Western Refining
GALLUP

ENTERED

WNR LISTED NYSE

April 16, 2015

Via Email and Certified Mail #7014 1820 0001 7489 1591, Return Receipt Requested

Mr. Jim Griswold
Environmental Bureau Chief
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

RECEIVED

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NMED
Hazardous Waste Bureau

RE: MARCH 9, 2014 EVAPORATION POND 7 DIKE BREACH
RESPONSE TO NMOCD LETTER DATED MARCH 25, 2015

Dear Mr. Griswold:

On March 19, 2014,Western Refining Southwest, Inc., Gallup refinery ("Western") orally and by email notified the New Mexico Environment Department ("NMED") and the New Mexico Oil Conservation Division ("NMOCD") of a minor release of treated wastewater from Evaporation Pond 7 due to a breach in the dike. Without making any admissions, and reserving all applicable rights and defenses, Western provided a letter report dated March 10, 2015 in response to the inquiries of both NMED and NMOCD.

- NMOCD issued a response letter dated March 25, 2015 requesting submission of a plan for "complete delineation" of the affected areas within 30 days. NMOCD states its belief that: "The vertical and horizontal extents of chloride contamination in the soil has not been determined. No sampling laterally beyond the two areas of the apparent release has been determined." NMOCD explains that its conclusion is based on the groundwater separation distance. Specifically, the letter states:
- "You cite 19.15.17 NMAC (the "pit rule") as basis for allowing soil contaminated with chloride up to 10,000 mg/kg to be left in place when groundwater separation is greater than 50 feet. Based upon *Western's Facility Wide Ground Water Monitoring Work Plan – 2014 Updates for 2015* the water level in the well BW-1C is 12.97 feet beneath surface and in well BW-2C is 20.70 feet. Both monitoring wells are near the release area."

Respectfully, Western believes that "complete delineation" of the affected areas – as required by the pit rule - has taken place and believes NMOCD's position is based on a misunderstanding of the facts, particularly with respect to the groundwater separation distance. Western provides the following clarifications in support:

- The vertical and horizontal extents of chloride contamination has been determined.
    - The horizontal extent was determined by flagging the dry/wet edge of the spill with 89 points and surveying the points. The survey provided in the March 10, 2015 report is attached.
    - Vertical extent was determined the day after the release by sampling below the wet/dry soil horizon in the spill area. Three locations were sampled in each of the spill areas (north and south). A summary table and analytical reports are attached.
    - Due to clayey soils, vertical penetration of the released liquids was limited to 6 to 12 inches below surface. This information was used to pre-determine depths of the cleanup excavation.
    - When considering the relatively large surface area compared to volume of released water and the clayey soil, a shallow vertical impact would be expected.
- Conservatively, the depth to groundwater of 51 to 100 feet.
    - As stated in the 2013 RCRA Permit, the refinery is located on a layered geologic formation which is part of the high desert plain on the western slope of the continental divide. Surface soils generally consist of fluvial and alluvial deposits, primarily silt and clay with inter-bedded sand layers. The stratigraphy is complex and highly variable due to the presence of sand stringers, cobble beds, and dense clay layers. Below the surface layer is the Chinle Group, which consists of primarily low permeability claystones and siltstones that comprise the channel and floodplain deposits of this formation. The Chinle Group acts as an aquiclude; the clays and shales have a hydraulic conductivity of 10^{-9}cm/sec. Just above the Chinle Group is a zone of water bearing, weathered alluvium called the Chinle slope wash which is hydraulically interconnected with water located in shallow, localized sand lenses located between the Chinle slope wash and the ground surface. The Chinle slope wash is continuous and saturated throughout the region underneath the LTU. However, the Chine slope wash does not meet the regulatory definition of the uppermost aquifer; the rate of water movement is estimated to be less than 1 foot per year. Inter-bedded with the Chinle Group is the Sonsela Sandstone bed, which represents the uppermost potential aquifer in the region. The Sonsela lies within and parallels the dip of the Chinle Group, its highest point is located southeast of the facility and it slopes downward to the northwest as it passes under the facility. The Sonsela acts as a water bearing reservoir and is artesian at its lower extremis. Artesian conditions exist through much of the central and western portions of the refinery property.
    - The occurrence of water-bearing zones in the Chinle slope wash and Chinle Group above the Sonsela is sporadic across the Refinery property. In the BW-1C area, localized sand lenses in the Chinle slope wash are dry.

- Wells BW-1C and BW-2C are screened in the Sonsela Sandstone. The top of the Sonsela is 119 feet and 143 feet below surface, respectively. The screened intervals are 125 to 135 feet and 139.5 to 149.5 feet below surface, respectively. See the attached groundwater gauging table. The water bearing formation is more than 100 feet below the surface.
- The depths to water in the Wells BW-1C and BW-2C of 12.97 and 20.70 feet below surface, respectively, are indicative of a potentiometric surface above a confined aquifer. A well with this condition is also known as a non-flowing artesian well. The area lithology with impervious strata above (and below) the aquifer is conducive to artesian conditions.
- Conservatively, the chloride cleanup level of 10,000 mg/kg is appropriate.

In consideration of the information provided above, the confirmation sample results in the letter spill report dated March 10, 2015 demonstrate the spill of treated wastewater from Pond 7 has been successfully remediated under the pit rule and no further remedial action is required.

Upon approval of NMOCD, Western immediately will backfill the excavations using clean fill from the Refinery's borrow pit and seed the affected area. Please note that the Right-of-Entry Permit issued by the State of New Mexico is only valid through April 19, 2015. Western is taking steps to have that approval extended to allow time for NMOCD review and approval. We do not anticipate any issue in obtaining an extension but will advise NMOCD if an issue arises. If there are any questions, please contact Ed Riege at 505-722-0217.

Sincerely,

William Paul McClain

Mr. Billy McClain
Refinery Manager
Western Refining Southwest, Inc. – Gallup Refinery

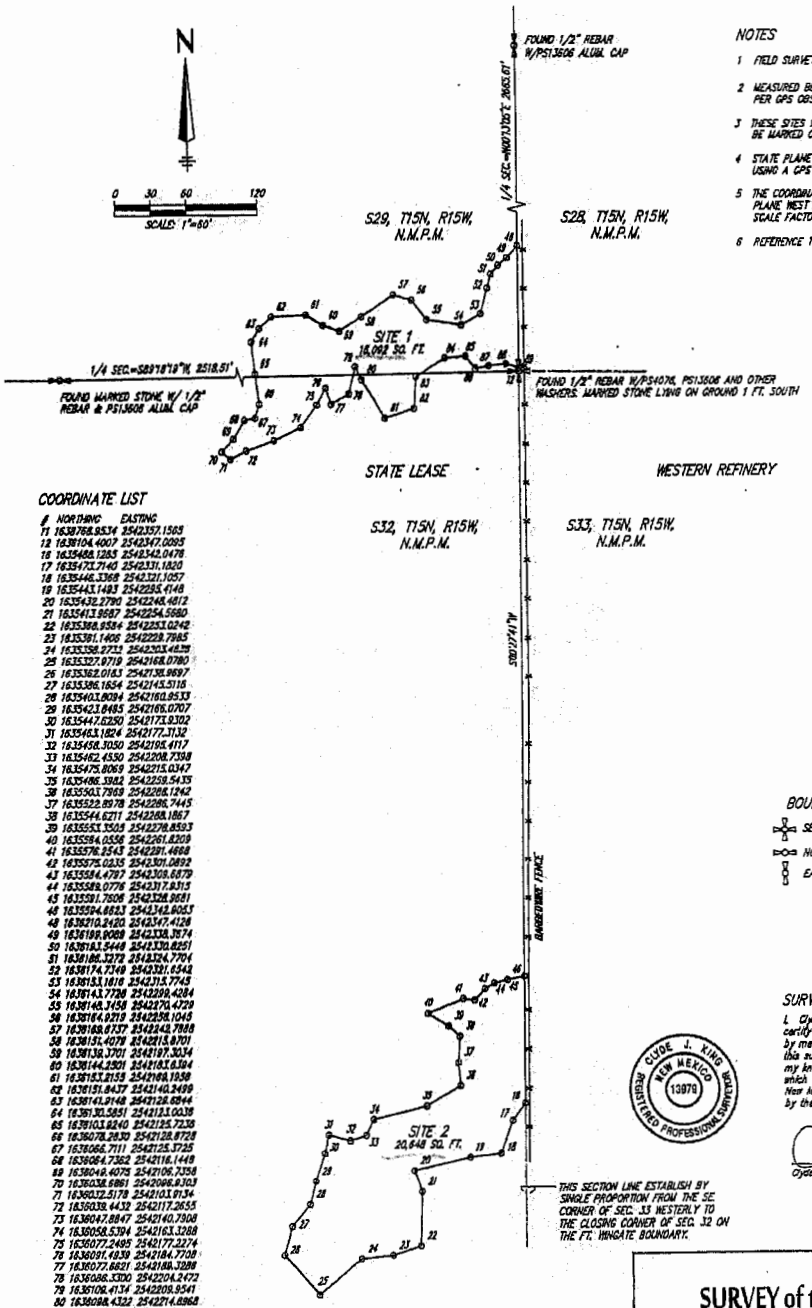
cc Anthony Vigil, State of New Mexico
A. Allen, Western El Paso
Ed Riege, Western Gallup
Allen Hains, Western El Paso

Mr. John E. Kieling, Chief
New Mexico Environment Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East, Bldg 1
Santa Fe, New Mexico 87505-6303

Attachments

Horizontal Extent of Release

140915BS.DWG DRAWN BY: AN CHECKED BY: CK DATE: 9-20-14



NOTES

1. FIELD SURVEY PERFORMED SEPTEMBER 15, 2014.
2. MEASURED BEARINGS ARE REFERENCED TO N.M.S.P. WEST ZONE GRID PER GPS OBSERVATIONS PERFORMED ON SITE AT THE TIME OF SURVEY.
3. THESE SITES WERE IDENTIFIED BY REFINERY PERSONNEL AND FOUND TO BE MARKED ON THE GROUND WITH WIRE FLAGS AT THE TIME OF SURVEY.
4. STATE PLANE COORDINATES BASED ON THE BRASS CAP I-040-105 USING A GPS DERIVED COMBINED SCALE FACTOR OF 0.9996084928.
5. THE COORDINATE LIST SHOWING LOCATED POINTS ARE N.M. STATE PLANE WEST ZONE GRID COORDINATES AND MUST BE DIVIDED BY THE SCALE FACTOR SHOWN ABOVE TO REACH GROUND VALUES.
6. REFERENCE THE 1881 G.L.O. TOWNSHIP PLAT OF T15N, R15W, N.M.P.M.

COORDINATE LIST

#	NORTHING	EASTING
11	1639788.9534	2542357.1505
12	1639104.4007	2542347.0095
16	1635488.1285	2542342.0478
17	1635472.7140	2542331.1820
18	1635446.3368	2542321.1057
19	1635443.1493	2542295.4148
20	1635432.2790	2542248.4812
21	1635413.9687	2542254.5680
22	1635388.9584	2542253.0242
23	1635391.1406	2542228.7985
24	1635358.2773	2542233.4839
25	1635327.9719	2542168.0780
26	1635362.0183	2542138.9697
27	1635386.1654	2542145.5116
28	1635403.8094	2542160.9533
29	1635423.8485	2542169.0707
30	1635447.5250	2542173.8302
31	1635463.1824	2542177.3132
32	1635458.3050	2542195.4117
33	1635462.4550	2542208.7398
34	1635475.8069	2542215.0347
35	1635486.3982	2542258.5435
36	1635503.7969	2542266.1242
37	1635523.8978	2542286.7445
38	1635544.6211	2542268.1867
39	1635553.3505	2542278.8593
40	1635584.0556	2542261.8209
41	1635576.2543	2542291.4868
42	1635575.0235	2542301.0892
43	1635584.4797	2542308.6879
44	1635585.0776	2542317.9315
45	1635591.7806	2542328.9681
46	1635594.8623	2542342.9063
48	1636210.2420	2542347.4126
49	1636199.9089	2542338.3874
50	1636193.5448	2542330.8251
51	1636186.3273	2542324.7704
52	1636174.7249	2542321.6542
53	1636153.1816	2542315.7745
54	1636143.7738	2542298.4284
55	1636148.3458	2542270.4729
56	1636164.9219	2542258.1045
57	1636168.6737	2542243.7868
58	1636151.4079	2542215.8701
59	1636138.3701	2542197.3034
60	1636144.2501	2542183.6394
61	1636153.2159	2542168.1958
62	1636151.8437	2542140.3499
63	1636141.9148	2542128.6844
64	1636130.5851	2542133.0035
65	1636103.8240	2542125.7238
66	1636078.2830	2542128.8728
67	1636066.7111	2542125.3725
68	1636064.7362	2542116.1449
69	1636049.4075	2542106.7356
70	1636038.6861	2542096.8703
71	1636012.5178	2542103.9134
72	1636039.4432	2542117.2655
73	1636047.8847	2542140.7908
74	1636058.5394	2542163.3288
75	1636077.2495	2542177.2274
76	1636091.4939	2542184.7708
77	1636077.8821	2542198.3288
78	1636086.3300	2542204.2472
79	1636109.4134	2542209.9541
80	1636088.4322	2542214.8968
81	1636065.6798	2542234.1348
82	1636073.5650	2542258.6803
83	1636100.7038	2542260.6073
84	1636118.0408	2542285.3807
85	1636117.3491	2542302.5848
86	1636106.8577	2542310.7085
87	1636109.2469	2542321.8393
88	1636110.5733	2542336.1329
89	1636107.3472	2542347.0207

BOUNDARY LEGEND

- SECTION CORNER
- NORTH OR SOUTH 1/4 SECTION CORNER
- EAST OR WEST 1/4 SECTION CORNER

SURVEYOR'S CERTIFICATE

I, Clyde J. King, a New Mexico Professional Surveyor do hereby certify that this plat was prepared from a field survey performed by me or under my direct supervision, that I am responsible for this survey, that this survey is true and correct to the best of my knowledge and belief, that this plat and the field survey upon which it is based meet the Minimum Standards for Surveying in New Mexico and that this survey is not a subdivision as defined by the New Mexico Subdivision Act.

Clyde J. King, PS13979 — 9-20-14 Date

SURVEY of the SITE 1 in Sections 29 & 32, and SITE 2 in Section 32, T15N, R15W, N.M.P.M., McKinley County, New Mexico, U.S.A.

H.E.I. HAMMON ENTERPRISES, INC. PROFESSIONAL LAND SURVEYING SERVICES P.O. Box 770 Ramah, NM 87321 Tel:(505) 870-8901 HEIsurveys@Yahoo.com

Vertical Extent of Release

Summary of Chloride Sampling Analyses
March 20, 2014

Sample ID	Sample Date/Time	Chloride (ppm)	Comments
P7-S-1A	3/20/14 10:00 AM	4,600	Sample of North Release Area
P7-S-1B	3/20/14 10:00 AM	1,000	Sample of North Release Area
P7-S-1C	3/20/14 10:00 AM	1,100	Sample of North Release Area
P7-S-1D	3/20/14 10:30 AM	53,000	Aqueous Sample - Released Material
P7-S-2A	3/20/14 11:10 AM	7,600	Sample of South Release Area
P7-S-2B	3/20/14 11:10 AM	1,800	Sample of South Release Area
P7-S-2C	3/20/14 11:10 AM	5,400	Sample of South Release Area

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

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

March 28, 2014

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

RE: Pond 7 Breach (Soil, Water) OrderNo.: 1403941

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 7 sample(s) on 3/21/2014 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1403941**
Date Reported: **3/28/2014**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: Pond 7 Breach (Soil, Water)
Lab ID: 1403941-001 **Matrix:** SOIL

Client Sample ID: P7-S-1A
Collection Date: 3/20/2014 10:00:00 AM
Received Date: 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst:	**BCN**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	3/25/2014 7:24:51 PM	12321
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	3/25/2014 7:24:51 PM	12321
Surr: DNOP	91.8	66-131		%REC	1	3/25/2014 7:24:51 PM	12321
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	3/26/2014 10:51:21 PM	12325
Surr: BFB	90.0	74.5-129		%REC	1	3/26/2014 10:51:21 PM	12325
EPA METHOD 300.0: ANIONS						Analyst:	**JRR**
Fluoride	2.6	0.30		mg/Kg	1	3/25/2014 12:49:22 PM	12346
Chloride	4600	150		mg/Kg	100	3/27/2014 7:00:03 AM	12346
Nitrogen, Nitrite (As N)	ND	6.0		mg/Kg	20	3/25/2014 1:26:36 PM	12346
Bromide	2.0	0.30		mg/Kg	1	3/25/2014 12:49:22 PM	12346
Nitrogen, Nitrate (As N)	3.3	0.30		mg/Kg	1	3/25/2014 12:49:22 PM	12346
Phosphorus, Orthophosphate (As P)	ND	1.5		mg/Kg	1	3/25/2014 12:49:22 PM	12346
Sulfate	1200	30		mg/Kg	20	3/25/2014 1:26:36 PM	12346
MERCURY, TCLP						Analyst:	**JML**
Mercury	ND	0.020		mg/L	1	3/25/2014 5:20:09 PM	12358
EPA METHOD 6010B: SOIL METALS						Analyst:	**ELS**
Calcium	15000	130		mg/Kg	5	3/26/2014 12:02:26 PM	12337
Magnesium	8200	130		mg/Kg	5	3/26/2014 12:02:26 PM	12337
Potassium	4700	250		mg/Kg	5	3/26/2014 12:02:26 PM	12337
Sodium	4400	130		mg/Kg	5	3/26/2014 12:02:26 PM	12337
EPA METHOD 6010B: TCLP METALS						Analyst:	**JLF**
Arsenic	ND	5.0		mg/L	1	3/26/2014 2:35:27 PM	12369
Barium	ND	100		mg/L	1	3/26/2014 2:35:27 PM	12369
Cadmium	ND	1.0		mg/L	1	3/26/2014 2:35:27 PM	12369
Chromium	ND	5.0		mg/L	1	3/26/2014 2:35:27 PM	12369
Lead	ND	5.0		mg/L	1	3/26/2014 2:35:27 PM	12369
Selenium	ND	1.0		mg/L	1	3/26/2014 2:35:27 PM	12369
Silver	ND	5.0		mg/L	1	3/26/2014 2:35:27 PM	12369
EPA METHOD 8270C TCLP						Analyst:	**DAM**
2-Methylphenol	ND	200		mg/L	1	3/27/2014 3:47:18 PM	12365
3+4-Methylphenol	ND	200		mg/L	1	3/27/2014 3:47:18 PM	12365
Phenol	ND	200		mg/L	1	3/27/2014 3:47:18 PM	12365
2,4-Dinitrotoluene	ND	0.13		mg/L	1	3/27/2014 3:47:18 PM	12365
Hexachlorobenzene	ND	0.13		mg/L	1	3/27/2014 3:47:18 PM	12365
Hexachlorobutadiene	ND	0.50		mg/L	1	3/27/2014 3:47:18 PM	12365

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: Pond 7 Breach (Soil, Water)
Lab ID: 1403941-001 **Matrix:** SOIL

Client Sample ID: P7-S-1A
Collection Date: 3/20/2014 10:00:00 AM
Received Date: 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C TCLP						Analyst: **DAM**	
Hexachloroethane	ND	3.0		mg/L	1	3/27/2014 3:47:18 PM	12365
Nitrobenzene	ND	2.0		mg/L	1	3/27/2014 3:47:18 PM	12365
Pentachlorophenol	ND	100		mg/L	1	3/27/2014 3:47:18 PM	12365
Pyridine	ND	5.0		mg/L	1	3/27/2014 3:47:18 PM	12365
2,4,5-Trichlorophenol	ND	400		mg/L	1	3/27/2014 3:47:18 PM	12365
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	3/27/2014 3:47:18 PM	12365
Cresols, Total	ND	200		mg/L	1	3/27/2014 3:47:18 PM	12365
Surr: 2-Fluorophenol	21.5	18.6-88.6		%REC	1	3/27/2014 3:47:18 PM	12365
Surr: Phenol-d5	36.5	19.5-61.8		%REC	1	3/27/2014 3:47:18 PM	12365
Surr: 2,4,6-Tribromophenol	30.2	29.7-130		%REC	1	3/27/2014 3:47:18 PM	12365
Surr: Nitrobenzene-d5	95.9	45.1-101		%REC	1	3/27/2014 3:47:18 PM	12365
Surr: 2-Fluorobiphenyl	84.5	46.6-99.3		%REC	1	3/27/2014 3:47:18 PM	12365
Surr: 4-Terphenyl-d14	78.9	40.8-109		%REC	1	3/27/2014 3:47:18 PM	12365
EPA METHOD 8260B: TCLP COMPOUNDS						Analyst: **cadg**	
Benzene	ND	0.50		ppm	10	3/25/2014 2:01:29 PM	12325
1,2-Dichloroethane (EDC)	ND	0.50		ppm	10	3/25/2014 2:01:29 PM	12325
2-Butanone	ND	200		ppm	10	3/25/2014 2:01:29 PM	12325
Carbon tetrachloride	ND	0.50		ppm	10	3/25/2014 2:01:29 PM	12325
Chlorobenzene	ND	100		ppm	10	3/25/2014 2:01:29 PM	12325
Chloroform	ND	6.0		ppm	10	3/25/2014 2:01:29 PM	12325
1,4-Dichlorobenzene	ND	7.5		ppm	10	3/25/2014 2:01:29 PM	12325
1,1-Dichloroethene	ND	0.70		ppm	10	3/25/2014 2:01:29 PM	12325
Tetrachloroethene (PCE)	ND	0.70		ppm	10	3/25/2014 2:01:29 PM	12325
Trichloroethene (TCE)	ND	0.50		ppm	10	3/25/2014 2:01:29 PM	12325
Vinyl chloride	ND	0.20		ppm	10	3/25/2014 2:01:29 PM	12325
Surr: 1,2-Dichloroethane-d4	105	70-130		%REC	10	3/25/2014 2:01:29 PM	12325
Surr: 4-Bromofluorobenzene	103	70-130		%REC	10	3/25/2014 2:01:29 PM	12325
Surr: Dibromofluoromethane	107	70-130		%REC	10	3/25/2014 2:01:29 PM	12325
Surr: Toluene-d8	99.0	70-130		%REC	10	3/25/2014 2:01:29 PM	12325

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: Pond 7 Breach (Soil, Water)
Lab ID: 1403941-002 **Matrix:** SOIL

Client Sample ID: P7-S-1B
Collection Date: 3/20/2014 10:00:00 AM
Received Date: 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst:	**BCN**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	3/25/2014 7:46:44 PM	12321
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	3/25/2014 7:46:44 PM	12321
Surr: DNOP	93.1	66-131		%REC	1	3/25/2014 7:46:44 PM	12321
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	3/26/2014 11:19:58 PM	12325
Surr: BFB	88.3	74.5-129		%REC	1	3/26/2014 11:19:58 PM	12325
EPA METHOD 300.0: ANIONS						Analyst:	**JRR**
Fluoride	4.2	3.0		mg/Kg	10	3/25/2014 1:39:01 PM	12346
Chloride	1000	150		mg/Kg	100	3/25/2014 1:51:26 PM	12346
Nitrogen, Nitrite (As N)	ND	3.0		mg/Kg	10	3/25/2014 1:39:01 PM	12346
Bromide	ND	3.0		mg/Kg	10	3/25/2014 1:39:01 PM	12346
Nitrogen, Nitrate (As N)	9.1	3.0		mg/Kg	10	3/25/2014 1:39:01 PM	12346
Phosphorus, Orthophosphate (As P)	ND	15		mg/Kg	10	3/25/2014 1:39:01 PM	12346
Sulfate	170	15		mg/Kg	10	3/25/2014 1:39:01 PM	12346
MERCURY, TCLP						Analyst:	**JML**
Mercury	ND	0.020		mg/L	1	3/25/2014 5:21:55 PM	12358
EPA METHOD 6010B: SOIL METALS						Analyst:	**ELS**
Calcium	16000	120		mg/Kg	5	3/26/2014 12:14:24 PM	12337
Magnesium	7900	120		mg/Kg	5	3/26/2014 12:14:24 PM	12337
Potassium	3900	240		mg/Kg	5	3/26/2014 12:14:24 PM	12337
Sodium	1300	120		mg/Kg	5	3/26/2014 12:14:24 PM	12337
EPA METHOD 6010B: TCLP METALS						Analyst:	**JLF**
Arsenic	ND	5.0		mg/L	1	3/26/2014 2:37:56 PM	12369
Barium	ND	100		mg/L	1	3/26/2014 2:37:56 PM	12369
Cadmium	ND	1.0		mg/L	1	3/26/2014 2:37:56 PM	12369
Chromium	ND	5.0		mg/L	1	3/26/2014 2:37:56 PM	12369
Lead	ND	5.0		mg/L	1	3/26/2014 2:37:56 PM	12369
Selenium	ND	1.0		mg/L	1	3/26/2014 2:37:56 PM	12369
Silver	ND	5.0		mg/L	1	3/26/2014 2:37:56 PM	12369
EPA METHOD 8270C TCLP						Analyst:	**DAM**
2-Methylphenol	ND	200		mg/L	1	3/27/2014 4:16:27 PM	12365
3+4-Methylphenol	ND	200		mg/L	1	3/27/2014 4:16:27 PM	12365
Phenol	ND	200		mg/L	1	3/27/2014 4:16:27 PM	12365
2,4-Dinitrotoluene	ND	0.13		mg/L	1	3/27/2014 4:16:27 PM	12365
Hexachlorobenzene	ND	0.13		mg/L	1	3/27/2014 4:16:27 PM	12365
Hexachlorobutadiene	ND	0.50		mg/L	1	3/27/2014 4:16:27 PM	12365

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: Pond 7 Breach (Soil, Water)
Lab ID: 1403941-002 **Matrix:** SOIL

Client Sample ID: P7-S-1B
Collection Date: 3/20/2014 10:00:00 AM
Received Date: 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C TCLP						Analyst:	**DAM**
Hexachloroethane	ND	3.0		mg/L	1	3/27/2014 4:16:27 PM	12365
Nitrobenzene	ND	2.0		mg/L	1	3/27/2014 4:16:27 PM	12365
Pentachlorophenol	ND	100		mg/L	1	3/27/2014 4:16:27 PM	12365
Pyridine	ND	5.0		mg/L	1	3/27/2014 4:16:27 PM	12365
2,4,5-Trichlorophenol	ND	400		mg/L	1	3/27/2014 4:16:27 PM	12365
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	3/27/2014 4:16:27 PM	12365
Cresols, Total	ND	200		mg/L	1	3/27/2014 4:16:27 PM	12365
Surr: 2-Fluorophenol	19.0	18.6-88.6		%REC	1	3/27/2014 4:16:27 PM	12365
Surr: Phenol-d5	31.2	19.5-61.8		%REC	1	3/27/2014 4:16:27 PM	12365
Surr: 2,4,6-Tribromophenol	28.8	29.7-130	S	%REC	1	3/27/2014 4:16:27 PM	12365
Surr: Nitrobenzene-d5	92.7	45.1-101		%REC	1	3/27/2014 4:16:27 PM	12365
Surr: 2-Fluorobiphenyl	87.5	46.6-99.3		%REC	1	3/27/2014 4:16:27 PM	12365
Surr: 4-Terphenyl-d14	82.2	40.8-109		%REC	1	3/27/2014 4:16:27 PM	12365
EPA METHOD 8260B: TCLP COMPOUNDS						Analyst:	**cadg**
Benzene	ND	0.50		ppm	10	3/25/2014 2:30:14 PM	12325
1,2-Dichloroethane (EDC)	ND	0.50		ppm	10	3/25/2014 2:30:14 PM	12325
2-Butanone	ND	200		ppm	10	3/25/2014 2:30:14 PM	12325
Carbon tetrachloride	ND	0.50		ppm	10	3/25/2014 2:30:14 PM	12325
Chlorobenzene	ND	100		ppm	10	3/25/2014 2:30:14 PM	12325
Chloroform	ND	6.0		ppm	10	3/25/2014 2:30:14 PM	12325
1,4-Dichlorobenzene	ND	7.5		ppm	10	3/25/2014 2:30:14 PM	12325
1,1-Dichloroethene	ND	0.70		ppm	10	3/25/2014 2:30:14 PM	12325
Tetrachloroethene (PCE)	ND	0.70		ppm	10	3/25/2014 2:30:14 PM	12325
Trichloroethene (TCE)	ND	0.50		ppm	10	3/25/2014 2:30:14 PM	12325
Vinyl chloride	ND	0.20		ppm	10	3/25/2014 2:30:14 PM	12325
Surr: 1,2-Dichloroethane-d4	103	70-130		%REC	10	3/25/2014 2:30:14 PM	12325
Surr: 4-Bromofluorobenzene	98.7	70-130		%REC	10	3/25/2014 2:30:14 PM	12325
Surr: Dibromofluoromethane	103	70-130		%REC	10	3/25/2014 2:30:14 PM	12325
Surr: Toluene-d8	104	70-130		%REC	10	3/25/2014 2:30:14 PM	12325

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: Pond 7 Breach (Soil, Water)
Lab ID: 1403941-003 **Matrix:** SOIL

Client Sample ID: P7-S-1C
Collection Date: 3/20/2014 10:00:00 AM
Received Date: 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst:	**BCN**
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	3/25/2014 8:08:49 PM	12321
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	3/25/2014 8:08:49 PM	12321
Surr: DNOP	90.3	66-131		%REC	1	3/25/2014 8:08:49 PM	12321
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	3/26/2014 11:48:31 PM	12325
Surr: BFB	88.1	74.5-129		%REC	1	3/26/2014 11:48:31 PM	12325
EPA METHOD 300.0: ANIONS						Analyst:	**JRR**
Fluoride	5.8	3.0		mg/Kg	10	3/25/2014 2:28:40 PM	12346
Chloride	1100	150		mg/Kg	100	3/25/2014 2:41:05 PM	12346
Nitrogen, Nitrite (As N)	ND	3.0		mg/Kg	10	3/25/2014 2:28:40 PM	12346
Bromide	ND	3.0		mg/Kg	10	3/25/2014 2:28:40 PM	12346
Nitrogen, Nitrate (As N)	3.4	3.0		mg/Kg	10	3/25/2014 2:28:40 PM	12346
Phosphorus, Orthophosphate (As P)	ND	15		mg/Kg	10	3/25/2014 2:28:40 PM	12346
Sulfate	210	15		mg/Kg	10	3/25/2014 2:28:40 PM	12346
MERCURY, TCLP						Analyst:	**JML**
Mercury	ND	0.020		mg/L	1	3/25/2014 5:23:43 PM	12358
EPA METHOD 6010B: SOIL METALS						Analyst:	**ELS**
Calcium	17000	130		mg/Kg	5	3/26/2014 12:17:20 PM	12337
Magnesium	7300	51		mg/Kg	2	3/26/2014 12:15:51 PM	12337
Potassium	3900	100		mg/Kg	2	3/26/2014 12:15:51 PM	12337
Sodium	1900	51		mg/Kg	2	3/26/2014 12:15:51 PM	12337
EPA METHOD 6010B: TCLP METALS						Analyst:	**JLF**
Arsenic	ND	5.0		mg/L	1	3/26/2014 2:40:27 PM	12369
Barium	ND	100		mg/L	1	3/26/2014 2:40:27 PM	12369
Cadmium	ND	1.0		mg/L	1	3/26/2014 2:40:27 PM	12369
Chromium	ND	5.0		mg/L	1	3/26/2014 2:40:27 PM	12369
Lead	ND	5.0		mg/L	1	3/26/2014 2:40:27 PM	12369
Selenium	ND	1.0		mg/L	1	3/26/2014 2:40:27 PM	12369
Silver	ND	5.0		mg/L	1	3/26/2014 2:40:27 PM	12369
EPA METHOD 8270C TCLP						Analyst:	**DAM**
2-Methylphenol	ND	200		mg/L	1	3/27/2014 4:45:38 PM	12365
3+4-Methylphenol	ND	200		mg/L	1	3/27/2014 4:45:38 PM	12365
Phenol	ND	200		mg/L	1	3/27/2014 4:45:38 PM	12365
2,4-Dinitrotoluene	ND	0.13		mg/L	1	3/27/2014 4:45:38 PM	12365
Hexachlorobenzene	ND	0.13		mg/L	1	3/27/2014 4:45:38 PM	12365
Hexachlorobutadiene	ND	0.50		mg/L	1	3/27/2014 4:45:38 PM	12365

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: Pond 7 Breach (Soil, Water)
Lab ID: 1403941-003 **Matrix:** SOIL

Client Sample ID: P7-S-1C
Collection Date: 3/20/2014 10:00:00 AM
Received Date: 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C TCLP						Analyst: **DAM**	
Hexachloroethane	ND	3.0		mg/L	1	3/27/2014 4:45:38 PM	12365
Nitrobenzene	ND	2.0		mg/L	1	3/27/2014 4:45:38 PM	12365
Pentachlorophenol	ND	100		mg/L	1	3/27/2014 4:45:38 PM	12365
Pyridine	ND	5.0		mg/L	1	3/27/2014 4:45:38 PM	12365
2,4,5-Trichlorophenol	ND	400		mg/L	1	3/27/2014 4:45:38 PM	12365
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	3/27/2014 4:45:38 PM	12365
Cresols, Total	ND	200		mg/L	1	3/27/2014 4:45:38 PM	12365
Surr: 2-Fluorophenol	23.6	18.6-88.6		%REC	1	3/27/2014 4:45:38 PM	12365
Surr: Phenol-d5	35.2	19.5-61.8		%REC	1	3/27/2014 4:45:38 PM	12365
Surr: 2,4,6-Tribromophenol	39.1	29.7-130		%REC	1	3/27/2014 4:45:38 PM	12365
Surr: Nitrobenzene-d5	111	45.1-101	S	%REC	1	3/27/2014 4:45:38 PM	12365
Surr: 2-Fluorobiphenyl	93.2	46.6-99.3		%REC	1	3/27/2014 4:45:38 PM	12365
Surr: 4-Terphenyl-d14	88.2	40.8-109		%REC	1	3/27/2014 4:45:38 PM	12365
EPA METHOD 8260B: TCLP COMPOUNDS						Analyst: **cadg**	
Benzene	ND	0.50		ppm	10	3/25/2014 2:59:07 PM	12325
1,2-Dichloroethane (EDC)	ND	0.50		ppm	10	3/25/2014 2:59:07 PM	12325
2-Butanone	ND	200		ppm	10	3/25/2014 2:59:07 PM	12325
Carbon tetrachloride	ND	0.50		ppm	10	3/25/2014 2:59:07 PM	12325
Chlorobenzene	ND	100		ppm	10	3/25/2014 2:59:07 PM	12325
Chloroform	ND	6.0		ppm	10	3/25/2014 2:59:07 PM	12325
1,4-Dichlorobenzene	ND	7.5		ppm	10	3/25/2014 2:59:07 PM	12325
1,1-Dichloroethene	ND	0.70		ppm	10	3/25/2014 2:59:07 PM	12325
Tetrachloroethene (PCE)	ND	0.70		ppm	10	3/25/2014 2:59:07 PM	12325
Trichloroethene (TCE)	ND	0.50		ppm	10	3/25/2014 2:59:07 PM	12325
Vinyl chloride	ND	0.20		ppm	10	3/25/2014 2:59:07 PM	12325
Surr: 1,2-Dichloroethane-d4	102	70-130		%REC	10	3/25/2014 2:59:07 PM	12325
Surr: 4-Bromofluorobenzene	100	70-130		%REC	10	3/25/2014 2:59:07 PM	12325
Surr: Dibromofluoromethane	101	70-130		%REC	10	3/25/2014 2:59:07 PM	12325
Surr: Toluene-d8	101	70-130		%REC	10	3/25/2014 2:59:07 PM	12325

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: Pond 7 Breach (Soil, Water)
Lab ID: 1403941-004 **Matrix:** SOIL

Client Sample ID: P7-S-2A
Collection Date: 3/20/2014 11:10:00 AM
Received Date: 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst:	**BCN**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	3/25/2014 8:30:42 PM	12321
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	3/25/2014 8:30:42 PM	12321
Surr: DNOP	90.7	66-131		%REC	1	3/25/2014 8:30:42 PM	12321
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	3/27/2014 12:17:07 AM	12325
Surr: BFB	88.8	74.5-129		%REC	1	3/27/2014 12:17:07 AM	12325
EPA METHOD 300.0: ANIONS						Analyst:	**JRR**
Fluoride	8.3	3.0		mg/Kg	10	3/25/2014 2:53:30 PM	12346
Chloride	7600	300		mg/Kg	200	3/27/2014 7:12:27 AM	12346
Nitrogen, Nitrite (As N)	ND	3.0		mg/Kg	10	3/25/2014 2:53:30 PM	12346
Bromide	3.8	3.0		mg/Kg	10	3/25/2014 2:53:30 PM	12346
Nitrogen, Nitrate (As N)	16	3.0		mg/Kg	10	3/25/2014 2:53:30 PM	12346
Phosphorus, Orthophosphate (As P)	ND	15		mg/Kg	10	3/25/2014 2:53:30 PM	12346
Sulfate	1300	150		mg/Kg	100	3/25/2014 3:05:55 PM	12346
MERCURY, TCLP						Analyst:	**JML**
Mercury	ND	0.020		mg/L	1	3/25/2014 5:25:31 PM	12358
EPA METHOD 6010B: SOIL METALS						Analyst:	**ELS**
Calcium	15000	130		mg/Kg	5	3/26/2014 12:20:20 PM	12337
Magnesium	7200	51		mg/Kg	2	3/26/2014 12:18:49 PM	12337
Potassium	4400	100		mg/Kg	2	3/26/2014 12:18:49 PM	12337
Sodium	6400	51		mg/Kg	2	3/26/2014 12:18:49 PM	12337
EPA METHOD 6010B: TCLP METALS						Analyst:	**JLF**
Arsenic	ND	5.0		mg/L	1	3/26/2014 2:43:00 PM	12369
Barium	ND	100		mg/L	1	3/26/2014 2:43:00 PM	12369
Cadmium	ND	1.0		mg/L	1	3/26/2014 2:43:00 PM	12369
Chromium	ND	5.0		mg/L	1	3/26/2014 2:43:00 PM	12369
Lead	ND	5.0		mg/L	1	3/26/2014 2:43:00 PM	12369
Selenium	ND	1.0		mg/L	1	3/26/2014 2:43:00 PM	12369
Silver	ND	5.0		mg/L	1	3/26/2014 2:43:00 PM	12369
EPA METHOD 8270C TCLP						Analyst:	**DAM**
2-Methylphenol	ND	200		mg/L	1	3/27/2014 5:14:47 PM	12365
3+4-Methylphenol	ND	200		mg/L	1	3/27/2014 5:14:47 PM	12365
Phenol	ND	200		mg/L	1	3/27/2014 5:14:47 PM	12365
2,4-Dinitrotoluene	ND	0.13		mg/L	1	3/27/2014 5:14:47 PM	12365
Hexachlorobenzene	ND	0.13		mg/L	1	3/27/2014 5:14:47 PM	12365
Hexachlorobutadiene	ND	0.50		mg/L	1	3/27/2014 5:14:47 PM	12365

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: Pond 7 Breach (Soil, Water)
Lab ID: 1403941-004 **Matrix:** SOIL

Client Sample ID: P7-S-2A
Collection Date: 3/20/2014 11:10:00 AM
Received Date: 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C TCLP						Analyst:	**DAM**
Hexachloroethane	ND	3.0		mg/L	1	3/27/2014 5:14:47 PM	12365
Nitrobenzene	ND	2.0		mg/L	1	3/27/2014 5:14:47 PM	12365
Pentachlorophenol	ND	100		mg/L	1	3/27/2014 5:14:47 PM	12365
Pyridine	ND	5.0		mg/L	1	3/27/2014 5:14:47 PM	12365
2,4,5-Trichlorophenol	ND	400		mg/L	1	3/27/2014 5:14:47 PM	12365
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	3/27/2014 5:14:47 PM	12365
Cresols, Total	ND	200		mg/L	1	3/27/2014 5:14:47 PM	12365
Surr: 2-Fluorophenol	49.0	18.6-88.6		%REC	1	3/27/2014 5:14:47 PM	12365
Surr: Phenol-d5	45.6	19.5-61.8		%REC	1	3/27/2014 5:14:47 PM	12365
Surr: 2,4,6-Tribromophenol	68.1	29.7-130		%REC	1	3/27/2014 5:14:47 PM	12365
Surr: Nitrobenzene-d5	109	45.1-101	S	%REC	1	3/27/2014 5:14:47 PM	12365
Surr: 2-Fluorobiphenyl	97.0	46.6-99.3		%REC	1	3/27/2014 5:14:47 PM	12365
Surr: 4-Terphenyl-d14	90.0	40.8-109		%REC	1	3/27/2014 5:14:47 PM	12365
EPA METHOD 8260B: TCLP COMPOUNDS						Analyst:	**cadg**
Benzene	ND	0.50		ppm	10	3/25/2014 4:25:20 PM	12325
1,2-Dichloroethane (EDC)	ND	0.50		ppm	10	3/25/2014 4:25:20 PM	12325
2-Butanone	ND	200		ppm	10	3/25/2014 4:25:20 PM	12325
Carbon tetrachloride	ND	0.50		ppm	10	3/25/2014 4:25:20 PM	12325
Chlorobenzene	ND	100		ppm	10	3/25/2014 4:25:20 PM	12325
Chloroform	ND	6.0		ppm	10	3/25/2014 4:25:20 PM	12325
1,4-Dichlorobenzene	ND	7.5		ppm	10	3/25/2014 4:25:20 PM	12325
1,1-Dichloroethene	ND	0.70		ppm	10	3/25/2014 4:25:20 PM	12325
Tetrachloroethene (PCE)	ND	0.70		ppm	10	3/25/2014 4:25:20 PM	12325
Trichloroethene (TCE)	ND	0.50		ppm	10	3/25/2014 4:25:20 PM	12325
Vinyl chloride	ND	0.20		ppm	10	3/25/2014 4:25:20 PM	12325
Surr: 1,2-Dichloroethane-d4	103	70-130		%REC	10	3/25/2014 4:25:20 PM	12325
Surr: 4-Bromofluorobenzene	97.2	70-130		%REC	10	3/25/2014 4:25:20 PM	12325
Surr: Dibromofluoromethane	103	70-130		%REC	10	3/25/2014 4:25:20 PM	12325
Surr: Toluene-d8	99.7	70-130		%REC	10	3/25/2014 4:25:20 PM	12325

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: Pond 7 Breach (Soil, Water)
Lab ID: 1403941-005 **Matrix:** SOIL

Client Sample ID: P7-S-2B
Collection Date: 3/20/2014 11:10:00 AM
Received Date: 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst:	**BCN**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	3/25/2014 8:52:38 PM	12321
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	3/25/2014 8:52:38 PM	12321
Surr: DNOP	89.1	66-131		%REC	1	3/25/2014 8:52:38 PM	12321
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	3/27/2014 12:45:47 AM	12325
Surr: BFB	88.9	74.5-129		%REC	1	3/27/2014 12:45:47 AM	12325
EPA METHOD 300.0: ANIONS						Analyst:	**JRR**
Fluoride	8.1	3.0		mg/Kg	10	3/25/2014 3:18:20 PM	12346
Chloride	1800	150		mg/Kg	100	3/25/2014 3:30:45 PM	12346
Nitrogen, Nitrite (As N)	ND	3.0		mg/Kg	10	3/25/2014 3:18:20 PM	12346
Bromide	ND	3.0		mg/Kg	10	3/25/2014 3:18:20 PM	12346
Nitrogen, Nitrate (As N)	4.2	3.0		mg/Kg	10	3/25/2014 3:18:20 PM	12346
Phosphorus, Orthophosphate (As P)	ND	15		mg/Kg	10	3/25/2014 3:18:20 PM	12346
Sulfate	420	15		mg/Kg	10	3/25/2014 3:18:20 PM	12346
MERCURY, TCLP						Analyst:	**JML**
Mercury	ND	0.020		mg/L	1	3/25/2014 5:27:19 PM	12358
EPA METHOD 6010B: SOIL METALS						Analyst:	**ELS**
Calcium	16000	120		mg/Kg	5	3/26/2014 12:23:19 PM	12337
Magnesium	7400	48		mg/Kg	2	3/26/2014 12:21:50 PM	12337
Potassium	4100	96		mg/Kg	2	3/26/2014 12:21:50 PM	12337
Sodium	2500	48		mg/Kg	2	3/26/2014 12:21:50 PM	12337
EPA METHOD 6010B: TCLP METALS						Analyst:	**JLF**
Arsenic	ND	5.0		mg/L	1	3/26/2014 2:49:15 PM	12369
Barium	ND	100		mg/L	1	3/26/2014 2:49:15 PM	12369
Cadmium	ND	1.0		mg/L	1	3/26/2014 2:49:15 PM	12369
Chromium	ND	5.0		mg/L	1	3/26/2014 2:49:15 PM	12369
Lead	ND	5.0		mg/L	1	3/26/2014 2:49:15 PM	12369
Selenium	ND	1.0		mg/L	1	3/26/2014 2:49:15 PM	12369
Silver	ND	5.0		mg/L	1	3/26/2014 2:49:15 PM	12369
EPA METHOD 8270C TCLP						Analyst:	**DAM**
2-Methylphenol	ND	200		mg/L	1	3/27/2014 5:43:48 PM	12365
3+4-Methylphenol	ND	200		mg/L	1	3/27/2014 5:43:48 PM	12365
Phenol	ND	200		mg/L	1	3/27/2014 5:43:48 PM	12365
2,4-Dinitrotoluene	ND	0.13		mg/L	1	3/27/2014 5:43:48 PM	12365
Hexachlorobenzene	ND	0.13		mg/L	1	3/27/2014 5:43:48 PM	12365
Hexachlorobutadiene	ND	0.50		mg/L	1	3/27/2014 5:43:48 PM	12365

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-2B
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 11:10:00 AM
Lab ID: 1403941-005
Matrix: SOIL
Received Date: 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C TCLP						Analyst: **DAM**	
Hexachloroethane	ND	3.0		mg/L	1	3/27/2014 5:43:48 PM	12365
Nitrobenzene	ND	2.0		mg/L	1	3/27/2014 5:43:48 PM	12365
Pentachlorophenol	ND	100		mg/L	1	3/27/2014 5:43:48 PM	12365
Pyridine	ND	5.0		mg/L	1	3/27/2014 5:43:48 PM	12365
2,4,5-Trichlorophenol	ND	400		mg/L	1	3/27/2014 5:43:48 PM	12365
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	3/27/2014 5:43:48 PM	12365
Cresols, Total	ND	200		mg/L	1	3/27/2014 5:43:48 PM	12365
Surr: 2-Fluorophenol	13.7	18.6-88.6	S	%REC	1	3/27/2014 5:43:48 PM	12365
Surr: Phenol-d5	30.0	19.5-61.8		%REC	1	3/27/2014 5:43:48 PM	12365
Surr: 2,4,6-Tribromophenol	23.7	29.7-130	S	%REC	1	3/27/2014 5:43:48 PM	12365
Surr: Nitrobenzene-d5	87.8	45.1-101		%REC	1	3/27/2014 5:43:48 PM	12365
Surr: 2-Fluorobiphenyl	94.8	46.6-99.3		%REC	1	3/27/2014 5:43:48 PM	12365
Surr: 4-Terphenyl-d14	88.9	40.8-109		%REC	1	3/27/2014 5:43:48 PM	12365
EPA METHOD 8260B: TCLP COMPOUNDS						Analyst: **cadg**	
Benzene	ND	0.50		ppm	10	3/25/2014 4:54:01 PM	12325
1,2-Dichloroethane (EDC)	ND	0.50		ppm	10	3/25/2014 4:54:01 PM	12325
2-Butanone	ND	200		ppm	10	3/25/2014 4:54:01 PM	12325
Carbon tetrachloride	ND	0.50		ppm	10	3/25/2014 4:54:01 PM	12325
Chlorobenzene	ND	100		ppm	10	3/25/2014 4:54:01 PM	12325
Chloroform	ND	6.0		ppm	10	3/25/2014 4:54:01 PM	12325
1,4-Dichlorobenzene	ND	7.5		ppm	10	3/25/2014 4:54:01 PM	12325
1,1-Dichloroethene	ND	0.70		ppm	10	3/25/2014 4:54:01 PM	12325
Tetrachloroethene (PCE)	ND	0.70		ppm	10	3/25/2014 4:54:01 PM	12325
Trichloroethene (TCE)	ND	0.50		ppm	10	3/25/2014 4:54:01 PM	12325
Vinyl chloride	ND	0.20		ppm	10	3/25/2014 4:54:01 PM	12325
Surr: 1,2-Dichloroethane-d4	104	70-130		%REC	10	3/25/2014 4:54:01 PM	12325
Surr: 4-Bromofluorobenzene	101	70-130		%REC	10	3/25/2014 4:54:01 PM	12325
Surr: Dibromofluoromethane	105	70-130		%REC	10	3/25/2014 4:54:01 PM	12325
Surr: Toluene-d8	103	70-130		%REC	10	3/25/2014 4:54:01 PM	12325

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: Pond 7 Breach (Soil, Water)
Lab ID: 1403941-006 **Matrix:** SOIL

Client Sample ID: P7-S-2C
Collection Date: 3/20/2014 11:10:00 AM
Received Date: 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst:	**BCN**
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	3/25/2014 9:14:36 PM	12321
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	3/25/2014 9:14:36 PM	12321
Surr: DNOP	94.9	66-131		%REC	1	3/25/2014 9:14:36 PM	12321
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	3/27/2014 1:14:26 AM	12325
Surr: BFB	89.4	74.5-129		%REC	1	3/27/2014 1:14:26 AM	12325
EPA METHOD 300.0: ANIONS						Analyst:	**JRR**
Fluoride	5.5	3.0		mg/Kg	10	3/25/2014 3:43:10 PM	12346
Chloride	5400	150		mg/Kg	100	3/25/2014 3:55:35 PM	12346
Nitrogen, Nitrite (As N)	ND	3.0		mg/Kg	10	3/25/2014 3:43:10 PM	12346
Bromide	ND	3.0		mg/Kg	10	3/25/2014 3:43:10 PM	12346
Nitrogen, Nitrate (As N)	ND	3.0		mg/Kg	10	3/25/2014 3:43:10 PM	12346
Phosphorus, Orthophosphate (As P)	ND	15		mg/Kg	10	3/25/2014 3:43:10 PM	12346
Sulfate	980	15		mg/Kg	10	3/25/2014 3:43:10 PM	12346
MERCURY, TCLP						Analyst:	**JML**
Mercury	ND	0.020		mg/L	1	3/25/2014 5:32:49 PM	12358
EPA METHOD 6010B: SOIL METALS						Analyst:	**ELS**
Calcium	15000	130		mg/Kg	5	3/26/2014 12:26:21 PM	12337
Magnesium	7100	52		mg/Kg	2	3/26/2014 12:24:49 PM	12337
Potassium	3900	100		mg/Kg	2	3/26/2014 12:24:49 PM	12337
Sodium	4100	52		mg/Kg	2	3/26/2014 12:24:49 PM	12337
EPA METHOD 6010B: TCLP METALS						Analyst:	**JLF**
Arsenic	ND	5.0		mg/L	1	3/26/2014 2:51:45 PM	12369
Barium	ND	100		mg/L	1	3/26/2014 2:51:45 PM	12369
Cadmium	ND	1.0		mg/L	1	3/26/2014 2:51:45 PM	12369
Chromium	ND	5.0		mg/L	1	3/26/2014 2:51:45 PM	12369
Lead	ND	5.0		mg/L	1	3/26/2014 2:51:45 PM	12369
Selenium	ND	1.0		mg/L	1	3/26/2014 2:51:45 PM	12369
Silver	ND	5.0		mg/L	1	3/26/2014 2:51:45 PM	12369
EPA METHOD 8270C TCLP						Analyst:	**DAM**
2-Methylphenol	ND	200		mg/L	1	3/27/2014 6:12:44 PM	12365
3+4-Methylphenol	ND	200		mg/L	1	3/27/2014 6:12:44 PM	12365
Phenol	ND	200		mg/L	1	3/27/2014 6:12:44 PM	12365
2,4-Dinitrotoluene	ND	0.13		mg/L	1	3/27/2014 6:12:44 PM	12365
Hexachlorobenzene	ND	0.13		mg/L	1	3/27/2014 6:12:44 PM	12365
Hexachlorobutadiene	ND	0.50		mg/L	1	3/27/2014 6:12:44 PM	12365

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-2C
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 11:10:00 AM
Lab ID: 1403941-006
Matrix: SOIL
Received Date: 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C TCLP						Analyst: **DAM**	
Hexachloroethane	ND	3.0		mg/L	1	3/27/2014 6:12:44 PM	12365
Nitrobenzene	ND	2.0		mg/L	1	3/27/2014 6:12:44 PM	12365
Pentachlorophenol	ND	100		mg/L	1	3/27/2014 6:12:44 PM	12365
Pyridine	ND	5.0		mg/L	1	3/27/2014 6:12:44 PM	12365
2,4,5-Trichlorophenol	ND	400		mg/L	1	3/27/2014 6:12:44 PM	12365
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	3/27/2014 6:12:44 PM	12365
Cresols, Total	ND	200		mg/L	1	3/27/2014 6:12:44 PM	12365
Surr: 2-Fluorophenol	17.2	18.6-88.6	S	%REC	1	3/27/2014 6:12:44 PM	12365
Surr: Phenol-d5	27.4	19.5-61.8		%REC	1	3/27/2014 6:12:44 PM	12365
Surr: 2,4,6-Tribromophenol	25.0	29.7-130	S	%REC	1	3/27/2014 6:12:44 PM	12365
Surr: Nitrobenzene-d5	69.2	45.1-101		%REC	1	3/27/2014 6:12:44 PM	12365
Surr: 2-Fluorobiphenyl	68.6	46.6-99.3		%REC	1	3/27/2014 6:12:44 PM	12365
Surr: 4-Terphenyl-d14	72.9	40.8-109		%REC	1	3/27/2014 6:12:44 PM	12365
EPA METHOD 8260B: TCLP COMPOUNDS						Analyst: **cadg**	
Benzene	ND	0.50		ppm	10	3/25/2014 5:22:42 PM	12325
1,2-Dichloroethane (EDC)	ND	0.50		ppm	10	3/25/2014 5:22:42 PM	12325
2-Butanone	ND	200		ppm	10	3/25/2014 5:22:42 PM	12325
Carbon tetrachloride	ND	0.50		ppm	10	3/25/2014 5:22:42 PM	12325
Chlorobenzene	ND	100		ppm	10	3/25/2014 5:22:42 PM	12325
Chloroform	ND	6.0		ppm	10	3/25/2014 5:22:42 PM	12325
1,4-Dichlorobenzene	ND	7.5		ppm	10	3/25/2014 5:22:42 PM	12325
1,1-Dichloroethene	ND	0.70		ppm	10	3/25/2014 5:22:42 PM	12325
Tetrachloroethene (PCE)	ND	0.70		ppm	10	3/25/2014 5:22:42 PM	12325
Trichloroethene (TCE)	ND	0.50		ppm	10	3/25/2014 5:22:42 PM	12325
Vinyl chloride	ND	0.20		ppm	10	3/25/2014 5:22:42 PM	12325
Surr: 1,2-Dichloroethane-d4	103	70-130		%REC	10	3/25/2014 5:22:42 PM	12325
Surr: 4-Bromofluorobenzene	99.4	70-130		%REC	10	3/25/2014 5:22:42 PM	12325
Surr: Dibromofluoromethane	102	70-130		%REC	10	3/25/2014 5:22:42 PM	12325
Surr: Toluene-d8	99.5	70-130		%REC	10	3/25/2014 5:22:42 PM	12325

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-1D
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 10:30:00 AM
Lab ID: 1403941-007
Matrix: AQUEOUS
Received Date: 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE						Analyst:	**BCN**
Diesel Range Organics (DRO)	4.6	1.0		mg/L	1	3/25/2014 5:00:12 PM	12335
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/25/2014 5:00:12 PM	12335
Surr: DNOP	107	62.7-145		%REC	1	3/25/2014 5:00:12 PM	12335
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	3/25/2014 3:57:11 PM	R17568
Surr: BFB	96.5	80.4-118		%REC	1	3/25/2014 3:57:11 PM	R17568
EPA METHOD 300.0: ANIONS						Analyst:	**SRM**
Fluoride	26	10	*	mg/L	100	3/21/2014 8:34:08 PM	R17497
Chloride	53000	2500		mg/L	5E	3/24/2014 2:59:24 PM	R17549
Nitrogen, Nitrite (As N)	ND	100	H	mg/L	1E	3/24/2014 2:47:00 PM	R17549
Bromide	22	10		mg/L	100	3/21/2014 8:34:08 PM	R17497
Nitrogen, Nitrate (As N)	2.4	1.0		mg/L	10	3/21/2014 8:21:43 PM	R17497
Phosphorus, Orthophosphate (As P)	ND	5.0		mg/L	10	3/21/2014 8:21:43 PM	R17497
Sulfate	8400	500		mg/L	1E	3/24/2014 2:47:00 PM	R17549
EPA METHOD 200.7: DISSOLVED METALS						Analyst:	**JLF**
Barium	0.41	0.010		mg/L	5	3/24/2014 2:09:57 PM	R17521
Cadmium	ND	0.010		mg/L	5	3/24/2014 2:09:57 PM	R17521
Calcium	920	50		mg/L	50	3/24/2014 2:11:41 PM	R17521
Chromium	ND	0.030		mg/L	5	3/24/2014 2:09:57 PM	R17521
Copper	ND	0.030		mg/L	5	3/24/2014 2:09:57 PM	R17521
Iron	0.20	0.10		mg/L	5	3/24/2014 2:09:57 PM	R17521
Magnesium	990	50		mg/L	50	3/24/2014 2:11:41 PM	R17521
Manganese	1.8	0.010	*	mg/L	5	3/24/2014 2:09:57 PM	R17521
Potassium	1200	50		mg/L	50	3/24/2014 2:11:41 PM	R17521
Silver	ND	0.025		mg/L	5	3/24/2014 2:09:57 PM	R17521
Sodium	27000	500		mg/L	500	3/24/2014 3:30:11 PM	R17521
Zinc	0.079	0.050		mg/L	5	3/24/2014 2:09:57 PM	R17521
EPA METHOD 200.7: TOTAL METALS						Analyst:	**JLF**
Barium	0.37	0.010		mg/L	5	3/25/2014 4:36:13 PM	12345
Cadmium	ND	0.010		mg/L	5	3/25/2014 4:36:13 PM	12345
Chromium	ND	0.030		mg/L	5	3/25/2014 4:36:13 PM	12345
Copper	ND	0.030		mg/L	5	3/25/2014 4:36:13 PM	12345
Iron	0.66	0.10	*	mg/L	5	3/25/2014 4:36:13 PM	12345
Manganese	1.7	0.010	*	mg/L	5	3/25/2014 4:36:13 PM	12345
Silver	ND	0.025		mg/L	5	3/25/2014 4:36:13 PM	12345
Zinc	ND	0.050		mg/L	5	3/25/2014 4:36:13 PM	12345
EPA 200.8: DISSOLVED METALS						Analyst:	**DBD**

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-1D
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 10:30:00 AM
Lab ID: 1403941-007
Matrix: AQUEOUS
Received Date: 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA 200.8: DISSOLVED METALS						Analyst:	**DBD**
Arsenic	0.077	0.050	*	mg/L	50	3/26/2014 5:14:10 PM	R17589
Lead	ND	0.010		mg/L	10	3/26/2014 5:08:36 PM	R17589
Selenium	0.059	0.050	*	mg/L	50	3/26/2014 5:14:10 PM	R17589
Uranium	ND	0.010		mg/L	10	3/26/2014 5:08:36 PM	R17589
200.8 ICPMS METALS:TOTAL						Analyst:	**DBD**
Arsenic	0.078	0.050	*	mg/L	50	3/27/2014 12:44:12 PM	12345
Lead	ND	0.010		mg/L	10	3/27/2014 12:54:35 PM	12345
Selenium	0.055	0.050	*	mg/L	50	3/27/2014 12:44:12 PM	12345
Uranium	ND	0.010		mg/L	10	3/27/2014 12:54:35 PM	12345
EPA METHOD 245.1: MERCURY						Analyst:	**JML**
Mercury	ND	0.00020		mg/L	1	3/24/2014 5:46:02 PM	12327
EPA METHOD 8270C: SEMIVOLATILES						Analyst:	**DAM**
Acenaphthene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Acenaphthylene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Aniline	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Anthracene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Azobenzene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Benz(a)anthracene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Benzo(a)pyrene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Benzo(b)fluoranthene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Benzo(g,h,i)perylene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Benzo(k)fluoranthene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Benzoic acid	ND	100		µg/L	1	3/27/2014 12:52:58 PM	12366
Benzyl alcohol	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Bis(2-chloroethyl)ether	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
4-Bromophenyl phenyl ether	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Butyl benzyl phthalate	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Carbazole	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
4-Chloro-3-methylphenol	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
4-Chloroaniline	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
2-Chloronaphthalene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
2-Chlorophenol	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Chrysene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Di-n-butyl phthalate	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: Pond 7 Breach (Soil, Water)
Lab ID: 1403941-007 **Matrix:** AQUEOUS

Client Sample ID: P7-S-1D
Collection Date: 3/20/2014 10:30:00 AM
Received Date: 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **DAM**	
Di-n-octyl phthalate	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Dibenz(a,h)anthracene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Dibenzofuran	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
1,2-Dichlorobenzene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
1,3-Dichlorobenzene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
1,4-Dichlorobenzene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
3,3'-Dichlorobenzidine	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Diethyl phthalate	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Dimethyl phthalate	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
2,4-Dichlorophenol	ND	100		µg/L	1	3/27/2014 12:52:58 PM	12366
2,4-Dimethylphenol	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	3/27/2014 12:52:58 PM	12366
2,4-Dinitrophenol	ND	100		µg/L	1	3/27/2014 12:52:58 PM	12366
2,4-Dinitrotoluene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
2,6-Dinitrotoluene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Fluoranthene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Fluorene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Hexachlorobenzene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Hexachlorobutadiene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Hexachlorocyclopentadiene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Hexachloroethane	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Isophorone	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
1-Methylnaphthalene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
2-Methylnaphthalene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
2-Methylphenol	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
3+4-Methylphenol	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
N-Nitrosodimethylamine	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
N-Nitrosodiphenylamine	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Naphthalene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
2-Nitroaniline	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
3-Nitroaniline	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
4-Nitroaniline	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Nitrobenzene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
2-Nitrophenol	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
4-Nitrophenol	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Pentachlorophenol	ND	100		µg/L	1	3/27/2014 12:52:58 PM	12366
Phenanthrene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-1D
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 10:30:00 AM
Lab ID: 1403941-007
Matrix: AQUEOUS
Received Date: 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8270C: SEMIVOLATILES						Analyst:	**DAM**
Phenol	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Pyrene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Pyridine	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
1,2,4-Trichlorobenzene	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
2,4,5-Trichlorophenol	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
2,4,6-Trichlorophenol	ND	50		µg/L	1	3/27/2014 12:52:58 PM	12366
Surr: 2-Fluorophenol	1.81	22.7-98	S	%REC	1	3/27/2014 12:52:58 PM	12366
Surr: Phenol-d5	6.09	23.4-74.9	S	%REC	1	3/27/2014 12:52:58 PM	12366
Surr: 2,4,6-Tribromophenol	46.4	23.3-111		%REC	1	3/27/2014 12:52:58 PM	12366
Surr: Nitrobenzene-d5	112	36.8-111	S	%REC	1	3/27/2014 12:52:58 PM	12366
Surr: 2-Fluorobiphenyl	104	38.3-110		%REC	1	3/27/2014 12:52:58 PM	12366
Surr: 4-Terphenyl-d14	91.0	52.1-116		%REC	1	3/27/2014 12:52:58 PM	12366
EPA METHOD 8260B: VOLATILES						Analyst:	**DJF**
Benzene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Toluene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Ethylbenzene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Naphthalene	ND	2.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
1-Methylnaphthalene	ND	4.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
2-Methylnaphthalene	ND	4.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Acetone	26	10		µg/L	1	3/24/2014 4:03:11 PM	R17536
Bromobenzene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Bromodichloromethane	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Bromoform	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Bromomethane	ND	3.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
2-Butanone	ND	10		µg/L	1	3/24/2014 4:03:11 PM	R17536
Carbon disulfide	ND	10		µg/L	1	3/24/2014 4:03:11 PM	R17536
Carbon Tetrachloride	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Chlorobenzene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Chloroethane	ND	2.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Chloroform	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Chloromethane	21	3.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
2-Chlorotoluene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
4-Chlorotoluene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
cis-1,2-DCE	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-1D
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 10:30:00 AM
Lab ID: 1403941-007
Matrix: AQUEOUS
Received Date: 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Dibromochloromethane	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Dibromomethane	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
1,2-Dichlorobenzene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
1,3-Dichlorobenzene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
1,4-Dichlorobenzene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Dichlorodifluoromethane	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
1,1-Dichloroethane	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
1,1-Dichloroethene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
1,2-Dichloropropane	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
1,3-Dichloropropane	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
2,2-Dichloropropane	ND	2.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
1,1-Dichloropropene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Hexachlorobutadiene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
2-Hexanone	ND	10		µg/L	1	3/24/2014 4:03:11 PM	R17536
Isopropylbenzene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
4-Isopropyltoluene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
4-Methyl-2-pentanone	ND	10		µg/L	1	3/24/2014 4:03:11 PM	R17536
Methylene Chloride	ND	3.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
n-Butylbenzene	ND	3.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
n-Propylbenzene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
sec-Butylbenzene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Styrene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
tert-Butylbenzene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
trans-1,2-DCE	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
1,1,1-Trichloroethane	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
1,1,2-Trichloroethane	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Trichloroethene (TCE)	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Trichlorofluoromethane	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
1,2,3-Trichloropropane	ND	2.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Vinyl chloride	ND	1.0		µg/L	1	3/24/2014 4:03:11 PM	R17536
Xylenes, Total	ND	1.5		µg/L	1	3/24/2014 4:03:11 PM	R17536

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: P7-S-1D
Project: Pond 7 Breach (Soil, Water)
Collection Date: 3/20/2014 10:30:00 AM
Lab ID: 1403941-007
Matrix: AQUEOUS
Received Date: 3/21/2014 4:04:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**	
Surr: 1,2-Dichloroethane-d4	102	70-130		%REC	1	3/24/2014 4:03:11 PM	R17536
Surr: 4-Bromofluorobenzene	108	70-130		%REC	1	3/24/2014 4:03:11 PM	R17536
Surr: Dibromofluoromethane	114	70-130		%REC	1	3/24/2014 4:03:11 PM	R17536
Surr: Toluene-d8	93.9	70-130		%REC	1	3/24/2014 4:03:11 PM	R17536

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

Qualifiers:

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

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504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	140325030
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	1403941
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	140325030-001	**Sampling Date**	3/20/2014	**Date/Time Received**	3/25/2014	12:43 PM
Client Sample ID	1403941-001B / P7-S-1A	**Sampling Time**	10:00 AM			
Matrix	Soil	**Sample Location**				

Comments: sample results reported on an "as received" weight basis

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide (reactive)	ND	mg/Kg	1	3/27/2014	CRW	SW846 CH7	
Ignitability	Negative			3/26/2014	JWC	EPA 1030	
pH	7.90	ph Units		3/26/2014	AJT	EPA 9045	
Reactive sulfide	ND	mg/kg	10	3/27/2014	AJT	SW846 CH7	

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Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	140325030
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	1403941
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	140325030-002	**Sampling Date**	3/20/2014	**Date/Time Received**	3/25/2014	12:43 PM
Client Sample ID	1403941-002B / P7-S-1B	**Sampling Time**	10:00 AM			
Matrix	Soil	**Sample Location**				

Comments sample results reported on an "as received" weight basis

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide (reactive)	ND	mg/Kg	1	3/27/2014	CRW	SW846 CH7	
Ignitability	Negative			3/26/2014	JWC	EPA 1030	
pH	7.88	ph Units		3/26/2014	AJT	EPA 9045	
Reactive sulfide	ND	mg/kg	10	3/27/2014	AJT	SW846 CH7	

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

Anatek Labs, Inc.

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Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	140325030
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	1403941
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	140325030-003	**Sampling Date**	3/20/2014	**Date/Time Received**	3/25/2014	12:43 PM
Client Sample ID	1403941-003B / P7-S-1C	**Sampling Time**	10:00 AM			
Matrix	Soil	**Sample Location**				

Comments sample results reported on an "as received" weight basis

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide (reactive)	ND	mg/Kg	1	3/27/2014	CRW	SW846 CH7	
Ignitability	Negative			3/26/2014	JWC	EPA 1030	
pH	8.15	ph Units		3/26/2014	AJT	EPA 9045	
Reactive sulfide	ND	mg/kg	10	3/27/2014	AJT	SW846 CH7	

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

Anatek Labs, Inc.

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504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	140325030
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	1403941
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	140325030-004	**Sampling Date**	3/20/2014	**Date/Time Received**	3/25/2014	12:43 PM
Client Sample ID	1403941-004B / P7-S-2A	**Sampling Time**	11:10 AM			
Matrix	Soil	**Sample Location**				

Comments sample results reported on an "as received" weight basis

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide (reactive)	ND	mg/Kg	1	3/27/2014	CRW	SW846 CH7	
Ignitability	Negative			3/26/2014	JWC	EPA 1030	
pH	7.94	ph Units		3/26/2014	AJT	EPA 9045	
Reactive sulfide	ND	mg/kg	10	3/27/2014	AJT	SW846 CH7	

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

Anatek Labs, Inc.

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504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

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

Batch #: 140325030
Project Name: 1403941

Analytical Results Report

Sample Number 140325030-005 **Sampling Date** 3/20/2014 **Date/Time Received** 3/25/2014 12:43 PM
Client Sample ID 1403941-005B / P7-S-2B **Sampling Time** 11:10 AM
Matrix Soil **Sample Location**
Comments sample results reported on an "as received" weight basis

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide (reactive)	ND	mg/Kg	1	3/27/2014	CRW	SW846 CH7	
Ignitability	Negative			3/26/2014	JWC	EPA 1030	
pH	7.99	ph Units		3/26/2014	AJT	EPA 9045	
Reactive sulfide	ND	mg/kg	10	3/27/2014	AJT	SW846 CH7	

Anatek Labs, Inc.

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Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	140325030
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	1403941
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	140325030-006	**Sampling Date**	3/20/2014	**Date/Time Received**	3/25/2014	12:43 PM
Client Sample ID	1403941-006B / P7-S-2C	**Sampling Time**	11:10 AM			
Matrix	Soil	**Sample Location**				

Comments sample results reported on an "as received" weight basis

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide (reactive)	ND	mg/Kg	1	3/27/2014	CRW	SW846 CH7	
Ignitability	Negative			3/26/2014	JWC	EPA 1030	
pH	8.00	ph Units		3/26/2014	AJT	EPA 9045	
Reactive sulfide	ND	mg/kg	10	3/27/2014	AJT	SW846 CH7	

Authorized Signature

John Coddington, Lab Manager

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

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **PBW** Batch ID: **R17521** RunNo: **17521**

Prep Date: Analysis Date: **3/24/2014** SeqNo: **504618** Units: **mg/L**

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

Sample ID **LCS** SampType: **LCS** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **LCSW** Batch ID: **R17521** RunNo: **17521**

Prep Date: Analysis Date: **3/24/2014** SeqNo: **504619** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	97.3	85	115			
Cadmium	0.49	0.0020	0.5000	0	98.4	85	115			
Calcium	50	1.0	50.00	0	99.7	85	115			
Chromium	0.49	0.0060	0.5000	0	97.9	85	115			
Copper	0.49	0.0060	0.5000	0	98.6	85	115			
Iron	0.49	0.020	0.5000	0	98.0	85	115			
Magnesium	50	1.0	50.00	0	101	85	115			
Manganese	0.48	0.0020	0.5000	0	95.6	85	115			
Potassium	48	1.0	50.00	0	97.0	85	115			
Silver	0.10	0.0050	0.1000	0	103	85	115			
Sodium	50	1.0	50.00	0	99.7	85	115			
Zinc	0.49	0.010	0.5000	0	97.0	85	115			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **MB-12345** SampType: **MBLK** TestCode: **EPA Method 200.7: Total Metals**

Client ID: **PBW** Batch ID: **12345** RunNo: **17565**

Prep Date: **3/25/2014** Analysis Date: **3/25/2014** SeqNo: **505960** Units: **mg/L**

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

Sample ID **LCS-12345** SampType: **LCS** TestCode: **EPA Method 200.7: Total Metals**

Client ID: **LCSW** Batch ID: **12345** RunNo: **17565**

Prep Date: **3/25/2014** Analysis Date: **3/25/2014** SeqNo: **505961** 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	99.0	85	115			
Cadmium	0.50	0.0020	0.5000	0	101	85	115			
Chromium	0.50	0.0060	0.5000	0	99.3	85	115			
Copper	0.51	0.0060	0.5000	0	101	85	115			
Iron	0.49	0.020	0.5000	0	97.5	85	115			
Manganese	0.49	0.0020	0.5000	0	97.4	85	115			
Silver	0.11	0.0050	0.1000	0	113	85	115			
Zinc	0.49	0.010	0.5000	0	97.6	85	115			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **LCS** SampType: **LCS** TestCode: **EPA 200.8: Dissolved Metals**

Client ID: **LCSW** Batch ID: **R17589** RunNo: **17589**

Prep Date: Analysis Date: **3/26/2014** SeqNo: **506539** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	97.7	85	115			
Lead	0.025	0.0010	0.02500	0	98.5	85	115			
Selenium	0.024	0.0010	0.02500	0	96.0	85	115			
Uranium	0.025	0.0010	0.02500	0	99.5	85	115			

Sample ID **LCS** SampType: **LCS** TestCode: **EPA 200.8: Dissolved Metals**

Client ID: **LCSW** Batch ID: **R17589** RunNo: **17589**

Prep Date: Analysis Date: **3/26/2014** SeqNo: **506540** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.022	0.0010	0.02500	0	89.8	85	115			
Lead	0.024	0.0010	0.02500	0	96.7	85	115			
Selenium	0.023	0.0010	0.02500	0	93.3	85	115			
Uranium	0.026	0.0010	0.02500	0	104	85	115			

Sample ID **MB** SampType: **MBLK** TestCode: **EPA 200.8: Dissolved Metals**

Client ID: **PBW** Batch ID: **R17589** RunNo: **17589**

Prep Date: Analysis Date: **3/26/2014** SeqNo: **506541** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID **MB** SampType: **MBLK** TestCode: **EPA 200.8: Dissolved Metals**

Client ID: **PBW** Batch ID: **R17589** RunNo: **17589**

Prep Date: Analysis Date: **3/26/2014** SeqNo: **506542** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Qualifiers:

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

QC SUMMARY REPORT

WO#: **1403941**

Hall Environmental Analysis Laboratory, Inc.

28-Mar-14

Client: Western Refining Southwest, Gallup
Project: Pond 7 Breach (Soil, Water)

Sample ID **LLLCS-12345** SampType: **LCSLL** TestCode: **200.8 ICPMS Metals:Total**
Client ID: **BatchQC** Batch ID: **12345** RunNo: **17614**
Prep Date: **3/25/2014** Analysis Date: **3/27/2014** SeqNo: **507207** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	101	85	115			
Lead	0.025	0.0010	0.02500	0	101	85	115			
Selenium	0.025	0.0010	0.02500	0	99.9	85	115			
Uranium	0.025	0.0010	0.02500	0	101	85	115			

Sample ID **MB-12345** SampType: **MBLK** TestCode: **200.8 ICPMS Metals:Total**
Client ID: **PBW** Batch ID: **12345** RunNo: **17614**
Prep Date: **3/25/2014** Analysis Date: **3/27/2014** SeqNo: **507208** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **MB-12327** SampType: **MBLK** TestCode: **EPA Method 245.1: Mercury**

Client ID: **PBW** Batch ID: **12327** RunNo: **17527**

Prep Date: **3/24/2014** Analysis Date: **3/24/2014** SeqNo: **505296** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID **LCS-12327** SampType: **LCS** TestCode: **EPA Method 245.1: Mercury**

Client ID: **LCSW** Batch ID: **12327** RunNo: **17527**

Prep Date: **3/24/2014** Analysis Date: **3/24/2014** SeqNo: **505297** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0050	0.00020	0.005000	0	101	80	120			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **MB-12346** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**

Client ID: **PBS** Batch ID: **12346** RunNo: **17569**

Prep Date: **3/25/2014** Analysis Date: **3/25/2014** SeqNo: **506051** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.30								
Chloride	ND	1.5								
Nitrogen, Nitrite (As N)	ND	0.30								
Bromide	ND	0.30								
Nitrogen, Nitrate (As N)	ND	0.30								
Phosphorus, Orthophosphate (As P	ND	1.5								
Sulfate	ND	1.5								

Sample ID **LCS-12346** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**

Client ID: **LCSS** Batch ID: **12346** RunNo: **17569**

Prep Date: **3/25/2014** Analysis Date: **3/25/2014** SeqNo: **506052** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.5	0.30	1.500	0	102	90	110			
Chloride	14	1.5	15.00	0	93.6	90	110			
Nitrogen, Nitrite (As N)	2.8	0.30	3.000	0	93.3	90	110			
Bromide	7.3	0.30	7.500	0	97.7	90	110			
Nitrogen, Nitrate (As N)	7.4	0.30	7.500	0	99.1	90	110			
Phosphorus, Orthophosphate (As P	14	1.5	15.00	0	90.6	90	110			
Sulfate	30	1.5	30.00	0	98.6	90	110			

Sample ID **1403941-001AMS** SampType: **MS** TestCode: **EPA Method 300.0: Anions**

Client ID: **P7-S-1A** Batch ID: **12346** RunNo: **17569**

Prep Date: **3/25/2014** Analysis Date: **3/25/2014** SeqNo: **506056** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	3.3	0.30	1.500	2.553	47.9	9.86	110			
Bromide	8.9	0.30	7.500	1.954	93.3	80.4	110			
Nitrogen, Nitrate (As N)	11	0.30	7.500	3.329	97.5	68.7	119			

Sample ID **1403941-001AMSD** SampType: **MSD** TestCode: **EPA Method 300.0: Anions**

Client ID: **P7-S-1A** Batch ID: **12346** RunNo: **17569**

Prep Date: **3/25/2014** Analysis Date: **3/25/2014** SeqNo: **506057** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	2.8	0.30	1.500	2.553	13.7	9.86	110	17.0	20	
Bromide	9.0	0.30	7.500	1.954	93.6	80.4	110	0.245	20	
Nitrogen, Nitrate (As N)	10	0.30	7.500	3.329	90.1	68.7	119	5.32	20	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**

Client ID: **PBW** Batch ID: **R17497** RunNo: **17497**

Prep Date: Analysis Date: **3/21/2014** SeqNo: **503991** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								

Sample ID **LCS** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**

Client ID: **LCSW** Batch ID: **R17497** RunNo: **17497**

Prep Date: Analysis Date: **3/21/2014** SeqNo: **503992** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.52	0.10	0.5000	0	104	90	110			
Bromide	2.5	0.10	2.500	0	98.4	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	99.1	90	110			
Phosphorus, Orthophosphate (As P	4.6	0.50	5.000	0	91.8	90	110			

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**

Client ID: **PBW** Batch ID: **R17549** RunNo: **17549**

Prep Date: Analysis Date: **3/24/2014** SeqNo: **505354** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								
Sulfate	ND	0.50								

Sample ID **LCS** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**

Client ID: **LCSW** Batch ID: **R17549** RunNo: **17549**

Prep Date: Analysis Date: **3/24/2014** SeqNo: **505355** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.9	0.50	5.000	0	97.5	90	110			
Nitrogen, Nitrite (As N)	0.98	0.10	1.000	0	97.5	90	110			
Sulfate	9.9	0.50	10.00	0	98.9	90	110			

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**

Client ID: **PBW** Batch ID: **R17549** RunNo: **17549**

Prep Date: Analysis Date: **3/24/2014** SeqNo: **505400** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R17549**	RunNo: **17549**
Prep Date:	Analysis Date: **3/24/2014**	SeqNo: **505400** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R17549**	RunNo: **17549**
Prep Date:	Analysis Date: **3/24/2014**	SeqNo: **505401** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.9	0.50	5.000	0	98.0	90	110			
Nitrogen, Nitrite (As N)	0.99	0.10	1.000	0	98.8	90	110			
Sulfate	9.9	0.50	10.00	0	99.3	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **MB-12321** SampType: **MBLK** TestCode: **EPA Method 8015D: Diesel Range Organics**

Client ID: **PBS** Batch ID: **12321** RunNo: **17506**

Prep Date: **3/24/2014** Analysis Date: **3/24/2014** SeqNo: **504481** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.6		10.00		85.9	66	131			

Sample ID **LCS-12321** SampType: **LCS** TestCode: **EPA Method 8015D: Diesel Range Organics**

Client ID: **LCSS** Batch ID: **12321** RunNo: **17506**

Prep Date: **3/24/2014** Analysis Date: **3/24/2014** SeqNo: **504483** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	91.1	60.8	145			
Surr: DNOP	4.5		5.000		90.6	66	131			

Qualifiers:

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- J Analyte detected below quantitation limits
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- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **MB-12335** SampType: **MBLK** TestCode: **EPA Method 8015D: Diesel Range**

Client ID: **PBW** Batch ID: **12335** RunNo: **17551**

Prep Date: **3/24/2014** Analysis Date: **3/25/2014** SeqNo: **505699** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.1		1.000		106	62.7	145			

Sample ID **LCS-12335** SampType: **LCS** TestCode: **EPA Method 8015D: Diesel Range**

Client ID: **LCSW** Batch ID: **12335** RunNo: **17551**

Prep Date: **3/24/2014** Analysis Date: **3/25/2014** SeqNo: **505965** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	6.3	1.0	5.000	0	126	78.6	146			
Surr: DNOP	0.56		0.5000		112	62.7	145			

Sample ID **LCSD-12335** SampType: **LCSD** TestCode: **EPA Method 8015D: Diesel Range**

Client ID: **LCSS02** Batch ID: **12335** RunNo: **17551**

Prep Date: **3/24/2014** Analysis Date: **3/25/2014** SeqNo: **505972** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	6.2	1.0	5.000	0	123	78.6	146	2.18	26.5	
Surr: DNOP	0.56		0.5000		111	62.7	145	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **MB-12325** SampType: **MBLK** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **PBS** Batch ID: **12325** RunNo: **17583**

Prep Date: **3/24/2014** Analysis Date: **3/26/2014** SeqNo: **506906** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	890		1000		89.1	74.5	129			

Sample ID **LCS-12325** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **LCSS** Batch ID: **12325** RunNo: **17583**

Prep Date: **3/24/2014** Analysis Date: **3/26/2014** SeqNo: **506907** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	99.6	71.7	134			
Surr: BFB	960		1000		96.3	74.5	129			

Sample ID **1403941-001AMS** SampType: **MS** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **P7-S-1A** Batch ID: **12325** RunNo: **17583**

Prep Date: **3/24/2014** Analysis Date: **3/26/2014** SeqNo: **506910** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	24.95	0	111	69.5	145			
Surr: BFB	970		998.0		97.5	74.5	129			

Sample ID **1403941-001AMSD** SampType: **MSD** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **P7-S-1A** Batch ID: **12325** RunNo: **17583**

Prep Date: **3/24/2014** Analysis Date: **3/26/2014** SeqNo: **506911** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	31	5.0	24.88	0	124	69.5	145	10.8	20	
Surr: BFB	1000		995.0		100	74.5	129	0	0	

Qualifiers:

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

QC SUMMARY REPORT

WO#: **1403941**

Hall Environmental Analysis Laboratory, Inc.

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **5ML RB** SampType: **MBLK** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **PBW** Batch ID: **R17568** RunNo: **17568**

Prep Date: Analysis Date: **3/25/2014** SeqNo: **506000** 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		90.7	80.4	118			

Sample ID **2.5UG GRO LCS** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **LCSW** Batch ID: **R17568** RunNo: **17568**

Prep Date: Analysis Date: **3/25/2014** SeqNo: **506001** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.48	0.050	0.5000	0	96.0	80	120			
Surr: BFB	19		20.00		93.5	80.4	118			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**	
Client ID: **PBW**	Batch ID: **R17536**	RunNo: **17536**	
Prep Date:	Analysis Date: **3/24/2014**	SeqNo: **504981**	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.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **5ml rb** SampType: **MBLK** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **PBW** Batch ID: **R17536** RunNo: **17536**

Prep Date: Analysis Date: **3/24/2014** SeqNo: **504981** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.8		10.00		98.3	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		106	70	130			
Surr: Dibromofluoromethane	11		10.00		113	70	130			
Surr: Toluene-d8	9.2		10.00		91.5	70	130			

Sample ID **100ng lcs** SampType: **LCS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **LCSW** Batch ID: **R17536** RunNo: **17536**

Prep Date: Analysis Date: **3/24/2014** SeqNo: **504983** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	111	70	130			
Toluene	18	1.0	20.00	0	89.5	80	120			
Chlorobenzene	18	1.0	20.00	0	89.4	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **100ng lcs** SampType: **LCS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **LCSW** Batch ID: **R17536** RunNo: **17536**

Prep Date: Analysis Date: **3/24/2014** SeqNo: **504983** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	24	1.0	20.00	0	121	90	143			
Trichloroethene (TCE)	20	1.0	20.00	0	100	70	130			
Surr: 1,2-Dichloroethane-d4	9.5		10.00		95.2	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		105	70	130			
Surr: Dibromofluoromethane	9.6		10.00		95.9	70	130			
Surr: Toluene-d8	9.8		10.00		98.0	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **mb-12325** SampType: **MBLK** TestCode: **EPA Method 8260B: TCLP Compounds**

Client ID: **PBS** Batch ID: **12325** RunNo: **17560**

Prep Date: **3/24/2014** Analysis Date: **3/25/2014** SeqNo: **505781** Units: **ppm**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
1,2-Dichloroethane (EDC)	ND	0.050								
2-Butanone	ND	20								
Carbon tetrachloride	ND	0.050								
Chlorobenzene	ND	10								
Chloroform	ND	0.60								
1,4-Dichlorobenzene	ND	0.75								
1,1-Dichloroethene	ND	0.070								
Tetrachloroethene (PCE)	ND	0.070								
Trichloroethene (TCE)	ND	0.050								
Vinyl chloride	ND	0.020								
Surr: 1,2-Dichloroethane-d4	0.53		0.5000		106	70	130			
Surr: 4-Bromofluorobenzene	0.46		0.5000		92.5	70	130			
Surr: Dibromofluoromethane	0.53		0.5000		107	70	130			
Surr: Toluene-d8	0.47		0.5000		93.0	70	130			

Sample ID **lcs-12325** SampType: **LCS** TestCode: **EPA Method 8260B: TCLP Compounds**

Client ID: **LCSS** Batch ID: **12325** RunNo: **17560**

Prep Date: **3/24/2014** Analysis Date: **3/25/2014** SeqNo: **505782** Units: **ppm**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.050	1.000	0	93.3	70	130			
Chlorobenzene	0.87	0.050	1.000	0	87.2	70	130			
1,1-Dichloroethene	1.0	0.070	1.000	0	102	78.2	162			
Trichloroethene (TCE)	0.88	0.050	1.000	0	87.7	70	130			
Surr: 1,2-Dichloroethane-d4	0.53		0.5000		107	70	130			
Surr: 4-Bromofluorobenzene	0.49		0.5000		97.2	70	130			
Surr: Dibromofluoromethane	0.52		0.5000		103	70	130			
Surr: Toluene-d8	0.47		0.5000		94.1	70	130			

Sample ID **1403941-003ams** SampType: **MS** TestCode: **EPA Method 8260B: TCLP Compounds**

Client ID: **P7-S-1C** Batch ID: **12325** RunNo: **17560**

Prep Date: **3/24/2014** Analysis Date: **3/25/2014** SeqNo: **505786** Units: **ppm**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.50	0.9950	0	92.6	62.6	140			
Chlorobenzene	0.81	0.50	0.9950	0	81.2	68.2	131			
1,1-Dichloroethene	0.93	0.70	0.9950	0	93.1	63.3	165			
Trichloroethene (TCE)	0.88	0.50	0.9950	0	88.8	67.5	127			
Surr: 1,2-Dichloroethane-d4	5.3		4.975		106	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **1403941-003ams** SampType: **MS** TestCode: **EPA Method 8260B: TCLP Compounds**

Client ID: **P7-S-1C** Batch ID: **12325** RunNo: **17560**

Prep Date: **3/24/2014** Analysis Date: **3/25/2014** SeqNo: **505786** Units: **ppm**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	4.9		4.975		98.4	70	130			
Surr: Dibromofluoromethane	5.3		4.975		107	70	130			
Surr: Toluene-d8	5.1		4.975		103	70	130			

Sample ID **1403941-003amsd** SampType: **MSD** TestCode: **EPA Method 8260B: TCLP Compounds**

Client ID: **P7-S-1C** Batch ID: **12325** RunNo: **17560**

Prep Date: **3/24/2014** Analysis Date: **3/25/2014** SeqNo: **505787** Units: **ppm**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.50	0.9950	0	97.7	62.6	140	5.31	20	
Chlorobenzene	0.88	0.50	0.9950	0	88.4	68.2	131	8.54	20	
1,1-Dichloroethene	0.90	0.70	0.9950	0	90.6	63.3	165	2.79	20	
Trichloroethene (TCE)	0.88	0.50	0.9950	0	88.5	67.5	127	0.338	20	
Surr: 1,2-Dichloroethane-d4	5.2		4.975		105	70	130	0	0	
Surr: 4-Bromofluorobenzene	5.0		4.975		101	70	130	0	0	
Surr: Dibromofluoromethane	5.2		4.975		105	70	130	0	0	
Surr: Toluene-d8	5.1		4.975		102	70	130	0	0	

Qualifiers:

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

QC SUMMARY REPORT

WO#: **1403941**

Hall Environmental Analysis Laboratory, Inc.

28-Mar-14

Client: Western Refining Southwest, Gallup
Project: Pond 7 Breach (Soil, Water)

Sample ID **mb-12366** SampType: **MBLK** TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW** Batch ID: **12366** RunNo: **17632**
Prep Date: **3/26/2014** Analysis Date: **3/27/2014** SeqNo: **507796** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **mb-12366** SampType: **MBLK** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **PBW** Batch ID: **12366** RunNo: **17632**

Prep Date: **3/26/2014** Analysis Date: **3/27/2014** SeqNo: **507796** 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	110		200.0		52.8	22.7	98			
Surr: Phenol-d5	83		200.0		41.4	23.4	74.9			
Surr: 2,4,6-Tribromophenol	180		200.0		90.9	23.3	111			
Surr: Nitrobenzene-d5	89		100.0		89.4	36.8	111			
Surr: 2-Fluorobiphenyl	78		100.0		78.0	38.3	110			
Surr: 4-Terphenyl-d14	88		100.0		88.0	52.1	116			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **lcs-12366** SampType: **LCS** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **LCSW** Batch ID: **12366** RunNo: **17632**

Prep Date: **3/26/2014** Analysis Date: **3/27/2014** SeqNo: **507797** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	92	10	100.0	0	91.7	50.3	109			
4-Chloro-3-methylphenol	190	10	200.0	0	94.8	51.2	113			
2-Chlorophenol	150	10	200.0	0	75.6	48.5	104			
1,4-Dichlorobenzene	72	10	100.0	0	72.0	39.5	106			
2,4-Dinitrotoluene	94	10	100.0	0	94.2	45.4	107			
N-Nitrosodi-n-propylamine	96	10	100.0	0	95.8	50.4	119			
4-Nitrophenol	110	10	200.0	0	52.6	15.5	62.2			
Pentachlorophenol	140	20	200.0	0	70.1	23.5	93.5			
Phenol	91	10	200.0	0	45.4	26.8	65.6			
Pyrene	81	10	100.0	0	81.2	54.4	108			
1,2,4-Trichlorobenzene	82	10	100.0	0	82.0	39.9	106			
Surr: 2-Fluorophenol	100		200.0		52.2	22.7	98			
Surr: Phenol-d5	91		200.0		45.7	23.4	74.9			
Surr: 2,4,6-Tribromophenol	190		200.0		96.3	23.3	111			
Surr: Nitrobenzene-d5	97		100.0		96.6	36.8	111			
Surr: 2-Fluorobiphenyl	90		100.0		89.9	38.3	110			
Surr: 4-Terphenyl-d14	84		100.0		84.4	52.1	116			

Sample ID **lcsd-12366** SampType: **LCSD** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **LCSS02** Batch ID: **12366** RunNo: **17632**

Prep Date: **3/26/2014** Analysis Date: **3/27/2014** SeqNo: **507798** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	84	10	100.0	0	83.8	50.3	109	9.09	27.2	
4-Chloro-3-methylphenol	160	10	200.0	0	81.0	51.2	113	15.7	25.9	
2-Chlorophenol	140	10	200.0	0	69.6	48.5	104	8.30	22.5	
1,4-Dichlorobenzene	68	10	100.0	0	67.5	39.5	106	6.42	24.6	
2,4-Dinitrotoluene	83	10	100.0	0	82.9	45.4	107	12.8	25.3	
N-Nitrosodi-n-propylamine	89	10	100.0	0	89.5	50.4	119	6.80	23.6	
4-Nitrophenol	100	10	200.0	0	50.4	15.5	62.2	4.35	34.7	
Pentachlorophenol	140	20	200.0	0	69.2	23.5	93.5	1.18	32.8	
Phenol	83	10	200.0	0	41.7	26.8	65.6	8.54	25.5	
Pyrene	77	10	100.0	0	77.0	54.4	108	5.34	31.4	
1,2,4-Trichlorobenzene	80	10	100.0	0	79.9	39.9	106	2.59	25.9	
Surr: 2-Fluorophenol	100		200.0		51.9	22.7	98	0	0	
Surr: Phenol-d5	83		200.0		41.3	23.4	74.9	0	0	
Surr: 2,4,6-Tribromophenol	180		200.0		92.4	23.3	111	0	0	
Surr: Nitrobenzene-d5	89		100.0		89.3	36.8	111	0	0	
Surr: 2-Fluorobiphenyl	85		100.0		85.5	38.3	110	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **lcsd-12366**	SampType: **LCSD**		TestCode: **EPA Method 8270C: Semivolatiles**		
Client ID: **LCSS02**	Batch ID: **12366**		RunNo: **17632**		
Prep Date: **3/26/2014**	Analysis Date: **3/27/2014**		SeqNo: **507798**	Units: **µg/L**	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14	79		100.0		78.6	52.1	116	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **mb-12365** SampType: **MBLK** TestCode: **EPA Method 8270C TCLP**

Client ID: **PBS** Batch ID: **12365** RunNo: **17632**

Prep Date: **3/26/2014** Analysis Date: **3/27/2014** SeqNo: **507802** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Methylphenol	ND	200								
3+4-Methylphenol	ND	200								
Phenol	ND	200								
2,4-Dinitrotoluene	ND	0.13								
Hexachlorobenzene	ND	0.13								
Hexachlorobutadiene	ND	0.50								
Hexachloroethane	ND	3.0								
Nitrobenzene	ND	2.0								
Pentachlorophenol	ND	100								
Pyridine	ND	5.0								
2,4,5-Trichlorophenol	ND	400								
2,4,6-Trichlorophenol	ND	2.0								
Cresols, Total	ND	200								
Surr: 2-Fluorophenol	0.087		0.2000		43.7	18.6	88.6			
Surr: Phenol-d5	0.081		0.2000		40.6	19.5	61.8			
Surr: 2,4,6-Tribromophenol	0.13		0.2000		65.7	29.7	130			
Surr: Nitrobenzene-d5	0.088		0.1000		88.4	45.1	101			
Surr: 2-Fluorobiphenyl	0.077		0.1000		77.1	46.6	99.3			
Surr: 4-Terphenyl-d14	0.085		0.1000		85.2	40.8	109			

Sample ID **lcs-12365** SampType: **LCS** TestCode: **EPA Method 8270C TCLP**

Client ID: **LCSS** Batch ID: **12365** RunNo: **17632**

Prep Date: **3/26/2014** Analysis Date: **3/27/2014** SeqNo: **507803** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Methylphenol	0.067	0.010	0.1000	0	66.8	31.5	114			
3+4-Methylphenol	0.19	0.010	0.2000	0	96.3	25.5	149			
2,4-Dinitrotoluene	0.086	0.010	0.1000	0	85.8	25.9	130			
Hexachlorobenzene	0.065	0.010	0.1000	0	65.4	40.7	93.9			
Hexachlorobutadiene	0.053	0.010	0.1000	0	52.5	25.2	96			
Hexachloroethane	0.053	0.010	0.1000	0	52.9	22.6	106			
Nitrobenzene	0.080	0.010	0.1000	0	79.7	37.8	125			
Pentachlorophenol	0.062	0.010	0.1000	0	61.6	10.8	91.7			
Pyridine	0.041	0.010	0.1000	0	40.6	9.61	88.8			
2,4,5-Trichlorophenol	0.088	0.010	0.1000	0	88.2	31.9	115			
2,4,6-Trichlorophenol	0.087	0.010	0.1000	0	87.3	29.7	113			
Cresols, Total	0.26	0.010	0.3000	0	86.5	30	136			
Surr: 2-Fluorophenol	0.093		0.2000		46.3	18.6	88.6			
Surr: Phenol-d5	0.070		0.2000		35.2	19.5	61.8			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **lcs-12365** SampType: **LCS** TestCode: **EPA Method 8270C TCLP**

Client ID: **LCSS** Batch ID: **12365** RunNo: **17632**

Prep Date: **3/26/2014** Analysis Date: **3/27/2014** SeqNo: **507803** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2,4,6-Tribromophenol	0.20		0.2000		100	29.7	130			
Surr: Nitrobenzene-d5	0.072		0.1000		71.8	45.1	101			
Surr: 2-Fluorobiphenyl	0.072		0.1000		72.2	46.6	99.3			
Surr: 4-Terphenyl-d14	0.089		0.1000		89.4	40.8	109			

Qualifiers:

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

QC SUMMARY REPORT

WO#: **1403941**

Hall Environmental Analysis Laboratory, Inc.

28-Mar-14

Client: Western Refining Southwest, Gallup
Project: Pond 7 Breach (Soil, Water)

Sample ID **MB-12358** SampType: **MBLK** TestCode: **MERCURY, TCLP**
Client ID: **PBW** Batch ID: **12358** RunNo: **17559**
Prep Date: **3/25/2014** Analysis Date: **3/25/2014** SeqNo: **505757** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.020								

Sample ID **LCS-12358** SampType: **LCS** TestCode: **MERCURY, TCLP**
Client ID: **LCSW** Batch ID: **12358** RunNo: **17559**
Prep Date: **3/25/2014** Analysis Date: **3/25/2014** SeqNo: **505758** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.020	0.005000	0	103	80	120			

Qualifiers:

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

QC SUMMARY REPORT

WO#: **1403941**

Hall Environmental Analysis Laboratory, Inc.

28-Mar-14

Client: Western Refining Southwest, Gallup
Project: Pond 7 Breach (Soil, Water)

Sample ID **MB-12337** SampType: **MBLK** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **PBS** Batch ID: **12337** RunNo: **17580**
Prep Date: **3/24/2014** Analysis Date: **3/26/2014** SeqNo: **506325** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	25								
Magnesium	ND	25								
Potassium	ND	50								
Sodium	ND	25								

Sample ID **LCS-12337** SampType: **LCS** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **LCSS** Batch ID: **12337** RunNo: **17580**
Prep Date: **3/24/2014** Analysis Date: **3/26/2014** SeqNo: **506326** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	2500	25	2500	0	100	80	120			
Magnesium	2500	25	2500	0	99.1	80	120			
Potassium	2400	50	2500	0	95.9	80	120			
Sodium	2500	25	2500	0	98.4	80	120			

Sample ID **1403941-001AMS** SampType: **MS** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **P7-S-1A** Batch ID: **12337** RunNo: **17580**
Prep Date: **3/24/2014** Analysis Date: **3/26/2014** SeqNo: **506383** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	17000	120	2403	14820	99.1	75	125			
Magnesium	12000	120	2403	8242	144	75	125			S
Potassium	9000	240	2403	4675	181	75	125			S
Sodium	6800	120	2403	4402	100	75	125			

Sample ID **1403941-001AMSD** SampType: **MSD** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **P7-S-1A** Batch ID: **12337** RunNo: **17580**
Prep Date: **3/24/2014** Analysis Date: **3/26/2014** SeqNo: **506384** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	18000	130	2581	14820	111	75	125	2.77	20	
Magnesium	12000	130	2581	8242	157	75	125	4.87	20	S
Potassium	9700	260	2581	4675	193	75	125	6.84	20	S
Sodium	6500	130	2581	4402	81.3	75	125	4.73	20	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **MB-12369** SampType: **MBLK** TestCode: **EPA Method 6010B: TCLP Metals**

Client ID: **PBW** Batch ID: **12369** RunNo: **17585**

Prep Date: **3/26/2014** Analysis Date: **3/26/2014** SeqNo: **506444** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	5.0								
Barium	ND	100								
Cadmium	ND	1.0								
Chromium	ND	5.0								
Lead	ND	5.0								
Selenium	ND	1.0								
Silver	ND	5.0								

Sample ID **LCS-12369** SampType: **LCS** TestCode: **EPA Method 6010B: TCLP Metals**

Client ID: **LCSW** Batch ID: **12369** RunNo: **17585**

Prep Date: **3/26/2014** Analysis Date: **3/26/2014** SeqNo: **506445** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	5.0	0.5000	0	90.6	80	120			
Barium	ND	100	0.5000	0	82.9	80	120			
Cadmium	ND	1.0	0.5000	0	87.0	80	120			
Chromium	ND	5.0	0.5000	0	83.3	80	120			
Lead	ND	5.0	0.5000	0	81.8	80	120			
Selenium	ND	1.0	0.5000	0	87.6	80	120			
Silver	ND	5.0	0.1000	0	93.0	80	120			

Sample ID **1403941-006AMS** SampType: **MS** TestCode: **EPA Method 6010B: TCLP Metals**

Client ID: **P7-S-2C** Batch ID: **12369** RunNo: **17585**

Prep Date: **3/26/2014** Analysis Date: **3/26/2014** SeqNo: **506459** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	5.0	0.5000	0	96.1	75	125			
Barium	ND	100	0.5000	1.407	86.5	75	125			
Cadmium	ND	1.0	0.5000	0	91.9	75	125			
Chromium	ND	5.0	0.5000	0	85.7	75	125			
Lead	ND	5.0	0.5000	0	83.9	75	125			
Selenium	ND	1.0	0.5000	0	86.7	75	125			
Silver	ND	5.0	0.1000	0	97.4	75	125			

Sample ID **1403941-006AMSD** SampType: **MSD** TestCode: **EPA Method 6010B: TCLP Metals**

Client ID: **P7-S-2C** Batch ID: **12369** RunNo: **17585**

Prep Date: **3/26/2014** Analysis Date: **3/26/2014** SeqNo: **506460** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	5.0	0.5000	0	97.4	75	125	0	20	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1403941**

28-Mar-14

Client: Western Refining Southwest, Gallup

Project: Pond 7 Breach (Soil, Water)

Sample ID **1403941-006AMSD** SampType: **MSD** TestCode: **EPA Method 6010B: TCLP Metals**

Client ID: **P7-S-2C** Batch ID: **12369** RunNo: **17585**

Prep Date: **3/26/2014** Analysis Date: **3/26/2014** SeqNo: **506460** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	100	0.5000	1.407	84.2	75	125	0	20	
Cadmium	ND	1.0	0.5000	0	92.2	75	125	0	20	
Chromium	ND	5.0	0.5000	0	86.0	75	125	0	20	
Lead	ND	5.0	0.5000	0	84.1	75	125	0	20	
Selenium	ND	1.0	0.5000	0	88.4	75	125	0	20	
Silver	ND	5.0	0.1000	0	98.9	75	125	0	20	

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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: 1403941 RcptNo: 1

Received by/date: LM 03/21/2014

Logged By: Ashley Gallegos 3/21/2014 4:04:00 PM

Completed By: Ashley Gallegos 3/24/2014 8:29:04 AM

Reviewed By: 03/24/14

Chain of Custody

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

Log In

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

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

Special Handling (if applicable)

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

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

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.7	Good	Yes			

Chain-of-Custody Record

Client: WESTERN REFINING

GALLUP REFINERY

Mailing Address: 92 GIANT CROSSING ROAD

Gallup, NM 87301

Phone #: 505 - 722-3833

Email or Fax#: 505-863-0930

QA/QC Package:

X Standard ☐ Level 4 (Full Validation)

Accreditation:

☐ NELAP ☐ Other_____

☐ EDD (Type) _____

Turn-Around Time:

☐ Standard X Rush ASAP

Project Name:

Pond 7 Breach (soil, water)

Project #:

W of Pond 7

Project Manager:

Cheryl Johnson

Cheryl.johnson@wnr.com

Sampler: C. Johnson

On Ice: ☑ Yes ☐ No

Sample Temperature: 1.7

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1403941	8015B (DRO/GRO/MRO) Extended	CATIONS/ANIONS	8260B - TCLP	8270 - TCLP	RCRA 8 METALS - TCLP	RCI			8260B +MTBE	8270 + PHENOLS	CATIONS/ANIONS	8015B EXTENDED	WQCC METALS including RCRA 8 Metals (TOTAL & DISSOLVED)			Air Bubbles (Y or N)
3/20/2014	1000	Soil	P7-S-1A	1-9 oz Jar	None	-001	X	X	X	X	X	X										
3/20/2014	1000	Soil	P7-S-1B	1-9 oz Jar	None	-002	X	X	X	X	X	X										
3/20/2014	1000	Soil	P7-S-1C	1-9 oz Jar	None	-003	X	X	X	X	X	X										
3/20/2014	1110	Soil	P7-S-2A	1-9 oz Jar	None	-004	X	X	X	X	X	X										
3/20/2014	1110	Soil	P7-S-2B	1-9 oz Jar	None	-005	X	X	X	X	X	X										
3/20/2014	1110	Soil	P7-S-2C	1-9 oz Jar	None	-006	X	X	X	X	X	X										
3/20/2014	1030	Aqueous	P7-S-1D	Various	HCL/HNO3	-007									X	X	X	X	X			

Date	Time	Relinquished by:	Received by:	Date	Time
3/20/14	1300			3-21-14	1300
3-21-14	1604			03/21/14	1604

Remarks:

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

Artesian Groundwater

Appendix C-1

WELL DATA 2014 ANNUAL/QUARTERLY SAMPLING
DTB/DTW MEASUREMENTS

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter (inch)	2011 Survey [1] Ground Level Elevations (ft)	2011 Survey [1] Well Casing Rim Elevations (ft)	2011 Survey [1] Ground Elevation Inside Steel Sleeve (ft)	Stick-up length (ft)	2011 Survey [1] Well Casing Bottom Elevations (ft)	Total Well Depth (ft)	Depth to SPH (ft)	SPH [2] Column Thickness (ft)	Depth to Water (ft)	Ground water Elevation [3] (ft)	Corrected Water Table [4] Elevation (factor 0.8) (ft)	Screened Interval Depth Top to Bottom (ft)	2012 Stratigraphic unit in which screen exists	Purge Volume = 3 Well Vol (gal)
11/10/2003	BW-1A [5]	9/8/2014	2.00	6,883.17	6,885.12	6,884.93	1.95	6,847.50	46.06	N/A	N/A	DRY	DRY	N/A	30 - 35	Upper Sand	N/A
10/28/2003	BW-1B [5]	9/8/2014	2.00	6,883.17	6,885.78	6,885.72	2.61	6,818.33	76.29	N/A	N/A	DRY	DRY	N/A	54.6 - 64.6	Chinle/Alluvium Interface	N/A
11/10/2003	BW-1C [5]	9/10/2014	2.00	6,883.17	6,885.68	6,885.64	2.51	6,749.29	145.29	N/A	N/A	12.97	6,872.71	N/A	125 -135	Sonsela	63.37
11/10/2003	BW-2A	9/9/2014	2.00	6,871.88	6,874.69	6,870.45	2.81	6,807.12	67.57	N/A	N/A	32.25	6,842.44	N/A	55 - 65	Upper Sand	17.35
10/28/2003	BW-2B	9/9/2014	2.00	6,871.66	6,874.50	6,870.06	2.84	6,782.24	92.26	N/A	N/A	28.15	6,846.35	N/A	80 - 90	Chinle/Alluvium Interface	45.12
10/28/2003	BW-2C	9/10/2014	2.00	6,872.90	6,875.30	6,872.02	2.40	6,722.46	152.84	N/A	N/A	20.70	6,854.60	N/A	139.5 - 149.5	Sonsela	64.77
6/15/2004	BW-3A	9/8/2014	2.00	6,875.94	6,878.39	6,875.08	2.45	6,826.04	52.35	N/A	N/A	DRY	DRY	N/A	39.5 - 49.5	Upper Sand	N/A
10/15/2003	BW-3B	9/10/2014	2.00	6,876.16	6,878.59	6,875.41	2.43	6,809.19	69.40	N/A	N/A	33.25	6,845.34	N/A	63 - 73	Chinle/Alluvium Interface	17.79
7/20/2004	BW-3C	9/10/2014	2.00	6,875.72	6,877.95	6,875.27	2.23	6,723.40	154.55	N/A	N/A	7.83	6,870.12	N/A	144.5 - 154.5	Sonsela	71.59
9/25/1981	OW-11	9/12/2014	4.00	6,922.05	6,923.51	6,921.80	1.46	6,857.72	65.79	N/A	N/A	20.11	6,903.40	N/A	43 - 65	Sonsela	100.14
12/15/1980	OW-12	9/12/2014	4.00	6,939.57	6,940.69	6,939.04	1.12	6,811.84	128.85	N/A	N/A	47.78	6,892.91	N/A	117.8 - 137.8	Sonsela	179.93
10/14/1981	MW-1	9/16/2014	5.00	6,876.63	6,878.12	6,876.79	1.49	6,747.29	130.83	N/A	N/A	7.11	6,871.01	N/A	117.72 - 127.72	Sonsela	378.52
10/15/1981	MW-2	9/16/2014	5.00	6,878.39	6,880.30	6,878.41	1.91	6,742.82	137.48	N/A	N/A	9.20	6,871.10	N/A	112 - 122	Sonsela	391.8
10/16/1981	MW-4	9/17/2014	5.00	6,879.89	6,881.63	6,879.34	1.74	6,759.91	121.72	N/A	N/A	7.68	6,873.95	N/A	101 - 121	Sonsela	348.9
7/21/1986	MW-5	9/17/2014	4.00	6,880.20	6,882.83	6,881.77	2.63	6,752.00	130.83	N/A	N/A	11.38	6,871.45	N/A	115 - 125	Sonsela	365.18
9/26/1985	SMW-2	9/11/2014	2.00	6,881.63	6,883.97	6,879.07	2.34	6,831.17	52.80	N/A	N/A	25.10	6,858.87	N/A	34.31 - 54.31	Chinle/Alluvium and Upper Sand	13.43
9/25/1985	SMW-4	9/11/2014	2.00	6,877.63	6,879.52	6,875.72	1.89	6,809.84	69.68	N/A	N/A	29.10	6,850.42	N/A	51.7 - 71.7	Chinle/Alluvium Interface	19.78
10/5/2009	OW-50	9/15/2014	2.00	6,912.63	6,914.21	6,911.46	1.58	6,850.21	64.00	N/A	N/A	16.86	6,897.35	N/A	48 - 63	Chinle/Alluvium Interface	23.49
10/5/2009	OW-52	9/15/2014	2.00	6,906.53	6,907.68	6,905.31	1.15	6,829.94	77.74	N/A	N/A	15.80	6,891.88	N/A	64 - 79	Chinle/Alluvium Interface	29.69
1/5/1981	OW-1	3/7/2014	4.00	6,866.32	6,866.62	6,866.44	0.30	6,772.07	94.55	N/A	N/A	0.00	6,866.62	N/A	89.3 - 99.3	Sonsela	177.7
		6/3/2014	4.00	6,866.32	6,866.62	6,866.44	0.30	6,772.07	94.55	N/A	N/A	0.00	6,866.62	N/A	89.3 - 99.3	Sonsela	177.7
		9/11/2014	4.00	6,866.32	6,866.62	6,866.44	0.30	6,772.07	94.55	N/A	N/A	0.01	6,866.61	N/A	89.3 - 99.3	Sonsela	182.58
		11/10/2014	4.00	6,866.32	6,866.62	6,866.44	0.30	6,772.07	94.55	N/A	N/A	0.00	6,866.62	N/A	89.3 - 99.3	Sonsela	184.37
11/25/1980	OW-10	3/7/2014	4.00	6,873.67	6,874.91	6,872.59	1.24	6,814.58	60.33	N/A	N/A	0.00	6,874.91	N/A	40 - 60	Sonslea	125.5
		6/3/2014	4.00	6,873.67	6,874.91	6,872.59	1.24	6,814.58	60.33	N/A	N/A	1.45	6,873.46	N/A	40 - 60	Sonsela	116.7
		9/12/2014	4.00	6,873.67	6,874.91	6,872.59	1.24	6,814.58	60.33	N/A	N/A	2.33	6,872.58	N/A	40 - 60	Sonsela	131.89
		11/10/2014	4.00	6,873.67	6,874.91	6,872.59	1.24	6,814.58	60.33	N/A	N/A	2.80	6,872.11	N/A	40 - 60	Sonsela	133.93
12/10/1980	OW-13	3/7/2014	4.00	6,918.95	6,920.07	6,915.33	1.12	6,820.92	99.15	N/A	N/A	21.77	6,898.30	N/A	78.2 - 98.2	Sonsela	170.07
		6/3/2014	4.00	6,918.95	6,920.07	6,915.33	1.12	6,820.92	99.15	N/A	N/A	21.95	6,898.12	N/A	78.2 - 98.2	Sonsela	169.63
		9/15/2014	4.00	6,918.95	6,920.07	6,915.33	1.12	6,820.92	99.15	N/A	N/A	22.61	6,897.46	N/A	78.2 - 98.2	Sonsela	169.5
		11/10/2014	4.00	6,918.95	6,920.07	6,915.33	1.12	6,820.92	99.15	N/A	N/A	22.45	6,897.62	N/A	78.2 - 98.2	Sonsela	170.43
12/17/1980	OW-14	3/7/2014	4.00	6,924.55	6,926.65	6,924.40	2.10	6,880.13	46.52	N/A	N/A	24.12	6,902.53	N/A	35 - 45	Chinle/Alluvium Interface	48.24
		6/3/2014	4.00	6,924.55	6,926.65	6,924.40	2.10	6,880.13	46.52	N/A	N/A	24.15	6,902.50	N/A	35 - 45	Chinle/Alluvium Interface	48.02
		9/15/2014	4.00	6,924.55	6,926.65	6,924.40	2.10	6,880.13	46.52	N/A	N/A	24.40	6,902.25	N/A	35 - 45	Chinle/Alluvium Interface	47.95
		11/10/2014	4.00	6,924.55	6,926.65	6,924.40	2.10	6,880.13	46.52	N/A	N/A	24.25	6,902.40	N/A	35 - 45	Chinle/Alluvium Interface	48.68
8/23/1996	OW-29	3/7/2014	4.00	6,913.89	6,917.00	6,912.09	3.11	6,865.92	51.08	N/A	N/A	18.85	6,898.15	N/A	37.5 - 47.5	Chinle/Alluvium Interface	70.06
		6/2/2014	4.00	6,913.89	6,917.00	6,912.09	3.11	6,865.92	51.08	N/A	N/A	18.95	6,898.05	N/A	37.5 - 47.5	Chinle/Alluvium Interface	71.93