18/2014 2:03:18 PM	R22619
n-Propylbenzene	ND	1.0		µg/L	1	11/18/2014 2:03:18 PM	R22619
sec-Butylbenzene	ND	1.0		µg/L	1	11/18/2014 2:03:18 PM	R22619
Styrene	ND	1.0		µg/L	1	11/18/2014 2:03:18 PM	R22619
tert-Butylbenzene	ND	1.0		µg/L	1	11/18/2014 2:03:18 PM	R22619
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/18/2014 2:03:18 PM	R22619
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/18/2014 2:03:18 PM	R22619
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/18/2014 2:03:18 PM	R22619
trans-1,2-DCE	ND	1.0		µg/L	1	11/18/2014 2:03:18 PM	R22619
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/18/2014 2:03:18 PM	R22619
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/18/2014 2:03:18 PM	R22619
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/18/2014 2:03:18 PM	R22619
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/18/2014 2:03:18 PM	R22619
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/18/2014 2:03:18 PM	R22619
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/18/2014 2:03:18 PM	R22619
Trichlorofluoromethane	ND	1.0		µg/L	1	11/18/2014 2:03:18 PM	R22619
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/18/2014 2:03:18 PM	R22619
Vinyl chloride	ND	1.0		µg/L	1	11/18/2014 2:03:18 PM	R22619
Xylenes, Total	ND	1.5		µg/L	1	11/18/2014 2:03:18 PM	R22619
Surr: 1,2-Dichloroethane-d4	106	70-130		%REC	1	11/18/2014 2:03:18 PM	R22619
Surr: 4-Bromofluorobenzene	136	70-130	S	%REC	1	11/18/2014 2:03:18 PM	R22619
Surr: Dibromofluoromethane	98.0	70-130		%REC	1	11/18/2014 2:03:18 PM	R22619
Surr: Toluene-d8	102	70-130		%REC	1	11/18/2014 2:03:18 PM	R22619

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FB-111414

Project: Q4 2014

Collection Date: 11/14/2014 3:50:00 PM

Lab ID: 1411590-015

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Benzene	ND	1.0		µg/L	1	11/18/2014 2:30:02 PM	R22619
Toluene	ND	1.0		µg/L	1	11/18/2014 2:30:02 PM	R22619
Ethylbenzene	ND	1.0		µg/L	1	11/18/2014 2:30:02 PM	R22619
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	11/18/2014 2:30:02 PM	R22619
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/18/2014 2:30:02 PM	R22619
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/18/2014 2:30:02 PM	R22619
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/18/2014 2:30:02 PM	R22619
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/18/2014 2:30:02 PM	R22619
Naphthalene	ND	2.0		µg/L	1	11/18/2014 2:30:02 PM	R22619
1-Methylnaphthalene	ND	4.0		µg/L	1	11/18/2014 2:30:02 PM	R22619
2-Methylnaphthalene	ND	4.0		µg/L	1	11/18/2014 2:30:02 PM	R22619
Acetone	ND	10		µg/L	1	11/18/2014 2:30:02 PM	R22619
Bromobenzene	ND	1.0		µg/L	1	11/18/2014 2:30:02 PM	R22619
Bromodichloromethane	ND	1.0		µg/L	1	11/18/2014 2:30:02 PM	R22619
Bromoform	ND	1.0		µg/L	1	11/18/2014 2:30:02 PM	R22619
Bromomethane	ND	3.0		µg/L	1	11/18/2014 2:30:02 PM	R22619
2-Butanone	ND	10		µg/L	1	11/18/2014 2:30:02 PM	R22619
Carbon disulfide	ND	10		µg/L	1	11/18/2014 2:30:02 PM	R22619
Carbon Tetrachloride	ND	1.0		µg/L	1	11/18/2014 2:30:02 PM	R22619
Chlorobenzene	ND	1.0		µg/L	1	11/18/2014 2:30:02 PM	R22619
Chloroethane	ND	2.0		µg/L	1	11/18/2014 2:30:02 PM	R22619
Chloroform	ND	1.0		µg/L	1	11/18/2014 2:30:02 PM	R22619
Chloromethane	ND	3.0		µg/L	1	11/18/2014 2:30:02 PM	R22619
2-Chlorotoluene	ND	1.0		µg/L	1	11/18/2014 2:30:02 PM	R22619
4-Chlorotoluene	ND	1.0		µg/L	1	11/18/2014 2:30:02 PM	R22619
cis-1,2-DCE	ND	1.0		µg/L	1	11/18/2014 2:30:02 PM	R22619
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/18/2014 2:30:02 PM	R22619
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/18/2014 2:30:02 PM	R22619
Dibromochloromethane	ND	1.0		µg/L	1	11/18/2014 2:30:02 PM	R22619
Dibromomethane	ND	1.0		µg/L	1	11/18/2014 2:30:02 PM	R22619
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/18/2014 2:30:02 PM	R22619
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/18/2014 2:30:02 PM	R22619
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/18/2014 2:30:02 PM	R22619
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/18/2014 2:30:02 PM	R22619
1,1-Dichloroethane	ND	1.0		µg/L	1	11/18/2014 2:30:02 PM	R22619
1,1-Dichloroethene	ND	1.0		µg/L	1	11/18/2014 2:30:02 PM	R22619
1,2-Dichloropropane	ND	1.0		µg/L	1	11/18/2014 2:30:02 PM	R22619
1,3-Dichloropropane	ND	1.0		µg/L	1	11/18/2014 2:30:02 PM	R22619
2,2-Dichloropropane	ND	2.0		µg/L	1	11/18/2014 2:30:02 PM	R22619

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: FB-111414

Project: Q4 2014

Collection Date: 11/14/2014 3:50:00 PM

Lab ID: 1411590-015

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
1,1-Dichloropropene	ND	1.0		µg/L	1	11/18/2014 2:30:02 PM	R22619
Hexachlorobutadiene	ND	1.0		µg/L	1	11/18/2014 2:30:02 PM	R22619
2-Hexanone	ND	10		µg/L	1	11/18/2014 2:30:02 PM	R22619
Isopropylbenzene	ND	1.0		µg/L	1	11/18/2014 2:30:02 PM	R22619
4-Isopropyltoluene	ND	1.0		µg/L	1	11/18/2014 2:30:02 PM	R22619
4-Methyl-2-pentanone	ND	10		µg/L	1	11/18/2014 2:30:02 PM	R22619
Methylene Chloride	ND	3.0		µg/L	1	11/18/2014 2:30:02 PM	R22619
n-Butylbenzene	ND	3.0		µg/L	1	11/18/2014 2:30:02 PM	R22619
n-Propylbenzene	ND	1.0		µg/L	1	11/18/2014 2:30:02 PM	R22619
sec-Butylbenzene	ND	1.0		µg/L	1	11/18/2014 2:30:02 PM	R22619
Styrene	ND	1.0		µg/L	1	11/18/2014 2:30:02 PM	R22619
tert-Butylbenzene	ND	1.0		µg/L	1	11/18/2014 2:30:02 PM	R22619
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/18/2014 2:30:02 PM	R22619
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/18/2014 2:30:02 PM	R22619
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/18/2014 2:30:02 PM	R22619
trans-1,2-DCE	ND	1.0		µg/L	1	11/18/2014 2:30:02 PM	R22619
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/18/2014 2:30:02 PM	R22619
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/18/2014 2:30:02 PM	R22619
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/18/2014 2:30:02 PM	R22619
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/18/2014 2:30:02 PM	R22619
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/18/2014 2:30:02 PM	R22619
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/18/2014 2:30:02 PM	R22619
Trichlorofluoromethane	ND	1.0		µg/L	1	11/18/2014 2:30:02 PM	R22619
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/18/2014 2:30:02 PM	R22619
Vinyl chloride	ND	1.0		µg/L	1	11/18/2014 2:30:02 PM	R22619
Xylenes, Total	ND	1.5		µg/L	1	11/18/2014 2:30:02 PM	R22619
Surr: 1,2-Dichloroethane-d4	98.8	70-130		%REC	1	11/18/2014 2:30:02 PM	R22619
Surr: 4-Bromofluorobenzene	138	70-130	S	%REC	1	11/18/2014 2:30:02 PM	R22619
Surr: Dibromofluoromethane	89.7	70-130		%REC	1	11/18/2014 2:30:02 PM	R22619
Surr: Toluene-d8	101	70-130		%REC	1	11/18/2014 2:30:02 PM	R22619

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TB-502

Project: Q4 2014

Collection Date: 11/14/2014

Lab ID: 1411590-016

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
Benzene	ND	1.0		µg/L	1	11/18/2014 7:35:41 AM	R22601
Toluene	ND	1.0		µg/L	1	11/18/2014 7:35:41 AM	R22601
Ethylbenzene	ND	1.0		µg/L	1	11/18/2014 7:35:41 AM	R22601
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	11/18/2014 7:35:41 AM	R22601
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/18/2014 7:35:41 AM	R22601
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/18/2014 7:35:41 AM	R22601
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/18/2014 7:35:41 AM	R22601
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/18/2014 7:35:41 AM	R22601
Naphthalene	ND	2.0		µg/L	1	11/18/2014 7:35:41 AM	R22601
1-Methylnaphthalene	ND	4.0		µg/L	1	11/18/2014 7:35:41 AM	R22601
2-Methylnaphthalene	ND	4.0		µg/L	1	11/18/2014 7:35:41 AM	R22601
Acetone	ND	10		µg/L	1	11/18/2014 7:35:41 AM	R22601
Bromobenzene	ND	1.0		µg/L	1	11/18/2014 7:35:41 AM	R22601
Bromodichloromethane	ND	1.0		µg/L	1	11/18/2014 7:35:41 AM	R22601
Bromoform	ND	1.0		µg/L	1	11/18/2014 7:35:41 AM	R22601
Bromomethane	ND	3.0		µg/L	1	11/18/2014 7:35:41 AM	R22601
2-Butanone	ND	10		µg/L	1	11/18/2014 7:35:41 AM	R22601
Carbon disulfide	ND	10		µg/L	1	11/18/2014 7:35:41 AM	R22601
Carbon Tetrachloride	ND	1.0		µg/L	1	11/18/2014 7:35:41 AM	R22601
Chlorobenzene	ND	1.0		µg/L	1	11/18/2014 7:35:41 AM	R22601
Chloroethane	ND	2.0		µg/L	1	11/18/2014 7:35:41 AM	R22601
Chloroform	ND	1.0		µg/L	1	11/18/2014 7:35:41 AM	R22601
Chloromethane	ND	3.0		µg/L	1	11/18/2014 7:35:41 AM	R22601
2-Chlorotoluene	ND	1.0		µg/L	1	11/18/2014 7:35:41 AM	R22601
4-Chlorotoluene	ND	1.0		µg/L	1	11/18/2014 7:35:41 AM	R22601
cis-1,2-DCE	ND	1.0		µg/L	1	11/18/2014 7:35:41 AM	R22601
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/18/2014 7:35:41 AM	R22601
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/18/2014 7:35:41 AM	R22601
Dibromochloromethane	ND	1.0		µg/L	1	11/18/2014 7:35:41 AM	R22601
Dibromomethane	ND	1.0		µg/L	1	11/18/2014 7:35:41 AM	R22601
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/18/2014 7:35:41 AM	R22601
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/18/2014 7:35:41 AM	R22601
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/18/2014 7:35:41 AM	R22601
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/18/2014 7:35:41 AM	R22601
1,1-Dichloroethane	ND	1.0		µg/L	1	11/18/2014 7:35:41 AM	R22601
1,1-Dichloroethene	ND	1.0		µg/L	1	11/18/2014 7:35:41 AM	R22601
1,2-Dichloropropane	ND	1.0		µg/L	1	11/18/2014 7:35:41 AM	R22601
1,3-Dichloropropane	ND	1.0		µg/L	1	11/18/2014 7:35:41 AM	R22601
2,2-Dichloropropane	ND	2.0		µg/L	1	11/18/2014 7:35:41 AM	R22601

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1411590

Date Reported: 12/11/2014

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TB-502

Project: Q4 2014

Collection Date: 11/14/2014

Lab ID: 1411590-016

Matrix: AQUEOUS

Received Date: 11/15/2014 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: cadg
1,1-Dichloropropene	ND	1.0		µg/L	1	11/18/2014 7:35:41 AM	R22601
Hexachlorobutadiene	ND	1.0		µg/L	1	11/18/2014 7:35:41 AM	R22601
2-Hexanone	ND	10		µg/L	1	11/18/2014 7:35:41 AM	R22601
Isopropylbenzene	ND	1.0		µg/L	1	11/18/2014 7:35:41 AM	R22601
4-Isopropyltoluene	ND	1.0		µg/L	1	11/18/2014 7:35:41 AM	R22601
4-Methyl-2-pentanone	ND	10		µg/L	1	11/18/2014 7:35:41 AM	R22601
Methylene Chloride	ND	3.0		µg/L	1	11/18/2014 7:35:41 AM	R22601
n-Butylbenzene	ND	3.0		µg/L	1	11/18/2014 7:35:41 AM	R22601
n-Propylbenzene	ND	1.0		µg/L	1	11/18/2014 7:35:41 AM	R22601
sec-Butylbenzene	ND	1.0		µg/L	1	11/18/2014 7:35:41 AM	R22601
Styrene	ND	1.0		µg/L	1	11/18/2014 7:35:41 AM	R22601
tert-Butylbenzene	ND	1.0		µg/L	1	11/18/2014 7:35:41 AM	R22601
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/18/2014 7:35:41 AM	R22601
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/18/2014 7:35:41 AM	R22601
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/18/2014 7:35:41 AM	R22601
trans-1,2-DCE	ND	1.0		µg/L	1	11/18/2014 7:35:41 AM	R22601
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/18/2014 7:35:41 AM	R22601
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/18/2014 7:35:41 AM	R22601
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/18/2014 7:35:41 AM	R22601
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/18/2014 7:35:41 AM	R22601
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/18/2014 7:35:41 AM	R22601
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/18/2014 7:35:41 AM	R22601
Trichlorofluoromethane	ND	1.0		µg/L	1	11/18/2014 7:35:41 AM	R22601
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/18/2014 7:35:41 AM	R22601
Vinyl chloride	ND	1.0		µg/L	1	11/18/2014 7:35:41 AM	R22601
Xylenes, Total	ND	1.5		µg/L	1	11/18/2014 7:35:41 AM	R22601
Surr: 1,2-Dichloroethane-d4	98.2	70-130		%REC	1	11/18/2014 7:35:41 AM	R22601
Surr: 4-Bromofluorobenzene	135	70-130	S	%REC	1	11/18/2014 7:35:41 AM	R22601
Surr: Dibromofluoromethane	89.4	70-130		%REC	1	11/18/2014 7:35:41 AM	R22601
Surr: Toluene-d8	101	70-130		%REC	1	11/18/2014 7:35:41 AM	R22601

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411590

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	MB		SampType:	MBLK		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	PBW		Batch ID:	R22755		RunNo:	22755			
Prep Date:			Analysis Date:	11/24/2014		SeqNo:	671448		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID	LCS		SampType:	LCS		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	LCSW		Batch ID:	R22755		RunNo:	22755			
Prep Date:			Analysis Date:	11/24/2014		SeqNo:	671449		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	96.6	85	115			
Cadmium	0.49	0.0020	0.5000	0	97.8	85	115			
Calcium	50	1.0	50.00	0	100	85	115			
Chromium	0.48	0.0060	0.5000	0	96.1	85	115			
Copper	0.49	0.0060	0.5000	0	97.6	85	115			
Iron	0.49	0.020	0.5000	0	97.8	85	115			
Magnesium	50	1.0	50.00	0	101	85	115			
Manganese	0.47	0.0020	0.5000	0	93.5	85	115			
Potassium	49	1.0	50.00	0	97.3	85	115			
Silver	0.10	0.0050	0.1000	0	104	85	115			
Sodium	50	1.0	50.00	0	99.2	85	115			
Zinc	0.48	0.010	0.5000	0	96.3	85	115			

Sample ID	MB		SampType:	MBLK		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	PBW		Batch ID:	R22813		RunNo:	22813			
Prep Date:			Analysis Date:	11/25/2014		SeqNo:	673337		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Calcium	ND	1.0								
Iron	ND	0.020								
Manganese	ND	0.0020								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411590

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID: R22813			RunNo: 22813					
Prep Date:		Analysis Date: 11/25/2014			SeqNo: 673337		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	ND	1.0								

Sample ID	LCS		SampType: LCS			TestCode: EPA Method 200.7: Dissolved Metals				
Client ID:	LCSW		Batch ID: R22813			RunNo: 22813				
Prep Date:	Analysis Date: 11/25/2014			SeqNo: 673338		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	100	85	115			
Calcium	51	1.0	50.00	0	103	85	115			
Iron	0.50	0.020	0.5000	0	100	85	115			
Manganese	0.51	0.0020	0.5000	0	101	85	115			
Sodium	51	1.0	50.00	0	101	85	115			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411590

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	MB-16487		SampType:	MBLK		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	PBW		Batch ID:	16487		RunNo:	22687			
Prep Date:	11/20/2014		Analysis Date:	11/20/2014		SeqNo:	669092		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	LCS-16487		SampType:	LCS		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	LCSW		Batch ID:	16487		RunNo:	22687			
Prep Date:	11/20/2014		Analysis Date:	11/20/2014		SeqNo:	669093		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.0	85	115			
Cadmium	0.50	0.0020	0.5000	0	99.0	85	115			
Chromium	0.48	0.0060	0.5000	0	96.8	85	115			
Copper	0.49	0.0060	0.5000	0	98.9	85	115			
Iron	0.51	0.020	0.5000	0	101	85	115			
Manganese	0.48	0.0020	0.5000	0	95.7	85	115			
Silver	0.11	0.0050	0.1000	0	108	85	115			
Zinc	0.48	0.010	0.5000	0	96.7	85	115			

Sample ID	1411590-002FMS		SampType:	MS		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	MKTF-09		Batch ID:	16487		RunNo:	22687			
Prep Date:	11/20/2014		Analysis Date:	11/20/2014		SeqNo:	669178		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.88	0.0020	0.5000	0.3881	98.2	70	130			
Cadmium	0.48	0.0020	0.5000	0	95.9	70	130			
Chromium	0.47	0.0060	0.5000	0	94.5	70	130			
Copper	0.52	0.0060	0.5000	0	104	70	130			
Silver	0.11	0.0050	0.1000	0	107	70	130			
Zinc	0.47	0.010	0.5000	0.01261	90.7	70	130			

Sample ID	1411590-002FMSD		SampType:	MSD		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	MKTF-09		Batch ID:	16487		RunNo:	22687			
Prep Date:	11/20/2014		Analysis Date:	11/20/2014		SeqNo:	669179		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411590

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	1411590-002FMSD		SampType: MSD		TestCode: EPA Method 200.7: Total Metals					
Client ID:	MKTF-09		Batch ID: 16487		RunNo: 22687					
Prep Date:	11/20/2014		Analysis Date: 11/20/2014		SeqNo: 669179		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.89	0.0020	0.5000	0.3881	100	70	130	1.16	20	
Cadmium	0.48	0.0020	0.5000	0	95.8	70	130	0.0104	20	
Chromium	0.47	0.0060	0.5000	0	94.0	70	130	0.473	20	
Copper	0.53	0.0060	0.5000	0	105	70	130	0.645	20	
Silver	0.11	0.0050	0.1000	0	108	70	130	0.419	20	
Zinc	0.47	0.010	0.5000	0.01261	90.6	70	130	0.0730	20	

Sample ID	1411590-002FMS		SampType: MS			TestCode: EPA Method 200.7: Total Metals				
Client ID:	MKTF-09		Batch ID: 16487			RunNo: 22732				
Prep Date:	11/20/2014		Analysis Date: 11/21/2014			SeqNo: 670616		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Manganese	3.1	0.010	0.5000	2.703	87.5	70	130			

Sample ID	1411590-002FMSD		SampType: MSD		TestCode: EPA Method 200.7: Total Metals					
Client ID:	MKTF-09		Batch ID: 16487		RunNo: 22732					
Prep Date:	11/20/2014		Analysis Date: 11/21/2014		SeqNo: 670617		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Manganese	3.2	0.010	0.5000	2.703	96.1	70	130	1.36	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411590

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R22871		RunNo: 22871					
Prep Date:			Analysis Date: 12/1/2014		SeqNo: 675136		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	97.7	85	115			
Selenium	0.024	0.0010	0.02500	0	97.6	85	115			

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R22871		RunNo: 22871					
Prep Date:			Analysis Date: 12/1/2014		SeqNo: 675137		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.023	0.0010	0.02500	0	92.9	85	115			
Uranium	0.023	0.0010	0.02500	0	91.5	85	115			

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R22871		RunNo: 22871					
Prep Date:			Analysis Date: 12/1/2014		SeqNo: 675138		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.023	0.0010	0.02500	0	90.2	85	115			
Lead	0.023	0.0010	0.02500	0	93.8	85	115			
Selenium	0.022	0.0010	0.02500	0	88.9	85	115			
Uranium	0.023	0.0010	0.02500	0	92.0	85	115			

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R22871			RunNo: 22871					
Prep Date:		Analysis Date: 12/1/2014			SeqNo: 675139		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R22871			RunNo: 22871					
Prep Date:		Analysis Date: 12/1/2014			SeqNo: 675140		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.0010								
Uranium	ND	0.0010								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411590

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	MB		SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals				
Client ID:	PBW		Batch ID: R22871			RunNo: 22871				
Prep Date:			Analysis Date: 12/1/2014			SeqNo: 675141		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID	LCS		SampType: LCS			TestCode: EPA 200.8: Dissolved Metals				
Client ID:	LCSW		Batch ID: R22885			RunNo: 22885				
Prep Date:			Analysis Date: 12/2/2014			SeqNo: 675799		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	98.7	85	115			
Lead	0.025	0.0010	0.02500	0	101	85	115			
Selenium	0.024	0.0010	0.02500	0	94.3	85	115			
Uranium	0.026	0.0010	0.02500	0	103	85	115			

Sample ID	LCS		SampType: LCS			TestCode: EPA 200.8: Dissolved Metals				
Client ID:	LCSW		Batch ID: R22885			RunNo: 22885				
Prep Date:			Analysis Date: 12/2/2014			SeqNo: 675800		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	100	85	115			
Lead	0.025	0.0010	0.02500	0	98.4	85	115			
Selenium	0.024	0.0010	0.02500	0	95.6	85	115			
Uranium	0.026	0.0010	0.02500	0	102	85	115			

Sample ID	MB		SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals				
Client ID:	PBW		Batch ID: R22885			RunNo: 22885				
Prep Date:			Analysis Date: 12/2/2014			SeqNo: 675801		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID	MB		SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals				
Client ID:	PBW		Batch ID: R22885			RunNo: 22885				
Prep Date:			Analysis Date: 12/2/2014			SeqNo: 675802		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411590

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R22885			RunNo: 22885					
Prep Date:		Analysis Date: 12/2/2014			SeqNo: 675802		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R22933		RunNo: 22933					
Prep Date:			Analysis Date: 12/4/2014		SeqNo: 677289		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	96.4	85	115			
Lead	0.024	0.0010	0.02500	0	97.8	85	115			
Selenium	0.024	0.0010	0.02500	0	94.2	85	115			
Uranium	0.025	0.0010	0.02500	0	99.9	85	115			

Sample ID	LCS		SampType: LCS		TestCode: EPA 200.8: Dissolved Metals					
Client ID:	LCSW		Batch ID: R22933		RunNo: 22933					
Prep Date:			Analysis Date: 12/4/2014		SeqNo: 677290		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.5	85	115			
Lead	0.024	0.0010	0.02500	0	96.7	85	115			
Selenium	0.024	0.0010	0.02500	0	95.5	85	115			
Uranium	0.023	0.0010	0.02500	0	92.2	85	115			

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R22933			RunNo: 22933					
Prep Date:		Analysis Date: 12/4/2014			SeqNo: 677291		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID	MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID: R22933			RunNo: 22933					
Prep Date:		Analysis Date: 12/4/2014			SeqNo: 677292		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411590

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	R22933	RunNo:	22933					
Prep Date:		Analysis Date:	12/4/2014	SeqNo:	677292	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411590

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	LLLCS-16487		SampType: LCSLL		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	BatchQC		Batch ID: 16487		RunNo: 22842					
Prep Date:	11/20/2014		Analysis Date: 11/26/2014		SeqNo: 674131		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0	103	85	115			
Lead	0.026	0.0010	0.02500	0	105	85	115			
Selenium	0.025	0.0010	0.02500	0	101	85	115			
Uranium	0.026	0.0010	0.02500	0	104	85	115			

Sample ID	MB-16487		SampType: MBLK		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	PBW		Batch ID: 16487		RunNo: 22842					
Prep Date:	11/20/2014		Analysis Date: 11/26/2014		SeqNo: 674136		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID	1411590-008FMSLL		SampType: MSLK		TestCode: 200.8 ICPMS Metals:Total					
Client ID:	MKTF-28		Batch ID: 16487		RunNo: 22843					
Prep Date:	11/20/2014		Analysis Date: 11/26/2014		SeqNo: 674373		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.031	0.0050	0.02500	0.005428	102	70	130			
Lead	0.025	0.0050	0.02500	0.002370	92.4	70	130			
Selenium	0.040	0.0050	0.02500	0.01444	102	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411590

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	MB-16593		SampType: MBLK		TestCode: EPA Method 245.1: Mercury					
Client ID:	PBW		Batch ID: 16593		RunNo: 22825					
Prep Date:	11/26/2014		Analysis Date: 11/26/2014		SeqNo: 673696		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercurv	ND	0.00020								

Sample ID	LCS-16593		SampType: LCS		TestCode: EPA Method 245.1: Mercury					
Client ID:	LCSW		Batch ID: 16593		RunNo: 22825					
Prep Date:	11/26/2014		Analysis Date: 11/26/2014		SeqNo: 673697		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0051	0.00020	0.005000	0	102	80	120			

Sample ID	1411590-006FMS		SampType: MS		TestCode: EPA Method 245.1: Mercury					
Client ID:	MKTF-26		Batch ID: 16593		RunNo: 22825					
Prep Date:	11/26/2014		Analysis Date: 11/26/2014		SeqNo: 673702		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0039	0.00020	0.005000	0	78.5	75	125			

Sample ID	1411590-006FMSD			SampType:	MSD		TestCode:	EPA Method 245.1: Mercury				
Client ID:	MKTF-26			Batch ID:	16593		RunNo:	22825				
Prep Date:	11/26/2014			Analysis Date:	11/26/2014		SeqNo:	673703			Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Mercury	0.0038	0.00020	0.005000	0	75.4	75	125	4.12	20			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411590

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID MB	SampType: MBLK		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R22603		RunNo: 22603							
Prep Date:	Analysis Date: 11/17/2014		SeqNo: 666596		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID LCS	SampType: LCS		TestCode: EPA Method 300.0: Anions							
Client ID: LCSW	Batch ID: R22603		RunNo: 22603							
Prep Date:	Analysis Date: 11/17/2014		SeqNo: 666597		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.48	0.10	0.5000	0	96.7	90	110			
Chloride	4.8	0.50	5.000	0	95.8	90	110			
Bromide	2.5	0.10	2.500	0	99.7	90	110			
Phosphorus, Orthophosphate (As P	4.9	0.50	5.000	0	97.5	90	110			
Sulfate	9.6	0.50	10.00	0	96.1	90	110			

Sample ID 1411590-002EMS	SampType: MS		TestCode: EPA Method 300.0: Anions							
Client ID: MKTF-09	Batch ID: R22603		RunNo: 22603							
Prep Date:	Analysis Date: 11/17/2014		SeqNo: 666609		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	4.9	1.0	5.000	0.2260	92.8	66.1	113			
Bromide	25	1.0	25.00	1.221	96.1	82.5	103			
Sulfate	240	5.0	100.0	139.3	96.5	88.3	114			

Sample ID 1411590-002EMSD	SampType: MSD		TestCode: EPA Method 300.0: Anions							
Client ID: MKTF-09	Batch ID: R22603		RunNo: 22603							
Prep Date:	Analysis Date: 11/17/2014		SeqNo: 666610		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	4.9	1.0	5.000	0.2260	93.2	66.1	113	0.390	20	
Bromide	25	1.0	25.00	1.221	97.0	82.5	103	0.927	20	
Sulfate	240	5.0	100.0	139.3	98.6	88.3	114	0.889	20	

Sample ID MB	SampType: MBLK		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R22603		RunNo: 22603							
Prep Date:	Analysis Date: 11/18/2014		SeqNo: 666650		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

- | | |
|---|--|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits | ND Not Detected at the Reporting Limit |
| O RSD is greater than RSDlimit | P Sample pH greater than 2. |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S Spike Recovery outside accepted recovery limits | |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411590

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R22603	RunNo:	22603					
Prep Date:		Analysis Date:	11/18/2014	SeqNo:	666650	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R22603	RunNo:	22603					
Prep Date:		Analysis Date:	11/18/2014	SeqNo:	666651	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.49	0.10	0.5000	0	97.4	90	110			
Chloride	4.9	0.50	5.000	0	97.5	90	110			
Bromide	2.5	0.10	2.500	0	102	90	110			
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	99.7	90	110			
Sulfate	9.8	0.50	10.00	0	98.2	90	110			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R22848	RunNo:	22848					
Prep Date:		Analysis Date:	11/26/2014	SeqNo:	674415	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R22848	RunNo:	22848					
Prep Date:		Analysis Date:	11/26/2014	SeqNo:	674416	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.6	0.20	3.500	0	104	90	110			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R22875	RunNo:	22875					
Prep Date:		Analysis Date:	12/1/2014	SeqNo:	675391	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411590

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	LCS	SampType: LCS			TestCode: EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID: R22875			RunNo: 22875					
Prep Date:		Analysis Date: 12/1/2014			SeqNo: 675392		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.8	0.50	5.000	0	97.0	90	110			
Nitrate+Nitrite as N	3.5	0.20	3.500	0	101	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411590

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	MB-16411		SampType: MBLK		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	PBW		Batch ID: 16411		RunNo: 22596					
Prep Date:	11/17/2014		Analysis Date: 11/17/2014		SeqNo: 666120		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.2		1.000		122	59	141			

Sample ID	LCS-16411		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	LCSW		Batch ID: 16411		RunNo: 22596					
Prep Date:	11/17/2014		Analysis Date: 11/17/2014		SeqNo: 666121		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	6.3	1.0	5.000	0	126	69.7	142			
Surr: DNOP	0.72		0.5000		144	59	141			S

Sample ID	MB-16415		SampType: MBLK		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	PBW		Batch ID: 16415		RunNo: 22594					
Prep Date:	11/17/2014		Analysis Date: 11/18/2014		SeqNo: 666747		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.0		1.000		101	59	141			

Sample ID	LCS-16415		SampType: LCS		TestCode: EPA Method 8015D: Diesel Range					
Client ID:	LCSW		Batch ID: 16415		RunNo: 22594					
Prep Date:	11/17/2014		Analysis Date: 11/18/2014		SeqNo: 666748		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.7	1.0	5.000	0	93.6	69.7	142			
Surr: DNOP	0.60		0.5000		119	59	141			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411590

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBW	Batch ID:	R22597	RunNo:	22597					
Prep Date:		Analysis Date:	11/17/2014	SeqNo:	666073	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	17		20.00		85.8	80	120			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSW	Batch ID:	R22597	RunNo:	22597					
Prep Date:		Analysis Date:	11/17/2014	SeqNo:	666074	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.47	0.050	0.5000	0	94.3	80	120			
Surr: BFB	19		20.00		93.0	80	120			

Sample ID	1411590-001BMS	SampType:	MS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	MKTF-10	Batch ID:	R22597	RunNo:	22597					
Prep Date:		Analysis Date:	11/17/2014	SeqNo:	666076	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	100	2.5	25.00	84.35	72.9	70.4	127			
Surr: BFB	1100		1000		106	80	120			

Sample ID	1411590-001BMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	MKTF-10	Batch ID:	R22597	RunNo:	22597					
Prep Date:		Analysis Date:	11/17/2014	SeqNo:	666077	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	100	2.5	25.00	84.35	62.1	70.4	127	2.66	20	S
Surr: BFB	1000		1000		105	80	120	0	0	

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBW	Batch ID:	R22618	RunNo:	22618					
Prep Date:		Analysis Date:	11/18/2014	SeqNo:	667070	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	18		20.00		88.4	80	120			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSW	Batch ID:	R22618	RunNo:	22618					
Prep Date:		Analysis Date:	11/18/2014	SeqNo:	667071	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	18		20.00		88.4	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411590

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSW	Batch ID:	R22618	RunNo:	22618					
Prep Date:		Analysis Date:	11/18/2014	SeqNo:	667071	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.46	0.050	0.5000	0	91.8	80	120			
Surr: BFB	19		20.00		94.0	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411590

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	5mL rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R22601			RunNo: 22601					
Prep Date:		Analysis Date: 11/17/2014			SeqNo: 666323	Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411590

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	5mL rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R22601			RunNo: 22601					
Prep Date:		Analysis Date: 11/17/2014			SeqNo: 666323	Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.3		10.00		92.7	70	130			
Surr: 4-Bromofluorobenzene	13		10.00		133	70	130			S
Surr: Dibromofluoromethane	8.1		10.00		81.3	70	130			
Surr: Toluene-d8	10		10.00		104	70	130			

Sample ID	100ng lcs2	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R22601			RunNo: 22601					
Prep Date:		Analysis Date: 11/17/2014			SeqNo: 666326	Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	103	70	130			
Toluene	22	1.0	20.00	0	112	80	120			
Chlorobenzene	20	1.0	20.00	0	98.7	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411590

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID 100ng lcs2	SampType: LCS		TestCode: EPA Method 8260B: VOLATILES							
Client ID: LCSW	Batch ID: R22601		RunNo: 22601							
Prep Date:	Analysis Date: 11/17/2014		SeqNo: 666326		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	19	1.0	20.00	0	97.0	82.6	131			
Trichloroethene (TCE)	20	1.0	20.00	0	98.0	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		102	70	130			
Surr: 4-Bromofluorobenzene	13		10.00		133	70	130			S
Surr: Dibromofluoromethane	9.1		10.00		90.9	70	130			
Surr: Toluene-d8	9.6		10.00		96.3	70	130			

Sample ID 1411590-001a ms	SampType: MS		TestCode: EPA Method 8260B: VOLATILES							
Client ID: MKTF-10	Batch ID: R22601		RunNo: 22601							
Prep Date:	Analysis Date: 11/17/2014		SeqNo: 666331		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	12000	20	400.0	10900	215	70	130			ES
Toluene	23000	20	400.0	21700	427	70	130			ES
Chlorobenzene	430	20	400.0	0	107	70	130			
1,1-Dichloroethene	380	20	400.0	9.024	93.5	70	130			
Trichloroethene (TCE)	400	20	400.0	0	99.1	70	130			
Surr: 1,2-Dichloroethane-d4	200		200.0		101	70	130			
Surr: 4-Bromofluorobenzene	190		200.0		94.7	70	130			
Surr: Dibromofluoromethane	170		200.0		84.0	70	130			
Surr: Toluene-d8	200		200.0		98.3	70	130			

Sample ID 1411590-001a msd	SampType: MSD		TestCode: EPA Method 8260B: VOLATILES							
Client ID: MKTF-10	Batch ID: R22601		RunNo: 22601							
Prep Date:	Analysis Date: 11/17/2014		SeqNo: 666332		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	11000	20	400.0	10900	43.7	70	130	5.99	20	ES
Toluene	21000	20	400.0	21700	-190	70	130	11.1	20	ES
Chlorobenzene	400	20	400.0	0	100	70	130	6.34	20	
1,1-Dichloroethene	360	20	400.0	9.024	88.7	70	130	5.10	20	
Trichloroethene (TCE)	380	20	400.0	0	94.2	70	130	5.06	20	
Surr: 1,2-Dichloroethane-d4	190		200.0		96.9	70	130	0	0	
Surr: 4-Bromofluorobenzene	180		200.0		92.3	70	130	0	0	
Surr: Dibromofluoromethane	170		200.0		85.5	70	130	0	0	
Surr: Toluene-d8	190		200.0		92.5	70	130	0	0	

Qualifiers:

- | | |
|---|--|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits | ND Not Detected at the Reporting Limit |
| O RSD is greater than RSDlimit | P Sample pH greater than 2. |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S Spike Recovery outside accepted recovery limits | |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411590

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	5mL rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R22619			RunNo: 22619					
Prep Date:		Analysis Date: 11/18/2014			SeqNo: 667072	Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411590

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	5mL rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R22619			RunNo: 22619					
Prep Date:		Analysis Date: 11/18/2014			SeqNo: 667072		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.9		10.00		99.1	70	130			
Surr: 4-Bromofluorobenzene	14		10.00		141	70	130			S
Surr: Dibromofluoromethane	9.0		10.00		89.6	70	130			
Surr: Toluene-d8	11		10.00		106	70	130			

Sample ID	100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R22619			RunNo: 22619					
Prep Date:		Analysis Date: 11/18/2014			SeqNo: 667075		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	106	70	130			
Toluene	21	1.0	20.00	0	106	80	120			
Chlorobenzene	20	1.0	20.00	0	98.3	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411590

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R22619			RunNo: 22619					
Prep Date:		Analysis Date: 11/18/2014			SeqNo: 667075		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	18	1.0	20.00	0	91.4	82.6	131			
Trichloroethene (TCE)	20	1.0	20.00	0	98.2	70	130			
Surr: 1,2-Dichloroethane-d4	11		10.00		106	70	130			
Surr: 4-Bromofluorobenzene	14		10.00		140	70	130			S
Surr: Dibromofluoromethane	9.7		10.00		97.2	70	130			
Surr: Toluene-d8	10		10.00		101	70	130			

Sample ID	5mL rb	SampType: MBLK		TestCode: EPA Method 8260B: VOLATILES						
Client ID:	PBW	Batch ID: R22714		RunNo: 22714						
Prep Date:	Analysis Date: 11/21/2014		SeqNo: 669903		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Surr: 1,2-Dichloroethane-d4	9.7		10.00		96.5	70	130			
Surr: 4-Bromofluorobenzene	14		10.00		136	70	130			S
Surr: Dibromofluoromethane	9.4		10.00		94.4	70	130			
Surr: Toluene-d8	11		10.00		108	70	130			

Sample ID	100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID: R22714			RunNo: 22714					
Prep Date:		Analysis Date: 11/21/2014			SeqNo: 669905		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	102	70	130			
Surr: 1,2-Dichloroethane-d4	9.5		10.00		95.5	70	130			
Surr: 4-Bromofluorobenzene	14		10.00		136	70	130			S
Surr: Dibromofluoromethane	9.3		10.00		93.3	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411590

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	mb-16427		SampType: MBLK		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	PBW		Batch ID: 16427		RunNo: 22650					
Prep Date:	11/18/2014		Analysis Date: 11/19/2014		SeqNo: 667984		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411590

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	mb-16427		SampType: MBLK		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	PBW		Batch ID: 16427		RunNo: 22650					
Prep Date:	11/18/2014		Analysis Date: 11/19/2014		SeqNo: 667984		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2-Fluorophenol	130		200.0		67.4	17.6	104			
Surr: Phenol-d5	120		200.0		62.3	17.7	89.9			
Surr: 2,4,6-Tribromophenol	110		200.0		56.7	16.3	122			
Surr: Nitrobenzene-d5	68		100.0		68.0	45.3	117			
Surr: 2-Fluorobiphenyl	67		100.0		67.5	43	113			
Surr: 4-Terphenyl-d14	72		100.0		72.3	47.6	122			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411590

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	lcs-16427		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 16427		RunNo: 22650					
Prep Date:	11/18/2014		Analysis Date: 11/19/2014		SeqNo: 667985		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	62	10	100.0	0	62.4	47.9	114			
4-Chloro-3-methylphenol	140	10	200.0	0	71.1	51.7	122			
2-Chlorophenol	140	10	200.0	0	68.2	40.7	113			
1,4-Dichlorobenzene	60	10	100.0	0	60.1	39.6	99.9			
2,4-Dinitrotoluene	56	10	100.0	0	56.4	40.8	113			
N-Nitrosodi-n-propylamine	67	10	100.0	0	66.7	51.2	111			
4-Nitrophenol	140	10	200.0	0	70.4	15.7	86.9			
Pentachlorophenol	98	20	200.0	0	49.1	21.6	104			
Phenol	140	10	200.0	0	69.2	28.6	71.7			
Pyrene	61	10	100.0	0	60.6	54.2	128			
1,2,4-Trichlorobenzene	59	10	100.0	0	59.4	40.9	101			
Surr: 2-Fluorophenol	120		200.0		61.4	17.6	104			
Surr: Phenol-d5	120		200.0		62.2	17.7	89.9			
Surr: 2,4,6-Tribromophenol	130		200.0		64.7	16.3	122			
Surr: Nitrobenzene-d5	60		100.0		60.4	45.3	117			
Surr: 2-Fluorobiphenyl	58		100.0		58.2	43	113			
Surr: 4-Terphenyl-d14	70		100.0		70.2	47.6	122			

Sample ID	lcsd-16427		SampType: LCSD		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02		Batch ID: 16427		RunNo: 22650					
Prep Date:	11/18/2014		Analysis Date: 11/19/2014		SeqNo: 667986		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	73	10	100.0	0	73.4	47.9	114	16.1	27.2	
4-Chloro-3-methylphenol	160	10	200.0	0	80.2	51.7	122	12.0	25.9	
2-Chlorophenol	160	10	200.0	0	77.8	40.7	113	13.2	22.5	
1,4-Dichlorobenzene	70	10	100.0	0	69.7	39.6	99.9	14.8	24.6	
2,4-Dinitrotoluene	70	10	100.0	0	69.6	40.8	113	20.9	25.3	
N-Nitrosodi-n-propylamine	78	10	100.0	0	77.7	51.2	111	15.2	23.6	
4-Nitrophenol	170	10	200.0	0	85.3	15.7	86.9	19.1	34.7	
Pentachlorophenol	110	20	200.0	0	57.5	21.6	104	15.7	32.8	
Phenol	160	10	200.0	0	81.8	28.6	71.7	16.7	25.5	S
Pyrene	63	10	100.0	0	63.2	54.2	128	4.14	31.4	
1,2,4-Trichlorobenzene	66	10	100.0	0	66.0	40.9	101	10.6	25.9	
Surr: 2-Fluorophenol	150		200.0		75.0	17.6	104	0	0	
Surr: Phenol-d5	140		200.0		72.2	17.7	89.9	0	0	
Surr: 2,4,6-Tribromophenol	140		200.0		71.8	16.3	122	0	0	
Surr: Nitrobenzene-d5	67		100.0		67.1	45.3	117	0	0	
Surr: 2-Fluorobiphenyl	69		100.0		69.4	43	113	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411590

11-Dec-14

Client: Western Refining Southwest, Gallup

Project: Q4 2014

Sample ID	lcsd-16427	SampType:	LCSD	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	LCSS02	Batch ID:	16427	RunNo:	22650					
Prep Date:	11/18/2014	Analysis Date:	11/19/2014	SeqNo:	667986	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14	75		100.0		74.6	47.6	122	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
P Sample pH greater than 2.
RL Reporting Detection Limit

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1411590

RcptNo: 1

Received by/date:

SM 11/15/2014

Logged By: Ashley Gallegos

11/15/2014 9:15:00 AM

Ag

Completed By: Ashley Gallegos

11/17/2014 8:56:04 AM

Ag

Reviewed By:

CS

11/17/14

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Courier

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☒
9. Was preservative added to bottles? Yes ☒ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☒ No ☐
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels? Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met? Yes ☒ No ☐

metals analysis, added 0.4ml HNO_3 to -003G, -010G, -012G and -013G; added 1 ml HNO_3 to -001
No VOA Vials added 4ml HNO_3 to -001
For 300 analysis, added 1 ml H_2SO_4 to -001 E
of preserved bottles checked for pH: 30 Held metals for 24 hrs
Adjusted? yes
Checked by: CS -CS 11/17/14

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:

Date:

By Whom:

Via:

☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.9	Good	Yes			

Client: Western Refining Company

GALLUP REFINERY

Mailing Address:

92 Giant Crossing Road, Gallup, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-863-0930

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation:

☐ NELAP ☐ Other _____

☐ EDD (Type) Trihydro Format

Sample Temperature: 1.9°C



Tel. 505-345-3975 Fax 505-345-4107

[illegible]

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.
11-14-14	1010	AQ	MKTF-10	11		1411590 -001
11-14-14	1013	AQ	MKTF-09	11		-002
11-14-14	1145	AQ	MKTF-02	11		-003
11-14-14	—	AQ	BD-111414	1		-004
11-14-14	—	AQ	BD-111414	1		-005
11-14-14	1248	AQ	MKTF-26	11		-006
11-14-14	1221	AQ	MKTF-27	11		-007
11-14-14	1355	AQ	MKTF-28	11		-008
11-14-14	1540	AQ	MKTF-24	11		-009
11-14-14	1533	AQ	MKTF-25	11		-010
11-14-14	—	AQ	TB-501	3		-011

Date:	Time:	Relinquished by:	Received by:	Date	Time
11-15-14	845	Park Landers / Park Landers	Gregory Vega	11/15/14	9:15
Date:	Time:	Relinquished by:	Received by:	Date	Time

Page 1 of 3

Chain-of-Custody Record

Client: Western Refining Company

GALLUP REFINERY

Mailing Address:

92 Giant Crossing Road, Gallup, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-863-0930

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation:

☐ NELAP ☐ Other☐ EDD (Type) Trhydro Format

Turn-Around Time:

☒ Standard ☐ Rush

Project Name:

Q4 2014

Project #:

MKTF WELLS

Project Manager:

C. JOHNSON (cheryl.johnson@wnr.com)

Sampler:

On Ice: ☐ Yes ☐ No

Sample Temperature: 1.9°C

[illegible]

Date: _____

Time

Relinquished by:

Received by:

Date	Time
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Remarks:

11-15-14

845

Relinquished by:

Received by:

Date	Time
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[illegible]

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.