

AP - 111

**ANNUAL GW
MONITORING REPORT
(10 of 29)**

2016

Turn-Around Time: ☒ Standard ☐ Rush _____

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: 92 GIANT CROSSING ROAD
GALLUP, NM 87301
Phone #: 505-722-0231

mail or Fax#: **CHERYL-JOHNSON@**
WNR.COM
 QA/QC Package: ☒ Level 4 (Full Validation)
☐ Standard

Accreditation ☐ NELAP ☐ Other _____

☒ EDD (Type) **EXCEL**

[illegible]

Date	Time	Matrix	Sample Request ID
4/16	1450	WATER	MKTF-42
↓	↓	↓	↓
—	—	WATER	TRIP BLANK

[illegible]

ate: 6/10	Time: 0740	Relinquished by: [Signature]
ate: 6/10	Time: 0745	Relinquished by: [Signature]

If necessary, samples submitted to Hall Environmental may be subg

Turn-Around Time: ☒ Standard ☐ Rush _____

Project Name: QUARTERLY GW SAMPLING

Project Manager: CHERYL JOHNSON

Sampler: **TRACY PAYNE**
On Ice: ☒ Yes ☐ No
Sample Temperature: **1.0**

Container Type and #	Preservative Type	HEAL No.
500 ML PLASTIC-1	HNO ₃	14022B49
500 ML PLASTIC-1	NEAT	-020
40 ML VFA - 3	HCl	-022

[illegible]

Received by:	Date	Time
<i>[Signature]</i>	2/4/16	200
Received by:	Date	Time
<i>[Signature]</i>	02/04/16	1615

Contracted to other accredited laboratories. This serves as notice of this



**HALL ENVIRONMENTAL
ANALYSIS LABORATORY**

www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109

Analysis Request

(gas only)	RO / MRO)		(SIMS)	(PO ₄ ,SO ₄)	PCBs	/ANIONS	S	(LVED)
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BE + TPH (GRO / DPH) 418.1) 504.1) or 8270 S als NO₃, NO₂ des / 8082 () (VOA) ATIONS METAL DISCO Y or N)

MTEB
15B
ethoo
ethoo
8310
Met
F, Cl,
sticid
VOA
ami-V

8

les)

BTEX +				
TPH 801				
TPH (Me)				
EDB (Me)				
PAH's (g)				
RCRA 8				
Anions (				
8081 Pe				
8260B (				
8270 (Se				
MAJOR				
WQ 2				
(TOTN				
Air Bubb				

[illegible][illegible][illegible]

ibility. 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

April 01, 2016

Cheryl Johnson

Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: Quarterly GW Sampling

OrderNo.: 1603069

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 8 sample(s) on 3/1/2016 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", with a stylized flourish at the end.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603069

Date Reported: 4/1/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-4

Project: Quarterly GW Sampling

Collection Date: 2/29/2016 9:30:00 AM

Lab ID: 1603069-001

Matrix: AQUEOUS

Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: JME	
Diesel Range Organics (DRO)	3.6	0.69	1.0		mg/L	1	3/3/2016 2:12:32 PM	24027
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	3/3/2016 2:12:32 PM	24027
Surr: DNOP	90.0	0	70-141		%Rec	1	3/3/2016 2:12:32 PM	24027
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB	
Gasoline Range Organics (GRO)	9.2	0.25	0.50		mg/L	10	3/3/2016 8:24:08 PM	A32557
Surr: BFB	115	0	49.5-130		%Rec	10	3/3/2016 8:24:08 PM	A32557
EPA METHOD 300.0: ANIONS							Analyst: JRR	
Fluoride	0.97	0.11	0.50		mg/L	5	3/4/2016 6:59:16 PM	R32618
Chloride	250	0.55	10		mg/L	20	3/4/2016 7:11:41 PM	R32618
Bromide	2.8	0.16	0.50		mg/L	5	3/4/2016 6:59:16 PM	R32618
Phosphorus, Orthophosphate (As P)	ND	1.1	2.5	H	mg/L	5	3/4/2016 6:59:16 PM	R32618
Sulfate	3.2	0.32	2.5		mg/L	5	3/4/2016 6:59:16 PM	R32618
Nitrate+Nitrite as N	ND	0.42	1.0		mg/L	5	3/3/2016 11:16:54 AM	a32571
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS	
Barium	2.8	0.0066	0.010	*	mg/L	5	3/18/2016 12:05:49 PM	B32891
Cadmium	ND	0.00075	0.0020		mg/L	1	3/16/2016 2:19:22 PM	C32831
Calcium	120	1.3	5.0		mg/L	5	3/18/2016 12:05:49 PM	B32891
Chromium	ND	0.0018	0.0060		mg/L	1	3/16/2016 2:19:22 PM	C32831
Copper	ND	0.0040	0.0060		mg/L	1	3/16/2016 2:19:22 PM	C32831
Iron	5.6	0.091	0.20	*	mg/L	10	3/18/2016 12:43:58 PM	B32891
Magnesium	29	0.013	1.0		mg/L	1	3/16/2016 2:19:22 PM	C32831
Manganese	1.5	0.0016	0.010	*	mg/L	5	3/18/2016 12:05:49 PM	B32891
Potassium	0.94	0.18	1.0	J	mg/L	1	3/16/2016 2:19:22 PM	C32831
Silver	ND	0.0028	0.0050		mg/L	1	3/16/2016 2:19:22 PM	C32831
Sodium	360	0.48	5.0		mg/L	5	3/18/2016 12:05:49 PM	B32891
Zinc	0.022	0.0028	0.010		mg/L	1	3/16/2016 2:19:22 PM	C32831
EPA METHOD 200.7: TOTAL METALS							Analyst: MED	
Barium	3.0	0.0053	0.010	*	mg/L	5	3/14/2016 2:25:02 PM	24115
Cadmium	ND	0.00062	0.0020		mg/L	1	3/11/2016 4:03:43 PM	24115
Chromium	ND	0.0022	0.0060		mg/L	1	3/11/2016 4:03:43 PM	24115
Copper	ND	0.0051	0.0060		mg/L	1	3/14/2016 2:10:47 PM	24115
Iron	9.7	0.36	1.0	*	mg/L	50	3/16/2016 4:33:19 PM	24115
Manganese	1.5	0.0076	0.010	*	mg/L	5	3/14/2016 2:25:02 PM	24115
Silver	ND	0.0021	0.0050		mg/L	1	3/25/2016 8:03:58 AM	24413
Zinc	0.011	0.0039	0.010		mg/L	1	3/14/2016 2:10:47 PM	24115
EPA 200.8: DISSOLVED METALS							Analyst: JLF	
Arsenic	0.0085	0.000065	0.0010		mg/L	1	3/15/2016 6:16:35 PM	C32805

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
	D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603069

Date Reported: 4/1/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-4

Project: Quarterly GW Sampling

Collection Date: 2/29/2016 9:30:00 AM

Lab ID: 1603069-001

Matrix: AQUEOUS

Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: JLF	
Lead	0.000044	0.000026	0.00050	J	mg/L	1	3/15/2016 6:16:35 PM	C32805
Selenium	0.0061	0.0019	0.010	J	mg/L	10	3/24/2016 4:48:57 PM	B33051
Uranium	0.0053	0.0000048	0.00050		mg/L	1	3/15/2016 6:16:35 PM	C32805
200.8 ICPMS METALS:TOTAL							Analyst: JLF	
Arsenic	0.0081	0.0015	0.0050		mg/L	5	3/14/2016 5:35:45 PM	24115
Lead	0.0036	0.00024	0.0025		mg/L	5	3/14/2016 4:26:58 PM	24115
Selenium	0.0043	0.00062	0.0050	J	mg/L	5	3/14/2016 5:35:45 PM	24115
Uranium	0.0042	0.000025	0.0025		mg/L	5	3/14/2016 4:26:58 PM	24115
EPA METHOD 245.1: MERCURY							Analyst: pmf	
Mercury	ND	0.000053	0.00020		mg/L	1	3/8/2016 11:05:28 AM	24112
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM	
Acenaphthene	ND	8.0	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Acenaphthylene	ND	7.2	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Aniline	ND	9.8	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Anthracene	ND	6.6	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Azobenzene	ND	9.3	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Benz(a)anthracene	ND	6.1	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Benzo(a)pyrene	ND	6.3	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Benzo(b)fluoranthene	ND	6.6	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Benzo(g,h,i)perylene	ND	6.8	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Benzo(k)fluoranthene	ND	7.2	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Benzoic acid	ND	9.8	20		µg/L	1	3/4/2016 3:43:52 PM	24000
Benzyl alcohol	ND	8.0	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Bis(2-chloroethoxy)methane	ND	7.3	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Bis(2-chloroethyl)ether	ND	8.3	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Bis(2-chloroisopropyl)ether	ND	9.1	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Bis(2-ethylhexyl)phthalate	ND	7.5	10		µg/L	1	3/4/2016 3:43:52 PM	24000
4-Bromophenyl phenyl ether	ND	8.6	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Butyl benzyl phthalate	ND	7.8	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Carbazole	26	7.2	10		µg/L	1	3/4/2016 3:43:52 PM	24000
4-Chloro-3-methylphenol	ND	8.0	10		µg/L	1	3/4/2016 3:43:52 PM	24000
4-Chloroaniline	ND	7.1	10		µg/L	1	3/4/2016 3:43:52 PM	24000
2-Chloronaphthalene	ND	7.2	10		µg/L	1	3/4/2016 3:43:52 PM	24000
2-Chlorophenol	ND	8.7	10		µg/L	1	3/4/2016 3:43:52 PM	24000
4-Chlorophenyl phenyl ether	ND	8.2	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Chrysene	ND	6.6	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Di-n-butyl phthalate	ND	8.1	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Di-n-octyl phthalate	ND	6.3	10		µg/L	1	3/4/2016 3:43:52 PM	24000

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	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603069

Date Reported: 4/1/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-4

Project: Quarterly GW Sampling

Collection Date: 2/29/2016 9:30:00 AM

Lab ID: 1603069-001

Matrix: AQUEOUS

Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM	
Dibenz(a,h)anthracene	ND	6.8	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Dibenzofuran	ND	8.6	10		µg/L	1	3/4/2016 3:43:52 PM	24000
1,2-Dichlorobenzene	ND	6.4	10		µg/L	1	3/4/2016 3:43:52 PM	24000
1,3-Dichlorobenzene	ND	6.1	10		µg/L	1	3/4/2016 3:43:52 PM	24000
1,4-Dichlorobenzene	ND	6.3	10		µg/L	1	3/4/2016 3:43:52 PM	24000
3,3'-Dichlorobenzidine	ND	4.7	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Diethyl phthalate	ND	8.2	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Dimethyl phthalate	ND	7.5	10		µg/L	1	3/4/2016 3:43:52 PM	24000
2,4-Dichlorophenol	ND	7.6	20		µg/L	1	3/4/2016 3:43:52 PM	24000
2,4-Dimethylphenol	8.0	4.7	10	J	µg/L	1	3/4/2016 3:43:52 PM	24000
4,6-Dinitro-2-methylphenol	ND	7.3	20		µg/L	1	3/4/2016 3:43:52 PM	24000
2,4-Dinitrophenol	ND	9.9	20		µg/L	1	3/4/2016 3:43:52 PM	24000
2,4-Dinitrotoluene	ND	8.5	10		µg/L	1	3/4/2016 3:43:52 PM	24000
2,6-Dinitrotoluene	ND	7.5	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Fluoranthene	ND	6.1	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Fluorene	7.5	7.2	10	J	µg/L	1	3/4/2016 3:43:52 PM	24000
Hexachlorobenzene	ND	7.1	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Hexachlorobutadiene	ND	5.2	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Hexachlorocyclopentadiene	ND	5.2	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Hexachloroethane	ND	5.8	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Indeno(1,2,3-cd)pyrene	ND	5.6	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Isophorone	ND	8.1	10		µg/L	1	3/4/2016 3:43:52 PM	24000
1-Methylnaphthalene	170	6.8	10		µg/L	1	3/4/2016 3:43:52 PM	24000
2-Methylnaphthalene	190	7.0	10		µg/L	1	3/4/2016 3:43:52 PM	24000
2-Methylphenol	ND	8.2	10		µg/L	1	3/4/2016 3:43:52 PM	24000
3+4-Methylphenol	ND	7.1	10		µg/L	1	3/4/2016 3:43:52 PM	24000
N-Nitrosodi-n-propylamine	ND	7.8	10		µg/L	1	3/4/2016 3:43:52 PM	24000
N-Nitrosodimethylamine	ND	9.1	10		µg/L	1	3/4/2016 3:43:52 PM	24000
N-Nitrosodiphenylamine	ND	6.2	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Naphthalene	330	30	50		µg/L	5	3/13/2016 12:41:18 AM	24000
2-Nitroaniline	ND	9.0	10		µg/L	1	3/4/2016 3:43:52 PM	24000
3-Nitroaniline	ND	8.8	10		µg/L	1	3/4/2016 3:43:52 PM	24000
4-Nitroaniline	ND	9.1	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Nitrobenzene	ND	7.8	10		µg/L	1	3/4/2016 3:43:52 PM	24000
2-Nitrophenol	ND	7.6	10		µg/L	1	3/4/2016 3:43:52 PM	24000
4-Nitrophenol	ND	6.7	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Pentachlorophenol	ND	7.6	20		µg/L	1	3/4/2016 3:43:52 PM	24000
Phenanthrene	8.6	6.8	10	J	µg/L	1	3/4/2016 3:43:52 PM	24000
Phenol	ND	5.1	10		µg/L	1	3/4/2016 3:43:52 PM	24000

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

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	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603069

Date Reported: 4/1/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-4

Project: Quarterly GW Sampling

Collection Date: 2/29/2016 9:30:00 AM

Lab ID: 1603069-001

Matrix: AQUEOUS

Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM	
Pyrene	ND	5.5	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Pyridine	ND	6.7	10		µg/L	1	3/4/2016 3:43:52 PM	24000
1,2,4-Trichlorobenzene	ND	6.2	10		µg/L	1	3/4/2016 3:43:52 PM	24000
2,4,5-Trichlorophenol	ND	8.4	10		µg/L	1	3/4/2016 3:43:52 PM	24000
2,4,6-Trichlorophenol	ND	8.8	10		µg/L	1	3/4/2016 3:43:52 PM	24000
Surr: 2-Fluorophenol	69.0	0	4.63-113		%Rec	1	3/4/2016 3:43:52 PM	24000
Surr: Phenol-d5	52.8	0	4.13-124		%Rec	1	3/4/2016 3:43:52 PM	24000
Surr: 2,4,6-Tribromophenol	103	0	5.14-132		%Rec	1	3/4/2016 3:43:52 PM	24000
Surr: Nitrobenzene-d5	106	0	9.13-140		%Rec	1	3/4/2016 3:43:52 PM	24000
Surr: 2-Fluorobiphenyl	126	0	10.8-132		%Rec	1	3/4/2016 3:43:52 PM	24000
Surr: 4-Terphenyl-d14	103	0	12.9-107		%Rec	1	3/4/2016 3:43:52 PM	24000
EPA METHOD 8260B: VOLATILES							Analyst: RAA	
Benzene	800	4.8	50		µg/L	50	3/4/2016 5:33:47 PM	R32609
Toluene	17	0.45	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
Ethylbenzene	730	5.6	50		µg/L	50	3/4/2016 5:33:47 PM	R32609
Methyl tert-butyl ether (MTBE)	2200	11	50		µg/L	50	3/4/2016 5:33:47 PM	R32609
1,2,4-Trimethylbenzene	370	0.52	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
1,3,5-Trimethylbenzene	58	0.58	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
1,2-Dichloroethane (EDC)	1.6	0.26	5.0	J	µg/L	5	3/4/2016 6:02:26 PM	R32609
1,2-Dibromoethane (EDB)	ND	0.56	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
Naphthalene	340	4.2	100		µg/L	50	3/4/2016 5:33:47 PM	R32609
1-Methylnaphthalene	180	1.0	20		µg/L	5	3/4/2016 6:02:26 PM	R32609
2-Methylnaphthalene	180	0.79	20		µg/L	5	3/4/2016 6:02:26 PM	R32609
Acetone	27	4.4	50	J	µg/L	5	3/4/2016 6:02:26 PM	R32609
Bromobenzene	ND	0.40	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
Bromodichloromethane	ND	0.49	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
Bromoform	ND	0.51	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
Bromomethane	ND	3.9	15		µg/L	5	3/4/2016 6:02:26 PM	R32609
2-Butanone	11	1.6	50	J	µg/L	5	3/4/2016 6:02:26 PM	R32609
Carbon disulfide	ND	3.0	50		µg/L	5	3/4/2016 6:02:26 PM	R32609
Carbon Tetrachloride	ND	0.54	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
Chlorobenzene	ND	0.52	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
Chloroethane	ND	0.73	10		µg/L	5	3/4/2016 6:02:26 PM	R32609
Chloroform	ND	0.44	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
Chloromethane	ND	1.1	15		µg/L	5	3/4/2016 6:02:26 PM	R32609
2-Chlorotoluene	ND	2.0	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
4-Chlorotoluene	ND	0.64	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
cis-1,2-DCE	5.5	0.62	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
cis-1,3-Dichloropropene	ND	0.50	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609

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
	D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603069

Date Reported: 4/1/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-4

Project: Quarterly GW Sampling

Collection Date: 2/29/2016 9:30:00 AM

Lab ID: 1603069-001

Matrix: AQUEOUS

Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: RAA	
1,2-Dibromo-3-chloropropane	ND	0.77	10		µg/L	5	3/4/2016 6:02:26 PM	R32609
Dibromochloromethane	ND	0.43	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
Dibromomethane	ND	0.60	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
1,2-Dichlorobenzene	ND	2.0	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
1,3-Dichlorobenzene	ND	0.72	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
1,4-Dichlorobenzene	ND	0.71	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
Dichlorodifluoromethane	ND	1.6	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
1,1-Dichloroethane	5.9	0.54	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
1,1-Dichloroethene	14	0.38	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
1,2-Dichloropropane	ND	0.24	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
1,3-Dichloropropane	ND	0.78	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
2,2-Dichloropropane	ND	0.60	10		µg/L	5	3/4/2016 6:02:26 PM	R32609
1,1-Dichloropropene	ND	0.67	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
Hexachlorobutadiene	ND	0.99	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
2-Hexanone	ND	1.8	50		µg/L	5	3/4/2016 6:02:26 PM	R32609
Isopropylbenzene	25	0.49	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
4-Isopropyltoluene	3.8	0.70	5.0	J	µg/L	5	3/4/2016 6:02:26 PM	R32609
4-Methyl-2-pentanone	ND	0.75	50		µg/L	5	3/4/2016 6:02:26 PM	R32609
Methylene Chloride	ND	0.31	15		µg/L	5	3/4/2016 6:02:26 PM	R32609
n-Butylbenzene	6.4	0.80	15	J	µg/L	5	3/4/2016 6:02:26 PM	R32609
n-Propylbenzene	52	0.66	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
sec-Butylbenzene	4.1	0.54	5.0	J	µg/L	5	3/4/2016 6:02:26 PM	R32609
Styrene	0.67	0.48	5.0	J	µg/L	5	3/4/2016 6:02:26 PM	R32609
tert-Butylbenzene	ND	0.48	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
1,1,1,2-Tetrachloroethane	ND	0.56	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
1,1,2,2-Tetrachloroethane	ND	0.53	10		µg/L	5	3/4/2016 6:02:26 PM	R32609
Tetrachloroethene (PCE)	ND	0.76	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
trans-1,2-DCE	ND	2.0	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
trans-1,3-Dichloropropene	ND	0.42	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
1,2,3-Trichlorobenzene	ND	0.56	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
1,2,4-Trichlorobenzene	ND	0.66	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
1,1,1-Trichloroethane	ND	0.32	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
1,1,2-Trichloroethane	ND	0.38	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
Trichloroethene (TCE)	ND	0.88	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
Trichlorofluoromethane	ND	0.44	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
1,2,3-Trichloropropane	ND	0.56	10		µg/L	5	3/4/2016 6:02:26 PM	R32609
Vinyl chloride	ND	0.32	5.0		µg/L	5	3/4/2016 6:02:26 PM	R32609
Xylenes, Total	800	1.6	7.5		µg/L	5	3/4/2016 6:02:26 PM	R32609
Surr: 1,2-Dichloroethane-d4	92.8	0	70-130		%Rec	5	3/4/2016 6:02:26 PM	R32609

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
	D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603069

Date Reported: 4/1/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-4

Project: Quarterly GW Sampling

Collection Date: 2/29/2016 9:30:00 AM

Lab ID: 1603069-001

Matrix: AQUEOUS

Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: RAA	
Surr: 4-Bromofluorobenzene	80.6	0	70-130		%Rec	5	3/4/2016 6:02:26 PM	R32609
Surr: Dibromofluoromethane	103	0	70-130		%Rec	5	3/4/2016 6:02:26 PM	R32609
Surr: Toluene-d8	97.3	0	70-130		%Rec	5	3/4/2016 6:02:26 PM	R32609

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
	D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603069

Date Reported: 4/1/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-11

Project: Quarterly GW Sampling

Collection Date: 2/29/2016 10:50:00 AM

Lab ID: 1603069-002

Matrix: AQUEOUS

Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: JME	
Diesel Range Organics (DRO)	1.5	0.69	1.0		mg/L	1	3/3/2016 3:17:06 PM	24027
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	3/3/2016 3:17:06 PM	24027
Surr: DNOP	94.7	0	70-141		%Rec	1	3/3/2016 3:17:06 PM	24027
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB	
Gasoline Range Organics (GRO)	42	1.3	2.5		mg/L	50	3/3/2016 8:48:33 PM	A32557
Surr: BFB	99.1	0	49.5-130		%Rec	50	3/3/2016 8:48:33 PM	A32557
EPA METHOD 300.0: ANIONS							Analyst: JRR	
Fluoride	ND	0.11	0.50		mg/L	5	3/4/2016 7:24:05 PM	R32618
Chloride	1600	2.7	50		mg/L	100	3/11/2016 4:47:21 AM	R32710
Bromide	3.4	0.16	0.50		mg/L	5	3/4/2016 7:24:05 PM	R32618
Phosphorus, Orthophosphate (As P)	ND	1.1	2.5	H	mg/L	5	3/4/2016 7:24:05 PM	R32618
Sulfate	0.58	0.32	2.5	J	mg/L	5	3/4/2016 7:24:05 PM	R32618
Nitrate+Nitrite as N	ND	0.42	1.0		mg/L	5	3/3/2016 11:54:08 AM	a32571
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS	
Barium	3.6	0.013	0.020	*	mg/L	10	3/18/2016 12:07:48 PM	B32891
Cadmium	ND	0.00075	0.0020		mg/L	1	3/16/2016 2:21:02 PM	C32831
Calcium	240	2.6	10		mg/L	10	3/18/2016 12:07:48 PM	B32891
Chromium	ND	0.0018	0.0060		mg/L	1	3/16/2016 2:21:02 PM	C32831
Copper	ND	0.0040	0.0060		mg/L	1	3/16/2016 2:21:02 PM	C32831
Iron	8.0	0.091	0.20	*	mg/L	10	3/18/2016 12:07:48 PM	B32891
Magnesium	67	0.013	1.0		mg/L	1	3/16/2016 2:21:02 PM	C32831
Manganese	5.7	0.0032	0.020	*	mg/L	10	3/18/2016 12:07:48 PM	B32891
Potassium	1.5	0.18	1.0		mg/L	1	3/16/2016 2:21:02 PM	C32831
Silver	ND	0.0028	0.0050		mg/L	1	3/16/2016 2:21:02 PM	C32831
Sodium	880	0.96	10		mg/L	10	3/18/2016 12:07:48 PM	B32891
Zinc	0.011	0.0028	0.010		mg/L	1	3/16/2016 2:21:02 PM	C32831
EPA METHOD 200.7: TOTAL METALS							Analyst: MED	
Barium	3.9	0.0053	0.010	*	mg/L	5	3/15/2016 11:11:05 AM	24115
Cadmium	ND	0.00062	0.0020		mg/L	1	3/11/2016 4:09:03 PM	24115
Chromium	ND	0.0022	0.0060		mg/L	1	3/11/2016 4:09:03 PM	24115
Copper	ND	0.0051	0.0060		mg/L	1	3/15/2016 10:59:46 AM	24115
Iron	11	0.14	0.40	*	mg/L	20	3/15/2016 11:16:05 AM	24115
Manganese	6.4	0.030	0.040	*	mg/L	20	3/15/2016 11:16:05 AM	24115
Silver	ND	0.0021	0.0050		mg/L	1	3/11/2016 4:09:03 PM	24115
Zinc	0.018	0.0039	0.010		mg/L	1	3/15/2016 10:59:46 AM	24115
EPA 200.8: DISSOLVED METALS							Analyst: JLF	
Arsenic	0.015	0.00032	0.0050	*	mg/L	5	3/22/2016 8:19:44 PM	C32978

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
	D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603069

Date Reported: 4/1/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-11

Project: Quarterly GW Sampling

Collection Date: 2/29/2016 10:50:00 AM

Lab ID: 1603069-002

Matrix: AQUEOUS

Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: JLF	
Lead	0.00031	0.00013	0.0025	J	mg/L	5	3/22/2016 8:19:44 PM	C32978
Selenium	0.0046	0.00097	0.0050	J	mg/L	5	3/22/2016 8:19:44 PM	C32978
Uranium	0.0050	0.000024	0.0025		mg/L	5	3/22/2016 8:19:44 PM	C32978
200.8 ICPMS METALS:TOTAL							Analyst: JLF	
Arsenic	0.013	0.0015	0.0050	*	mg/L	5	3/14/2016 5:38:46 PM	24115
Lead	0.0027	0.00024	0.0025		mg/L	5	3/14/2016 4:29:58 PM	24115
Selenium	0.0021	0.00062	0.0050	J	mg/L	5	3/14/2016 5:38:46 PM	24115
Uranium	0.0054	0.000025	0.0025		mg/L	5	3/14/2016 4:29:58 PM	24115
EPA METHOD 245.1: MERCURY							Analyst: pmf	
Mercury	ND	0.000053	0.00020		mg/L	1	3/8/2016 11:07:31 AM	24112
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM	
Acenaphthene	ND	8.0	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Acenaphthylene	ND	7.2	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Aniline	11	9.8	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Anthracene	ND	6.6	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Azobenzene	ND	9.3	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Benz(a)anthracene	ND	6.1	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Benzo(a)pyrene	ND	6.3	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Benzo(b)fluoranthene	ND	6.6	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Benzo(g,h,i)perylene	ND	6.8	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Benzo(k)fluoranthene	ND	7.2	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Benzoic acid	ND	9.8	20		µg/L	1	3/4/2016 4:14:26 PM	24000
Benzyl alcohol	ND	8.0	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Bis(2-chloroethoxy)methane	ND	7.3	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Bis(2-chloroethyl)ether	ND	8.3	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Bis(2-chloroisopropyl)ether	ND	9.1	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Bis(2-ethylhexyl)phthalate	ND	7.5	10		µg/L	1	3/4/2016 4:14:26 PM	24000
4-Bromophenyl phenyl ether	ND	8.6	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Butyl benzyl phthalate	ND	7.8	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Carbazole	ND	7.2	10		µg/L	1	3/4/2016 4:14:26 PM	24000
4-Chloro-3-methylphenol	ND	8.0	10		µg/L	1	3/4/2016 4:14:26 PM	24000
4-Chloroaniline	ND	7.1	10		µg/L	1	3/4/2016 4:14:26 PM	24000
2-Chloronaphthalene	ND	7.2	10		µg/L	1	3/4/2016 4:14:26 PM	24000
2-Chlorophenol	ND	8.7	10		µg/L	1	3/4/2016 4:14:26 PM	24000
4-Chlorophenyl phenyl ether	ND	8.2	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Chrysene	ND	6.6	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Di-n-butyl phthalate	ND	8.1	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Di-n-octyl phthalate	ND	6.3	10		µg/L	1	3/4/2016 4:14:26 PM	24000

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
	D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603069

Date Reported: 4/1/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-11

Project: Quarterly GW Sampling

Collection Date: 2/29/2016 10:50:00 AM

Lab ID: 1603069-002

Matrix: AQUEOUS

Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM	
Dibenz(a,h)anthracene	ND	6.8	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Dibenzofuran	ND	8.6	10		µg/L	1	3/4/2016 4:14:26 PM	24000
1,2-Dichlorobenzene	ND	6.4	10		µg/L	1	3/4/2016 4:14:26 PM	24000
1,3-Dichlorobenzene	ND	6.1	10		µg/L	1	3/4/2016 4:14:26 PM	24000
1,4-Dichlorobenzene	ND	6.3	10		µg/L	1	3/4/2016 4:14:26 PM	24000
3,3'-Dichlorobenzidine	ND	4.7	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Diethyl phthalate	ND	8.2	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Dimethyl phthalate	ND	7.5	10		µg/L	1	3/4/2016 4:14:26 PM	24000
2,4-Dichlorophenol	ND	7.6	20		µg/L	1	3/4/2016 4:14:26 PM	24000
2,4-Dimethylphenol	18	4.7	10		µg/L	1	3/4/2016 4:14:26 PM	24000
4,6-Dinitro-2-methylphenol	ND	7.3	20		µg/L	1	3/4/2016 4:14:26 PM	24000
2,4-Dinitrophenol	ND	9.9	20		µg/L	1	3/4/2016 4:14:26 PM	24000
2,4-Dinitrotoluene	ND	8.5	10		µg/L	1	3/4/2016 4:14:26 PM	24000
2,6-Dinitrotoluene	ND	7.5	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Fluoranthene	ND	6.1	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Fluorene	ND	7.2	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Hexachlorobenzene	ND	7.1	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Hexachlorobutadiene	ND	5.2	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Hexachlorocyclopentadiene	ND	5.2	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Hexachloroethane	ND	5.8	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Indeno(1,2,3-cd)pyrene	ND	5.6	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Isophorone	ND	8.1	10		µg/L	1	3/4/2016 4:14:26 PM	24000
1-Methylnaphthalene	14	6.8	10		µg/L	1	3/4/2016 4:14:26 PM	24000
2-Methylnaphthalene	11	7.0	10		µg/L	1	3/4/2016 4:14:26 PM	24000
2-Methylphenol	84	8.2	10		µg/L	1	3/4/2016 4:14:26 PM	24000
3+4-Methylphenol	49	7.1	10		µg/L	1	3/4/2016 4:14:26 PM	24000
N-Nitrosodi-n-propylamine	ND	7.8	10		µg/L	1	3/4/2016 4:14:26 PM	24000
N-Nitrosodimethylamine	ND	9.1	10		µg/L	1	3/4/2016 4:14:26 PM	24000
N-Nitrosodiphenylamine	ND	6.2	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Naphthalene	38	5.9	10		µg/L	1	3/4/2016 4:14:26 PM	24000
2-Nitroaniline	ND	9.0	10		µg/L	1	3/4/2016 4:14:26 PM	24000
3-Nitroaniline	ND	8.8	10		µg/L	1	3/4/2016 4:14:26 PM	24000
4-Nitroaniline	ND	9.1	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Nitrobenzene	ND	7.8	10		µg/L	1	3/4/2016 4:14:26 PM	24000
2-Nitrophenol	ND	7.6	10		µg/L	1	3/4/2016 4:14:26 PM	24000
4-Nitrophenol	ND	6.7	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Pentachlorophenol	ND	7.6	20		µg/L	1	3/4/2016 4:14:26 PM	24000
Phenanthrene	ND	6.8	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Phenol	29	5.1	10		µg/L	1	3/4/2016 4:14:26 PM	24000

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
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
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	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603069

Date Reported: 4/1/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-11

Project: Quarterly GW Sampling

Collection Date: 2/29/2016 10:50:00 AM

Lab ID: 1603069-002

Matrix: AQUEOUS

Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM	
Pyrene	ND	5.5	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Pyridine	ND	6.7	10		µg/L	1	3/4/2016 4:14:26 PM	24000
1,2,4-Trichlorobenzene	ND	6.2	10		µg/L	1	3/4/2016 4:14:26 PM	24000
2,4,5-Trichlorophenol	ND	8.4	10		µg/L	1	3/4/2016 4:14:26 PM	24000
2,4,6-Trichlorophenol	ND	8.8	10		µg/L	1	3/4/2016 4:14:26 PM	24000
Surr: 2-Fluorophenol	30.2	0	4.63-113		%Rec	1	3/4/2016 4:14:26 PM	24000
Surr: Phenol-d5	34.2	0	4.13-124		%Rec	1	3/4/2016 4:14:26 PM	24000
Surr: 2,4,6-Tribromophenol	52.9	0	5.14-132		%Rec	1	3/4/2016 4:14:26 PM	24000
Surr: Nitrobenzene-d5	76.3	0	9.13-140		%Rec	1	3/4/2016 4:14:26 PM	24000
Surr: 2-Fluorobiphenyl	76.2	0	10.8-132		%Rec	1	3/4/2016 4:14:26 PM	24000
Surr: 4-Terphenyl-d14	65.2	0	12.9-107		%Rec	1	3/4/2016 4:14:26 PM	24000
EPA METHOD 8260B: VOLATILES							Analyst: RAA	
Benzene	5100	9.6	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
Toluene	6400	8.9	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
Ethylbenzene	670	11	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
Methyl tert-butyl ether (MTBE)	120	21	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
1,2,4-Trimethylbenzene	310	10	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
1,3,5-Trimethylbenzene	59	12	100	J	µg/L	100	3/4/2016 7:00:12 PM	R32609
1,2-Dichloroethane (EDC)	ND	5.3	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
1,2-Dibromoethane (EDB)	ND	11	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
Naphthalene	62	8.3	200	J	µg/L	100	3/4/2016 7:00:12 PM	R32609
1-Methylnaphthalene	48	20	400	J	µg/L	100	3/4/2016 7:00:12 PM	R32609
2-Methylnaphthalene	48	16	400	J	µg/L	100	3/4/2016 7:00:12 PM	R32609
Acetone	ND	88	1000		µg/L	100	3/4/2016 7:00:12 PM	R32609
Bromobenzene	ND	8.0	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
Bromodichloromethane	ND	9.8	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
Bromoform	ND	10	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
Bromomethane	ND	78	300		µg/L	100	3/4/2016 7:00:12 PM	R32609
2-Butanone	ND	32	1000		µg/L	100	3/4/2016 7:00:12 PM	R32609
Carbon disulfide	ND	60	1000		µg/L	100	3/4/2016 7:00:12 PM	R32609
Carbon Tetrachloride	ND	11	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
Chlorobenzene	ND	10	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
Chloroethane	ND	15	200		µg/L	100	3/4/2016 7:00:12 PM	R32609
Chloroform	ND	8.9	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
Chloromethane	ND	21	300		µg/L	100	3/4/2016 7:00:12 PM	R32609
2-Chlorotoluene	ND	40	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
4-Chlorotoluene	ND	13	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
cis-1,2-DCE	ND	12	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
cis-1,3-Dichloropropene	ND	10	100		µg/L	100	3/4/2016 7:00:12 PM	R32609

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
	D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603069

Date Reported: 4/1/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-11

Project: Quarterly GW Sampling

Collection Date: 2/29/2016 10:50:00 AM

Lab ID: 1603069-002

Matrix: AQUEOUS

Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: RAA	
1,2-Dibromo-3-chloropropane	ND	15	200		µg/L	100	3/4/2016 7:00:12 PM	R32609
Dibromochloromethane	ND	8.7	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
Dibromomethane	ND	12	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
1,2-Dichlorobenzene	ND	40	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
1,3-Dichlorobenzene	ND	14	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
1,4-Dichlorobenzene	ND	14	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
Dichlorodifluoromethane	ND	32	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
1,1-Dichloroethane	60	11	100	J	µg/L	100	3/4/2016 7:00:12 PM	R32609
1,1-Dichloroethene	ND	7.6	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
1,2-Dichloropropane	ND	4.7	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
1,3-Dichloropropane	ND	16	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
2,2-Dichloropropane	ND	12	200		µg/L	100	3/4/2016 7:00:12 PM	R32609
1,1-Dichloropropene	ND	13	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
Hexachlorobutadiene	ND	20	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
2-Hexanone	ND	36	1000		µg/L	100	3/4/2016 7:00:12 PM	R32609
Isopropylbenzene	ND	9.8	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
4-Isopropyltoluene	ND	14	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
4-Methyl-2-pentanone	ND	15	1000		µg/L	100	3/4/2016 7:00:12 PM	R32609
Methylene Chloride	28	6.3	300	J	µg/L	100	3/4/2016 7:00:12 PM	R32609
n-Butylbenzene	ND	16	300		µg/L	100	3/4/2016 7:00:12 PM	R32609
n-Propylbenzene	58	13	100	J	µg/L	100	3/4/2016 7:00:12 PM	R32609
sec-Butylbenzene	ND	11	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
Styrene	ND	9.5	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
tert-Butylbenzene	ND	9.6	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
1,1,1,2-Tetrachloroethane	ND	11	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
1,1,2,2-Tetrachloroethane	ND	11	200		µg/L	100	3/4/2016 7:00:12 PM	R32609
Tetrachloroethene (PCE)	ND	15	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
trans-1,2-DCE	ND	40	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
trans-1,3-Dichloropropene	ND	8.5	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
1,2,3-Trichlorobenzene	ND	11	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
1,2,4-Trichlorobenzene	ND	13	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
1,1,1-Trichloroethane	ND	6.3	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
1,1,2-Trichloroethane	ND	7.7	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
Trichloroethene (TCE)	ND	18	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
Trichlorofluoromethane	ND	8.8	100		µg/L	100	3/4/2016 7:00:12 PM	R32609
1,2,3-Trichloropropane	ND	11	200		µg/L	100	3/4/2016 7:00:12 PM	R32609
Vinyl chloride	49	6.3	100	J	µg/L	100	3/4/2016 7:00:12 PM	R32609
Xylenes, Total	2200	32	150		µg/L	100	3/4/2016 7:00:12 PM	R32609
Surr: 1,2-Dichloroethane-d4	91.0	0	70-130		%Rec	100	3/4/2016 7:00:12 PM	R32609

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
	D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603069

Date Reported: 4/1/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-11

Project: Quarterly GW Sampling

Collection Date: 2/29/2016 10:50:00 AM

Lab ID: 1603069-002

Matrix: AQUEOUS

Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: RAA	
Surr: 4-Bromofluorobenzene	96.9	0	70-130		%Rec	100	3/4/2016 7:00:12 PM	R32609
Surr: Dibromofluoromethane	103	0	70-130		%Rec	100	3/4/2016 7:00:12 PM	R32609
Surr: Toluene-d8	93.8	0	70-130		%Rec	100	3/4/2016 7:00:12 PM	R32609

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
	D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603069

Date Reported: 4/1/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-09

Project: Quarterly GW Sampling

Collection Date: 2/29/2016 1:30:00 PM

Lab ID: 1603069-003

Matrix: AQUEOUS

Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: JME	
Diesel Range Organics (DRO)	2.5	0.69	1.0		mg/L	1	3/3/2016 3:38:39 PM	24027
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	3/3/2016 3:38:39 PM	24027
Surr: DNOP	92.2	0	70-141		%Rec	1	3/3/2016 3:38:39 PM	24027
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB	
Gasoline Range Organics (GRO)	7.4	0.51	1.0		mg/L	20	3/3/2016 9:12:57 PM	A32557
Surr: BFB	93.8	0	49.5-130		%Rec	20	3/3/2016 9:12:57 PM	A32557
EPA METHOD 300.0: ANIONS							Analyst: JRR	
Fluoride	0.47	0.023	0.10		mg/L	1	3/4/2016 7:48:55 PM	R32618
Chloride	170	0.55	10		mg/L	20	3/4/2016 8:01:19 PM	R32618
Bromide	0.94	0.032	0.10		mg/L	1	3/4/2016 7:48:55 PM	R32618
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50	H	mg/L	1	3/4/2016 7:48:55 PM	R32618
Sulfate	70	1.3	10		mg/L	20	3/4/2016 8:01:19 PM	R32618
Nitrate+Nitrite as N	ND	0.42	1.0		mg/L	5	3/3/2016 12:06:32 PM	a32571
EPA METHOD 200.7: DISSOLVED METALS							Analyst: MED	
Barium	0.55	0.0013	0.0020		mg/L	1	3/16/2016 2:22:44 PM	C32831
Cadmium	ND	0.00075	0.0020		mg/L	1	3/16/2016 2:22:44 PM	C32831
Calcium	150	1.3	5.0		mg/L	5	3/18/2016 12:09:46 PM	B32891
Chromium	ND	0.0018	0.0060		mg/L	1	3/16/2016 2:22:44 PM	C32831
Copper	ND	0.0040	0.0060		mg/L	1	3/16/2016 2:22:44 PM	C32831
Iron	2.8	0.045	0.10	*	mg/L	5	3/18/2016 12:09:46 PM	B32891
Magnesium	31	0.013	1.0		mg/L	1	3/16/2016 2:22:44 PM	C32831
Manganese	3.9	0.0016	0.010	*	mg/L	5	3/18/2016 12:09:46 PM	B32891
Potassium	0.67	0.18	1.0	J	mg/L	1	3/16/2016 2:22:44 PM	C32831
Silver	ND	0.0028	0.0050		mg/L	1	3/16/2016 2:22:44 PM	C32831
Sodium	240	0.48	5.0		mg/L	5	3/18/2016 12:09:46 PM	B32891
Zinc	0.0087	0.0028	0.010	J	mg/L	1	3/16/2016 2:22:44 PM	C32831
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS	
Barium	0.64	0.0011	0.0020		mg/L	1	3/11/2016 4:23:08 PM	24115
Cadmium	ND	0.00062	0.0020		mg/L	1	3/11/2016 4:23:08 PM	24115
Chromium	ND	0.0022	0.0060		mg/L	1	3/11/2016 4:23:08 PM	24115
Copper	ND	0.0051	0.0060		mg/L	1	3/15/2016 11:18:02 AM	24115
Iron	4.0	0.036	0.10	*	mg/L	5	3/15/2016 11:19:42 AM	24115
Manganese	4.2	0.0076	0.010	*	mg/L	5	3/15/2016 11:19:42 AM	24115
Silver	ND	0.0021	0.0050		mg/L	1	3/11/2016 4:23:08 PM	24115
Zinc	0.012	0.0039	0.010		mg/L	1	3/15/2016 11:18:02 AM	24115
EPA 200.8: DISSOLVED METALS							Analyst: JLF	
Arsenic	0.0022	0.000065	0.0010		mg/L	1	3/15/2016 6:22:42 PM	C32805

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	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603069

Date Reported: 4/1/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-09

Project: Quarterly GW Sampling

Collection Date: 2/29/2016 1:30:00 PM

Lab ID: 1603069-003

Matrix: AQUEOUS

Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: JLF	
Lead	0.00021	0.000026	0.00050	J	mg/L	1	3/15/2016 6:22:42 PM	C32805
Selenium	0.0031	0.00019	0.0010		mg/L	1	3/15/2016 6:22:42 PM	C32805
Uranium	0.0047	0.0000048	0.00050		mg/L	1	3/15/2016 6:22:42 PM	C32805
200.8 ICPMS METALS:TOTAL							Analyst: JLF	
Arsenic	0.0020	0.0015	0.0050	J	mg/L	5	3/14/2016 5:41:47 PM	24115
Lead	0.0040	0.00024	0.0025		mg/L	5	3/14/2016 4:32:59 PM	24115
Selenium	0.0023	0.00062	0.0050	J	mg/L	5	3/14/2016 5:41:47 PM	24115
Uranium	0.0048	0.000025	0.0025		mg/L	5	3/14/2016 4:32:59 PM	24115
EPA METHOD 245.1: MERCURY							Analyst: pmf	
Mercury	ND	0.000053	0.00020		mg/L	1	3/8/2016 11:09:34 AM	24112
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM	
Acenaphthene	ND	8.0	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Acenaphthylene	ND	7.2	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Aniline	ND	9.8	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Anthracene	ND	6.6	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Azobenzene	ND	9.3	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Benz(a)anthracene	ND	6.1	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Benzo(a)pyrene	ND	6.3	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Benzo(b)fluoranthene	ND	6.6	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Benzo(g,h,i)perylene	ND	6.8	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Benzo(k)fluoranthene	ND	7.2	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Benzoic acid	ND	9.8	20		µg/L	1	3/4/2016 4:44:56 PM	24000
Benzyl alcohol	ND	8.0	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Bis(2-chloroethoxy)methane	ND	7.3	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Bis(2-chloroethyl)ether	ND	8.3	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Bis(2-chloroisopropyl)ether	ND	9.1	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Bis(2-ethylhexyl)phthalate	ND	7.5	10		µg/L	1	3/4/2016 4:44:56 PM	24000
4-Bromophenyl phenyl ether	ND	8.6	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Butyl benzyl phthalate	ND	7.8	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Carbazole	12	7.2	10		µg/L	1	3/4/2016 4:44:56 PM	24000
4-Chloro-3-methylphenol	ND	8.0	10		µg/L	1	3/4/2016 4:44:56 PM	24000
4-Chloroaniline	ND	7.1	10		µg/L	1	3/4/2016 4:44:56 PM	24000
2-Chloronaphthalene	ND	7.2	10		µg/L	1	3/4/2016 4:44:56 PM	24000
2-Chlorophenol	ND	8.7	10		µg/L	1	3/4/2016 4:44:56 PM	24000
4-Chlorophenyl phenyl ether	ND	8.2	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Chrysene	ND	6.6	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Di-n-butyl phthalate	ND	8.1	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Di-n-octyl phthalate	ND	6.3	10		µg/L	1	3/4/2016 4:44:56 PM	24000

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	D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603069

Date Reported: 4/1/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-09

Project: Quarterly GW Sampling

Collection Date: 2/29/2016 1:30:00 PM

Lab ID: 1603069-003

Matrix: AQUEOUS

Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM	
Dibenz(a,h)anthracene	ND	6.8	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Dibenzofuran	ND	8.6	10		µg/L	1	3/4/2016 4:44:56 PM	24000
1,2-Dichlorobenzene	ND	6.4	10		µg/L	1	3/4/2016 4:44:56 PM	24000
1,3-Dichlorobenzene	ND	6.1	10		µg/L	1	3/4/2016 4:44:56 PM	24000
1,4-Dichlorobenzene	ND	6.3	10		µg/L	1	3/4/2016 4:44:56 PM	24000
3,3'-Dichlorobenzidine	ND	4.7	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Diethyl phthalate	ND	8.2	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Dimethyl phthalate	ND	7.5	10		µg/L	1	3/4/2016 4:44:56 PM	24000
2,4-Dichlorophenol	ND	7.6	20		µg/L	1	3/4/2016 4:44:56 PM	24000
2,4-Dimethylphenol	ND	4.7	10		µg/L	1	3/4/2016 4:44:56 PM	24000
4,6-Dinitro-2-methylphenol	ND	7.3	20		µg/L	1	3/4/2016 4:44:56 PM	24000
2,4-Dinitrophenol	ND	9.9	20		µg/L	1	3/4/2016 4:44:56 PM	24000
2,4-Dinitrotoluene	ND	8.5	10		µg/L	1	3/4/2016 4:44:56 PM	24000
2,6-Dinitrotoluene	ND	7.5	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Fluoranthene	ND	6.1	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Fluorene	ND	7.2	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Hexachlorobenzene	ND	7.1	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Hexachlorobutadiene	ND	5.2	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Hexachlorocyclopentadiene	ND	5.2	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Hexachloroethane	ND	5.8	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Indeno(1,2,3-cd)pyrene	ND	5.6	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Isophorone	ND	8.1	10		µg/L	1	3/4/2016 4:44:56 PM	24000
1-Methylnaphthalene	69	6.8	10		µg/L	1	3/4/2016 4:44:56 PM	24000
2-Methylnaphthalene	10	7.0	10		µg/L	1	3/4/2016 4:44:56 PM	24000
2-Methylphenol	ND	8.2	10		µg/L	1	3/4/2016 4:44:56 PM	24000
3+4-Methylphenol	ND	7.1	10		µg/L	1	3/4/2016 4:44:56 PM	24000
N-Nitrosodi-n-propylamine	ND	7.8	10		µg/L	1	3/4/2016 4:44:56 PM	24000
N-Nitrosodimethylamine	ND	9.1	10		µg/L	1	3/4/2016 4:44:56 PM	24000
N-Nitrosodiphenylamine	ND	6.2	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Naphthalene	32	5.9	10		µg/L	1	3/4/2016 4:44:56 PM	24000
2-Nitroaniline	ND	9.0	10		µg/L	1	3/4/2016 4:44:56 PM	24000
3-Nitroaniline	ND	8.8	10		µg/L	1	3/4/2016 4:44:56 PM	24000
4-Nitroaniline	ND	9.1	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Nitrobenzene	ND	7.8	10		µg/L	1	3/4/2016 4:44:56 PM	24000
2-Nitrophenol	ND	7.6	10		µg/L	1	3/4/2016 4:44:56 PM	24000
4-Nitrophenol	ND	6.7	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Pentachlorophenol	ND	7.6	20		µg/L	1	3/4/2016 4:44:56 PM	24000
Phenanthrene	ND	6.8	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Phenol	ND	5.1	10		µg/L	1	3/4/2016 4:44:56 PM	24000

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
	D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603069

Date Reported: 4/1/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-09

Project: Quarterly GW Sampling

Collection Date: 2/29/2016 1:30:00 PM

Lab ID: 1603069-003

Matrix: AQUEOUS

Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM	
Pyrene	ND	5.5	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Pyridine	ND	6.7	10		µg/L	1	3/4/2016 4:44:56 PM	24000
1,2,4-Trichlorobenzene	ND	6.2	10		µg/L	1	3/4/2016 4:44:56 PM	24000
2,4,5-Trichlorophenol	ND	8.4	10		µg/L	1	3/4/2016 4:44:56 PM	24000
2,4,6-Trichlorophenol	ND	8.8	10		µg/L	1	3/4/2016 4:44:56 PM	24000
Surr: 2-Fluorophenol	36.9	0	4.63-113		%Rec	1	3/4/2016 4:44:56 PM	24000
Surr: Phenol-d5	32.7	0	4.13-124		%Rec	1	3/4/2016 4:44:56 PM	24000
Surr: 2,4,6-Tribromophenol	68.3	0	5.14-132		%Rec	1	3/4/2016 4:44:56 PM	24000
Surr: Nitrobenzene-d5	77.7	0	9.13-140		%Rec	1	3/4/2016 4:44:56 PM	24000
Surr: 2-Fluorobiphenyl	76.2	0	10.8-132		%Rec	1	3/4/2016 4:44:56 PM	24000
Surr: 4-Terphenyl-d14	61.1	0	12.9-107		%Rec	1	3/4/2016 4:44:56 PM	24000
EPA METHOD 8260B: VOLATILES							Analyst: RAA	
Benzene	1600	9.6	100		µg/L	100	3/4/2016 7:28:58 PM	R32609
Toluene	29	0.89	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
Ethylbenzene	240	1.1	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
Methyl tert-butyl ether (MTBE)	690	2.1	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
1,2,4-Trimethylbenzene	65	1.0	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
1,3,5-Trimethylbenzene	ND	1.2	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
1,2-Dichloroethane (EDC)	ND	0.53	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
1,2-Dibromoethane (EDB)	ND	1.1	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
Naphthalene	41	0.83	20		µg/L	10	3/4/2016 7:57:35 PM	R32609
1-Methylnaphthalene	82	2.0	40		µg/L	10	3/4/2016 7:57:35 PM	R32609
2-Methylnaphthalene	14	1.6	40	J	µg/L	10	3/4/2016 7:57:35 PM	R32609
Acetone	10	8.8	100	J	µg/L	10	3/4/2016 7:57:35 PM	R32609
Bromobenzene	ND	0.80	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
Bromodichloromethane	ND	0.98	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
Bromoform	ND	1.0	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
Bromomethane	ND	7.8	30		µg/L	10	3/4/2016 7:57:35 PM	R32609
2-Butanone	ND	3.2	100		µg/L	10	3/4/2016 7:57:35 PM	R32609
Carbon disulfide	ND	6.0	100		µg/L	10	3/4/2016 7:57:35 PM	R32609
Carbon Tetrachloride	ND	1.1	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
Chlorobenzene	ND	1.0	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
Chloroethane	ND	1.5	20		µg/L	10	3/4/2016 7:57:35 PM	R32609
Chloroform	ND	0.89	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
Chloromethane	ND	2.1	30		µg/L	10	3/4/2016 7:57:35 PM	R32609
2-Chlorotoluene	ND	4.0	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
4-Chlorotoluene	ND	1.3	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
cis-1,2-DCE	27	1.2	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
cis-1,3-Dichloropropene	ND	1.0	10		µg/L	10	3/4/2016 7:57:35 PM	R32609

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
	D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603069

Date Reported: 4/1/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-09

Project: Quarterly GW Sampling

Collection Date: 2/29/2016 1:30:00 PM

Lab ID: 1603069-003

Matrix: AQUEOUS

Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: RAA	
1,2-Dibromo-3-chloropropane	ND	1.5	20		µg/L	10	3/4/2016 7:57:35 PM	R32609
Dibromochloromethane	ND	0.87	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
Dibromomethane	ND	1.2	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
1,2-Dichlorobenzene	ND	4.0	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
1,3-Dichlorobenzene	ND	1.4	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
1,4-Dichlorobenzene	ND	1.4	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
Dichlorodifluoromethane	ND	3.2	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
1,1-Dichloroethane	29	1.1	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
1,1-Dichloroethene	36	0.76	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
1,2-Dichloropropane	ND	0.47	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
1,3-Dichloropropane	ND	1.6	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
2,2-Dichloropropane	ND	1.2	20		µg/L	10	3/4/2016 7:57:35 PM	R32609
1,1-Dichloropropene	ND	1.3	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
Hexachlorobutadiene	ND	2.0	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
2-Hexanone	ND	3.6	100		µg/L	10	3/4/2016 7:57:35 PM	R32609
Isopropylbenzene	18	0.98	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
4-Isopropyltoluene	2.4	1.4	10	J	µg/L	10	3/4/2016 7:57:35 PM	R32609
4-Methyl-2-pentanone	ND	1.5	100		µg/L	10	3/4/2016 7:57:35 PM	R32609
Methylene Chloride	ND	0.63	30		µg/L	10	3/4/2016 7:57:35 PM	R32609
n-Butylbenzene	7.2	1.6	30	J	µg/L	10	3/4/2016 7:57:35 PM	R32609
n-Propylbenzene	32	1.3	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
sec-Butylbenzene	4.0	1.1	10	J	µg/L	10	3/4/2016 7:57:35 PM	R32609
Styrene	ND	0.95	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
tert-Butylbenzene	ND	0.96	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
1,1,1,2-Tetrachloroethane	ND	1.1	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
1,1,2,2-Tetrachloroethane	ND	1.1	20		µg/L	10	3/4/2016 7:57:35 PM	R32609
Tetrachloroethene (PCE)	5.2	1.5	10	J	µg/L	10	3/4/2016 7:57:35 PM	R32609
trans-1,2-DCE	ND	4.0	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
trans-1,3-Dichloropropene	ND	0.85	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
1,2,3-Trichlorobenzene	ND	1.1	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
1,2,4-Trichlorobenzene	ND	1.3	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
1,1,1-Trichloroethane	46	0.63	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
1,1,2-Trichloroethane	ND	0.77	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
Trichloroethene (TCE)	4.4	1.8	10	J	µg/L	10	3/4/2016 7:57:35 PM	R32609
Trichlorofluoromethane	ND	0.88	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
1,2,3-Trichloropropane	ND	1.1	20		µg/L	10	3/4/2016 7:57:35 PM	R32609
Vinyl chloride	ND	0.63	10		µg/L	10	3/4/2016 7:57:35 PM	R32609
Xylenes, Total	64	3.2	15		µg/L	10	3/4/2016 7:57:35 PM	R32609
Surr: 1,2-Dichloroethane-d4	99.6	0	70-130		%Rec	10	3/4/2016 7:57:35 PM	R32609

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
	D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603069

Date Reported: 4/1/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-09

Project: Quarterly GW Sampling

Collection Date: 2/29/2016 1:30:00 PM

Lab ID: 1603069-003

Matrix: AQUEOUS

Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: RAA	
Surr: 4-Bromofluorobenzene	86.5	0	70-130		%Rec	10	3/4/2016 7:57:35 PM	R32609
Surr: Dibromofluoromethane	107	0	70-130		%Rec	10	3/4/2016 7:57:35 PM	R32609
Surr: Toluene-d8	101	0	70-130		%Rec	10	3/4/2016 7:57:35 PM	R32609

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
	D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603069

Date Reported: 4/1/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: Quarterly GW Sampling

Collection Date:

Lab ID: 1603069-004

Matrix: TRIP BLANK

Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	3/3/2016 9:37:17 PM	A32557
Surr: BFB	91.2	0	49.5-130		%Rec	1	3/3/2016 9:37:17 PM	A32557
EPA METHOD 8260B: VOLATILES							Analyst: RAA	
Benzene	ND	0.096	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
Toluene	ND	0.089	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
Ethylbenzene	ND	0.11	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
1,2,4-Trimethylbenzene	ND	0.10	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
1,2-Dichloroethane (EDC)	ND	0.053	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
Naphthalene	ND	0.083	2.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
Acetone	ND	0.88	10		µg/L	1	3/5/2016 4:35:35 AM	R32609
Bromobenzene	ND	0.080	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
Bromodichloromethane	ND	0.098	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
Bromoform	ND	0.10	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
Bromomethane	ND	0.78	3.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
2-Butanone	ND	0.32	10		µg/L	1	3/5/2016 4:35:35 AM	R32609
Carbon disulfide	ND	0.60	10		µg/L	1	3/5/2016 4:35:35 AM	R32609
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
Chlorobenzene	ND	0.10	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
Chloroethane	ND	0.15	2.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
Chloroform	ND	0.089	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
Chloromethane	ND	0.21	3.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
cis-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
1,2-Dibromo-3-chloropropane	ND	0.15	2.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
Dibromochloromethane	ND	0.087	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
Dibromomethane	ND	0.12	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
Dichlorodifluoromethane	ND	0.32	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
1,1-Dichloroethene	ND	0.076	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609

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
	D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603069

Date Reported: 4/1/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: Quarterly GW Sampling

Collection Date:

Lab ID: 1603069-004

Matrix: TRIP BLANK

Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: RAA	
1,2-Dichloropropane	ND	0.047	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
2,2-Dichloropropane	ND	0.12	2.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
2-Hexanone	ND	0.36	10		µg/L	1	3/5/2016 4:35:35 AM	R32609
Isopropylbenzene	ND	0.098	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
4-Methyl-2-pentanone	ND	0.15	10		µg/L	1	3/5/2016 4:35:35 AM	R32609
Methylene Chloride	ND	0.063	3.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
n-Butylbenzene	ND	0.16	3.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
n-Propylbenzene	ND	0.13	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
sec-Butylbenzene	ND	0.11	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
Styrene	ND	0.095	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
tert-Butylbenzene	ND	0.096	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
1,1,2,2-Tetrachloroethane	ND	0.11	2.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
trans-1,3-Dichloropropene	ND	0.085	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
1,1,1-Trichloroethane	ND	0.063	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
1,1,2-Trichloroethane	ND	0.077	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
Trichlorofluoromethane	ND	0.088	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
1,2,3-Trichloropropane	ND	0.11	2.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
Vinyl chloride	ND	0.063	1.0		µg/L	1	3/5/2016 4:35:35 AM	R32609
Xylenes, Total	ND	0.32	1.5		µg/L	1	3/5/2016 4:35:35 AM	R32609
Surr: 1,2-Dichloroethane-d4	100	0	70-130		%Rec	1	3/5/2016 4:35:35 AM	R32609
Surr: 4-Bromofluorobenzene	103	0	70-130		%Rec	1	3/5/2016 4:35:35 AM	R32609
Surr: Dibromofluoromethane	113	0	70-130		%Rec	1	3/5/2016 4:35:35 AM	R32609
Surr: Toluene-d8	106	0	70-130		%Rec	1	3/5/2016 4:35:35 AM	R32609

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Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603069

Date Reported: 4/1/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-16

Project: Quarterly GW Sampling

Collection Date: 2/29/2016 2:25:00 PM

Lab ID: 1603069-005

Matrix: AQUEOUS

Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: JME	
Diesel Range Organics (DRO)	2.6	0.69	1.0		mg/L	1	3/3/2016 4:00:20 PM	24027
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	3/3/2016 4:00:20 PM	24027
Surr: DNOP	91.5	0	70-141		%Rec	1	3/3/2016 4:00:20 PM	24027
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB	
Gasoline Range Organics (GRO)	73	2.5	5.0		mg/L	100	3/3/2016 10:01:51 PM	A32557
Surr: BFB	95.6	0	49.5-130		%Rec	100	3/3/2016 10:01:51 PM	A32557
EPA METHOD 300.0: ANIONS							Analyst: JRR	
Fluoride	1.0	0.023	0.10		mg/L	1	3/4/2016 8:13:44 PM	R32618
Chloride	710	1.4	25		mg/L	50	3/11/2016 4:59:46 AM	R32710
Bromide	ND	0.032	0.10		mg/L	1	3/4/2016 8:13:44 PM	R32618
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50	H	mg/L	1	3/4/2016 8:13:44 PM	R32618
Sulfate	0.068	0.064	0.50	J	mg/L	1	3/4/2016 8:13:44 PM	R32618
Nitrate+Nitrite as N	ND	0.42	1.0		mg/L	5	3/3/2016 12:18:57 PM	a32571
EPA METHOD 200.7: DISSOLVED METALS							Analyst: ELS	
Barium	1.3	0.013	0.020		mg/L	10	3/18/2016 12:17:09 PM	B32891
Cadmium	ND	0.00075	0.0020		mg/L	1	3/16/2016 2:24:25 PM	C32831
Calcium	68	0.26	1.0		mg/L	1	3/16/2016 2:24:25 PM	C32831
Chromium	ND	0.0018	0.0060		mg/L	1	3/16/2016 2:24:25 PM	C32831
Copper	ND	0.0040	0.0060		mg/L	1	3/16/2016 2:24:25 PM	C32831
Iron	5.8	0.091	0.20	*	mg/L	10	3/18/2016 12:17:09 PM	B32891
Magnesium	19	0.013	1.0		mg/L	1	3/16/2016 2:24:25 PM	C32831
Manganese	1.7	0.0032	0.020	*	mg/L	10	3/18/2016 12:17:09 PM	B32891
Potassium	1.3	0.18	1.0		mg/L	1	3/16/2016 2:24:25 PM	C32831
Silver	ND	0.0028	0.0050		mg/L	1	3/16/2016 2:24:25 PM	C32831
Sodium	710	0.96	10		mg/L	10	3/18/2016 12:17:09 PM	B32891
Zinc	0.018	0.0028	0.010		mg/L	1	3/16/2016 2:24:25 PM	C32831
EPA METHOD 200.7: TOTAL METALS							Analyst: MED	
Barium	1.3	0.011	0.020		mg/L	10	3/15/2016 11:23:20 AM	24115
Cadmium	ND	0.00062	0.0020		mg/L	1	3/11/2016 4:24:50 PM	24115
Chromium	ND	0.0022	0.0060		mg/L	1	3/11/2016 4:24:50 PM	24115
Copper	ND	0.0051	0.0060		mg/L	1	3/15/2016 11:21:42 AM	24115
Iron	6.5	0.072	0.20	*	mg/L	10	3/15/2016 11:23:20 AM	24115
Manganese	1.8	0.015	0.020	*	mg/L	10	3/15/2016 11:23:20 AM	24115
Silver	ND	0.0021	0.0050		mg/L	1	3/11/2016 4:24:50 PM	24115
Zinc	0.034	0.0039	0.010		mg/L	1	3/15/2016 11:21:42 AM	24115
EPA 200.8: DISSOLVED METALS							Analyst: JLF	
Arsenic	0.010	0.00032	0.0050	*	mg/L	5	3/22/2016 8:25:51 PM	C32978

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Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603069

Date Reported: 4/1/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-16

Project: Quarterly GW Sampling

Collection Date: 2/29/2016 2:25:00 PM

Lab ID: 1603069-005

Matrix: AQUEOUS

Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: JLF	
Lead	0.00079	0.000026	0.00050		mg/L	1	3/22/2016 8:22:47 PM	C32978
Selenium	0.0099	0.00097	0.0050		mg/L	5	3/22/2016 8:25:51 PM	C32978
Uranium	0.00025	0.0000048	0.00050	J	mg/L	1	3/22/2016 8:22:47 PM	C32978
200.8 ICPMS METALS:TOTAL							Analyst: JLF	
Arsenic	0.0092	0.0015	0.0050		mg/L	5	3/14/2016 5:47:48 PM	24115
Lead	0.0031	0.00024	0.0025		mg/L	5	3/14/2016 4:39:00 PM	24115
Selenium	0.0049	0.00062	0.0050	J	mg/L	5	3/14/2016 5:47:48 PM	24115
Uranium	0.00066	0.000025	0.0025	J	mg/L	5	3/14/2016 4:39:00 PM	24115
EPA METHOD 245.1: MERCURY							Analyst: pmf	
Mercury	ND	0.000053	0.00020		mg/L	1	3/8/2016 11:11:38 AM	24112
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM	
Acenaphthene	ND	8.0	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Acenaphthylene	ND	7.2	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Aniline	11	9.8	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Anthracene	ND	6.6	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Azobenzene	ND	9.3	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Benz(a)anthracene	ND	6.1	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Benzo(a)pyrene	ND	6.3	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Benzo(b)fluoranthene	ND	6.6	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Benzo(g,h,i)perylene	ND	6.8	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Benzo(k)fluoranthene	ND	7.2	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Benzoic acid	ND	9.8	20		µg/L	1	3/4/2016 5:15:51 PM	24000
Benzyl alcohol	ND	8.0	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Bis(2-chloroethoxy)methane	ND	7.3	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Bis(2-chloroethyl)ether	ND	8.3	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Bis(2-chloroisopropyl)ether	ND	9.1	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Bis(2-ethylhexyl)phthalate	ND	7.5	10		µg/L	1	3/4/2016 5:15:51 PM	24000
4-Bromophenyl phenyl ether	ND	8.6	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Butyl benzyl phthalate	ND	7.8	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Carbazole	ND	7.2	10		µg/L	1	3/4/2016 5:15:51 PM	24000
4-Chloro-3-methylphenol	ND	8.0	10		µg/L	1	3/4/2016 5:15:51 PM	24000
4-Chloroaniline	ND	7.1	10		µg/L	1	3/4/2016 5:15:51 PM	24000
2-Chloronaphthalene	ND	7.2	10		µg/L	1	3/4/2016 5:15:51 PM	24000
2-Chlorophenol	ND	8.7	10		µg/L	1	3/4/2016 5:15:51 PM	24000
4-Chlorophenyl phenyl ether	ND	8.2	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Chrysene	ND	6.6	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Di-n-butyl phthalate	ND	8.1	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Di-n-octyl phthalate	ND	6.3	10		µg/L	1	3/4/2016 5:15:51 PM	24000

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Analytical Report

Lab Order 1603069

Date Reported: 4/1/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-16

Project: Quarterly GW Sampling

Collection Date: 2/29/2016 2:25:00 PM

Lab ID: 1603069-005

Matrix: AQUEOUS

Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM	
Dibenz(a,h)anthracene	ND	6.8	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Dibenzofuran	ND	8.6	10		µg/L	1	3/4/2016 5:15:51 PM	24000
1,2-Dichlorobenzene	ND	6.4	10		µg/L	1	3/4/2016 5:15:51 PM	24000
1,3-Dichlorobenzene	ND	6.1	10		µg/L	1	3/4/2016 5:15:51 PM	24000
1,4-Dichlorobenzene	ND	6.3	10		µg/L	1	3/4/2016 5:15:51 PM	24000
3,3'-Dichlorobenzidine	ND	4.7	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Diethyl phthalate	ND	8.2	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Dimethyl phthalate	ND	7.5	10		µg/L	1	3/4/2016 5:15:51 PM	24000
2,4-Dichlorophenol	ND	7.6	20		µg/L	1	3/4/2016 5:15:51 PM	24000
2,4-Dimethylphenol	91	4.7	10		µg/L	1	3/4/2016 5:15:51 PM	24000
4,6-Dinitro-2-methylphenol	ND	7.3	20		µg/L	1	3/4/2016 5:15:51 PM	24000
2,4-Dinitrophenol	ND	9.9	20		µg/L	1	3/4/2016 5:15:51 PM	24000
2,4-Dinitrotoluene	ND	8.5	10		µg/L	1	3/4/2016 5:15:51 PM	24000
2,6-Dinitrotoluene	ND	7.5	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Fluoranthene	ND	6.1	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Fluorene	ND	7.2	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Hexachlorobenzene	ND	7.1	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Hexachlorobutadiene	ND	5.2	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Hexachlorocyclopentadiene	ND	5.2	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Hexachloroethane	ND	5.8	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Indeno(1,2,3-cd)pyrene	ND	5.6	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Isophorone	ND	8.1	10		µg/L	1	3/4/2016 5:15:51 PM	24000
1-Methylnaphthalene	33	6.8	10		µg/L	1	3/4/2016 5:15:51 PM	24000
2-Methylnaphthalene	42	7.0	10		µg/L	1	3/4/2016 5:15:51 PM	24000
2-Methylphenol	79	8.2	10		µg/L	1	3/4/2016 5:15:51 PM	24000
3+4-Methylphenol	ND	7.1	10		µg/L	1	3/4/2016 5:15:51 PM	24000
N-Nitrosodi-n-propylamine	ND	7.8	10		µg/L	1	3/4/2016 5:15:51 PM	24000
N-Nitrosodimethylamine	ND	9.1	10		µg/L	1	3/4/2016 5:15:51 PM	24000
N-Nitrosodiphenylamine	ND	6.2	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Naphthalene	110	5.9	10		µg/L	1	3/4/2016 5:15:51 PM	24000
2-Nitroaniline	ND	9.0	10		µg/L	1	3/4/2016 5:15:51 PM	24000
3-Nitroaniline	ND	8.8	10		µg/L	1	3/4/2016 5:15:51 PM	24000
4-Nitroaniline	ND	9.1	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Nitrobenzene	ND	7.8	10		µg/L	1	3/4/2016 5:15:51 PM	24000
2-Nitrophenol	ND	7.6	10		µg/L	1	3/4/2016 5:15:51 PM	24000
4-Nitrophenol	ND	6.7	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Pentachlorophenol	ND	7.6	20		µg/L	1	3/4/2016 5:15:51 PM	24000
Phenanthrene	ND	6.8	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Phenol	30	5.1	10		µg/L	1	3/4/2016 5:15:51 PM	24000

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Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM	
Pyrene	ND	5.5	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Pyridine	ND	6.7	10		µg/L	1	3/4/2016 5:15:51 PM	24000
1,2,4-Trichlorobenzene	ND	6.2	10		µg/L	1	3/4/2016 5:15:51 PM	24000
2,4,5-Trichlorophenol	ND	8.4	10		µg/L	1	3/4/2016 5:15:51 PM	24000
2,4,6-Trichlorophenol	ND	8.8	10		µg/L	1	3/4/2016 5:15:51 PM	24000
Surr: 2-Fluorophenol	25.8	0	4.63-113		%Rec	1	3/4/2016 5:15:51 PM	24000
Surr: Phenol-d5	32.7	0	4.13-124		%Rec	1	3/4/2016 5:15:51 PM	24000
Surr: 2,4,6-Tribromophenol	79.5	0	5.14-132		%Rec	1	3/4/2016 5:15:51 PM	24000
Surr: Nitrobenzene-d5	75.5	0	9.13-140		%Rec	1	3/4/2016 5:15:51 PM	24000
Surr: 2-Fluorobiphenyl	87.0	0	10.8-132		%Rec	1	3/4/2016 5:15:51 PM	24000
Surr: 4-Terphenyl-d14	63.3	0	12.9-107		%Rec	1	3/4/2016 5:15:51 PM	24000
EPA METHOD 8260B: VOLATILES							Analyst: RAA	
Benzene	19000	96	1000		µg/L	1000	3/4/2016 8:26:11 PM	R32609
Toluene	280	8.9	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
Ethylbenzene	1000	11	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
Methyl tert-butyl ether (MTBE)	1400	21	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
1,2,4-Trimethylbenzene	690	10	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
1,3,5-Trimethylbenzene	240	12	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
1,2-Dichloroethane (EDC)	ND	5.3	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
1,2-Dibromoethane (EDB)	ND	11	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
Naphthalene	140	8.3	200	J	µg/L	100	3/4/2016 8:55:03 PM	R32609
1-Methylnaphthalene	57	20	400	J	µg/L	100	3/4/2016 8:55:03 PM	R32609
2-Methylnaphthalene	63	16	400	J	µg/L	100	3/4/2016 8:55:03 PM	R32609
Acetone	ND	88	1000		µg/L	100	3/4/2016 8:55:03 PM	R32609
Bromobenzene	ND	8.0	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
Bromodichloromethane	ND	9.8	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
Bromoform	ND	10	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
Bromomethane	ND	78	300		µg/L	100	3/4/2016 8:55:03 PM	R32609
2-Butanone	ND	32	1000		µg/L	100	3/4/2016 8:55:03 PM	R32609
Carbon disulfide	ND	60	1000		µg/L	100	3/4/2016 8:55:03 PM	R32609
Carbon Tetrachloride	ND	11	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
Chlorobenzene	ND	10	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
Chloroethane	ND	15	200		µg/L	100	3/4/2016 8:55:03 PM	R32609
Chloroform	ND	8.9	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
Chloromethane	ND	21	300		µg/L	100	3/4/2016 8:55:03 PM	R32609
2-Chlorotoluene	ND	40	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
4-Chlorotoluene	ND	13	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
cis-1,2-DCE	ND	12	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
cis-1,3-Dichloropropene	ND	10	100		µg/L	100	3/4/2016 8:55:03 PM	R32609

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	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-16

Project: Quarterly GW Sampling

Collection Date: 2/29/2016 2:25:00 PM

Lab ID: 1603069-005

Matrix: AQUEOUS

Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: RAA	
1,2-Dibromo-3-chloropropane	ND	15	200		µg/L	100	3/4/2016 8:55:03 PM	R32609
Dibromochloromethane	ND	8.7	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
Dibromomethane	ND	12	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
1,2-Dichlorobenzene	ND	40	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
1,3-Dichlorobenzene	ND	14	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
1,4-Dichlorobenzene	ND	14	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
Dichlorodifluoromethane	ND	32	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
1,1-Dichloroethane	50	11	100	J	µg/L	100	3/4/2016 8:55:03 PM	R32609
1,1-Dichloroethene	ND	7.6	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
1,2-Dichloropropane	ND	4.7	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
1,3-Dichloropropane	ND	16	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
2,2-Dichloropropane	ND	12	200		µg/L	100	3/4/2016 8:55:03 PM	R32609
1,1-Dichloropropene	ND	13	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
Hexachlorobutadiene	ND	20	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
2-Hexanone	ND	36	1000		µg/L	100	3/4/2016 8:55:03 PM	R32609
Isopropylbenzene	ND	9.8	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
4-Isopropyltoluene	ND	14	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
4-Methyl-2-pentanone	ND	15	1000		µg/L	100	3/4/2016 8:55:03 PM	R32609
Methylene Chloride	ND	6.3	300		µg/L	100	3/4/2016 8:55:03 PM	R32609
n-Butylbenzene	ND	16	300		µg/L	100	3/4/2016 8:55:03 PM	R32609
n-Propylbenzene	59	13	100	J	µg/L	100	3/4/2016 8:55:03 PM	R32609
sec-Butylbenzene	ND	11	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
Styrene	ND	9.5	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
tert-Butylbenzene	ND	9.6	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
1,1,1,2-Tetrachloroethane	ND	11	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
1,1,2,2-Tetrachloroethane	ND	11	200		µg/L	100	3/4/2016 8:55:03 PM	R32609
Tetrachloroethene (PCE)	ND	15	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
trans-1,2-DCE	ND	40	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
trans-1,3-Dichloropropene	ND	8.5	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
1,2,3-Trichlorobenzene	ND	11	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
1,2,4-Trichlorobenzene	ND	13	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
1,1,1-Trichloroethane	ND	6.3	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
1,1,2-Trichloroethane	ND	7.7	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
Trichloroethene (TCE)	ND	18	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
Trichlorofluoromethane	ND	8.8	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
1,2,3-Trichloropropane	ND	11	200		µg/L	100	3/4/2016 8:55:03 PM	R32609
Vinyl chloride	ND	6.3	100		µg/L	100	3/4/2016 8:55:03 PM	R32609
Xylenes, Total	3900	32	150		µg/L	100	3/4/2016 8:55:03 PM	R32609
Surr: 1,2-Dichloroethane-d4	103	0	70-130		%Rec	100	3/4/2016 8:55:03 PM	R32609

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
	D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603069

Date Reported: 4/1/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-16

Project: Quarterly GW Sampling

Collection Date: 2/29/2016 2:25:00 PM

Lab ID: 1603069-005

Matrix: AQUEOUS

Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: RAA	
Surr: 4-Bromofluorobenzene	95.4	0	70-130		%Rec	100	3/4/2016 8:55:03 PM	R32609
Surr: Dibromofluoromethane	109	0	70-130		%Rec	100	3/4/2016 8:55:03 PM	R32609
Surr: Toluene-d8	95.6	0	70-130		%Rec	100	3/4/2016 8:55:03 PM	R32609

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
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
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	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-38

Project: Quarterly GW Sampling

Collection Date: 2/29/2016 4:20:00 PM

Lab ID: 1603069-006

Matrix: AQUEOUS

Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE							Analyst: JME	
Diesel Range Organics (DRO)	ND	0.69	1.0		mg/L	1	3/3/2016 4:22:07 PM	24027
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	3/3/2016 4:22:07 PM	24027
Surr: DNOP	94.7	0	70-141		%Rec	1	3/3/2016 4:22:07 PM	24027
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB	
Gasoline Range Organics (GRO)	0.14	0.025	0.050		mg/L	1	3/3/2016 10:26:19 PM	A32557
Surr: BFB	92.5	0	49.5-130		%Rec	1	3/3/2016 10:26:19 PM	A32557
EPA METHOD 300.0: ANIONS							Analyst: JRR	
Fluoride	0.75	0.023	0.10		mg/L	1	3/4/2016 9:03:22 PM	R32618
Chloride	110	0.55	10		mg/L	20	3/4/2016 9:15:47 PM	R32618
Bromide	0.75	0.032	0.10		mg/L	1	3/4/2016 9:03:22 PM	R32618
Phosphorus, Orthophosphate (As P)	ND	0.22	0.50	H	mg/L	1	3/4/2016 9:03:22 PM	R32618
Sulfate	450	1.3	10		mg/L	20	3/4/2016 9:15:47 PM	R32618
Nitrate+Nitrite as N	7.2	0.42	1.0		mg/L	5	3/3/2016 12:31:22 PM	a32571
EPA METHOD 200.7: DISSOLVED METALS							Analyst: MED	
Barium	0.030	0.0013	0.0020		mg/L	1	3/16/2016 2:26:04 PM	C32831
Cadmium	ND	0.00075	0.0020		mg/L	1	3/16/2016 2:26:04 PM	C32831
Calcium	150	1.3	5.0		mg/L	5	3/18/2016 12:19:05 PM	B32891
Chromium	ND	0.0018	0.0060		mg/L	1	3/16/2016 2:26:04 PM	C32831
Copper	ND	0.0040	0.0060		mg/L	1	3/16/2016 2:26:04 PM	C32831
Iron	0.070	0.0091	0.020		mg/L	1	3/16/2016 2:26:04 PM	C32831
Magnesium	31	0.013	1.0		mg/L	1	3/16/2016 2:26:04 PM	C32831
Manganese	2.3	0.0016	0.010	*	mg/L	5	3/18/2016 12:19:05 PM	B32891
Potassium	0.55	0.18	1.0	J	mg/L	1	3/16/2016 2:26:04 PM	C32831
Silver	ND	0.0028	0.0050		mg/L	1	3/16/2016 2:26:04 PM	C32831
Sodium	210	0.48	5.0		mg/L	5	3/18/2016 12:19:05 PM	B32891
Zinc	0.012	0.0028	0.010		mg/L	1	3/16/2016 2:26:04 PM	C32831
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS	
Barium	0.14	0.0011	0.0020		mg/L	1	3/11/2016 4:26:30 PM	24115
Cadmium	ND	0.00062	0.0020		mg/L	1	3/11/2016 4:26:30 PM	24115
Chromium	ND	0.0022	0.0060		mg/L	1	3/11/2016 4:26:30 PM	24115
Copper	ND	0.0051	0.0060		mg/L	1	3/15/2016 11:25:18 AM	24115
Iron	2.3	0.036	0.10	*	mg/L	5	3/15/2016 11:35:32 AM	24115
Manganese	2.7	0.0076	0.010	*	mg/L	5	3/15/2016 11:35:32 AM	24115
Silver	ND	0.0021	0.0050		mg/L	1	3/11/2016 4:26:30 PM	24115
Zinc	0.014	0.0039	0.010		mg/L	1	3/15/2016 11:25:18 AM	24115
EPA 200.8: DISSOLVED METALS							Analyst: JLF	
Arsenic	0.0014	0.00032	0.0050	J	mg/L	5	3/22/2016 8:28:54 PM	C32978

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	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603069

Date Reported: 4/1/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-38

Project: Quarterly GW Sampling

Collection Date: 2/29/2016 4:20:00 PM

Lab ID: 1603069-006

Matrix: AQUEOUS

Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: JLF	
Lead	0.000047	0.000026	0.00050	J	mg/L	1	3/15/2016 6:25:47 PM	C32805
Selenium	0.0033	0.00019	0.0010		mg/L	1	3/15/2016 6:25:47 PM	C32805
Uranium	0.012	0.000024	0.0025		mg/L	5	3/22/2016 8:28:54 PM	C32978
200.8 ICPMS METALS:TOTAL							Analyst: JLF	
Arsenic	0.0017	0.00029	0.0010		mg/L	1	3/11/2016 5:04:30 PM	24115
Lead	0.0035	0.000047	0.00050		mg/L	1	3/11/2016 5:04:30 PM	24115
Selenium	0.0024	0.00062	0.0050	J	mg/L	5	3/14/2016 6:02:54 PM	24115
Uranium	0.014	0.0000049	0.00050		mg/L	1	3/11/2016 5:04:30 PM	24115
EPA METHOD 245.1: MERCURY							Analyst: pmf	
Mercury	ND	0.000053	0.00020		mg/L	1	3/8/2016 11:13:43 AM	24112
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM	
Acenaphthene	ND	8.0	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Acenaphthylene	ND	7.2	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Aniline	ND	9.8	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Anthracene	ND	6.6	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Azobenzene	ND	9.3	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Benz(a)anthracene	ND	6.1	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Benzo(a)pyrene	ND	6.3	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Benzo(b)fluoranthene	ND	6.6	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Benzo(g,h,i)perylene	ND	6.8	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Benzo(k)fluoranthene	ND	7.2	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Benzoic acid	ND	9.8	20		µg/L	1	3/4/2016 5:46:39 PM	24000
Benzyl alcohol	ND	8.0	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Bis(2-chloroethoxy)methane	ND	7.3	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Bis(2-chloroethyl)ether	ND	8.3	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Bis(2-chloroisopropyl)ether	ND	9.1	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Bis(2-ethylhexyl)phthalate	ND	7.5	10		µg/L	1	3/4/2016 5:46:39 PM	24000
4-Bromophenyl phenyl ether	ND	8.6	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Butyl benzyl phthalate	ND	7.8	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Carbazole	ND	7.2	10		µg/L	1	3/4/2016 5:46:39 PM	24000
4-Chloro-3-methylphenol	ND	8.0	10		µg/L	1	3/4/2016 5:46:39 PM	24000
4-Chloroaniline	ND	7.1	10		µg/L	1	3/4/2016 5:46:39 PM	24000
2-Chloronaphthalene	ND	7.2	10		µg/L	1	3/4/2016 5:46:39 PM	24000
2-Chlorophenol	ND	8.7	10		µg/L	1	3/4/2016 5:46:39 PM	24000
4-Chlorophenyl phenyl ether	ND	8.2	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Chrysene	ND	6.6	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Di-n-butyl phthalate	ND	8.1	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Di-n-octyl phthalate	ND	6.3	10		µg/L	1	3/4/2016 5:46:39 PM	24000

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	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603069

Date Reported: 4/1/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-38

Project: Quarterly GW Sampling

Collection Date: 2/29/2016 4:20:00 PM

Lab ID: 1603069-006

Matrix: AQUEOUS

Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM	
Dibenz(a,h)anthracene	ND	6.8	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Dibenzofuran	ND	8.6	10		µg/L	1	3/4/2016 5:46:39 PM	24000
1,2-Dichlorobenzene	ND	6.4	10		µg/L	1	3/4/2016 5:46:39 PM	24000
1,3-Dichlorobenzene	ND	6.1	10		µg/L	1	3/4/2016 5:46:39 PM	24000
1,4-Dichlorobenzene	ND	6.3	10		µg/L	1	3/4/2016 5:46:39 PM	24000
3,3'-Dichlorobenzidine	ND	4.7	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Diethyl phthalate	ND	8.2	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Dimethyl phthalate	ND	7.5	10		µg/L	1	3/4/2016 5:46:39 PM	24000
2,4-Dichlorophenol	ND	7.6	20		µg/L	1	3/4/2016 5:46:39 PM	24000
2,4-Dimethylphenol	ND	4.7	10		µg/L	1	3/4/2016 5:46:39 PM	24000
4,6-Dinitro-2-methylphenol	ND	7.3	20		µg/L	1	3/4/2016 5:46:39 PM	24000
2,4-Dinitrophenol	ND	9.9	20		µg/L	1	3/4/2016 5:46:39 PM	24000
2,4-Dinitrotoluene	ND	8.5	10		µg/L	1	3/4/2016 5:46:39 PM	24000
2,6-Dinitrotoluene	ND	7.5	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Fluoranthene	ND	6.1	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Fluorene	ND	7.2	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Hexachlorobenzene	ND	7.1	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Hexachlorobutadiene	ND	5.2	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Hexachlorocyclopentadiene	ND	5.2	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Hexachloroethane	ND	5.8	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Indeno(1,2,3-cd)pyrene	ND	5.6	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Isophorone	ND	8.1	10		µg/L	1	3/4/2016 5:46:39 PM	24000
1-Methylnaphthalene	ND	6.8	10		µg/L	1	3/4/2016 5:46:39 PM	24000
2-Methylnaphthalene	ND	7.0	10		µg/L	1	3/4/2016 5:46:39 PM	24000
2-Methylphenol	ND	8.2	10		µg/L	1	3/4/2016 5:46:39 PM	24000
3+4-Methylphenol	ND	7.1	10		µg/L	1	3/4/2016 5:46:39 PM	24000
N-Nitrosodi-n-propylamine	ND	7.8	10		µg/L	1	3/4/2016 5:46:39 PM	24000
N-Nitrosodimethylamine	ND	9.1	10		µg/L	1	3/4/2016 5:46:39 PM	24000
N-Nitrosodiphenylamine	ND	6.2	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Naphthalene	ND	5.9	10		µg/L	1	3/4/2016 5:46:39 PM	24000
2-Nitroaniline	ND	9.0	10		µg/L	1	3/4/2016 5:46:39 PM	24000
3-Nitroaniline	ND	8.8	10		µg/L	1	3/4/2016 5:46:39 PM	24000
4-Nitroaniline	ND	9.1	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Nitrobenzene	ND	7.8	10		µg/L	1	3/4/2016 5:46:39 PM	24000
2-Nitrophenol	ND	7.6	10		µg/L	1	3/4/2016 5:46:39 PM	24000
4-Nitrophenol	ND	6.7	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Pentachlorophenol	ND	7.6	20		µg/L	1	3/4/2016 5:46:39 PM	24000
Phenanthrene	ND	6.8	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Phenol	ND	5.1	10		µg/L	1	3/4/2016 5:46:39 PM	24000

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
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
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	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603069

Date Reported: 4/1/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-38

Project: Quarterly GW Sampling

Collection Date: 2/29/2016 4:20:00 PM

Lab ID: 1603069-006

Matrix: AQUEOUS

Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM	
Pyrene	ND	5.5	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Pyridine	ND	6.7	10		µg/L	1	3/4/2016 5:46:39 PM	24000
1,2,4-Trichlorobenzene	ND	6.2	10		µg/L	1	3/4/2016 5:46:39 PM	24000
2,4,5-Trichlorophenol	ND	8.4	10		µg/L	1	3/4/2016 5:46:39 PM	24000
2,4,6-Trichlorophenol	ND	8.8	10		µg/L	1	3/4/2016 5:46:39 PM	24000
Surr: 2-Fluorophenol	49.4	0	4.63-113		%Rec	1	3/4/2016 5:46:39 PM	24000
Surr: Phenol-d5	46.8	0	4.13-124		%Rec	1	3/4/2016 5:46:39 PM	24000
Surr: 2,4,6-Tribromophenol	71.5	0	5.14-132		%Rec	1	3/4/2016 5:46:39 PM	24000
Surr: Nitrobenzene-d5	105	0	9.13-140		%Rec	1	3/4/2016 5:46:39 PM	24000
Surr: 2-Fluorobiphenyl	104	0	10.8-132		%Rec	1	3/4/2016 5:46:39 PM	24000
Surr: 4-Terphenyl-d14	71.3	0	12.9-107		%Rec	1	3/4/2016 5:46:39 PM	24000
EPA METHOD 8260B: VOLATILES							Analyst: RAA	
Benzene	0.34	0.096	1.0	J	µg/L	1	3/4/2016 10:50:19 PM	R32609
Toluene	ND	0.089	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
Ethylbenzene	ND	0.11	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
Methyl tert-butyl ether (MTBE)	0.59	0.21	1.0	J	µg/L	1	3/4/2016 10:50:19 PM	R32609
1,2,4-Trimethylbenzene	ND	0.10	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
1,2-Dichloroethane (EDC)	ND	0.053	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
Naphthalene	ND	0.083	2.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
Acetone	ND	0.88	10		µg/L	1	3/4/2016 10:50:19 PM	R32609
Bromobenzene	ND	0.080	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
Bromodichloromethane	ND	0.098	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
Bromoform	ND	0.10	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
Bromomethane	ND	0.78	3.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
2-Butanone	ND	0.32	10		µg/L	1	3/4/2016 10:50:19 PM	R32609
Carbon disulfide	ND	0.60	10		µg/L	1	3/4/2016 10:50:19 PM	R32609
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
Chlorobenzene	ND	0.10	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
Chloroethane	ND	0.15	2.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
Chloroform	ND	0.089	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
Chloromethane	ND	0.21	3.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
cis-1,2-DCE	1.3	0.12	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
cis-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609

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
	D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603069

Date Reported: 4/1/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-38

Project: Quarterly GW Sampling

Collection Date: 2/29/2016 4:20:00 PM

Lab ID: 1603069-006

Matrix: AQUEOUS

Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: RAA	
1,2-Dibromo-3-chloropropane	ND	0.15	2.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
Dibromochloromethane	ND	0.087	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
Dibromomethane	ND	0.12	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
Dichlorodifluoromethane	ND	0.32	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
1,1-Dichloroethane	0.73	0.11	1.0	J	µg/L	1	3/4/2016 10:50:19 PM	R32609
1,1-Dichloroethene	0.11	0.076	1.0	J	µg/L	1	3/4/2016 10:50:19 PM	R32609
1,2-Dichloropropane	ND	0.047	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
2,2-Dichloropropane	ND	0.12	2.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
2-Hexanone	ND	0.36	10		µg/L	1	3/4/2016 10:50:19 PM	R32609
Isopropylbenzene	ND	0.098	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
4-Methyl-2-pentanone	ND	0.15	10		µg/L	1	3/4/2016 10:50:19 PM	R32609
Methylene Chloride	ND	0.063	3.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
n-Butylbenzene	ND	0.16	3.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
n-Propylbenzene	ND	0.13	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
sec-Butylbenzene	ND	0.11	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
Styrene	ND	0.095	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
tert-Butylbenzene	ND	0.096	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
1,1,2,2-Tetrachloroethane	ND	0.11	2.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
Tetrachloroethene (PCE)	1.1	0.15	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
trans-1,3-Dichloropropene	ND	0.085	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
1,1,1-Trichloroethane	ND	0.063	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
1,1,2-Trichloroethane	ND	0.077	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
Trichlorofluoromethane	ND	0.088	1.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
1,2,3-Trichloropropane	ND	0.11	2.0		µg/L	1	3/4/2016 10:50:19 PM	R32609
Vinyl chloride	0.37	0.063	1.0	J	µg/L	1	3/4/2016 10:50:19 PM	R32609
Xylenes, Total	ND	0.32	1.5		µg/L	1	3/4/2016 10:50:19 PM	R32609
Surr: 1,2-Dichloroethane-d4	94.8	0	70-130		%Rec	1	3/4/2016 10:50:19 PM	R32609

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	D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603069

Date Reported: 4/1/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-38

Project: Quarterly GW Sampling

Collection Date: 2/29/2016 4:20:00 PM

Lab ID: 1603069-006

Matrix: AQUEOUS

Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: RAA	
Surr: 4-Bromofluorobenzene	103	0	70-130		%Rec	1	3/4/2016 10:50:19 PM	R32609
Surr: Dibromofluoromethane	110	0	70-130		%Rec	1	3/4/2016 10:50:19 PM	R32609
Surr: Toluene-d8	101	0	70-130		%Rec	1	3/4/2016 10:50:19 PM	R32609

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Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603069

Date Reported: 4/1/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-10

Project: Quarterly GW Sampling

Collection Date: 2/29/2016 5:00:00 PM

Lab ID: 1603069-007

Matrix: AQUEOUS

Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE								Analyst: JME
Diesel Range Organics (DRO)	14	0.69	1.0		mg/L	1	3/3/2016 4:43:48 PM	24027
Motor Oil Range Organics (MRO)	ND	5.0	5.0		mg/L	1	3/3/2016 4:43:48 PM	24027
Surr: DNOP	93.1	0	70-141		%Rec	1	3/3/2016 4:43:48 PM	24027
EPA METHOD 8015D: GASOLINE RANGE								Analyst: NSB
Gasoline Range Organics (GRO)	110	2.5	5.0		mg/L	100	3/3/2016 10:50:52 PM	A32557
Surr: BFB	99.3	0	49.5-130		%Rec	100	3/3/2016 10:50:52 PM	A32557
EPA METHOD 300.0: ANIONS								Analyst: JRR
Fluoride	ND	0.45	2.0		mg/L	20	3/4/2016 9:40:37 PM	R32618
Chloride	280	0.55	10		mg/L	20	3/4/2016 9:40:37 PM	R32618
Bromide	0.88	0.16	0.50		mg/L	5	3/4/2016 9:28:12 PM	R32618
Phosphorus, Orthophosphate (As P)	ND	1.1	2.5	H	mg/L	5	3/4/2016 9:28:12 PM	R32618
Sulfate	ND	0.32	2.5		mg/L	5	3/4/2016 9:28:12 PM	R32618
Nitrate+Nitrite as N	ND	0.42	1.0		mg/L	5	3/3/2016 1:21:01 PM	a32571
EPA METHOD 200.7: DISSOLVED METALS								Analyst: ELS
Barium	14	0.066	0.10	*	mg/L	50	3/18/2016 12:34:26 PM	B32891
Cadmium	ND	0.00075	0.0020		mg/L	1	3/16/2016 2:28:00 PM	C32831
Calcium	620	13	50		mg/L	50	3/18/2016 12:34:26 PM	B32891
Chromium	ND	0.0018	0.0060		mg/L	1	3/16/2016 2:28:00 PM	C32831
Copper	ND	0.0040	0.0060		mg/L	1	3/16/2016 2:28:00 PM	C32831
Iron	54	0.91	2.0	*	mg/L	100	3/18/2016 12:45:57 PM	B32891
Magnesium	140	0.065	5.0		mg/L	5	3/18/2016 12:32:47 PM	B32891
Manganese	20	0.016	0.10	*	mg/L	50	3/18/2016 12:34:26 PM	B32891
Potassium	0.99	0.18	1.0	J	mg/L	1	3/16/2016 2:28:00 PM	C32831
Silver	ND	0.0028	0.0050		mg/L	1	3/16/2016 2:28:00 PM	C32831
Sodium	430	0.48	5.0		mg/L	5	3/18/2016 12:32:47 PM	B32891
Zinc	0.017	0.0028	0.010		mg/L	1	3/16/2016 2:28:00 PM	C32831
EPA METHOD 200.7: TOTAL METALS								Analyst: MED
Barium	16	0.11	0.20	*	mg/L	100	3/15/2016 11:39:22 AM	24115
Cadmium	ND	0.00062	0.0020		mg/L	1	3/11/2016 4:28:17 PM	24115
Chromium	ND	0.0022	0.0060		mg/L	1	3/11/2016 4:28:17 PM	24115
Copper	ND	0.0051	0.0060		mg/L	1	3/15/2016 11:37:31 AM	24115
Iron	57	0.72	2.0	*	mg/L	100	3/15/2016 11:39:22 AM	24115
Manganese	21	0.15	0.20	*	mg/L	100	3/15/2016 11:39:22 AM	24115
Silver	ND	0.0021	0.0050		mg/L	1	3/11/2016 4:28:17 PM	24115
Zinc	0.014	0.0039	0.010		mg/L	1	3/15/2016 11:37:31 AM	24115
EPA 200.8: DISSOLVED METALS								Analyst: JLF
Arsenic	0.0083	0.00032	0.0050		mg/L	5	3/22/2016 8:38:06 PM	C32978

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	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603069

Date Reported: 4/1/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-10

Project: Quarterly GW Sampling

Collection Date: 2/29/2016 5:00:00 PM

Lab ID: 1603069-007

Matrix: AQUEOUS

Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA 200.8: DISSOLVED METALS							Analyst: JLF	
Lead	ND	0.00013	0.0025		mg/L	5	3/22/2016 8:38:06 PM	C32978
Selenium	0.0042	0.00097	0.0050	J	mg/L	5	3/22/2016 8:38:06 PM	C32978
Uranium	0.0015	0.000024	0.0025	J	mg/L	5	3/22/2016 8:38:06 PM	C32978
200.8 ICPMS METALS:TOTAL							Analyst: JLF	
Arsenic	0.0086	0.0015	0.0050		mg/L	5	3/14/2016 6:05:54 PM	24115
Lead	0.0027	0.00024	0.0025		mg/L	5	3/14/2016 6:05:54 PM	24115
Selenium	0.0020	0.00062	0.0050	J	mg/L	5	3/14/2016 6:05:54 PM	24115
Uranium	0.0015	0.000025	0.0025	J	mg/L	5	3/14/2016 6:05:54 PM	24115
EPA METHOD 245.1: MERCURY							Analyst: pmf	
Mercury	ND	0.000053	0.00020		mg/L	1	3/8/2016 11:15:48 AM	24112
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM	
Acenaphthene	ND	8.0	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Acenaphthylene	ND	7.2	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Aniline	42	9.8	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Anthracene	ND	6.6	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Azobenzene	ND	9.3	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Benz(a)anthracene	ND	6.1	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Benzo(a)pyrene	ND	6.3	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Benzo(b)fluoranthene	ND	6.6	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Benzo(g,h,i)perylene	ND	6.8	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Benzo(k)fluoranthene	ND	7.2	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Benzoic acid	ND	9.8	20		µg/L	1	3/4/2016 6:17:29 PM	24000
Benzyl alcohol	ND	8.0	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Bis(2-chloroethoxy)methane	ND	7.3	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Bis(2-chloroethyl)ether	ND	8.3	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Bis(2-chloroisopropyl)ether	ND	9.1	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Bis(2-ethylhexyl)phthalate	ND	7.5	10		µg/L	1	3/4/2016 6:17:29 PM	24000
4-Bromophenyl phenyl ether	ND	8.6	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Butyl benzyl phthalate	ND	7.8	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Carbazole	ND	7.2	10		µg/L	1	3/4/2016 6:17:29 PM	24000
4-Chloro-3-methylphenol	ND	8.0	10		µg/L	1	3/4/2016 6:17:29 PM	24000
4-Chloroaniline	ND	7.1	10		µg/L	1	3/4/2016 6:17:29 PM	24000
2-Chloronaphthalene	ND	7.2	10		µg/L	1	3/4/2016 6:17:29 PM	24000
2-Chlorophenol	ND	8.7	10		µg/L	1	3/4/2016 6:17:29 PM	24000
4-Chlorophenyl phenyl ether	ND	8.2	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Chrysene	ND	6.6	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Di-n-butyl phthalate	ND	8.1	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Di-n-octyl phthalate	ND	6.3	10		µg/L	1	3/4/2016 6:17:29 PM	24000

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Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603069

Date Reported: 4/1/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-10

Project: Quarterly GW Sampling

Collection Date: 2/29/2016 5:00:00 PM

Lab ID: 1603069-007

Matrix: AQUEOUS

Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM	
Dibenz(a,h)anthracene	ND	6.8	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Dibenzofuran	ND	8.6	10		µg/L	1	3/4/2016 6:17:29 PM	24000
1,2-Dichlorobenzene	ND	6.4	10		µg/L	1	3/4/2016 6:17:29 PM	24000
1,3-Dichlorobenzene	ND	6.1	10		µg/L	1	3/4/2016 6:17:29 PM	24000
1,4-Dichlorobenzene	ND	6.3	10		µg/L	1	3/4/2016 6:17:29 PM	24000
3,3'-Dichlorobenzidine	ND	4.7	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Diethyl phthalate	ND	8.2	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Dimethyl phthalate	ND	7.5	10		µg/L	1	3/4/2016 6:17:29 PM	24000
2,4-Dichlorophenol	ND	7.6	20		µg/L	1	3/4/2016 6:17:29 PM	24000
2,4-Dimethylphenol	170	4.7	10		µg/L	1	3/4/2016 6:17:29 PM	24000
4,6-Dinitro-2-methylphenol	ND	7.3	20		µg/L	1	3/4/2016 6:17:29 PM	24000
2,4-Dinitrophenol	ND	9.9	20		µg/L	1	3/4/2016 6:17:29 PM	24000
2,4-Dinitrotoluene	ND	8.5	10		µg/L	1	3/4/2016 6:17:29 PM	24000
2,6-Dinitrotoluene	ND	7.5	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Fluoranthene	ND	6.1	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Fluorene	ND	7.2	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Hexachlorobenzene	ND	7.1	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Hexachlorobutadiene	ND	5.2	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Hexachlorocyclopentadiene	ND	5.2	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Hexachloroethane	ND	5.8	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Indeno(1,2,3-cd)pyrene	ND	5.6	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Isophorone	ND	8.1	10		µg/L	1	3/4/2016 6:17:29 PM	24000
1-Methylnaphthalene	57	6.8	10		µg/L	1	3/4/2016 6:17:29 PM	24000
2-Methylnaphthalene	80	7.0	10		µg/L	1	3/4/2016 6:17:29 PM	24000
2-Methylphenol	770	82	100		µg/L	10	3/13/2016 1:11:08 AM	24000
3+4-Methylphenol	1000	71	100		µg/L	10	3/13/2016 1:11:08 AM	24000
N-Nitrosodi-n-propylamine	ND	7.8	10		µg/L	1	3/4/2016 6:17:29 PM	24000
N-Nitrosodimethylamine	ND	9.1	10		µg/L	1	3/4/2016 6:17:29 PM	24000
N-Nitrosodiphenylamine	ND	6.2	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Naphthalene	200	5.9	10		µg/L	1	3/4/2016 6:17:29 PM	24000
2-Nitroaniline	ND	9.0	10		µg/L	1	3/4/2016 6:17:29 PM	24000
3-Nitroaniline	ND	8.8	10		µg/L	1	3/4/2016 6:17:29 PM	24000
4-Nitroaniline	ND	9.1	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Nitrobenzene	ND	7.8	10		µg/L	1	3/4/2016 6:17:29 PM	24000
2-Nitrophenol	ND	7.6	10		µg/L	1	3/4/2016 6:17:29 PM	24000
4-Nitrophenol	ND	6.7	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Pentachlorophenol	ND	7.6	20		µg/L	1	3/4/2016 6:17:29 PM	24000
Phenanthrene	ND	6.8	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Phenol	670	51	100		µg/L	10	3/13/2016 1:11:08 AM	24000

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
	D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603069

Date Reported: 4/1/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-10

Project: Quarterly GW Sampling

Collection Date: 2/29/2016 5:00:00 PM

Lab ID: 1603069-007

Matrix: AQUEOUS

Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8270C: SEMIVOLATILES							Analyst: DAM	
Pyrene	ND	5.5	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Pyridine	ND	6.7	10		µg/L	1	3/4/2016 6:17:29 PM	24000
1,2,4-Trichlorobenzene	ND	6.2	10		µg/L	1	3/4/2016 6:17:29 PM	24000
2,4,5-Trichlorophenol	ND	8.4	10		µg/L	1	3/4/2016 6:17:29 PM	24000
2,4,6-Trichlorophenol	ND	8.8	10		µg/L	1	3/4/2016 6:17:29 PM	24000
Surr: 2-Fluorophenol	0.510	0	4.63-113	S	%Rec	1	3/4/2016 6:17:29 PM	24000
Surr: Phenol-d5	66.1	0	4.13-124		%Rec	1	3/4/2016 6:17:29 PM	24000
Surr: 2,4,6-Tribromophenol	115	0	5.14-132		%Rec	1	3/4/2016 6:17:29 PM	24000
Surr: Nitrobenzene-d5	23.7	0	9.13-140		%Rec	1	3/4/2016 6:17:29 PM	24000
Surr: 2-Fluorobiphenyl	130	0	10.8-132		%Rec	1	3/4/2016 6:17:29 PM	24000
Surr: 4-Terphenyl-d14	76.1	0	12.9-107		%Rec	1	3/4/2016 6:17:29 PM	24000
EPA METHOD 8260B: VOLATILES							Analyst: RAA	
Benzene	11000	96	1000	P	µg/L	1000	3/4/2016 9:23:54 PM	R32609
Toluene	23000	89	1000	P	µg/L	1000	3/4/2016 9:23:54 PM	R32609
Ethylbenzene	1700	11	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
Methyl tert-butyl ether (MTBE)	ND	21	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
1,2,4-Trimethylbenzene	900	10	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
1,3,5-Trimethylbenzene	200	12	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
1,2-Dichloroethane (EDC)	ND	5.3	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
1,2-Dibromoethane (EDB)	ND	11	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
Naphthalene	210	8.3	200	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
1-Methylnaphthalene	74	20	400	JP	µg/L	100	3/4/2016 9:52:44 PM	R32609
2-Methylnaphthalene	87	16	400	JP	µg/L	100	3/4/2016 9:52:44 PM	R32609
Acetone	160	88	1000	JP	µg/L	100	3/4/2016 9:52:44 PM	R32609
Bromobenzene	ND	8.0	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
Bromodichloromethane	ND	9.8	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
Bromoform	ND	10	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
Bromomethane	ND	78	300	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
2-Butanone	680	32	1000	JP	µg/L	100	3/4/2016 9:52:44 PM	R32609
Carbon disulfide	ND	60	1000	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
Carbon Tetrachloride	ND	11	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
Chlorobenzene	ND	10	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
Chloroethane	ND	15	200	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
Chloroform	ND	8.9	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
Chloromethane	ND	21	300	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
2-Chlorotoluene	ND	40	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
4-Chlorotoluene	ND	13	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
cis-1,2-DCE	31	12	100	JP	µg/L	100	3/4/2016 9:52:44 PM	R32609
cis-1,3-Dichloropropene	ND	10	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609

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
	D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603069

Date Reported: 4/1/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-10

Project: Quarterly GW Sampling

Collection Date: 2/29/2016 5:00:00 PM

Lab ID: 1603069-007

Matrix: AQUEOUS

Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: RAA	
1,2-Dibromo-3-chloropropane	ND	15	200	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
Dibromochloromethane	ND	8.7	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
Dibromomethane	ND	12	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
1,2-Dichlorobenzene	ND	40	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
1,3-Dichlorobenzene	ND	14	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
1,4-Dichlorobenzene	ND	14	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
Dichlorodifluoromethane	ND	32	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
1,1-Dichloroethane	70	11	100	JP	µg/L	100	3/4/2016 9:52:44 PM	R32609
1,1-Dichloroethene	ND	7.6	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
1,2-Dichloropropane	ND	4.7	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
1,3-Dichloropropane	ND	16	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
2,2-Dichloropropane	ND	12	200	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
1,1-Dichloropropene	ND	13	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
Hexachlorobutadiene	ND	20	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
2-Hexanone	ND	36	1000	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
Isopropylbenzene	34	9.8	100	JP	µg/L	100	3/4/2016 9:52:44 PM	R32609
4-Isopropyltoluene	ND	14	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
4-Methyl-2-pentanone	ND	15	1000	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
Methylene Chloride	25	6.3	300	JP	µg/L	100	3/4/2016 9:52:44 PM	R32609
n-Butylbenzene	18	16	300	JP	µg/L	100	3/4/2016 9:52:44 PM	R32609
n-Propylbenzene	120	13	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
sec-Butylbenzene	ND	11	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
Styrene	ND	9.5	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
tert-Butylbenzene	ND	9.6	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
1,1,1,2-Tetrachloroethane	ND	11	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
1,1,2,2-Tetrachloroethane	ND	11	200	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
Tetrachloroethene (PCE)	ND	15	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
trans-1,2-DCE	ND	40	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
trans-1,3-Dichloropropene	ND	8.5	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
1,2,3-Trichlorobenzene	ND	11	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
1,2,4-Trichlorobenzene	ND	13	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
1,1,1-Trichloroethane	ND	6.3	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
1,1,2-Trichloroethane	ND	7.7	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
Trichloroethene (TCE)	ND	18	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
Trichlorofluoromethane	ND	8.8	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
1,2,3-Trichloropropane	ND	11	200	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
Vinyl chloride	ND	6.3	100	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
Xylenes, Total	7700	32	150	P	µg/L	100	3/4/2016 9:52:44 PM	R32609
Surr: 1,2-Dichloroethane-d4	99.3	0	70-130	P	%Rec	100	3/4/2016 9:52:44 PM	R32609

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
	D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603069

Date Reported: 4/1/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: MKTF-10

Project: Quarterly GW Sampling

Collection Date: 2/29/2016 5:00:00 PM

Lab ID: 1603069-007

Matrix: AQUEOUS

Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: RAA	
Surr: 4-Bromofluorobenzene	98.5	0	70-130	P	%Rec	100	3/4/2016 9:52:44 PM	R32609
Surr: Dibromofluoromethane	108	0	70-130	P	%Rec	100	3/4/2016 9:52:44 PM	R32609
Surr: Toluene-d8	102	0	70-130	P	%Rec	100	3/4/2016 9:52:44 PM	R32609

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
	D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603069

Date Reported: 4/1/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: Quarterly GW Sampling

Collection Date:

Lab ID: 1603069-008

Matrix: TRIP BLANK

Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB	
Gasoline Range Organics (GRO)	ND	0.025	0.050		mg/L	1	3/3/2016 11:15:25 PM	A32557
Surr: BFB	86.2	0	49.5-130		%Rec	1	3/3/2016 11:15:25 PM	A32557
EPA METHOD 8260B: VOLATILES							Analyst: RAA	
Benzene	ND	0.096	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
Toluene	ND	0.089	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
Ethylbenzene	ND	0.11	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
Methyl tert-butyl ether (MTBE)	ND	0.21	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
1,2,4-Trimethylbenzene	ND	0.10	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
1,3,5-Trimethylbenzene	ND	0.12	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
1,2-Dichloroethane (EDC)	ND	0.053	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
1,2-Dibromoethane (EDB)	ND	0.11	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
Naphthalene	ND	0.083	2.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
1-Methylnaphthalene	ND	0.20	4.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
2-Methylnaphthalene	ND	0.16	4.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
Acetone	ND	0.88	10		µg/L	1	3/5/2016 5:04:22 AM	R32609
Bromobenzene	ND	0.080	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
Bromodichloromethane	ND	0.098	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
Bromoform	ND	0.10	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
Bromomethane	ND	0.78	3.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
2-Butanone	ND	0.32	10		µg/L	1	3/5/2016 5:04:22 AM	R32609
Carbon disulfide	ND	0.60	10		µg/L	1	3/5/2016 5:04:22 AM	R32609
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
Chlorobenzene	ND	0.10	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
Chloroethane	ND	0.15	2.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
Chloroform	ND	0.089	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
Chloromethane	ND	0.21	3.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
2-Chlorotoluene	ND	0.40	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
4-Chlorotoluene	ND	0.13	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
cis-1,2-DCE	ND	0.12	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
cis-1,3-Dichloropropene	ND	0.10	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
1,2-Dibromo-3-chloropropane	ND	0.15	2.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
Dibromochloromethane	ND	0.087	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
Dibromomethane	ND	0.12	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
1,2-Dichlorobenzene	ND	0.40	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
1,3-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
1,4-Dichlorobenzene	ND	0.14	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
Dichlorodifluoromethane	ND	0.32	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
1,1-Dichloroethane	ND	0.11	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
1,1-Dichloroethene	ND	0.076	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609

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
	D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1603069

Date Reported: 4/1/2016

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: TRIP BLANK

Project: Quarterly GW Sampling

Collection Date:

Lab ID: 1603069-008

Matrix: TRIP BLANK

Received Date: 3/1/2016 4:40:00 PM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260B: VOLATILES							Analyst: RAA	
1,2-Dichloropropane	ND	0.047	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
1,3-Dichloropropane	ND	0.16	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
2,2-Dichloropropane	ND	0.12	2.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
1,1-Dichloropropene	ND	0.13	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
Hexachlorobutadiene	ND	0.20	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
2-Hexanone	ND	0.36	10		µg/L	1	3/5/2016 5:04:22 AM	R32609
Isopropylbenzene	ND	0.098	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
4-Isopropyltoluene	ND	0.14	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
4-Methyl-2-pentanone	ND	0.15	10		µg/L	1	3/5/2016 5:04:22 AM	R32609
Methylene Chloride	ND	0.063	3.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
n-Butylbenzene	ND	0.16	3.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
n-Propylbenzene	ND	0.13	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
sec-Butylbenzene	ND	0.11	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
Styrene	ND	0.095	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
tert-Butylbenzene	ND	0.096	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
1,1,1,2-Tetrachloroethane	ND	0.11	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
1,1,2,2-Tetrachloroethane	ND	0.11	2.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
Tetrachloroethene (PCE)	ND	0.15	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
trans-1,2-DCE	ND	0.40	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
trans-1,3-Dichloropropene	ND	0.085	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
1,2,3-Trichlorobenzene	ND	0.11	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
1,2,4-Trichlorobenzene	ND	0.13	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
1,1,1-Trichloroethane	ND	0.063	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
1,1,2-Trichloroethane	ND	0.077	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
Trichloroethene (TCE)	ND	0.18	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
Trichlorofluoromethane	ND	0.088	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
1,2,3-Trichloropropane	ND	0.11	2.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
Vinyl chloride	ND	0.063	1.0		µg/L	1	3/5/2016 5:04:22 AM	R32609
Xylenes, Total	ND	0.32	1.5		µg/L	1	3/5/2016 5:04:22 AM	R32609
Surr: 1,2-Dichloroethane-d4	106	0	70-130		%Rec	1	3/5/2016 5:04:22 AM	R32609
Surr: 4-Bromofluorobenzene	101	0	70-130		%Rec	1	3/5/2016 5:04:22 AM	R32609
Surr: Dibromofluoromethane	115	0	70-130		%Rec	1	3/5/2016 5:04:22 AM	R32609
Surr: Toluene-d8	101	0	70-130		%Rec	1	3/5/2016 5:04:22 AM	R32609

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
	D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603069

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	MB-C		SampType:	MBLK		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	PBW		Batch ID:	C32831		RunNo:	32831			
Prep Date:			Analysis Date:	3/16/2016		SeqNo:	1006189	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								
Potassium	ND	1.0								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID	LCS-C		SampType:	LCS		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	LCSW		Batch ID:	C32831		RunNo:	32831			
Prep Date:			Analysis Date:	3/16/2016		SeqNo:	1006190	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	99.5	85	115			
Cadmium	0.51	0.0020	0.5000	0	102	85	115			
Calcium	50	1.0	50.00	0	101	85	115			
Chromium	0.49	0.0060	0.5000	0	98.7	85	115			
Copper	0.48	0.0060	0.5000	0	96.9	85	115			
Iron	0.50	0.020	0.5000	0	101	85	115			
Magnesium	50	1.0	50.00	0	100	85	115			
Potassium	49	1.0	50.00	0	97.4	85	115			
Silver	0.097	0.0050	0.1000	0	96.7	85	115			
Zinc	0.50	0.010	0.5000	0	99.8	85	115			

Sample ID	LLCS-C		SampType:	LCSLL		TestCode:	EPA Method 200.7: Dissolved Metals			
Client ID:	BatchQC		Batch ID:	C32831		RunNo:	32831			
Prep Date:			Analysis Date:	3/16/2016		SeqNo:	1006191	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0024	0.0020	0.002000	0	119	50	150			
Cadmium	0.0018	0.0020	0.002000	0	91.0	50	150			J
Calcium	0.53	1.0	0.5000	0	107	50	150			J
Chromium	0.0054	0.0060	0.006000	0	89.7	50	150			J
Copper	0.0042	0.0060	0.006000	0	69.8	50	150			J
Iron	0.019	0.020	0.02000	0	96.2	50	150			J
Magnesium	0.52	1.0	0.5000	0	104	50	150			J
Potassium	0.55	1.0	0.5000	0	110	50	150			J

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	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	P Sample pH Not In Range
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603069

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID LLLCS-C	SampType: LCSLL			TestCode: EPA Method 200.7: Dissolved Metals						
Client ID: BatchQC	Batch ID: C32831			RunNo: 32831						
Prep Date:	Analysis Date: 3/16/2016			SeqNo: 1006191		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.0050	0.0050	0.005000	0	99.6	50	150			J
Zinc	0.0057	0.010	0.005000	0	115	50	150			J

Sample ID MB-B	SampType: MBLK			TestCode: EPA Method 200.7: Dissolved Metals						
Client ID: PBW	Batch ID: B32891			RunNo: 32891						
Prep Date:	Analysis Date: 3/18/2016			SeqNo: 1008295		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								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Sodium	ND	1.0								

Sample ID LCS-B	SampType: LCS			TestCode: EPA Method 200.7: Dissolved Metals						
Client ID: LCSW	Batch ID: B32891			RunNo: 32891						
Prep Date:	Analysis Date: 3/18/2016			SeqNo: 1008299		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			
Calcium	50	1.0	50.00	0	101	85	115			
Iron	0.49	0.020	0.5000	0	98.7	85	115			
Magnesium	50	1.0	50.00	0	100	85	115			
Manganese	0.49	0.0020	0.5000	0	98.0	85	115			
Sodium	50	1.0	50.00	0	99.0	85	115			

Sample ID LLLCS-B	SampType: LCSLL			TestCode: EPA Method 200.7: Dissolved Metals						
Client ID: BatchQC	Batch ID: B32891			RunNo: 32891						
Prep Date:	Analysis Date: 3/18/2016			SeqNo: 1008300		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0019	0.0020	0.002000	0	94.0	50	150			J
Calcium	0.52	1.0	0.5000	0	104	50	150			J
Iron	0.023	0.020	0.02000	0	114	50	150			
Magnesium	0.52	1.0	0.5000	0	104	50	150			J
Manganese	0.0021	0.0020	0.002000	0	104	50	150			
Sodium	0.54	1.0	0.5000	0	108	50	150			J

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	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	P Sample pH Not In Range
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603069

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	MB-24115		SampType:	MBLK		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	PBW		Batch ID:	24115		RunNo:	32673			
Prep Date:	3/7/2016		Analysis Date:	3/9/2016		SeqNo:	999895		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								

Sample ID	LCS-24115		SampType:	LCS		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	LCSW		Batch ID:	24115		RunNo:	32673			
Prep Date:	3/7/2016		Analysis Date:	3/9/2016		SeqNo:	999896		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	101	85	115			
Cadmium	0.52	0.0020	0.5000	0	104	85	115			
Chromium	0.50	0.0060	0.5000	0	100	85	115			
Copper	0.49	0.0060	0.5000	0	98.6	85	115			
Iron	0.50	0.020	0.5000	0	101	85	115			
Manganese	0.49	0.0020	0.5000	0	98.6	85	115			
Silver	0.11	0.0050	0.1000	0	106	85	115			

Sample ID	LLLCS-24115		SampType:	LCSLL		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	BatchQC		Batch ID:	24115		RunNo:	32673			
Prep Date:	3/7/2016		Analysis Date:	3/9/2016		SeqNo:	999897		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0024	0.0020	0.002000	0	120	50	150			
Cadmium	0.0018	0.0020	0.002000	0	91.5	50	150			J
Chromium	0.0063	0.0060	0.006000	0	106	50	150			
Copper	0.0052	0.0060	0.006000	0	86.8	50	150			J
Iron	0.024	0.020	0.02000	0	119	50	150			
Manganese	0.0023	0.0020	0.002000	0	114	50	150			
Silver	0.0053	0.0050	0.005000	0	106	50	150			

Sample ID	MB-24115		SampType:	MBLK		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	PBW		Batch ID:	24115		RunNo:	32754			
Prep Date:	3/7/2016		Analysis Date:	3/11/2016		SeqNo:	1002483		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	ND	0.010								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603069

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	LCS-24115			SampType:	LCS			TestCode:	EPA Method 200.7: Total Metals		
Client ID:	LCSW			Batch ID:	24115			RunNo:	32754		
Prep Date:	3/7/2016			Analysis Date:	3/11/2016			SeqNo:	1002484		
								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	100	85	115				

Sample ID	LLCS-24115			SampType:	LCSLL			TestCode:	EPA Method 200.7: Total Metals		
Client ID:	BatchQC			Batch ID:	24115			RunNo:	32754		
Prep Date:	3/7/2016			Analysis Date:	3/11/2016			SeqNo:	1002485		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Zinc	0.0059	0.010	0.005000	0	118	50	150			J	

Sample ID	1603069-001FMS			SampType:	MS			TestCode:	EPA Method 200.7: Total Metals		
Client ID:	MKTF-4			Batch ID:	24115			RunNo:	32754		
Prep Date:	3/7/2016			Analysis Date:	3/11/2016			SeqNo:	1002591		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Cadmium	0.54	0.0020	0.5000	0	108	70	130				
Chromium	0.52	0.0060	0.5000	0	103	70	130				

Sample ID	1603069-001FMSD			SampType:	MSD			TestCode:	EPA Method 200.7: Total Metals		
Client ID:	MKTF-4			Batch ID:	24115			RunNo:	32754		
Prep Date:	3/7/2016			Analysis Date:	3/11/2016			SeqNo:	1002592		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Cadmium	0.54	0.0020	0.5000	0	109	70	130	0.861	20		
Chromium	0.53	0.0060	0.5000	0	105	70	130	2.09	20		

Sample ID	1603069-002FMS			SampType:	MS			TestCode:	EPA Method 200.7: Total Metals		
Client ID:	MKTF-11			Batch ID:	24115			RunNo:	32754		
Prep Date:	3/7/2016			Analysis Date:	3/11/2016			SeqNo:	1002597		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Cadmium	0.54	0.0020	0.5000	0	108	70	130				
Chromium	0.52	0.0060	0.5000	0	103	70	130				
Silver	0.11	0.0050	0.1000	0	108	70	130				

Sample ID	1603069-002FMSD			SampType:	MSD			TestCode:	EPA Method 200.7: Total Metals		
Client ID:	MKTF-11			Batch ID:	24115			RunNo:	32754		
Prep Date:	3/7/2016			Analysis Date:	3/11/2016			SeqNo:	1002598		
								Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Cadmium	0.54	0.0020	0.5000	0	108	70	130	0.530	20		

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | 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 | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603069

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	1603069-002FMSD			SampType:	MSD		TestCode:	EPA Method 200.7: Total Metals					
Client ID:	MKTF-11			Batch ID:	24115		RunNo:	32754					
Prep Date:	3/7/2016			Analysis Date:	3/11/2016		SeqNo:	1002598			Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Chromium	0.52	0.0060	0.5000	0	103	70	130	0.322	20				
Silver	0.11	0.0050	0.1000	0	109	70	130	0.799	20				

Sample ID	1603069-001FMS		SampType: MS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	MKTF-4		Batch ID: 24115		RunNo: 32774					
Prep Date:	3/7/2016		Analysis Date: 3/14/2016		SeqNo: 1004027		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.55	0.0060	0.5000	0	111	70	130			
Zinc	0.49	0.010	0.5000	0.01098	95.4	70	130			

Sample ID	1603069-001FMSD			SampType:	MSD		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	MKTF-4			Batch ID:	24115		RunNo:	32774			
Prep Date:	3/7/2016			Analysis Date:	3/14/2016		SeqNo:	1004028		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Copper	0.55	0.0060	0.5000	0	110	70	130	0.252	20		
Zinc	0.49	0.010	0.5000	0.01098	95.4	70	130	0.0348	20		

Sample ID	1603069-001FMS		SampType: MS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	MKTF-4		Batch ID: 24115		RunNo: 32774					
Prep Date:	3/7/2016		Analysis Date: 3/14/2016		SeqNo: 1004034		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	3.5	0.010	0.5000	2.976	111	70	130			
Manganese	2.0	0.010	0.5000	1.464	102	70	130			

Sample ID	1603069-001FMSD		SampType: MSD		TestCode: EPA Method 200.7: Total Metals					
Client ID:	MKTF-4		Batch ID: 24115		RunNo: 32774					
Prep Date:	3/7/2016		Analysis Date: 3/14/2016		SeqNo: 1004035		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	3.4	0.010	0.5000	2.976	90.2	70	130	0	20	
Manganese	1.9	0.010	0.5000	1.464	91.2	70	130	0	20	

Sample ID	1603069-002FMS		SampType:	MS		TestCode:	EPA Method 200.7: Total Metals				
Client ID:	MKTF-11		Batch ID:	24115		RunNo:	32792				
Prep Date:	3/7/2016		Analysis Date:	3/15/2016		SeqNo:	1004801		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 |
| D Sample Diluted Due to Matrix | 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 | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603069

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	1603069-002FMS		SampType: MS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	MKTF-11		Batch ID: 24115		RunNo: 32792					
Prep Date:	3/7/2016		Analysis Date: 3/15/2016		SeqNo: 1004801		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.56	0.0060	0.5000	0	113	70	130			
Zinc	0.52	0.010	0.5000	0.01773	99.8	70	130			

Sample ID	1603069-002FMSD		SampType: MSD		TestCode: EPA Method 200.7: Total Metals					
Client ID:	MKTF-11		Batch ID: 24115		RunNo: 32792					
Prep Date:	3/7/2016		Analysis Date: 3/15/2016		SeqNo: 1004802		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	113	70	130	0.163	20	
Zinc	0.51	0.010	0.5000	0.01773	99.0	70	130	0.824	20	

Sample ID	1603069-002FMS		SampType: MS		TestCode: EPA Method 200.7: Total Metals					
Client ID:	MKTF-11		Batch ID: 24115		RunNo: 32792					
Prep Date:	3/7/2016		Analysis Date: 3/15/2016		SeqNo: 1004970		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	4.5	0.010	0.5000	3.873	119	70	130			

Sample ID	1603069-002FMSD			SampType:	MSD		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	MKTF-11			Batch ID:	24115		RunNo:	32792			
Prep Date:	3/7/2016			Analysis Date:	3/15/2016		SeqNo:	1004971		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Barium	4.4	0.010	0.5000	3.873	110	70	130	0.997	20		

Sample ID	MB-24413		SampType:	MBLK		TestCode:	EPA Method 200.7: Total Metals				
Client ID:	PBW		Batch ID:	24413		RunNo:	33054				
Prep Date:	3/24/2016		Analysis Date:	3/25/2016		SeqNo:	1014136		Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Silver	ND	0.0050									

Sample ID	LCS-24413			SampType:	LCS		TestCode:	EPA Method 200.7: Total Metals			
Client ID:	LCSW			Batch ID:	24413		RunNo:	33054			
Prep Date:	3/24/2016			Analysis Date:	3/25/2016		SeqNo:	1014137		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Silver	0.099	0.0050	0.1000	0	99.2	85	115				

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | 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 | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603069

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	LLLCS-24413	SampType:	LCSLL	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	BatchQC	Batch ID:	24413	RunNo:	33054					
Prep Date:	3/24/2016	Analysis Date:	3/25/2016	SeqNo:	1014138	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.0053	0.0050	0.005000	0	106	50	150			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603069

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	1603069-006EMSL				SampType:	MS		TestCode:	EPA 200.8: Dissolved Metals		
Client ID:	MKTF-38				Batch ID:	C32805		RunNo:	32805		
Prep Date:					Analysis Date:	3/15/2016		SeqNo:	1005550	Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Lead	0.013	0.00050	0.01250	0.0004740	102	70	130				
Selenium	0.025	0.0010	0.02500	0.003251	88.9	70	130				

Sample ID	LCS				SampType:	LCS		TestCode:	EPA 200.8: Dissolved Metals		
Client ID:	LCSW				Batch ID:	C32805		RunNo:	32805		
Prep Date:					Analysis Date:	3/15/2016		SeqNo:	1005551	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	99.3	85	115				
Lead	0.012	0.00050	0.01250	0	94.7	85	115				
Selenium	0.026	0.0010	0.02500	0	102	85	115				
Uranium	0.012	0.00050	0.01250	0	95.7	85	115				

Sample ID	LLLCS				SampType:	LCSLL		TestCode:	EPA 200.8: Dissolved Metals		
Client ID:	BatchQC				Batch ID:	C32805		RunNo:	32805		
Prep Date:					Analysis Date:	3/15/2016		SeqNo:	1005552	Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.0011	0.0010	0.001000	0	105	50	150				
Lead	0.00049	0.00050	0.0005000	0	98.4	50	150				J
Selenium	0.0011	0.0010	0.001000	0	107	50	150				
Uranium	0.00047	0.00050	0.0005000	0	94.8	50	150				J

Sample ID	MB				SampType:	MBLK		TestCode:	EPA 200.8: Dissolved Metals		
Client ID:	PBW				Batch ID:	C32805		RunNo:	32805		
Prep Date:					Analysis Date:	3/15/2016		SeqNo:	1005553	Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	ND	0.0010									
Lead	ND	0.00050									
Selenium	ND	0.0010									
Uranium	ND	0.00050									

Sample ID	1603069-006EMSL				SampType:	MS		TestCode:	EPA 200.8: Dissolved Metals		
Client ID:	MKTF-38				Batch ID:	C32978		RunNo:	32978		
Prep Date:					Analysis Date:	3/22/2016		SeqNo:	1011948	Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.13	0.0050	0.1250	0.001448	101	70	130				
Uranium	0.077	0.0025	0.06250	0.01199	105	70	130				

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | 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 | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603069

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID LCS	SampType: LCS			TestCode: EPA 200.8: Dissolved Metals						
Client ID: LCSW	Batch ID: C32978			RunNo: 32978						
Prep Date:	Analysis Date: 3/22/2016			SeqNo: 1011965		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	0.012	0.00050	0.01250	0	97.3	85	115			
Selenium	0.024	0.0010	0.02500	0	97.5	85	115			
Uranium	0.012	0.00050	0.01250	0	96.7	85	115			

Sample ID LLCS	SampType: LCSLL			TestCode: EPA 200.8: Dissolved Metals						
Client ID: BatchQC	Batch ID: C32978			RunNo: 32978						
Prep Date:	Analysis Date: 3/22/2016			SeqNo: 1011967		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.0010	0.0010	0.001000	0	102	50	150			
Lead	0.00050	0.00050	0.0005000	0	100	50	150			
Selenium	0.00095	0.0010	0.001000	0	94.8	50	150			J
Uranium	0.00050	0.00050	0.0005000	0	99.8	50	150			J

Sample ID MB	SampType: MBLK			TestCode: EPA 200.8: Dissolved Metals						
Client ID: PBW	Batch ID: C32978			RunNo: 32978						
Prep Date:	Analysis Date: 3/22/2016			SeqNo: 1011969		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID LCS	SampType: LCS			TestCode: EPA 200.8: Dissolved Metals						
Client ID: LCSW	Batch ID: B33051			RunNo: 33051						
Prep Date:	Analysis Date: 3/24/2016			SeqNo: 1014293		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.024	0.0010	0.02500	0	96.4	85	115			

Sample ID LLCS	SampType: LCSLL			TestCode: EPA 200.8: Dissolved Metals						
Client ID: BatchQC	Batch ID: B33051			RunNo: 33051						
Prep Date:	Analysis Date: 3/24/2016			SeqNo: 1014294		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.00099	0.0010	0.001000	0	98.8	50	150			J

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | 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 | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603069

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	B33051	RunNo:	33051					
Prep Date:		Analysis Date:	3/24/2016	SeqNo:	1014295	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.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603069

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	MB-24115		SampType:	MBLK		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	PBW		Batch ID:	24115		RunNo:	32687			
Prep Date:	3/7/2016		Analysis Date:	3/9/2016		SeqNo:	1000381	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID	MSLCS-24115		SampType:	LCS		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	LCSW		Batch ID:	24115		RunNo:	32687			
Prep Date:	3/7/2016		Analysis Date:	3/9/2016		SeqNo:	1000384	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	99.7	85	115			
Lead	0.013	0.00050	0.01250	0	102	85	115			
Selenium	0.024	0.0010	0.02500	0	97.7	85	115			
Uranium	0.013	0.00050	0.01250	0	100	85	115			

Sample ID	MSLLCS-24115		SampType:	LCSLL		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	BatchQC		Batch ID:	24115		RunNo:	32687			
Prep Date:	3/7/2016		Analysis Date:	3/9/2016		SeqNo:	1000387	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00083	0.0010	0.001000	0	83.0	50	150			J
Lead	0.00038	0.00050	0.0005000	0	76.7	50	150			J
Selenium	0.00078	0.0010	0.001000	0	78.3	50	150			J
Uranium	0.00042	0.00050	0.0005000	0	83.3	50	150			J

Sample ID	1603069-003FMSLL		SampType:	MSLL		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	MKTF-09		Batch ID:	24115		RunNo:	32777			
Prep Date:	3/7/2016		Analysis Date:	3/14/2016		SeqNo:	1004627	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.017	0.0025	0.01250	0.003959	104	70	130			
Uranium	0.018	0.0025	0.01250	0.004784	109	70	130			

Sample ID	1603069-005FMSDL		SampType:	MSDLL		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	MKTF-16		Batch ID:	24115		RunNo:	32777			
Prep Date:	3/7/2016		Analysis Date:	3/14/2016		SeqNo:	1004629	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.017	0.0025	0.01250	0.003110	108	70	130	0.191	20	
Uranium	0.015	0.0025	0.01250	0.0006625	115	70	130	0.397	20	

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | 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 | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603069

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	1603069-005FMSLL			SampType:	MSLL		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	MKTF-16			Batch ID:	24115		RunNo:	32777			
Prep Date:	3/7/2016			Analysis Date:	3/14/2016		SeqNo:	1004630		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Lead	0.017	0.0025	0.01250	0.003110	108	70	130				
Uranium	0.015	0.0025	0.01250	0.0006625	114	70	130				

Sample ID	1603069-003FMSLL			SampType:	MSLL		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	MKTF-09		Batch ID:	24115		RunNo:	32777				
Prep Date:	3/7/2016		Analysis Date:	3/14/2016		SeqNo:	1004650		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.028	0.0050	0.02500	0.002050	105	70	130				
Selenium	0.026	0.0050	0.02500	0.002287	92.9	70	130				

Sample ID	1603069-005FMSDL			SampType:	MSDLL		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	MKTF-16		Batch ID:	24115		RunNo:	32777				
Prep Date:	3/7/2016		Analysis Date:	3/14/2016		SeqNo:	1004653		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.034	0.0050	0.02500	0.009150	101	70	130	1.83	20		
Selenium	0.029	0.0050	0.02500	0.004865	95.3	70	130	1.98	20		

Sample ID	1603069-005FMSLL			SampType:	MSLL		TestCode:	200.8 ICPMS Metals:Total			
Client ID:	MKTF-16		Batch ID:	24115		RunNo:	32777				
Prep Date:	3/7/2016		Analysis Date:	3/14/2016		SeqNo:	1004654		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.035	0.0050	0.02500	0.009150	104	70	130				
Selenium	0.029	0.0050	0.02500	0.004865	97.6	70	130				

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	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	P Sample pH Not In Range
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603069

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	MB-24112		SampType:	mblk		TestCode:	EPA Method 245.1: Mercury				
Client ID:	PBW		Batch ID:	24112		RunNo:	32641				
Prep Date:	3/7/2016		Analysis Date:	3/8/2016		SeqNo:	998822		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Mercury	ND	0.00020									

Sample ID	LCS-24112		SampType: lcs		TestCode: EPA Method 245.1: Mercury					
Client ID:	LCSW		Batch ID: 24112		RunNo: 32641					
Prep Date:	3/7/2016		Analysis Date: 3/8/2016		SeqNo: 998823		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			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603069

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID MB	SampType: MBLK			TestCode: EPA Method 300.0: Anions						
Client ID: PBW	Batch ID: a32571			RunNo: 32571						
Prep Date:	Analysis Date: 3/3/2016			SeqNo: 996508		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: a32571			RunNo: 32571						
Prep Date:	Analysis Date: 3/3/2016			SeqNo: 996509		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 1603069-001DMS	SampType: MS			TestCode: EPA Method 300.0: Anions						
Client ID: MKTF-4	Batch ID: a32571			RunNo: 32571						
Prep Date:	Analysis Date: 3/3/2016			SeqNo: 996511		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	13	1.0	17.50	0	71.8	84.6	105			S

Sample ID 1603069-001DMSD	SampType: MSD			TestCode: EPA Method 300.0: Anions						
Client ID: MKTF-4	Batch ID: a32571			RunNo: 32571						
Prep Date:	Analysis Date: 3/3/2016			SeqNo: 996512		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	12	1.0	17.50	0	70.6	84.6	105	1.68	20	S

Sample ID MB	SampType: MBLK			TestCode: EPA Method 300.0: Anions						
Client ID: PBW	Batch ID: R32618			RunNo: 32618						
Prep Date:	Analysis Date: 3/4/2016			SeqNo: 997926		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: R32618			RunNo: 32618						
Prep Date:	Analysis Date: 3/4/2016			SeqNo: 997927		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	101	90	110			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | 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 | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603069

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	LCS	SampType: LCS			TestCode: EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID: R32618			RunNo: 32618					
Prep Date:		Analysis Date: 3/4/2016			SeqNo: 997927		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	94.9	90	110			
Bromide	2.4	0.10	2.500	0	96.2	90	110			
Phosphorus, Orthophosphate (As P	4.8	0.50	5.000	0	95.5	90	110			
Sulfate	9.7	0.50	10.00	0	97.3	90	110			

Sample ID	MB	SampType: MBLK			TestCode: EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID: R32710			RunNo: 32710					
Prep Date:		Analysis Date: 3/10/2016			SeqNo: 1001872		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: R32710		RunNo: 32710					
Prep Date:			Analysis Date: 3/10/2016		SeqNo: 1001873		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	94.4	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603069

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	MB-24027		SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	PBW		Batch ID: 24027		RunNo: 32536					
Prep Date:	3/2/2016		Analysis Date: 3/3/2016		SeqNo: 995952		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	0.86		1.000		86.4	70	141			

Sample ID	LCS-24027		SampType:	LCS		TestCode:	EPA Method 8015M/D: Diesel Range				
Client ID:	LCSW		Batch ID:	24027		RunNo:	32536				
Prep Date:	3/2/2016		Analysis Date:	3/3/2016		SeqNo:	995953		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	4.0	1.0	5.000	0	80.0	71.3	139				
Surr: DNOP	0.44		0.5000		88.4	70	141				

Sample ID	1603069-001BMS		SampType: MS		TestCode: EPA Method 8015M/D: Diesel Range					
Client ID:	MKTF-4		Batch ID: 24027		RunNo: 32536					
Prep Date:	3/2/2016		Analysis Date: 3/3/2016		SeqNo: 995955		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	8.3	1.0	5.000	3.636	93.7	59.4	160			
Surr: DNOP	0.46		0.5000		91.7	70	141			

Sample ID	1603069-001BMSD		SampType:	MSD		TestCode:	EPA Method 8015M/D: Diesel Range				
Client ID:	MKTF-4		Batch ID:	24027		RunNo:	32536				
Prep Date:	3/2/2016		Analysis Date:	3/3/2016		SeqNo:	995956		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	7.9	1.0	5.000	3.636	86.1	59.4	160	4.64	20		
Surr: DNOP	0.44		0.5000		88.4	70	141	0	0		

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603069

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	5ML RB		SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	PBW		Batch ID: A32557		RunNo: 32557					
Prep Date:			Analysis Date: 3/3/2016		SeqNo: 996055		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		90.1	49.5	130			

Sample ID	2.5UG GRO LCS	SampType: LCS			TestCode: EPA Method 8015D: Gasoline Range					
Client ID:	LCSW	Batch ID: A32557			RunNo: 32557					
Prep Date:		Analysis Date: 3/3/2016			SeqNo: 996056		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	98.8	80	120			
Surr: BFB	20		20.00		102	49.5	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603069

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID 100ng lcs	SampType: LCS			TestCode: EPA Method 8260B: VOLATILES						
Client ID: LCSW	Batch ID: R32609			RunNo: 32609						
Prep Date:	Analysis Date: 3/4/2016			SeqNo: 997685		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	112	70	130			
Toluene	21	1.0	20.00	0	104	70	130			
Chlorobenzene	22	1.0	20.00	0	110	70	130			
1,1-Dichloroethene	21	1.0	20.00	0	104	70	130			
Trichloroethene (TCE)	20	1.0	20.00	0	98.1	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		101	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	10		10.00		103	70	130			
Surr: Toluene-d8	10		10.00		100	70	130			

Sample ID 1603069-001a ms	SampType: MS			TestCode: EPA Method 8260B: VOLATILES						
Client ID: MKTF-4	Batch ID: R32609			RunNo: 32609						
Prep Date:	Analysis Date: 3/5/2016			SeqNo: 997695		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	790	5.0	100.0	756.7	37.0	70	130			SE
Toluene	120	5.0	100.0	17.22	108	70	130			
Chlorobenzene	110	5.0	100.0	0	112	70	130			
1,1-Dichloroethene	110	5.0	100.0	14.41	98.4	70	130			
Trichloroethene (TCE)	98	5.0	100.0	0	97.5	70	130			
Surr: 1,2-Dichloroethane-d4	47		50.00		93.3	70	130			
Surr: 4-Bromofluorobenzene	44		50.00		88.2	70	130			
Surr: Dibromofluoromethane	48		50.00		95.9	70	130			
Surr: Toluene-d8	50		50.00		99.6	70	130			

Sample ID 1603069-001a msd	SampType: MSD			TestCode: EPA Method 8260B: VOLATILES						
Client ID: MKTF-4	Batch ID: R32609			RunNo: 32609						
Prep Date:	Analysis Date: 3/5/2016			SeqNo: 997696		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	780	5.0	100.0	756.7	23.0	70	130	1.78	20	SE
Toluene	120	5.0	100.0	17.22	98.1	70	130	7.87	20	
Chlorobenzene	110	5.0	100.0	0	107	70	130	5.34	20	
1,1-Dichloroethene	110	5.0	100.0	14.41	90.8	70	130	6.98	20	
Trichloroethene (TCE)	90	5.0	100.0	0	90.4	70	130	7.55	20	
Surr: 1,2-Dichloroethane-d4	44		50.00		88.0	70	130	0	0	
Surr: 4-Bromofluorobenzene	45		50.00		90.8	70	130	0	0	
Surr: Dibromofluoromethane	49		50.00		98.2	70	130	0	0	
Surr: Toluene-d8	47		50.00		94.3	70	130	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	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	P Sample pH Not In Range
R RPD outside accepted recovery limits	RL Reporting Detection Limit
S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603069

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	rb	SampType: MBLK			TestCode: EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID: R32609			RunNo: 32609					
Prep Date:		Analysis Date: 3/4/2016			SeqNo: 997709		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.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603069

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	rb	SampType: MBLK				TestCode: EPA Method 8260B: VOLATILES				
Client ID:	PBW	Batch ID: R32609				RunNo: 32609				
Prep Date:		Analysis Date: 3/4/2016				SeqNo: 997709	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	0.31	3.0								J
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	9.7		10.00		96.7	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130			
Surr: Dibromofluoromethane	11		10.00		112	70	130			
Surr: Toluene-d8	10		10.00		104	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603069

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	mb-24000		SampType: MBLK		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	PBW		Batch ID: 24000		RunNo: 32558					
Prep Date:	3/1/2016		Analysis Date: 3/3/2016		SeqNo: 996116		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.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603069

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	mb-24000		SampType: MBLK		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	PBW		Batch ID: 24000		RunNo: 32558					
Prep Date:	3/1/2016		Analysis Date: 3/3/2016		SeqNo: 996116		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	220		200.0		109	4.63	113			
Surr: Phenol-d5	210		200.0		105	4.13	124			
Surr: 2,4,6-Tribromophenol	130		200.0		64.6	5.14	132			
Surr: Nitrobenzene-d5	110		100.0		107	9.13	140			
Surr: 2-Fluorobiphenyl	110		100.0		114	10.8	132			
Surr: 4-Terphenyl-d14	100		100.0		101	12.9	107			

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Value above quantitation range
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ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1603069

01-Apr-16

Client: Western Refining Southwest, Gallup

Project: Quarterly GW Sampling

Sample ID	Ics-24000		SampType: LCS		TestCode: EPA Method 8270C: Semivolatiles					
Client ID:	LCSW		Batch ID: 24000		RunNo: 32558					
Prep Date:	3/1/2016		Analysis Date: 3/3/2016		SeqNo: 996117		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	91	10	100.0	0	91.0	40.2	107			
4-Chloro-3-methylphenol	180	10	200.0	0	88.4	48.2	107			
2-Chlorophenol	180	10	200.0	0	88.7	42.5	106			
1,4-Dichlorobenzene	90	10	100.0	0	89.5	31.6	111			
2,4-Dinitrotoluene	79	10	100.0	0	78.7	33.6	86.5			
N-Nitrosodi-n-propylamine	89	10	100.0	0	88.9	44	106			
4-Nitrophenol	140	10	200.0	0	69.4	25.5	109			
Pentachlorophenol	110	20	200.0	0	55.8	38.8	97.8			
Phenol	190	10	200.0	0	93.2	22.7	116			
Pyrene	81	10	100.0	0	81.0	29.3	138			
1,2,4-Trichlorobenzene	98	10	100.0	0	97.7	35.3	123			
Surr: 2-Fluorophenol	170		200.0		86.6	4.63	113			
Surr: Phenol-d5	190		200.0		93.2	4.13	124			
Surr: 2,4,6-Tribromophenol	140		200.0		67.8	5.14	132			
Surr: Nitrobenzene-d5	91		100.0		91.0	9.13	140			
Surr: 2-Fluorobiphenyl	92		100.0		92.2	10.8	132			
Surr: 4-Terphenyl-d14	80		100.0		79.9	12.9	107			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
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S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified



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

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1603069

RcptNo: 1

Received by/date:

Logged By: Ashley Gallegos

03/01/16
3/1/2016 4:40:00 PM

Completed By: Ashley Gallegos

3/1/2016 5:36:58 PM

Reviewed By: LB

03/02/16

Chain of Custody

1. Custody seals intact on sample bottles?
2. Is Chain of Custody complete?
3. How was the sample delivered?

Yes ☒

No ☐

Not Present ☐

Yes ☒

No ☐

Not Present ☐

Courier

Log In

4. Was an attempt made to cool the samples?
5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ?
6. Sample(s) in proper container(s)?
7. Sufficient sample volume for indicated test(s)?
8. Are samples (except VOA and ONG) properly preserved?
9. Was preservative added to bottles?
For metals analysis Added 0.4ml to -007E, 1ml HNO₃ to -007F for acceptability H. Held
10. VOA vials have zero headspace?
11. Were any sample containers received broken?
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody)
13. Are matrices correctly identified on Chain of Custody?
14. Is it clear what analyses were requested?
15. Were all holding times able to be met?
(If no, notify customer for authorization.)

Yes ☒

No ☐

NA ☐

Yes ☒

No ☐

NA ☐

Yes ☒

No ☐

Yes ☒

No ☐

Yes ☒

No ☒

Yes ☒

No ☒

NA ☐

Yes ☒

No ☐

No VOA Vials ☐

Yes ☐

No ☒

of preserved bottles checked for pH: 18

Yes ☒

No ☐

Adjusted? ☒

Yes ☒

No ☐

Yes ☒

No ☐

Yes ☒

No ☐

Checked by: AGJ

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	1.0	Good	Yes			

