GW-032

ANNUAL GW MONITORING REPORT

2009

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Thursday, September 23, 2010 2:52 PM
To: Van Horn, Kristen, NMENV
Cc: VonGonten, Glenn, EMNRD; Cobrain, Dave, NMENV
Subject: Western Refining SW, Inc.- Gallup Refinery (GW-032) Annual GW Monitoring Report 2009

Kristen:

The OCD has reviewed the 3 binders with maps included in Binder No. 1 and have some observations, comments and/or recommendations. The report was scanned into OCD Online (GW-032).

Observations:

1) There appear to be at least 3 water bearing zones with wells seated in each beneath the facility: a) Shallow sand; b) Chinle/Alluvium; and c) Sonsela. It is good to see MWs, RWs, etc. associated with the different zones. The ground water flow direction map provided in Binder No. 1 was based on the MWs seated in the Chinle.

2) The total API Separator flow rate for 2009 in Binder No. 2 Section L (Mo. Flow Rates for NAPIS) averaged out over 365 days to be about 551 gpm, which seems high for the treatment system?

3) The ponds contain: E-Coli; Coliform; extremely high Chlorides and Fluorides increasing in concentration away from the plant; elevated BOD and COD; Arsenic and Sulfates. Some of these parameters may useful for evaluation of any NPDES discharges or contaminant fate downgradient from the pond network and toward the Rio Puerco River.

Comments:

1) Water quality information from recently installed OWs 50 and 52 was not found in the tables of the report, but may be in the text that I missed....

2) Analine [0.32 ppm] was observed in NAPIS effluent and does not appear to degrade very well through the treatment system.

Recommendations:

1) Ground water flow directions triangulated or contoured for each water bearing zone would be helpful in understanding the contamination fate and evaluating current monitor well placements within each water bearing zone.

2) BTEX isocon maps would also compliment No. 1 above.

3) An evaluation of recovery well and monitoring well locations may be possible after evaluating Nos. 1 and 2 above.

4) Isocon maps with BTEX, and other chemicals of concern and others, i.e., dissolved oxygen, pH, ORP, Specific Conductivity, etc., based on monitoring and for each water bearing zone may be helpful in evaluating contaminant hydrogeology in the reports.

Please contact me if you have questions or wish to communicate based on the above. Thank you.

Carl J. Chavez, CHMM
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(Pollution Prevention Guidance is under "Publications")

Western Refining

WNR LISTED NYSE

GALLUP
August 31, 2010

Carl Chavez, Environmental Engineer
Oil Conservation Division
1220 S. Saint Francis
Santa Fe, NM 87505

Kristen Van Horn, Environmental Specialist
New Mexico Environment Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East, BLDG 1
Santa Fe NM 87505

Re: 2009 OCD Annual Ground Water Report

Dear Mr. Chavez and Ms. Van Horn:

Western Refining is pleased to submit the 2009 Annual Ground Water Report for our Gallup Refinery. This report is being submitted to comply with the Discharge Permit 032, Condition 20.A. annual ground water reporting requirements.

Please do not hesitate to contact our office if you have any questions or concerns at (505) 722-0217.

Sincerely,

Ed Riege, Environmental Manager
(505) 722-0217
Ed.riege@wnr.com
cc: Mark Turri, General Manager

BINDER 1

Annual Groundwater Monitoring Report: Gallup Refinery - 2009

Western Refining
Gallup, New Mexico

August 31, 2010

Binder 1

Annual Groundwater Monitoring Report:
Gallup Refinery - 2009

Western Refining
Gallup, New Mexico

August 31. 2010

Prepared by:

Cheryl Johnson
Environmental Specialist

Reviewed by:

Ed Riege, M.P.H.
Environmental Manager

Executive Summary

The Annual Ground Water Monitoring Report for 2009 (report) has been prepared in response to requirements stated in the Ground Water Discharge Permit, GW-032, issued by the Oil Conservation Division (OCD) of the New Mexico Energy Minerals and Natural Resources Department to the Gallup Refinery owned by Western Refining ("refinery"). This Executive Summary provides an overview of ground water monitoring results and additional monitoring and reporting required by the permit.

Ground Water Monitoring

There are a total of thirty-seven monitoring wells distributed within the boundaries of the refinery of which, sixteen monitoring wells are located along the perimeter of the aeration lagoons and evaporation ponds. The ground water program consists of a number of sampling locations, target analytes, and monitoring frequencies which are monitored on a quarterly, semi-annual, and annual basis. There are two major sections of the Refinery which we have defined as the East and the West side for periodic monitoring.

East Side Ground Water

Ground water monitoring activities on the East side have shown MTBE is present in four well locations (OW-13, OW-14, OW-29 and OW-30) on the northeast corner of the active refinery perimeter (but not the refinery property as a whole). In three wells OW-14, OW-29, and OW-30, the MTBE is in the range of 0.021 ppm to 1.3 ppm and at levels above the RRSL (0.012 ppm). In OW-13 trace levels of MTBE was detected in the third quarter of 2009 (0.0023 ppm) which is below the RRSL (0.012 ppm). Benzene detected in OW-14 (0.074 ppm) is above the NMWQS for drinking water (0.01 ppm). Down gradient wells were non-detect for Benzene, (below the levels of detection of analytical methods).

Two new wells (OW-50 and OW-52) were installed in October 2009 down gradient of OW-30 and OW-29 to determine if MTBE has migrated north, northwest of the refinery. Sampling conducted on the newly installed wells, (OW-50 and OW-52) down gradient of OW-14 and OW-29 did not reveal the presence of MTBE.

Within the perimeter of the active refinery in this north-east section, there are several shallow recovery wells from which separate-phase hydrocarbons have been recovered and still continue to be recovered, of the order of 1.78 gallons total in 2009.

West Side Ground Water

The West side consists of ground water monitoring wells near the aeration lagoons and alongside a series of large evaporation ponds. Immediately down gradient of the refinery's oil/water separator, a sample from a shallow ground water monitoring well (NAPIS-2) had MTBE at a level ranging from 0.089 ppm to 1.3 ppm greater than the

RRSL of 0.012 ppm. Benzene levels above the NMWQS (0.057 ppm > 0.005 ppm). Monitoring of well GWM-1 in 2009 has shown benzene concentrations (0.0089 mg/L), above the U.S. Environmental Protection Agency's Maximum Contaminant Levels (EPA MCLs) standard (0.005 ppm). Chloride was also detected in concentrations above the NMWQS in GWM-1 in 2009 at 1600 ppm.

Also located on the West side are a series of boundary (BW), observation (OW), monitoring (MW), process (PW) and shallow monitoring (SMW) wells. Among the wells on the far west side are two deep process water wells PW-2 and PW-4, neither of these wells has ever been known to have any detectable levels of any constituents. In one event in 2007, we found a semi-volatile hydrocarbon in PW-3 located on the East side. PW-3 was re-sampled and found that it was non-detectable. We will continue to monitor this well as specified in the OCD Groundwater Discharge Permit (GW-032). Among MW and SMW monitoring, levels above the NMWQS of fluoride have shown up in some of the boundary wells from 2004 to 2009.

Additional Monitoring and Reporting

As part of our Groundwater Permit GW-032, additional reporting is required on an annual basis and is provided in this report. This reporting includes:

- Monitoring of the aeration lagoons, ponds, and outfalls between the lagoons and ponds on a quarterly, semi-annual and annual basis.
- Summary of Waste Water Treated and Water Balance
- Summary of Underground Waste Water Lines Tested
- Summary of all EPA/NMED/RCRA Activity
- Major Refinery Activities and Events
- Summary of all Leaks, Spills and Releases
- Perimeter Inspections
- Temporary Land Farm Monitoring
- Monthly Flow Rate to NAPIS.

There were no deviations from the sampling requirements of the OCD permit GW-032. In the outfalls and evaporation ponds results for Benzene showed no levels above the NMWQS of 0.01 ppm. Figure 2, a topographic map and Figure 3, an aerial photograph, depict the area topography and the general layout of the refinery.

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Binder 3

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LIST OF ACRONYMS

AL	Aeration lagoons
BMPs	Best Management Practices
BOD	Biochemical Oxygen Demand
BTEX	Benzene, Toluene, Ethylbenzene, Xylene
BW	Boundary Well
COD	Chemical Oxygen Demand
DRO	Diesel Range Organics
EP	Evaporation ponds
EPA	Environmental Protection Agency
GPM	Gallons per minute
GRO	Gasoline Range Organics
GWM	Ground Water Monitoring Well
HWB	Hazardous Waste Bureau
MCLs	Maximum Contaminant Levels
MTBE	Methyl Tert Butyl Ether
MG/L	Milligrams/liter
MW	Monitoring Well
NAPIS	New American Petroleum Institute Separator
NMED	New Mexico Environment Department
NMWQS	New Mexico Water Quality Standards
OCD	Oil Conservation Division
OW	Observation Well
PPM	Parts per million
PW	Process Well
RRSLs	Risk Based Screening Levels for Tap Water
RW	Recovery Well
SPH	Separate Phase Hydrocarbons
SVOC	Semi-volatile Organic Compounds
VOC	Volatile Organic Compounds
WWTP	Wastewater treatment plant

1.0 Introduction

This Annual Ground Water Monitoring Report for 2009 has been prepared in response to requirements stated in the Ground Water Discharge Permit, GW-032, issued by the Oil Conservation Division (OCD) of the New Mexico Energy Minerals and Natural Resources Department to the Gallup Refinery owned by Western Refining Southwest, Inc. ("Gallup Refinery").

This Report describes monitoring and remediation activities undertaken throughout 2009, and includes conclusions and recommendations. The ground water monitoring activities have collected data that are used to characterize the nature and extent of impacts to groundwater at the Gallup Refinery, and to recognize any levels of constituents that exceed applicable standards. These standards are those set by the New Mexico Water Quality Control Commission (WQCC), or the U.S. Environmental Protection Agency's (EPA's) Maximum Contaminant Levels (MCLs). If WQCC standards or MCLs do not exist for a constituent, we compare levels against the EPA Regional Screening Levels set for Residential Risk-Based Screening Levels for Tap Water (RRSLs).

1.1 Facility Ownership, Operation and Location

This report pertains to the Western Refining Southwest Inc. Gallup Refinery located at Exit 39 on Interstate I-40. This refinery is known as the Gallup Refinery and is located at Jamestown New Mexico, approximately 17 miles east of Gallup. Figure 1 shows the regional location of the Gallup Refinery.

Owner: Western Refining, Inc., (Parent Corporation)
123 W. Mills Avenue
El Paso, TX 79901

Operator: Western Refining Southwest, Inc. (Postal address)
Route 3, Box 7
Gallup, New Mexico 87301

Western Refining Southwest, Inc. (Physical address)
I-40, Exit 39
Jamestown, New Mexico 87347

SIC code 2911 (petroleum refining) applies to the Gallup Refinery.

The following regulatory identification and permit governs the Gallup Refinery:

- U.S. EPA ID Number NMD000333211
- OCD Discharge Permit No. GW-032

The Refinery status is corrective action/compliance. Annual, semi-annual and quarterly ground water sampling is conducted at the Refinery to evaluate present conditions. The refinery is situated on an 810 acre irregular shaped tract of land that is substantially located within the lower one quarter of Section 28 and throughout Section 33 of Township 15 North, Range 15 West of the New Mexico Prime Meridian. A small component of the property lies within the northeastern one quarter of Section 4 of Township 14 North, Range 15 West. Figure 2 is a topographic map showing the general layout of the refinery in comparison to the local topography.

1.2 Background Information

The refinery primarily receives crude oil via two 6 inch diameter pipelines; two pipelines from the Four Corners Area enter the refinery property from the north. In addition, the refinery also receives natural gasoline feed stocks via a 4-inch diameter pipeline that comes in from the west along the Interstate 40 corridor from the Conoco gas plant. Crude oil and other products also arrive at the site via railroad cars. These feeds tocks are then stored in tanks until refined into products.

The refinery incorporates various processing units that refine crude oil and natural gasoline into finished products. These units are briefly described as follows.

- The Crude Distillation Unit separates crude oil into various fractions; including gas, naphtha, light oil, heavy oil, and residuals.

- The Fluidized Catalytic Cracking Unit (FCCU) dissociates long-chain hydrocarbon molecules into smaller molecules, and essentially converts heavier oils into naphtha and lighter oils.

- The Alkylation Unit combines specific types of hydrocarbon molecules into a high octane gasoline blending component.

- The Reforming Unit breaks up and reforms low octane naphtha molecules to form high octane naphtha.

- The Hydrotreating Unit removes undesirable sulfur and nitrogen compounds from intermediate feed stocks, and also saturates the feeds tocks with hydrogen to make diesel fuel.

- Additional Treater Units later also remove impurities from various intermediate and blending feed stocks to produce finished products that comply with sales specifications.

- The Isomerization Unit converts low octane hydrocarbon molecules into high octane molecules.

- A set of Acid Gas Treating and Sulfur Recovery Units convert and recover various sulfur compounds from other processing units and then produce either Ammonium Thiosulfate or a solid elemental sulfur byproduct.

As a result of these processing steps, the refinery produces a wide range of petroleum products including propane, butane, unleaded gasoline, diesel, kerosene, and residual fuel. In addition to the aforementioned processing units, various other equipment and systems support the operation of the refinery and are briefly described as follows.

Storage tanks are used throughout the refinery to hold and store crude oil, natural gasoline, intermediate feeds tocks, finished products, chemicals, and water. These tanks are all located aboveground and range in size from 80,000 barrels to less than a 1,000 barrels.

Pumps, valves, and piping systems are used throughout the refinery to transfer various liquids among storage tanks and processing units.

A railroad spur track and a railcar loading rack are used to transfer feed-stocks and products from refinery storage tanks into and out of railcars.

Several tank truck loading racks are used at the refinery to load out finished products and also may receive crude oil, other feed stocks, additives, and chemicals.

A pipeline from the refinery carries diesel fuel to the Pilot Travel Center (formerly Giant). Gasoline is delivered to the Pilot Center via tanker truck.

A firefighting training facility is used to conduct employee firefighting training. Waste water from the facility, when training is conducted, is pumped into a tank which is then pumped out by a vacuum truck. The vacuum truck pumps the oily water into a process sewer leading to the New API Separator (NAPIS).

The process waste water system is a network of curbing, paving, catch basins, and underground piping that collects waste water effluent from various processing areas within the refinery and then conveys this wastewater to the NAPIS.

The NAPIS is a two compartment oil water separator. Oil is separated from water based on the principle that, given a quiet surface, oil will float to the water surface where it can be skimmed off. The skimmed slop oil is passed to a collection chamber where it is pumped back into the refinery process. The clarified water is piped to the top of dual stripping columns where benzene is removed. The stripped water flows into the first aeration lagoon. Sludge sinks to the bottom of the NAPIS which is periodically vacuumed out by a vacuum truck and disposed as hazardous waste at an approved landfill or recycled and reused in refineries that have this allowable exemption under RCRA.

At the stripping columns, ambient air is blown upwards through the falling cascade of clarified waste water as it passes through distillation column packing. Countercurrent desorption of benzene from the water occurs due to the high volume of air passing over the relatively large surface area provided by the packing. The desorbed benzene is absorbed into the air stream and vented to the atmosphere. Effluent from the stripper columns gravity flows through piping into the first aeration lagoon.

At the aeration basins, the treated waste water is mixed with air in order to oxidize any remaining organic constituents and increase the dissolved oxygen concentration available in the water for growth of bacteria and other microbial organisms. The microbes degrade most of the hydrocarbons into carbon dioxide and water. Three 15-hp mechanical aerators provide aeration in the first aeration lagoon with two 15-hp aerators providing aeration in the second lagoon. Effluent from the second aeration lagoon flows onward into the first of several evaporation ponds of various sizes.

At the evaporation ponds, waste water is converted into vapor via solar and mechanical wind-effect evaporation. No waste water is discharged from the refinery to surface waters of the state because all of the waste water evaporates. The Gallup Refinery does have a NPDES permit for storm water discharge and an OCD Discharge Permit.

The storm water system is a network of valves, gates, berms, embankments, culverts, trenches, ditches, natural arroyos, and retention ponds that collect, convey, control, treat, and release storm water that falls within or passes through refinery property. Storm water that falls within the processing areas is considered equivalent to process wastewater and

is sent through the NAPIS, benzene strippers and waste water treatment system for retention in evaporation ponds. Storm water discharge from the refinery is very infrequent due to the arid desert-like nature of the surrounding geographical area. The Gallup Refinery maintains a storm water pollution prevention plan (SWPPP) that includes Best Management Practices (BMPs) for effective storm water pollution prevention. The refinery has constructed several berms in various areas and improved outfalls (installed barrier dams equipped with gate valves) to minimize the possibility of potentially impacted runoff leaving the refinery property.

1.3 Site Characteristics

Built in the 1950's, the Gallup Refinery is located within a rural and sparsely populated section of McKinley County in Jamestown, New Mexico, 17 miles east of Gallup, New Mexico. The setting is a high desert plain on the western slope of the continental divide. The surrounding land is comprised primarily of public lands and is used for cattle and sheep grazing at a density of less than six cattle or 30 sheep per section. The nearest population centers are the Pilot Travel Center (formerly Giant) refueling plaza, the Interstate 40 highway corridor, and a small cluster of residential homes located on the south side of Interstate 40 approximately 2 miles southwest of the refinery (Jamestown). Surface vegetation consists of native xerophytic vegetation including grasses, shrubs, small junipers and some prickly pear cacti. Average rainfall is less than 7 inches per year.

Local topography consists of an inclined down-slope from high ground in the southeast to a lowland fluvial plain in the northwest. The highest point on refinery property is located at the southeast corner boundary (elevation approximately 7,040 feet) and the lowest point is located at the northwest corner boundary (elevation approximately 6,860 feet). The refinery processing facility is located on a flat man-made terrace at an elevation of approximately 6,950 feet.

Surface water in this region consists of the man-made evaporation ponds and aeration basins located within the refinery, a livestock watering pond (Jon Myer's Pond) located one mile east of the refinery, two small unnamed spring fed ponds located south of the refinery, and the South Fork of the Puerco River and its tributary arroyos. The various ponds and basins typically contain water consistently throughout the year. The South Fork of the Puerco River and its tributaries are intermittent and generally contain water only during, and immediately after, the occurrence of precipitation.

The 810 acre refinery property site is located on a layered geologic formation. Surface soils generally consist of fluvial and alluvial deposits; primarily clay and silt with minor inter-bedded sand layers. Below this surface layer is the Chinle Formation, which consists of very low permeability claystones and siltstones that comprise the shales of this formation. As such, the Chinle Formation effectively serves as an aquiclude. Inter-bedded within the Chinle Formation is the Sonsela Sandstone bed, which represents the uppermost potential aquifer in the region.

The Sonsela Sandstone bed lies within and parallels the dip of the Chinle Formation. As such, its high point is located southeast of the refinery and it slopes downward to the northwest as it passes under the refinery. Due to the confinement of the Chinle Formation aquiclude, the Sonsela Sandstone bed 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.

Ground water flow within the Chinle Formation is extremely slow and typically averages less than 10^{-10} centimeters per second (less than 0.01 feet per year). Ground water flow within the surface soil layer above the Chinle Formation is highly variable due to the presence of complex and irregular stratigraphy; including sand stringers, cobble beds, and dense clay layers. As such, hydraulic conductivity may range from 10^{-8} centimeters per second in the clay soil layers located near the surface up to 10^{-2} centimeters per second in the gravelly sands immediately overlying the Chinle Formation. Figure 4 depicts the regional surface water flows are in a westerly direction. Figure 5 depicts surface water bodies and flow lines.

Shallow ground water located under refinery property generally flows along the upper contact of the Chinle Formation. Although the prevailing flow direction is from the southeast and toward the northwest; a subsurface ridge has been identified and is thought to deflect some flow in a northeasterly direction in the vicinity of the refinery tank farm.

2.0 Scope of Activities 2009.

The annual ground water sampling event was conducted in July 2009 and the results are summarized in tables provided in Section 8 (Ground Water Data Tables). Quarterly, semi-annual, annual inspections are summarized in the table below and copies of inspection sheets are available in Appendix C. The visual checks and SPH inspections are documented on the forms provided in Appendix C – Well Inspection Logs. The following table summarizes the yearly activity on the monitoring wells and sampling requirements. Other requirements per our Discharge Permit (GW-032) are as follows:

- Testing of Underground Process Waste water lines – Appendix E
- Spill Reporting – Appendix H
- Temporary Land farm, Semi-Annual Sampling – Appendix K
- Perimeter Inspections - Appendix J
- Treatment System Monitoring – Monthly Flow Rate – Appendix L

Monitoring Schedule

Well	Location	Date Sampled or Inspected	Frequency	Parameters of Analysis
BW-1A [3]	West	7/6/09	Annual	Gen Chem/VOC/SVOC/MTBE/WQCC Metals
BW-2A [3]	West	7/6/09	Annual	Gen Chem/VOC/SVOC/MTBE/WQCC Metals
BW-3A [3]	West	7/6/09	Annual	Gen Chem/VOC/SVOC/MTBE/WQCC Metals
BW-2A [3]	West	7/6/09	Annual	Gen Chem/VOC/SVOC/MTBE/WQCC Metals
BW-2B [3]	West	7/6/09	Annual	Gen Chem/VOC/SVOC/MTBE/WQCC Metals
BW-2C [3]	West	7/6/09	Annual	Gen Chem/VOC/SVOC/MTBE/WQCC Metals
BW-3A [3]	West	7/6/09	Annual	Gen Chem/VOC/SVOC/MTBE/WQCC Metals
BW-3B [3]	West	7/6/09	Annual	Gen Chem/VOC/SVOC/MTBE/WQCC Metals
BW-3C [3]	West	7/6/09	Annual	Gen Chem/VOC/SVOC/MTBE/WQCC Metals
GWM-1 [1]	West	7/3/09	Q / A	Gen Chem/VOC/SVOC/MTBE/WQCC Metals
GWM-2 [1,9]	West	7/30/09 – Dry	Quarterly	Check for Water
GWM-3 [1,9]	West	7/30/09 – Dry	Quarterly	Check for Water
MW-1	West	7/16/09	Annual	Gen Chem / RCRA List Constituents
MW-2	West		Every 10 yrs	Skinner List per RCRA Post Closure
MW-4	West	7/8/09	Annual	Gen Chem / RCRA List Constituents, Modified Skinner List
MW-5	West	7/15/09	Annual	Gen Chem/RCRA List Consituents, Modified Skinner List
NAPIS-1 [9]	West	3/24/09; 5/25/09; 8/11/09; 11/23/09	Quarterly	BTEX/MTBE/SVOC/DRO/GRO/RCRA Metals, GEN CHEM
NAPIS 2 [9]	West	3/24/09; 5/25/09; 8/11/09; 11/23/09	Quarterly	BTEX/MTBE/SVOC/DRO/GRO/RCRA Metals, GEN CHEM
NAPIS 3 [9]	West	3/24/09; 6/15/09; 8/31/09; 11/23/09	Quarterly	BTEX/MTBE/SVOC/DRO/GRO/RCRA Metals, GEN CHEM
KA-3 [9]	West	3/24/09; 6/15/09; 8/31/09; 11/23/09	Quarterly	BTEX/MTBE/SVOC/DRO/GRO/RCRA Metals, GEN CHEM

Monitoring Schedule – Continued

Well	Location	Date Sampled or Inspected	Frequency	Parameters of Analysis
PW-3	West	8/21/08; Next due 2011	Every 3 yrs	VOC/SVOC/WQCC Metals/Cyanice/Nitrates
PW-4	West	9/12/08; Next due 2010	Every 3 yrs	VOC/SVOC/WQCC Metals/Cyanice/Nitrates
SMW-2	West	7/27/09	Annual	Gen Chem/RCRA List Constituents, Modified Skinner List
SMW-4	West	7/27/09	Annual	Gen Chem/RCRA List Constituents, Modified Skinner List
PW-2	East	9/12/08; Next due 2011	Every 3 yrs	VOC/SVOC/WQCC Metals/Cyanice/Nitrates
OW-11	East	7/27/09	Annual	Gen Chem/VOC/MTBE/SVOC/WQCC Metals
OW-12	East	7/29/09	Annual	VOC/MTBE
OW-13 [2]	East	2/24/09/ 5/14/09/ 7/28/09/ 11/3/09	Quarterly	VOC/MTBE
OW-14	East	2/23/09; 5/12/09; 7/30/09; 11/2/09	Quarterly	VOC/MTBE
OW-29	East	2/25/09; 5/14/09; 7/29/09; 11/2/09	Quarterly	VOC/MTBE
OW-30	East	2/25/09; 5/14/09; 7/30/09/ 11/2/09	Quarterly	VOC/MTBE
OW-50 [11]	East	11/17/09	Quarterly	VOC/SVOC/DRO/GRO, RCRA 8 Metals/Gen Chem
OW-52 [11]	East	11/17/09	Quarterly	VOC/SVOC/DRO/GRO, RCRA 8 Metals/Gen Chem
Evaporation Ponds 1 – 8 [8,9]	West	6/17/09	Annual	Gen Chem/VOC/WQCC Metals/BOD/COD/E-Coli Bacteria
Pond 1 Inlet [6]	West	5/6/09; 10/27/09	SA	Gen Chem/VOC/SVOC/GRO/DRO/Phenol/WQCC Metals
Pond 2 Inlet [7]	West	6/17/09	Annual	VOC/MTBE/GRO/DRO/BOD/COD/TDS
BW to EP-2	West	5/6/09; 10/27/09	SA	Gen Chem
Effluent from Pilot	West	3/31/09;5/27/09; 8/19/09; 11/10/09	Quarterly	VOC/GRO/DRO/BOD/COD/WQCC Metals
Effluent NAPIS	West	3/31/09;5/26/09; 8/19/09; 11/10/09	Quarterly	Gen Chem/VOC/SVOC including Phenol/GRO/DRO/WQCC Metals

1. Wells installed down gradient from the Aeration Basin.
2. When OW-14 is cleaned up, the monitoring at OW-13 shall be discontinued
3. These are the wells installed at the northwest corner boundary of the refinery. BW-1A, 1B, and 3A were dry at time of drilling.
4. Water table depth shall be measured at each well annually.
5. Frequency of sampling shall be per RCRA post closure schedule
6. Sample is taken at the inlet to Pond 1 from Aeration Lagoon 2.
7. Sample is taken at the inlet to Pond 2 from Pond 1.
8. If fluid is present, record static water level and sample well, maintain record, and report to OCD and NMED within 24 hours of detection. If water is present a sample shall be collected and analyzed for BTEX/MTBE/GRO/DRO and Gen Chem.
9. Sample using the State of New Mexico approved analytical methods as required by 20.6.4.14 NMAC, as amended through February 16, 2006 (use methods: 9221-E, 9221-F, until EPA approved 40 CFR 136 methods (Colilert, Colilert-18, m-ColiBlue24, membrane filter method). Parameters are subject to change.
10. Sampling to be conducted in coordination with Pond 1 inlet and Pond 2 inlet within the table above.
11. New Wells drilled and installed on 10/5 and 10/7/2009 down gradient of OW-13 and OW-29. First samples collected by AMEC Earth and Environmental, Inc.

In addition to ground water monitoring, surface water monitoring is also conducted as follows resulting from historical New API Separator Spills.

Sampling Frequency from Historical NAPIS Spills

Sampling Location	Sampling Frequency	Analytical Suite	Comments and Additional Parameters
Effluent from AL-2 to EP-1	Quarterly	EPA Methods 8260,8015B (include C6 to C10 and C10 –C36 carbon ranges), 6010 WQCC Metals (Total)	Sampling frequency will be modified as needed.
Effluent from Old API Separator (Storm water separator effluent)	Monthly flow rate measurements to NAPIS only.	Collect monthly flow rate readings from the old API to the NAPIS.	If effluent is re-routed to any other location than the NAPIS, NMED/OCD must be collected to determine whether additional sampling and analysis is required
Influent to Aeration Lagoons 1 (AL-1) and Aeration Lagoon 2 (AL-2) and evaporation pond 1 (EP-1)	Quarterly	BOD/COD/PHENOL	Additional monitoring requirement
Evaporation Pond 1 (EP-1)	Quarterly	VOC/BOD/COD, Chlorides, DRO/GRO, MTBE, pH, phenol	Additional monitoring requirement.
Note: ***1. This requirement will end when the old API separator is decommissioned.***			

2.1 New Monitoring Well Installations

Two new shallow ground water observation wells (OW-50 and OW-52) were installed in October 2009, north of OW-13 and down gradient of OW-29 and OW-30. These wells were installed per NMED HWB request dated 5/28/09 "*Requirement to Install Monitoring Wells*", to determine if any constituent has migrated north, northwest of the refinery and potentially offsite from an increase of MTBE in Wells OW-14, OW-29 and OW-30 and the presence of MTBE in OW-13 (0.0023 mg/L) below RRSL standards. OW-50 is screened at 48-63 feet and a total depth of 63 feet. OW-52 is screened at 64-79 feet and a total depth of 79 feet. These two wells were added to the annual update to the Refinery Wide Groundwater Monitoring Plan to be sampled on a quarterly basis for the following parameters: VOC, SVOC, DRO/GRO, RCRA 8 Metals, and General Chemistry.

2.2 Monitoring and Sampling Program

The primary objective of ground water monitoring is to provide data which will be used to assess ground water quality at and near the Refinery. Ground water elevation data are collected to evaluate ground water flow conditions. The ground water monitoring program for the Refinery consists of sample collection and analysis from a series of monitoring wells, recovery wells, boundary, shallow monitoring wells, process wells, outfalls, and evaporation pond locations

The monitoring network is divided into two investigation areas (East Side and West Side). The sampling frequency, analyses and target analytes vary for each investigation area and well/outfall/evaporation pond location. The combined data from these investigation areas is used to assess ground water quality beneath and immediately down-gradient of the Refinery, and evaluate local ground water flow conditions.

Samples are not collected from monitoring wells that have measurable SPH. For wells that are purged dry, samples will be collected if recharge volume is sufficient for sample collection within 24 hours. Wells not sampled due to insufficient recharge will be documented in the field log.

Daily field activities, including observations and field procedures, will be recorded for each activity and maintained at the Gallup Refinery. Field logs will include the following information

- Well ID/ Evaporation pond location/ Outfall
- Date
- Start and finish sampling time
- Field team members, including visitors
- Weather conditions
- Daily activities and times conducted
- Observations
- Record of samples collected with sample designations
- Photo log (if needed)
- Field monitoring data, including health and safety monitoring (if needed)
- Equipment used and calibration records, if appropriate
- List of additional data sheets and maps completed
- An inventory of the waste generated and the method of storage or disposal
- Signature of personnel completing the field record

All samples collected for analysis will be recorded in the field report or data sheets. Chain-of-custody forms will be completed at the end of each sampling day, prior to the transfer of samples off site, and will accompany the samples during shipment to the laboratory. A custody seal will be affixed to the lid of the shipping container. Copies of all chain-of-custody forms generated are kept on site.

Field duplicates and trip blanks may be obtained for quality assurance during sampling activities.

2.3 Sampling Methods and Procedures

Each monitoring well is gauged for depth to water measurement to determine the amount of water to purge. Three well volumes are purged from each well prior to sampling unless water level is at a minimum or the well has low recharge rate, then the well is allowed to recharge before sample is taken within 24 hours. Pump is lowered into well slowly to minimize disturbance to a depth of the midpoint of the screened interval of the well. Pump controller is started at a slow rate and gradually increased until water is discharged. Field water quality measurements must stabilize for a minimum of three consecutive readings taken at 2 to 5 minute intervals and are within the following limits before purging will be discontinued and sampling may begin. DO-Dissolved Oxygen (10%), Specific Conductance (3%), Temperature (3%), pH (+/- 10 mill volts).

Ground water samples are obtained from each well within 24 hours of the completion of well purging. The samples are transferred to the appropriate, clean, laboratory-prepared containers provided by the analytical laboratory. Sample collection methods are documented in the field monitoring reports. Weather conditions, the volume of ground water purged, the instruments used, and the readings obtained at each interval are recorded on the field-monitoring log.

Well purging and sampling are performed using disposable bailers and/or appropriate sampling pumps where applicable and some of the wells have dedicated pumps installed where a controller is used to power the submersible pump to purge water. In shallow wells, new disposable bailers are used for each well to hand bail purge water and retrieve water samples.

All purged ground water from monitoring wells is collected in a 55 gallon drum(s) and disposed off in the refinery waste water treatment system upstream of the API Separator.

Ground water samples intended for metals analysis are submitted to the laboratory as total metals samples.

At a minimum, the following procedures are used when collecting/shipping samples.

- Protective eye wear (safety glasses, goggles and or face shield)
- Neoprene, nitrile, or other protective gloves are worn when collecting samples. New disposable gloves are used to collect sample at each sample point.
- All samples collected for chemical analysis are transferred into clean sample containers supplied by the analytical laboratory. The sample container is clearly marked and labeled.
- Ground water samples obtained for dissolved metals analysis are filtered through a 0.45 micrometer mesh size disposable filter.
- Samples are labeled, sealed, placed in cooler with ice until they are shipped via UPS RED, FED EX Overnight or personally delivered to the analytical laboratory.
- Standard chain-of-custody procedures are followed for all samples collected.
- The chain-of-custody form and sample request form are shipped inside the sealed storage container to be delivered to the laboratory, signed and dated.

Field duplicates and trip blanks may be obtained for quality assurance during sampling activities. Trip blanks will accompany laboratory sample bottles and shipping and storage containers intended for VOC analyses. Trip blanks will consist of a sample of analyte free de-ionized water placed in an appropriate sample container. Trip blanks will be analyzed at a frequency of one for each shipping event involving twenty or more samples

In order to prevent cross-contamination, field equipment that comes into contact with water or soil is cleansed before each sampling event. The cleansing procedure for the portable pump consists of rinsing/washing the equipment with an Alconox detergent water mixture followed by two rinses before use in another well. Any equipment such as data loggers or tape measure that comes in contact with each well is washed with an Alconox water mixture and rinsed with distilled water before each use.

2.3.1 Equipment

A submersible bladder pump 2 inch. 115 volt AC to DC converter, Grundfos Redi-flo2 constructed of stainless steel with check valve and 1/2 inch Teflon tubing, adjustable rate controller powered by a gas generator is used to purge ground water from monitoring wells. Equipment is located downwind and at least 20 feet from the well so that exhaust fumes do not cross contaminate the samples.

Water level Instrument used is a Heron Instrument 100 feet DipperT electric water depth tape complying with US GGG-T-106E, EEC, Class II. This instrument measures water level, indication is a steady audible tone and hydrocarbons, indications is an erratic audible tone.

Parameter Instrument - IQ Scientific Instrument, Model IQ180GLP which measures pH, Dissolved Oxygen (DO), TDS, Conductivity, salinity, ISE, mV and temperature.

Disposable Bailers – Polyethylene bailer (1.5" X 36 inches overall length; capacity approximately 1 liter). Individually sealed packaging, single check valve bailer with slide in angle cut nozzle for sample removal. New bailer is used for each well that requires hand bailing for purging and sample retrieval.

Field equipment parameter instruments are calibrated to known standards, in accordance with the manufacturers' recommended schedules and procedures. Calibration checks are conducted before use and the instruments recalibrated if necessary. Calibration of equipment is noted in the daily field logs.

If field equipment becomes inoperable, a properly calibrated replacement instrument is used in the interim. Instrumentation used during a sampling event is recorded in the daily field logs.

2.4 Collection and Management of Investigation Derived Waste

Investigation derived waste (IDW) generated during each ground water sampling event may include purge water, decontamination water, excess sample material, and disposable sampling equipment. All water purged from monitoring wells generated during sampling and decontamination activities is temporarily stored in a labeled 55-gallon drum(s) until disposed of in the refinery waste water treatment system upstream of the API separator.

2.5 Collection of Surface Water Samples

At the evaporation ponds, samples are collected near the inlets, and are a grab sample at the pond edge near the inlet. This location is noted in the field notebooks. For outfalls, a grab sample is collected at the pipe end, and recorded.

2.6 Analytical Methods

Ground water and surface water samples collected during the monitoring events are analyzed for the constituents listed in Section 2.0. In addition, for various locations the list of metals is modified to use the Skinner list of the NM Water Quality Control Commission list.

2.7 Perimeter Search

Western Refining conducts a perimeter search of the refinery property on a bi-monthly basis starting in December 2004. The inspection focuses on hydrocarbon staining or any release that could result in material leaving the property boundary. Western Refining has prepared an inspection checklist to be completed and signed by the environmental employee conducting the inspection. See Appendix J for copies of the inspection records.

2.8 Remediation Activities

Separated Phase Hydrocarbons (SPHs) have been found in wells RW-1, RW-5 and RW-6. In the past these were recovered either through the use of pumps, or hand-bailing. Appendix A provides details of the volumes of product recovered and the dates and the depths to water and SPH that we have measured in these wells. In 2009, this volume was approximately 1.78 gallons from RW-1. In the past, product was also recovered from RW-5 and RW-6. RW-5 has shown a steady decrease of SPH. From the second quarter of 2009 to fourth quarter of 2009 there has been no indication of a SPH level in this monitoring well. RW-6 continues to show a decline in SPH levels as well.

In RW-1 a bladder pump is used to pump out SPH on a quarterly basis into a labeled 55 gallon drum. In RW-5 and RW-6, a 3 foot disposable hand bailer is used to extract product from the wells. The amount recovered is measured, logged and disposed of in the refinery waste water treatment system upstream of the API separator.

Total estimated volume recovered from RW-1 for 2009 is 1.78 gallons.

3.0 Ground Water Elevation Surveys.

Ground water elevation data are collected from the wells listed in Sections 2.0. Figure 6 shows the locations of all the active wells. Section 9 contains the data gathered for 2009. As directed by NMED HWB, ground water elevation data are collected on a quarterly or an annual basis. Ground water levels and SPH thickness measurements (from the RW series of wells) are collected quarterly to monitor groundwater elevation and product thickness fluctuations over time.

Measurement data and the date and time of each measurement are recorded on a site monitoring data sheet. The depth to ground water and SPH thickness levels are measured to the nearest 0.01 ft. The depth to ground water and SPH thickness are recorded relative to the surveyed well casing rim or other surveyed datum. A corrected water table elevation is provided in wells containing SPH by adding 0.8 times the measured SPH thickness to the measured water table elevation.

All water/product levels are measured to an accuracy of the nearest 0.01 foot using an electrical conductivity based meter, the Heron Instruments 100 ft. DipperT electric water depth tape complying with US GGG-T-106E, EEC Class II. After determining water levels the well volumes is calculated using the height of the liquid column and the internal cross sectional area of the well. The purge volume is 3 times the well volume.

Ground water and SPH levels are measured in all wells within 48 hours of the start of ground water sampling activities. All manual extraction of SPH and water from recovery wells, observation wells, and collection wells is discontinued for 48 hours prior to the measurement of water and SPH levels.

4.0 Regulatory Criteria

We compare our data to the following regulatory standards (Appendix B).

- State of New Mexico Water Quality Standards (NMWQS)
- EPA's Maximum Contaminant Levels (MCLs) for drinking water
- EPA Regional Screening Levels set for Residential Risk-Based Screening Levels for Tap Water (RRSLs).
- NMED total petroleum hydrocarbon (TPH) screening guidelines for Gasoline Range Organics (GRO) and Diesel Range Organics (DRO).

5.0 Groundwater Elevations and Separate-Phase Hydrocarbons

5.1 Potentiometric Map

Figure 8 presents a Potentiometric Elevation Map showing groundwater elevations in some of the Chinle/alluvium wells and contours and Section 10 provides groundwater elevation data gathered during 2009.

6.0 Groundwater Monitoring Results

Section 8 contains the Ground Water Data Tables for 2009. Only constituents above levels of detection are generally described. If a constituent exceeds any standard, we have marked it in bold and underlined its value. Appendix M (Binder 3) contains the laboratory analytical data reports. As Part of our Ground Water Permit (GW-32), additional reporting is required on an annual basis and is provided in this report. This reporting includes:

- Monitoring of the aeration lagoons, ponds and outfalls between the lagoons and ponds on a quarterly, semi-annual and annual basis. (See Section 8)
- Summary of Waste Water Treated and Water Balance (See Appendix D)
- Summary of Underground Waste Water Lines Tested (See Appendix E)
- Summary of All EPA/NMED/RCRA Activity (See Appendix F)
- Major Refinery Activities and Events (See Appendix G)
- Summary of All Leaks, Spills and Releases (See Appendix H)
- Perimeter Inspections (See Appendix J)
- Temporary Land Farm Monitoring (See Appendix K)
- Monthly Flow Rate to NAPIS (See Appendix L)

6.1 Monitoring Wells That Have Constituent Levels Above Standards.

OW-13, OW-14, OW-29, OW30

These wells were sampled on a quarterly basis for 2009. Ground water samples were analyzed for benzene, toluene, ethylbenzene, total zylenes (BTEX) and MTBE using EPA Method 8021B plus MTBE. Wells were sampled on 2/24/09, 5/14/09, 7/28/09 and 11/2/09. The Third Quarter sampling was combined with the annual sampling event in July 2009.

OW-14 in this group has shown fluctuations of benzene ranging from 0.017 ppm in 2005 to 0.034 ppm in November of 2009. Data gathered for MTBE shows a steady increase from 0.077 ppm in September of 2005 to a reading of 1.2 ppm in November of 2009, a level which is above the RRSL of 0.012 ppm. Figure 11 shows Benzene Concentrations in OW-14 versus time and Figure 12 shows MTBE concentrations versus time for OW-14. Only in the third quarter 1-Methylnaphthalene was detected at 0.021 ppm in OW-14 which is greater than the RRSLs of 0.0023 ppm. Trace levels of 1,2,4 Trimethylbenzne, (0.0027 ppm), 1,2-Dichloroethane (EDC) (0.0017 ppm), Isopropylbenzene (0.0033 ppm), n-Butylbenzene (0.0011 ppm) and sec-Butylbenzne (0.0026 ppm) were also detected in the third and fourth quarter of 2009.

BTEX constituents were below detectable limits in all four quarters of 2009 in monitoring wells OW-13, 29 and 30. MTBE in OW-13 was detected only in the third quarter 2009 at 0.0023 ppm (below the RRSL of 0.012 ppm). OW-29, MTBE levels showed a steady increase for 2009. February results 0.021ppm; May results 0.041 ppm; July results 0.049 ppm and November 0.082 ppm. These levels are greater than the RRSL

of 0.012 ppm. OW-30 MTBE levels stayed around 1.1 ppm for 2009. See figures 13 and 14 for MTBE versus time in OW 29 and OW-30.

GWM-1

GWM-1 is sampled on an annual basis for 2009, done on July 27, 2009. Ground water samples were analyzed for VOC, SVOCS, MTBE, WQCC Metals and General Chemistry. Quarterly water level measurement inspections are done on a quarterly basis. Inspections were done on 2-2-09, 5- 5-09, 8-10-09 and 10-27-09.

Benzene detected at 0.0089 ppm which is above the EPA's MCL of 0.005 ppm, and the NMWQS of 0.01 ppm. MTBE in this well was detected 0.085 ppm, above the RRSL of 0.012 ppm. VOCs have also been detected (1, 2, 4 trimethylbenzene; 1, 3, 5-Trimethylbenzene; Isopropylbenzene and n-propylbenzene) below the NMWQS, MCLs and RRSL standards. Naphthalene was detected at 0.0024 ppm and 1-Methylnaphthalene at 0.0097 ppm which are above the RRSl standards of 0.001 ppm and 0.0023 ppm and NMWQS of 0.03 ppm for 1-methylnaphthalene. Arsenic was also detected at 0.114 ppm above the NMWQS of 0.1 ppm. Chloride level in this well was at 1600 ppm which is above the NMWQS of 250 ppm. See figures 15 through 18 for Benzene, MTBE, Chloride and Arsenic concentrations versus time for GWM-1.

SMW-2, SMW-4

SMW-2 and SMW-4 are sampled on an annual basis. Ground water samples were analyzed for General Chemistry, RCRA List Constituents (Per RCRA Post Closure schedule) and Modified Skinner List for Metals and Organics. Wells were sampled on July 27, 2009.

SMW-2 is located on the southeast corner of the closed Land Treatment Unit and SMW-4 is located on the north side of the closed Land Treatment Unit. BTEX plus MTBE were below detectable limits in both wells. Gasoline Range Organics in SMW-2 have ranged from 0.69 ppm in January of 2008 to 0.73 in July of 2009 above the NM TPH level of 0.2 ppm. (See Figure 22 for GRO concentrations versus time). In SMW-2 we have detected levels of acetone (0.00625 ppm) which is below the RRSL level of 22 ppm. The following SVOCs were detected in SMW-4 at levels below the NMWQS, EPA MCLs and RRSL; (bis {2-ethylhexyl} phthalate 0.00105 ppm) and diethyl phthalate 0.00148 ppm. Chloride level in SMW-2 is 2300 ppm.

NAPIS-1, NAPIS-2, NAPIS-3, KA-3

NAPIS well are sampled on a quarterly basis. Ground water samples were analyzed for BTEX, 8021B plus MTBE, SVOC, DRO, GRO, RCRA 8 Metals and General Chemistry. Wells were sampled on 3-24 & 25-09; 5-28-09 and 6-26-09; 8-11-09 and 11-23-09.

These shallow wells are located around the NAPIS. NAPIS-1 is an up gradient well on the southeast side of the NAPIS. NAPIS-2 is located immediately down gradient on the southwest side of the NAPIS. KA-3 and NAPIS3 are located on the west side at the north end. Due to the close proximity of NAPIS 3 and KA 3 these wells were mis-identified by the field technician. NAPIS 3 was identified as KA-3 and KA-3 was identified as NAPIS-3 when samples were labeled. As a result analytical lab data obtained for these wells did not correspond to the correct well. Analytical lab data received for these wells have been manually corrected on the data sheets with the correct well identification.

NAPIS-1 has no detectable levels of contaminants. NAPIS-2 has shown elevated levels of benzene 0.019 ppm to a high of 0.032 ppm which are above the NMWQS of 0.01 ppm. MTBE levels of 0.09 ppm to a high of 0.13 ppm which is above the RRSL of 0.012 ppm). NAPIS 3 shows benzene level of 0.0033 ppm for the third quarter only and MTBE levels declining from 0.11 ppm first quarter to a low of 0.077 ppm in the fourth quarter. No contaminants have been detected in KA-3. SVOCs were detected in NAPIS 2 and NAPIS 3. In NAPIS 2 second quarter results showed 0.0042 ppm of 1-Methylnaphthalene above the RRSL of 0.0023 ppm; 0.03ppm of naphthalene exceeding the RRSL of 0.00014 ppm and trace levels of fluorene, 2-methylnaphthalene and phenanthrene. In the fourth quarter, NAPIS 3, benz(a)anthracene was detected at 0.00007 ppm above the RRSL standard of 2.9E-05 ppm. High levels of chloride were also detected in NAPIS 3 ranging from 340 ppm to 610 ppm. KA-3 also showed levels of chloride ranging from 1200 ppm to 1100 ppm above the NMWQS of 250 ppm. NAPIS 2 also showed GRO level ranging from 4.3 ppm first quarter to 2.7 ppm fourth quarter, above the NM TPH screening level of 0.2 ppm. Constituent concentrations vs. time are depicted in figures 19 through 21.

6.2 Wells with Constituent Levels below Standards.[1]

OW-11

OW-11 is sampled on an annual basis. Ground water samples were analyzed for General Chemistry, VOC, MTBE, SVOC, and WQCC Metals. Well was sampled on July 27, 2009.

BTEX plus MTBE were at non-detectable levels. SVOCs and VOCs also non-detect. Arsenic was detected at 0.00202 ppm above the 0.1 ppm NMWQS. Uranium was also present in this well at 0.216 ppm below the NMWQS and EPA MCLS but above the RRSL of 0.11 ppm. General chemistry results showed that fluoride (2.0 ppm) and sulfate (950 ppm) were present at levels greater than the NMWQS for fluoride (1.6 ppm) and sulfate (600 ppm).

OW-12

OW-12 is sampled on an annual basis. Ground water samples were analyzed for VOC/MTBE, Method 8021B. Well was sampled on July 29, 2009.

[1] These wells may have other contaminants present at levels greater than applicable standards, such as sulfates.

The laboratory analyses showed all parameters at non-detectable levels.

BW-1A, BW-1B, BW-1C

These wells are sampled on an annual basis. Ground water samples were analyzed for General Chemistry, VOC/SVOC/MTBE and WQCC Metals. Well was sampled on July 6, 2009.

BW-1A indicated a level of only 0.03 feet of water. There was not enough water in the well to sample. This well is normally dry. BW-1B also indicated a water level of 0.04 feet. Again there was not enough water in this well to sample. This well is also normally dry.

BW-1C indicated concentration levels of non-detect for BTEX (concentrations less than applicable standards). However fluorides and sulfates were greater than the NMWQS and EPA MCLs (1.6 ppm, and 250 ppm respectively) for these wells

BW-2A, BW-2B, BW-2C

These wells are sampled on an annual basis. Ground water samples were analyzed for General Chemistry, VOC/SVOC/MTBE and WQCC Metals. Wells were sampled on August 3, 2009.

Laboratory analysis showed non-detectable levels on all applicable standards for BTEX and MTBE.
BW-2B and BW-2C showed fluorides of 1.7 ppm and 1.9 ppm greater than the NMWQS of 1.6ppm. BW-2C sulfates were greater than the EPA MCLS of 250 ppm.

BW-3B, BW-3C

These wells are sampled on an annual basis. Ground water samples were analyzed for General Chemistry, VOC/SVOC/MTBE, and WQCC Metals. Wells were sampled on August 3, 2009

Laboratory analysis showed non-detectable levels on all applicable standards for BTEX and MTBE. BW-3C showed sulfates were greater than the EPA MCLS of 250 ppm.

GWM-2, GWM-3

Quarterly inspections of GWM-2 and GWM-3 revealed both of these wells to have no presence of water. Well was inspected on February 2, 2009, May 5, 2009, August 10, 2009 and October 27, 2009.

PW-2, PW-3, PW-4

PW-2 and PW-3 are scheduled to be sampled every 3 years beginning with 2008. PW-4 is scheduled to be sampled every 3 years beginning with 2007. PW-3 annual sampling was not done in 2009 as requested by the NMED HWB, resulting from the detection of 2-methylnaphthalene in 2007 of 0.032 ppm. PW-3 was sampled in 2008 and results were non-detect. Ground water samples were analyzed for VOC/SVOC/WQCC Metals/ Cyanide/ Nitrates.

PW-2 and PW-4 were sampled on September 12, 2008 and PW-3 was sampled on August 21, 2008. Laboratory analysis showed non-detectable on all applicable standards for BTEX and MTBE. In 2007, the contaminant 2-Methylnapthalene was detected at a level of 0.032 ppm in PW-3. This level exceeded the current NMWQS of 0.03 mg/l for 2-Methylnapthalene. PW-3 was re-sampled in 2008, along with a blind duplicate, and found that the levels were non-detectable.

OW-1 and OW-10

These wells are visually checked and water level measurement taken on a quarterly basis. Inspections were done on 2-11-09, 5-4-09, 8-10-09 and 10-27-09. Findings are logged and kept on file (copies of quarterly inspection are in Appendix C).

MW-1, MW-4, MW-5

These wells are sampled on an annual basis. Ground water samples were analyzed for General Chemistry, RCRA list constituents (per RCRA Post Closure Schedule) and modified skinner list for metals and organics for MW-4 and MW-5. MW-1 was sampled on July 16, 2009; MW-4 was sampled on July 8, 2009 and MW-5 was sampled on July 15, 2009.

Laboratory analysis showed non-detectable levels on all applicable standards for BTEX and MTBE MW-1 indicated a level of 0.00124 ppm of Arsenic above RRSL of 0.000045 ppm and below the NMWQS of 0.1 ppm. MW-1 had a pH at 9.02 above the NMWQS limit of 6-9.

MW-2

This well is sampled per the RCRA Post Closure Schedule on a 10 year basis. Ground water samples were analyzed for General Chemistry, RCRA list constituents (per RCRA Post Closure Schedule) and modified skinner list for metals and organics on 7-16-09.

Laboratory analysis showed non-detectable levels for all parameters. Only Arsenic was detected at 0.00104 ppm which is above the RRSL standard of 0.000045 ppm.

RW-1, RW-2, RW-5, RW-6

These recovery wells are monitored on a quarterly basis (copies of quarterly inspections are in Appendix C). Wells were inspected on 2/11/09; 5/5/09; 8/10/09 and 10/28/09.

RW-1 has shown a steady decrease of hydrocarbon levels. In 2009 year to date total of hydrocarbon recovery is 1.78 gallons compared to 2008 where 4 gallons of hydrocarbons were recovered. RW-2 does not show any hydrocarbon levels. RW-5 has shown a steady decrease of hydrocarbon levels as well as RW-6.

Evaporation Ponds 1 through 8

These evaporation ponds are sampled on an annual basis. Evaporation ponds were sampled on June 17, 2009. For Ponds 1 and 2, the locations were a significant distance away from the inlets that were sampled as a separate activity. The results for benzene showed no levels above the hazardous waste characteristic of 0.5 ppm. There were volatile and semi-volatile contaminants found that are seen to degrade as one progresses along the series of ponds 1 through 8.

Pond 1 Inlet (EP-1-In), Pond 2 Inlet (EP-2 in) Boiler Water Inlet to EP-2 (BW-EP2), AL-2 to Pond 1, NAPIS Effluent, Pilot Effluent

These outfalls were sampled on a quarterly, semi-annually and annual basis. EP-1 In is sampled semi-annually for General chemistry/VOC/SVOC including Phenol/DRO extended/GRO/WQCC Metals; EP-2 In is sampled annually for VOC/MTBE/DRO extended/GRO/BOD/COD/TDS. BW-EP2 is sampled semi-annually for general chemistry.

Benzene levels were detected in the NAPIS Effluent ranging from 2.6 ppm to 5.9 ppm above the NMWQS of 0.01 ppm. EP-1 benzene was detected in the third quarter at 0.0021 ppm above the RRSL of 0.00041 ppm and below the NMWQS and EPA MCLS levels of 0.01 ppm and 0.005 ppm. EP-2 Inlet also detected benzene at 0.0039 ppm above the RRSL of 0.00041 ppm and below the NMWQS and EPA MCLS levels of 0.01 ppm and 0.005 ppm. What is of concern is that effluents entering EP1 had levels of DRO and GRO of approximately 37-880 ppm. This is of concern as the Gallup Refinery has a requirement to ensure no oil to EP-1 which would translate into levels less than 15 ppm – the levels at which a sheen of oil can be discerned. The Gallup Refinery is upgrading its wastewater treatment system to ensure that no oil gets to EP-1.

Inlets to AL-1 and AL-2

These outfalls were sampled on a monthly for COD, BOD and SVOCs (Phenols). In most cases, phenols were reduced in concentration from AL-1 to AL-2 and then to EP-1.

6.3 Deviations from OCD Groundwater Discharge Permit GW-032

There were no deviations from the OCD Ground Water Discharge permit GW-032. As PW-3 a deep aquifer well had shown a suspect level of 2-methylnaphthalene in sampling conducted in 2007, in 2008 we collected an additional sample of this well, along with a blind duplicate in which both samples were clean. However it was directed by the NMED

HWB that because of the detection of 2-methylnaphthalene this well will be sampled annually beginning in 2009.

All other outfalls required to be sampled under the OCD Ground Water Discharge permit GW-032, were monitored as required and the data have been presented in Section 2.0 and Appendix J.

7.0 Conclusions

This section is an overview of conclusions for the monitoring program required by the permit.

Ground Water Monitoring

There are a total of thirty-nine monitoring wells distributed within the boundaries of the refinery of which, sixteen monitoring wells are located along the perimeter of the aeration lagoons and evaporation ponds. There are two major sections of the refinery which we have defined as the East and the West side for periodic monitoring.

East Side Ground Water

Ground water monitoring activities on the East side have shown that Methyl-Tert Butyl Ether (MTBE) is present in the four well locations (OW-13, OW-14, OW-29, and OW-30) on the northeast corner of the active refinery perimeter. In three wells OW-14, OW-29 and OW-30, the MTBE is in the range of 0.021 ppm to 1.3 ppm and at levels above the RRSL of 0.012 ppm. In OW-13 trace levels of MTBE was detected in the third quarter of 2009 (0.0023 ppm) which is below the RRSL (0.012ppm). Benzene detected in OW-14 (0.074 ppm) in the third quarter 2009 is above the NMWQS for drinking water (0.01 ppm). Down gradient wells (OW-13, OW-29, and OW-30) show non-detectable levels for benzene, (below levels of detection of analytical methods). Two new wells (OW-50 and OW-52) were installed in October 2009 did not reveal the presence of MTBE and Benzene.

Within the perimeter of the active refinery in this north-east section, there are several shallow recovery wells from which separate-phase hydrocarbons have been recovered and still continue to be recovered, of the order of 1.78 gallons total in 2009.

West Side Monitoring

The West side consists of ground water monitoring wells near the aeration lagoons and alongside a series of large evaporation ponds. Immediately down gradient of the refinery's oil/water separator, a sample from a shallow ground water monitoring well (NAPIS-2) had MTBE at a level ranging from 0.089 ppm to 1.3 ppm greater than the RRSL of 0.012 ppm. Benzene levels ranged from 1st quarter 0.019 ppm to fourth quarter results of 0.032 ppm, greater than the NMWQS of 0.01 ppm.

MTBE has also been detected in NAPIS-3 with levels ranging between 0.077 ppm to 0.17 ppm for 2009. Elevated levels of arsenic and manganese have also been detected in GWM-1 above the NMWQS. Monitoring of well GWM-1 in 2009 has shown benzene concentrations (0.0089 ppm) above the US EPA's MCLs of 0.005 ppm and MTBE level of 0.085 ppm in 2009 greater than the RRSL standard of 0.012 ppm.

Also located on the West side are a series of boundary (BW), observation (OW), monitoring (MW), process (PW) and shallow monitoring (SMW) wells. Among the MW and SMW monitoring, levels above the NMWQS of fluoride has been detected in some of the boundary wells. Among the MW and SMW monitoring wells in the west side, a few have shown traces of hydrocarbons. SMW-2 has shown a level of 1, 4-Dioxane at 0.0136 ppm which is greater than the RRSL of 0.0061 ppm in 2008 and non-detect for 2009.

Additional Monitoring

As part of our Ground Water Permit GW-032, additional reporting is required on an annual basis and is provided in this report. This reporting includes:

- Monitoring of the aeration lagoons, ponds and outfalls between the lagoons and ponds on a quarterly, semi-annual and annual basis.
- Summary of Waste Water Treated and Water Balance
- Summary of Underground Waste Water Lines Tested
- Summary of all EPA/NMED/RCRA Activity
- Major Refinery Activities and Events
- Summary of all Leaks, Spills and Releases
- Perimeter Inspections
- Temporary Land Farm Monitoring
- Monthly Flow Rate to NAPIS

There were no deviations from the monitoring requirements of the OCD permit GW-032.

7.1 Recommendations

- Continue the monitoring program as specified in the current OCD Groundwater discharge permit GW-032, and various requirements specified in directives from the NMED HWB
- Include the requirements of the Facility Wide Ground Water Monitoring Work Plan approved by NMED on August 2010 to the program as soon as practical.
- Submit the 2010 Annual Ground Water Monitoring Report by September 1, 2011.

8.0 Data Tables

GROUND WATER DATA TABLES – OW-13, 14, 29 and 30

Summary of BTEX detected in Observation Wells (2005 – 2009)

Sample ID	Collection Date	Method	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
Standards	NMWQS		0.01	0.75	0.75	0.62	NS
	EPA MCLS		0.005	1	0.7	10	NS
	RRSL		0.00041	2.3	0.0015	0.2	0.012
OW-13	11/2/2009	EPA 8021B	--	--	--	--	--
	7/28/2009*	EPA 8021B	--	--	--	--	0.0023
	5/14/2009	EPA 8260B	--	--	--	--	--
	2/24/2009	EPA 8021B	--	--	--	--	--
	11/13/2008	EPA 8260B	--	--	--	--	0.0016
	8/19/2008	EPA 8260B	--	--	--	--	--
	12/27/2007	EPA 8260B	--	--	--	--	0.0013
	10/27/2006	EPA 8260B	--	--	--	--	--
OW-14	11/2/2009	EPA 8021B	**0.034**	0.003	**0.0064**	--	**1.2**
	7/30/2009*	EPA 8021B	**0.074**	0.0033	--	--	**1.3**
	5/12/2009	EPA 8260B	**0.11**	0.0029	**0.0049**	--	**0.97**
	2/23/2009	EPA 8260B	**0.013**	0.0014	**0.0055**	--	**1**
	11/12/2008	EPA 8260B	**0.0082**	--	--	--	**0.91**
	8/21/2008	EPA 8260B	**0.0035**	--	--	--	**1.3**
	1/1/2008	EPA 8260B	**0.014**	--	--	--	**0.92**
	12/28/2006	EPA 8260B	**0.0042**	--	**0.0025**	--	**0.18**
	10/27/2006	EPA 8260B	**0.0034**	--	--	--	**0.016**
	9/27/2005	EPA 8260B	**0.017**	0.0022	**0.0023**	0.0014	**0.077**
OW-29	11/3/2009	EPA 8021B	--	--	--	--	**0.082**
	7/29/2009*	EPA 8021B	--	--	--	--	**0.049**
	5/14/2009	EPA 8260B	--	--	--	--	**0.041**
	2/25/2009	EPA 8260B	--	--	--	--	**0.021**
	11/14/2008	EPA 8260B	--	--	--	--	**0.015**
	8/19/2008	EPA 8260B	--	--	--	--	0.0092
	12/28/2007	EPA 8260B	--	--	--	--	0.0043
	10/24/2006	EPA 8260B	--	--	--	--	--
	9/27/2005	EPA 8260B	--	--	--	--	--
OW-30	11/2/2009	EPA 8021B	--	--	--	--	**1.1**
	7/30/2009*	EPA 8021B	--	--	--	--	**1.1**
	5/13/2009	EPA 8260B	--	--	--	--	**1.1**
	2/23/2009	EPA 8260B	--	--	--	--	**1**
	11/12/2008	EPA 8260B	--	--	--	--	**0.88**
	8/20/2008	EPA 8260B	--	--	--	--	**1.1**
	12/28/2007	EPA 8260B	--	--	--	--	**0.29**
	10/27/2006	EPA 8260B	--	--	--	--	--
	9/27/2005	EPA 8260B	--	--	--	--	**0.018**

Notes: NS = No Standards;
-- = No Detect;
Bold Values represent Values above the applicable standard.
**Samples combined with Annual Sampling Event*

Summary of VOCs detected in Observation Wells (2007 – 2009)

Sample ID	Collection Date	Method	1,2,4 TRIMETHYLBENZENE (mg/L)	1-METHYLNAPHTHALENE (mg/L)	1,2-DICHLOROETHANE(EDC) (mg/L)	ISOPROPYLBENZENE (mg/L)	n-BUTYLBENZENE (mg/L)	Sec-BUTYLBENZENE (mg/L)
Standards	NMWQS		NS	0.03	0.01	NS	NS	NS
	EPA MCLS		0.07	NS	NS	NS	NS	NS
	RRSL		0.015	0.0023	NS	NS	NS	NS
OW-13		EPA 8260B						
	11/13/2008	EPA 8260B	--	--	--	--	--	--
OW-14	11/12/2009	EPA 8260B	0.0027					
	7/30/2009	EPA 8260B		**0.021**	0.0017	0.0033	0.0011	0.0026
	5/12/2009	EPA 8260B	0.0016	--	--	--	--	--
	2/23/2009	EPA 8260B	0.0016	--	--	--	--	--
	8/21/2008	EPA 8260B	--	**0.012**	--	0.0016	--	0.002
	11/13/2008	EPA 8260B	--	**0.016**	0.0018	0.0015	--	0.0025
	11/14/2008	EPA 8260B	--	--	--	--	--	--
	1/1/2008*	EPA 8260B		**0.027**			0.052	0.0057
OW-29		EPA 8260B						
	11/14/2008	EPA 8260B	--	--	0.001	--	--	--
OW-30		EPA 8260B						
	7/30/2009	EPA 8260B	--	--	0.0013	--	--	--
	11/14/2008	EPA 8260B	--	--	0.0013	--	--	--
	12/28/2007	EPA 8260B			0.0012			

Notes: NS = No Standards;
-- = No Detect;
Bold Values represent Values above the applicable standard.
**Samples combined with Annual Sampling Event*

GROUND WATER DATA TABLES – GWM-1

Summary of BTEX detected in GWM-1 (2006 – 2009)

Sample ID	Collection Date	Method	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
Standards	NMWQS		0.01	0.75	0.75	0.62	NS
	EPA MCLS		0.005	1	0.7	10	NS
	RRSL		0.00041	2.3	0.0015	0.2	0.012
GWM-1	7/27/2009	EPA 8260B	**0.0089**	0.002	**0.0074**	0.034	**0.085**
	7/10/2008	EPA 8260B	**0.011**	0.0021	**0.0039**	0.019	**0.12**
	5/24/2007	EPA 8260B	**0.016**	--	--	--	**0.23**
	10/27/2006	EPA 8260B	**0.012**	--	--	--	**0.16**

Notes: NS = No Standards
-- = No Detect
Bold values represent values above the applicable standard.
**2007 Samples were taken on January 1, 2008 due to inclement weather conditions in December 2007.*

Summary of VOC & SVOC detected in GWM-1 (2007 – 2009)

Sample ID	Collection Date	Method	1,2,4 TRIMETHYLBENZENE (mg/L)	1,3,5-TRIMETHYLBENZENE (mg/L)	NAPHTHALENE (mg/L)	1-METHYLNAPHTHALENE (mg/L)	ISOPROPYLBENZENE (mg/L)	n-PROPYLBENZENE (mg/L)	2,4-DIMETHYLPHENOL (mg/L)
Standards	NMWQS		NS	NS	NS	0.03	NS	NS	NS
	EPA MCLS		0.07	NS	NS	NS	NS	NS	NS
	RRSL		0.015	0.012	0.001	0.0023	NS	NS	0.73
GWM-1	7/27/2009	EPA 8260B/8270C	0.0064	0.0011	**0.0024**	**0.0097**	0.0026	0.0002	0.064
	7/10/2008	EPA 8260B/8270C	0.0046	--	--	--	--	--	
	5/24/2007	EPA 8260B/8270C	NON DETECT						

Notes: NS = No Standards;
-- = No Detect;
Bold Values represent Values above the applicable standard.
**Samples combined with Annual Sampling Event*

Summary of Recoverable metals detected in GWM-1 (2006-2009)

Sample ID	Collection Date	Method	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Na (mg/L)	As (mg/L)	Ba (mg/L)	Fe (mg/L)	Mn (mg/L)	Pb (mg/L)	Zn (mg/L)	U (mg/L)	Cu (mg/L)
Standards	NMWQS		NS	NS	NS	NS	0.1	1	1	0.2	0.05	10	5	1
	EPA MCLS		NS	NS	NS	NS	0.01	2	NS	10	0.015*	NS	0	1.3*
	RRSL		NS	6E-05	NS	NS	0.000045	7.3	26	0.88	NS	11	0.012	1.5
GWM-1	7/27/2009	EPA 6010B	310	**78**	3	1300	**0.114**	0.53	**14**	**3.2**	0.0072	0.025	**0.0159**	--
	7/10/2008	EPA 6010B	350	**81**	3.3	1400	**0.07**	0.45	**14**	**3.6**	0.01	--	--	0.014
	5/24/2007	EPA 6010B	360	**87**	3.7	1300	**0.081**	0.44		--	--	--	--	--
	10/26/2006	EPA 6010B	380	**93**	4.2	1400	**0.077**	0.53		--	--	--	--	--

Notes: NS = No Standards;
-- = No Detect;
Bold Values represent Values above the applicable standard.
**Samples combined with Annual Sampling Event*

Summary of General Chemistry parameters in GWM-1 (2006-2009)

Sample ID	Collection Date	Method	Fl (mg/L)	Cl (mg/L)	Nitrite + Nitrate as N	Phosphorous Orthophosphate (as P)	Sulfate	pH	Specific Conductance (mmhos/cm)
Standards	NMWQS		1.6	250	10	NS	600	6 to 9	NS
	EPA MCLS		4	250	10 Nitrate 1 Nitrite	NS	250	6 to 9	NS
	RRSL		NS	NS	58 3.7	NS	NS	NS	NS
GWM-1	7/27/2009	GENCHEM	**2.1**	**1600**	--	--	73	7.03	6200
	7/10/2008	GENCHEM	**1.7**	**1800**	--	--	110	6.92	7400
	5/24/2007	GENCHEM	**1.9**	**1800**	--	--	120	6.8	8100
	10/26/2006	GENCHEM	**2**	**3700**	--	--	120	6.87	

Notes: NS = No Standards
-- = No Detect
Bold values represent values above the applicable standard

GROUND WATER DATA TABLES – SMW-2 AND SMW-4

Summary of BTEX detected in SMW-2 and SMW-4 (2005-2009).

Sample ID	Collection Date	Method	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
Standards	NMWQS		0.01	0.75	0.75	0.62	NS
	EPA MCLS		0.005	1	0.7	10	NS
	RRSL		0.00041	2.3	0.0015	0.2	0.012
SMW-2*	7/27/2009	EPA 8260B	--	--	--	--	--
	8/14/2008	EPA 8260B	--	--	--	--	--
	1/1/2008	EPA 8260B	--	--	--	--	0.0099
	10/12/2005	EPA 8260B	--	--	--	--	--
SMW-4*	7/27/2009	EPA 8260B	--	--	--	--	--
	8/14/2008	EPA 8260B	--	--	--	--	--
	12/29/2007	EPA 8260B	--	--	--	--	--
	10/12/2005	EPA 8260B	--	--	--	--	--

**These wells were not sampled in 2006.*

Summary of SVOC and VOC detected in SMW-2 and SMW-4 (2008-2009)

Sample ID	Collection Date	Method	Acetone (mg/L)	BIS(2-ETHYLHEXYL)PHTHALATE (mg/L)	DIETHYL PHTHALATE (mg/L)
Standards	NMWQS		NS	NS	NS
	EPA MCLS		NS	NS	NS
	RRSL		22	0.0048	29
SMW-2	7/27/2009	EPA 8260B	0.00625		
	11/13/008	EPA 8260B	0.00753		
SMW-4	7/27/2009	EPA 8270C	--	0.00105	0.00148

Notes: NS = No Standards
-- = No Detect

Bold values represent values above the applicable standard

Summary of Recoverable Metals detected in SMW-2 and SMW-4 (2006-2009)

Sample ID	Collection Date	Method	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Na (mg/L)	As (mg/L)	Ba (mg/L)	Cr (mg/L)	Pb (mg/L)	Ni (mg/L)	Se (mg/L)	Zn (mg/L)	Co (mg/L)	Cy (mg/L)
Standards	NMWQS		NS	NS	NS	NS	0.1	1	0.05	0.05	NS	0.05	10		0.2
	EPA MCLS		NS	NS	NS	NS	0.01	2	0.1	0.015*	0.2	0.05	NS		0.2
	RRSL		NS	6E-05	NS	NS	0.000045	7.3	NS	NS	NS	0.18	11		NS
SMW-2	7/27/2009	EPA 6010B	220	**68**	1.1	2000	**0.00384**	0.016	--	0.0063	--	0.00474	--	--	0.0662
	8/14/2008	EPA 6010B	200	**64**	--	1900	--	<0.02	0.0092	--	0.017	--	0.11	--	--
	1/1/2008	EPA 6010B	200	**69**	1.1	2200	--	<0.02	**0.055**	--	0.026	--	--	--	--
SMW-4	7/27/2009	EPA 6010B	4.4	**1.4**	--	310	**0.00297**	0.028	0.0075	--	--	--	--	0.01	--
	8/14/2008	EPA 6010B	3	**61**	--	280	--	<0.02	0.006	--	--	--	--	--	--
	12/29/2007	EPA 6010B	4.6	**1.2**	--	340	--	0.024	--	--	--	--	--	0.017	--
	10/28/2006	EPA 6010B	5.6	--	--	--	--	0.031	--	--	--	--	--	--	--

**Action level*

Summary of General Chemistry parameters detected in SMW-2 and SMW-4 (2007-2009)

Sample ID	Collection Date	Method	Fl (mg/L)	Cl (mg/L)	Nitrite + Nitrate as N	Bromide	Sulfate	pH	Specific Conductance (mmhos/cm)
Standards	NMWQS		1.6	250	10	NS	600	6 to 9	NS
	EPA MCLS		4	250	10 Nitrate 1 Nitrite	NS	250	6 to 9	NS
	RRSL		NS	NS	58 3.7	NS	NS	NS	NS
SMW-2*	7/27/2009	GENCHEM	0.32	**2300**	--		**1700**	7.61	7700
	8/14/2008	GENCHEM	0.36	**2000**	--	3.1	**1600**	7.25	8700
SMW-4*	7/27/2009	GENCHEM	1.2	58	--		170	8.53	1300
	8/14/2008	GENCHEM	1.1	52	0.11	0.15	150	8.63	1200
	12/29/2007	GENCHEM	1.4	60	--	--	160	8.34	1300

Notes: NS = No Standards;
-- = No Detect;

Summary of DRO and GRO detected in SMW-2 and SMW-4 (2005-2009)

Sample ID	Collection Date	Method	DRO (mg/L0	GRO (mg/L)
Standards	NMWQS			
	EPA MCLS			
	RRSL			
	NM TPH Screening Guidelines*		0.2	0.2
SMW-2	7/27/2009	EPA 8015B	--	0.73
	8/14/2008	EPA 8015B	--	0.36
	1/1/2008	EPA 8015B	--	0.69
	10/12/2005	EPA 8015B	--	--
SMW-4	7/27/2009	EPA 8015B	--	--
	8/14/2008	EPA 8015B	--	--
	12/29/2007	EPA 8015B	--	--
	10/12/2005	EPA 8015B	--	--

** Set by direct ingestion of ground water contaminated with unknown oil. When the exposure from ground water is via inhalation and not direct ingestion, the TPH screening guidelines for unknown oil is 50 ppm.*

Notes: NS = No Standards;
-- = No Detect;
Bold Values represent Values above the applicable standard.
**Samples combined with Annual Sampling Event*

GROUND WATER DATA TABLES – NAPIS WELLS

BTEX plus MTBE detected in NAPIS wells. (2008-2009)

Sample ID	Collection Date	Method	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
Standards	NMWQS		0.01	0.75	0.75	0.62	NS
	EPA MCLS		0.005	1	0.7	10	NS
	RRSL		0.00041	2.3	0.0015	0.2	0.012
NAPIS 1	11/23/09	EPA 8260B	--	.0016	--	--	--
	8/11/09	EPA 8260B	--	--	--	--	--
	5/28/2009	EPA 8260B	--	--	--	--	--
	3/24/2009	EPA 8260B	--	0.0001	--	--	--
	11/10/2008	EPA 8260B	--	--	--	--	--
	9/30/2008	EPA 8260B	--	--	--	--	Not Analyzed
	7/9/2008	EPA 8260B	--	--	--	--	--
KA-1R	4/11/2008	EPA 8260B	--	--	--	--	--
NAPIS 2	11/23/2009	EPA 8260B	**0.032**	0.001	**0.0093**	--	**0.094**
	8/11/2009	EPA 8260B	**0.057**	--	**0.022**	--	**0.089**
	5/28/2009	EPA 8260B	**0.028**	--	**0.0053**	--	**0.13**
	3/24/2009	EPA 8260B	**0.019**	0.0011	**0.0081**	--	**0.09**
	11/10/2008	EPA 8260B	**0.025**		**0.011**		**0.18**
	9/30/2008	EPA 8260B	**0.016**		**0.0016**	0.0041	Not Analyzed
	7/9/2008	EPA 8260B	**0.013**		**0.011**	0.0056	**0.2**
KA-2R	4/11/2008	EPA 8260B	**0.91**	0.019	**0.051**	0.12	**0.32**
NAPIS 3	11/23/2009	EPA 8260B	--	--	--	--	**0.077**
	8/31/2009	EPA 8260B	--	--	--	--	**0.17**
	6/15/2009	EPA 8260B	**0.0033**	0.0012	--	--	**0.13**
	3/25/2009	EPA 8260B	--	--	--	--	**0.11**
	11/10/2008	EPA 8260B	--	--	--	--	0.13
	9/30/2008	EPA 8260B	Not enough water to Sample – Dry				
	7/9/2008	EPA 8260B	--	--	--	--	--
KA 3	3/25/2009	EPA 8260B	--	--	--	--	--
	5/28/2009	EPA 8260B	--	--	--	--	--
	8/31/2009	EPA 8260B	--	--	--	--	--
	11/23/2009	EPA 8260B	--	--	--	--	--
	11/10/2008	EPA 8260B	--	--	--	--	--

Napis 1 and 2 – Third Quarter MTBE not analyzed.

Notes: NS = No Standards;
-- = No Detect;
Bold Values represent Values above the applicable standard.
**Samples combined with Annual Sampling Event*

Summary of SVOCs in NAPIS wells (2008 – 2009)

Sample ID	Collection Date	Method	BENZ(A)ANTHRACENE (mg/L)	FLUORENE (mg/L)	1-METHYLNAPHTHALENE (mg/L)	2-METHYLNAPHTHALENE (mg/L)	NAPHTHALENE (mg/L)	PHENANTHRENE (mg/L)
Standards	NMWQS		NS	NS	NS	NS	NS	NS
	EPA MCLS		NS	NS	NS	NS	NS	NS
	RRSL		2.9E-05	1.5	0.0023	0.15	0.00014	NS
NAPIS 1	11/23/2009	EPA 8310	--	--	--	--	--	--
	8/11/2009	EPA 8310	--	--	--	--	--	--
	5/28/2009	EPA 8310	--	--	--	--	--	--
	3/24/2009	EPA 8310	--	--	--	--	--	--
NAPIS 2	11/23/2009	EPA 8310	--	0.009	--	--	**0.046**	0.0017
	8/11/2009	EPA 8310	--	0.0073	--	--	--	0.0037
	5/28/2009	EPA 8310	--	--	**0.0042**	0.0023	**0.03**	
	3/24/09	EPA 8310	--	--	--	--	--	--
	11/10/2008	EPA 8310		0.00099				
NAPIS 3	11/23/2009	EPA 8310	**0.00007**	0.0029	0.022	--	**0.033**	0.0025
	8/31/2009	EPA 8310	--	--	--	--	--	--
	6/15/2009	EPA 8310	--	--	--	--	**0.047**	--
	3/24/2009	EPA 8310	--	--	--	--	--	--

Notes: NS = No Standards;
-- = No Detect;
Bold Values represent Values above the applicable standard.
**Samples combined with Annual Sampling Event*

Summary of General Chemistry detected in NAPIS Wells (2008-2009)

Sample ID	Collection Date	Method	Fl (mg/L)	Cl (mg/L)	Nitrate + Nitrate as N	Sulfate	pH	Specific Conductance (mmhos/cm)
Standards	NMWQS		1.6	250	10	600	6 to 9	NS
	EPA MCLS		4	250	10 Nitrate 1 Nitrite	250	6 to 9	10
	RRSL		NS	NS	58 / 3.7	NS	NS	NS
NAPIS 1	11/23/2009	GEN CHEM	1.4	170	1.8	100	7.39	**2000**
	8/11/2009	GEN CHEM	1.2	160	0.54	93	7.67	**1800**
	5/28/2009	GEN CHEM	1.2	150	0.31	71	7.82	**1900**
	3/24/2009	GEN CHEM	0.69	120	--	38	7.69	**2000**
	11/10/2008	GEN CHEM	0.73	160	1.6	63	7.30	**1900**
	9/30/08	GEN CHEM	General Chemistry Parameters not requested					
	7/9/2008	GEN CHEM	1.4	180	--	98	7.27	**1900**
	4/11/2008	GEN CHEM	0.79	170	0.55		7.26	**2000**
NAPIS 2	11/23/2009	GEN CHEM	1.6	220	--	13	7.16	**1500**
	8/11/2009	GEN CHEM	**1.7**	250	--	17	7.56	**1500**
	5/28/2009	GEN CHEM	**1.7**	210	0.16	22	7.51	**1400**
	3/24/2009	GEN CHEM	1.5	240	--	23	7.47	**1800**
	11/10/2008	GEN CHEM	1.4	200		32	7.21	**1600**
	9/30/2008	GEN CHEM	General Chemistry Parameters not requested					
	7/9/2008	GEN CHEM	1.1	**270**	--	33	7.18	**2000**
	4/11/2008	GEN CHEM	0.92	**360**	--	42	7	**2100**
NAPIS 3	11/23/2009	GEN CHEM	1.3	**610**	3.2	120	7.31	**2900**
	8/31/2009	GEN CHEM	**2.4**	230	--	50	7.58	**1500**
	6/15/2009	GEN CHEM	1.6	**260**	0.22	66	7.71	**1700**
	3/25/2009	GEN CHEM	1.5	**340**	0.9	76	7.64	**2400**
	11/10/2008	GEN CHEM	0.46	**590**	11 – 2.0	140	7.34	**2700**
	9/30/2008	GEN CHEM	Not enough water to sample - DRY					
	7/9/2008	GEN CHEM	0.46	**1100**	9.1	**270**	8.29	**4200**
KA 3	11/23/2009	GEN CHEM	0.49	**1100**	**15**	**370**	7.91	**4400**
	8/31/2009	GEN CHEM	0.47	**1000**	**14**	--	8.07	**4000**
	5/28/2009	GEN CHEM	0.46	**1200**	**18**	**330**	8.23	**4200**
	3/25/2009	GEN CHEM	0.43	**1200**	**14**	**340**	8.11	**5200**
	11/10/2008	GEN CHEM	1.1	**1100**		**310**	8.05	**4300**

Napis 1 & 2: Began sampling in second quarter of 2008. NAPIS 3 began sampling in third quarter 2008. KA-3 began sampling in fourth quarter of 2008.

Notes: NS = No Standards;
-- = No Detect;
Bold Values represent Values above the applicable standard.

Summary of Recoverable Metals in NAPIS Wells (2008-2009)

Sample ID	Collection Date	Method	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Na (mg/L)	Ba (mg/L)	Cr (mg/L)	Pb (mg/L)
Standards	NMWQS		NS	NS	NS	NS	1	0.05	0.05
	EPA MCLS		NS	NS	NS	NS	2	0.1	0.015*
	RRSL		NS	6E-05	NS	NS	7.3	NS	NS
NAPIS 1	11/23/2009	EPA 6010B	58	**13**	3.7	390	0.2	0.0077	--
	8/11/2009	EPA 6010B	56	**11**	1.7	380	0.11	--	--
	5/28/2009	EPA 6010B	57	**11**	--	390	0.091	--	--
	3/24/2009	EPA 6010B	67	**12**	--	340	0.1	--	--
	11/10/2008	EPA 6010B	78	**14**	1.2	390	0.13		
	9/30/2008	EPA 6010B	6010B parameters not analyzed						
	7/9/2008	EPA 6010B	70	**12**	2.1	430			
KA-1R	4/11/2008	EPA 6010B	72	**13**	1.5	370			
NAPIS 2	11/23/2009	EPA 6010B	56	**11**	--	350	**1.1**	--	--
	8/11/2009	EPA 6010B	57	**11**	--	300	0.94	--	--
	5/28/2009	EPA 6010B	51	**9.9**	--	290	0.65	--	--
	3/24/2009	EPA 6010B	53	**10**	--	280	0.76	--	
	11/10/2008	EPA 6010B		**50**	0.0065	9.7	0.42		
	7/9/2008	EPA 6010B	70	**13**	--	360			
KA-2R	4/11/2008	EPA 6010B	110	**19**	1.3	380			
NAPIS 3	3/25/2009	EPA 6010B	67	**10**	--	360	0.22	--	0.0055
	11/23/2009	EPA 6010B	100	**19**	2	480	0.55	--	--
	8/31/2009	EPA 6010B	53	**8.9**	0.73	330	0.22	--	--
	6/15/2009	EPA 6010B	71	**11**	--	330	0.29	--	--
	11/10/2008	EPA 6010B	41	**6.6**	4.4	960			
	9/30/2008	EPA 6010B	Not Enough Water to Sample - Dry						
	7/9/2008	EPA 6010B	65	**7.8**	4.1	910			
KA 3	3/25/2009	EPA 6010B	47	**6.5**	3.9	880	0.13	--	--
	5/28/2009	EPA 6010B	49	**6.8**	4.2	840	0.14	--	--
	8/31/2009	EPA 6010B	39	**6.4**	4	870	0.092	--	--
	11/23/2009	EPA 6010B	46	**8.8**	5.4	930	0.15	0.0072	--

Notes: NS = No Standards;
-- = No Detect;
Bold Values represent Values above the applicable standard.

Summary of DRO/GRO detected in NAPIS Wells (2008-2009)

Sample ID	Collection Date	Method	DRO (mg/L)	GRO (mg/L)
Standards	NMWQS			
	EPA MCLS			
	RRSL			
	NM TPH Screening Guidelines *		0.2	0.2
NAPIS 1	11/23/2009	EPA 8015B	--	--
	8/11/2009	EPA 8015B	--	--
	5/28/2009	EPA 8015B	--	--
	3/24/2009	EPA 8015B	--	--
	11/10/2008	EPA 8015B	--	--
	9/30/2008	EPA 8015B	--	--
	7/9/2008	EPA 8015B	--	--
KA-1R	4/11/2008	EPA 8015B	--	--
NAPIS 2	11/23/2009	EPA 8015B	**2.7**	**0.78**
	8/11/2009	EPA 8015B	**2.9**	**0.62**
	5/28/2009	EPA 8015B	**3.4**	**0.53**
	3/24/2009	EPA 8015B	**4.3**	**0.37**
	11/10/2008	EPA 8015B	**4**	**0.59**
	9/30/2008	EPA 8015B	**3.9**	**0.45**
	7/9/2008	EPA 8015B	**2.4**	**0.74**
KA-2R	4/11/2008	EPA 8015B	**1.5**	**2.2**
NAPIS 3	11/23/2009	EPA 8015B	--	0.19
	8/31/2009	EPA 8015B	**1.4**	**0.52**
	6/15/2009	EPA 8015B	--	**0.32**
	3/25/2009	EPA 8015B	--	0.18
	11/10/2008	EPA 8015B	--	0.15
	9/30/2008	EPA 8015B	Not enough water - Dry	
	7/9/2008	EPA 8015B	--	--
KA 3	11/23/2009	EPA 8015B	--	--
	8/31/2009	EPA 8015B	--	--
	5/28/2009	EPA 8015B	--	--
	3/25/2009	EPA 8015B	--	--
	11/10/2008	EPA 8015B	--	--

**Limit set by direct ingestion of ground water contaminated with unknown oil. When the exposure from ground water is via inhalation, and not direct ingestion, the TPH guideline for unknown oil is 50 ppm.*

Notes: NS = No Standards;
-- = No Detect;
Bold Values represent Values above the applicable standard.

GROUND WATER DATA TABLES – OW-11 & OW-12

Summary of BTEX detected in Observation Wells (2006-2009)

Sample ID	Collection Date	Method	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
Standards	NMWQS		0.01	0.75	0.75	0.62	NS
	EPA MCLS		0.005	1	0.7	10	NS
	RRSL		0.00041	2.3	0.0015	0.2	0.012
OW-11	7/27/2009	EPA 8260B	--	--	--	--	--
	8/17/2008	EPA 8260B	--	--	--	--	--
	12/24/2007	EPA 8260B	--	--	--	--	--
	10/24/2006	EPA 8260B	--	--	--	--	--
OW-12	7/29/2009	EPA 8260B	--	--	--	--	--
	8/19/2008	EPA 8260B	--	--	--	--	--
	12/27/2007	EPA 8260B	--	--	--	--	--
	10/27/2006	EPA 8260B	--	--	--	--	--

Summary of Recoverable Metals detected in Observation Well (2006-2009)

Sample ID	Collection Date	Method	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Na (mg/L)	As (mg/L)	Mn (mg/L)	Se (mg/L)	U (mg/L)
Standards	NMWQS		NS	NS	NS	NS	0.1	0.2	0.05	5
	EPA MCLS		NS	NS	NS	NS	0.01	NS	0.05	0
	RRSL		NS	6E-05	NS	NS	0.000045	0.88	0.18	0.11
OW-11	7/27/2009	EPA 6010B	11	**1.2**	1.8	640	**0.00202**	0.016	0.00506	**0.216**
	8/14/2008	EPA 6010B	11	**1.3**	1.8	640		0.015		**0.249**
	12/27/2007	EPA 6010B	11	**1.3**	1.6	690		0.016		**0.22**
	10/28/2006	EPA 6010B	12	**1.4**						

Summary of General Chemistry detected in Observation well (2006-2009)

Sample ID	Collection Date	Method	Fl (mg/L)	Cl (mg/L)	Nitrite + Nitrate as N	Bromide	Sulfate	pH	Specific Conductance (mmhos/cm)
Standards	NMWQS		1.6	250	10	NS	600	6 to 9	NS
	EPA MCLS		4	250	10 Nitrate 1 Nitrite	NS	250	6 to 9	NS
	RRSL		NS	NS	58 3.7	NS	NS	NS	NS
OW-11	7/27/2009	GENCHEM	**2**	97	1.2		**950**	8.41	2500
	8/14/2008	GENCHEM	**2.2**	90	0.75	0.29	**940**	8.39	2600
	12/27/2007	GENCHEM							
	10/24/2006	GENCHEM	**2.5**	86			**1100**	8.4	3100

Notes: NS = No Standards;
-- = No Detect;
Bold Values represent Values above the applicable standard.

GROUND WATER DATA TABLES – BOUNDARY WELLS

Summary of BTEX detected in Boundary Wells (2006-2009)

Sample ID	Collection Date	Method	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
Standards	NMWQS		0.01	0.75	0.75	0.62	NS
	EPA MCLS		0.005	1	0.7	10	NS
	RRSL		0.00041	2.3	0.0015	0.2	0.012
BW-1C	7/6/2009	EPA 8260B	--	--	--	--	--
	7/31/2008	EPA 8260B	--	--	--	--	--
	12/31/2007	EPA 8260B	--	--	--	--	--
	10/27/2006	EPA 8260B	--	--	--	--	--
BW-2A	7/6/2009	EPA 8260B	--	--	--	--	--
	7/30/2009	EPA 8260B	--	--	--	--	--
	12/31/2007	EPA 8260B	--	--	--	--	--
	10/27/2006	EPA 8260B	--	--	--	--	--
BW-2B	7/6/2009	EPA 8260B	--	--	--	--	--
	7/30/2008	EPA 8260B	--	--	--	--	--
	12/31/2007	EPA 8260B	--	--	--	--	--
	10/27/2006	EPA 8260B	--	--	--	--	--
BW-2C	7/6/2009	EPA 8260B	--	--	--	--	--
	7/30/2008	EPA 8260B	--	--	--	--	--
	12/31/2007	EPA 8260B	--	--	--	--	--
	10/27/2006	EPA 8260B	--	--	--	--	--
BW-3B	7/6/2009	EPA 8260B	--	--	--	--	--
	7/31/2008	EPA 8260B	--	--	--	--	--
	12/31/2007	EPA 8260B	--	--	--	--	--
	10/27/2006	EPA 8260B	--	--	--	--	--
BW-3C	7/6/2009	EPA 8260B	--	--	--	--	--
	8/1/2008	EPA 8260B	--	--	--	--	--
	12/31/2007	EPA 8260B	--	--	--	--	--
	10/27/2006	EPA 8260B	--	--	--	--	--

Summary of SVOCs detected in BW-3B (2009)

Sample ID	Collection Date	Method	BIS(2-ETHYLHEXYL)PHTHALATE (mg/L)
Standards	NMWQS		NS
	EPA MCLS		NS
	RRSL		0.0048
BW-3B	7/6/2009	EPA 8270C	**0.01**

Notes: NS = No Standards;
-- = No Detect;
Bold Values represent Values above the applicable standard.

Summary of Recoverable Metals detected in Boundary Wells (2006-2009)

Sample ID	Collection Date	Method	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Na (mg/L)	Ba (mg/L)	Fe (mg/L)	Mn (mg/L)	U (mg/L)
Standards	NMWQS		NS	NS	NS	NS	1	1	0.2	5
	EPA MCLS		NS	NS	NS	NS	2	NS	NS	0
	RRSL		NS	6E-05	NS	NS	7.3	26	0.88	0.11
BW-1C	8/3/2009	MAJOR IONS	3	--	--	330				
	7/6/2009	EPA 6010B	3	--	--	330	--	--	0.0027	0.002
	7/31/2008	EPA 6010B	3	**0.62**	--	310	0.016	--	0.013	0.0012
	12/31/2007	EPA 6010B	3.6	**0.74**	--	360	0.023	--	0.01	--
	10/28/2006	EPA 6010B	3.4	--	--		--	--	--	--
BW-2A	8/3/2009	MAJOR IONS	9.4	**3.5**	--	340				
	7/6/2009	EPA 6010B		**3.4**	--		0.15	0.5	0.15	--
	7/30/2008	EPA 6010B	8.6	**3.2**	--	320	0.14	0.37	0.14	--
	12/31/2007	EPA 6010B	11	**3.9**	--	380	0.18	0.7	**0.22**	--
	10/28/2006	EPA 6010B	10	--	--		0.15	--	--	--
BW-2B	8/3/2009	MAJOR IONS	13	**3.1**	1:3	590				
	7/6/2009	EPA 6010B			1.8		0.099	**1.8**	**0.47**	**0.013**
	7/30/2008	EPA 6010B	13	**3**	--	570	0.041	0.064	0.16	0.0115
	12/31/2007	EPA 6010B	16	**3.6**		640	0.07	0.62	**0.29**	--
	10/28/2006	EPA 6010B	23				0.071	--	--	--
BW-2C	8/3/2009	MAJOR IONS	3.2	--	--	320				
	7/6/2009	EPA 6010B		**1.5**	1.1		0.078	0.85	0.2	0.005
	7/30/2008	EPA 6010B	24	**2**		300	0.13	**1.3**	**0.43**	0.0073
	12/31/2007	EPA 6010B	2.9	**0.68**	--	340	0.026	0.16	0.024	--
	10/28/2006	EPA 6010B	5.6	--			0.031	--	--	--
BW-3B	8/3/2009	MAJOR IONS	8.7	**2.8**	--	390				
	7/6/2009	EPA 6010B		**2.6**	--		0.098	0.62	0.11	--
	7/31/2008	EPA 6010B	8.3	**2.6**	--	370	0.11	0.43	0.12	--
	12/31/2007	EPA 6010B	9	**2.9**	--	430	0.099	0.64	0.13	--
	10/28/2006	EPA 6010B	9	--	--	--	0.11	--	--	--
BW-3C	8/3/2009	MAJOR IONS	4.1	--	1.1	370				
	7/6/2009	EPA 6010B		--	--	--	0.054	0.19	0.02	0.001
	8/1/2008	EPA 6010B	28	**2.2**	1.6	350	0.27	**3**	**0.41**	0.0025
	12/31/2007	EPA 6010B	4.2	**0.81**	1.1	360	0.068	0.14	0.015	--
	10/28/2006	EPA 6010B	6	--	--	--	0.029	--	--	--

Notes: NS = No Standards;
-- = No Detect;
Bold Values represent Values above the applicable standard.

Summary of General Chemistry detected in Boundary Wells (2006-2009)

Sample ID	Collection Date	Method	Fl (mg/L)	Cl (mg/L)	Nitrite + Nitrate as N	Bromide	Phosphorous Orthophosphate (as P)	Sulfate	pH	Specific Conductance (mmhos/cm)
Standards	NMWQS		1.6	250	10	NS	NS	600	6 to 9	NS
	EPA MCLS		4	250	10 Nitrate 1 Nitrite	NS	NS	250	6 to 9	NS
	RRSL		NS	NS	58 3.7	NS	NS	NS	NS	NS
BW-1C	8/3/2009	GENCHEM	**2.5**	42	--	0.12	--	280	8.65	1300
	7/31/2008	GENCHEM	**2.4**	35	--	--	--	**260**	8.68	1400
	12/31/2007	GENCHEM	**2.6**	35	--	--	--	**270**	8.5	1400
	10/27/2006	GENCHEM	**2.7**	36	--	--	--	--	8.39	1400
BW-2A	8/3/2009	GENCHEM	1.2	45	--	0.42	1	7.2	8.13	1300
	7/30/2008	GENCHEM	1.1	40	--	0.43	0.75	7.3	7.87	1400
	12/31/2007	GENCHEM	1.3	42	--	--	0.7	7.77	7.76	1400
	10/27/2006	GENCHEM	1.3	39	--	--	0.64	7.5	8.27	1400
BW-2B	8/3/2009	GENCHEM	**1.7**	36	--	0.86	--	160	8.07	2200
	7/30/2008	GENCHEM	1.6	30	--	1.1	--	150	7.76	2200
	12/31/2007	GENCHEM	**1.8**	30	--	--	--	150	7.77	2400
	10/27/2006	GENCHEM	**1.9**	31	--	--	--	140	8.1	1400
BW-2C	8/3/2009	GENCHEM	**1.9**	52	<0.10 0.13	0.14	--	**280**	8.88	1300
	7/30/2008	GENCHEM	**1.9**	44	--	0.14	--	**270**	8.83	1400
	12/31/2007	GENCHEM	**2.3**	45	--	--	--	**290**	8.73	1400
	10/27/2006	GENCHEM	**2.4**	42	--	--	--	**270**	8.52	1300
BW-3B	8/3/2009	GENCHEM	1.5	41	<0.10 0.27	0.45	1.4	69	8.23	1500
	7/31/2008	GENCHEM	1.4	34	--	0.42	1.11	55	7.95	1500
	12/31/2007	GENCHEM	1.6	35	--	--	1.11	51	7.93	1600
	10/27/2006	GENCHEM	**1.7**	33	--	--	1.11	**250**	8.5	1600
BW-3C	8/3/2009	GENCHEM	1.4	43	<0.10 0.21	0.14	--	**320**	8.65	1500
	8/1/2008	GENCHEM	1.5	34	--	--	--	240	8.63	1500
	12/31/2007	GENCHEM	**1.8**	38	--	--	--	**300**	8.59	1500
	10/27/2006	GENCHEM	**1.9**	37	--	--	--	**280**	8.39	1400

Notes: NS = No Standards;
-- = No Detect;
Bold Values represent Values above the applicable standard.

GROUND WATER DATA TABLES – PROCESS WELLS

Summary of BTEX detected in Process Wells (2004-2009)

Sample ID	Collection Date	Method	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
Standards	NMWQS		0.01	0.75	0.75	0.62	NS
	EPA MCLS		0.005	1	0.7	10	NS
	RRSL		0.00041	2.3	0.0015	0.2	0.012
PW-2*	12/9/2004	EPA 8260B	--	--	--	--	--
	9/12/2008	EPA 8260B	--	--	--	--	--
PW-3	10/27/2006	EPA 8260B	--	--	--	--	--
	8/21/2008	EPA 8260B	--	--	--	--	--
PW-4*	8/4/2004	EPA 8260B	--	--	--	--	--
	9/12/2008	EPA 8260B	--	--	--	--	--

**PW-2 and PW-4 were not sampled in 2006.*

Summary of Recoverable Metals detected in Process Wells (2008)

Sample ID	Collection Date	Method	Ba (mg/L)	Fe (mg/L)	U (mg/L)
Standards	NMWQS		1	1	5
	EPA MCLS		2	NS	0
	RRSL		7.3	26	0.11
PW-2	9/12/2008	EPA 6010B	--	0.07	0.0016
PW-3	9/12/2008	EPA 6010B	--	--	0.0006
PW-4	9/12/2008	EPA 6010B	0.013	0.11	0.0014

Summary of Recoverable Metals detected in Process Wells (2008)

Sample ID	Collection Date	Method	Ba (mg/L)	Fe (mg/L)	Mn (mg/L)	Zn (mg/L)	U (mg/L)	Cy (mg/L)	Nitrate as N
Standards	NMWQS		1	1	0.2	10	5	0.2	10
	EPA MCLS		2	NS	10	NS	0	0.2	10 Nitrate 1 Nitrite
	RRSL		7.3	26	0.88	11	0.012	NS	58/3.7
PW-2	9-12/08	EPA 6010B	0.013	0.07	--	--	.00161	--	--
PW-3	8/21/08	EPA 6010B	--	--	--	--	.00063	--	.13
PW-4	9/12/08	EPA 6010B	.013	0.11	--	--	.0014	--	--

Summary of VOCs detected in Process Wells (2007)

Sample ID	Collection Date	Method	2-METHYLNAPHTHALENE (mg/L)
Standards	NMWQS		NS
	EPA MCLS		NS
	RRSL		0.015
PW-3	8/21/08	EPA 8260B	--
	1/1/08*	EPA 8260B	0.032

**Due to inclement weather in December 2007, sampling was not completed until 1/1/2008.*

Notes: NS = No Standards;
-- = No Detect;
Bold Values represent Values above the applicable standard.

GROUND WATER DATA TABLES MONITORING WELLS (2006 to 2009)

Summary of BTEX detected in Monitoring Wells (2006-2009)

Sample ID	Collection Date	Method	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
Standards	NMWQS		0.01	0.75	0.75	0.62	NS
	EPA MCLS		0.005	1	0.7	10	NS
	RRSL		0.00041	2.3	0.0015	0.2	0.012
MW-1	7/16/2009	EPA 8260B	--	--	--	--	--
	8/4/2008	EPA 8260B	--	--	--	--	--
	12/29/2007	EPA 8260B	--	--	--	--	--
	10/26/2006	EPA 8260B	--	--	--	--	--
MW-2	7/16/2009	EPA 8260B	--	--	--	--	--
MW-4*	7/8/2009	EPA 8260B	--	--	--	--	--
	8/5/2008	EPA 8260B	--	--	--	--	--
	12/29/2007	EPA 8260B	--	--	--	--	--
	10/12/2005	EPA 8260B	--	--	--	--	--
MW-5*	7/15/2009	EPA 8260B	--	--	--	--	--
	8/13/2008	EPA 8260B	--	--	--	--	--
	12/29/2007	EPA 8260B	--	--	--	--	--
	10/12/2005	EPA 8260B	--	--	--	--	--

Summary of Recoverable Metals in Monitoring Wells (2006-2009)

Sample ID	Collection Date	Method	Ca (mg/L)	Na (mg/L)	As (mg/L)	Ba (mg/L)	Mn (mg/L)
Standards	NMWQS		NS	NS	0.1	1	0.2
	EPA MCLS		NS	NS	0.01	2	10
	RRSL		NS	NS	0.000045	7.3	0.88
MW-1	7/16/2009	EPA 6010B	2.1	250	**0.00124**	0.015	--
	8/4/2008	EPA 6010B	1.7	260	--	<0.02	--
	12/29/2007	EPA 6010B	3.2	230	**0.02**	<0.02	0.018
	10/26/2006	EPA 6010B	--	--	--	<0.02	--
MW-2	7/16/2009	EPA 6010B	1.6	250	**0.00104**	0.019	--
MW-4	7/8/2009	EPA 6010B	1.7	280	--	0.022	--
	8/5/2008	EPA 6010B	1.8	280	--	<0.02	--
	12/29/2007	EPA 6010B	1.9	320	--	0.021	0.0052
MW-5	7/15/2009	EPA 6010B	1.5	260	--	0.017	--
	8/13/2008	EPA 6010B	1.4	260	--	<0.02	--
	12/29/2007	EPA 6010B	1.4	290	--	<0.02	0.0045

Notes: NS = No Standards;
-- = No Detect;
Bold Values represent Values above the applicable standard.

Summary of VOCs detected in Monitoring Wells (2009)

Sample ID	Collection Date	Method	Acetone (mg/L)	CHLOROETHANE (mg/L)
Standards	NMWQS		NS	0.1
	EPA MCLS		NS	
	RRSL		22	0.00019
MW-5	7/15/2009	EPA 8260B	0.00492	

Summary of DRO/GRO detected in Monitoring Wells (2006-2009)

Sample ID	Collection Date	Method	DRO (mg/L0	GRO (mg/L)
Standards	NMWQS			
	EPA MCLS			
	RRSL			
	NM TPH Screening Guidelines*		0.2	0.2
MW-1	7/16/2009	EPA 8015B	--	--
	8/4/2008	EPA 8015B	--	--
	12/29/2007	EPA 8015B	--	--
	10/26/2006	EPA 8015B	--	--
MW-2	7/16/2009	EPA 8015B	--	--
MW-4	7/8/2009	EPA 8015B	--	--
	8/5/2008	EPA 8015B	--	--
	12/29/2007	EPA 8015B	--	--
	10/12/2005	EPA 8015B	--	--
MW-5	7/15/2009	EPA 8015B	--	--
	8/13/2008	EPA 8015B	--	--
	12/29/2007	EPA 8015B	--	--
	10/12/2005	EPA 8015B	--	--

**Limit set by direct ingestion of ground water contaminated with unknown oil. When the exposure from ground water is via inhalation, and not direct ingestion, the TPH screening guideline for unknown oil is 50 ppm.*

Notes: NS = No Standards;
-- = No Detect;
Bold Values represent Values above the applicable standard.

GROUND WATER DATA TABLES – OUTFALLS

Summary of BTEX detected in Outfalls (2009)

Sample ID	Collection Date	Method	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
Standards	NMWQS		0.01	0.75	0.75	0.62	NS
	EPA MCLS		0.005	1	0.7	10	NS
	RRSL		0.00041	2.3	0.0015	0.2	0.012
AL-2 TO EP-1	11/10/2009	EPA 8260B	--	--	--	--	--
	8/19/2009	EPA 8260B	--	0.0044	0.0014	0.011	--
	5/26/2009	EPA 8260B	--	--	--	0.0073	--
	3/31/2009	EPA 8260B	--	--	--	0.03	--
	12/2/2008	EPA 8260B	0.012	0.085	**0.028**	0.021	--
	9/9/2008	EPA 8260B	--	--	--	--	--
	6/17/2008	EPA 8260B	--	--	--	--	--
	3/11/2008	EPA 8260B	0.19	0.46	0.099	0.68	--
PILOT EFFLUENT	11/10/2009	EPA 8260B	--	--	--	--	--
	8/19/2009	EPA 8260B	--	0.0038	--	--	--
	5/27/2009	EPA 8260B	--	0.0045	--	--	--
	3/31/2009	EPA 8260B	--	0.0068	--	--	--
	12/2/2008	EPA 8260B	--	--	--	--	--
	9/9/2008	EPA 8260B	--	--	--	--	--
	6/17/2008	EPA 8260B	--	0.0062	--	--	--
	3/11/2008	EPA 8260B	--	0.0015	--	--	--
NAPIS EFFLUENT	11/10/2009	EPA 8260B	**5.9**	**16**	**1.6**	***9.4***	--
	8/19/2009	EPA 8260B	**2.6**	**7.1**	**0.71**	***4.2***	--
	5/26/2009	EPA 8260B	**4.1**	**14**	**1.6**	***10***	--
	3/31/2009	EPA 8260B	**2.6**	**7.4**	**0.54**	***3.5***	--
	12/2/2008	EPA 8260B	**1.4**	**3.3**	**0.36**	**1.9**	--
	9/9/2008	EPA 8260B	**0.36**	**0.39**	**0.028**	**0.2**	--
	6/17/2008	EPA 8260B	**0.84**	**1.5**	**0.14**	**0.89**	--
	3/10/2008	EPA 8260B	**0.47**	0.73	**0.15**	0.97	--
EP-1	3/31/2009	EPA 8260B	--	0.0058	**0.0018**	0.021	--
	5/27/2009	EPA 8260B	--	0.0019	--	0.0087	--
	8/19/2009	EPA 8260B	**0.0021**	0.0035	--	0.0082	--
	12/2/2008	EPA 8260B	**0.007**	0.081	**0.03**	0.23	--
	9/9/2008	EPA 8260B	--	--	--	0.018	--
	6/17/2008	EPA 8260B	--	0.012	--	0.024	--
	3/11/2008	EPA 8260B	**0.19**	0.44	**0.079**	0.48	**0.0058**
EP-1 INLET	5/6/2009	EPA 8260B	--	--	--	0.012	--
	10/27/2009	EPA 8260B	--	--	--	--	--
	8/21/2008	EPA 8260B	0.023	0.028	--	0.029	--
EP-2 INLET	6/17/2009	EPA 8260B	**0.0039**	0.02	**0.0042**	0.037	--
	8/21/2008	EPA 8260B	--	0.026	**0.014**	0.01	--

Summary of VOCs detected in Outfalls (2008-2009)

Sample ID	Collection Date	Method	1,2,4 TRIMETHYLBENZENE (mg/L)	1,3,5-TRIMETHYLBENZENE (mg/L)	NAPHTHALENE (mg/L)	1-METHYLNAPHTHALENE (mg/L)	2-METHYLNAPHTHALENE (mg/L)	Acetone (mg/L)	2-BUTANONE (mg/L)	CHLOROFORM (mg/L)	ISOPROPYLBENZENE (mg/L)	4-ISOPROPYLTOLUENE (mg/L)	n-BUTYLBENZENE (mg/L)	n-PROPYLBENZENE (mg/L)	Sec-BUTYLBENZENE (mg/L)	CARBON DISULFIDE (mg/L)	CHLOROETHANE (mg/L)
Standards	NMWQS		NS	NS	NS	0.03	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.1
	EPA MCLS		0.07	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	RRSL		0.015	0.012	0.001	0.0023	0.015	22	NS	1	NS	NS	NS	NS	NS	1	2E-04
AL2 TO EP1	11/10/2009	EPA 8260B	0.0052	–	**0.012**	**0.04**	**0.047**	0.75	0.089							0.24	**0.26**
	8/19/2009	EPA 8260B	0.012	0.004	**0.023**	**0.052**	**0.084**	1.2	–	–	–	–	0.0044	0.0015	–		
	5/26/2009	EPA 8260B	0.0063	0.0025	**0.0023**	**0.047**	**0.041**	1.5	0.081	–	–	–	0.0012	–	–		
	3/31/2009	EPA 8260B	**0.022**	0.0058	**0.05**	**0.17**	**0.24**	0.93	–	–	–	–	0.0079	–	–		
	12/2/2008	EPA 8260B	**0.12**	0.041	**0.078**	**0.19**	**0.28**	1.9	0.095	–	0.0066	0.0067	–	0.013	–		
	9/9/2008	EPA 8260B	–	–	–	–	–	2.2	–	–	–	–	–	–	–		
	6/17/2008	EPA 8260B	**0.039**	–	**0.051**	**0.18**	**0.26**	3.8	**0.35**	–	–	–	–	–	–		
	3/1008	EPA 8260B	0.6	**0.17**	**0.33**	**0.34**	**0.52**	2.2	0.48	–	0.012	0.015	0.055	0.045	–		
PILOT EFFLUENT	11/10/2009	EPA 8260B	–	–	–	–	–	–	–	0.0062							**0.15**
	8/19/2009	EPA 8260B	–	–	–	–	–	0.29	0.014	0.0065	–	0.0019	–	–	–		
	5/27/2009	EPA 8260B	–	–	–	–	–	0.17	–	0.0035	–	0.0024	–	–	–		
	3/31/2009	EPA 8260B	–	–	–	–	–	0.36	0.012	0.003	–	0.0079	–	–	–		
	12/2/2008	EPA 8260B	0.4	0.1	0.43	0.29	0.46	0.058	–	–	–	–	–	–	–		
	9/9/2008	EPA 8260B	0.056	–	0.087	–	–	0.3	1.92.5	–	–	–	–	–	–		
	6/17/2008	EPA 8260B	0.26	–	0.29	0.4	–	0.078	–	–	–	–	–	–	–		
	3/10/2008	EPA 8260B	0.59	0.17	0.2	0.25	0.38	0.49	–	–	–	–	–	–	–		
NAPIS EFFLUENT	11/10/2009	EPA 8260B	**1.2**	0.44	**0.83**	**0.41**	**0.68**	11							0.21		
	8/19/2009	EPA 8260B	**0.69**	0.2	**0.59**	**0.24**	**0.42**	7.2	–	–	–	–	–	0.082	–		
	5/26/2009	EPA 8260B	**3**	0.37	**0.49**	**0.3**	**0.5**	8.9	0.8	–	0.087	0.03	0.11	0.16	–		
	3/31/2009	EPA 8260B	**0.66**	0.17	**0.5**	**0.29**	**0.51**	20	2.2	–	0.057		0.1	0.085	–		
	12/2/2008	EPA 8260B	**0.4**	0.1	**0.43**	**0.29**	**0.46**	4.7	–	–	–	–	–	–	–		
	9/9/2008	EPA 8260B	**0.053**	–	**0.087**	–	–	17	1.8	–	–	–	–	–	–		
	6/17/2008	EPA 8260B	**0.26**	–	**0.29**	**0.4**	–	17	2.5	–	–	–	–	–	–		
	3/1008	EPA 8260B	**0.59**	0.17	**0.2**	**0.25**	**0.38**	17	–	–	–	–	–	–	–		
EP 1	8/19/2009	EPA 8260B	0.007	0.0022	**0.011**	**0.026**	**0.037**	1.1	–	–	–	–	–	–	–	0.011	
	5/27/2009	EPA 8260B	0.0073	0.0028	**0.0054**	**0.039**	**0.038**	0.77	0.064	–	–	–	–	–	–		
	3/31/2009	EPA 8260B	0.015	0.0034	**0.034**	**0.068**	**0.081**	0.68	0.043	–	–	–	0.0035	0.0014	–	0.01	
	12/2/2008	EPA 8260B	0.11	0.037	**0.072**	**0.14**	**0.22**	1.7	0.1	–	0.0073	0.0055	0.0019	0.0013	–		
	9/9/2008	EPA 8260B	0.04	–	**0.067**	**0.24**	**0.35**	1.7	0.21	–	–	–	–	–	–		
	6/17/2008	EPA 8260B	0.033	–	**0.053**	**0.087**	**0.13**	1.6	0.32	–	–	–	–	–	–		
	3/1008	EPA 8260B	0.3	0.09	**0.17**	**0.19**	**0.29**	1.6	0.17	–	..0079	–	–	0.027	0.005		
EP 1 INLET	10/27/2009	EPA 8260B	–	–	–	**0.029**	**0.04**	1.2	0.12	–	–	–	–	–	–		
	5/6/2009	EPA 8260B	0.014	0.0061	–	**0.095**	**0.096**	1.4	0.12	–	–	–	0.0064	–	–		
EP2 INLET	6/17/2009	EPA 8260B	–	–	**0.011**	**0.027**	**0.061**	0.5	0.046	–			0.0044	0.0018	–	0.011	

Notes: NS = No Standards;
-- = No Detect;
Bold Values represent Values above the applicable standard.

Summary of SVOCs detected in Outfalls (2009)

Sample ID	Collection Date	Method	ANILINE (mg/L)	BENZOIC ACID (mg/L)	2,4-DIMETHYLPHENOL (mg/L)	CARBAZOLE(mg/L)	CHRYSENE (mg/L)	FLUORENE (mg/L)	2-METHYLNAPHTHALENE (mg/L)	2-METHYLPHENOL (mg/L)	3+4-METHYLPHENOL (mg/L)	NAPHTHALENE (mg/L)	PHENANTHRENE (mg/L)	PHENOL (mg/L)	PYRENE (mg/L)	PYRIDINE (mg/L)
Standards	NMWQS		NS	NS	NS			NS	NS	NS	NS	NS	NS	NS	NS	NS
	EPA MCLS		NS	NS	NS			NS	NS	NS	NS	NS	NS	NS	NS	NS
	RRSL		0.012	150	0.73			1.5	0.15	NS	NS	0.00014	NS	11	1.1	0.037
NAPIS EFFLUENT	11/10/2009	EPA 8270C	--	--	0.3			0.11	**1.7**	4.4	7.4	**1.3**	0.33	**14**	--	**0.08**
	8/19/2009	EPA 8270C	**0.32**	--	0.34			0.21	**5.6**	1.3	2.2	**3.2**	1	4.4	0.16	
	5/26/2009	EPA 8270C	--	--	0.2			--	--	1.6	3.9	--	--	7.2	--	
	3/31/2009	EPA 8270C	--	1	--			--	--	--	0.57	--	--	0.056	--	
	12/2/2008	EPA 8270C			0.12					0.62	3.2			6.8		
	9/9/2008	EPA 8270C	2.1		0.49				**0.063**	7.4	13	**0.076**		**25**		
	6/17/2008	EPA 8270C	0.4		0.15				**0.5**	0.49	8.5	**0.24**	0.16	**17**		
	3/10/2008	EPA 8270C				0.071	0.12	0.093	**0.59**	0.15	0.17		0.44	**0.19**	0.15	
EP 1	10/27/2009	EPA 8270C			0.065					1.1	3.9		0.078	2.1		
	8/19/2009	EPA 8270C	**0.32**		0.093			--	0.09	0.42	0.61	--	0.13	1.2	--	
	5/27/2009	EPA 8270C	--		--			--	--	0.47	0.47	--	--	1.3	--	
	3/31/2009	EPA 8270C			0.14			--	--	1.6	2.5	--	--	4.7	--	
	12/2/2008	EPA 8270C			0.087					0.55	0.86			15		
	9/9/2008	EPA 8270C			0.2					0.45	0.6			1.3		
	6/17/2008	EPA 8270C			0.13					0.37	0.4			1.2		
	3/10/2008	EPA 8270C			0.1					0.88	1.3			0.45		
EP1 INLET	10/27/2009	EPA 8270C	**0.16**	--	0.065			--	--	1.1	3.9	--	0.078	2.1	--	
	5/6/2009	EPA 8270C	**0.071**		0.078					0.48			0.12			
AL2 - EP1	11/10/2009	EPA 8270C	**0.15**	--	0.16				0.067	1.2	2.2		0.12	1.2	--	--
	8/19/2009	EPA 8270C	**0.1**	--	0.18			0.052	**0.18**	0.84	0.95	--	0.26	2.6	0.063	

Notes: NS = No Standards;
-- = No Detect;
Bold Values represent Values above the applicable standard.

Summary of Recoverable Metals detected in Outfalls. (2008-2009)

Sample ID	Collection Date	Method	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Na (mg/L)	As (mg/L)	Ba (mg/L)	Cr (mg/L)	Cu (mg/L)	Fe (mg/L)	Pb (mg/L)	Mn (mg/L)	Hg (mg/L)	Se (mg/L)	U (mg/L)	Zn (mg/L)
Standards	NMWQS		NS	NS	NS	NS	0.1	1	0.05	1	1	0.05	0.2	0.002	0.05	5	10
	EPA MCLS		NS	NS	NS	NS	0.01	2	0.1	1.3*	NS	0.015*	NS	NS	0.05	0	NS
	RRSL		NS	6E-05	NS	NS	5E-05	7.3	NS	1.5	26	NS	0.88	NS	0.18	0.11	11
AL 2 TO EP 1	11/10/2009	EPA 6010B/7470	43	14	35	430	--	0.056	--	--	**1.9**	--	0.012	0.00029	--		0.11
	8/19/2009	EPA 6010B/7470	46	12	25	1100	--	0.055	--	--	**10**	--	0.093	0.00049	--	0.002	0.3
	5/26/2009	EPA 6010B/7470	--		--	--	--	0.08	--	--	**5.7**	0.0073	0.019	--	--	--	0.59
	3/31/2009	EPA 6010B/7470	--	--	--	--	**0.02**	0.099	0.016	--	--	0.0064	--	**0.0032**	--	--	--
	12/2/2008	EPA 6010B/7470					--	0.2	--	--	6.8	--	0.4	--	0.034		0.59
	9/9/2008	EPA 6010B/7470					--	0.069	0.0072	--	**2.5**	--	0.13	--	--	--	0.19
	6/17/2008	EPA 6010B/7470					--	0.14	0.013	0.015	**9**	0.0057	0.13	0.00076	--	7E-04	1.6
	3/10/2008	EPA 6010B/7470					--	0.017	0.1	--	**110**	--	1.4	--	--	1.9	1.9
PILOT EFFLUENT	11/10/2009	EPA 6010B/7470	34	8.8	17	390	--	0.023	--	0.047	0.28	--	0.041	--	--		0.058
	8/19/2009	EPA 6010B/7470	170	42	20	190	--	--	--	0.063	0.44	--	0.079	--	--	0.001	0.15
	5/27/2009	EPA 6010B/7470	--	--	--	--	--	--	--	0.034	0.33	--	0.048	--	--	--	0.046
	3/31/2009	EPA 6010B/7470	--	--	--	--	--	0.033	--	0.031	0.72	--	0.12	--	--	0.001	0.098
	12/2/2008	EPA 6010B/7470	220	51		260	--	0.021	--	0.04	0.36	--	0.086	--	--		0.068
	9/9/2008	EPA 6010B/7470					--	0.017	--	0.021	0.49	--	0.085	--	--	--	0.057
	6/17/2008	EPA 6010B/7470					--	0.019	--	0.012	0.44	--	0.1	--	--	9E-04	0.043
	3/10/2008	EPA 6010B/7470					--	0.022	--	0.018	0.35	--	0.092	--	--	--	0.055
NAPIS EFFLUENT	11/10/2009	EPA 6010B/7470	93	21	37	390	--	0.77	0.035	0.053	**19**	**0.029**	0.15	--	--		0.47
	8/19/2009	EPA 6010B/7470	40	9.4	9.5	880	--	--	--	--	**13**	--	0.06	--	--	0.002	0.16
	5/26/2009	EPA 6010B/7470	48	11	77	390	--	0.09	0.011	0.023	**4.1**	0.0063	0.17	**0.009**	--	--	0.34
	3/31/2009	EPA 6010B/7470	39	8.7	52	240	--	0.069	--	0.054	**1.7**	--	0.056	**0.003**	--	--	0.26
	12/2/2008	EPA 6010B/7470					--	0.11	--	--	1.8	--	0.17	0.00026	--		0.23
	9/9/2008	EPA 6010B/7470	42	9	7.7	200	--	0.062	--	--	**0.073**	--	0.057	--	--	--	--
	6/17/2008	EPA 6010B/7470	50	12	13	320	--	0.081	--	--	**1.1**	--	0.057	--	0.052	--	0.19
	3/10/2008	EPA 6010B/7470	120	28	22	550	--	0.32	0.019	0.053	10	0.013	0.2	0.00028	--	--	1.3
		EPA 6010B/7470															

Notes: NS = No Standards;
-- = No Detect;
Bold Values represent Values above the applicable standard.

Summary of Recoverable Metals detected in Outfalls - continued

Sample ID	Collection Date	Method	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Na (mg/L)	As (mg/L)	Ba (mg/L)	Cr (mg/L)	Cu (mg/L)	Fe (mg/L)	Pb (mg/L)	Mn (mg/L)	Hg (mg/L)	Se (mg/L)	U (mg/L)	Zn (mg/L)
Standards	NMWQS		NS	NS	NS	NS	0.1	1	0.05	1	1	0.05	0.2	0.002	0.05	5	10
	EPA MCLS		NS	NS	NS	NS	0.01	2	0.1	1.3*	NS	0.015*	NS	NS	0.05	0	NS
	RRSL		NS	6E-05	NS	NS	5E-05	7.3	NS	1.5	26	NS	0.88	NS	0.18	0.11	11
EP 1	8/19/2009	EPA 6010B	24	11	39	970											
	5/27/2009	EPA 6010B/7470	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/31/2009	EPA 6010B/7470	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
EP-1 INLET	10/27/2009	EPA 6010B/7470	4.3	14	26	480	--	0.3	0.0073	0.02	**4**	0.0064	0.13	--	--	--	4.7
	5/6/2009	EPA 6010B/7470	60	17	48	430	**0.01**	0.1	0.012	0.023	**11**	--	0.19	0.0019	0.0302	--	0.6
BW TO EP-2	10/27/2009	EPA 6010B/7470	0.8	--	4.6	480	**0.01**	0.3	0.0073	0.02	**4**	0.0064	0.13	--	**0.27**	--	0.47
	5/6/2009	EPA 6010B/7470	1.1	--	4.9	1200	--	--	--	--	--	--	--	--	--	--	--

Summary of General Chemistry detected in Outfalls

Sample ID	Collection Date	Method	Fl (mg/L)	Cl (mg/L)	Nitrate + Nitrate as N	Bromide	Phosphorous Orthophosphate (as P)	Sulfate	pH	Specific Conductance (mmhos/cm)
Standards	NMWQS		1.6	250	10	NS	NS	600	6 to 9	NS
	EPA MCLS		4	250	10 Nitrate 1 Nitrite	NS	NS	250	6 to 9	NS
	RRSL		NS	NS	58 3.7	NS	NS	NS	NS	NS
NAPIS EFFLUENT	3/31/2009	GEN CHEM	**20**	140	3.1		--	**350**	**9.12**	2300
	5/26/2009	GEN CHEM	**73**	120	3.1		2.5	**620**	8.29	2600
	8/19/2009	GEN CHEM	**31**	170	**13**		--	**1100**	**9.21**	4000
	11/10/2009	GEN CHEM	**86**	**460**	--	5.4	36	**450**	8.9	3600
	12/2/2008	GEN CHEM	**12**	**160**	--		--	**510**	8.63	2200
	9/9/2008	GEN CHEM	**11**	**78**	1.8		14	**440**	9.44	3300
	6/17/2008	GEN CHEM	**19**	**93**	--		37	**630**	9.07	4600
	3/10/2008	GEN CHEM	**69**	**480**	--		--	**570**		
EP-1	3/31/2009	GEN CHEM	--	**370**	--		--	--	7.95	--
	5/26/2009	GEN CHEM	**73**		--		--	--	--	--
	8/19/2009	GEN CHEM	**200**	**350**	--		--	**1100**	7.49	5100
EP-1 INLET	5/6/2009	GEN CHEM	**66**	120	--	--	--	**710**	7.36	2600
	10/27/2009	GEN CHEM	**120**	250	0.80/0.68	1.3	--	**310**	7.76	2600
BW TO EP-2	5/6/2009	GEN CHEM	0.9	45	0.65	--	--	**1500**	8.01	4200
	10/27/2009	GEN CHEM	0.39	37	0.12	1.3	--	**630**	8.35	1900

Notes: NS = No Standards;
-- = No Detect;
Bold Values represent Values above the applicable standard.

Summary of DRO/GRO/BOD/COD detected in Outfalls. (2008-2009)

Sample ID	Collection Date	Method	DRO (mg/L0	GRO (mg/L)	BOD (mg/L)	COD (mg/L)
Standards	NMWQS					
	EPA MCLS					
	RRSL					
	NM TPH Screening Guidelines*		0.2	0.2		
AL 2 TO EP 1	11/10/2009	EPA 8015B	49	0.48		
	8/19/2009	EPA 8015B	41	--		
	5/26/2009	EPA 8015B	12	0.15		
	3/31/2009	EPA 8015B	76	0.63		
	12/2/2008	EPA 8015B	160	--		
	9/9/2008	EPA 8015B	44	--		
	6/17/2008	EPA 8015B	140	1.4		
	3/10/2008	EPA 8015B	24	1.7		
PILOT EFFLUENT	11/10/2009	EPA 8015B	8.3	--	*	410
	8/19/2009	EPA 8015B	10	--	905	712
	5/27/2009	EPA 8015B	6.8	--	442	431
	3/31/2009	EPA 8015B	9	--	1519	422
	12/2/2008	EPA 8015B	10	--	642	8336
	9/9/2008	EPA 8015B	6.3	--	375	795
	6/17/2008	EPA 8015B	5.4	0.078	399	699
	3/10/2008	EPA 8015B	12	--	618	824
NAPIS EFFLUENT	11/10/2009	EPA 8015B	130	84		
	8/19/2009	EPA 8015B	31	37		
	5/26/2009	EPA 8015B	110	61		
	3/31/2009	EPA 8015B	880	48		
	12/2/2008	EPA 8015B	68	20		
	9/9/2008	EPA 8015B	35	--		
	6/17/2008	EPA 8015B	44	11		
	3/10/2008	EPA 8015B	290	11		
EP 1	10/27/2009	EPA 8015B	29	0.83		
	8/19/2009	EPA 8015B	23	4.7	400	264
	5/27/2009	EPA 8015B	9.1	3	545	556
	3/31/2009	EPA 8015B	28	--	2025	279
	12/2/2008	EPA 8015B	120	--	231	840
	9/9/2008	EPA 8015B	140	--	262	1360
	6/17/2008	EPA 8015B	140	2.7	294	2650
	3/10/2008	EPA 8015B	32	1.9	510	965
EP1 INLET	5/6/2009	EPA 8015B	100	2.1		
	10/27/2009	EPA 8015B	29	0.83		
EP2 INLET	6/17/2009	EPA 8015B	23	2	1149	191

EVAPORATION PONDS – DATA TABLES

Summary of BTEX detected in Evaporation Ponds (2008-2009)

Sample ID	Collection Date	Method	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
Standards	NMWQS		0.01	0.75	0.75	0.62	NS
	EPA MCLS		0.005	1	0.7	10	NS
	RRSL		0.00041	2.3	0.0015	0.2	0.012
POND 1	6/17/2009	EPA 8260B	--	0.024	**0.0052**	0.044	--
	12/2/2008	EPA 8260B	**0.0083**	0.089	**0.033**	**0.26**	--
	9/9/2008	EPA 8260B	**0.0033**	0.0058	**0.0026**	0.02	--
	6/17/2008	EPA 8260B	--	0.0056	**0.0016**	0.012	--
	3/11/2008	EPA 8260B	**0.19**	0.47	**0.0087**	**0.54**	0.0059
POND 2	6/17/2009	EPA 8260B	--	0.015	--	0.037	--
	12/2/2008	EPA 8260B	**0.0018**	0.02	**0.0072**	0.057	--
	9/9/2008	EPA 8260B	--	0.0011	--	0.0044	--
	6/17/2008	EPA 8260B	--	--	--	--	--
	3/11/2008	EPA 8260B	**0.0038**	0.011	**0.0021**	0.014	--
POND 3	6/17/2009	EPA 8260B	--	--	--	0.0017	--
	12/2/2008	EPA 8260B	**0.0011**	0.012	**0.0043**	0.034	--
	9/9/2008	EPA 8260B	--	--	--	--	--
	6/17/2008	EPA 8260B	--	--	--	--	--
	3/11/2008	EPA 8260B	--	0.0019	--	0.004	--
POND 4	6/17/2009	EPA 8260B	--	--	--	--	--
	12/2/2008	EPA 8260B	--	0.008	**0.0029**	0.022	--
	9/9/2008	EPA 8260B	--	--	--	--	--
	6/17/2008	EPA 8260B	--	--	--	--	--
	3/11/2008	EPA 8260B	--	--	--	0.002	--
POND 5	6/17/2009	EPA 8260B	--	--	--	--	--
	12/2/2008	EPA 8260B	--	0.0026	0.001	0.0072	--
	9/9/2008	EPA 8260B	--	--	--	--	--
	6/17/2008	EPA 8260B	--	--	--	--	--
	3/11/2008	EPA 8260B	--	--	--	--	--
POND 6	6/17/2009	EPA 8260B	--	--	--	--	--
	12/2/2008	EPA 8260B	--	--	--	--	--
	9/9/2008	EPA 8260B	--	--	--	--	--
	6/17/2008	EPA 8260B	--	--	--	--	--
	3/11/2008	EPA 8260B	--	--	--	--	--
POND 7	6/17/2009	EPA 8260B	--	--	--	--	--
	12/2/2008	EPA 8260B	--	--	--	--	--
	9/9/2008	EPA 8260B	--	--	--	--	--
	6/17/2008	EPA 8260B	--	--	--	--	--
	3/11/2008	EPA 8260B	--	--	--	--	--
POND 8	6/17/2009	EPA 8260B	--	--	--	--	--
	12/2/2008	EPA 8260B	--	--	--	--	--
	9/9/2008	EPA 8260B	--	--	--	--	--
	6/17/2008	EPA 8260B	--	--	--	--	--
	3/11/2008	EPA 8260B	--	--	--	--	--

Summary of VOCs detected in Evaporation Ponds (2008-2009)

Sample ID	Collection Date	Method	1,2,4-TRIMETHYLBENZENE (mg/L)	1,3,5-TRIMETHYLBENZENE (mg/L)	NAPHTHALENE (mg/L)	ACETONE (mg/L)	1-METHYLNAPHTHALENE (mg/L)	2-METHYLNAPHTHALENE (mg/L)	2-BUTANONE (mg/L)	CARBONDISULFIDE (mg/L)	n-BUTYLBENZENE (mg/L)
Standards	NMWQS		NS	NS	NS	NS	0.03	NS	NS	NS	NS
	EPA MCLS		0.07	NS	NS	NS	NS	NS	NS	NS	NS
	RRSL		0.015	0.012	0.0001	22	0.0023	0.015	NS	1	NS
POND 1	6/17/2009	EPA 8260B	**0.023**	0.0074	**0.012**	0.46	**0.054**	**0.054**	--	--	--
	12/2/2008	EPA 8260B	**0.13**	**0.046**	**0.074**	1	**0.14**	**0.22**	0.094	--	0.021
	9/9/2008	EPA 8260B	**0.027**	0.0095	**0.033**	1.6	**0.062**	**0.088**	0.15	0.039	0.0087
	6/17/2008	EPA 8260B	**0.017**	0.0044	**0.031**	1.6	**0.072**	**0.3**	0.19	0.011	0.0055
	3/11/2008	EPA 8260B	**0.038**	**0.11**	**0.2**	1.4	**0.28**	**0.39**	0.16	--	0.046
POND 2	6/17/2009	EPA 8260B	**0.026**	0.0085	**0.012**	0.56	**0.078**	**0.078**	0.05	0.057	0.0054
	12/2/2008	EPA 8260B	**0.028**	0.0097	**0.016**	0.65	**0.037**	**0.053**	0.072	0.026	0.0041
	9/9/2008	EPA 8260B	0.0064	0.0021	**0.0064**	0.36	**0.016**	**0.023**	0.035	0.025	0.0025
	6/17/2008	EPA 8260B	0.015	--	**0.014**	0.64	**0.033**	**0.05**	0.08	--	0.009
	3/11/2008	EPA 8260B	0.012	0.0032	**0.02**	1.7	**0.034**	**0.049**	0.12	0.018	0.0014
POND 3	6/17/2009	EPA 8260B	0.0018	--	--	0.047	**0.0063**	0.0061	--	--	--
	12/2/2008	EPA 8260B	**0.018**	0.0065	**0.011**	0.67	**0.024**	**0.035**	0.064	0.028	0.0024
	9/9/2008	EPA 8260B	--	--	--	0.11	--	--	--	--	--
	6/17/2008	EPA 8260B	0.002	--	**0.003**	0.16	**0.015**	**0.023**	0.018	0.01	--
	3/11/2008	EPA 8260B	0.0043	0.001	**0.0087**	0.92	**0.02**	**0.028**	0.064	0.045	--
POND 4	6/17/2009	EPA 8260B	--	--	--	0.04	--	--	--	--	--
	12/2/2008	EPA 8260B	0.013	0.0048	**0.0075**	0.6	**0.014**	**0.021**	0.043	0.034	0.0023
	9/9/2008	EPA 8260B	--	--	--	--	--	--	--	--	--
	6/17/2008	EPA 8260B	--	--	--	0.059	--	--	--	0.05	--
	3/11/2008	EPA 8260B	0.0028	--	**0.0066**	0.8	**0.015**	**0.022**	0.042	0.063	--

Notes: NS = No Standards;
-- = No Detect;
Bold Values represent Values above the applicable standard.

Summary of VOCs detected in Evaporation Ponds – Continued

Sample ID	Collection Date	Method	1,2,4 TRIMETHYLBENZENE (mg/L)	1,3,5-TRIMETHYLBENZENE (mg/L)	NAPHTHALENE (mg/L)	ACETONE (mg/L)	1-METHYLNAPHTHALENE (mg/L)	2-METHYLNAPHTHALENE (mg/L)	2-BUTANONE (mg/L)	CARBONDISULFIDE (mg/L)	CHLOROFORM (mg/L)	CHLOROMETHANE (mg/L)	n-BUTYLBENZENE (mg/L)
Standards	NMWQS		NS	NS	NS	NS	0.03	NS	NS	NS	NS	NS	NS
	EPA MCLS		0.07	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	RRSL		0.015	0.012	0.0001	22	0.0023	0.015	NS	1	0.0002	0.19	NS
POND 5	6/17/2009	EPA 8260B	--	--	--	0.031	--	--	--	--	--	--	--
	12/2/2008	EPA 8260B	**0.048**	**0.019**	**0.0025**	0.2	**0.0061**	0.0089	0.016	0.015	--	--	0.0011
	9/9/2008	EPA 8260B	--	--	--	--	--	--	--	--	--	--	--
	6/17/2008	EPA 8260B	--	--	--	0.046	--	--	--	0.033	--	--	--
	3/11/2008	EPA 8260B	0.0015	--	**0.0037**	0.19	**0.011**	**0.017**	0.023	0.097	--	--	--
POND 6	6/17/2009	EPA 8260B	--	--	--	--	--	--	--	--	--	--	--
	12/2/2008	EPA 8260B	0.001	--	--	--	--	--	--	--	--	--	--
	9/9/2008	EPA 8260B	--	--	--	--	--	--	--	--	--	--	--
	6/17/2008	EPA 8260B	--	--	--	--	--	--	--	--	--	--	--
	3/11/2008	EPA 8260B	0.002	--	**0.004**	0.64	**0.015**	**0.02**	0.032	0.04	--	--	--
POND 7	6/17/2009	EPA 8260B	0.0011	--	--	0.034	--	--	--	--	--	--	--
	12/2/2008	EPA 8260B	0.0013	--	--	0.017	--	--	--	--	--	--	--
	9/9/2008	EPA 8260B	--	--	--	--	--	--	--	--	--	--	--
	6/17/2008	EPA 8260B	0.0012	--	--	0.049	--	--	--	--	--	--	--
	3/11/2008	EPA 8260B	<.001	--	--	0.034	--	--	--	--	--	--	--
POND 8	6/17/2009	EPA 8260B	--	--	--	0.099	--	--	--	--	--	0.0014	--
	12/2/2008	EPA 8260B	--	--	--	--	--	--	--	--	--	--	--
	9/9/2008	EPA 8260B	--	--	--	--	--	--	--	--	--	--	--
	6/17/2008	EPA 8260B	0.0011	--	--	0.12	--	--	0.014	--	0.0014	--	--
	3/11/2008	EPA 8260B		--	--	0.024	--	--	--	--	--	--	--

Notes: NS = No Standards;
-- = No Detect;
Bold Values represent Values above the applicable standard.

Summary of Recoverable Metals detected in Evaporation Ponds (2008-2009)

Sample ID	Collection Date	Method	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Na (mg/L)	As (mg/L)	Ba (mg/L)	Cr (mg/L)	Cu (mg/L)	Fe (mg/L)	Pb (mg/L)	Mn (mg/L)	Hg (mg/L)	Se (mg/L)	U (mg/L)	Zn (mg/L)
Standards	NMWQS		NS	NS	NS	NS	0.1	1	0.05	1	1	0.05	0.2	0.002	0.05	5	10
	EPA MCLS		NS	NS	NS	NS	0.01	2	0.1	1.3*	NS	0.015*	NS	NS	0.05	0	NS
	RRSL		NS	6E-05	NS	NS	5E-05	7.3	NS	1.5	26	NS	0.88	NS	0.18	0.11	11
Pond 1	6/17/2009	EPA 6010B/ 7470	435	**12.5**	55.8	830	**0.008**	0.1	--	--	**5.6**	--	0.2	--	0.015	--	0.28
	12/2/2008*	EPA 6010B/ 7470															
	9/9/2008	EPA 6010B/ 7470	45	**14**	62	460	--	0.76	--	--	--	--	**0.22**	--	--	--	0.12
	6/17/2008	EPA 6010B/ 7470	57	**15**	96	540	--	0.1	0.0085	0.01	**4.9**	0.0052	0.14	0.00035	--	--	0.88
	3/11/2008	EPA 6010B/ 7470	18	**17**	39	910	--	0.029	**0.061**	--	**55**	--	**0.8**	--	--	--	1.8
Pond 2	6/17/2009	EPA 6010B/ 7470	336	**75.3**	63.2	2300	**0.011**				**2.33**		0.17	--	0.011	0.002	0.08
	12/2/2008*	EPA 6010B/ 7470															
	9/9/2008	EPA 6010B/ 7470	340	**84**	52	1900	--	0.1	--	--	--	--	**0.21**	--	--	--	0.086
	6/17/2008	EPA 6010B/ 7470	290	**78**	110	2200	--	0.066	--	--	**1.4**	--	0.14	--	--	--	0.31
	3/11/2008	EPA 6010B/ 7470	81	**55**	88	1700	--	0.022	--	--	**5.4**	--	**0.28**	--	--	--	--
Pond 3	6/17/2009	EPA 6010B/ 7470	377	**89.5**	79.9	2600	**0.013**	--	--	--	**1.75**	--	**0.22**	--	0.013	0.003	0.07
	12/2/2008*	EPA 6010B/ 7470															
	9/9/2008	EPA 6010B/ 7470	340	**87**	54	2000	--	0.11	--	--	--	--	**0.21**	--	--	0.0027	0.047
	6/17/2008	EPA 6010B/ 7470	320	**97**	140	2700	--	0.061	--	--	0.73	--	0.15	--	--	--	0.14
	3/11/2008	EPA 6010B/ 7470	170	**71**	93	2000	--	0.037	--	--	**1.4**	--	**0.23**	--	--	--	0.045
Pond 4	6/17/2009	EPA 6010B/ 7470	357	**85.2**	82.5	2440	**0.012**	--	--	--	**1.35**	--	**0.22**	--	0.013	0.002	0.08
	12/2/2008*	EPA 6010B/ 7470															
	9/9/2008	EPA 6010B/ 7470	320	**87**	54	2000	--	0.13	--	--	--	--	**0.23**	--	--	0.00187	0.021
	6/17/2008	EPA 6010B/ 7470	340	**130**	160	3000	--	0.065	--	--	0.42	--	0.19	--	--	--	--
	3/11/2008	EPA 6010B/ 7470	230	**80**	94	2000	--	0.045	--	--	0.73		**0.21**	--	--	--	--

Summary of Recoverable Metals detected in Evaporation Ponds – Continued

Sample ID	Collection Date	Method	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Na (mg/L)	As (mg/L)	Ba (mg/L)	Cu (mg/L)	Fe (mg/L)	Pb (mg/L)	Mn (mg/L)	Se (mg/L)	U (mg/L)	Zn (mg/L)
Standards	NMWQS		NS	NS	NS	NS	0.1	1	1	1	0.05	0.2	0.05	5	10
	EPA MCLS		NS	NS	NS	NS	0.01	2	1.3*	NS	0.015*	NS	0.05	0	NS
	RRSL		NS	6E-05	NS	NS	5E-05	7.3	1.5	26	NS	0.88	0.18	0.11	11
Pond 5	6/17/2009	EPA 6010B/7470	460	**116**	92.9	2990	**0.013**	--	--	0.5	--	**0.27**	0.009	0.002	0.02
	12/2/2008*	EPA 6010B/7470													
	9/9/2008	EPA 6010B/7470	220	**82**	70	2000	--	0.14	--	--	--	0.17	0.005	0.0014	--
	6/17/2008	EPA 6010B/7470	390	**150**	190	3600	--	0.074	--	--	--	**0.44**	--	--	--
	3/11/2008	EPA 6010B/7470	290	**80**	83	1900	--	0.059	--	0.64	--	**0.28**	--	--	0.029
Pond 6	6/17/2009	EPA 6010B/7470	450	**131**	94.3	3360	**0.015**	--	--	0.2	--	**0.31**	0.005	0.002	--
	12/2/2008*	EPA 6010B/7470													
	9/9/2008	EPA 6010B/7470	330	**130**	130	3300	--	0.11	--	--	--	**0.46**	0.005	0.0013	--
	6/17/2008	EPA 6010B/7470	460	**170**	190	4600	--	0.093	--	--	--	**1.1**	--	--	--
	3/11/2008	EPA 6010B/7470	300	**100**	110	2800	--	0.073	--	**1.3**	--	**0.52**	--	--	--
Pond 7	6/17/2009	EPA 6010B/7470	1300	**944**	401	27300	***0.055***	0.1	0.03	0.14	***0.08***	**4.44**	0.033	0.003	0.01
	12/2/2008*	EPA 6010B/7470													
	9/9/2008	EPA 6010B/7470	730	**960**	1100	28000	--	0.11	--	--	--	**5.8**	0.033	0.001	--
	6/17/2008	EPA 6010B/7470	1400	**1400**	1800	49000	--	--	--	--	--	**8.1**	--	--	--
	3/11/2008	EPA 6010B/7470	690	**490**	590	13000	--	0.074	--	0.69		**3.2**	--	--	--
Pond 8	6/17/2009	EPA 6010B/7470	1120	**4050**	2130	67500	**0.384**	0.2	0.27	0.3	--	**28**	**0.22**	0.004	0.13
	12/2/2008*	EPA 6010B/7470													
	9/9/2008	EPA 6010B/7470	530	**420**	800	9500	--	0.12	--	--	--	**2.4**	**0.22**	0.0015	--
	6/17/2008	EPA 6010B/7470	1100	**8800**	12000	99000	--	--	--	--	--	**82**	--	--	--
	3/11/2008	EPA 6010B/7470	590	**760**	1100	20000	--	--	--	**1.4**	--	**5.8**	--	--	--

Notes: NS = No Standards;
-- = No Detect;
Bold Values represent Values above the applicable standard.

Summary of General Chemistry in Evaporation Ponds (2008-2009)

Sample ID	Collection Date	Method	Fl (mg/L)	Cl (mg/L)	Nitrate + Nitrate as N	Phosphorous Orthophosphate (as P)	Sulfate (mg/L)	pH	Specific Conductance (mmhos/cm)
Standards	NMWQS		1.6	250	10	NS	600	6 to 9	NS
	EPA MCLS		4	250	10 Nitrate 1 Nitrite	NS	250	6 TO 9	NS
	RRSL		NS	NS	58 3.7	NS	NS	NS	NS
POND 1	6/17/2009	GEN CHEM	**86**	**820**	--	--	580	7.73	4400
	12/2/2008	GEN CHEM	**110**	**360**	--	7.2	**780**	7.76	4400
	9/9/2008	GEN CHEM	**99**	150	--	--	**7700**	7.82	4500
	6/17/2008	GEN CHEM	**120**	120	--	15	**1100**	7.57	4600
	3/11/2008	GEN CHEM	**560**	**540**	--	--	**980**	**3.81**	4900
POND 2	6/17/2009	GEN CHEM	**52**	**3500**	--	--	**1000**	8.13	13000
	12/2/2008	GEN CHEM	**37**	**1800**	--	--	**1000**	7.8	8500
	9/9/2008	GEN CHEM	**48**	**2800**	--	--	**960**	7.97	10000
	6/17/2008	GEN CHEM	**63**	**2900**	--	--	**1300**	7.9	11000
	3/11/2008	GEN CHEM	**63**	**2200**	--	--	**970**	6.81	8400
POND 3	6/17/2009	GEN CHEM	**48**	**3600**	--	--	**1100**	8.13	14000
	12/2/2008	GEN CHEM	**26**	**1800**	--	--	**980**	7.86	8500
	9/9/2008	GEN CHEM	**51**	**2800**	--	--	**1100**	7.94	10000
	6/17/2008	GEN CHEM	**44**	**3700**	--	--	**1400**	7.91	13000
	3/11/2008	GEN CHEM	**41**	**2700**	--	--	**1000**	7.86	9800
POND 4	6/17/2009	GEN CHEM	**46**	**3400**	--	--	**1200**	8.12	13000
	12/2/2008	GEN CHEM	**27**	**2000**	--	--	**1000**	7.89	9100
	9/9/2008	GEN CHEM	**49**	**2900**	--	--	**1100**	7.9	11000
	6/17/2008	GEN CHEM	**34**	**4500**	--	--	**1500**	7.94	15000
	3/11/2008	GEN CHEM	**32**	**2800**	--	--	**1000**	8.06	10000

Notes: NS = No Standards;
-- = No Detect;
Bold Values represent Values above the applicable standard.

Summary of General Chemistry in Evaporation Ponds – Continued

Sample ID	Collection Date	Method	Fl (mg/L)	Cl (mg/L)	Nitrate + Nitrate as N	Phosphorous Orthophosphate (as P)	Sulfate (mg/L)	pH	Specific Conductance (mmhos/cm)
Standards	NMWQS		1.6	250	10	NS	600	6 to 9	NS
	EPA MCLS		4	250	10 Nitrate 1 Nitrite	NS	250	6 TO 9	NS
	RRSL		NS	NS	58 3.7	NS	NS	NS	NS
POND 5	6/17/2009	GEN CHEM	**32**	**4400**	--	--	**1400**	8.07	17000
	12/2/2008	GEN CHEM	**29**	**2900**	--	--	**1200**	7.82	14000
	9/9/2008	GEN CHEM	**33**	**3000**	--	--	**890**	7.93	10000
	6/17/2008	GEN CHEM	**26**	**5400**	--	--	**1800**	7.86	17000
	3/11/2008	GEN CHEM	**41**	**2900**	--	--	**1100**	7.82	10000
POND 6	6/17/2009	GEN CHEM	**18**	**5100**	--	--	**1800**	8.07	16000
	12/2/2008	GEN CHEM	**28**	**5500**	--	--	**7600**	7.7	19000
	9/9/2008	GEN CHEM	**26**	**4900**	--	--	**1900**	7.83	16000
	6/17/2008	GEN CHEM	**29**	**6600**	--	--	**2600**	7.64	25000
	3/11/2008	GEN CHEM	**35**	**4100**	--	--	**1600**	7.7	13000
POND 7	6/17/2009	GEN CHEM	**20**	**39000**	--	--	**10000**	7.59	130000
	12/2/2008	GEN CHEM	**35**	**42000**	--	--	**8300**	7.55	140000
	9/9/2008	GEN CHEM	**25**	**38000**	--	--	**8500**	7.52	110000
	6/17/2008	GEN CHEM	**29**	**64000**	--	--	**15000**	7.34	180000
	3/11/2008	GEN CHEM	**22**	**22000**	--	--	**5600**	7.61	68000
POND 8	6/17/2009	GEN CHEM	**57**	**180000**	--	--	**23000**	6.73	310000
	12/2/2008	GEN CHEM	**31**	**46000**	--	--	**8600**	7.39	170000
	9/9/2008	GEN CHEM	**26**	**17000**	--	--	**3400**	7.75	51000
	6/17/2008	GEN CHEM	**94**	**160000**	--	--	**20000**	6.28	420000
	3/11/2008	GEN CHEM	**25**	**3000**	--	--	**6100**	7.47	94000

Notes: NS = No Standards;
-- = No Detect;
Bold Values represent Values above the applicable standard.

Summary of BOD/COD detected in Evaporation Ponds (2008-2009)

Sample ID	Collection Date	Method	BOD (mg/L)	COD (mg/L)	E-COLI	TOTAL COLIFORM
Standards	NMWQS					
	EPA MCLS				5%	
	RRSL					
POND 1	6/17/2009	SM5210B/E410.4	179	344		
	6/18/2009	SM5210B/E410.4			Present	Present
	12/2/2008	SM5210B/E410.4				
	9/9/2008	SM5210B/E410.4	299	3000	58	
	6/17/2008	SM5210B/E410.4	327	1230		
	3/11/2008	SM5210B/E410.4	556	965	Absent	
POND 2	6/17/2009	SM5210B/E410.4	83.6	192		
	6/18/2009	SM5210B/E410.4			Present	Present
	12/2/2008	SM5210B/E410.4				
	9/9/2008	SM5210B/E410.4	122	2500	300	
	6/17/2008	SM5210B/E410.4	110	790		
	3/11/2008	SM5210B/E410.4	0.71	871	Absent	
POND 3	6/17/2009	SM5210B/E410.4	69.2	204		
	6/18/2009	SM5210B/E410.4			Present	Present
	12/2/2008	SM5210B/E410.4				
	9/9/2008	SM5210B/E410.4	73	950	310	
	6/17/2008	SM5210B/E410.4	9639	691		
	3/11/2008	SM5210B/E410.4	323	871	Present	
POND 4	6/17/2009	SM5210B/E410.4	71.1	222		
	6/18/2009	SM5210B/E410.4			Present	Present
	12/2/2008	SM5210B/E410.4				
	9/9/2008	SM5210B/E410.4	68	850	54.5	
	6/17/2008	SM5210B/E410.4	103	110		
	3/11/2008	SM5210B/E410.4	275	663	Present	
POND 5	6/17/2009	SM5210B/E410.4	41.9	210		
	6/18/2009	SM5210B/E410.4			Absent	Present
	12/2/2008	SM5210B/E410.4				
	9/9/2008	SM5210B/E410.4	59	667	54.5	
	6/17/2008	SM5210B/E410.4	<128	575		
	3/11/2008	SM5210B/E410.4	178	506	Present	
POND 6	6/17/2009	SM5210B/E410.4	<60	126		
	6/18/2009	SM5210B/E410.4			Absent	Present
	12/2/2008	SM5210B/E410.4				
	9/9/2008	SM5210B/E410.4	47	949	90.9	
	6/17/2008	SM5210B/E410.4	<128	723		
	3/11/2008	SM5210B/E410.4	126	847	Present	
POND 7	6/17/2009	SM5210B/E410.4	<60	720		
	6/18/2009	SM5210B/E410.4			Absent	Present
	12/2/2008	SM5210B/E410.4				
	9/9/2008	SM5210B/E410.4	47.8	3330	27.9	
	6/17/2008	SM5210B/E410.4	17.7	4340		
	3/11/2008	SM5210B/E410.4	15.7	2118	Absent	
POND 8	6/17/2009	SM5210B/E410.4	<60.0	2160		
	6/18/2009	SM5210B/E410.4			Absent	Present
	12/2/2008	SM5210B/E410.4				
	9/9/2008	SM5210B/E410.4	<16.0	3080	102	
	6/17/2008	SM5210B/E410.4	8.2	16100		
	3/11/2008	SM5210B/E410.4	17.4	1770	Absent	

Notes: NS = No Standards;
-- = No Detect;
Bold Values represent Values above the applicable standard.

9.0 Annual Well Data Summary Table

Well Data Summary Table – 2009

Date of Installation	Well ID Number	Measurement date	Casing Diameter (Inch)	A Ground Level Elevations (ft)****	Well Casing Rim Elevations (ft)**	Stick-up length (ft)***	Well Casing Bottom Elevations (ft)	Total Well Depth (ft)	Depth to SPH (ft)	B SPH Thickness (ft)	C Depth to Water (ft)	D = A-C Ground water Elevation (ft)	= 0.8 B + D Corrected Water Table Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphy unit in which screen exists	Purge Volume = 3 Well Vol (gal)
11/10/2003	BW-1A	7/6/2009	2.00	6,876.73	6,876.73	52.50	6,836.73	40*	0.00	0.00	37.85	6,838.88	NA	30 - 35	Chinle/alluvium	1.05
10/28/2003	BW-1B	7/6/2009	2.00	6,876.91	6,876.91	28.63	6,811.71	67.55**	0.00	0.00	67.51	6,809.40	NA	54.6 - 64.6	Chinle/alluvium	0.02
11/10/2003	BW-1C	7/6/2009	2.00	6,876.75	6,876.75	54.25	6,719.75	157.00	0.00	0.00	6.66	6,870.09	NA	125 -135	Sonsela sandstone	73.5
11/10/2003	BW-2A	7/6/2009	2.00	6,874.72	6,874.72	51.25	6,809.22	65.50	0.00	0.00	31.97	6,842.75	NA	55 - 65	Chinle/alluvium	16.5
10/28/2003	BW-2B	7/6/2009	2.00	6,874.58	6,874.58	54.00	6,784.08	90.50	0.00	0.00	27.93	6,846.65	NA	80 - 90	Sonsela sandstone	30.6
10/28/2003	BW-2C	7/7/2009	2.00	6,875.40	6,875.40	35.75	6,724.40	151.00	0.00	0.00	20.62	6,854.78	NA	139.5 - 149.5	Sonsela sandstone	63.8
6/15/2004	BW-3A	7/7/2009	2.00	6,878.22	6,878.22	36.00	6,828.22	52.60	0.00	0.00	DRY	DRY	NA	39.5 - 49.5	Chinle/alluvium	DRY
10/15/2003	BW-3B	7/7/2009	2.00	6,878.79	6,878.79	37.75	6,803.79	75.00	0.00	0.00	32.90	6,845.89	NA	63 - 73	Chinle/alluvium	20.6
7/20/2004	BW-3C	7/7/2009	2.00	6,878.08	6,878.08	32.25	6,723.08	155.00	0.00	0.00	7.86	6,870.22	NA	144.5 - 154.5	Sonsela sandstone	72
1/5/1981	OW-1	2/11/2009	4.00	6,868.00	6,868.45	23.00	6,773.96	94.04	0.00	0.00	1.82	6,866.18	NA	89.3 - 99.3	Sonsela sandstone	NA
	OW-1	5/4/2009	4.00	6,868.00	6,868.45	23.00	6,773.96	94.04	0.00	0.00	1.85	6,866.15	NA	89.3 - 99.3	Sonsela sandstone	NA
	OW-1	8/10/2009	4.00	6,868.00	6,868.45	23.00	6,773.96	94.04	0.00	0.00	1.86	6,866.14	NA	89.3 - 99.3	Sonsela sandstone	NA
	OW-1	10/27/2009	4.00	6,868.00	6,868.45	23.00	6,773.96	94.04	0.00	0.00	1.79	6,866.21	NA	89.3 - 99.3	Sonsela sandstone	NA
11/25/1980	OW-10	2/11/2009	4.00	6,872.00	6,875.12	19.13	6,804.00	68.00	0.00	0.00	1.41	6,870.59	NA	40 - 60	Chinle/alluvium	NA
	OW-10	5/4/2009	4.00	6,872.00	6,875.12	19.13	6,804.00	68.00	0.00	0.00	1.46	6,870.54	NA	40 - 60	Chinle/alluvium	NA
	OW-10	8/10/2009	4.00	6,872.00	6,875.12	19.13	6,804.00	68.00	0.00	0.00	2.67	6,869.33	NA	40 - 60	Chinle/alluvium	NA
	OW-10	10/27/2009	4.00	6,872.00	6,875.12	19.13	6,804.00	68.00	0.00	0.00	2.91	6,869.09	NA	40 - 60	Chinle/alluvium	NA
9/25/1981	OW-11	7/27/2009	4.00	6,923.89	6,923.51	25.00	6,857.27	66.62	0.00	0.00	20.44	6,903.45	NA	43 - 65	Chinle/alluvium	102.5
12/15/1980	OW-12	7/29/2009	4.00	6,940.43	6,940.43	22.50	6,795.43	145***	0.00	0.00	48.85	6,891.58	NA	117.8 - 137.8	Sonsela sandstone	213.5
12/10/1980	OW-13	2/24/2009	4.00	6,920.12	6,920.12	57.50	6,820.12	100.00	0.00	0.00	23.93	6,896.19	NA	78.2 - 98.2	Sonsela sandstone	168.9
		5/14/2009	4.00	6,920.12	6,920.12	57.50	6,820.12	100.00	0.00	0.00	23.74	6,896.38	NA	78.2 - 98.2	Sonsela sandstone	169.3
		7/28/2009	4.00	6,920.12	6,920.12	57.50	6,820.12	100.00	0.00	0.00	24.02	6,896.10	NA	78.2 - 98.2	Sonsela sandstone	168.7
		11/3/2009	4.00	6,920.12	6,920.12	57.50	6,820.12	100.00	0.00	0.00	24.01	6,896.11	NA	78.2 - 98.2	Sonsela sandstone	168.7

Well Data Summary Table – 2009 (Continued

Date of Installation	Well ID Number	Measurement date	Casing Diameter (Inch)	A Ground Level Elevations (ft)****	Well Casing Rim Elevations (ft)**	Stick-up length (ft)***	Well Casing Bottom Elevations (ft)	Total Well Depth (ft)	Depth to SPH (ft)	B SPH Thickness (ft)	C Depth to Water (ft)	D = A-C Ground water Elevation (ft)	= 0.8 B + D Corrected Water Table Elevation (ft)	Screened Interval Depth Top to Bottom (ft)	Stratigraphy unit in which screen exists	Purge Volume = 3 Well Vol (gal)
12/17/1980	OW-14	2/23/2009	4.00	6,926.64	6,926.64	27.00	6,881.64	45.00	0.00	0.00	26.73	6,899.91	NA	35 - 45	Chinle/alluvium	40.6
		5/12/2009	4.00	6,926.64	6,926.64	27.00	6,881.64	45.00	0.00	0.00	26.55	6,900.09	NA	35 - 45	Chinle/alluvium	41
		7/30/2009	4.00	6,926.64	6,926.64	27.00	6,881.64	45.00	0.00	0.00	26.74	6,899.90	NA	35 - 45	Chinle/alluvium	40.5
		11/2/2009	4.00	6,926.64	6,926.64	27.00	6,881.64	45.00	0.00	0.00	26.74	6,899.90	NA	35 - 45	Chinle/alluvium	40.7
8/23/1996	OW-29	2/25/2009	4.00	6,913.50	6,913.50	46.50	6,864.50	49.00	0.00	0.00	21.43	6,892.07	NA	37.5 - 47.5	Chinle/alluvium	67.9
		5/14/2009	4.00	6,913.50	6,913.50	46.50	6,864.50	49.00	0.00	0.00	24.24	6,889.26	NA	37.5 - 47.5	Chinle/alluvium	68.3
		7/29/2009	4.00	6,913.50	6,913.50	46.50	6,864.50	49.00	0.00	0.00	21.58	6,891.92	NA	37.5 - 47.5	Chinle/alluvium	67.5
		11/3/2009	4.00	6,913.50	6,913.50	46.50	6,864.50	49.00	0.00	0.00	24.10	6,889.40	NA	37.5 - 47.5	Chinle/alluvium	67.9
8/28/1996	OW-30	2/23/2009	4.00	6,921.60	6,921.60	58.25	6,873.20	48.40	0.00	0.00	28.87	6,892.73	NA	37.9 - 47.9	Chinle/alluvium	42.5
		5/13/2009	4.00	6,921.60	6,921.60	58.25	6,873.20	48.40	0.00	0.00	25.65	6,895.95	NA	37.9 - 47.9	Chinle/alluvium	49.7
		7/30/2009	4.00	6,921.60	6,921.60	58.25	6,873.20	48.40	0.00	0.00	25.96	6,895.64	NA	37.9 - 47.9	Chinle/alluvium	48.9
		11/2/2009	4.00	6,921.60	6,921.60	58.25	6,873.20	48.40	0.00	0.00	25.96	6,895.64	NA	37.9 - 47.9	Chinle/alluvium	49.2
10/5/2009	OW-50	11/17/2009	2.00	6,914.37	6,914.37	32.50	6,977.37	63.00	0.00	0.00	18.20	6,896.17	NA	48 - 63	Chinle/alluvium	23
10/5/2009	OW-52	11/17/2009	2.00	6,906.26	6,907.68	26.50	6,985.26	79.00	0.00	0.00	16.75	6,889.51	NA	64 - 79	Chinle/alluvium	31
10/14/1981	MW-1	7/16/2009	5.00	6,878.52	6,878.15	15.00	6,746.50	132.02	0.00	0.00	7.51	6,871.01	NA	117.72 - 127.72	Chinle/alluvium	381
10/15/1981	MW-2	7/16/2009	5.00	6,878.40	6,880.84	22.50	6,741.90	138.94	0.00	0.00	16.36	6,862.04	NA	112 - 122	Chinle/alluvium	379.1
10/16/1981	MW-4	7/8/2009	5.00	6,882.54	6,882.20	27.75	6,760.40	122.14	0.00	0.00	7.67	6,874.87	NA	101 - 121	Sonsela sandstone	350.3
7/21/1986	MW-5	7/15/2009	4.00	6,883.32	6,882.93	24.25	6,750.30	133.02	0.00	0.00	11.83	6,871.49	NA	115 - 125	Sonsela sandstone	269
3/28/1995	RW-1	2/11/2009	4.00	6,943.50	6,943.50	53.00	6,900.50	43.00	30.18	1.54	31.72	6,911.78	6913.012	25 - 40	Chinle/alluvium	NA
	(OW-27)	5/5/2009	4.00	6,943.50	6,943.50	53.00	6,900.50	43.00	30.40	0.40	30.80	6,912.70	6913.02	25 - 40	Chinle/alluvium	NA
		8/10/2009	4.00	6,943.50	6,943.50	53.00	6,900.50	43.00	30.03	0.99	31.02	6,912.48	6913.272	25 - 40	Chinle/alluvium	NA
		10/28/2009	4.00	6,943.50	6,943.50	53.00	6,900.50	43.00	30.02	0.73	30.75	6,912.75	6913.334	25 - 40	Chinle/alluvium	NA
3/29/1995	RW-2	2/11/2009	4.00	6,927.20	6,927.20	43.00	6,889.20	38.00	0.00	0.00	26.95	6,900.25	ND	26.1 - 36.1	Chinle/alluvium	NA
	(OW-28)	5/5/2009	4.00	6,927.20	6,927.20	43.00	6,889.20	38.00	0.00	0.00	26.74	6,900.46	ND	26.1 - 36.1	Chinle/alluvium	NA
		8/10/2009	4.00	6,927.20	6,927.20	43.00	6,889.20	38.00	0.00	0.00	26.87	6,900.33	ND	26.1 - 36.1	Chinle/alluvium	NA
		10/28/2009	4.00	6,927.20	6,927.20	43.00	6,889.20	38.00	0.00	0.00	26.64	6,900.56	ND	26.1 - 36.1	Chinle/alluvium	NA

Well Data Summary Table – 2009 (Continued)

Date of Installation	Well ID Number	Measurement date	*Casing* Diameter (Inch)	A *Ground* Level Elevations (ft)****	Well Casing Rim Elevations (ft)**	*Stick-up* length (ft)***	Well *Casing* Bottom Elevations (ft)	Total Well Depth (ft)	Depth to SPH (ft)	B SPH Thickness (ft)	C *Depth* to Water (ft)	D = A-C *Ground* water Elevation (ft)	= 0.8 B + D *Corrected* Water Table Elevation (ft)	Screened *Interval* Depth Top to Bottom (ft)	*Stratigraphy* unit in which screen exists	Purge Volume = 3 Well Vol (gal)
8/27/1997	RW-5	2/11/2009	4.00	6,942.50	6,942.50	35.00	6,902.50	40.00	32.15	1.04	33.19	6,909.31	6910.1425	29.5 - 39.5	Chinle/alluvium	NA
		5/5/2009	4.00	6,942.50	6,942.50	35.00	6,902.50	40.00	31.91	0.86	32.77	6,909.73	6910.418	29.5 - 39.5	Chinle/alluvium	NA
		8/10/2009	4.00	6,942.50	6,942.50	35.00	6,902.50	40.00	31.94	0.68	32.62	6,909.88	6910.424	29.5 - 39.5	Chinle/alluvium	NA
		10/28/2009	4.00	6,942.50	6,942.50	35.00	6,902.50	40.00	31.05	0.66	31.71	6,910.79	6911.318	29.5 - 39.5	Chinle/alluvium	NA
8/27/1997	RW-6	2/11/2009	4.00	6,972.60	6,972.60	31.00	6,933.80	38.80	32.35	1.09	33.44	6,939.16	6940.0325	28.5 - 38.5	Chinle/alluvium	NA
		5/5/2009	4.00	6,972.60	6,972.60	31.00	6,933.80	38.80	32.26	0.76	33.02	6,939.58	6940.188	28.5 - 38.5	Chinle/alluvium	NA
		8/10/2009	4.00	6,972.60	6,972.60	31.00	6,933.80	38.80	32.28	0.55	32.83	6,939.77	6940.21	28.5 - 38.5	Chinle/alluvium	NA
		10/28/2009	4.00	6,972.60	6,972.60	31.00	6,933.80	38.80	32.03	0.43	32.46	6,940.14	6940.484	28.5 - 38.5	Chinle/alluvium	NA
9/26/1985	SMW-2	7/27/2009	2.00	6,884.44	6,884.11	54.50	6,827.10	57.34	0.00	0.00	25.93	6,858.51	NA	34.31 - 54.31	Chinle/alluvium	15.4
9/25/1985	SMW-4	7/27/2009	2.00	6,882.54	6,882.73	46.00	6,760.40	122.14	0.00	0.00	29.59	6,852.95	NA	51.7 - 71.7	Chinle/alluvium	20.9
7/8/2004	GWM-1	2/11/2009	2.00	6,912.65	6,912.65	46.50	6,888.95	23.70	0.00	0.00	19.81	6,892.84	NA	17.5 - 23.5	Chinle/alluvium	1.9
		5/4/2009	2.00	6,912.65	6,912.65	46.50	6,888.95	23.70	0.00	0.00	19.56	6,893.09	NA	17.5 - 23.5	Chinle/alluvium	2
		8/10/2009	2.00	6,912.65	6,912.65	46.50	6,888.95	23.70	0.00	0.00	20.32	6,892.33	NA	17.5 - 23.5	Chinle/alluvium	1.7
		10/27/2009	2.00	6,912.65	6,912.65	46.50	6,888.95	23.70	0.00	0.00	20.57	6,892.08	NA	17.5 - 23.5	Chinle/alluvium	1.5
9/25/2005	GWM-2	2/11/2009	2.00	6,913.17	6,913.17	57.00	6,896.97	18.97	0.00	0.00	DRY	0.00	NA	3.2 - 16.2	Chinle/alluvium	DRY
		5/4/2009	2.00	6,913.17	6,913.17	57.00	6,896.97	18.97	0.00	0.00	DRY	0.00	NA	3.2 - 16.2	Chinle/alluvium	DRY
		8/10/2009	2.00	6,913.17	6,913.17	57.00	6,896.97	18.97	0.00	0.00	DRY	0.00	NA	3.2 - 16.2	Chinle/alluvium	DRY
		10/27/2009	2.00	6,913.17	6,913.17	57.00	6,896.97	18.97	0.00	0.00	DRY	0.00	NA	3.2 - 16.2	Chinle/alluvium	DRY
9/25/2008	GWM-3	2/11/2009	2.00	6,912.65	6,912.65	58.25	6,896.15	17.94	0.00	0.00	DRY	0.00	NA	3 - 15	Chinle/alluvium	DRY
		5/4/2009	2.00	6,912.65	6,912.65	58.25	6,896.15	17.94	0.00	0.00	DRY	0.00	NA	3 - 15	Chinle/alluvium	DRY
		8/10/2009	2.00	6,912.65	6,912.65	58.25	6,896.15	17.94	0.00	0.00	DRY	0.00	NA	3 - 15	Chinle/alluvium	DRY
		10/27/2009	2.00	6,912.65	6,912.65	58.25	6,896.15	17.94	0.00	0.00	DRY	0.00	NA	3 - 15	Chinle/alluvium	DRY
		10/27/2009	2.00	6,912.65	6,912.65	58.25	6,896.15	17.94	0.00	0.00	DRY	0.00	NA	3 - 15	Chinle/alluvium	DRY

WELL DATA SUMMARY TABLE – (Continued)

Date of Installation	Well ID Number	Measurement date	*Casing* Diameter (Inch)	A *Ground* Level Elevations (ft)****	Well Casing Rim Elevations (ft)**	Stick-up length (ft)***	Well Casing Bottom Elevations (ft)	Total Well Depth (ft)	Depth to SPH (ft)	B SPH Thickness (ft)	C *Depth* to Water (ft)	D = A-C *Ground* water Elevation (ft)	= 0.8 B + D Corrected Water Table Elevation (ft)	Screened *Interval* Depth Top to Bottom (ft)	*Stratigraphy* unit in which screen exists	Purge Volume = 3 Well Vol (gal)
3/14/2008	NAPIS 1	3/23/2009	2.00	6,918.43	6,918.43	3.50	6,904.40	14.00	0.00	0.00	8.92	6,909.51	NA	3.7 - 13.7	Chinle/alluvium	2.5
	KA-2R	5/28/2009	2.00	6,918.43	6,918.43	3.50	6,904.40	14.00	0.00	0.00	8.67	6,909.76	NA	3.7 - 13.7	Chinle/alluvium	2.6
		8/11/2009	2.00	6,918.43	6,918.43	3.50	6,904.40	14.00	0.00	0.00	9.06	6,909.37	NA	3.7 - 13.7	Chinle/alluvium	2.3
		11/23/2009	2.00	6,918.43	6,918.43	3.50	6,904.40	14.00	0.00	0.00	10.28	6,908.15	NA	3.7 - 13.7	Chinle/alluvium	1.8
3/14/2008	NAPIS 2 (KA-2R)	3/23/2009	2.00	6,917.27	6,917.27	1.25	6,902.80	14.50	0.00	0.00	9.35	6,907.92	NA	4.2 - 14.2	Chinle/alluvium	2.5
		1/5/2009	2.00	6,917.27	6,917.27	1.25	6,902.80	14.50	0.00	0.00	9.22	6,908.05	NA	4.2 - 14.2	Chinle/alluvium	2.6
		8/11/2009	2.00	6,917.27	6,917.27	1.25	6,902.80	14.50	0.00	0.00	9.39	6,907.88	NA	4.2 - 14.2	Chinle/alluvium	2.2
		11/23/2009	2.00	6,917.27	6,917.27	1.25	6,902.80	14.50	0.00	0.00	9.72	6,907.55	NA	4.2 - 14.2	Chinle/alluvium	2.3
3/14/2008	NAPIS 3 (KA-3R)	3/23/2009	2.00	6,917.31	6,917.31	3.50	6,886.60	30.70	0.00	0.00	9.93	6,907.38	NA	25.4 - 30-4	Chinle/alluvium	10.2
		6/15/2009	2.00	6,917.31	6,917.31	3.50	6,886.60	30.70	0.00	0.00	8.59	6,908.72	NA	25.4 - 30-4	Chinle/alluvium	10.8
		8/31/2009	2.00	6,917.31	6,917.31	3.50	6,886.60	30.70	0.00	0.00	8.39	6,908.92	NA	25.4 - 30-4	Chinle/alluvium	10.9
		11/23/2009	2.00	6,917.31	6,917.31	3.50	6,886.60	30.70	0.00	0.00	21.62	6,895.69	NA	25.4 - 30-4	Chinle/alluvium	4.4
6/11/2007	KA-3	3/23/2009	2.00	6,917.17	6,917.17	2.00	6,892.40	25.00	0.00	0.00	9.23	6,907.94	NA	15 - 25	Chinle/alluvium	7.7
		5/28/2009	2.00	6,917.17	6,917.17	2.00	6,892.40	25.00	0.00	0.00	9.12	6,908.05	NA	15 - 25	Chinle/alluvium	7.8
		8/31/2009	2.00	6,917.17	6,917.17	2.00	6,892.40	25.00	0.00	0.00	9.36	6,907.81	NA	15 - 25	Chinle/alluvium	7.7
		11/23/2009	2.00	6,917.17	6,917.17	2.00	6,892.40	25.00	0.00	0.00	9.60	6,907.57	NA	15 - 25	Chinle/alluvium	7.5

NA = Not Applicable
ND = None Detected
SPH = Separate Phase Hydrocarbons
Corrected water table elevations are only provided if SPH was detected.
**BW-1A Annual inspection revealed well depth to be 37.89 feet. There was a water level in this well of 0.03 feet. Not enough water to bail or sample. Well is usually dry.*
***BW-1B annual inspection revealed a water level of 0.04 feet. Not enough water to bail or sample. Well is usually dry.*
****OW-12 Annual inspection revealed well depth measurement to be 126 feet instead of 145 feet as listed.*
*****Note 1: Western has determined that in the past, these ground level elevations have been incorrectly marked as well casing rim elevations. However, from a review of the well logs, we have determined that the elevation levels were in the table as rim casing levels when they should have been listed as ground surface elevations.*
Note 2: OW-50 and OW-52. Initial ground water samples were taken by AMEC on 11/17/09 after well was allowed to develop.

10.0 Figures

Figure 1. Regional Map 1

Figure 1: Regional map showing the location of the Gallup Refinery (red star along Interstate-40, 20 miles east of the City of Gallup).

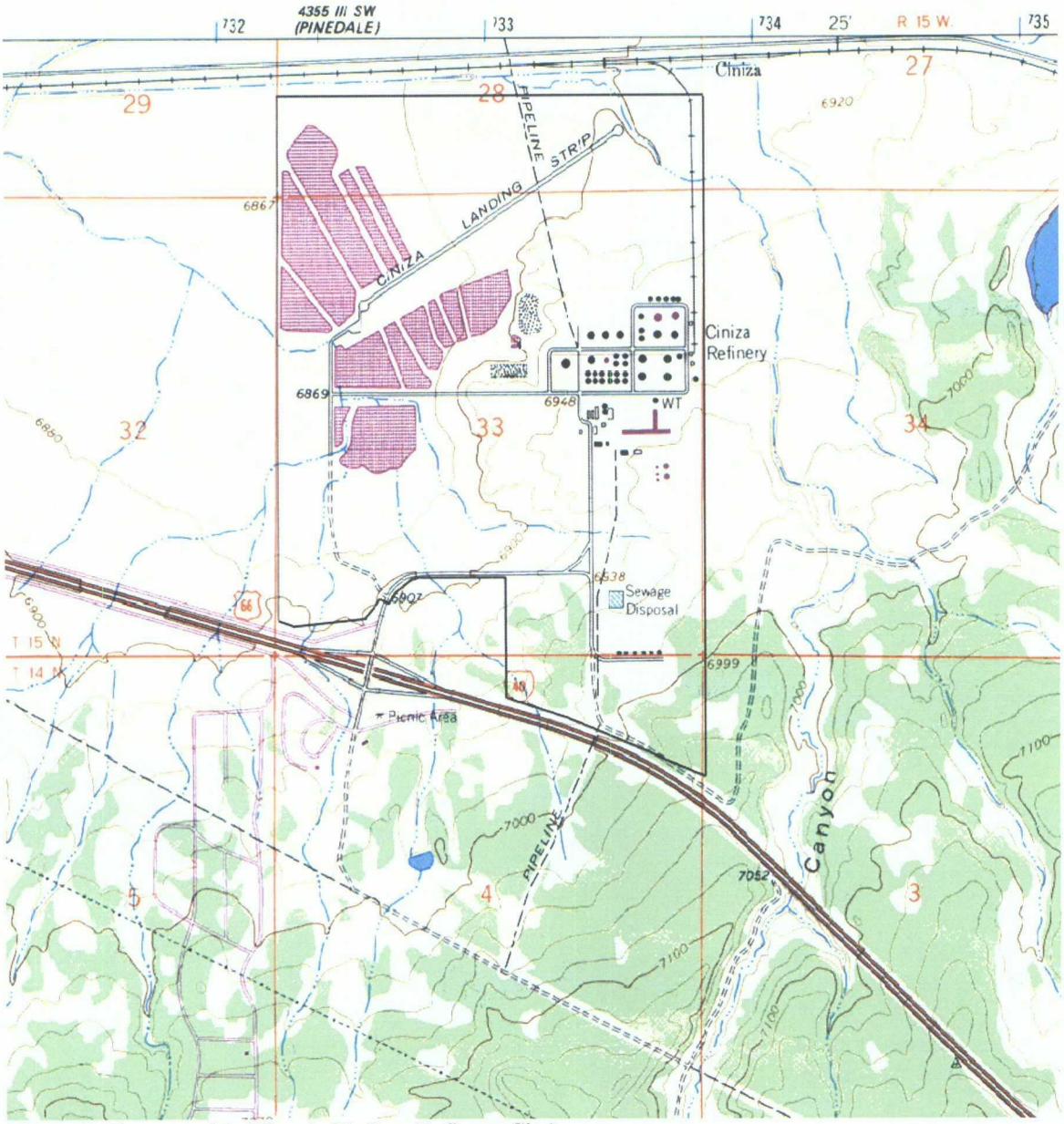


Figure 2. Topographic Map 1 (Gallup Refinery Site)

USGS Topographical Map - Gallup Quadrangle (Revised 1980)

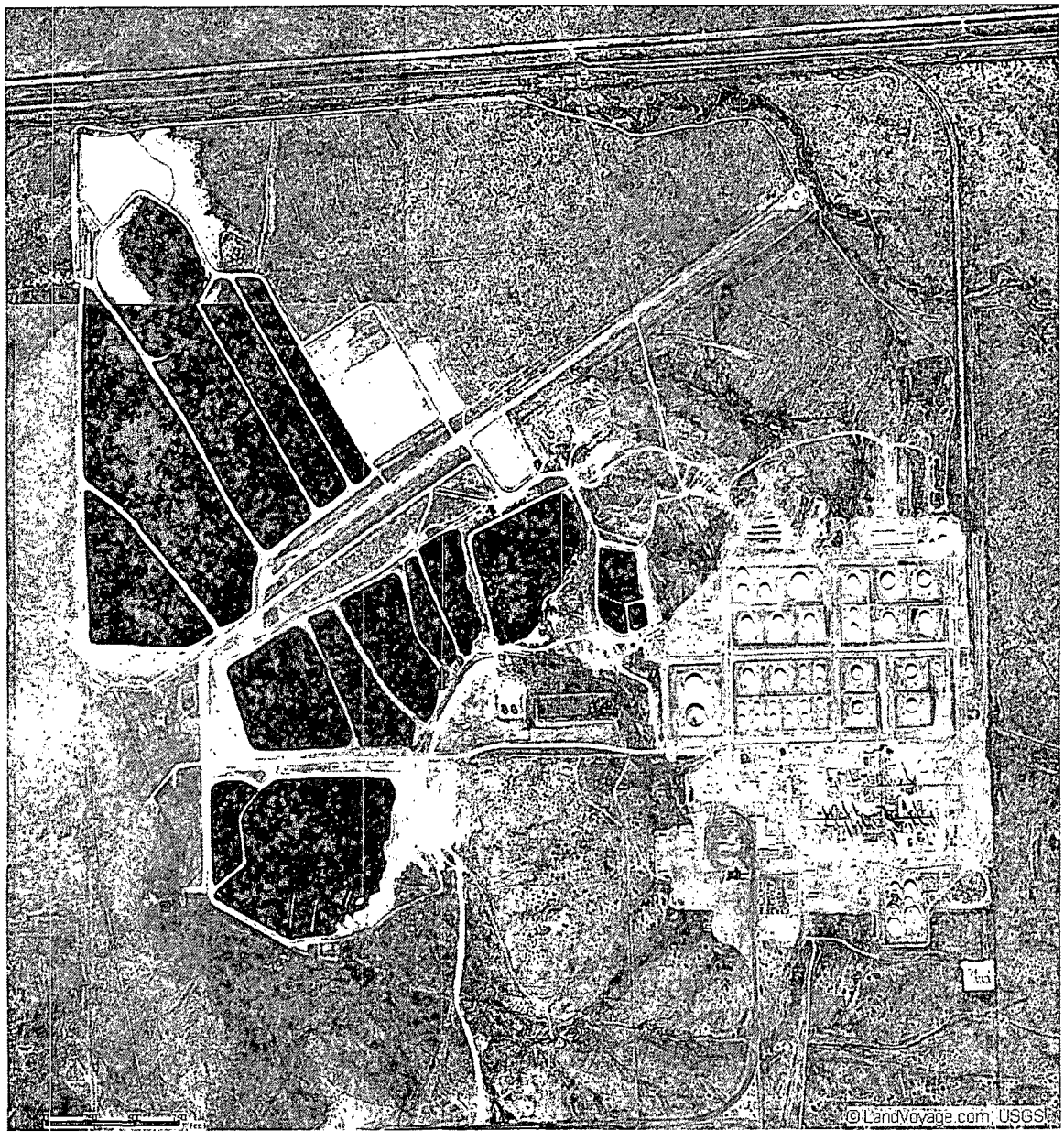


Figure 3. Aerial Photograph 1 (Gallup Refinery)

Flow lines and major surface water bodies (from: EPA Enviromapper - http://map24.epa.gov/EMR/?ZoomToWatershed=15020006) North is towards the top of the page.

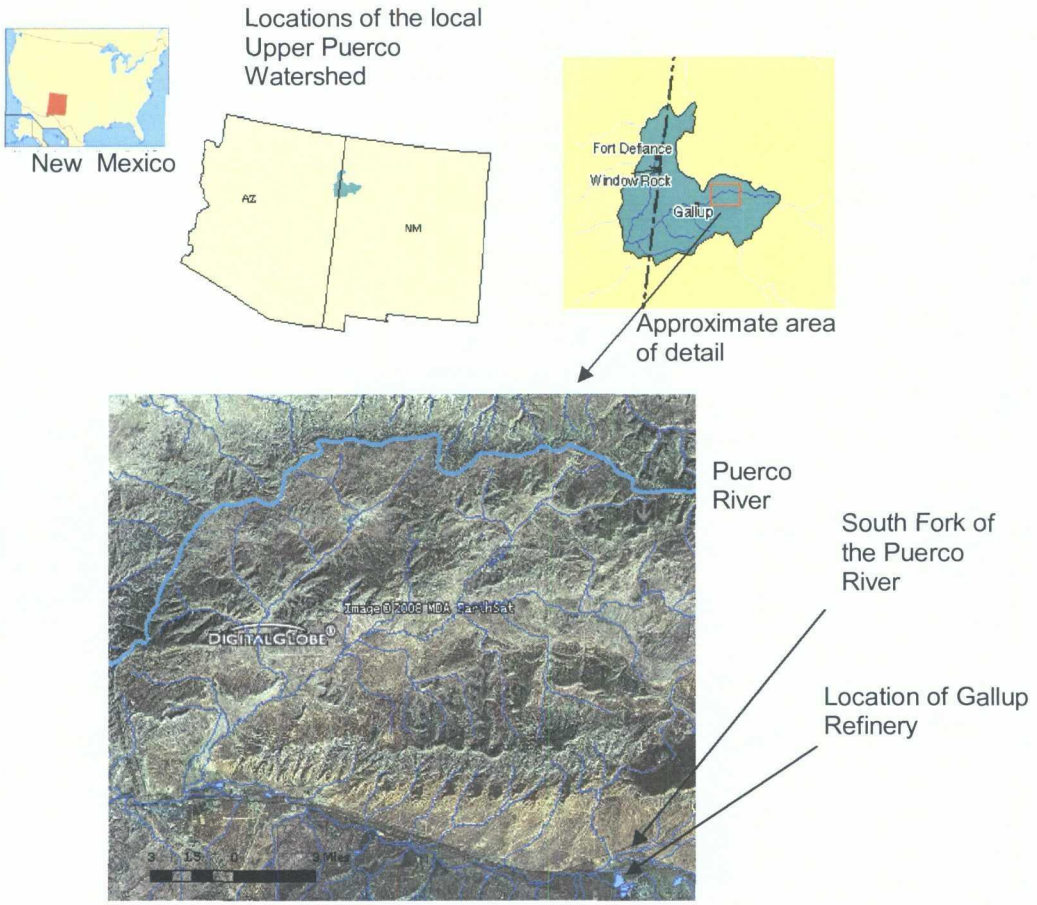


Figure 4. Regional Scale. 1 (Flow Lines and Major Surface Water Bodies)

Figure 5. Localized Scale 1 (Flow lines and major surface water bodies)

(from: EPA Enviromapper - http://map24.epa.gov/EMR/?ZoomToWatershed=15020006) North is towards the top of the page. The pond to the east is Jon Myers' Livestock Pond.

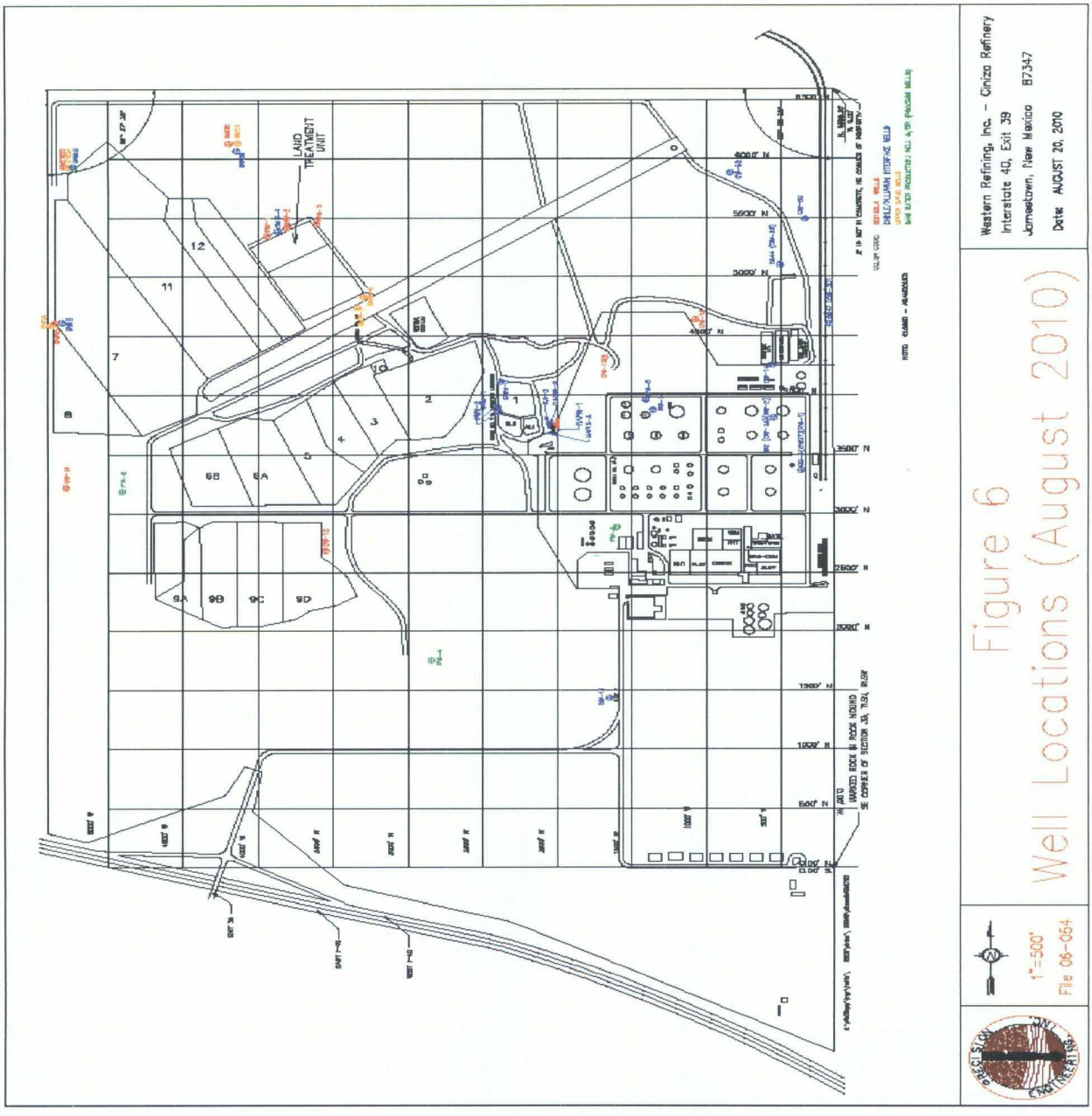


Figure 6: Well Locations 1 (Active Wells)

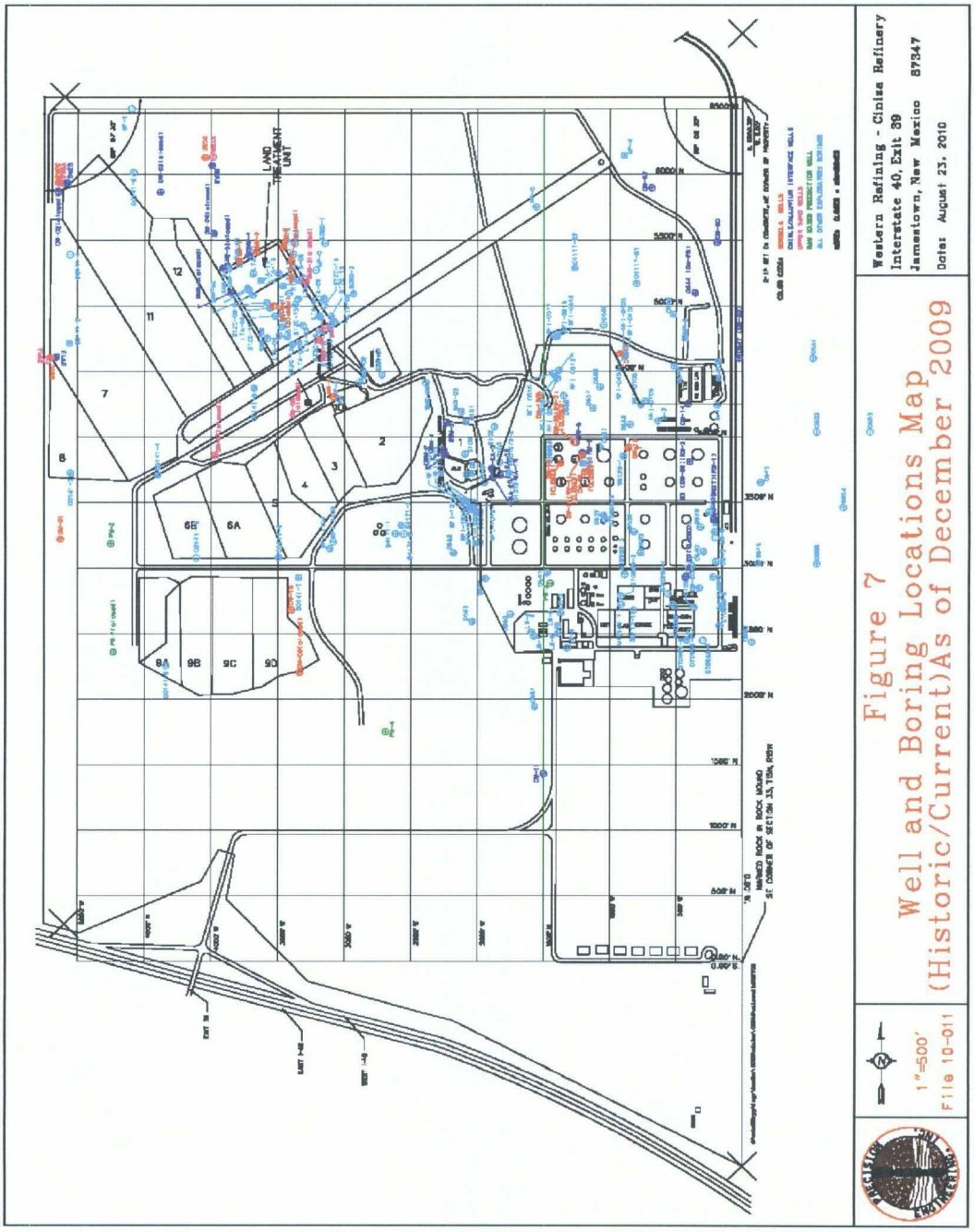


Figure 7: Well and Boring Locations 1 (Historic/Current)

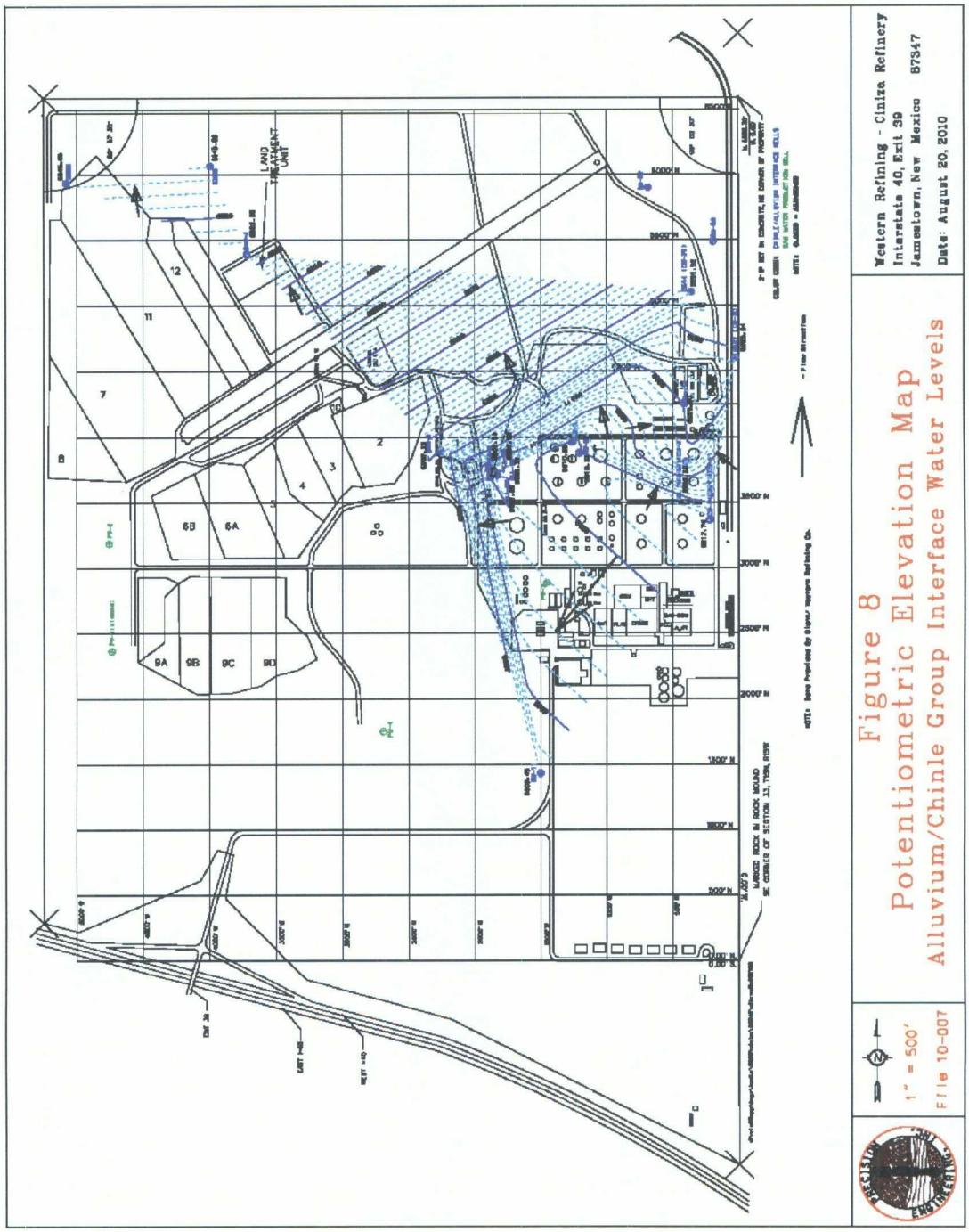


Figure 8: Potentiometric Elevation 1 (Chinle/Alluvium Group)

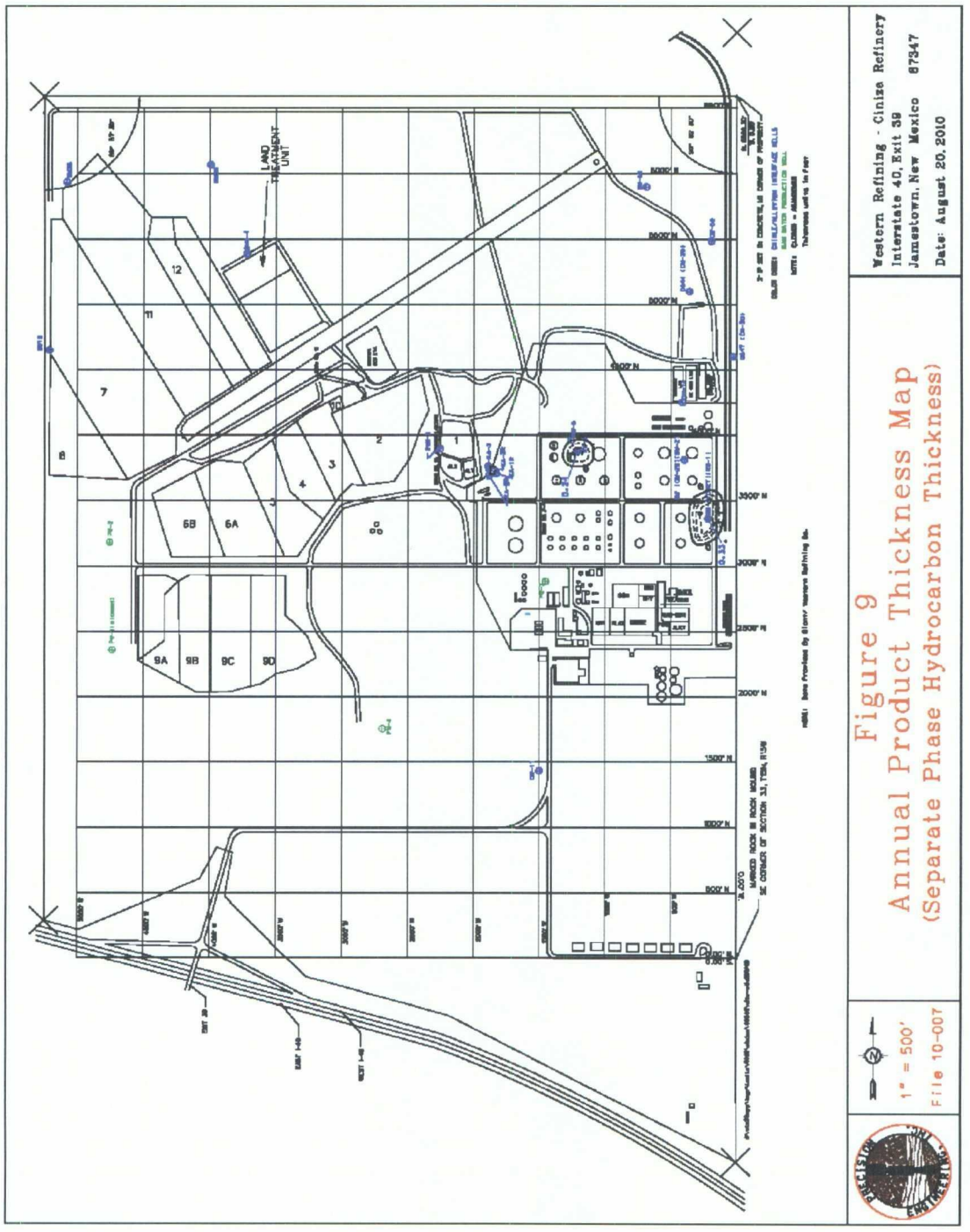


Figure 9: Annual Product Thickness 1 (Separate Phase Hydrocarbon Thickness)

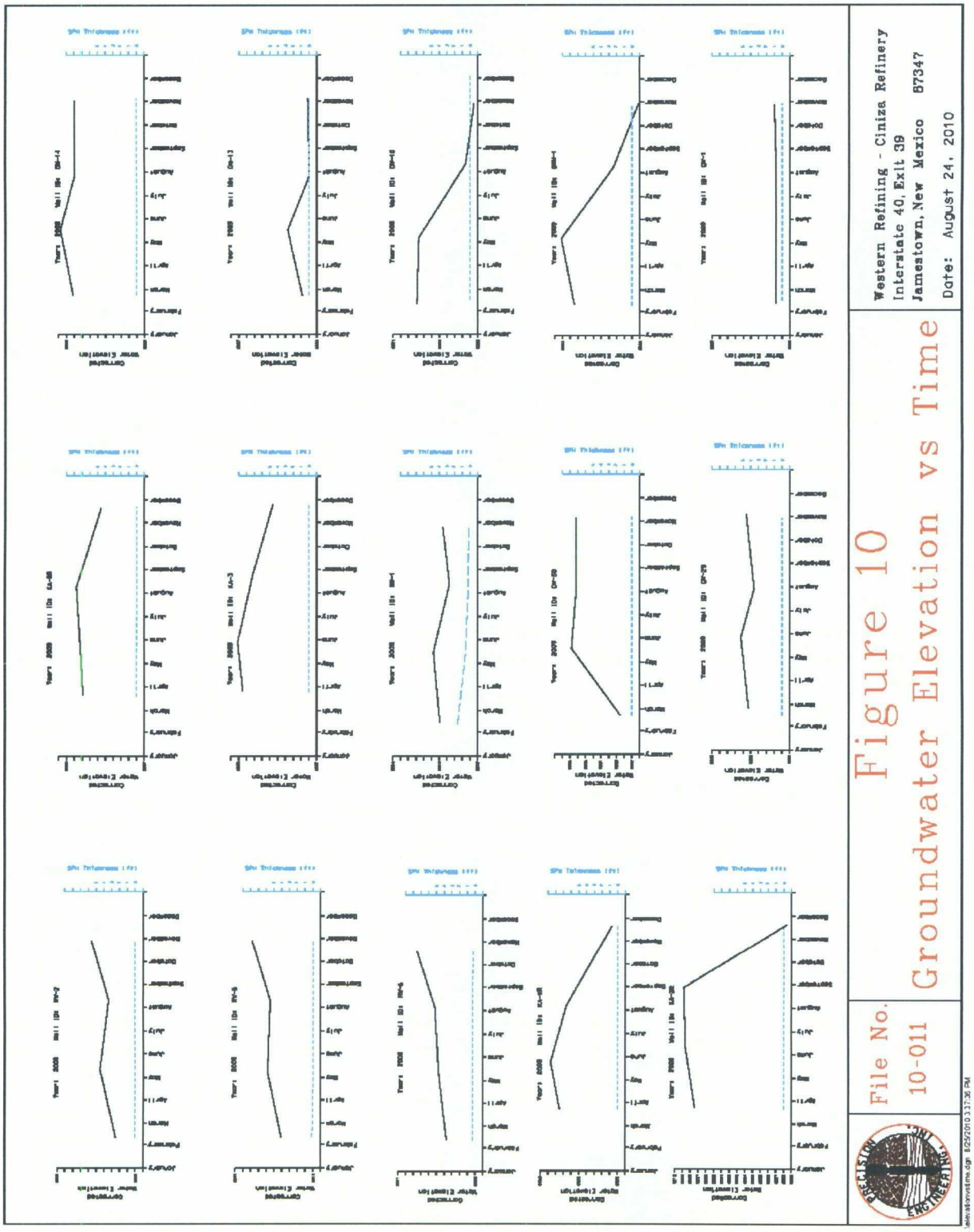


Figure 10. Ground Water Elevation 1

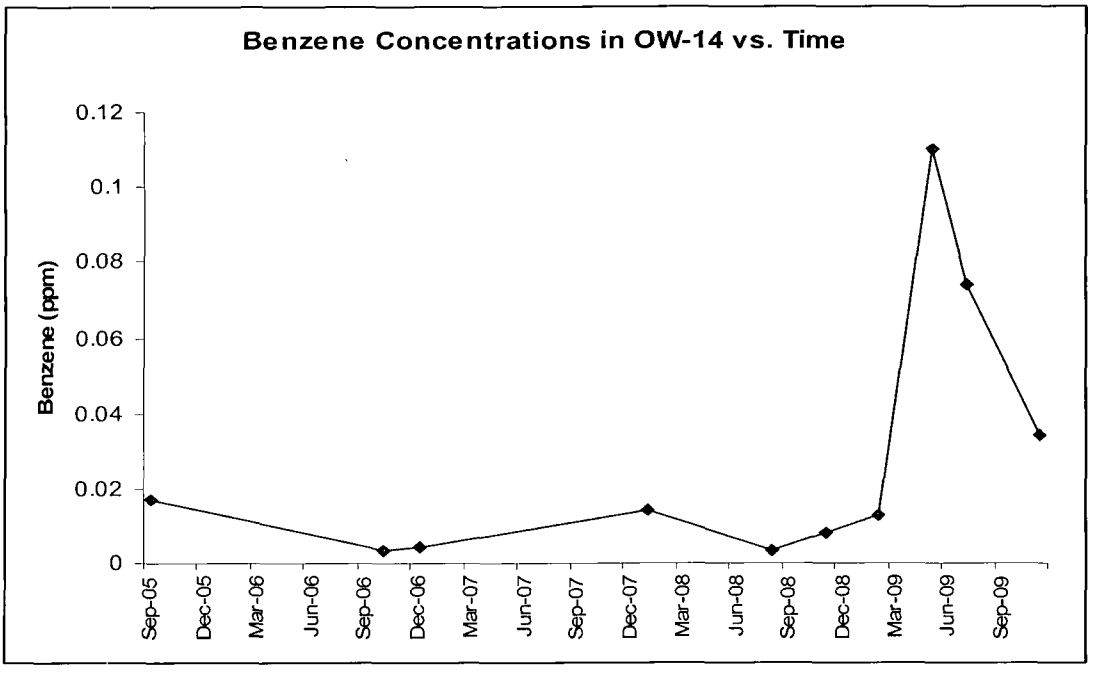


Figure 11. Benzene in OW-14 vs. Time 1

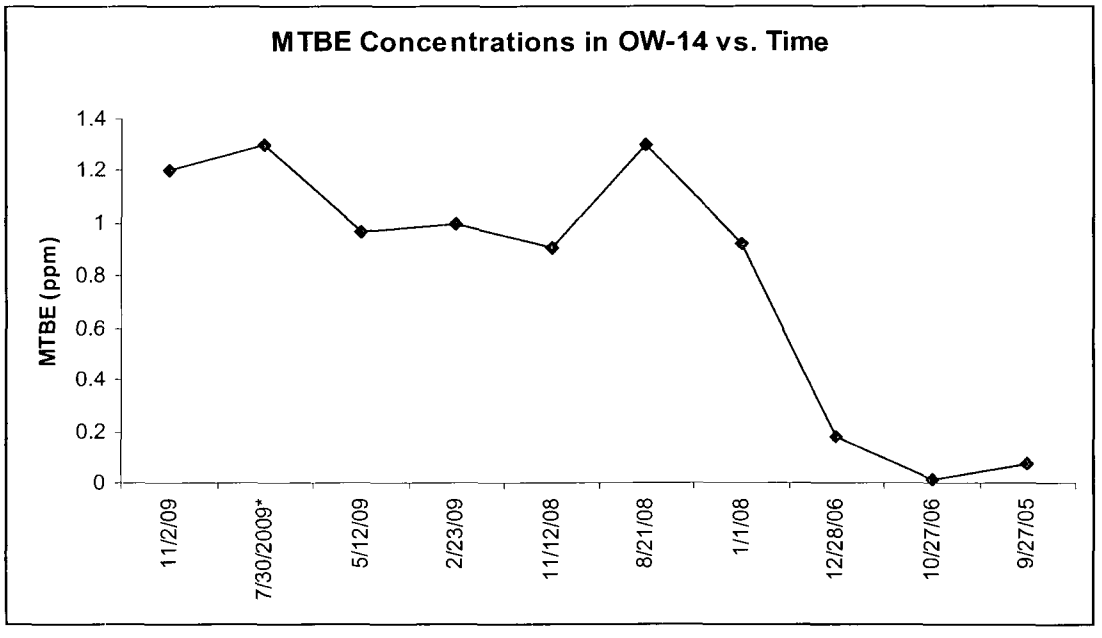


Figure 12. MTBE in OW-14 vs. Time 1

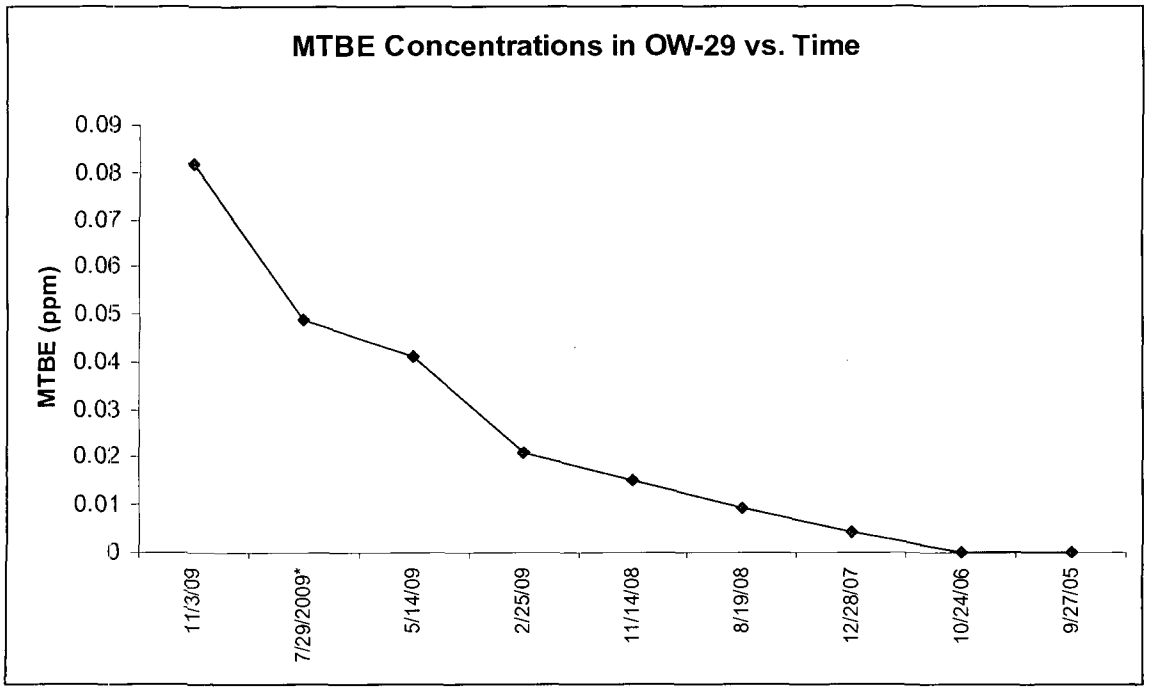


Figure 13. MTBE in OW-29 vs. Time 1

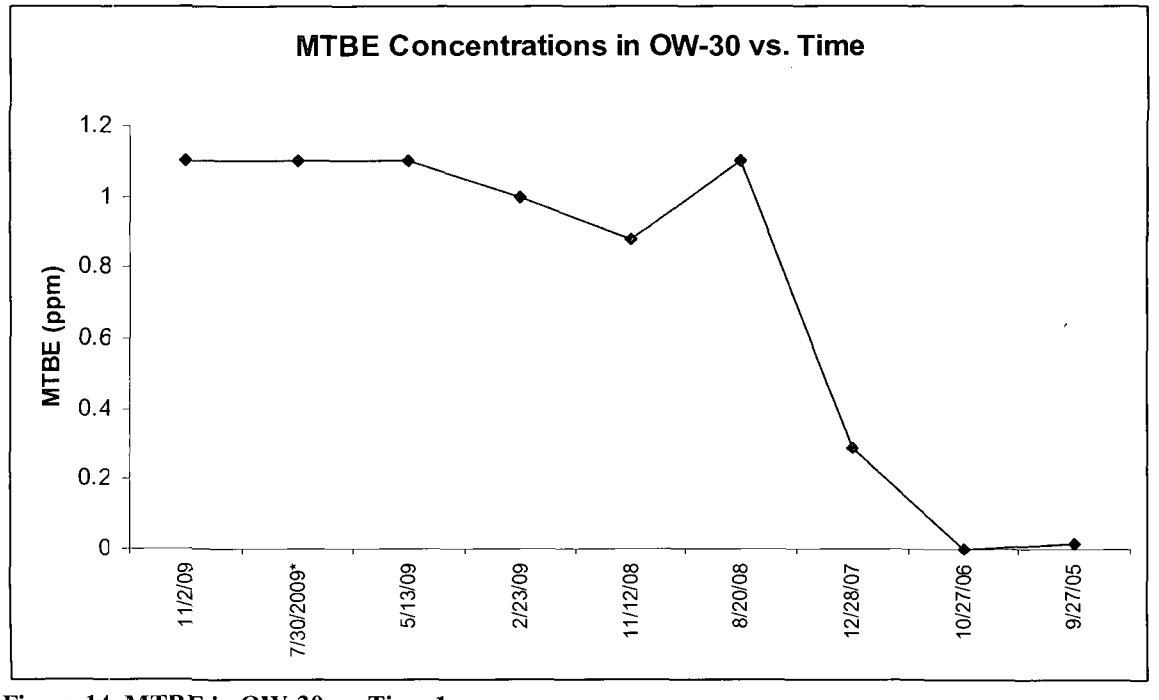


Figure 14. MTBE in OW-30 vs. Time 1

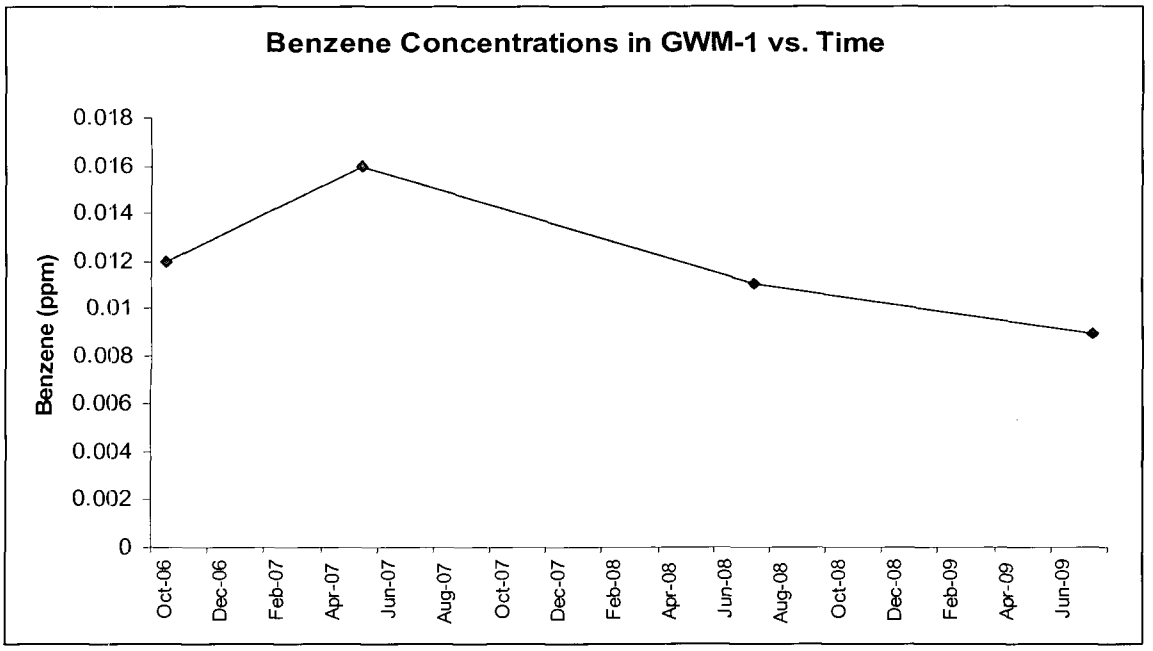


Figure 15. Benzene in GWM-1 vs. Time 1

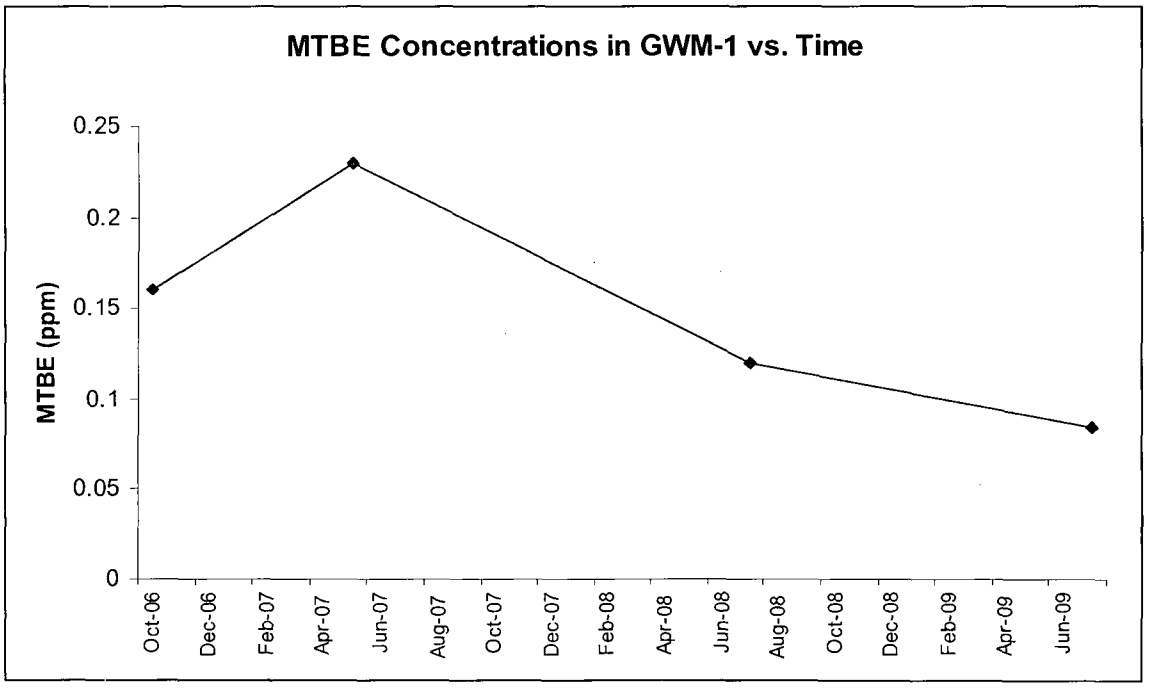


Figure 16. MTBE in GWM-1 vs. Time 1

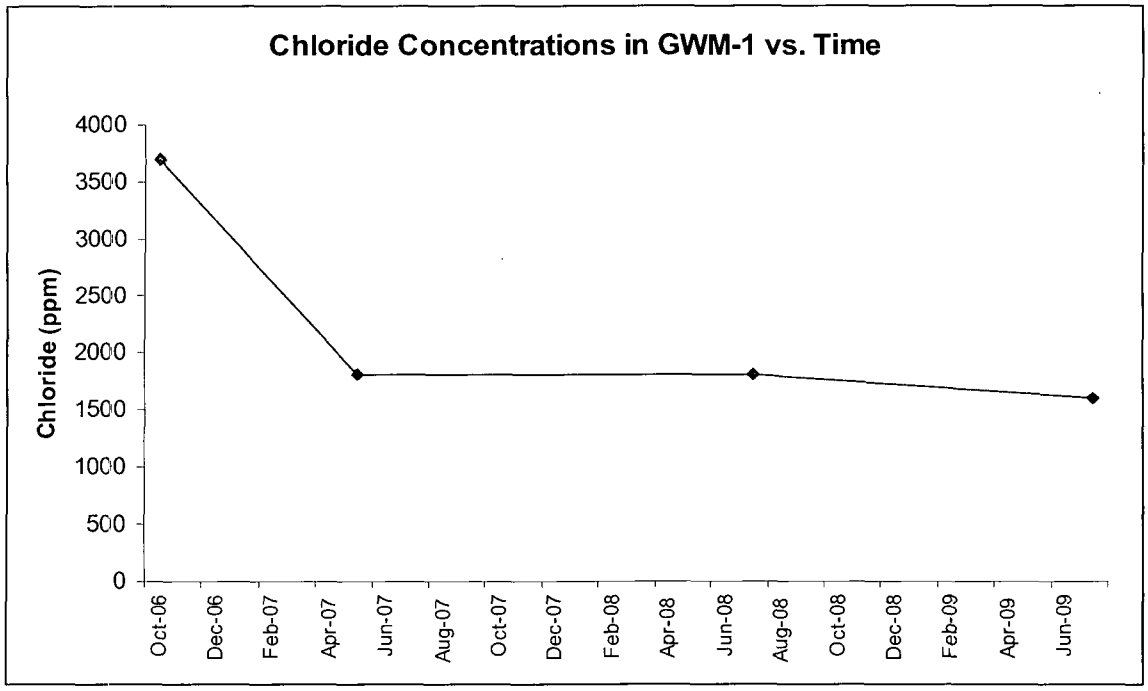


Figure 17. Chloride in GWM-1 vs. Time 1

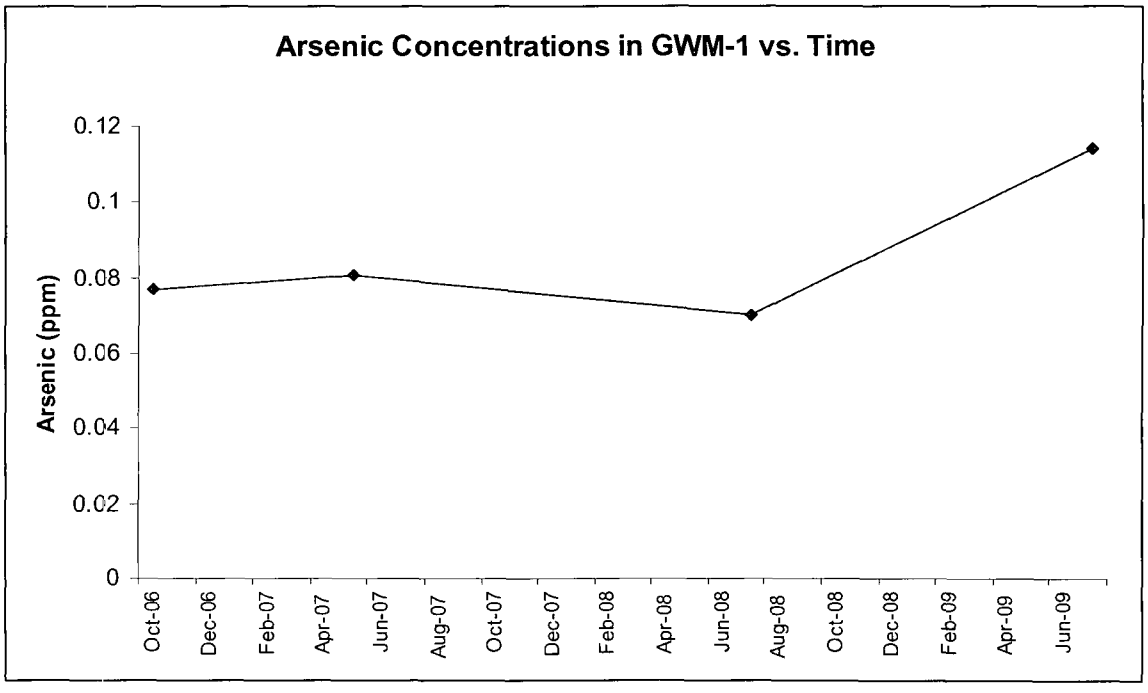


Figure 18. Arsenic in GWM-1 vs. Time 1

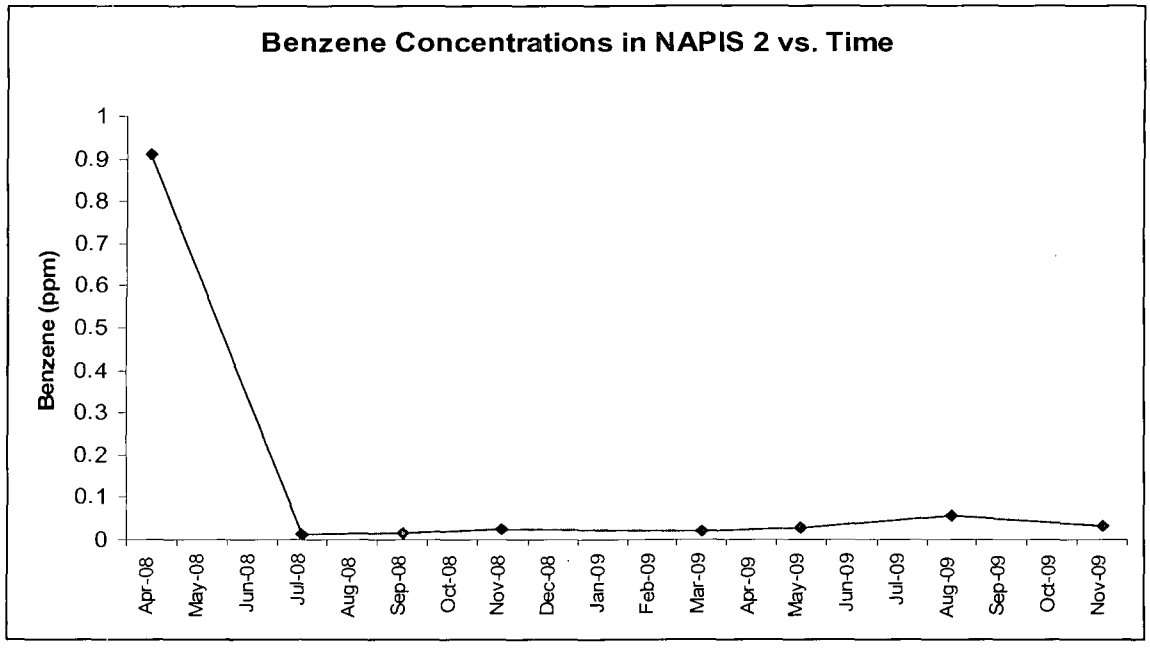


Figure 19. Benzene in NAPIS 2 vs. Time 1

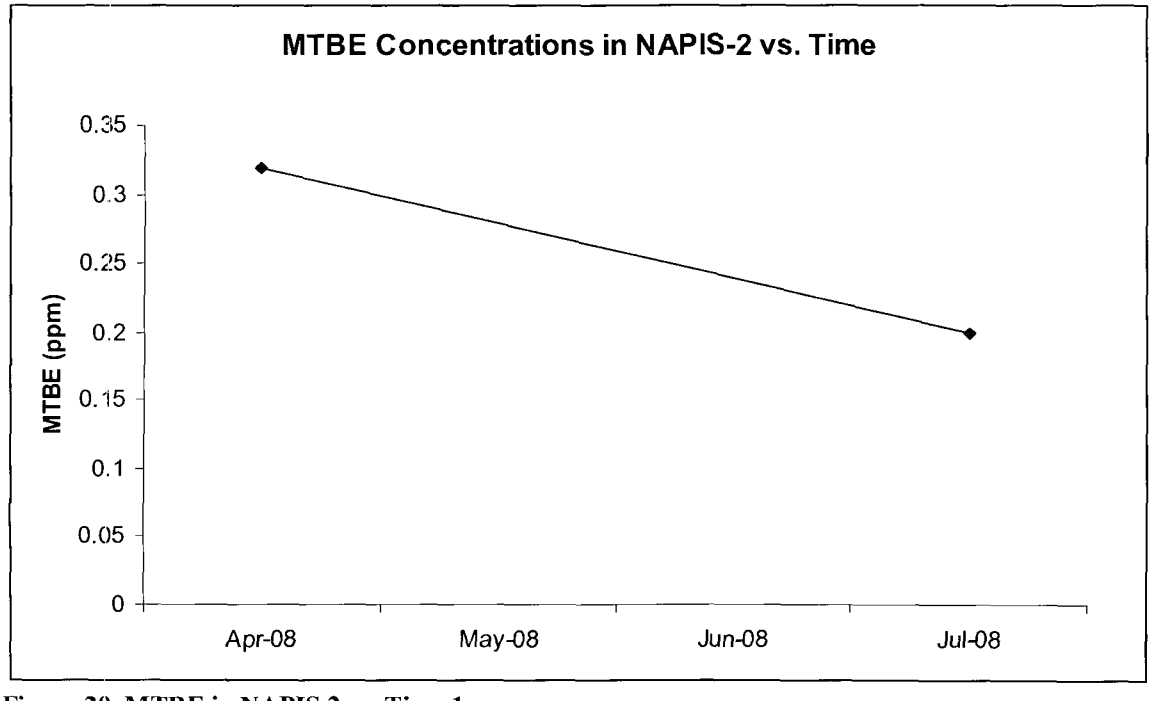


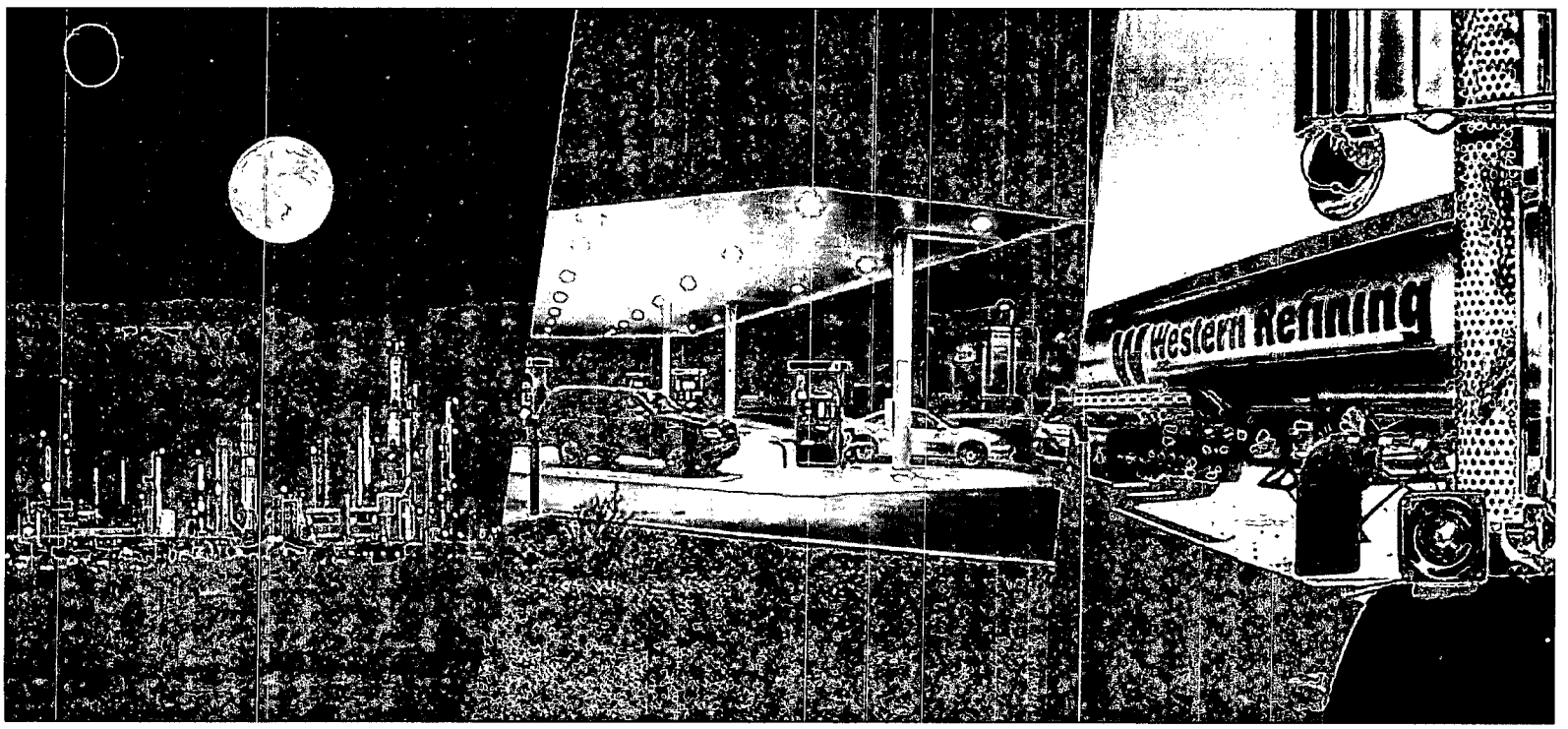
Figure 20. MTBE in NAPIS 2 vs. Time 1

BINDER 2 - Appendices

Annual Groundwater Monitoring Report: Gallup Refinery - 2009

Western Refining
Gallup, New Mexico

August 31, 2010



A	SEPARATE PHASE HYDROCARBONS RECOVERED (RW-1)
B	APPLICABLE STANDARDS
C	WELL AND FIELD LOGS
D	SUMMARY WASTE WATER TREATED & WATER BALANCE
E	SUMMARY UNDERGROUND WASTE WATER LINES TESTED
F	SUMMARY OF EPA/NMED/RCRA ACTIVITY
G	MAJOR REFINERY ACTIVITIES AND EVENTS
H	SUMMARY OF ALL LEAKS, SPILLS, RELEASES
I	NEW WELL DRILLING LOGS, SURVEY, LAB DATA
J	PERIMETER INSPECTIONS
K	TEMPORARY LAND FARM ANALYTICAL RESULTS
L	MONTHLY FLOW RATE TO NAPIS
M	ANALYTICAL DATA (BINDER 3)
N	
O	
P	
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X	
Y	
Z	

WESTERN REFINERY - GALLUP REFINERY

RW-1 HYDROCARBON RECOVERY LOG

2/22/05 TO 10/28/09

Date of measurement	Time	Quarter	Well #	Depth to Product (feet)	Depth to Water (feet)	Product Level Thickness (feet)	Volume of Product Bailed/ Pumped (gallons)	Water Gallons
2/22/2005	0830	1st.	**RW-1**	32'-5 1/2"	36'-6"	4'-0 1/2"	14	
3/2/2005	0745	1st.	**RW-1**	32'-5"	36'-5 1/4"	4'-0 1/4"	9	
3/8/2005	0830	1st.	**RW-1**	31'-11"	36'-4 1/4"	4'-5 1/4"	15	
3/9/2005	0830	1st.	**RW-1**	31'-11"	37'-6"	5'-7"	4	
3/11 to 3/18/05		1st.	**RW-1**	Started Pumping Well on 3/11/05			74	
3/18 to 3/23/05		1st.	**RW-1**	Continue Pumping			48	
3/23 to 4/1/05		1st.	**RW-1**	Continue Pumping			62	
4/1 To 4/4/05		2nd	**RW-1**	Pump shut down to measure well			27	
4/5/2005	11:30Hrs	2nd	**RW-1**	34'-9"	38'-11"	4'-2"		
4/4 TO 4/15/05	11:00Hrs	2nd	**RW-1**	Continue Pumping			50	
4-15 to 5-5-05	1230 Hrs	2nd	**RW-1**	Continue Pumping			45	154
5-5 to 6-17-05	1130 Hrs	2nd	**RW-1**	Continue Pumping			24	196
6/27/2005	1400 Hrs	2nd	**RW-1**	Pump shut down to measure well				
6/28/2005	1100 Hrs	2nd	**RW-1**	32' 5 1/2"	33' 3"	0' 9 1/2"		
6/28/2005		2nd	**RW-1**	Continue Pumping				
6/17 to 7/8/2005	1030 Hrs	2nd	**RW-1**	Continue Pumping			18	146
7/8 to 8/9/2005	1330 Hrs	3rd	**RW-1**	Continue Pumping			28	350
8/9 to 9/16/2005	1135 Hrs	3rd	**RW-1**	36'- 5 1/2"	36' - 6 1/2"	0' - 1"	8	240
12/5/2005	1315 Hrs	4th	**RW-1**	31'-11"	34'-8 1/2"	2'-9 1/2"		
12/8/2005	1400 Hrs	4th	**RW-1**	Start Pumping				
12/22/2005	1530 Hrs	4th	**RW-1**	Pulled Pump			5	120
12/29/2005	1400 Hrs	4th	**RW-1**	Hand Bailed			0.5	4.5
3/16/2006	1300 Hrs.	1st.	**RW-1**	32'-2 3/4"	34'-5 3/4"	2'-3"		
3/16/2006	1430 Hrs.	1st.	**RW-1**	Start Pumping				
3/23/2006	1430 Hrs.	1st.	**RW-1**	Shut Off Pump				
3/27/2006	1530 Hrs.	1st.	**RW-1**	Start Pumping				
3/31/2006	1130 Hrs.	1st.	**RW-1**	Continue Pumping			7	174
4/3/2006	1130 Hrs.	2nd	**RW-1**	Stopped Pumping			1	38
4/4/2006	1100 Hrs.	2nd	**RW-1**	32'-9"	33'-1"	0'-4"		
6/6/2006	1300 Hrs.	2nd	**RW-1**	32'-4 3/4"	34'-6 1/2"	2'-1 3/4"		
6/8/2006	1500 Hrs.	2nd	**RW-1**	Start Pumping (Intermittingly)				
6/29/2006	1000 Hrs.	2nd	**RW-1**	Stopped Pumping			8	365
7/31/2006	1145 Hrs	3rd	**RW-1**	33'-0 3/4"	33'-5 3/4"	0'-5"		
7/31/2006	1145 Hrs	3rd	**RW-1**	Start Pumping				
8/3/2006	1420 Hrs	3rd	**RW-1**	Stopped Pumping			2	87
8/8/2006	0900 Hrs.	3rd	**RW-1**	Start Pumping				
8/10/2006	1530 HRS	3rd	**RW-1**	Start pumping				
8/22/2006	0900 Hrs.	3rd	**RW-1**	Pulled pump			4.9	373
8/22/2006	0945 HRS	3rd	**RW-1**	33.10	33.40	0.30		
12/21/2006	1555 hrs	4th	**RW-1**	35.20	36.00	0.80	0.62	70
2/21/2007	1015 hrs	1st.	**RW-1**	33.42	34.60	1.18	0.63	53.5
6/5/2007	1000 Hrs.	2nd	**RW-1**	32.42	32.71	0.29		
6/5/2007	1010 hrs	2nd		Hand Bailed			0.05	9
6/6/2007	840 hrs	2nd		Hand Bailed			0.1	11
6/13/2007	1400 hrs	2nd		Hand Bailed			0.1	12
6/14/2007	1040 hrs	2nd		Hand Bailed			0.05	8
7/10/2007	1008 hrs	3rd	**RW-1**	32.42	32.71	0.29	0.3	18

Date of measurement	Time	Quarter	Well #	Depth to Product (feet)	Depth to Water (feet)	Product Level Thickness (feet)	Volume of Product Bailed/ Pumped (gallons)	Water Gallons
7/11/2007	925 hrs	3rd	**RW-1**	Hand Bailed			0.21	12.5
7/23/2007	1000 Hrs.	3RD	**RW-1**	Hand Bailed			0.10	5.5
11/26/2007	1050 hrs	4th	**RW-1**	30.76	36.45	5.69	0.18	37
2/18/2008	1532 hrs	1st.	**RW-1**	30.18	34.77	4.59	1.66	36
5/21/2008	1410 hrs	2nd	**RW-1**	30.33	34.57	4.24	1.39	51
9/12/2008	1430 Hrs.	3rd	**RW-1**	30.03	34.59	4.56	NOT BAILED	
11/13/2008	1300 hrs.	4th	**RW-1**	30.02	34.63	4.61	0.94	65
2/11/2009	1405 hrs	1st.	**RW-1**	30.21	31.72	1.51	0.29	90
5/5/2009	1130 hrs	2nd	**RW-1**	30.22	30.8	0.58	0.41	76
8/10/2009	922 hrs	3rd	**RW-1**	30.69	31.02	0.33	0.89	98
10/28/2009	1055 hrs	4th	**RW-1**	30.56	30.75	0.19	0.19	74
					Total Gallons		**459.78**	**2571**

APPENDIX B
Listing of Applicable Standards

New Mexico Water Quality Control Commission Ground Water Standards

A. Human Health Standards - Ground water shall meet the standards of Section A and B unless otherwise provided. If more than one water contaminant affecting human health is present, the toxic pollutant criteria of WQCC Section 1-101.UU. for the combination of contaminants, or the Human Health Standard of WQCC Section 3-103.A. for each contaminant shall apply, whichever is more stringent.

Arsenic (As) 0.1 mg/l
Barium (Ba) 1.0 mg/l
Cadmium (Cd) 0.01 mg/l
Chromium (Cr) 0.05 mg/l
Cyanide (CN) 0.2 mg/l
Fluoride (F) 1.6 mg/l
Lead (Pb) 0.05 mg/l
Total Mercury (Hg) 0.002 mg/l
Nitrate (NO3 as N) 10.0 mg/l
Selenium (Se) 0.05 mg/l
Silver (Ag) 0.05 mg/l
Uranium (U) 5.0 mg/l
Radioactivity: Combined
Radium-226 & Radium-228 30.0 pCi/l
Benzene 0.01 mg/l
Polychlorinated biphenyls (PCB's) 0.001 mg/l
Toluene 0.75 mg/l
Carbon Tetrachloride 0.01 mg/l
1,2-Dichloroethane (EDC) 0.01 mg/l
1,1-Dichloroethylene (1, 1-DCE) 0.005 mg/l
1, 1,2,2-tetrachloroethylene (PCE) 0.02 mg/l
1, 1,2-trichloroethylene (TCE) 0.1 mg/l
Ethylbenzene 0.75 mg/l
Total xylenes 0.62 mg/l
Methylene chloride 0.1 mg/l
Chloroform 0.1 mg/l
1, 1 -dichloroethane 0.025 mg/l
Ethylene dibromide (EDB) 0.0001 mg/l
1, 1, 1 -trichloroethane 0.06 mg/l
1, 1,2-trichloroethane 0.01 mg/l
1, 1,2,2-tetrachloroethane 0.01 mg/l
vinyl chloride 0.001 mg/l
PAH'S: total naphthalene plus Monomethylnaphthalenes 0.03 mg/l
Benzo-a-pyrene 0.0007 mg/l

B. Other Standards for Domestic Water Supply

Chloride (Cl) 250. mg/l
Copper (Cu) 1.0 mg/l
Iron (Fe) 1.0 mg/l
Manganese (Mn) 0.2 mg/l
Phenols 0.005 mg/l
Sulfate (SO4) 600. mg/l
Total Dissolved Solids (TDS) 1000. mg/l
Zinc (Zn) 10. mg/l
pH between 6 and 9

C. Standards for Irrigation Use

Ground water shall meet the standards of subsections A, B, and C unless otherwise provided.

Aluminum (Al) 5.0 mg/l
Boron (B) 0.75 mg/l
Cobalt (Co) 0.05 mg/l
Molybdenum (Mo) 1.0 mg/l
Nickel (Ni) 0.2 mg/l

EPA National Primary and Secondary Drinking Water Standards (Maximum Contaminant Levels)

Microorganisms

Contaminant	MCLG[1] (mg/L)[2]	MCL or TT[1] (mg/L)[2]	Potential Health Effects from Ingestion of Water	Sources of Contaminant in Drinking Water
Cryptosporidium (pdf file)	zero	TT [3]	Gastrointestinal illness (e.g., diarrhea, vomiting, cramps)	Human and animal fecal waste
Giardia lamblia	zero	TT[3]	Gastrointestinal illness (e.g.,	Human and animal

NEW MEXICO ENVIRONMENT DEPARTMENT TPH SCREENING GUIDELINES
October 2006

Guidelines for Direct Ingestion

TPH			Concentration in Groundwater (mg/L)
Petroleum Product	Residential Direct Exposure (mg/kg)	Industrial Direct Exposure (mg/kg)	
Diesel #2/crankcase oil	520	1120	1.72
#3 and #6 Fuel Oil	440	890	1.34
Kerosene and jet fuel	760	1810	2.86
Mineral oil dielectric fluid	1440	3040	3.64
Unknown oil [a]	200	200	0.2
Waste Oil [b]	2500	5000	Petroleum-Related Contaminants
Gasoline	Not applicable	Not applicable	Petroleum-Related Contaminants

[a] Sites with oil from unknown sources must be tested for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, and polychlorinated biphenyls (PCBs) to determine if other potentially toxic constituents are present. The TPH guidelines in Table 2 are not designed to be protective of exposure to these constituents therefore they must be tested for, and compared to, their individual NMED soil screening guidelines.

[b] Compositional assumption for waste oil developed by NMED is based on review of chromatographs of several types of waste oil. Sites with waste oil must be tested for VOCs, SVOCs, metals, and PCBs to determine if other potentially toxic constituents are present. The TPH guidelines in Table 2 are not designed to be protective of exposure to these constituents therefore they must be tested for, and compared to, their individual NMED soil screening guidelines.

TPH Screening Guidelines – Vapor Migration and Inhalation of Groundwater (GW-2)

TPH			Concentration in Groundwater (mg/L)
Petroleum Product	Residential Direct Exposure (mg/kg)	Industrial Direct Exposure (mg/kg)	
Diesel #2/crankcase oil	880	2200	30.4
#3 and #6 Fuel Oil	860	2150	35.3
Kerosene and jet fuel	940	2350	15.7
Mineral oil dielectric fluid	1560	3400	10.4
Unknown oil [a]	800	2000	50.0
Waste Oil [b]	2500	5000	Petroleum-Related Contaminants
Gasoline	Not applicable	Not applicable	Petroleum-Related Contaminants

[a] Sites with oil from unknown sources must be tested for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, and polychlorinated biphenyls (PCBs) to determine if other potentially toxic constituents are present. The TPH guidelines in Table 2 are not designed to be protective of exposure to these constituents therefore they must be tested for, and compared to, their individual NMED soil screening guidelines.

[b] Compositional assumption for waste oil developed by NMED is based on review of chromatographs of several types of waste oil. Sites with waste oil must be tested for VOCs, SVOCs, metals, and PCBs to determine if other potentially toxic constituents are present. The TPH guidelines in Table 2 are not designed to be protective of exposure to these constituents therefore they must be tested for, and compared to, their individual NMED soil screening guidelines.

Residential Risk Screening Levels for Tap Water

Analyte	Tapwater ug/L
ALAR	3.7E+00
Acephate	7.7E+00
Acetaldehyde	2.2E+00
Acetochlor	7.3E+02
Acetone	2.2E+04
Acetone Cyanohydrin	5.8E+01
Acetonitrile	1.3E+02
Acetophenone	3.7E+03
Acetylaminofluorene, 2-	1.8E-02
Acrolein	4.2E-02
Acrylamide	1.5E-02
Acrylic Acid	1.8E+04
Acrylonitrile	4.5E-02
Adiponitrile	
Alachlor	1.2E+00
Aldicarb	3.7E+01
Aldicarb Sulfone	3.7E+01
Aldrin	4.0E-03
Ally	9.1E+03
Allyl Alcohol	1.8E+02
Allyl Chloride	6.5E-01
Aluminum	3.7E+04
Aluminum Phosphide	1.5E+01
Amdro	1.1E+01
Ametryn	3.3E+02
Aminobiphenyl, 4-	3.2E-03
Aminophenol, m-	2.9E+03
Aminophenol, p-	7.3E+02
Amitraz	9.1E+01
Ammonia	
Ammonium Perchlorate	2.6E+01
Ammonium Sulfamate	7.3E+03
Aniline	1.2E+01
Antimony (metallic)	1.5E+01
Antimony Pentoxide	1.8E+01
Antimony Potassium Tartrate	3.3E+01
Antimony Tetroxide	1.5E+01
Antimony Trioxide	
Apollo	4.7E+02
Aramite	2.7E+00
Arsenic, Inorganic	4.5E-02
Arsine	
Assure	3.3E+02
Asulam	1.8E+03
Atrazine	2.9E-01

Avermectin B1	1.5E+01
Azobenzene	1.2E-01
Barium	7.3E+03
Baygon	1.5E+02
Bayleton	1.1E+03
Baythroid	9.1E+02
Benefin	1.1E+04
Benomyl	1.8E+03
Bentazon	1.1E+03
Benzaldehyde	3.7E+03
Benzene	4.1E-01
Benzenethiol	3.7E-01
Benzidine	9.4E-05
Benzoic Acid	1.5E+05
Benzotrichloride	5.2E-03
Benzyl Alcohol	1.8E+04
Benzyl Chloride	7.9E-02
Beryllium and compounds	7.3E+01
Bidrin	3.7E+00
Bifenox	3.3E+02
Biphenthrin	5.5E+02
Biphenyl, 1,1'-	1.8E+03
Bis(2-chloro-1-methylethyl) ether	3.2E-01
Bis(2-chloroethoxy)methane	1.1E+02
Bis(2-chloroethyl)ether	1.2E-02
Bis(2-ethylhexyl)phthalate	4.8E+00
Bis(chloromethyl)ether	6.2E-05
Bisphenol A	1.8E+03
Boron And Borates Only	7.3E+03
Boron Trifluoride	
Bromate	9.6E-02
Bromobenzene	2.0E+01
Bromodichloromethane	1.2E-01
Bromoform	8.5E+00
Bromomethane	8.7E+00
Bromophos	1.8E+02
Bromoxynil	7.3E+02
Bromoxynil Octanoate	7.3E+02
Butadiene, 1,3-	1.8E-02
Butanol, N-	3.7E+03
Butyl Benzyl Phthlate	3.5E+01
Butyl alcohol, sec-	7.3E+04
Butylate	1.8E+03
Butylphthalyl Butylglycolate	3.7E+04
Cacodylic Acid	7.3E+02
Cadmium (Diet)	
Cadmium (Water)	1.8E+01
Caprolactam	1.8E+04
Captafol	4.5E-01
Captan	2.9E+01

Carbaryl	3.7E+03
Carbofuran	1.8E+02
Carbon Disulfide	1.0E+03
Carbon Tetrachloride	2.0E-01
Carbosulfan	3.7E+02
Carboxin	3.7E+03
Chloral Hydrate	3.7E+03
Chloramben	5.5E+02
Chloranil	1.7E-01
Chlordane	1.9E-01
Chlordecone (Kepone)	4.2E-03
Chlorfenvinphos	2.6E+01
Chlorimuron, Ethyl-	7.3E+02
Chlorine	3.7E+03
Chlorine Dioxide	1.1E+03
Chlorite (Sodium Salt)	1.1E+03
Chloro-1,1-difluoroethane, 1-	1.0E+05
Chloro-1,3-butadiene, 2-	1.4E+01
Chloro-2-methylaniline HCl, 4-	1.5E-01
Chloro-2-methylaniline, 4-	2.5E-01
Chloroacetic Acid	7.3E+01
Chloroacetophenone, 2-	
Chloroaniline, p-	3.4E-01
Chlorobenzene	9.1E+01
Chlorobenzilate	6.1E-01
Chlorobenzotrifluoride, 4-	9.3E+01
Chlorobutane, 1-	1.5E+03
Chlorodifluoromethane	1.0E+05
Chloroform	1.9E-01
Chloromethane	1.9E+02
Chloromethyl Methyl Ether	5.6E-03
Chloronaphthalene, Beta-	2.9E+03
Chloronitrobenzene, o-	6.9E+00
Chloronitrobenzene, p-	1.1E+01
Chlorophenol, 2-	1.8E+02
Chloropicrin	
Chlorothalonil	2.2E+01
Chlorotoluene, o-	7.3E+02
Chlorotoluene, p-	2.6E+03
Chlorpropham	7.3E+03
Chlorpyrifos	1.1E+02
Chlorpyrifos Methyl	3.7E+02
Chlorsulfuron	1.8E+03
Chlorthiophos	2.9E+01
Chromium (III) (Insoluble Salts)	5.5E+04
Chromium VI (chromic acid mists)	1.1E+02
Chromium VI (particulates)	
Chromium(VI), Aerosol Mists	7.3E+02
Chromium, Total (1:6 ratio Cr VI : Cr III)	
Cobalt	1.1E+01

Coke Oven Emissions	
Copper	1.5E+03
Cresol, m-	1.8E+03
Cresol, o-	1.8E+03
Cresol, p-	1.8E+02
Cresols	9.3E+02
Crotonaldehyde, trans-	3.5E-02
Cumene	6.8E+02
Cyanazine	8.0E-02
Cyanides	
~Calcium Cyanide	1.5E+03
~Copper Cyanide	1.8E+02
~Cyanide (CN-)	7.3E+02
~Cyanogen	1.5E+03
~Cyanogen Bromide	3.3E+03
~Cyanogen Chloride	1.8E+03
~Hydrogen Cyanide	6.2E+00
~Potassium Cyanide	1.8E+03
~Potassium Silver Cyanide	7.3E+03
~Silver Cyanide	3.7E+03
~Sodium Cyanide	1.5E+03
~Thiocyanate	7.3E+00
~Zinc Cyanide	1.8E+03
Cyclohexane	1.3E+04
Cyclohexane, 1,2,3,4,5-pentabromo-6-chloro-	2.9E+00
Cyclohexanone	1.8E+05
Cyclohexylamine	7.3E+03
Cyhalothrin/karate	1.8E+02
Cypermethrin	3.7E+02
Cyromazine	2.7E+02
DDD	2.8E-01
DDE, p,p'-	2.0E-01
DDT	2.0E-01
Dacthal	3.7E+02
Dalapon	1.1E+03
Decabromodiphenyl ether, 2,2',3,3',4,4',5,5',6,6'- (BDE-209)	9.6E+01
Demeton	1.5E+00
Di(2-ethylhexyl)adipate	5.6E+01
Diallate	1.1E+00
Diazinon	2.6E+01
Dibromo-3-chloropropane, 1,2-	3.2E-04
Dibromobenzene, 1,4-	3.7E+02
Dibromochloromethane	1.5E-01
Dibromoethane, 1,2-	6.5E-03
Dibromomethane (Methylene Bromide)	3.7E+02
Dibutyl Phthalate	3.7E+03
Dibutyltin Compounds	1.1E+01
Dicamba	1.1E+03
Dichloro-2-butene, 1,4-	1.2E-03

Dichloro-2-butene, cis-1,4-	1.2E-03
Dichloro-2-butene, trans-1,4-	1.2E-03
Dichloroacetic Acid	1.3E+00
Dichlorobenzene, 1,2-	3.7E+02
Dichlorobenzene, 1,4-	4.3E-01
Dichlorobenzidine, 3,3'-	1.5E-01
Dichlorodifluoromethane	3.9E+02
Dichloroethane, 1,1-	2.4E+00
Dichloroethane, 1,2-	1.5E-01
Dichloroethylene, 1,1-	3.4E+02
Dichloroethylene, 1,2- (Mixed Isomers)	3.3E+02
Dichloroethylene, 1,2-cis-	3.7E+02
Dichloroethylene, 1,2-trans-	1.1E+02
Dichlorophenol, 2,4-	1.1E+02
Dichlorophenoxy Acetic Acid, 2,4-	3.7E+02
Dichlorophenoxy)butyric Acid, 4-(2,4-	2.9E+02
Dichloropropane, 1,2-	3.9E-01
Dichloropropane, 1,3-	7.3E+02
Dichloropropanol, 2,3-	1.1E+02
Dichloropropene, 1,3-	4.3E-01
Dichlorvos	2.3E-01
Dicyclopentadiene	1.4E+01
Dieldrin	4.2E-03
Diesel Engine Exhaust	
Diethyl Phthalate	2.9E+04
Diethylene Glycol Monobutyl Ether	3.7E+02
Diethylene Glycol Monoethyl Ether	2.2E+03
Diethylformamide	3.7E+01
Diethylstilbestrol	1.9E-04
Difenzoquat	2.9E+03
Diflubenzuron	7.3E+02
Difluoroethane, 1,1-	8.3E+04
Diisopropyl Ether	8.3E+02
Diisopropyl Methylphosphonate	2.9E+03
Dimethipin	7.3E+02
Dimethoate	7.3E+00
Dimethoxybenzidine, 3,3'-	4.8E+00
Dimethyl methylphosphonate	4.0E+01
Dimethylamino azobenzene [p-]	1.5E-02
Dimethylaniline HCl, 2,4-	1.2E-01
Dimethylaniline, 2,4-	9.0E-02
Dimethylaniline, N,N-	7.3E+01
Dimethylbenzidine, 3,3'-	6.1E-03
Dimethylformamide	3.7E+03
Dimethylhydrazine, 1,2-	1.2E-04
Dimethylphenol, 2,4-	7.3E+02
Dimethylphenol, 2,6-	2.2E+01
Dimethylphenol, 3,4-	3.7E+01
Dimethylterephthalate	3.7E+03
Dinitro-o-cresol, 4,6-	3.7E+00

Dinitro-o-cyclohexyl Phenol, 4,6-	7.3E+01
Dinitrobenzene, 1,2-	3.7E+00
Dinitrobenzene, 1,3-	3.7E+00
Dinitrobenzene, 1,4-	3.7E+00
Dinitrophenol, 2,4-	7.3E+01
Dinitrotoluene Mixture, 2,4/2,6-	9.9E-02
Dinitrotoluene, 2,4-	2.2E-01
Dinitrotoluene, 2,6-	3.7E+01
Dinitrotoluene, 2-Amino-4,6-	7.3E+01
Dinitrotoluene, 4-Amino-2,6-	7.3E+01
Dinoseb	3.7E+01
Dioxane, 1,4-	6.1E+00
Dioxins	
~Hexachlorodibenzo-p-dioxin, Mixture	1.1E-05
~TCDD, 2,3,7,8-	5.2E-07
Diphenamid	1.1E+03
Diphenyl Sulfone	1.1E+02
Diphenylamine	9.1E+02
Diphenylhydrazine, 1,2-	8.4E-02
Diquat	8.0E+01
Direct Black 38	9.1E-03
Direct Blue 6	9.1E-03
Direct Brown 95	1.0E-02
Disulfoton	1.5E+00
Dithiane, 1,4-	3.7E+02
Diuron	7.3E+01
Dodine	1.5E+02
EPTC	9.1E+02
Endosulfan	2.2E+02
Endothall	7.3E+02
Endrin	1.1E+01
Epichlorohydrin	2.1E+00
Epoxybutane, 1,2-	4.2E+01
Ethephon	1.8E+02
Ethion	1.8E+01
Ethoxyethanol Acetate, 2-	1.1E+04
Ethoxyethanol, 2-	1.5E+04
Ethyl Acetate	3.3E+04
Ethyl Acrylate	1.4E+00
Ethyl Chloride	2.1E+04
Ethyl Ether	7.3E+03
Ethyl Methacrylate	3.3E+03
Ethyl-p-nitrophenyl Phosphonate	3.7E-01
Ethylbenzene	1.5E+00
Ethylene Cyanohydrin	1.1E+03
Ethylene Diamine	3.3E+03
Ethylene Glycol	7.3E+04
Ethylene Glycol Monobutyl Ether	1.8E+04
Ethylene Oxide	4.4E-02
Ethylene Thiourea	1.5E+00

Ethylphthalyl Ethyl Glycolate	1.1E+05
Express	2.9E+02
Fenamiphos	9.1E+00
Fenpropathrin	9.1E+02
Fluometuron	4.7E+02
Fluorine (Soluble Fluoride)	2.2E+03
Fluridone	2.9E+03
Flurprimidol	7.3E+02
Flutolanil	2.2E+03
Fluvalinate	3.7E+02
Folpet	1.9E+01
Fomesafen	3.5E-01
Fonofos	7.3E+01
Formaldehyde	7.3E+03
Formic Acid	7.3E+04
Fosetyl-AL	1.1E+05
Furans	
~Furan	3.7E+01
Furazolidone	1.8E-02
Furfural	1.1E+02
Furium	4.5E-02
Furmecyclox	2.2E+00
Glufosinate, Ammonium	1.5E+01
Glycidyl	1.5E+01
Glyphosate	3.7E+03
Goal	1.1E+02
Guthion	1.1E+02
Haloxyfop, Methyl	1.8E+00
Harmony	4.7E+02
Heptachlor	1.5E-02
Heptachlor Epoxide	7.4E-03
Hexabromobenzene	7.3E+01
Hexabromodiphenyl ether, 2,2',4,4',5,5'- (BDE-153)	7.3E+00
Hexachlorobenzene	4.2E-02
Hexachlorobutadiene	8.6E-01
Hexachlorocyclohexane, Alpha-	1.1E-02
Hexachlorocyclohexane, Beta-	3.7E-02
Hexachlorocyclohexane, Gamma- (Lindane)	6.1E-02
Hexachlorocyclohexane, Technical	3.7E-02
Hexachlorocyclopentadiene	2.2E+02
Hexachloroethane	4.8E+00
Hexachlorophene	1.1E+01
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	6.1E-01
Hexamethylene Diisocyanate, 1,6-	2.1E-02
Hexane, N-	8.8E+02
Hexanedioic Acid	7.3E+04
Hexazinone	1.2E+03
Hydrazine	2.2E-02
Hydrazine Sulfate	2.2E-02
Hydrogen Chloride	

Hydrogen Fluoride	1.5E+03
Hydrogen Sulfide	
Hydroquinone	1.2E+00
Imazalil	4.7E+02
Imazaquin	9.1E+03
Iodine	3.7E+02
Iprodione	1.5E+03
Iron	2.6E+04
Isobutyl Alcohol	1.1E+04
Isophorone	7.1E+01
Isopropalin	5.5E+02
Isopropanol	
Isopropyl Methyl Phosphonic Acid	3.7E+03
Isoxaben	1.8E+03
JP-7	6.3E+02
Kerb	2.7E+03
Lactofen	7.3E+01
Lead Compounds	
~Lead and Compounds	
~Tetraethyl Lead	3.7E-03
Linuron	7.3E+01
Lithium	7.3E+01
Lithium Perchlorate	2.6E+01
Londax	7.3E+03
MCPA	1.8E+01
MCPB	3.7E+02
MCPP	3.7E+01
Malathion	7.3E+02
Maleic Anhydride	3.7E+03
Maleic Hydrazide	1.8E+04
Malononitrile	3.7E+00
Mancozeb	1.1E+03
Maneb	1.8E+02
Manganese (Diet)	
Manganese (Water)	8.8E+02
Mephosfolan	3.3E+00
Mepiquat Chloride	1.1E+03
Mercury Compounds	
~Mercuric Chloride	1.1E+01
~Mercuric Sulfide	1.1E+01
~Mercury (elemental)	5.7E-01
~Mercury, Inorganic Salts	1.1E+01
~Methyl Mercury	3.7E+00
~Phenylmercuric Acetate	2.9E+00
Merphos	1.1E+00
Merphos Oxide	1.1E+00
Metalaxyl	2.2E+03
Methacrylonitrile	1.0E+00
Methamidophos	1.8E+00
Methanol	1.8E+04

Methidathion	3.7E+01
Methomyl	9.1E+02
Methoxy-5-nitroaniline, 2-	1.4E+00
Methoxychlor	1.8E+02
Methoxyethanol Acetate, 2-	7.3E+01
Methoxyethanol, 2-	1.1E+02
Methyl Acetate	3.7E+04
Methyl Acrylate	1.1E+03
Methyl Ethyl Ketone (2-Butanone)	7.1E+03
Methyl Isobutyl Ketone (4-methyl-2-pentanone)	2.0E+03
Methyl Methacrylate	1.4E+03
Methyl Parathion	9.1E+00
Methyl Phosphonic Acid	7.3E+02
Methyl Styrene (Mixed Isomers)	6.0E+01
Methyl methanesulfonate	6.8E-01
Methyl tert-Butyl Ether (MTBE)	1.2E+01
Methyl-5-Nitroaniline, 2-	2.0E+00
Methylaniline Hydrochloride, 2-	5.2E-01
Methylarsonic acid	3.7E+02
Methylcholanthrene, 3-	3.1E-03
Methylene Chloride	4.8E+00
Methylene-bis(2-chloroaniline), 4,4'-	2.2E-01
Methylene-bis(N,N-dimethyl) Aniline, 4,4'-	1.5E+00
Methylenebisbenzenamine, 4,4'-	4.2E-02
Methylenediphenyl Diisocyanate	
Methylstyrene, Alpha-	2.6E+03
Metolachlor	5.5E+03
Metribuzin	9.1E+02
Mirex	3.7E-03
Molinate	7.3E+01
Molybdenum	1.8E+02
Monochloramine	3.7E+03
Monomethylaniline	7.3E+01
N,N'-Diphenyl-1,4-benzenediamine	1.1E+01
Naled	7.3E+01
Naphthylamine, 2-	3.7E-02
Napropamide	3.7E+03
Nickel Refinery Dust	
Nickel Soluble Salts	7.3E+02
Nickel Subsulfide	4.0E-02
Nitrate	5.8E+04
Nitrite	3.7E+03
Nitroaniline, 2-	1.1E+02
Nitroaniline, 4-	3.4E+00
Nitrobenzene	1.2E-01
Nitrofurantoin	2.6E+03
Nitrofurazone	5.2E-02
Nitroglycerin	3.7E+00
Nitroguanidine	3.7E+03
Nitromethane	5.4E-01

Nitropropane, 2-	1.8E-03
Nitroso-N-ethylurea, N-	2.5E-03
Nitroso-N-methylurea, N-	5.6E-04
Nitroso-di-N-butylamine, N-	2.4E-03
Nitroso-di-N-propylamine, N-	9.6E-03
Nitrosodiethanolamine, N-	2.4E-02
Nitrosodiethylamine, N-	1.4E-04
Nitrosodimethylamine, N-	4.2E-04
Nitrosodiphenylamine, N-	1.4E+01
Nitrosomethylethylamine, N-	3.1E-03
Nitrosomorpholine [N-]	1.0E-02
Nitrosopiperidine [N-]	7.2E-03
Nitrosopyrrolidine, N-	3.2E-02
Nitrotoluene, m-	7.3E+02
Nitrotoluene, o-	3.1E-01
Nitrotoluene, p-	4.2E+00
Norflurazon	1.5E+03
Nustar	2.6E+01
Octabromodiphenyl Ether	1.1E+02
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetra (HMX)	1.8E+03
Octamethylpyrophosphoramide	7.3E+01
Oryzalin	1.8E+03
Oxadiazon	1.8E+02
Oxamyl	9.1E+02
Paclobutrazol	4.7E+02
Paraquat Dichloride	1.6E+02
Parathion	2.2E+02
Pebulate	1.8E+03
Pendimethalin	1.5E+03
Pentabromodiphenyl Ether	7.3E+01
Pentabromodiphenyl ether, 2,2',4,4',5- (BDE-99)	3.7E+00
Pentachlorobenzene	2.9E+01
Pentachloroethane	7.5E-01
Pentachloronitrobenzene	2.6E-01
Pentachlorophenol	5.6E-01
Perchlorate and Perchlorate Salts	2.6E+01
Permethrin	1.8E+03
Phenacetin	3.1E+01
Phenmedipham	9.1E+03
Phenol	1.1E+04
Phenylenediamine, m-	2.2E+02
Phenylenediamine, o-	1.4E+00
Phenylenediamine, p-	6.9E+03
Phenylphenol, 2-	3.5E+01
Phorate	7.3E+00
Phosgene	
Phosmet	7.3E+02
Phosphine	1.1E+01
Phosphoric Acid	
Phosphorus, White	7.3E-01

Phthalic Acid, P-	3.7E+04
Phthalic Anhydride	7.3E+04
Picloram	2.6E+03
Picramic Acid (2-Amino-4,6-dinitrophenol)	7.3E+01
Pirimiphos, Methyl	3.7E+02
Polybrominated Biphenyls	2.2E-03
Polychlorinated Biphenyls (PCBs)	
~Aroclor 1016	9.6E-01
~Aroclor 1221	6.8E-03
~Aroclor 1232	6.8E-03
~Aroclor 1242	3.4E-02
~Aroclor 1248	3.4E-02
~Aroclor 1254	3.4E-02
~Aroclor 1260	3.4E-02
~Heptachlorobiphenyl, 2,3,3',4,4',5,5'- (PCB 189)	5.2E-03
~Hexachlorobiphenyl, 2,3',4,4',5,5'- (PCB 167)	5.2E-03
~Hexachlorobiphenyl, 2,3,3',4,4',5'- (PCB 157)	1.0E-04
~Hexachlorobiphenyl, 2,3,3',4,4',5- (PCB 156)	1.0E-04
~Hexachlorobiphenyl, 3,3',4,4',5,5'- (PCB 169)	5.2E-03
~Pentachlorobiphenyl, 2',3,4,4',5- (PCB 123)	5.2E-03
~Pentachlorobiphenyl, 2,3',4,4',5- (PCB 118)	5.2E-03
~Pentachlorobiphenyl, 2,3,3',4,4'- (PCB 105)	5.2E-03
~Pentachlorobiphenyl, 2,3,4,4',5- (PCB 114)	1.0E-04
~Pentachlorobiphenyl, 3,3',4,4',5- (PCB 126)	5.2E-06
~Polychlorinated Biphenyls (high risk)	
~Polychlorinated Biphenyls (low risk)	1.7E-01
~Polychlorinated Biphenyls (lowest risk)	
~Tetrachlorobiphenyl, 3,3',4,4'- (PCB 77)	5.2E-03
~Tetrachlorobiphenyl, 3,4,4',5- (PCB 81)	5.2E-03
Polymeric Methylene Diphenyl Diisocyanate (PMDI)	
Polynuclear Aromatic Hydrocarbons (PAHs)	
~Acenaphthene	2.2E+03
~Anthracene	1.1E+04
~Benz[a]anthracene	2.9E-02
~Benzo[a]pyrene	2.9E-03
~Benzo[b]fluoranthene	2.9E-02
~Benzo[k]fluoranthene	2.9E-01
~Chrysene	2.9E+00
~Dibenz[a,h]anthracene	2.9E-03
~Dimethylbenz(a)anthracene, 7,12-	2.7E-04
~Fluoranthene	1.5E+03
~Fluorene	1.5E+03
~Indeno[1,2,3-cd]pyrene	2.9E-02
~Methylnaphthalene, 1-	2.3E+00
~Methylnaphthalene, 2-	1.5E+02
~Naphthalene	1.4E-01
~Pyrene	1.1E+03
Potassium Perchlorate	2.6E+01
Prochloraz	4.5E-01
Profluralin	2.2E+02

Prometon	5.5E+02
Prometryn	1.5E+02
Propachlor	4.7E+02
Propanil	1.8E+02
Propargite	7.3E+02
Propargyl Alcohol	7.3E+01
Propazine	7.3E+02
Propham	7.3E+02
Propiconazole	4.7E+02
Propionaldehyde	1.7E+01
Propylene Glycol	7.3E+05
Propylene Glycol Dinitrate	5.7E-01
Propylene Glycol Monoethyl Ether	2.6E+04
Propylene Glycol Monomethyl Ether	2.6E+04
Propylene Oxide	2.3E-01
Pursuit	9.1E+03
Pydrin	9.1E+02
Pyridine	3.7E+01
Quinalphos	1.8E+01
Quinoline	2.2E-02
Refractory Ceramic Fibers	
Resmethrin	1.1E+03
Ronnel	1.8E+03
Rotenone	1.5E+02
Safrole	3.1E-01
Savey	9.1E+02
Selenious Acid	1.8E+02
Selenium	1.8E+02
Selenourea	1.8E+02
Sethoxydim	3.3E+03
Silver	1.8E+02
Simazine	5.6E-01
Sodium Acifluorfen	4.7E+02
Sodium Azide	1.5E+02
Sodium Diethyldithiocarbamate	2.5E-01
Sodium Fluoride	1.8E+03
Sodium Fluoroacetate	7.3E-01
Sodium Metavanadate	3.7E+01
Sodium Perchlorate	2.6E+01
Stirofos (Tetrachlorovinphos)	2.8E+00
Strontium, Stable	2.2E+04
Strychnine	1.1E+01
Styrene	1.6E+03
Sulfonylbis(4-chlorobenzene), 1,1'-	1.8E+02
Systhane	9.1E+02
TCMTB	1.1E+03
Tebuthiuron	2.6E+03
Temephos	7.3E+02
Terbacil	4.7E+02
Terbufos	9.1E-01

Terbutryn	3.7E+01
Tetrabromodiphenyl ether, 2,2',4,4'- (BDE-47)	3.7E+00
Tetrachlorobenzene, 1,2,4,5-	1.1E+01
Tetrachloroethane, 1,1,1,2-	5.2E-01
Tetrachloroethane, 1,1,2,2-	6.7E-02
Tetrachloroethylene	1.1E-01
Tetrachlorophenol, 2,3,4,6-	1.1E+03
Tetrachlorotoluene, p- alpha, alpha, alpha-	3.4E-03
Tetraethyl Dithiopyrophosphate	1.8E+01
Tetrafluoroethane, 1,1,1,2-	1.7E+05
Tetryl (Trinitrophenylmethylnitramine)	1.5E+02
Thallium (I) Nitrate	3.3E+00
Thallium (Soluble Salts)	2.4E+00
Thallium Acetate	3.3E+00
Thallium Carbonate	2.9E+00
Thallium Chloride	2.9E+00
Thallium Sulfate	2.9E+00
Thiobencarb	3.7E+02
Thiofanox	1.1E+01
Thiophanate, Methyl	2.9E+03
Thiram	1.8E+02
Tin	2.2E+04
Titanium Tetrachloride	
Toluene	2.3E+03
Toluene diisocyanate mixture (TDI)	1.5E-01
Toluene-2,4-diamine	1.8E-02
Toluene-2,5-diamine	2.2E+04
Toluene-2,6-diamine	1.1E+03
Toluidine, o- (Methylaniline, 2-)	3.7E-01
Toluidine, p-	3.5E-01
Toxaphene	6.1E-02
Tralomethrin	2.7E+02
Tri-n-butyltin	1.1E+01
Triallate	4.7E+02
Triasulfuron	3.7E+02
Tribromobenzene, 1,2,4-	1.8E+02
Tributyl Phosphate	7.3E+00
Tributyltin Compounds	1.1E+01
Tributyltin Oxide	1.1E+01
Trichloro-1,2,2-trifluoroethane, 1,1,2-	5.9E+04
Trichloroaniline HCl, 2,4,6-	2.3E+00
Trichloroaniline, 2,4,6-	2.0E+00
Trichlorobenzene, 1,2,4-	8.2E+00
Trichloroethane, 1,1,1-	9.1E+03
Trichloroethane, 1,1,2-	2.4E-01
Trichloroethylene	1.7E+00
Trichlorofluoromethane	1.3E+03
Trichlorophenol, 2,4,5-	3.7E+03
Trichlorophenol, 2,4,6-	6.1E+00
Trichlorophenoxy) Propionic Acid, 2(2,4,5-	2.9E+02

Trichlorophenoxyacetic Acid, 2,4,5-	3.7E+02
Trichloropropane, 1,1,2-	1.8E+02
Trichloropropane, 1,2,3-	9.6E-03
Trichloropropene, 1,2,3-	2.1E+00
Tridiphane	1.1E+02
Triethylamine	1.5E+01
Trifluralin	8.7E+00
Trimethyl Phosphate	1.8E+00
Trimethylbenzene, 1,2,4-	1.5E+01
Trimethylbenzene, 1,3,5-	1.2E+01
Trinitrobenzene, 1,3,5-	1.1E+03
Trinitrotoluene, 2,4,6-	2.2E+00
Triphenylphosphine Oxide	7.3E+02
Tris(2-chloroethyl)phosphate	4.8E+00
Tris(2-ethylhexyl)phosphate	2.1E+01
Uranium (Soluble Salts)	1.1E+02
Vanadium Pentoxide	3.3E+02
Vanadium Sulfate	7.3E+02
Vanadium and Compounds	1.8E+02
Vanadium, Metallic	2.6E+02
Vernolate	3.7E+01
Vinclozolin	9.1E+02
Vinyl Acetate	4.1E+02
Vinyl Bromide	1.5E-01
Vinyl Chloride	1.6E-02
Warfarin	1.1E+01
Xylene, Mixture	2.0E+02
Xylene, P-	1.5E+03
Xylene, m-	1.4E+03
Xylene, o-	1.4E+03
Zinc (Metallic)	1.1E+04
Zinc Phosphide	1.1E+01
Zineb	1.8E+03

			bacteria. These organisms can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.	
Viruses (enteric)	zero	TT[3]	Gastrointestinal illness (e.g., diarrhea, vomiting, cramps)	Human and animal fecal waste

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Disinfection Byproducts

Contaminant	MCLG[1] (mg/L)[2]	MCL or TT[1] (mg/L)[2]	Potential Health Effects from Ingestion of Water	Sources of Contaminant in Drinking Water
Bromate	zero	0.010	Increased risk of cancer	Byproduct of drinking water disinfection
Chlorite	0.8	1.0	Anemia; infants & young children: nervous system effects	Byproduct of drinking water disinfection
Haloacetic acids (HAA5)	n/a[6]	0.060[7]	Increased risk of cancer	Byproduct of drinking water disinfection
Total Trihalomethanes (TTHMs)	n/a[6]	0.080[7]	Liver, kidney or central nervous system problems; increased risk of cancer	Byproduct of drinking water disinfection

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Disinfectants

Contaminant	MRDLG[1] (mg/L)[2]	MRDL[1] (mg/L)[2]	Potential Health Effects from Ingestion of Water	Sources of Contaminant in Drinking Water
Chloramines (as Cl_2)	MRDLG=4[1]	MRDL=4.0[1]	Eye/nose irritation; stomach discomfort, anemia	Water additive used to control microbes
Chlorine (as Cl_2)	MRDLG=4[1]	MRDL=4.0[1]	Eye/nose irritation; stomach discomfort	Water additive used to control microbes
Chlorine dioxide (as ClO_2)	MRDLG=0.8[1]	MRDL=0.8[1]	Anemia; infants & young children: nervous system effects	Water additive used to control microbes

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Inorganic Chemicals

Contaminant	MCLG[1] (mg/L)[2]	MCL or TT[1] (mg/L)[2]	Potential Health Effects from Ingestion of Water	Sources of Contaminant in Drinking Water
Antimony	0.006	0.006	Increase in blood cholesterol; decrease in blood sugar	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Arsenic	0[7]	0.010 as of 01/23/06	Skin damage or problems with circulatory systems, and may have increased	Erosion of natural deposits; runoff from orchards, runoff from glass &

			risk of getting cancer	electronicsproduction wastes
Asbestos (fiber >10 micrometers)	7 million fibers per liter	7 MFL	Increased risk of developing benign intestinal polyps	Decay of asbestos cement in water mains; erosion of natural deposits
Barium	2	2	Increase in blood pressure	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Beryllium	0.004	0.004	Intestinal lesions	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries
Cadmium	0.005	0.005	Kidney damage	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints
Chromium (total)	0.1	0.1	Allergic dermatitis	Discharge from steel and pulp mills; erosion of natural deposits
Copper	1.3	TT[8]; Action	Short term exposure:	Corrosion of household

		Level=1.3	Gastrointestinal distress Long term exposure: Liver or kidney damage People with Wilson's Disease should consult their personal doctor if the amount of copper in their water exceeds the action level	plumbing systems; erosion of natural deposits
Cyanide (as free cyanide)	0.2	0.2	Nerve damage or thyroid problems	Discharge from steel/metal factories; discharge from plastic and fertilizer factories
Fluoride	4.0	4.0	Bone disease (pain and tenderness of the bones); Children may get mottled teeth	Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories
Lead	zero	TT[8]; Action Level=0.015	Infants and children: Delays in physical or mental development; children could show slight deficits in attention span and learning abilities Adults: Kidney problems; high blood pressure	Corrosion of household plumbing systems; erosion of natural deposits

Mercury (inorganic)	0.002	0.002	Kidney damage	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills and croplands
Nitrate (measured as Nitrogen)	10	10	Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue-baby syndrome.	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite (measured as Nitrogen)	1	1	Infants below the age of six months who drink water containing nitrite in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue-baby syndrome.	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium	0.05	0.05	Hair or fingernail loss; numbness in fingers or toes; circulatory problems	Discharge from petroleum refineries; erosion of natural deposits; discharge from mines

Thallium	0.0005	0.002	Hair loss; changes in blood; kidney, intestine, or liver problems	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories

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Organic Chemicals

Contaminant	MCLG[1] (mg/L)[2]	MCL or TT[1] (mg/L)[2]	Potential Health Effects from Ingestion of Water	Sources of Contaminant in Drinking Water
Acrylamide	zero	TT[9]	Nervous system or blood problems; increased risk of cancer	Added to water during sewage/wastewater treatment
Alachlor	zero	0.002	Eye, liver, kidney or spleen problems; anemia; increased risk of cancer	Runoff from herbicide used on row crops
Atrazine	0.003	0.003	Cardiovascular system or reproductive problems	Runoff from herbicide used on row crops
Benzene	zero	0.005	Anemia; decrease in blood platelets; increased risk of	Discharge from factories; leaching from gas storage

			cancer	tanks and landfills
Benzo(a)pyrene (PAHs)	zero	0.0002	Reproductive difficulties; increased risk of cancer	Leaching from linings of water storage tanks and distribution lines
Carbofuran	0.04	0.04	Problems with blood, nervous system, or reproductive system	Leaching of soil fumigant used on rice and alfalfa
Carbon tetrachloride	zero	0.005	Liver problems; increased risk of cancer	Discharge from chemical plants and other industrial activities
Chlordane	zero	0.002	Liver or nervous system problems; increased risk of cancer	Residue of banned termiticide
Chlorobenzene	0.1	0.1	Liver or kidney problems	Discharge from chemical and agricultural chemical factories
2,4-D	0.07	0.07	Kidney, liver, or adrenal gland problems	Runoff from herbicide used on row crops

Dalapon	0.2	0.2	Minor kidney changes	Runoff from herbicide used on rights of way
1,2-Dibromo-3-chloropropane (DBCP)	zero	0.0002	Reproductive difficulties; increased risk of cancer	Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards
o-Dichlorobenzene	0.6	0.6	Liver, kidney, or circulatory system problems	Discharge from industrial chemical factories
p-Dichlorobenzene	0.075	0.075	Anemia; liver, kidney or spleen damage; changes in blood	Discharge from industrial chemical factories
1,2-Dichloroethane	zero	0.005	Increased risk of cancer	Discharge from industrial chemical factories
1,1-Dichloroethylene	0.007	0.007	Liver problems	Discharge from industrial chemical factories
cis-1,2-Dichloroethylene	0.07	0.07	Liver problems	Discharge from industrial chemical factories

trans-1,2-Dichloroethylene	0.1	0.1	Liver problems	Discharge from industrial chemical factories
Dichloromethane	zero	0.005	Liver problems; increased risk of cancer	Discharge from drug and chemical factories
1,2-Dichloropropane	zero	0.005	Increased risk of cancer	Discharge from industrial chemical factories
Di(2-ethylhexyl) adipate	0.4	0.4	Weight loss, liver problems, or possible reproductive difficulties.	Discharge from chemical factories
Di(2-ethylhexyl) phthalate	zero	0.006	Reproductive difficulties; liver problems; increased risk of cancer	Discharge from rubber and chemical factories
Dinoseb	0.007	0.007	Reproductive difficulties	Runoff from herbicide used on soybeans and vegetables
Dioxin (2,3,7,8-TCDD)	zero	0.00000003	Reproductive difficulties; increased risk of	Emissions from waste incineration and other

			cancer	combustion; discharge from chemical factories
Diquat	0.02	0.02	Cataracts	Runoff from herbicide use
Endothall	0.1	0.1	Stomach and intestinal problems	Runoff from herbicide use
Endrin	0.002	0.002	Liver problems	Residue of banned insecticide
Epichlorohydrin	zero	TT[9]	Increased cancer risk, and over a long period of time, stomach problems	Discharge from industrial chemical factories; an impurity of some water treatment chemicals
Ethylbenzene	0.7	0.7	Liver or kidneys problems	Discharge from petroleum refineries
Ethylene dibromide	zero	0.00005	Problems with liver, stomach, reproductive system, or kidneys; increased risk of cancer	Discharge from petroleum refineries

Glyphosate	0.7	0.7	Kidney problems; reproductive difficulties	Runoff from herbicide use
Heptachlor	zero	0.0004	Liver damage; increased risk of cancer	Residue of banned termiticide
Heptachlor epoxide	zero	0.0002	Liver damage; increased risk of cancer	Breakdown of heptachlor
Hexachlorobenzene	zero	0.001	Liver or kidney problems; reproductive difficulties; increased risk of cancer	Discharge from metal refineries and agricultural chemical factories
Hexachlorocyclopentadiene	0.05	0.05	Kidney or stomach problems	Discharge from chemical factories
Lindane	0.0002	0.0002	Liver or kidney problems	Runoff/leaching from insecticide used on cattle, lumber, gardens
Methoxychlor	0.04	0.04	Reproductive difficulties	Runoff/leaching from insecticide used on fruits, vegetables, alfalfa,

				livestock
Oxamyl (Vydate)	0.2	0.2	Slight nervous system effects	Runoff/leaching from insecticide used on apples, potatoes, and tomatoes
Polychlorinated biphenyls (PCBs)	zero	0.0005	Skin changes; thymus gland problems; immune deficiencies; reproductive or nervous system difficulties; increased risk of cancer	Runoff from landfills; discharge of waste chemicals
Pentachlorophenol	zero	0.001	Liver or kidney problems; increased cancer risk	Discharge from wood preserving factories
Picloram	0.5	0.5	Liver problems	Herbicide runoff
Simazine	0.004	0.004	Problems with blood	Herbicide runoff
Styrene	0.1	0.1	Liver, kidney, or circulatory system problems	Discharge from rubber and plastic factories; leaching from landfills

Tetrachloroethylene	zero	0.005	Liver problems; increased risk of cancer	Discharge from factories and dry cleaners
Toluene	1	1	Nervous system, kidney, or liver problems	Discharge from petroleum factories
Toxaphene	zero	0.003	Kidney, liver, or thyroid problems; increased risk of cancer	Runoff/leaching from insecticide used on cotton and cattle
2,4,5-TP (Silvex)	0.05	0.05	Liver problems	Residue of banned herbicide
1,2,4-Trichlorobenzene	0.07	0.07	Changes in adrenal glands	Discharge from textile finishing factories
1,1,1-Trichloroethane	0.20	0.2	Liver, nervous system, or circulatory problems	Discharge from metal degreasing sites and other factories
1,1,2-Trichloroethane	0.003	0.005	Liver, kidney, or immune system problems	Discharge from industrial chemical factories

Trichloroethylene	zero	0.005	Liver problems; increased risk of cancer	Discharge from metal degreasing sites and other factories
Vinyl chloride	zero	0.002	Increased risk of cancer	Leaching from PVC pipes; discharge from plastic factories
Xylenes (total)	10	10	Nervous system damage	Discharge from petroleum factories; discharge from chemical factories

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Radionuclides

Contaminant	MCLG[1] (mg/L)[2]	MCL or TT[1] (mg/L)[2]	Potential Health Effects from Ingestion of Water	Sources of Contaminant in Drinking Water
Alpha particles	none[7] ---------- zero	15 picocuries per Liter (pCi/L)	Increased risk of cancer	Erosion of natural deposits of certain minerals that are radioactive and may emit a form of radiation known as alpha radiation

Beta particles and photon emitters	none[7] ---------- zero	4 millirems per year	Increased risk of cancer	Decay of natural and man-made deposits of certain minerals that are radioactive and may emit forms of radiation known as photons and beta radiation
Radium 226 and Radium 228 (combined)	none[7] ---------- zero	5 pCi/L	Increased risk of cancer	Erosion of natural deposits
Uranium	zero	30 ug/L as of 12/08/03	Increased risk of cancer, kidney toxicity	Erosion of natural deposits

			diarrhea, vomiting, cramps)	fecal waste
Heterotrophic plate count	n/a	TT[3]	HPC has no health effects; it is an analytic method used to measure the variety of bacteria that are common in water. The lower the concentration of bacteria in drinking water, the better maintained the water system is.	HPC measures a range of bacteria that are naturally present in the environment
Legionella	zero	TT[3]	Legionnaire's Disease, a type of pneumonia	Found naturally in water; multiplies in heating systems
Total Coliforms (including fecal coliform and *E. Coli*)	zero	5.0%[4]	Not a health threat in itself; it is used to indicate whether other potentially harmful bacteria may be present[5]	Coliforms are naturally present in the environment; as well as feces; fecal coliforms and *E. coli* only come from human and animal fecal waste.
Turbidity	n/a	TT[3]	Turbidity is a measure of the cloudiness of water. It is used to indicate water quality and filtration effectiveness (e.g., whether disease-causing organisms are present). Higher turbidity levels are often associated with higher levels of disease-causing microorganisms such as viruses, parasites and some	Soil runoff

WESTERN REFINING - GALLUP REFINERY
ANNUAL WELL SAMPLING LOGS - 2009

WELL #BW-1C

GAUGE DATE	7/6/2009
GAUGE TIME	1050 hrs
DTB (feet) Depth to Bottom	157.00
DEDICATED PUMP	Y
DTW (feet) Depth to Water	6.66
DTB - DTW	150.34
1 Well Volume	0.163
3 Well Volumes	73.52
PURGE DATE	7/6/2009
PURGE TIME	1103 HRS
SAMPLE DAY	7/6/2009
SAMPLE TIME	1145 Hrs
PUMP DEPTH DTW (feet) at end of Purging	N/A 22.19 ft

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg F	Conductivity (uS), (mS)	TDS (ppm)	Salinity (ppt)	Dissolved Oxygen (%)
(1)	1105	8.24	61.0	759	380	0.375	28.2
(2)	1151	7.97	61.3	807	406	0.408	24.4
(3)	1154	8.44	61.1	803	406	0.405	30.4
(4)	1156	8.57	61.8	683	343	0.343	27.0

WEATHER CONDITIONS

Clear sunny day, breezy, winds 10-15 mph. Temp 78 - 80 Deg F
Attendee: Cheryl Johnson

WATER APPEARANCE

Clear, no odor detected at start and end of purging and when sample was collected.

SAMPLE LOG

Calibrated Instrument for ph, DO, Conductivity, Salinity.
At 1103 hours on 7/6/2009 started purging. Let pump run for two minutes and took first sample for ph, temp, etc..
Water is clear and no apparent odor detected
Pump lost suction and purged approximately 5 gals. Allowed well to recharge for 30 minutes and took samples.
At 1145 hours - took samples, labeled and placed in cooler with ice.

WELL #BW-1A

GAUGE DATE	7/6/2009
GAUGE TIME	1210 hrs
DTB (feet) Depth to Bottom	40.00
DEDICATED PUMP	N
DTW (feet) Depth to Water	37.85
DTB - DTW	2.15
1 Well Volume	0.163
3 Well Volumes	1.05
PURGE DATE	
PURGE TIME	
SAMPLE DAY	
SAMPLE TIME	
PUMP DEPTH Purging	N/A

TEST PARAMATERS

	Time	pH	Temperature Deg F	Conductivity (uS), (mS)	TDS (ppm)	Salinity (ppt)	Dissolved Oxygen (%)
(1)	Not enough water to collect						
(2)							
(3)							
(4)							

WEATHER CONDITIONS

Clear sunny day, breezy, winds 10-15 mph. Temp 80 - 85 Deg F
Attendee: Cheryl Johnson

WATER APPEARANCE

Not enough water to sample.

SAMPLE LOG

This well has 2.15' of water. Notified G. Rajen of finding.
7/8/09 - Attempted to hand bail well. There was no water in bailer when it was retrieved. Remeasured depth to bottom with gauge, gauge bottoms out at 37.89'. DTB on well logs is 40.0'. With new depth to bottom measurement this would show a water level of 0.03' of water. Not enough water to bail. Notifed G. Rajen of findings.

SIGNATURE: /S/ Cheryl Johnson DATE: 7/6/09

WESTERN REFINING - GALLUP REFINERY
ANNUAL WELL SAMPLING LOGS - 2009

WELL #BW-1B

GAUGE DATE	7/6/2009
GAUGE TIME	1216 HRS
DTB (feet) Depth to Bottom	67.55
DEDICATED PUMP	N
DTW (feet) Depth to Water	67.51
DTB - DTW	0.04
1 Well Volume	0.163
3 Well Volumes	0.02
PURGE DATE	
PURGE TIME	
SAMPLE DAY	
SAMPLE TIME	
PUMP DEPTH DTW (feet) at end of Purging	

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg F	Conductivity (uS), (mS)	TDS (ppm)	Salinity (ppt)	Dissolved Oxygen (%)
(1)	Not enough water to collect						
(2)							
(3)							
(4)							

WEATHER CONDITIONS

Clear sunny day, breezy, winds 10-15 mph. Temp 80 - 85 Deg F
Attendee: Cheryl Johnson

WATER APPEARANCE

Not Applicable

SAMPLE LOG

This well has 0.04' of water level. Notified G. Rajen of finding. There is not enough water in this well to purge dry or take a sample of. Will wait on further instructions concerning the water level.

WELL #BW-2B

GAUGE DATE	7/6/2009
GAUGE TIME	1244 hrs
DTB (feet) Depth to Bottom	90.50
DEDICATED PUMP	Y
DTW (feet) Depth to Water	27.93
DTB - DTW	62.57
1 Well Volume	0.163
3 Well Volumes	30.60
PURGE DATE	7/6/2009
PURGE TIME	1313 HRS
SAMPLE DAY	7/6/2009
SAMPLE TIME	1342 HRS
PUMP DEPTH DTW (feet) at end of Purging	N/A 29.82 ft.

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg F	Conductivity (uS), (mS)	TDS (ppm)	Salinity (ppt)	Dissolved Oxygen (%)
(1)	1315	7.76	60.7	1.150	582	0.600	24.3
(2)	1351	7.74	61.1	1.365	685	0.705	17.0
(3)	1356	7.62	60.1	1.215	606	0.627	20.8
(4)	1401	7.70	60.1	1.338	630	0.650	21.6

WEATHER CONDITIONS

Clear sunny day, breezy, winds 10-15 mph. Temp 80 - 85 Deg F
Attendee: Cheryl Johnson

WATER APPEARANCE

Water clear, no apparent odor detected at start of purge.
color
and slightly murky when samples were taken.

SAMPLE LOG

At 1313 hours on 7/6/2009 started purging. Let pump run for two minutes and took first sample for ph, temp, etc.. Water is clear and no apparent odor detected
Pump lost suction and purged approximately 8 gals. Allowed well to recharge for 30 minutes and took samples.
At 1342 hours - took samples. Water is brownish in color and slightly murky. Samples were labeled and placed in cooler on ice.

SIGNATURE: /S/ Cheryl Johnson DATE: 7/6/09

WESTERN REFINING - GALLUP REFINERY
ANNUAL WELL SAMPLING LOGS - 2009

WELL #BW-2A

GAUGE DATE	7/6/2009
GAUGE TIME	1438 hrs
DTB (feet) Depth to Bottom	65.50
DEDICATED PUMP	Y
DTW (feet) Depth to Water	31.79
DTB - DTW	33.71
1 Well Volume	0.163
3 Well Volumes	16.48
PURGE DATE	7/6/2009
PURGE TIME	1446 HRS
SAMPLE DAY	7/6/2009
SAMPLE TIME	1501 HRS
PUMP DEPTH	N/A
DTW (feet) at end of Purging	33.33 ft.

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg F	Conductivity (uS), (mS)	TDS (ppm)	Salinity (ppt)	Dissolved Oxygen (%)
(1)	1448	7.66	57.2	761	390	0.392	10.1
(2)	1507	7.73	57.6	734	368	0.374	7.84
(3)	1508	7.68	57.6	743	371	0.379	6.29
(4)	1510	7.73	58.9	751	376	0.383	7.01

WEATHER CONDITIONS

Clear sunny day, breezy, winds 10-15 mph. Temp 85 - 90 Deg F.
Attendee: Cheryl Johnson

WATER APPEARANCE

Water clear, no apparent odor detected at start of purging.
Water turned slightly cloudy towards end of purging.

SAMPLE LOG

At 1446 hours on 7/6/2009 started purging. Let pump run for 2 minutes and took first sample for ph, temp, etc. Water is clear and no apparent odor detected. Purged 16 gals and took samples at 1501. Samples were labeled and placed in cooler on ice.

WELL #BW-2C

GAUGE DATE	7/7/2009
GAUGE TIME	0924 HRS
DTB (feet) Depth to Bottom	151.00
DEDICATED PUMP	N
DTW (feet) Depth to Water	20.62
DTB - DTW	130.38
1 Well Volume	0.163
3 Well Volumes	63.76
PURGE DATE	7/7/2009
PURGE TIME	0956 HRS
SAMPLE DAY	7/7/2009
SAMPLE TIME	1231 HRS
PUMP DEPTH	135 Ft.
DTW (feet) at end of Purging	N/A

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg F	Conductivity (uS), (mS)	TDS (ppm)	Salinity (ppt)	Dissolved Oxygen (%)
(1)	1000	8.66	58.1	668	334	0.336	10.88
(2)	1238	8.67	60.7	771	386	0.388	13.91
(3)	1239	8.70	61.8	774	387	0.388	13.44
(4)	1241	8.70	62.1	751	376	0.373	14.11

WEATHER CONDITIONS

Clear sunny day, slight breeze winds 5-10 mph. Temp 78 - 85 Deg
Attendee: Cheryl Johnson

WATER APPEARANCE

Water slightly cloudy, no odor detected at start and end of purge.

SAMPLE LOG

Calibrated instrument for pH, Conductivity, Dissolved oxygen.
At 0956 hours on 7/7/2009 started purging. Let pump run for three minutes and took first sample for ph, temp, etc..
Water is slightly cloudy and no odor detected.
Pump lost suction and purged approximately 21 gals. At 1220 hours started pump - no suction, lowered pump another 5 feet. Caught sample at 1231 hours. Samples were labeled, and placed in cooler on ice.
End gauge not available after purging. Gauge only goes to 100 feet.
SIGNATURE: /S/ Cheryl Johnson DATE: 7/6/09 & 7/7/09

WESTERN REFINING - GALLUP REFINERY
ANNUAL WELL SAMPLING LOGS - 2009

WELL #BW-3B

GAUGE DATE	7/7/2009
GAUGE TIME	1326 hrs
DTB (feet) Depth to Bottom	75.00
DEDICATED PUMP	Y
DTW (feet) Depth to Water	32.90
DTB - DTW	42.10
1 Well Volume	0.163
3 Well Volumes	20.59
PURGE DATE	7/7/2009
PURGE TIME	1341 hrs
SAMPLE DAY	7/7/2009
SAMPLE TIME	1421 hrs
PUMP DEPTH	N/A
DTW (feet) at end of Purging	56.07 ft.

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg F	Conductivity (uS), (mS)	TDS (ppm)	Salinity (ppt)	Dissolved Oxygen (%)
(1)	1343	8.10	60.0	811	406	0.411	16.59
(2)	1424	7.75	57.5	806	403	0.411	15.8
(3)	1426	7.76	58.3	905	441	0.452	18.4
(4)	1427	7.68	58.2	901	451	0.461	13.22

WEATHER CONDITIONS

Clear sunny day, breezy, winds 10-15 mph. Temp 85 - 90 Deg F.
Attendee: Cheryl Johnson

WATER APPEARANCE

Water slightly cloudy, has brownish tint, no odor detected at start and end of purging.

SAMPLE LOG

At 1421 hours on 7/7/2009 started purging. Let pump run for 2 minutes and took first sample for ph, temp, etc. Water slightly cloudy, brownish tint, no odor detected. Lost suction, purged 14 gals. Allowed well to recharge before samples were taken. Samples taken at 1421 hours. Samples were labeled, and placed in cooler on ice.

WELL #BW-3C

GAUGE DATE	7/7/2009
GAUGE TIME	1444 hrs
DTB (feet) Depth to Bottom	155.00
DEDICATED PUMP	N
DTW (feet) Depth to Water	7.86
DTB - DTW	147.14
1 Well Volume	0.163
3 Well Volumes	71.95
PURGE DATE	7/7/2009
PURGE TIME	1459 hrs
SAMPLE DAY	7/7/2009
SAMPLE TIME	1540 hrs
PUMP DEPTH	110
DTW (feet) at end of Purging	N/A

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg F	Conductivity (uS), (mS)	TDS (ppm)	Salinity (ppt)	Dissolved Oxygen (%)
(1)	1503	8.29	58.9	800	401	0.405	11.13
(2)	1543	8.37	58.6	771	366	0.375	9.12
(3)	1544	8.29	58.5	871	424	0.431	6.21
(4)	1546	8.27	58.4	900	449	0.456	6.13

WEATHER CONDITIONS

Clear sunny day, breezy, winds 10-15 mph. Temp 85 - 90 Deg F.
Attendee: Cheryl Johnson

WATER APPEARANCE

Water cloudy, brownish tint, no odor detected at start and end of purging.

SAMPLE LOG

At 0956 hours on 7/7/2009 started purging. Let pump run for three minutes and took first sample for ph, temp, etc.. Water cloudy, has brownish tint and no odor detected. Pump lost suction, purged approximately 14 gals. Lowered pump another 10 feet and caught sample at 1540 hours. Samples were labeled and placed in cooler on ice. Unable to get depth gauge at end of purging. Gauge only goes to 100 feet.

SIGNATURE: /S/ Cheryl Johnson DATE: 7/7/09

WESTERN REFINING - GALLUP REFINERY
ANNUAL WELL SAMPLING LOGS - 2009

WELL #BW-1C

GAUGE DATE	8/3/2009
GAUGE TIME	0852 hrs
DTB (feet)	
Depth to Bottom	157.00
DEDICATED PUMP	Y
DTW (feet)	
Depth to Water	7.89
DTB - DTW	149.11
1 Well Volume	0.163
3 Well Volumes	72.91
PURGE DATE	8/3/2009
PURGE TIME	0854 hrs
SAMPLE DAY	8/3/2009
SAMPLE TIME	0856 hrs
PUMP DEPTH DTW (feet) at end of Purging	N/A

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg F	Conductivity (uS), (mS)	TDS (ppm)	Salinity (ppt)	Dissolved Oxygen (%)
(1)	None Taken						
(2)							
(3)							
(4)							

WEATHER CONDITIONS

Clear day, slight breeeze, winds 0-5 mph. Temp 78 - 80 Deg F.
Attendee: Cheryl Johnson

WATER APPEARANCE

Clear, no odor detected at start and end of purging and when sample was collected.

SAMPLE LOG

Re-sampled for General Chemistry only. During the July sampling event this test was omitted by accident. Notified Hope Monzeglio and Carl Chavez of omission and was advised that I could just resample the wells for general chemistry only.
Purged approximately 4 gals and sampled.

WELL #BW-2B

GAUGE DATE	8/3/2009
GAUGE TIME	0914 hrs
DTB (feet)	
Depth to Bottom	90.50
DEDICATED PUMP	Y
DTW (feet)	
Depth to Water	28.17
DTB - DTW	62.33
1 Well Volume	0.163
3 Well Volumes	30.48
PURGE DATE	8/3/2009
PURGE TIME	0916 hrs
SAMPLE DAY	8/3/2009
SAMPLE TIME	935
PUMP DEPTH Purging	N/A

TEST PARAMATERS

	Time	pH	Temperature Deg F	Conductivity (uS), (mS)	TDS (ppm)	Salinity (ppt)	Dissolved Oxygen (%)
(1)	None Taken						
(2)							
(3)							
(4)							

WEATHER CONDITIONS

Clear day, slight breeeze, winds 0-5 mph. Temp 78 - 80 Deg F.
Attendee: Cheryl Johnson

WATER APPEARANCE

Clear, no odor detected at start and end of purging and when sample was collected.

SAMPLE LOG

Re-sampled for General Chemistry only. During the July sampling event this test was omitted by accident. Notified Hope Monzeglio and Carl Chavez of omission and was advised that I could just resample the wells for general chemistry only.
Purged approximaely 6 gals and took sample

SIGNATURE: /S/ Cheryl Johnson DATE: 8/3/09

WESTERN REFINING - GALLUP REFINERY
ANNUAL WELL SAMPLING LOGS - 2009

WELL #BW-3B

GAUGE DATE	8/3/2009
GAUGE TIME	0958 HRS
DTB (feet)	
Depth to Bottom	75.00
DEDICATED PUMP	Y
DTW (feet)	
Depth to Water	33.31
DTB - DTW	41.69
1 Well Volume	0.163
3 Well Volumes	20.39
PURGE DATE	8/3/2009
PURGE TIME	1000 HRS
SAMPLE DAY	8/3/2009
SAMPLE TIME	1008 HRS
PUMP DEPTH	N/A
DTW (feet)	
at end of Purging	

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg F	Conductivity (uS), (mS)	TDS (ppm)	Salinity (ppt)	Dissolved Oxygen (%)
(1)	None Taken						
(2)							
(3)							
(4)							

WEATHER CONDITIONS

Clear day, slight breeeze, winds 0-5 mph. Temp 78 - 80 Deg F.
Attendee: Cheryl Johnson

WATER APPEARANCE

Clear, no odor detected at start and end of purging and when sample was collected.

SAMPLE LOG

Re-sampled for General Chemistry only. During the July sampling event this test was omitted by accident. Notified Hope Monzeglio and Carl Chavez of omission and was advised that I could just resample the wells for general chemistry only.
Purged approximately 10 gals and sampled.

WELL #BW-3C

GAUGE DATE	8/3/2009
GAUGE TIME	1050 HRS
DTB (feet)	
Depth to Bottom	155.00
DEDICATED PUMP	N
DTW (feet)	
Depth to Water	8.41
DTB - DTW	146.59
1 Well Volume	0.163
3 Well Volumes	71.68
PURGE DATE	8/3/2009
PURGE TIME	1053 HRS
SAMPLE DAY	8/3/2009
SAMPLE TIME	1105 HRS
PUMP DEPTH	N/A
Purging	

TEST PARAMATERS

	Time	pH	Temperature Deg F	Conductivity (uS), (mS)	TDS (ppm)	Salinity (ppt)	Dissolved Oxygen (%)
(1)	None Taken						
(2)							
(3)							
(4)							

WEATHER CONDITIONS

Clear day, slight breeeze, winds 0-5 mph. Temp 78 - 80 Deg F.
Attendee: Cheryl Johnson

WATER APPEARANCE

Clear, no odor detected at start and end of purging and when sample was collected.

SAMPLE LOG

Re-sampled for General Chemistry only. During the July sampling event this test was omitted by accident. Notified Hope Monzeglio and Carl Chavez of omission and was advised that I could just resample the wells for general chemistry only.
Purged approximaely 10 gals and took sample

SIGNATURE: /S/ Cheryl Johnson DATE: 8/3/09

WESTERN REFINING - GALLUP REFINERY
ANNUAL WELL SAMPLING LOGS - 2009

WELL #BW-2A

GAUGE DATE	8/3/2009
GAUGE TIME	0940 HRS
DTB (feet) Depth to Bottom	65.50
DEDICATED PUMP	Y
DTW (feet) Depth to Water	32.20
DTB - DTW	33.30
1 Well Volume	0.163
3 Well Volumes	16.28
PURGE DATE	8/3/2009
PURGE TIME	0942 HRS
SAMPLE DAY	8/3/2009
SAMPLE TIME	0950 HRS
PUMP DEPTH DTW (feet) at end of Purging	N/A

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg F	Conductivity (uS), (mS)	TDS (ppm)	Salinity (ppt)	Dissolved Oxygen (%)
(1)	None Taken						
(2)							
(3)							
(4)							

WEATHER CONDITIONS

Clear day, slight breeeze, winds 0-5 mph. Temp 78 - 80 Deg F.
Attendee: Cheryl Johnson

WATER APPEARANCE

Clear, no odor detected at start and end of purging and when sample was collected.

SAMPLE LOG

Re-sampled for General Chemistry only. During the July sampling event this test was omitted by accident. Notified Hope Monzeglio and Carl Chavez of omission and was advised that I could just resample the wells for general chemistry only.
Purged approximately 10 gals and sampled.

WELL #BW-2C

GAUGE DATE	8/3/2009
GAUGE TIME	1109 HRS
DTB (feet) Depth to Bottom	151.00
DEDICATED PUMP	N
DTW (feet) Depth to Water	20.89
DTB - DTW	130.11
1 Well Volume	0.163
3 Well Volumes	63.62
PURGE DATE	8/3/2009
PURGE TIME	1111 HRS
SAMPLE DAY	8/3/2009
SAMPLE TIME	1120 HRS
PUMP DEPTH Purging	N/A

TEST PARAMATERS

	Time	pH	Temperature Deg F	Conductivity (uS), (mS)	TDS (ppm)	Salinity (ppt)	Dissolved Oxygen (%)
(1)	None Taken						
(2)							
(3)							
(4)							

WEATHER CONDITIONS

Clear day, slight breeeze, winds 0-5 mph. Temp 78 - 80 Deg F.
Attendee: Cheryl Johnson

WATER APPEARANCE

Clear, no odor detected at start and end of purging and when sample was collected.

SAMPLE LOG

Re-sampled for General Chemistry only. During the July sampling event this test was omitted by accident. Notified Hope Monzeglio and Carl Chavez of omission and was advised that I could just resample the wells for general chemistry only.
Purged approximaely 18 gals and took sample

SIGNATURE: /S/ Cheryl Johnson DATE: 8/3/09

WESTERN REFINING - GALLUP REFINERY
ANNUAL WELL SAMPLING LOGS - 2009

WELL #MW-4

GAUGE DATE	7/8/2009
GAUGE TIME	1330 HRS
DTB (feet) Depth to Bottom	122.14
DEDICATED PUMP	Y
DTW (feet) Depth to Water	7.67
DTB - DTW	114.47
1 Well Volume	1.020
3 Well Volumes	350.28
PURGE DATE	7/8/2009
PURGE TIME	1350 HRS
SAMPLE DAY	7/8/2009
SAMPLE TIME	1557
PUMP DEPTH	N/A
DTW (feet) at end of Purging	67.99 ft.

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg F	Conductivity (uS), (mS)	TDS (ppm)	Salinity (ppt)	Dissolved Oxygen (%)
(1)	1353	7.49	56.2	621	312	0.316	27.6
(2)	1600	7.83	56.3	650	326	0.331	22.6
(3)	1602	7.59	56.6	659	329	0.335	22.7
(4)	1603	7.01	57.0	637	319	0.324	24.4

WEATHER CONDITIONS

Clear sunny day, breezy, winds 10-15 mph. Temp 85 - 90 Deg F
Attendee: Cheryl Johnson

WATER APPEARANCE

Water is clear, no odor detected at start and end of purging.

SAMPLE LOG

Instrument calibrated for ph, conductivity, dissolved oxygen.
At 1350 hours on 7/8/2009 started purging. Let pump run for 3 minutes and took first sample for ph, temp, etc.
Water is clear, no odor detected. Samples were collected at 1557 hours. Samples labeled and placed in cooler on ice.
Purged approximately 351 gals.

WELL #MW-5

GAUGE DATE	7/15/2009
GAUGE TIME	1308 hrs
DTB (feet) Depth to Bottom	133.02
DEDICATED PUMP	Y
DTW (feet) Depth to Water	11.83
DTB - DTW	121.19
1 Well Volume	0.740
3 Well Volumes	269.04
PURGE DATE	7/15/2009
PURGE TIME	1333 HRS
SAMPLE DAY	7/15/2009
SAMPLE TIME	1531
PUMP DEPTH	N/A
DTW (feet) at end of Purging	61.91 ft.

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg F	Conductivity (uS), (mS)	TDS (ppm)	Salinity (ppt)	Dissolved Oxygen (%)
(1)	1336	5.34	57.1	640	322	0.322	10.90
(2)	1528	6.03	56.9	661	331	0.336	8.50
(3)	1534	6.27	56.8	658	329	0.334	8.91
(4)	1536	6.56	56.7	611	308	0.313	8.85

WEATHER CONDITIONS

Clear sunny day, slight breeze, winds 5-10 mph.
Temp: 85 - 90 deg F.
Attendee: Cheryl Johnson

WATER APPEARANCE

Water is clear, no odor detected at start and end of purging.

SAMPLE LOG

Instrument calibrated for ph, conductivity, dissolved oxygen.
At 1333 hours on 7/15/2009 started purging. Let pump run for 3 minutes and took first sample for ph, temp, etc.
Water is clear, no odor detected. Samples were collected at 1531 hours. Samples labeled and placed in cooler on ice.
Purged approximately 270 gals.

SIGNATURE: /S/ Cheryl Johnson DATE: 7/8/09 & 7/15/09

WESTERN REFINING - GALLUP REFINERY
ANNUAL WELL SAMPLING LOGS - 2009

WELL #MW-1

GAUGE DATE	7/16/2009
GAUGE TIME	0850 HRS
DTB (feet) Depth to Bottom	132.02
DEDICATED PUMP	Y
DTW (feet) Depth to Water	7.51
DTB - DTW	124.51
1 Well Volume	1.020
3 Well Volumes	381.00
PURGE DATE	7/16/2009
PURGE TIME	0859 HRS
SAMPLE DAY	7/16/2009
SAMPLE TIME	1106
PUMP DEPTH	N/A
DTW (feet) at end of Purging	N/A

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg F	Conductivity (uS), (mS)	TDS (ppm)	Salinity (ppt)	Dissolved Oxygen (%)
(1)	900	5.45	55.6	613	306	0.311	28.7
(2)	1104	6.91	55.5	596	299	0.309	33.8
(3)	1110	7.22	57.1	675	338	0.338	35.3
(4)	1112	7.24	57.6	655	328	0.331	25.2

WEATHER CONDITIONS

Partly cloudy, slight breeze, winds 0-5 mph. Temp 80 - 85 Deg F.
Attendee: Cheryl Johnson

WATER APPEARANCE

Water is clear, no odor detected at start and end of purging.

SAMPLE LOG

Instrument calibrated for ph, conductivity, dissolved oxygen.
At 0850hours on 7/16/2009 started purging. Let pump run for 2 minutes and took first sample for ph, temp, etc.
Water is clear, no odor detected. Samples were collected at 1557 hours. Samples labeled and placed in cooler on ice.
Unable to get depth gauge at end of purging. Gauge only goes to 100 feet. Pumped approximately 179 gals.

WELL #MW-2

GAUGE DATE	7/16/2009
GAUGE TIME	1351 hrs
DTB (feet) Depth to Bottom	140.24
DEDICATED PUMP	Y
DTW (feet) Depth to Water	16.36
DTB - DTW	123.88
1 Well Volume	1.020
3 Well Volumes	379.07
PURGE DATE	7/16/2009
PURGE TIME	1358
SAMPLE DAY	7/16/2009
SAMPLE TIME	1421
PUMP DEPTH	N/A
DTW (feet) at end of Purging	N/A

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg F	Conductivity (uS), (mS)	TDS (ppm)	Salinity (ppt)	Dissolved Oxygen (%)
(1)	1401	6.74	55.7	576	288	0.286	17.09
(2)	1419	6.71	55.8	574	289	0.292	22.80
(3)	1423	6.51	55.9	613	306	0.308	22.90
(4)	1425	6.25	56.1	627	314	0.314	22.92

WEATHER CONDITIONS

Overcast, slight breeze, winds 0-5 mph. Temp 90-95 deg F.

Attendee: Cheryl Johnson

WATER APPEARANCE

Water is clear, no odor detected at start and end of purging.

SAMPLE LOG

At 1358 hours on 7/16/2009 started purging. Let pump run for 3 minutes and took first sample for ph, temp, etc.
Water is clear, no odor detected. Samples were collected at 1421 hours. Samples labeled and placed in cooler on ice.
Purged approximately 380 gals.
Unable to get depth gauge at end of purging. Gauge only goes to 100 feet. Pumped approximately 179 gals.

SIGNATURE: /S/ Cheryl Johnson DATE: 7/16/09

WESTERN REFINING - GALLUP REFINERY
ANNUAL WELL SAMPLING LOGS - 2009

WELL #OW-12

GAUGE DATE	7/29/2009
GAUGE TIME	0815 HRS
DTB (feet) Depth to Bottom	145.00
DEDICATED PUMP	N
DTW (feet) Depth to Water	48.85
DTB - DTW	96.15
1 Well Volume	0.740
3 Well Volumes	213.45
PURGE DATE	7/29/2009
PURGE TIME	0830 HRS
SAMPLE DAY	7/29/2009
SAMPLE TIME	0945 HRS
PUMP DEPTH	120 feet
DTW (feet) at end of Purging	N/A

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg F	Conductivity (uS), (mS)	TDS (ppm)	Salinity (ppt)	Dissolved Oxygen (%)
(1)	834	7.11	56.4	657	329	0.333	10.38
(2)	942	7.69	57.1	635	318	0.318	10.46
(3)	947	7.79	58.4	619	305	0.308	9.76
(4)	950	7.81	59.1	582	292	0.289	12.25

WEATHER CONDITIONS

Clear, sunny day, slight breeze 5-10 mph. Temp 75-80 deg F.
Attendee: Cheryl Johnson

WATER APPEARANCE

Water is clear, no odor detected at start and end of purging.

SAMPLE LOG

At 0815 hours on 7/29/09 gauged DTW = 48.85 feet. Lowered pump to approximately 120- 125 feet, unable to lower any further than that. There may be an obstruction in the well. Pump was decontaminated before use. Started purging at 0830 hours & pump lost suction after 47 gallons. Allowed well to recharge and took samples at 0945 hours. Samples were labeled & placed in cooler on ice.

WELL #OW-29

GAUGE DATE	7/29/2009
GAUGE TIME	1055 HRS
DTB (feet) Depth to Bottom	52.00
DEDICATED PUMP	N
DTW (feet) Depth to Water	21.58
DTB - DTW	30.42
1 Well Volume	0.740
3 Well Volumes	67.53
PURGE DATE	7/29/2009
PURGE TIME	1328 HRS
SAMPLE DAY	7/29/2009
SAMPLE TIME	1447 HRS
PUMP DEPTH	40 feet
DTW (feet) at end of Purging	29.37 feet

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg F	Conductivity (uS), (mS)	TDS (ppm)	Salinity (ppt)	Dissolved Oxygen (%)
(1)	1336	6.65	57.1	949	476	0.479	3.03
(2)	1442	5.87	57.2	889	446	0.452	2.82
(3)	1446	5.70	57.4	880	442	0.451	3.01
(4)	1449	5.08	57.4	872	436	0.446	2.74

WEATHER CONDITIONS

Sunny, clear day. Slight breeze 5-10 mph winds. 80-85 deg F.
Turned cloudy, windy 10-15 mph winds, rain, thunder, lightening.
Attendee: Cheryl Johnson

WATER APPEARANCE

Water is clear, no odor detected at start and end of purging.

SAMPLE LOG

Lowered pump to approximately 40 feet inside casing. Started purging well at 1328 hours, 3 well volumes = 67.53 gallons. Took first sample for pH, cond, temp etc. At 1328 hours stopped purging due to inclement weather, lightening, rain storm. Started pump back up at 1418 hours. Purged approximately 68 gallons and took samples. Samples labeled and placed in cooler on ice. DTW at end of purge = 29.37 feet. Pump was decontaminated with Alconox before use.

SIGNATURE: /S/ Cheryl Johnson DATE: 7/28/09

WESTERN REFINING - GALLUP REFINERY
ANNUAL WELL SAMPLING LOGS - 2009

WELL #OW-11

GAUGE DATE	7/27/2009
GAUGE TIME	1309 HRS
DTB (feet) Depth to Bottom	66.62
DEDICATED PUMP	N
DTW (feet) Depth to Water	20.44
DTB - DTW	46.18
1 Well Volume	0.740
3 Well Volumes	102.52
PURGE DATE	7/27/2009
PURGE TIME	1321 HRS
SAMPLE DAY	7/27/2009
SAMPLE TIME	1437 HRS
PUMP DEPTH	55 feet.
DTW (feet) at end of Purging	21.19

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg F	Conductivity (uS), (mS)	TDS (ppm)	Salinity (ppt)	Dissolved Oxygen (%)
(1)	1326	5.94	61.9	1.616	819	0.854	24.8
(2)	1434	5.65	60.1	1.522	764	0.787	20.9
(3)	1439	5.75	59.6	1.462	731	0.755	24.8
(4)	1441	5.58	59.8	1.401	699	0.720	25.6

WEATHER CONDITIONS

Clear, sunny day, slight breeze 5-10 mph. Temp 85-90 deg F.
Attendee: Cheryl Johnson

WATER APPEARANCE

Water is clear, no odor detected at start and end of purging.

SAMPLE LOG

At 1321 hours on 7/27/09 started purging. Lowered pump to approximately 55 feet. Water is clear no odor detected. Let pump run for approximately 3 minutes and took sample for ph, temp, cond. Etc.
Samples were collected at 1437 hours. Samples labeled and placed in cooler on ice.
Depth gauge at end of purging = 21.19 ft. Pumped approximately 100 gals.

WELL #OW-13

GAUGE DATE	7/28/2009
GAUGE TIME	0930 HRS
DTB (feet) Depth to Bottom	100.00
DEDICATED PUMP	N
DTW (feet) Depth to Water	24.02
DTB - DTW	75.98
1 Well Volume	0.740
3 Well Volumes	168.68
PURGE DATE	7/28/2009
PURGE TIME	0952 HRS
SAMPLE DAY	7/28/2009
SAMPLE TIME	1215 HRS
PUMP DEPTH	80 feet
DTW (feet) at end of Purging	25.52

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg F	Conductivity (uS), (mS)	TDS (ppm)	Salinity (ppt)	Dissolved Oxygen (%)
(1)	958	5.08	57.6	638	319	0.320	10.56
(2)	1218	4.39	57.8	706	352	0.353	8.90
(3)	1221	5.20	58.1	711	354	0.366	9.04
(4)	1223	4.93	58.2	775	388	0.391	8.86

WEATHER CONDITIONS

Sunny, clear day. Slight breeze 0-5 mph winds. 85-90 deg F.
Towards end of purging - thunder storm, started to rain.
Attendee: Cheryl Johnson

WATER APPEARANCE

Water is clear, no odor detected at start and end of purging.

SAMPLE LOG

Lowered pump to approximately 80 feet. At 0952 hrs started purging. Took first sample for ph, cond, temp etc.
Purged approximately 170 gallons. Sampled at 1215 hours. Samples labeled and placed in cooler on ice.
Portable pump flushed with Alconox mixture before use.
DTW at end of purging was 25.52 feet.

SIGNATURE: /S/ Cheryl Johnson DATE: 7/28/09

WESTERN REFINING - GALLUP REFINERY
ANNUAL WELL SAMPLING LOGS - 2009

WELL #OW-30

GAUGE DATE	7/30/2009
GAUGE TIME	0849 HRS
DTB (feet) Depth to Bottom	48.00
DEDICATED PUMP	N
DTW (feet) Depth to Water	25.96
DTB - DTW	22.04
1 Well Volume	0.740
3 Well Volumes	48.93
PURGE DATE	7/30/2009
PURGE TIME	0852 HRS
SAMPLE DAY	7/30/2009
SAMPLE TIME	0928 HRS
PUMP DEPTH	35 feet
DTW (feet) at end of Purging	26.6 feet

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg F	Conductivity (uS), (mS)	TDS (ppm)	Salinity (ppt)	Dissolved Oxygen (%)
(1)	857	5.52	57.6	898	450	0.461	10.21
(2)	925	5.03	57.8	860	431	0.442	7.69
(3)	931	5.32	57.9	874	436	0.444	11.53
(4)	934	5.32	57.8	919	459	0.471	11.66

WEATHER CONDITIONS

Clear, sunny day, slight breeze 0-5 mph. Temp 80-85 deg F.
Attendee: Cheryl Johnson

WATER APPEARANCE

Water is clear, no odor detected at start and end of purging.

SAMPLE LOG

At 0849 hours on 7/30/09 gauged DTW = 25.96 feet. Lowered pump to approximately 35 feet.
pH instrument was calibrated before use and pump was decontaminated before use.
Purged approximately 50 gals and took samples at 0928 hours. Samples labeled and placed in cooler on ice.

WELL #OW-14

GAUGE DATE	7/30/2009
GAUGE TIME	1025 HRS
DTB (feet) Depth to Bottom	45.00
DEDICATED PUMP	N
DTW (feet) Depth to Water	26.74
DTB - DTW	18.26
1 Well Volume	0.740
3 Well Volumes	40.54
PURGE DATE	7/30/2009
PURGE TIME	1030 HRS
SAMPLE DAY	7/30/2009
SAMPLE TIME	1101 HRS
PUMP DEPTH	30
DTW (feet) at end of Purging	26.84 feet

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg F	Conductivity (uS), (mS)	TDS (ppm)	Salinity (ppt)	Dissolved Oxygen (%)
(1)	1036	6.32	58.6	1.26	634	0.649	9.76
(2)	1058	5.34	58.9	1.246	627	0.647	7.07
(3)	1103	5.52	59.1	1.071	536	0.541	8.88
(4)	1106	5.54	59.4	1.314	660	0.674	8.26

WEATHER CONDITIONS

Cloudy, breezy, 10-15 mph winds. Temp 80-85 Deg F.

Attendee: Cheryl Johnson

WATER APPEARANCE

Water is clear, no odor detected at start and end of purging.

SAMPLE LOG

At 1025 hours on 7/30/09 gauged DTW = 26.74 feet. Lowered pump to approximately 30 feet. Started with purge at 1030 hours. Purged approximately 42 gallons. Sampled at 1101 hours, samples were labeled and placed in cooler on ice.
Pump was decontaminted before use.

SIGNATURE: /S/ Cheryl Johnson DATE: 7/30/09

WESTERN REFINING - GALLUP REFINERY
ANNUAL WELL SAMPLING LOGS - 2009

WELL #SMW-2

GAUGE DATE	7/27/2009
GAUGE TIME	0832 hrs
DTB (feet) Depth to Bottom	57.34
DEDICATED PUMP	N
DTW (feet) Depth to Water	25.93
DTB - DTW	31.41
1 Well Volume	0.163
3 Well Volumes	15.36
PURGE DATE	7/27/2009
PURGE TIME	0850 hrs
SAMPLE DAY	7/27/2009
SAMPLE TIME	0945 hrs
PUMP DEPTH	40 feet
DTW (feet) at end of Purging	37.21

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg F	Conductivity (uS), (mS)	TDS (ppm)	Salinity (ppt)	Dissolved Oxygen (%)
(1)	854	4.45	62.0	5.01 ms	252	0.275	25.2
(2)	946	4.29	61.7	4.96 ms	249	0.272	22.1
(3)	948	4.40	60.4	4.97 ms	249	0.275	21.2
(4)	951	4.81	60.6	4.99 ms	250	0.276	28.4

WEATHER CONDITIONS

Clear, sunny day, slight breeze 0-5 mph. Temp 80-85 deg F.
Attendee: Cheryl Johnson

WATER APPEARANCE

Water is clear, no odor detected at start and end of purging.

SAMPLE LOG

IQ Instrument calibrated for ph, conductivity, dissolved oxygen. Lowered pump to approx 40 feet.
Started purging at 0850 hours. Let pump run for 3 minutes and took first sample for ph, temp, etc. Pump lost suction after 5 gals. Allowed well to recharge, lowered pump another 5 feet, restarted purging and took samples at 0945 hours. Samples labeled and placed in cooler on ice.
Portable pump flushed with Alconox mixture before use. DTW at end of purging = 37.21 feet.

WELL #SMW-4

GAUGE DATE	7/27/2009
GAUGE TIME	1042 hrs
DTB (feet) Depth to Bottom	72.22
DEDICATED PUMP	Y
DTW (feet) Depth to Water	29.59
DTB - DTW	42.63
1 Well Volume	0.163
3 Well Volumes	20.85
PURGE DATE	7/27/2009
PURGE TIME	1045 hrs
SAMPLE DAY	7/27/2009
SAMPLE TIME	1114 hrs
PUMP DEPTH	N/A
DTW (feet) at end of Purging	61.83 ft.

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg F	Conductivity (uS), (mS)	TDS (ppm)	Salinity (ppt)	Dissolved Oxygen (%)
(1)	1048	6.07	56.6	717	360	0.369	17.21
(2)	1118	5.93	56.8	726	363	0.369	17.13
(3)	1121	6.06	57.2	774	352	0.387	24.10
(4)	1123	6.07	60.4	739	370	0.321	25.00

WEATHER CONDITIONS

Sunny, clear day. Slight breeze 0-5 mph winds. 85-90 deg F.

Attendee: Cheryl Johnson

WATER APPEARANCE

Water is clear, no odor detected at start and end of purging.

SAMPLE LOG

Started purging at 1045 hours. Let pump run for 3 minutes and took first sample for ph, temp, etc. Pump lost suction after 10 gals. Allowed well to recharge, restarted with purge and took samples at 1114 hours.
Samples labeled and placed in cooler on ice.
DTW at end of purging 61.83 feet.

SIGNATURE: /S/ Cheryl Johnson DATE: 7/27/09

WESTERN REFINING - GALLUP REFINERY
WELL SAMPLING DATA

WELL #	0W-13	0W-14	OW-29	0W-30	1WVA= .074	
PURGE DATE	2/24/2009	2/23/2009	2/25/2009	2/23/2009		
PURGE TIME	0855 HRS	1040 HRS	0840 HRS	0755 HRS		
LIQUID DEPTH (FT)	23.93	26.73	21.43	28.87		
DEPTH TO BTM (FT)	100	45	52	48		
DIFFERENCE (FT)	76.07	18.27	30.57	19.13		
1WVA = .074	56.2918	13.5198	22.6218	14.1562		
3WVA'S	168.8754	40.5594	67.8654	42.4686		
SAMPLE DAY	2/24/2009	2/23/2009	2/25/2009	2/23/2009		
SAMPLE TIME	1100 HRS	1200 HRS	0932 HRS	1000 HRS		
PUMP DEPTH	35 FT	Hand Bailed	30 FT	Hand Bailed		
1) TEMP DEG F	58.2	56.4	57.5	57.3		
pH	7.78	6.26	6.93	6.25		
Sp. COND.	749uS	1.26mS	975uS	818uS		
2) TEMP DEG F	57.8	56.3	56.5	56.8		
pH	7.75	6.19	6.65	6.19		
Sp. COND.	732uS	1.345mS	971uS	922uS		
3) TEMP DEG F	58.1	56.3	57.1	57.3		
pH	7.74	6.14	6.66	6.16		
Sp. COND.	719uS	1.349mS	949uS	908uS		
4) TEMP DEG F	58.1	56.3	57.2	57.3		
pH	7.74	6.15	6.66	6.15		
Sp. COND.	728uS	1.344mS	962uS	912 uS		

NOTES:

SAMPLER NAME/TITLE: Cheryl Johnson / Environ. Specialist

SAMPLING LOG

OW-13	Sample Day	Sample Time
	2/24/2009	1100 HRS

Weather: Clear day, no wind. Temp 50-60 Deg. On 2/24/09 at 0855 hrs lowered pump to approximately 35 feet inside well casing. Began pumping 3 well volumes = 168.9 gals. Pumped approximately 170 gals. Water is clear and no apparent odor detected.

Began taking temperature, pH, Sp Cond on last 10 gals remaining. At 1100 hours took 3 samples (VOA's preserved with HCl) for 8021B sampling. Samples labeled and sealed with tape.

OW-14	Sample Day	Sample Time
	2/23/2009	1200 HRS

Weather: Cloudy, windy day. Temp 50-60 Deg. On 2/23/09 at 1040 hrs began hand bailing with new bailer 3 well volumes = 40.6 gals. Water is clear and no apparent odor detected. Hand bailed approximately 42 gals.

Began taking temperature, pH, Sp Cond on last 10 bails. At 1200 hours took 3 samples (VOA's preserved with HCl) for 8021B sampling. . Samples labeled and sealed with tape.

OW-29	Sample Day	Sample Time
	2/25/2009	0932 HRS

Weather: Clear day, no wind. Temp 65-60 Deg. On 2/25/09 at 0840 hrs lowered pump to approximately 30 feet inside well casing. Began pumping 3 well volumes = 67.9 gals. Pumped approximately 70 gals. Water is clear and no apparent odor detected.

Began taking temperature, pH, Sp Cond on last 10 gals remaining. At 0932 hours took 3 samples (VOA's preserved with HCl) for 8021B sampling. Samples labeled and sealed with tape.

OW-30	Sample Day	Sample Time
	2/23/2009	1000 HRS

Weather: Cloudy, windy day. Temp 50-60 Deg. On 2/23/09 at 1040 hrs began hand bailing with new bailer 3 well volumes = 42.5 gals. Water is clear and no apparent odor detected. Hand bailed approximately 43 gals.

Began taking temperature, pH, Sp Cond on last 10 bails. At 1000 hours took 3 samples (VOA's preserved with HCl) for 8021B sampling. Samples labeled and sealed with tape.

NOTES:

Samples kept on ice and shipped UPS RED on 2/25/09 at 1045 hours to Hall Labs.

SAMPLER NAME/TITLE:

WESTERN REFINING - GALLUP REFINERY
WELL SAMPLING DATA

WELL #	0W-13	0W-14	OW-29	0W-30	1WVA= .074	
PURGE DATE	5/14/2009	5/12/2009	5/14/2009	5/13/2009		
PURGE TIME	1314 HRS	0910 HRS	0959 HRS	1316 HRS		
LIQUID DEPTH (FT)	23.74	26.55	21.24	25.65		
DEPTH TO BTM (FT)	100	45	52	48		
DIFFERENCE (FT)	76.26	18.45	30.76	22.35		
1WVA = .074	56.4324	13.653	22.7624	16.539		
3WVA'S	169.2972	40.959	68.2872	49.617		
SAMPLE DAY	5/14/2009	5/12/2009	5/14/2009	5813/09		
SAMPLE TIME	1522 HRS	1112 HRS	1106 HRS	1505 HRS		
PUMP DEPTH	35 FT	Hand Bailed	30 FT	Hand Bailed		
1) TEMP DEG F	59.4	56.4	58.4	55.5		
TIME	1509 HRS	1053 HRS	1046 HRS	1442 HRS		
pH	6.68	6.16	5.92	5.8		
Sp. COND.	743 uS	1.195mS	958uS	883uG		
2) TEMP DEG F	59.2	55.7	58.3	55.2		
TIME	1512 HRS	1057 HRS	1052 HRS	1446 HRS		
pH	6.49	6.53	5.82	5.89		
Sp. COND.	747 Us	1.222mS	962uS	853uG		
3) TEMP DEG F	59	56.6	58.5	55.5		
TIME	1515 HRS	1101 HRS	1059 HRS	1553 HRS		
pH	6.43	6.49	5.73	6.1		
Sp. COND.	741 uS	1.308 Ms	959uS	842uG		
4) TEMP DEG F	59.7	56.4	58.6	55		
TIME	1519 HRS	1105 HRS	1102 HRS	1456 HRS		
pH	6.1	6.44	5.8	5.98		
Sp. COND.	744 Us	1.231 Ms	962uS	853uG		

NOTES:

SAMPLER NAME/TITLE: Cheryl Johnson / Environmental Specialist

WESTERN REFINING - GALLUP REFINERY
SAMPLING LOG

OW-13	Sample Day 5/14/2009	Sample Time 1522 HRS

Weather: Clear, sunny day, windy (10-20mph). Temp 78 Deg. On 5/14/09 at 1314 hrs lowered pump to approximately 35 feet inside well casing. Began pumping 3 well volumes = 169.3 gals. Water clear, no apparent odor or discoloration detected. Pumped approximately 170 gals.

Began taking temperature, pH, Sp Cond on last 20 gals remaining. At 1522 hours took 3 samples (VOA's preserved with HCl) for 8021B sampling. Samples labeled, sealed with tape, entered on COC and placed on ice.

OW-14	Sample Day 5/12/2009	Sample Time 1112 HRS

Weather: Clear, sunny day, windy (10-15mph). Temp 76 Deg. On 5/12/09 at 0910 hrs began hand bailing with new bailer 3 well volumes = 40.9 gals. Water is clear and no apparent odor or discoloration detected. Hand bailed approximately 41 gals.

Began taking temperature, pH, Sp Cond on last 10 bails. At 1112 hours took 3 samples (VOA's preserved with HCl) for 8021B sampling. . Samples labeled and sealed with tape, entered on COC and placed on ice.

OW-29	Sample Day 5/14/2009	Sample Time 1106 HRS

Weather: Clear, sunny day, slight breeze (5-15mph). Temp 76-80 Deg. On 5/14/09 at 0959 hrs lowered pump to approximately 30 feet inside well casing. Began pumping 3 well volumes = 68.3 gals. Water is clear, no apparent ordor or discoloration detected. Pumped approximately 70 gals. .

Began taking temperature, pH, Sp Cond on last 20 gals remaining. At 1106 hours took 3 samples (VOA's preserved with HCl) for 8021B sampling. Samples labeled and sealed with tape, entered on COC and placed on ice.

OW-30	Sample Day 5/13/2009	Sample Time 1505 HRS

Weather: Clear, sunny day, windy (15-25mph). Temp 78-80 Deg. On 5/13/09 at 1316 hrs began hand bailing with new bailer 3 well volumes = 49.6 gals. Water is clear and no apparent odor or discoloration detected. Hand bailed approximately 50 gals.

Began taking temperature, pH, Sp Cond on last 10 bails. At 1505 hours took 3 samples (VOA's preserved with HCl) for 8021B sampling. Samples labeled, sealed with tape, entered on COC and placed on ice..

NOTES:

0W-14 - Shipped UPS RED on 5/13/09 to Hall Labs. OW-13, 29, 30 samples kept on ice and shipped UPS RED 5/18/09 to Hall Labs.

Portable Pump was decontaminated using Alconox mixture rinsed with clean water for approximately 15 minutes before and after each use.

SAMPLER NAME/TITLE: Cheryl Johnson / Environmental Specialist

WESTERN REFINING - GALLUP REFINERY
WELL SAMPLING DATA

WELL #	0W-13	0W-14	OW-29	0W-30	1WVA= .074	
PURGE DATE	7/28/2009	7/30/2009	7/29/2009	7/30/2009		
PURGE TIME	0930 HRS	1030 HRS	1055 HRS	0849 HRS		
LIQUID DEPTH (FT)	24.02	26.74	21.58	25.96		
DEPTH TO BTM (FT)	100	45	52	48		
DIFFERENCE (FT)	75.98	18.26	30.42	22.04		
1WVA = .074	56.2252	13.5124	22.5108	16.3096		
3WVA'S	168.6756	40.5372	67.5324	48.9288		
SAMPLE DAY	7/28/2009	7/30/2009	7/29/2009	7/30/2009		
SAMPLE TIME	1215 HRS	1101 HRS	1447 HRS	0928 HRS		
PUMP DEPTH	80 FT	30 FT	40 FT	35 FT		
1) TEMP DEG F	57.6	58.6	57.1	57.6		
TIME	0958 HRS	1036 HRS	1336 HRS	0857 HRS		
pH	5.08	6.32	6.65	5.52		
Sp. COND.	638 Us	1.260mS	979 Us	898uS		
2) TEMP DEG F	57.8	58.9	57.2	57.8		
TIME	1218 hrs	1058 HRS	1442 hrs	0925 hrs		
pH	4.39	5.34	5.87	5.03		
Sp. COND.	706 uS	1.246 Ms	889 uS	860 uS		
3) TEMP DEG F	58.1	59.1	57.4	57.9		
TIME	1221 hrs	1103 hrs	1446 hrs	0931 hrs		
pH	5.2	5.52	5.7	5.32		
Sp. COND.	711 uS	1.071 mS	880 uS	874 uS		
4) TEMP DEG F	58.2	59.4	57.4	57.8		
TIME	1223 hrs	1106 hrs	1449 hrs	0934 hrs		
pH	4.93	5.54	5.08	5.32		
Sp. COND.	775 uS	1.314 mS	872 uS	919 uS		

NOTES:

3rd Quarter Samples were taken with the Annual Sampling Event for 2009,

SAMPLER NAME/TITLE: Cheryl Johnson / Environmental Specialist

WESTERN REFINING - GALLUP REFINERY
SAMPLING LOG

OW-13	Sample Day	Sample Time
	7/28/2009	1215 hrs

Weather: Clear, sunny day, slight breeze (0-5mph). Temp 85-90 Deg F. On 7/28/09 at 0952 hrs lowered pump to approximately 80 feet inside well casing. Began pumping 3 well volumes = 168.68 gals. Water clear, no apparent odor or discoloration detected. Pumped approximately 170 gals.

Took 1st sample for ph, temp, etc. Sampled at 1215 hrs, labeled and placed in cooler on ice. DTW at end of purging 25.52 feet. Pump was flushed with Alconox mixture before use.

OW-14	Sample Day	Sample Time
	7/30/2009	1101 hrs

Weather: Clear, sunny day, breezy (10-15mph). Temp 80-85 Deg F. On 7/30/09 at 1030 hrs began purging well, 3 well volumes = 40.5 gals. Water is clear and no apparent odor or discoloration detected. Purged approximately 41 gals. Took first sample for ph, temp etc. Pump was flushed with Alconox misture before use.

At 1101 hours took samples, labeled and placed in cooler on ice. DTW at end of purging 26.84 feet.

OW-29	Sample Day	Sample Time
	7/29/2009	1447 hrs

Weather: Clear, sunny day, slight breeze (5-10mph). Temp 80-85 Deg F. Lowered pump to approximately 40 feet and begain purging well at 1328 hours.3 well volumes = 67.53 gals. Water is clear, no apparent ordor or discoloration detected. Took first sample for ph, temp,cond. etc.

Took samples at 1447 hours, labeled and placed in cooler on ice. Purged approximately 68 gallons. Pump was flushed with Alxonox mixture before use. DTW at end of purging 29.37 feet.

OW-30	Sample Day	Sample Time
	5/13/2009	0928 hrs

Weather: Clear, sunny day, slight breeze (0-5mph). Temp 80-85 Deg F. Lowered pump to approximately 35 feet and begain purging well at 0852 hours. 3 well volumes = 48.93 gals. Water is clear, no apparent ordor or discoloration detected. Took first sample for ph, temp,cond. etc.

Took samples at 0928 hours, labeled and placed in cooler on ice. Purged approximately 49 gallons. Pump was flushed with Alxonox mixture before use. DTW at end of purging 26.6 feet.

NOTES:

Portable Pump was decontaminated using Alconox mixture rinsed with clean water for approximately 15 minutes before and after each use.

IQ Instrument was calibrated for pH, DO and conductivity before use.

SAMPLER NAME/TITLE: Cheryl Johnson / Environmental Specialist

WESTERN REFINING - GALLUP REFINERY
WELL SAMPLING DATA

WELL #	0W-13	0W-14	OW-29	0W-30	1WVA= .074	
PURGE DATE	11/3/2009	11/2/2009	11/3/2009	11/2/2009		
PURGE TIME	1321 hrs	1331 hrs	1000 hrs	0901 HRS		
LIQUID DEPTH (FT)	24.01	26.66	21.4	25.83		
DEPTH TO BTM (FT)	100	45	52	48		
DIFFERENCE (FT)	75.99	18.34	30.6	22.17		
1WVA = .074	56.2326	13.5716	22.644	16.4058		
3WVA'S	168.6978	40.7148	67.932	49.2174		
SAMPLE DAY	11/3/2009	11/2/2009	11/3/2009	11/2/2009		
SAMPLE TIME	1542 hrs	1413 hrs	1109 hrs	0951 HRS		
PUMP DEPTH	80 FT	30 FT	35 FT	35 FT		
1) TEMP DEG F	57.1	59.4	54	54.5		
TIME	1331 hrs	1336 hrs	1010 hrs	0914 HRS		
pH	5.78	5.34	5.03	2.81		
Sp. COND.	662 Us	1.215 mS	911 Us	854uS		
2) TEMP DEG F	58.3	59.1	56.2	54.8		
TIME	1525 hrs	1355 hrs	1100 hrs	0945 HRS		
pH	7.18	4.92	5.27	3.31		
Sp. COND.	708 uS	1.234 Ms	917 uS	931 uS		
3) TEMP DEG F	58.2	59.2	56.6	55.2		
TIME	1535 hrs	1410 hrs	1105 hrs	0950 HRS		
pH	7.22	4.83	5.4	3.78		
Sp. COND.	699 uS	1.349 mS	887 uS	866 uS		
4) TEMP DEG F	58.1	58.8	56.5	55.9		
TIME	1545 hrs	1418 hrs	1113 hrs	0955 HRS		
pH	7.56	4.74	5.36	3.84		
Sp. COND.	723 uS	1.352 mS	854 uS	932 uS		

NOTES:

SAMPLER NAME/TITLE: Cheryl Johnson / Environmental Specialist

SAMPLING LOG

OW-13	Sample Day	Sample Time
	11/3/2009	1542 hrs

Weather: Clear, sunny day, slight breeze (0-5mph). Temp 65-70 Deg F. On 11/3/09 at 1310 hrs lowered pump to approximately 80 feet inside well casing. Began pumping 3 well volumes = 168.68 gals. Water clear, no apparent odor or discoloration detected. Pumped approximately 170 gals.

Took 1st sample for ph, temp, etc. Sampled at 1542 hrs, labeled and placed in cooler on ice.

OW-14	Sample Day	Sample Time
	11/2/2009	1413 hrs

Weather: Clear, sunny day, slight breeze (0-5 mph). Temp 60-65 Deg F. On 11/2/09 at 1331 hrs began purging well, 3 well volumes = 40.9 gals. Water is clear and no apparent odor or discoloration detected. Purged approximately 41 gals. Took first sample for ph, temp etc. Pump was flushed with Alconox mixture before use.

At 1413 hours took samples, labeled and placed in cooler on ice.

OW-29	Sample Day	Sample Time
	11/3/2009	1109 hrs

Weather: Clear, sunny day, slight breeze (5-10mph). Temp 60-65 Deg F. Lowered pump to approximately 35 feet and began purging well at 1000 hours.3 well volumes = 67.9 gals. Water is clear, no apparent ordor or discoloration detected. Took first sample for ph, temp,cond. etc.

Took samples at 1109 hours, labeled and placed in cooler on ice. Purged approximately 68 gallons. Pump was flushed with Alxonox mixture before use.

OW-30	Sample Day	Sample Time
	11/2/2009	0951 HRS.

Weather: Clear, sunny day, slight breeze (0-5mph). Temp 50-55 Deg F. Lowered pump to approximately 35 feet and begain purging well at 0901 hours. 3 well volumes = 49.2 gals. Water is clear, no apparent ordor or discoloration detected. Took first sample for ph, temp,cond. etc.

Took samples at 0951 hours, labeled and placed in cooler on ice. Purged approximately 50 gallons. Pump was flushed & rinsed with Alxonox/water mixture for approximately 10 minutes before use.

NOTES:

Portable Pump was decontaminated using Alconox mixture rinsed with clean water for approximately 10 minutes before and after each use.

IQ Instrument was calibrated for pH, DO and conductivity before use.

SAMPLER NAME/TITLE: Cheryl Johnson / Environmental Specialist

WESTERN REFINING - GALLUP REFINERY
WELL SAMPLING DATA - 1st QTR 2009

WELL #	NAPIS 1 (KA-1R)	NAPIS 2 (KA-2R)	NAPIS 3 (KA-3R)	KA-3
PURGE DATE	3/23/2009	3/23/2009	3/23/2009	3/23/2009
PURGE TIME	1050 HRS	1100 HRS	1115 HRS	1130 HRS
LIQUID DEPTH (FT)	8.92	9.35	9.93	9.23
DEPTH TO BTM (FT)	14	14.5	30.7	25
DIFFERENCE (FT)	5.08	5.15	20.77	15.77
1WVA = 0.163	0.82804	0.83945	3.38551	2.57051
3WVA'S	2.48412	2.51835	10.15653	7.71153
TEMP (DEG F)	58.7	62.1	62.6	74.6
Ph	7.2	6.96	8.15	7.08
COND	875us	1.65mS	2.47mS	1.228mS
DO	74.01	56.1	63.7	46.5
SAL	.450ppt	.891ppt	1.299 ppt	0.609ppt
TDS	439	N/A	1.235	6.2

NAPIS 1	Sample Day	Sample Time
	3/24/2009	1400 HRS

Weather: Clear, slight breeze. Temp 60- 65 Deg. On 3/23/09 started bailing with new bailer at 1050 hrs. First bail clear no apparent odor. 3 well volumes = 2.48 gals. Bailed approximately 2.1 gals.

Took sample on 3/24/09 at 1400 hours for the following paramaters. 8021B, 8015B GRO/DRO, 8310, RCRA 8 metals, General Chem (ph, Cations, Anions, conductivity)

NAPIS 2	Sample Day	Sample Time
	3/24/2009	1415 HRS

Weather: Clear day, windy conditions. Temp 60-65 Deg. On 3/23/09 started bailing at 1100 hrs. Bailer was decontaminated with Alconox/water mixture and rinsed with distilled water before use. First bail water has a slight yellowish tint, no apparent odor. 3 well volumes = 2.51 gals. Bailed approximately 2.2 gals.

Took sample on 3/24/09 at 1415 hours for the following paramaters. 8021B, 8015B GRO/DRO, 8310, RCRA 8 metals, General Chem (ph, Cations, Anions, conductivity)

NAPIS 3	Sample Day	Sample Time
	3/25/2009	0745 HRS

Weather: Clear day. Temp 60-65 Deg. On 3/23/09 started bailing at 1115 hrs. Bailer was decontaminated with Alconox/water mixture and rinsed with distilled water before use. First bail water is clear in color, no apparent odor. 3 well volumes = 10.15 gals. Bailed only 7.5 gals of water, level low. Water was clear at start but turned cloudy at end of bailing due to water level being low and disturbance of sediment.

Alvin Dorsey took sample on 3/25/09 at 0745 hours for the following paramaters. 8021B, 8015B GRO/DRO, 8310. RCRA 8 metals, General Chem (ph, Cations, Anions, conductivity)

KA-3	Sample Day	Sample Time
	3/25/2009	0815 HRS

Weather: Windy, snowy day. Temp 30-20 Deg. On 3/23/09 started bailing at 1130 hrs. Bailer was decontaminated with Alconox/water mixture and rinsed with distilled water before use. First bail water has a slight yellowish tint, no apparent odor. 3 well volumes = 7.71 gals. Bailed 7 gals of water. Water was clear at start but turned murky at end of bailing due to water level being low and disturbance of sediment.

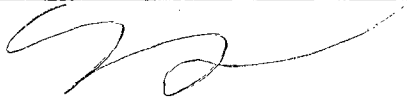
Alvin Dorsey took sample on 3/25/09 at 0815 hours for the following paramaters. 8021B, 8015B GRO/DRO, 8310, RCRA 8 metals, General Chem (ph, Cations, Anions, conductivity)

NOTES:

Samples labeled & sealed; Stored in environmental refrigerator until shipment date of 3/25/09.

Samples packed in ice and shipped UPS Red to Hall Labs on 3/25/09.

SAMPLER NAME/TITLE: Cheryl Johnson & Alvin Dorsey: Environmental specialists



WESTERN REFINING - GALLUP REFINERY
WELL SAMPLING DATA - 2nd QTR 2009

WELL #	NAPIS 1 (KA-1R)	NAPIS 2 (KA-2R)	NAPIS 3 (KA-3R)	KA-3
PURGE DATE	5/28/2009	5/28/2009	6/15/2009	5/28/2009
PURGE TIME	0758 HRS	0829 HRS	0925 HRS	0901 HRS
LIQUID DEPTH (FT)	8.67	9.22	8.59	9.12
DEPTH TO BTM (FT)	14	14.5	30.7	25
DIFFERENCE (FT)	5.33	5.28	22.11	15.88
1WVA = 0.163	0.86879	0.86064	3.60393	2.58844
3WVA'S	2.60637	2.58192	10.81179	7.76532
TEMP (DEG F)	61.1	73.2	67.5	80.8
Ph	6.95	7.15	7.92	6.98
COND	1.081mS	1.124mS	2.55mS	1.168mS
DO	39.00%	16.76%	53.40%	32.20%
SAL	.548ppt	.555 ppt	1.324 ppt	.576 ppt
TDS	539 ppm	566 ppm	1.274 ppm	589 ppm

NAPIS 1	Sample Day	Sample Time
	5/28/2009	0805 HRS

Weather: Clear, slight breeze. Temp 65- 70 Deg. 3 well volumes = 2.6 gals. On 5/28/09 started bailing with new bailer at 0758 hrs. First bail water clear to slightly cloudy, no apparent odor. Bailed approximately 2.5 gals. Water turned slighly cloudy on last bail possibly due to low water level from bailing.

Took sample on 5/28/09 at 0805 hours for the following paramaters. 8021B, 8015B GRO/DRO, 8310, RCRA 8 metals, General Chem (ph, Cations, Anions, conductivity). Samples labeled and placed in cooler with ice.

NAPIS 2	Sample Day	Sample Time
	5/28/2009	0840 HRS

Weather: Clear day, slight breeze. Temp 65-70 Deg. 3 well volumes = 2.58 Gals. On 5/28/09 started bailing at 0829 hrs. New bailer used for the purging of well and same bailer used for the sample. First bail water has a slight yellowish tint, no apparent odor. Bailed approximately 2.5 gals. Water turned slightly cloudy on last bail possibly due to low water level from bailing.

Took sample on 5/28/09 at 0840 hours for the following paramaters. 8021B, 8015B GRO/DRO, 8310, RCRA 8 metals, General Chem (ph, Cations, Anions, conductivity). Samples labeled and placed in cooler with ice.

NAPIS 3	Sample Day	Sample Time
	5/28/2009	NOT DONE

Weather: Clear day. Temp 65- 70 Deg. On 5/28/09 unable to get to this well. Repair work done on a line near the well and well cover was completely covered with dirt from the excavation. Asked Maintenance supervisor to remove dirt so that I can proceed with sampling/bailing of well.

KA-3	Sample Day	Sample Time
	5/28/2009	7/18/1902

Weather: Clear day, slight breeze. Temp65- 70 Deg. 3 well volumes = 7.76 gals. On 5/28/09 started bailing at 0901 hrs. New bailer used for the purging of well and same bailer used for the sample. First bail water is slighty cloudy, no apparent odor. Bailed approximately 7.5 gals of water. Water still cloudy at end of bailing.

Took sample on 5/28/09 at 0930 hours for the followiung parameters. 8021B, 8015B GRO/DRO, 8310 RCRA 8 Metals, Gen Chem (ph, Cations, Anions, Conductivity). Samples labeled and placed in cooler with ice.

NOTES:

Samples labeled, sealed, completed COC. Packed in cooler and shipped off UPS Red to Hall Labs 5/28/09.

SAMPLER NAME/TITLE: Cheryl Johnson Environmental specialist

WESTERN REFINING - GALLUP REFINERY
WELL SAMPLING DATA - 3RD QTR 2009

WELL #	NAPIS 1 (KA-1R)	NAPIS 2 (KA-2R)	NAPIS 3 (KA-3R)	KA-3
PURGE DATE	8/11/2009	8/11/2009	Not Done	Not Done
PURGE TIME	0940 hrs	1001 hrs		
LIQUID DEPTH (FT)	9.06	9.39		
DEPTH TO BTM (FT)	13.76	13.84		
DIFFERENCE (FT)	4.7	4.45		
1WVA = 0.163	0.7661	0.72535		
3WVA'S	2.2983	2.17605		
TEMP (DEG F)	70.1	81.1		
Ph	4.43	4.72		
COND	1.018mS	1.030mS		
DO	28.40%	20.76%		
SAL	.506ppt	.505 ppt		
TDS	510 ppm	517 ppm		

NAPIS 1	Sample Day	Sample Time
	8/11/2009	0948 hrs

Weather: Clear day, slight breeze 0-5 mph winds. Temp 80-85 Deg F. 3 well volumes = 2.3 gals. With new bailer started purging well. Water is clear with first two bails and turned slightly cloudy towards end of bailing. No apparent odor detected. Bailed approximately 2 gals.

Took samples at 0948 hours, labeled and placed in cooler with ice.

NAPIS 2	Sample Day	Sample Time
	8/11/2009	1019 hrs

Weather: Clear day, slight breeze 0-5 mph winds. Temp 80-85 Deg F. 3 well volumes = 2.2 gals. With new bailer started purging well. Water is clear with a slight yellow tint. No apparent odor detected. Bailed approximately 1.8 gals.

Took samples at 1019 hours, labeled and placed in cooler with ice.

NAPIS 3	Sample Day	Sample Time
	8/11/2009	NOT DONE

Well was covered with gravel & dirt when contractors re-graded the road on the west side of the NAPIS. Wells were inadvertently covered as the wells are at ground level. I have submitted a work ticket to have maintenance remove dirt so that there is access to well.

Waiting for maintenance to uncover wells so that sampling can resume.

KA-3	Sample Day	Sample Time
	8/11/2009	NOT DONE

Well was covered with gravel & dirt when contractors re-graded the road on the west side of the NAPIS. Wells were inadvertently covered as the wells are at ground level. I have submitted a work ticket to have maintenance remove dirt so that there is access to well.

Waiting for maintenance to uncover wells so that sampling can resume.

NOTES:

SAMPLER NAME/TITLE: Cheryl Johnson — Environmental specialist

WESTERN REFINING - GALLUP REFINERY
WELL SAMPLING DATA - 3RD QTR 2009

WELL #	NAPIS 1 (KA-1R)	NAPIS 2 (KA-2R)	NAPIS 3 (KA-3R)	KA-3
PURGE DATE			8/31/2009	8/31/2009
PURGE TIME			0946 hrs	1020 hrs
LIQUID DEPTH (FT)			8.39	9.36
DEPTH TO BTM (FT)			30.7	25
DIFFERENCE (FT)			22.31	15.64
1WVA = 0.163			3.63653	2.54932
3WVA'S			10.90959	7.64796
TEMP (DEG F)			84.4	86.1
Ph			3.85	2.45
COND			2.60 mS	873uS
DO			79.10%	48.40%
SAL			1.338 ppt	0.424
TDS			1.302 ppm	438 ppm

NAPIS 1	Sample Day	Sample Time

NAPIS 2	Sample Day	Sample Time

NAPIS 3	Sample Day	Sample Time
	8/31/2009	0958 hrs

On 8-31-09 had to dig around for well cover. Maintenance had covered well cover with dirt/gravel when they re-packed the road at the NAPIS. At 1020 hrs gauged well. Took first sample from well and took pH, temp, etc. measurements. Water is clear with a slight yellow tint. No apparent odor detected. IQ instrument was calibrated before use. Used new bailer on well and bailed approximately 5 gals and took samples at 1031 hours. Samples labeled and placed in cooler on ice.

Weather: Clear sunny day. Breezy, 5-10 mph winds. Temp 80-85 deg.

KA-3	Sample Day	Sample Time
	8/31/2009	1031 hrs

On 8-31-09 at 0946 gauged well. Took first sample from well and took pH, temp, etc. measurements. Water is clear no apparent odor detected. IQ instrument was calibrated before use. Used new bailer on well and bailed approximately 4 gals and took samples at 0958 hours. Samples labeled and placed in cooler on ice.

Weather: Clear sunny day. Breezy, 5-10 mph winds. Temp 80-85 deg.

NOTES:

SAMPLER NAME/TITLE: Cheryl Johnson Environmental specialist

WESTERN REFINING - GALLUP REFINERY
WELL SAMPLING DATA - 4TH QTR 2009

WELL #	NAPIS 1 (KA-1R)	NAPIS 2 (KA-2R)	NAPIS 3 (KA-3R)	KA-3
PURGE DATE	11/23/2009	11/23/2009	11/23/2009	11/23/2009
PURGE TIME	1300 hrs	1420 hrs	1050 hrs	1155 hrs
LIQUID DEPTH (FT)	10.28	9.72	21.62	9.6
DEPTH TO BTM (FT)	14	14.5	30.7	25
DIFFERENCE (FT)	3.72	4.78	9.08	15.4
1WVA = 0.163	0.60636	0.77914	1.48004	2.5102
3WVA'S	1.81908	2.33742	4.44012	7.5306
TEMP (DEG F)	66.2	63.1	68.1	78.1
Ph	3.99	3.92	2.62	4.05
COND	1.176 mS	1.039 mS	2.44mS	1.803 mS
DO	23.10%	18.70%	58.40%	30.50%
SAL	.591 ppt	0.511 ppt	1.25 ppt	.908 ppt
TDS	588 ppm	522 ppm	1.225 ppm	887 ppm

NAPIS 1	Sample Day	Sample Time
	11/23/2009	1315 hrs

Weather: Clear day, slight breeze 5-10 mph winds. Temp 50-55 Deg F. 3 well volumes = 1.8 gals. With new bailer started purging well. Water is clear with first two bails and turned slightly cloudy towards end of bailing. No apparent odor detected. Bailed approximately 1 gal.

Took samples at 1315 hours, labeled and placed in cooler with ice.

NAPIS 2	Sample Day	Sample Time
	11/23/2009	1420 hrs

Weather: Clear day, slight breeze 5-10 mph winds. Temp 50-55 Deg F. 3 well volumes = 2.3 gals. With new bailer started purging well. Water is clear with a slight yellow tint. No apparent odor detected. Bailed approximately 1.5 gals.

Took samples at 1450 hours, labeled and placed in cooler with ice.

NAPIS 3	Sample Day	Sample Time
	11/23/2009	1110 hrs

Weather: Clear day, slight breeze 5-10 mph winds. Temp 50-55 Deg F. 3 well volumes = 7.5 gals. Upon opening cover to well discovered approximately 2 to 3 inches of water accummulation inside the well cover around the well casing. Casing had a plug on it. Water had yellow tint, oily, slight odor. With new bailer started purging well. Water has slight tint, no apparent odor detected End of bailing water had turned slightly cloudy. Bailed approximately 6 gals.

Took samples at 1110 hours, labeled and placed in cooler with ice.

KA-3	Sample Day	Sample Time
	11/23/2009	1245 hrs

Weather: Clear day, slight breeze 5-10 mph winds. Temp 50-55 Deg F. 3 well volumes = 4.4 gals. With new bailer started purging well. Water is clear no apparent odor detected. Bailed approximately 3. gals.

Took samples at 1245 hours, labeled and placed in cooler with ice.

NOTES: NAPIS-3 was covered up with dirt and and had to uncover to get to well. Napis 2 - had a pipe running right over the top of the well cover and had to be manually moved to get access to the well. Both of these obstructions caused a delay in the sampling of these wells.

SAMPLER NAME/TITLE: Cheryl Johnson Environmental specialist

WESTERN REFINING
GALLUP REFINERY
Groundwater Discharge Permit GW-032
Recovery Well Inspections

Permit Requirement: GW-032

Condition Permit ID # : OCD Sect. 9, Item 4

Monitoring Required: Quarterly measurement of product layer thickness and bailing of product.

Equipment Identification: RW-1, RW-2, RW-5, RW-6

Date of measurement	Time	Quarter	Well #	Depth to Product (FT)	Depth to Water (FT)	Product Level Thickness (FT)	Volume of Product Bailed (gallons)
2/11/2009	1405	1ST	**RW-1**	30.21	31.72	1.51	0.29
2/11/2009	1350	1ST	**RW-2**	No Product	26.95	0	0.00
2/11/2009	1340	1ST	**RW-5**	32.08	32.15	0.07	0.05
2/11/2009	1330	1ST	**RW-6**	32.19	32.35	0.16	0.12
Name and Title of person who performed measurement: **Cheryl Johnson (Environmental Specialist)**							

Signature: _____

CC: Ed Riege

WESTERN REFINING
GALLUP REFINERY
GROUNDWATER DISCHARGE PERMIT
GWM-1 WELL INSPECTION

Permit Requirement: OCD, Section 9, Item 4

Monitoring Requirement: 2009 Quarterly water level on GWM-1

Date	Time	Quarter	Depth to Water (FT)	Comments
2/11/2009	1454	1ST	19.81	To top of Plastic Casing
Name & Title of person who performed measurement: Cheryl Johnson / Environmental Specialist				

Signature: _____

CC: Ed Riege

File: (S:)\env-share\Wells OW-1,OW-10 GWM-1 Form

WESTERN REFINING
GALLUP REFINERY
GROUNDWATER DISCHARGE PERMIT
GWM-2 WELL INSPECTION

Permit Requirement: OCD, Section 9, Item 3

Monitoring Requirement: Quarterly Start 2009

Date	Time	Quarter	Depth to bottom (FT)	Comments (Dry?)
2/11/2009	1444	1ST	19.07	DRY (Top of Plastic Casing)
Name & Title of person who performed measurement: Cheryl Johnson / Environmental Specialist				

Signature: _____

WESTERN REFINING
GALLUP REFINERY
GROUNDWATER DISCHARGE PERMIT
GWM-3 WELL INSPECTION

Permit Requirement: OCD, Section 9, Item 3

Monitoring Requirement: Quarterly Start 2009

Date	Time	Quarter	Depth to bottom (FT)	Comments (Dry?)
2/11/2009	1505	1ST	18.05	DRY: (To top of plastic casing)
Name & Title of person who performed measurement: Cheryl Johnson / Environmental Specialist				

Signature: _____

WESTERN REFINING
GALLUP REFINERY
GROUNDWATER DISCHARGE PERMIT
OW-1 WELL INSPECTION

Permit Requirement: OCD, Section 9, Item 4

Monitoring Requirement: 2009 Check well OW-1 for artesian flow condition

Date	Time	Quarter	Depth to Water (FT)	Comments
2/11/2009	1435	1ST	1.82	to top of plastic casing
Name & Title of person who performed measurement: Cheryl Johnson, Environmental Specialist				

Signature: _____

CC: Ed Riege

File: (S:)\env-share\Wells OW-1,OW-10 GWM-1 Form

WESTERN REFINING
GALLUP REFINERY
GROUNDWATER DISCHARGE PERMIT
OW-10 WELL INSPECTION

Permit Requirement: OCD, Section 9, Item 4

Monitoring Requirement: 2009 Quarterly water level on OW-10

Date	Time	Quarter	Depth to Water (FT)	Comments
2/11/2009	1428	1ST	1.41	To top of plastic casing
Name & Title of person who performed measurement: Cheryl Johnson, Environmental Specialist				

Signature: _____

CC: Ed Riege

File: (S:)\env-share\Wells OW-1,OW-10 GWM-1 Form

WESTERN REFINING
GALLUP REFINERY
Groundwater Discharge Permit GW-032
Recovery Well Inspections

Permit Requirement: GW-032

Condition Permit ID # : OCD Sect. 9, Item 4

Monitoring Required: Quarterly measurement of product layer thickness and bailing of product.

Equipment Identification: RW-1, RW-2, RW-5, RW-6

Date of measurement	Time	Quarter	Well #	Depth to Product (FT)	Depth to Water (FT)	Product Level Thickness (FT)	Volume of Product Bailed (gallons)
5/5/2009	1130	2ND	**RW-1**	30.22	30.8	0.58	0.41
5/5/2009	905	2ND	**RW-2**	No Product	26.74	0	0.00
5/5/2009	1002	2ND	**RW-5**	No Product	31.91	0.00	0.00
5/5/2009	945	2ND	**RW-6**	32.08	32.26	0.18	0.04
Name and Title of person who performed measurement: **Cheryl Johnson (Environmental Specialist)**							

Signature: _____

CC: Ed Riege

WESTERN REFINING
GALLUP REFINERY
GROUNDWATER DISCHARGE PERMIT
GWM-1 WELL INSPECTION

Permit Requirement: OCD, Section 9, Item 4

Monitoring Requirement: 2009 Quarterly water level on GWM-1

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Date	Time	Quarter	Depth to Water (FT)	Comments
5/4/2009	1400	2ND	19.56	To top of Plastic Casing
Name & Title of person who performed measurement: Cheryl Johnson / Environmental Specialist				

Signature: _____

WESTERN REFINING
GALLUP REFINERY
GROUNDWATER DISCHARGE PERMIT
GWM-2 WELL INSPECTION

Permit Requirement: OCD, Section 9, Item 3

Monitoring Requirement: Quarterly Start 2009

Date	Time	Quarter	Depth to bottom (FT)	Comments (Dry?)
5/5/2009	1345	2ND	19.06	DRY (Top of Plastic Casing)
Name & Title of person who performed measurement: Cheryl Johnson / Environmental Specialist				

Signature: _____

WESTERN REFINING
GALLUP REFINERY
GROUNDWATER DISCHARGE PERMIT
GWM-3 WELL INSPECTION

Permit Requirement: OCD, Section 9, Item 3

Monitoring Requirement: Quarterly Start 2009

Date	Time	Quarter	Depth to bottom (FT)	Comments (Dry?)
5/4/2009	1415	2ND	18.05	DRY: (To top of plastic casing)
Name & Title of person who performed measurement: Cheryl Johnson / Environmental Specialist				

Signature: _____

WESTERN REFINING
GALLUP REFINERY
GROUNDWATER DISCHARGE PERMIT
OW-1 WELL INSPECTION

Permit Requirement: OCD, Section 9, Item 4

Monitoring Requirement: 2009 Check well OW-1 for artesian flow condition

Date	Time	Quarter	Depth to Water (FT)	Comments
5/4/2009	1335	2ND	1.85	to top of plastic casing
Name & Title of person who performed measurement: Cheryl Johnson, Environmental Specialist				

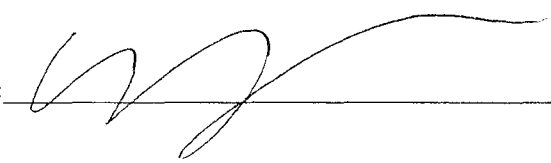
Signature: _____

WESTERN REFINING
GALLUP REFINERY
GROUNDWATER DISCHARGE PERMIT
OW-10 WELL INSPECTION

Permit Requirement: OCD, Section 9, Item 4

Monitoring Requirement: 2009 Quarterly water level on OW-10

Date	Time	Quarter	Depth to Water (FT)	Comments
5/4/2009	1310	2ND	1.46	To top of plastic casing
Name & Title of person who performed measurement: Cheryl Johnson, Environmental Specialist				

Signature: 

WESTERN REFINING
GALLUP REFINERY
Groundwater Discharge Permit GW-032
Recovery Well Inspections

Permit Requirement: GW-032

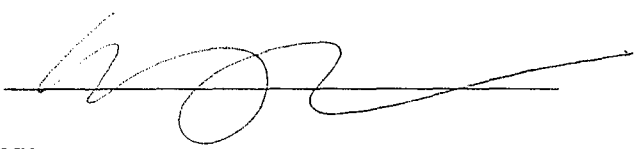
Condition Permit ID # : OCD Sect. 9, Item 4

Monitoring Required: Quarterly measurement of product layer thickness and bailing of product.

Equipment Identification: RW-1, RW-2, RW-5, RW-6

Date of measurement	Time	Quarter	Well #	Depth to Product	Depth to Water Feet	Product Level Thickness	Volume of Product Bailed (gallons)
8/10/2009	0922 hrs	3RD	**RW-1**	30.69	31.02	**0.33**	0.89
8/10/2009	0945 hrs	3RD	**RW-2**	**No Product**	26.87	0	0.00
8/10/2009	0950 hrs	3RD	**RW-5**	**No Product**	31.94	0.00	0.00
8/10/2009	0955 hrs	3RD	**RW-6**	32.04	32.28	0.24	0.03

Name and Title of person who performed measurement:
Cheryl Johnson (Environmental Specialist)

Signature: 

CC: Ed Riege

WESTERN REFINING
GALLUP REFINERY
GROUNDWATER DISCHARGE PERMIT
GWM-1 WELL INSPECTION

Permit Requirement: OCD, Section 9, Item 4

Monitoring Requirement: 2009 Quarterly water level on GWM-1

Date	Time	Quarter	Depth to Water	Comments
8/10/2009	1010 hrs	3RD	20.32 Feet	To top of Plastic Casing
Name & Title of person who performed measurement: Cheryl Johnson / Environmental Specialist				

Signature: _____

WESTERN REFINING
GALLUP REFINERY
GROUNDWATER DISCHARGE PERMIT
GWM-2 WELL INSPECTION

Permit Requirement: OCD, Section 9, Item 3

Monitoring Requirement: Quarterly Start 2009

Date	Time	Quarter	Depth to bottom	Comments (Dry?)
8/10/2009	1014 HRS	3RD	19.07 FEET	DRY (Top of Plastic Casing)
Name & Title of person who performed measurement: Cheryl Johnson / Environmental Specialist				

Signature: _____

WESTERN REFINING
GALLUP REFINERY
GROUNDWATER DISCHARGE PERMIT
GWM-3 WELL INSPECTION

Permit Requirement: OCD, Section 9, Item 3

Monitoring Requirement: Quarterly Start 2009

Date	Time	Quarter	Depth to bottom	Comments (Dry?)
8/10/2009	1006 hrs	3RD	18.05 FEET	DRY: (To top of plastic casing)
Name & Title of person who performed measurement: Cheryl Johnson / Environmental Specialist				

Signature: _____

WESTERN REFINING
GALLUP REFINERY
GROUNDWATER DISCHARGE PERMIT
OW-1 WELL INSPECTION

Permit Requirement: OCD, Section 9, Item 4

Monitoring Requirement: 2009 Check well OW-1 for artesian flow condition

Date	Time	Quarter	Depth to Water	Comments
8/10/2009	1038 hrs	3rd	1.86 feet	to top of plastic casing
Name & Title of person who performed measurement: Cheryl Johnson, Environmental Specialist				

Signature: _____

WESTERN REFINING
GALLUP REFINERY
GROUNDWATER DISCHARGE PERMIT
OW-10 WELL INSPECTION

Permit Requirement: OCD, Section 9, Item 4

Monitoring Requirement: 2009 Quarterly water level on OW-10

Date	Time	Quarter	Depth to Water	Comments
8/10/2009	1028 hrs	3rd	2.67 feet	To top of plastic casing
Name & Title of person who performed measurement: Cheryl Johnson, Environmental Specialist				

Signature: _____

WESTERN REFINING
GALLUP REFINERY
Groundwater Discharge Permit GW-032
Recovery Well Inspections

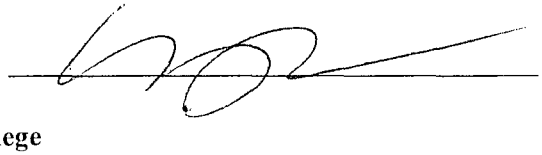
Permit Requirement: GW-032

Condition Permit ID # : OCD Sect. 9, Item 4

Monitoring Required: Quarterly measurement of product layer thickness and bailing of product.

Equipment Identification: RW-1, RW-2, RW-5, RW-6

Date of measurement	Time	Quarter	Well #	Depth to Product Feet	Depth to Water Feet	Product Level Thickness	Volume of Product Bailed (gallons)
10/28/2009	0945 hrs	4th	**RW-1**	30.56	30.75	**0.19**	0.15
10/28/2009	1000 hrs	4th	**RW-2**	**No Product**	26.64	0	0.00
10/28/2009	1045 hrs	4th	**RW-5**	**No Product**	31.71	0.00	0.00
10/28/2009	1055 hrs	4th	**RW-6**	31.81	32.03	0.22	0.04
Name and Title of person who performed measurement: **Cheryl Johnson (Environmental Specialist)**							

Signature: 

CC: Ed Riege

WESTERN REFINING
GALLUP REFINERY
GROUNDWATER DISCHARGE PERMIT
GWM-1 WELL INSPECTION

Permit Requirement: OCD, Section 9, Item 4

Monitoring Requirement: 2009 Quarterly water level on GWM-1

Date	Time	Quarter	Depth to Water	Comments
10/27/2009	1505	4th	20.57 feet	To top of Plastic Casing
Name & Title of person who performed measurement: Cheryl Johnson / Environmental Specialist				

Signature: _____

GWM-2 WELL INSPECTION
GALLUP REFINERY
GROUNDWATER DISCHARGE PERMIT
GWM-2 WELL INSPECTION

Permit Requirement: OCD, Section 9, Item 3

Monitoring Requirement: Quarterly Start 2009

Date	Time	Quarter	Depth to bottom	Comments (Dry?)
10/27/2009	1455	4th	19.06 feet	DRY (Top of Plastic Casing)
Name & Title of person who performed measurement: Cheryl Johnson / Environmental Specialist				

Signature: _____

WESTERN REFINING
GALLUP REFINERY
GROUNDWATER DISCHARGE PERMIT
GWM-3 WELL INSPECTION

Permit Requirement: OCD, Section 9, Item 3

Monitoring Requirement: Quarterly Start 2009

Date	Time	Quarter	Depth to bottom	Comments (Dry?)
10/27/2009	1505	4th	18.06 feet	DRY: (To top of plastic casing)
Name & Title of person who performed measurement: Cheryl Johnson / Environmental Specialist				

Signature: _____

WESTERN REFINING
GALLUP REFINERY
GROUNDWATER DISCHARGE PERMIT
OW-1 WELL INSPECTION

Permit Requirement: OCD, Section 9, Item 4

Monitoring Requirement: 2009 Check well OW-1 for artesian flow condition

Date	Time	Quarter	Depth to Water	Comments
10/27/2009	1440	4th	1.79 feet	to top of plastic casing
Name & Title of person who performed measurement: Cheryl Johnson, Environmental Specialist				

Signature: _____

WESTERN REFINING
GALLUP REFINERY
GROUNDWATER DISCHARGE PERMIT
OW-10 WELL INSPECTION

Permit Requirement: OCD, Section 9, Item 4

Monitoring Requirement: 2009 Quarterly water level on OW-10

Date	Time	Quarter	Depth to Water	Comments
10/27/2009	1425	4th	2.91 feet	To top of plastic casing
Name & Title of person who performed measurement: Cheryl Johnson, Environmental Specialist				

Signature: _____

WESTERN REFINING - GALLUP REFINERY

JAMESTOWN, NEW MEXICO

SNOW MACHINES by Ponds 3 & 4

MONTH	YEAR	NORTH Z-84-B25 S/N 2842 (7/2002) HOUR METER		TOTAL HR	SOUTH Z-84-B24 S/N 2843 (7/2002) HOUR METER		TOTAL HR	TOTAL GAL/YR
		START	END		START	END		
MAR-OCT	2003	0	2928	2928	0	2928	2928	14,054,400
MAR-OCT	2004	2928	4052	1124	2928	4137	1209	5,599,200
APR-AUG	2005	4052	4754	702	4137	4839	702	3,369,600
MAY-JUL	2006	6188	6190	2	6273	6296	23	60,000
AUG-OCT	2007	6190	8059	1869	6296	8079	1783	8,764,800
JAN-MAR	2008	8059	8059	0	8079	8079	0	0
MAR-JUN	2008	8059	8060	1	8079	8080	1	4,800
JUN-JUL	2008	8060	8516	456	8080	8726	646	2,644,800
JUL-OCT	2008	8516	9500	984	8726	8800	74	2,539,200
JAN-MAR	2009	9500	9500	0	8800	8800	0	0
APR-JUN	2009	9500	10940	1440	8800	10200	1400	6,816,000
JUL-SEP	2009	10940	12356.3	1416.3	10200	12557.5	2357.5	9,057,120
OCT-DEC	2009	12356.3	12418	61.7	12557.5	12595.1	37.6	238,320

2009 WASTE WATER BALANCE / EVAPORATION POND RATES

PONDS	GALLONS/YR
Discharged to Ponds (measured at V notch)	**134,632,440**
RAINFALL TO PONDS	**24,386,790**
TOTAL TO PONDS	**159,019,230**
POND EVAPORATION (150 GPM)	**78,840,000**
SNOW MACHINES EVAPORATION(80GPM	**16,111,440**
TOTAL BALANCE IN PONDS	**64,067,790**

24386790

2009 WASTE WATER SUMMARY

DATE	TOTAL FLOW TO PONDS			RAIN GAUGE INCHES	FREEBOARD AT PONDS											Comments
					2	3	4	5	6	8	7	11	12a	12b	9	
	TEMP	90 DEGREE V NOTCH "INCHES"	FLOW GPM		feet	feet	feet	feet	feet	feet	feet	feet	feet	feet	feet	
1/2/2009	32	7	284		1.5	1.33	1.25	0.08	OM	OM	O	3	BM	1.25	0.67	
1/5/2009	35	7	284		2	1.33	1.83	1.75	OM	1.75	1.75	1.83	BM	1.5	0.67	
1/6/2009	34	7	284		2	1.5	1.83	1.83	OM	1.83	1.83	1.83	BM	1.5	0.67	
1/7/2009	33	7	284		2	1.5	1.75	1.83	OM	1.83	1.83	1.75	BM	1.5	0.67	
1/8/2009	33	7	284		2	1.5	1.75	1.75	OM	1.83	1.83	1.75	BM	1.5	0.67	
1/9/2009	32	7	284		2	1.5	1.75	1.75	OM	1.83	1.83	1.75	BM	1.5	0.67	
1/12/2009	33	8	397		2	1.5	1.83	1.83	OM	1.75	1.75	1.75	BM	1.5	0.67	
1/13/2009	43	7	284		2	1.5	1.83	1.83	OM	1.75	1.75	1.75	BM	1.5	0.67	
1/14/2009	53	7	284		2	1.5	1.67	1.67	OM	0.5	2.42	2.42	BM	1.42	0.67	
1/15/2009	41	7	284		2	1.5	1.5	1.17	OM	0.5	2.42	2.42	BM	1.42	0.67	
1/16/2009	47	7	284		1.67	1.58	1.67	1.25	OM	0.5	2.42	2.42	BM	1.33	0.58	
1/19/2009	40	7	284		2	1.67	1.67	1.17	OM	0.5	2.42	2.42	BM	1.42	0.58	
1/20/2009	46	7	284		1.67	1.58	1.67	1.25	OM	0.5	2.42	2.42	BM	1.33	0.58	
1/21/2009	44	7	284		1.67	1.58	1.67	1.25	OM	0.5	2.42	2.42	BM	1.33	0.58	
1/22/2009	39	7	284		1.67	1.58	1.67	1.25	OM	0.58	2.42	2.42	BM	1.33	0.67	
1/23/2009	40	7	284		1.58	1.58	1.67	1.25	OM	0.58	2.42	2.42	BM	1.25	0.67	
1/26/2009	40	7	284		1.58	1.58	1.67	1.25	OM	0.58	2.42	2.42	BM	1.25	0.67	
1/27/2009	41	7	284		1.75	1.58	1.75	1.5	OM	0.58	2.42	2.42	BM	1.25	0.67	
1/28/2009	39	7	284		1.75	1.58	1.75	1.5	OM	0.58	2.42	2.42	BM	1.25	0.67	
1/29/2009	40	7	284		1.75	1.58	1.75	1.5	OM	0.58	2.42	2.42	BM	1.25	0.67	
1/30/2009	41	7	284		1.75	1.58	1.75	1.5	OM	0.58	2.42	2.42	BM	1.25	0.67	
2/3/2009	36	7	284		1.67	1.5	1.5	1.25	OM	0.08	2.42	2.42	BM	1.58	0.08	
2/4/2009	32	6.5	236		1.75	1.58	1.5	1.25	OM	0.08	2.58	2.42	BM	1.25	0.08	
2/5/2009	34	7	284		1.75	1.67	1.58	1.5	OM	0.08	2.42	2.42	BM	1.25	0.08	
2/6/2009	46	7	284		1.67	1.58	1.33	1.08	OM	0.08	1.75	2.08	BM	1.5	0.08	
2/9/2009	46	7	284		1.67	1.58	1.33	1.08	OM	0.08	1.75	2.08	BM	1.5	0.08	
2/10/2009	44	7	284		1.83	1.58	1.42	1.25	OM	0.08	1.75	2	BM	1.42	0.08	
2/11/2009	41	7	284		1.83	1.58	1.42	1.25	OM	0.08	1.75	2	BM	1.42	0.08	
2/12/2009	38	6.5	236		2	1.58	1.5	1.17	OM	0.08	2	2	BM	1.5	0.08	
2/13/2009	42	6.5	236		2	2	2	1.17	OM	0.08	2	2.25	BM	1.5	0.08	
2/17/2009	32	6.5	236		2	1.58	1.5	1.25	OM	0.08	1.58	2	BM	1.5	0.08	
2/18/2009	30	6.5	236		2	1.67	1.58	1.42	OM	0.08	2	2.42	BM	1.25	0.08	
2/19/2009	29	6.5	236		2	1.67	1.58	1.42	OM	0.08	2	2.17	BM	1.5	0.08	
2/20/2009	30	6.5	236		2	1.67	1.58	1.42	OM	0.08	2	2.08	BM	1.5	0.08	
2/23/2009					1.42	1.42	2.42	2.42	OM	3	3	2.42	BM	2	0.67	
2/24/2009					1.42	1.42	2.42	2.42	OM	3	3	2.42	BM	2	0.67	
2/25/2009					1.42	1.42	2.42	2.42	OM	3	3	2.42	BM	2	0.67	
3/2/2009					1.42	1.42	2.42	2.42	OM	3	3	2.42	BM	2	0.67	
3/3/2009	58	7	284		1.58	1.42	1.5	1.42	2	4.42	2	2.42	BM	1.25	3	
3/4/2009	58	6.5	236		1.58	1.42	1.5	1.42	2	4.42	2	2.42	BM	1.25	3	
3/5/2009	50	5.5	156		1	1.08	1.83	1.75	OM	OM	1.58	2	BM	1.33	OM	Marker missing6, 8, 9
3/6/2009	42	1	2.5		2	1.5	1.5	1.67	OM	0.08	2	2.33	BM	1.58	0.08	
3/7/2009	83	1	2.5		1.67	1.5	1.5	1.83	OM	0.42	2	2.17	BM	1.17	1	
3/8/2009	60	6.5	236		2	1.5	1.5	1.67	OM	0.5	1.92	2.33	BM	1.33	OM	
3/9/2009	52	6.5	236		1.5	1.42	1.5	1.67	OM	0.5	1.5	0.33	2.42	1.25	0.08	
3/10/2009	42	6.5	236		1.58	1.42	1.5	1.75	3	0.5	2	0.25	2.42	1.33	0.08	
3/11/2009	40	6	123		1.58	1.42	1.5	1.75	3	0.5	2	0.25	2.42	1.25	1.83	
3/12/2009	46	5.5	174		1.58	1.42	1.5	1.75	3	0.5	2	2	2.42	1.25	0.08	
3/13/2009	45	9	533		1.5	1.5	1.5	OM	OM	OM	2.42	2	BM	1	OM	
3/15/2009	58	7	284	0.01	1.5	1.5	1.5	OM	OM	OM	2.25	2	BM	1	OM	
3/16/2009	71	6.5	236		1.5	1.5	1.5	OM	OM	OM	2.25	2	BM	1	OM	
3/17/2009	52	6	193		2.5	1.5	1.5	0.83	OM	2	1	1.42	BM	0.92	OM	
3/18/2009	54	6	193		1.5	1.5	1.5	0.83	OM	2	1	1.5	BM	0.83	OM	
3/19/2009	49	6.5	236		1.5	1.5	1.5	0.83	OM	2	1	1.5	BM	0.83	OM	
3/20/2009	49	6.5	236		1.5	1.5	1.5	1	OM	2	1	1	BM	0.92	OM	
3/21/2009	77	6	193		2	1.67	1.33	1.92	OM	0.5	1.83	2.17	BM	1.33	OM	

DATE	TOTAL FLOW TO PONDS			RAIN GAUGE INCHES	FREEBOARD AT PONDS											Comments
	TEMP	90 DEGREE V NOTCH "INCHES"	FLOW GPM		2 feet	3 feet	4 feet	5 feet	6 feet	8 feet	7 feet	11 feet	12a feet	12b feet	9 feet	
3/22/2009	69	6	193		2	1.67	1.33	1.92	OM	0.5	1.67	2.08	BM	1.33	OM	
3/23/2009	57	5.5	156		1.58	11.4	1.33	1.5	OM	0.58	1.67	2	BM	1.17	OM	
3/24/2009	58	6	193		1.58	1.5	1.33	1.42	OM	0.5	1.67	2	BM	1.17	OM	
3/25/2009	54	6.5	236		1.67	1.5	1.33	1.42	OM	0.5	1.67	2.5	BM	1.5	OM	
3/26/2009	63	6.5	236		1.83	1.17	1.5	2	OM	0.5	1.67	2.08	BM	2	OM	
3/27/2009	43	6	193	**0.05**	1.5	1.25	1.58	2	OM	0.5	1.67	2.08	BM	1.33	OM	
3/28/2009	62	6.5	236		1.58	1.33	1.67	2	OM	0.5	1.67	2.08	BM	1.42	OM	
3/29/2009	52	6.5	236	**0.09**	1.5	1.5	1.5	2	OM	0.5	2	2	BM	1.5	OM	
3/30/2009	43	7.5	338	**0.07**	1.5	1.5	1.5	1.75	OM	0.67	2	2.5	BM	1.25	OM	
3/31/2009	47	6.5	236	**0.01**	1.5	1.5	1.5	1.75	OM	0.67	2	2.33	BM	1.25	OM	
4/1/2009	51	8.5	462		1.67	1.5	1.5	1.75	OM	0.58	2	2.75	BM	1.33	OM	
4/2/2009	48	6.5	236		1.5	1.5	1.5	1.67	OM	0.67	1.83	2.17	BM	1.17	OM	
4/3/2009	50	6	193	**0.01**	1.5	1.5	1.5	1.67	OM	0.67	1.83	2.17	BM	1	OM	
4/4/2009	47	6.75	260		1.5	1.5	1.5	1.67	OM	0.67	1.83	2.17	BM	1	OM	
4/5/2009	38	6.75	260		1.5	1.5	1.5	1.67	OM	0.67	1.83	1.33	BM	1	OM	
4/6/2009	50	6	193		1.5	1.42	1.42	1.75	OM	0.67	2	2.75	BM	1.25	OM	
4/7/2009	67	6.5	236		1.67	1.5	1.5	1.67	OM	0.67	1.75	2.75	BM	1.25	OM	
4/8/2009	58	6	193		1.83	1.58	1.42	2	OM	0.83	2	2.83	BM	1.25	OM	
4/10/2009	42	7.25	310		1.92	1.42	1.33	1.92	OM	0.83	2	2.33	BM	1.33	OM	
4/11/2009	32	6.5	236	**0.19**	2	1.33	1.42	1.92	OM	0.92	2.08	2.25	BM	1.42	OM	
4/12/2009	38	7	284	**0.02**	1.5	1.17	1.25	2	OM	0.5	2	2.5	BM	1.17	OM	
4/13/2009	46	9	533		1.5	1.33	1.42	1.83	OM	0.75	2.17	2.75	BM	1.25	OM	
4/14/2009	55	9	533		1.83	1.33	1.42	1.67	OM	0.75	1.83	2.83	BM	1.33	OM	
4/15/2009	56	6.5	236		1.92	1.5	1.5	1.67	OM	0.75	2.17	2.83	BM	1.33	OM	
4/16/2009	25	6.75	260		1.92	1.33	1.5	1.67	OM	0.75	2.17	2.83	BM	1.33	OM	
4/17/2009	33	6.75	260	**0.04**	1.5	1.5	1.33	1.5	OM	0.75	2	2.83	BM	1.33	OM	
4/18/2009	48	6.5	236	**0.03**	1.5	1.5	1.33	1.5	OM	0.75	2	2.83	BM	1.33	OM	
4/19/2009	46	6.5	236		1.5	1.5	1.33	1.33	OM	0.83	1.92	2.67	BM	1.25	OM	
4/20/2009	53	6	193		1.17	1.25	1.5	1.33	OM	0.75	1.5	2.17	BM	1.25	OM	
4/21/2009	54	6	193		1.5	1.33	1.33	1.33	OM	0.83	1.83	2.17	BM	1.17	OM	
4/22/2009	54	5.5	156		1.83	1.33	1.5	1.25	OM	0.67	2.33	3	BM	1.25	OM	
4/23/2009	53	6	193		1.83	1.33	1.58	1.33	OM	0.67	2.33	3	BM	1.25	OM	
4/24/2009	52	6	193		1.83	1.33	1.58	1.33	OM	0.67	2.33	2.92	BM	1.25	OM	
4/25/2009	55	5	123		1.67	1.58	1.58	1.83	OM	2.67	2.67	3.08	BM	1.25	OM	
4/26/2009	48	6.5	236		1.67	1.42	1.5	1.42	OM	1	2.17	3	BM	1.17	OM	
4/27/2009	56	7	284		1.5	1.42	1.33	1.5	OM	1.08	2	3	BM	1.25	OM	
4/28/2009	52	6.75	260		1.5	1.5	1.42	1.5	OM	1.17	2	3.08	BM	1.25	OM	
4/29/2009	53	6.75	260		1.58	1.5	1.42	1.42	OM	1.33	2.08	3.17	BM	1.33	OM	
4/30/2009	55	6	193		1.5	1.33	1.42	1.5	OM	1	2.08	3	BM	1.33	OM	
5/1/2009	55	6	193		1.5	1.17	1.5	1.83	OM	1	2	3	BM	1.33	OM	
5/2/2009	54	6	193		1.5	1.17	1.5	1.83	OM	1	2	3	BM	1.33	OM	
5/3/2009	61	6	193		1.5	1.33	1.33	1.83	OM	1	2.17	3	BM	1.33	OM	
5/4/2009	54	6	193		1.33	1.33	1.17	1.5	OM	1	2	2.33	BM	1.17	OM	
5/5/2009	53	6.5	236		1.5	1.17	1.08	1.5	OM	1	2.33	3	BM	1.17	OM	
5/6/2009	57	6	193		1.5	1.17	1.17	1.33	OM	1.17	2.17	BM	BM	1.17	0.17	
5/7/2009	60	6.5	236		1.33	1.17	1.33	1.5	OM	1.17	2.17	3	BM	1.17	0.17	
5/8/2009	59	6	193		2	1.33	1.5	1.75	OM	1.5	2.17	3	BM	1.25	OM	
5/9/2009	74	6	193		1.67	1.25	1.42	1.67	OM	1.25	3	3.08	BM	1.25	OM	
5/10/2009	72	6	193		1.67	1.25	1.42	1.83	OM	1.33	3	3	BM	1.25	OM	
5/12/2009	56	6	193		1.67	1.33	1.5	1.92	OM	1.17	3	BM	BM	1.17	OM	
5/13/2009	64	5	123		1.33	1.25	1.25	1.5	OM	1.17	3	BM	BM	1.17	OM	
5/14/2009	60	6.75	260		1.5	1.33	1.33	1.33	OM	1	2.67	BM	BM	1.17	0.33	
5/15/2009	81	6.5	236		1.25	1.42	BM	1.58	OM	1.17	2.67	BM	BM	1.17	0.33	
5/16/2009	73	5	123		1.33	1.67	1.58	2	OM	1.42	3.17	BM	1.25	1.25	OM	
5/17/2009	71	5	123		1.33	1.58	1.58	2	OM	1.5	3.33	BM	BM	1.33	OM	
5/18/2009	59	5	123		1	1.5	1.67	2	OM	1.67	3.17	BM	BM	1.42	OM	
5/19/2009	71	5	123		1	1.67	2	2	OM	1.83	3.33	BM	BM	BM	OM	
5/20/2009	66	5	123		2	1.5	1.33	2.67	OM	1.17	2.5	BM	BM	1.17	0.33	

DATE	TOTAL FLOW TO PONDS			RAIN GAUGE INCHES	FREEBOARD AT PONDS											Comments
	TEMP	90 DEGREE V NOTCH "INCHES"	FLOW GPM		2	3	4	5	6	8	7	11	12a	12b	9	
					feet	feet	feet	feet	feet	feet	feet	feet	feet	feet	feet	
5/21/2009	59	5.5	156	**0.06**	2	1.33	1.17	15	OM	1.33	2.67	BM	BM	1.17	0.33	
5/22/2009	58	6	193		2	1.33	1.17	1.5	OM	1.17	2.5	BM	BM	1.17	0.33	
5/23/2009	54	7	284	**0.12**	3	1.17	1.17	1.33	OM	1.17	2.5	BM	BM	1.17	0.33	
5/24/2009	60	7	284	**0.65**	0.83	1.17	1.17	2	OM	1.83	3	BM	BM	1.17	OM	
5/25/2009	62	7	284	**0.01**	1	1.17	1.17	2	OM	1.42	3	BM	BM	BM	OM	
5/26/2009	64	7	284		0.83	1.17	0.83	1.33	OM	1.42	3.17	BM	BM	1.33	OM	
5/27/2009	64	6.5	236		0.83	1.25	0.83	1.5	OM	1.33	3	BM	BM	1.33	OM	
5/28/2009	58	6.25	214	**0.12**	1.08	0.83	0.75	1.42	OM	1.42	3	BM	BM	1.33	0.58	
5/29/2009	65	6.5	236	**0.04**	1.17	1.08	1.08	0.83	OM	BM	3	BM	2.33	1.17	0.33	
5/30/2009	86	6.5	236		1.17	1.08	1.08	0.83	OM	BM	3	BM	2.33	1.25	0.33	
5/31/2009	68	7.75	367		1.08	1.08	1.17	0.67	OM	BM	3	BM	2.33	1.25	0.33	
6/1/2009	67	6.75	260		1.83	1.33	1.25	0.92	OM	1.83	3.17	BM	2.33	1.33	0.08	
6/2/2009	66	7	284		1.67	1.33	1.25	0.92	OM	1.83	3.33	BM	2.33	1.33	0.08	
6/3/2009	58	5	123		1.17	1.33	1.33	1	OM	2.17	3.33	BM	2.42	1.5	0.17	
6/4/2009	61	5	123		1.17	1.33	1.33	0.83	OM	2	3.33	BM	2.5	1.5	0.17	
6/5/2009	63	5.5	156		1.5	1.17	1.33	0.92	OM	1.08	2.33	BM	BM	1.17	0.33	
6/6/2009	56	5	123		1.33	1.17	1.25	0.83	OM	1.17	2.33	BM	BM	1.17	0.33	
6/7/2009	61	5	123		2	1.17	1.33	0.92	OM	1.17	2.33	BM	BM	1.33	0.33	
6/8/2009	56	5	123		2	1.33	1.17	1.17	OM	1.33	2.33	BM	BM	1.33	0.33	
6/9/2009	61	5	123	**0.08**	1	1	1	1.17	OM	1.5	3.17	BM	2	1.17	0.17	
6/10/2009	56	6.5	236	**0.76**	0.92	1.08	1	1.17	OM	1.83	3.33	BM	2.17	1.17	0.17	
6/13/2009	83	7.25	310		0.83	0.92	1.25	1.08	OM	1.83	2.5	BM	3	1.25	0.67	
6/14/2009	78	7	284		2	1.17	1.33	1.33	OM	1.33	2.5	BM	BM	1.17	0.33	
6/15/2009	63	7	284		2	1.17	1.08	1.17	OM	1.17	2.5	BM	BM	1.17	0.5	
6/16/2009	80	7	284		0.75	1.25	1.08	1.17	OM	1.17	2.42	BM	BM	1.17	0.5	
6/17/2009	59	6	193		1.17	1.08	1.17	0.92	OM	1.5	3.17	BM	3.17	1.33	OM	
6/18/2009	62	5	123		0.83	1.08	1.17	0.83	OM	1.5	3.33	BM	3.17	1.33	OM	
6/19/2009	76	5	123		0.83	1.17	1.25	0.83	OM	1.5	3.33	BM	BM	1.42	OM	
6/20/2009	72	5	123	**0.11**	0.83	1.17	1.25	0.83	OM	1.5	3.33	BM	BM	1.25	OM	
6/21/2009	60	5	123		0.83	1.17	1.17	1	OM	1.33	2.83	BM	BM	1.25	0.83	
6/22/2009	63	5.75	174		0.83	1.17	1.17	1.25	OM	1.33	2.83	BM	BM	1.17	0.92	
6/23/2009	61	5.75	174		0.92	1.17	1.17	1.08	OM	1.33	2.83	BM	BM	1.17	0.92	
6/24/2009	65	6.5	236		1.08	1.17	1.17	1.17	OM	BM	3.33	BM	BM	1.08	0.67	
6/25/2009				**0.03**	0.83	0.92	1.08	0.75	OM	BM	3.33	BM	BM	1.25	0.33	
6/26/2009	74	7.5	338	**0.01**	0.83	1	1	0.75	OM	BM	3.33	BM	BM	1.25	0.25	
6/27/2009	67	6.5	236	**0.3**	0.83	1	0.75	0.58	OM	BM	3	BM	BM	1.25	0.33	
6/28/2009	62	7	284	**0.1**	0.83	1	1	0.83	OM	BM	2.83	BM	BM	1.25	0.33	
6/29/2009	82	6.75	260		0.5	0.75	1.17	0.25	OM	BM	2.33	BM	3	1.17	0.33	
6/30/2009	82	7	284		0.58	0.83	1.25	0.42	OM	BM	2.25	BM	BM	1.25	0.33	
7/1/2009	78	6.75	260		0.58	0.75	1.25	0.5	OM	BM	2.17	BM	BM	1.25	0.42	
7/2/2009	72	6.75	260		0.58	0.67	1.17	0.5	OM	BM	2.08	BM	BM	1.25	0.42	
7/3/2009	73	6	193	**0.03**	0.67	1.08	1.5	0.5	OM	1.5	BM	BM	BM	1.25	0.33	
7/4/2009	72	6	193		0.5	1.08	1.33	0.5	OM	BM	3.17	BM	BM	1.25	OM	
7/5/2009	71	6	193		0.58	1.08	1.33	0.5	OM	2	3	BM	BM	1.33	OM	
7/6/2009		7	284		0.67	1.08	1.33	0.58	OM	1.83	2.5	BM	BM	1.33	OM	
7/7/2009	65	7	284		2.17	1.17	1.5	1.17	OM	1.33	2.33	BM	BM	1.17	0.83	
7/8/2009	46	6.75	260		0.92	1.08	1.17	0.67	OM	1.33	2	BM	BM	1.17	0.83	
7/9/2009	67				1.17	1.17	1.25	1.17	OM	BM	2.17	BM	BM	1.33	1.25	
7/10/2009	75	7.5	338		1.25	1.33	1.33	1.25	OM	BM	2.25	BM	BM	1.33	1.17	
7/11/2009	72	8	397		1.25	1.25	1.33	1.08	0.5	BM	2.67	BM	BM	1.33	0.33	
7/12/2009	72	8	397		1.25	1.33	1.5	1	0.83	BM	2.67	BM	BM	1.25	0.67	
7/13/2009	68	8	397		1.17	1.25	1.33	1	1	BM	2.5	BM	BM	1.17	0.67	
7/14/2009	69	7	284		1.33	1.67	1.42	1	1	BM	2.42	BM	BM	1.25	0.83	
7/15/2009	82	7.25	310		1.08	1.17	0.92	0.83	1	BM	2.33	BM	BM	1.33	0.83	
7/16/2009	81	7.25	310		1.17	1.17	1.5	0.92	1.17	BM	2.08	BM	BM	1.42	0.83	
7/17/2009	84	7.25	310		1.25	1.17	1.5	0.92	1.33	BM	2	BM	BM	1.42	0.92	
7/18/2009	83	7.25	310		1.33	1.25	1.5	1	1.42	BM	1.67	BM	BM	1.42	1	
7/19/2009	74	7	284		1.17	1.25	1.33	1.17	OM	2	2	BM	BM	1.25	OM	

DATE	TOTAL FLOW TO PONDS			RAIN GAUGE INCHES	FREEBOARD AT PONDS											Comments
	TEMP	90 DEGREE V NOTCH "INCHES"	FLOW GPM		2 feet	3 feet	4 feet	5 feet	6 feet	8 feet	7 feet	11 feet	12a feet	12b feet	9 feet	
7/20/2009	74	6.5	236		1.5	1.67	1.5	1.33	OM	2	2.17	BM	BM	1.33	OM	
7/21/2009	60	6.5	236	**0.02**	1.5	1.33	1.5	1.5	OM	2	2.17	BM	BM	1.33	OM	
7/22/2009	74	6.5	236	**0.15**	1.5	1.33	1.42	1.33	OM	2	2	BM	BM	1.33	OM	
7/23/2009	70	6.5	236		1.5	1.17	1.17	1.33	2	BM	1.67	BM	BM	1.17	1	
7/24/2009	66	6.5	236		1.5	1.17	1.33	1.33	2	BM	1.67	BM	BM	1.17	1	
7/25/2009	64	6.5	236	**0.17**	1.5	1.17	1.33	1.17	2.5	BM	1.67	BM	BM	1.17	1	
7/26/2009	66	6.25	214		1.5	1.17	1.33	1.17	2.5	BM	2	BM	BM	1.17	1.17	
7/27/2009		6.5	236	**0.12**	1.5	1.25	1.33	1.33	2	BM	1.67	BM	BM	1.17	0.83	
7/29/2009	68	6.5	236		1.58	1.5	1.33	1.33	2	BM	1.67	1.5	BM	1.25	0.83	
7/30/2009	67	6.5	236	**0.17**	1.75	1.33	1.25	1.5	2	BM	1.5	BM	BM	1.25	0.83	
7/31/2009	82	6.75	260		1.33	1.17	1.33	1.17	2.83	BM	2	BM	BM	1.17	1.33	
8/1/2009	68	6.75	260		1.25	1.17	1.25	1.25	2.75	BM	1.92	BM	BM	1.17	1.33	
8/2/2009	79	7	284		1.25	1.17	1.33	1	2.92	BM	1.42	BM	BM	1.17	1.42	
8/3/2009	82	6.75	260		1.17	1.25	1.25	1.25	3.08	BM	1.33	BM	BM	1.17	1.5	
8/4/2009	84	7	284		1.67	1.33	1.42	1.17	OM	1.42	1.75	BM	BM	1.25	OM	
8/5/2009	64	7	284		1.58	1.17	1.42	1.08	OM	1.58	1.75	BM	BM	1.25	OM	
8/6/2009	61	7	284		1.92	1.17	1.42	1.33	OM	1.08	2.17	BM	BM	1.25	OM	
8/7/2009	61	7	284		2	1.17	1.42	1.33	OM	1	2.08	BM	BM	1.33	OM	
8/8/2009	62	6.5	236	**0.02**	1.5	1.17	1.17	1.33	OM	1	1.83	BM	BM	1.33	1.33	
8/9/2009	62	6.5	236		1.5	1.17	1.33	1.17	OM	1.33	1.83	BM	BM	1.33	1.33	
8/10/2009	60	6.25	214		1.33	1.17	1.17	1.17	OM	0.92	1.83	BM	BM	1.33	1.33	
8/11/2009	60	6.25	214		1.33	1.17	1.17	1.33	OM	0.83	1.67	BM	BM	1.17	1.17	
8/12/2009	67	6.5	236		2	1.17	1.42	1.33	OM	0.83	1.67	BM	BM	1.25	1.17	
8/13/2009	67	7	284		2	1.17	1.5	1.33	OM	0.83	2.17	BM	BM	1.25	1	
8/14/2009	67	7	284	**0.18**	2	1.08	1.42	1.58	OM	0.75	2	BM	BM	1.25	1	
8/15/2009	65	6.5	236		2.17	1.17	1.42	1.67	OM	BM	2	BM	BM	1.67	1	
8/16/2009		6.5	236		2	1.08	1.42	1.58	OM	0.75	2	BM	BM	1.33	1	
8/17/2009	73	6	193		2	1.08	1.42	1.58	OM	0.75	2	BM	BM	1.25	1	
8/18/2009	61	6	193		1.5	1.33	1.42	1.25	OM	0.67	2	3.17	2.5	1.33	1.67	
8/19/2009	63	6	193		1.5	1.33	1.5	1.33	OM	0.75	2.08	3.17	2.5	1.33	1.67	
8/20/2009	77	6.25	214		2	1.33	1.42	1.17	OM	0.83	2.17	BM	BM	1.33	OM	
8/21/2009	58	6.25	214		1.67	1.25	1.33	1.25	OM	0.5	1.67	BM	BM	1.33	OM	
8/22/2009	69	6.25	214		1.67	1.17	1.25	1.58	OM	0.58	1.67	BM	BM	1.25	OM	
8/23/2009	60	6.25	214		1.67	1.25	1.33	1.58	OM	0.67	1.67	BM	BM	1.33	OM	
8/24/2009	62	6	193	**0.02**	1.5	1.17	1.17	1.33	OM	0.83	2	BM	BM	1.33	OM	
8/25/2009	67	6	193		1.67	1.25	1.33	1.42	OM	0.83	1.75	3.17	2.42	1.25	1.58	
8/26/2009	64	6	193		1.33	1.17	1.17	1.33	OM	0.83	2	BM	BM	1.17	OM	
8/27/2009	67	6	193		1.5	1.17	1.17	1.33	OM	0.83	2	BM	BM	1.17	OM	
8/28/2009	67	5	123		1.5	1.17	1.17	1.33	OM	0.83	2	BM	BM	1.17	OM	
8/29/2009	68	5	123		2	1.5	1.67	1.67	OM	1	2.08	BM	BM	1.33	1.67	
8/30/2009	67	5	123		2	1.5	1.67	1.67	OM	1	2.08	BM	BM	1.42	1.67	
8/31/2009	60	6	193		2	1.25	1.42	1.5	OM	0.92	2	3.17	1.67	1.25	1.58	
9/1/2009	72	6.25	214		1.42	1.25	1.33	1.33	OM	0.92	1.92	BM	BM	1.17	1.5	
9/2/2009	89	7	284		1.67	1.08	1.33	1.17	OM	0.92	1.42	BM	BM	1.25	1.67	
9/3/2009	86	7.25	310		1.58	1.17	1.25	1.08	OM	0.92	1.42	BM	BM	1.33	1.67	
9/4/2009	52	7.25	310	**0.04**	1.33	1.17	1.25	1.25	OM	0.92	1.58	BM	BM	1.25	1.75	
9/5/2009	62	6	193		2.08	1.17	1.25	1.42	OM	0.92	2	BM	BM	1.42	OM	
9/6/2009	61	6	193	**1.5**	1	0.83	1.08	1.08	OM	0.67	1.5	BM	BM	1.25	OM	
9/7/2009	66	6	193		1	1.08	1.25	1.08	OM	0.67	1.83	BM	BM	1.33	OM	
9/8/2009	64	6	193	**0.02**	1	1.08	1.25	0.83	OM	0.67	1.83	BM	BM	1.33	OM	
9/9/2009	67	6	193		2	1.08	1.17	1	OM	0.92	2	BM	BM	1.17	OM	
9/10/2009	68	6	193	**0.01**	2	1	1.17	1.17	OM	1	2	BM	BM	1.17	OM	
9/11/2009	68	6.5	236	**0.2**	2	1.08	1.33	1	OM	1.33	1.25	BM	BM	1.17	OM	
9/12/2009	67	6.25	214	**0.24**	2	1.08	1.17	1	OM	1	2	BM	BM	1.17	OM	
9/13/2009	71	6	193		1.17	1.08	1.25	1	OM	1	2.17	BM	BM	1.25	1.58	
9/14/2009	66	7	284	**0.12**	1.17	1.08	1.42	1	OM	1	2	BM	BM	1.25	2.08	
9/15/2009	66	6.5	236	**0.01**	1.25	1.08	1.58	1	OM	1	2.17	BM	BM	1.33	2.17	
9/17/2009	72	6.5	236		1.33	1.17	1.25	1.08	OM	1.08	2	BM	BM	1.42	2.17	

DATE	TOTAL FLOW TO PONDS			RAIN GAUGE INCHES	FREEBOARD AT PONDS											Comments
	TEMP	90 DEGREE V NOTCH "INCHES"	FLOW GPM		2	3	4	5	6	8	7	11	12a	12b	9	
					feet	feet	feet	feet	feet	feet	feet	feet	feet	feet	feet	
9/18/2009	72	6.5	236		1.25	1.08	1.25	1.17	OM	1.17	1.92	BM	BM	1.25	2.25	
9/19/2009	68	6.75	260	**0.04**	0.83	1.08	1.33	0.83	OM	1.08	1.92	BM	BM	1.25	2.25	
9/20/2009	78	6.75	260		0.92	1.17	1.33	1	OM	1.08	1.83	BM	BM	1.25	2.33	
9/21/2009	69	7	284	**0.1**	1	1	1.33	0.83	OM	1	1.83	BM	BM	1.08	OM	
9/22/2009	39	7	284	**0.01**	1	1	1.25	0.83	OM	1	1.83	BM	BM	1.25	OM	
9/23/2009	39	7	284		1.08	1	1.25	0.75	OM	1	1.83	BM	BM	1.25	OM	
9/24/2009	41	7	284		1.08	1	0.08	0.75	OM	1	1.83	BM	BM	1.25	OM	
9/25/2009					1.25	1	1.17	0.5	OM	1	1.42	BM	BM	1.25	OM	
9/26/2009					1.25	1	1.25	0.5	OM	1	1.5	BM	BM	1.25	OM	
9/27/2009					1.25	1.08	1.25	0.67	OM	1.08	1.67	BM	BM	1.25	OM	
9/28/2009	31	11	880		1.25	1.08	1.25	0.75	OM	1.08	1.58	BM	BM	1.25	OM	
9/29/2009	67	7	284		1.83	1.08	1.33	0.67	OM	1.08	1.83	BM	BM	1.33	1.17	
9/30/2009	60	6.5	236		2	1.08	1.5	0.83	OM	1.08	2.17	BM	BM	1.42	1.5	
10/1/2009	60	6.5	236		2	1	1.5	0.83	OM	1.08	2.17	BM	BM	1.42	1.5	
10/2/2009	62	6.5	236		2.17	1.17	1.42	1	OM	1.17	2.25	BM	BM	1.33	1.5	
10/3/2009	65	6.75	260		1.25	1.17	1.33	1.08	OM	1.17	2.08	BM	BM	1.33	1.5	
10/4/2009	64	6.5	236		1.33	1.08	1.25	1.25	OM	1.17	2	BM	BM	1.25	1.33	
10/5/2009	65	7	284		1.33	1.08	1.25	1.25	OM	1.17	2	BM	BM	1.25	1.33	
10/6/2009	57	6	193		2.25	1.25	1.67	1.08	OM	1.17	2.17	BM	BM	1.42	1.33	
10/7/2009	51	6	193		1.83	1.08	1.33	0.67	OM	1.17	2	BM	BM	1.25	OM	
10/8/2009	51	6.5	236		1.83	1.08	1.42	0.83	OM	1.33	2	BM	BM	1.25	OM	
10/9/2009	61	6.5	236		1.83	1.08	1.42	0.67	OM	1.42	2	BM	BM	1.33	OM	
10/10/2009	47	6.5	236		1.83	1.08	1.42	0.67	OM	1.42	2	BM	BM	1.33	OM	
10/11/2009	72	7.5	338		1.67	1.17	1.33	1	OM	1.17	2	BM	BM	1.33	OM	
10/12/2009					1.75	1.08	1.33	1.08	OM	1.17	2	BM	BM	1.25	1.25	
10/13/2009					1.75	1.08	1.33	1.08	OM	1.17	1.83	BM	BM	1.17	1.25	
10/14/2009					1.75	1.08	1.25	1.08	OM	1.17	1.83	BM	BM	1.17	1.17	
10/15/2009					1.75	1.08	1.25	1.08	OM	1.17	1.83	BM	BM	1.17	1.17	
10/16/2009	66	7	284		2.5	1.17	1.58	1.25	OM	1.33	2.67	BM	BM	1.25	0.58	
10/17/2009	66	7	284		2.5	1.17	1.58	1.25	OM	1.33	2.67	BM	BM	1.25	0.58	
10/18/2009	66	7	284		2.08	1.17	1.67	1.33	OM	1.83	2.33	BM	BM	1.25	0.83	
10/19/2009		7	284		1.25	1.17	1.42	1.25	OM	1.67	2.08	BM	BM	1.25	0.75	
10/20/2009		7	284		1.25	1.25	1.33	1.25	OM	1.67	2.17	BM	BM	1.25	0.67	
10/21/2009		7	284	**0.11**	1.25	1.25	1.33	1.25	OM	1.58	2.08	BM	BM	1.25	0.67	
10/22/2009		7	284		1.25	1.08	1.33	1.67	OM	1.17	1.42	BM	BM	1.25	0.58	
10/23/2009		7.25	310		1.33	1.17	1.42	1.75	OM	1.17	1.42	BM	BM	1.25	0.5	
10/24/2009		7	284		1.33	1.17	1.42	1.75	OM	1.17	1.42	BM	BM	1.25	0.5	
10/25/2009		6.25	214		1.67	1.17	1.42									
10/26/2009		8	397		1.42	1.17	1.5	0.83	OM	1.58	12.3	2.75	BM	1.5	0.83	
10/27/2009					1.25	1.17	1.33	1.67	OM	1.25	1.5	2.67	BM	1.17	0.58	
10/28/2009					1.25	1.08	1.33	1.67	OM	1.25	1.5	2.67	BM	1.25	0.58	
10/29/2009				**0.125**	1.25	1.08	1.25	1.75	OM	1.25	1.42	2.67	BM	1.17	0.58	
10/30/2009					1.25	1.08	1.33	1.67	OM	1.25	1.5	2.67	BM	1.25	0.42	
10/31/2009	56	7	284		2.17	1.08	1.42	0.83	OM	2	2.67	BM	BM	1.33	0.42	
11/1/2009	58	7	284		2.25	1.08	1.33	0.75	OM	2	2.83	2.67	BM	1.42	0.17	
11/2/2009	57	7	284		2.17	1.08	1.42	1.33	OM	2	2.83	BM	BM	1.58	0.17	
11/3/2009	57	7	284		2.25	1.08	1.5	0.67	OM	1.92	2.67	BM	BM	1.58	0.17	
11/4/2009	64	7	284		1.25	1.17	1.42	0.67	OM	1.83	2.5	2.75	BM	1.5	0.17	
11/5/2009	62	7	284		1.25	1.17	1.33	0.67	OM	1.75	2.42	2.67	BM	1.58	0.17	
11/6/2009	48	7	284		1.25	1.08	1.33	1.42	OM	1.17	1.83	BM	BM	1.25	0.17	
11/7/2009	69	7.25	310		1.25	1.17	1.33	1.33	OM	1.17	1.83	BM	BM	1.33	0.17	
11/8/2009	68	7.25	310		1.67	1.08	1.33	0.5	OM	1.67	2.5	BM	BM	1.33	OM	
11/9/2009	48	6.5	236		1.83	1.08	1.33	0.67	OM	1.33	2.67	BM	BM	1.33	OM	
11/10/2009	58	7	284		1.83	1.08	1.33	0.67	OM	1.33	2.67	BM	BM	1.33	OM	
11/11/2009	57	7	284		1.83	1.08	1.33	0.83	OM	1.42	2.67	BM	BM	1.58	OM	
11/12/2009	66	7.5	338		1.75	1.08	1.25	0.92	OM	1.17	2	BM	BM	1.25	0.08	
11/14/2009	62	7.5	338	**0.18**	1.25	1.08	1.25	0.92	OM	1.17	2	BM	BM	1.25	0.08	
11/15/2009		7	284	**0.18**	1.92		1.25		OM		BM	BM	BM	1.25	0.08	

DATE	TOTAL FLOW TO PONDS			RAIN GAUGE INCHES	FREEBOARD AT PONDS											Comments
	TEMP	90 DEGREE V NOTCH "INCHES"	FLOW GPM		2	3	4	5	6	8	7	11	12a	12b	9	
					feet	feet	feet	feet	feet	feet	feet	feet	feet	feet	feet	
11/16/2009	52	8	397	**0.02**	2.08	1	1.42	0.92	OM	1.17	2	BM	BM	1.33	OM	
11/17/2009	52	8	397		2.08	1	1.42	0.92	OM	1.17	2	BM	BM	1.33	OM	
11/18/2009	52	7.5	338		2.17	1	1.42	0.92	OM	1.25	2	BM	BM	1.33	OM	
11/19/2009	52	7.5	338		2.25	1	1.42	0.92	OM	1.33	1.92	BM	BM	1.33	OM	
11/20/2009	58	7	284		1.33	1	1.17	1.33	OM	BM	2.25	BM	BM	1.25	OM	
11/21/2009	68	7	284		1.17	1	1.33	1.42	OM	BM	2.25	BM	BM	1.25	OM	
11/22/2009	62	7	284		1.17	1	1.25	1.42	OM	BM	2.17	BM	BM	1.17	OM	
11/23/2009	59	7	284		1.25	1	1.25	1.42	OM	BM	2.17	BM	BM	1.17	OM	
11/24/2009	56	7	284		1.25	1	1.25	0.67	OM	BM	2.17	BM	BM	1.17	OM	
11/25/2009	57	7	284		1.25	1	1.25	0.67	OM	BM	2.17	BM	BM	1.17	OM	
11/26/2009	38	7	284		1.5	0.92	1.33	0.58	OM	BM	2.33	BM	BM	1.33	OM	
11/27/2009	39	7	284		1.5	0.92	1.33	0.58	OM	BM	2.33	BM	BM	1.33	OM	
11/30/2009					2	1	1.25	0.58	OM	BM	2.17	BM	BM	1.25	OM	
12/1/2009					2.08	1.33	1.33	0.58	OM	BM	2.25	BM	BM	1.25	OM	
12/2/2009		7.5	338		2.08	1.33	1.33	0.58	OM	BM	2.17	BM	BM	1.5	OM	
12/3/2009		7.5	338		2.08	1.25	1.33	0.58	OM	BM	2.25	BM	BM	1.5	OM	
12/4/2009	14.1	8	397		2.08	1.08	1.42	0.67	OM	1.25	2.67	BM	BM	1.33	OM	
12/5/2009	15.6	8	397		2.08	1.08	1.42	0.67	OM	1.25	2.67	BM	BM	1.33	OM	
12/6/2009	38.4	8	397		1.25	1	1.33	0.42	OM	1.25	2.08	BM	BM	1.25	OM	
12/7/2009	35.7	8	397	**0.02**	1.25	0.92	1.33	0.42	OM	1.25	2	BM	BM	1.25	OM	
12/6/2009	38.4	8	397		1.25	1	1.33	0.42	OM	1.25	2.08	BM	BM	1.25	OM	
12/7/2009	35.7	8	397	**0.02**	1.25	0.92	1.33	0.42	OM	1.25	2	BM	BM	1.25	OM	
12/8/2009	33.1	8	397	**0.12**	1.17	0.92	1.25	0.42	OM	1.25	2	BM	BM	1.25	OM	
12/9/2009	34.4	8	397	**0.12**	1.25	0.92	1.25	0.42	OM	1.25	2	BM	BM	1.25	OM	
12/11/2009	39.7	7	284	**0.01**	1.83	1.08	1.25	0.5	OM	BM	2.5	BM	BM	1.33	OM	
12/12/2009	40.3	7	284		1.83	1.08	1.25	0.5	OM	BM	2.5	BM	BM	1.33	OM	
12/13/2009	40.8	7	284		1.83	1.08	1.25	0.5	OM	BM	2.5	BM	BM	1.33	OM	
12/14/2009	37.1	7	284		1.58	1.08	1.25	0.5	OM	BM	2.42	BM	BM	1.33	OM	
12/15/2009	36.4	7	284		1.58	1.08	1.25	0.5	OM	BM	2.33	BM	BM	1.33	OM	
12/16/2009	33.8	7.5	338		1.5	1.08	1.25	0.5	OM	BM	2.33	BM	BM	1.33	OM	
12/17/2009	33.7	7	284		1.5	1.08	1.25	0.5	OM	BM	2.33	BM	BM	1.33	OM	
12/18/2009	19	6	193		1.83	1.08	1.25	0.75	OM	1.5	2.92	BM	2.83	1.33	OM	
12/19/2009	17	6	193		1.83	1.08	1.25	0.75	OM	1.5	2.92	BM	2.83	1.33	OM	
12/20/2009	21	6	193		1.83	1.08	1.25	0.75	OM	1.5	2.92	BM	2.83	1.33	OM	
12/21/2009	17	6.5	236		1.83	1.08	1.25	0.67	OM	1.5	2.83	BM	2.92	1.33	OM	
12/22/2009	39.2	7.75	367		1.17	1.08	1.25	0.33	OM	BM	2.33	BM	BM	1.17	OM	
12/23/2009	46.1	8	397	**0.03**	1.25	1.08	1.25	0.33	OM	BM	2.25	BM	BM	1.17	OM	
12/24/2009	46.8	8	397		1.08	1	1.25	0.33	OM	BM	2.25	BM	BM	1.25	OM	
12/25/2009	40.6	8	397		1.17	1	1.25	0.33	OM	BM	2.25	BM	BM	1.33	OM	
12/26/2009	37.6	7	284	**0.01**	1.83	1	1.25	0.5	OM	BM	3.17	BM	BM	1.42	OM	
12/27/2009	37.8	7	284		1.83	1	1.25	0.5	OM	BM	3.17	BM	BM	1.42	OM	
12/28/2009	37.6	7	284		1.83	1	1.25	0.5	OM	BM	3.17	BM	BM	1.42	OM	
12/29/2009	39	7	284		1.83	1	1.25	0.5	OM	BM	3.17	BM	BM	1.42	OM	
12/30/2009		7	284	**0.17**	1.58	1	1	0.42	3.25	4.5	2.25	BM	BM	1.25	OM	
12/31/2009		8	397	**0.21**	1.58	1	1	0.42	3.25	4.5	2.25	BM	BM	1.25	OM	

*** BM denotes Below Marker (Marker ~ 3 Feet)**

	AVG	AVG	AVG	TOTAL	AVG	AVG	AVG	AVG	AVG	AVG	AVG	AVG	AVG	AVG	AVG	
	56.28	**6.63**	**256.15**	**7.41**	**1.54**	**1.27**	**1.37**	**1.24**	**2.09**	**1.16**	**2.23**	**2.36**	**BM**	**1.29**	**0.77**	

2009 TOTAL FLOW TO PONDS

256.15 134,632,440 GAL/YR

Rainfall = 27154 gal/inch/acre:

Pond Evaporation = 150gal/min, then 150 gal/min X 60 min/hr X 24 hr/day X 365 day/year = 78,840,000 gal/year

Gallup Refinery
Underground Process/Wastewater Lines Test Procedure

Water Leakage Test

a. Preparation for Test: Notify the Environmental Department at least 4 days (96 hours) prior to all testing. Environmental will then give OCD (Oil Conservation Division) the required 72 hour notification. The sewer line to be tested shall be plugged at the downstream manhole. All openings in the upstream manhole shall be plugged except the downstream opening for the line to be tested. All branch sewers running from wye connections on the mains shall be plugged at their upper ends if the test head would cause them to overflow. The Test section shall then be filled with water.

b. Test Procedure: The water level in the upstream manhole or test tee shall be brought to a height approximately 7 feet above the sewer line being tested, to achieve 3 pounds per square inch greater than normal operating pressure. The test shall consist of measuring the loss of water during a 30 minute period. Test should be witnessed by an environmental employee or assigned representative who will sign the Sewer Test Form.

c. Allowable Leakage: The allowable leakage in 30 minutes time based on an average hydrostatic head of 7 feet for the entire test section shall not exceed more than a 1% loss/gain in pressure. All leaks or loss of integrity shall be reported to the Environmental Department and the maintenance manager within 48 hours and environmental will then provide OCD with the required notification within 15 calendar days of discovery.

d. Sewer Test Form: Complete the attached Sewer Test Form for all lines being tested. Submit form to the Environmental Department within 48 hours of testing. Environmental will maintain the results of all tests at the Gallup Refinery and they shall be made available for OCD inspection upon request. A summary of this work is also included in the OCD annual groundwater report.

UNDERGROUND PROCESS AND WASTEWATER LINES

SATS UNIT Update 7-21-09

Re-test on or before due date	ID Number (Sewer Box or Catch Basin	Lateral Drains and/or Headers	Date Installed	Drawing Reference	Test Date	Pass/Fail/Repair Information	Test Water Column (Feet)	Test Duration (Minutes)	Signature	Investigation Results
41821	Catch Basin by S-C1	Drain near S-V9 flows S then W to Catch Basin by S-C1 to C11	1995	95103-CC-105, Z-35-104 , EC-09-125, ES-09-113, ES-09-114 & ES-09-112	07/21/09	Pass	2	30	Sean Walters	
41821	Catch Basin just SW of S-V2	Drain by S-P2B, drain by S-E4, drain by S-E5, 2 drains by S-V3, & drain by S-V2	1995?	No Drawing, Based on Visual Sight	07/21/09	Pass	2	30	Sean Walters	
41821	Catch Basin just W of Catch Basin just SW of S-V2	Drains on either side of SV-13, 3 drains by S-V4, & other drain	1995?	No Drawing, Based on Visual Sight	07/21/09	Pass	2	30	Sean Walters	
41821	Catch Basin & drain by S-11B	2 drains by S-E10 , other drain, & drain by Z-85-P1	1995?	No Drawing, Based on Visual Sight	07/21/09	Pass	2	30	Sean Walters	
41821	Catch Basin & Drain by S-V6	DBR-490 5 ft in front of S-V6, S-V11B 6 ft away from S-V7 and Z-85P1		Visual	07/21/09	Pass	2	30	Sean Walters	

NOTE TO SHEET: SATS DRAINS ARE ALSO KNOWN AS FOLLOWING FROM SATS BI-MONTHLY DRAIN SEAL INSPECTION SHEETS: 2006

DRAIN #	LOCATION
1	Near Z-85-V1
2	Near S-V15
3	Near S-V9
4	Near Z-85-V1
5	Near S-V19
6	Between JB S2 and S3
7	Near S-V6
8	Near S-V8
9	Near S-V4
10	North of S-E10
11	Near S-V13
12	Near south end of S-V3
13	Near middle of S-V3
14	Near S-P3A
15	Near S-P2B
16	Near S-P2A
17	Near S-E5
18	Near S-V12
19	Near S-C2
20	Near S-V10
21	Near S-V6

Ciniza Refinery Sewer Test Form

Test Data for Main Line Upstream of Listed Manhole

Unit & Line #: 100-A910
Test Fluid: Water: water
Test Water Column (ft.): 2'
Test Duration (min.): 30min
Manhole Number: DNR-490
Date: 7-21-09

Were all process sewer cup branches from the above manholes filled with water to verify that branch lines held level? yes

Did all branch lines hold level? yes

List any branch lines and location of branch lines that did not hold level (if any): none/All held

Tested lines from Manhole DNR 490, and all branch lines, 5ft in front of S-V6, in front of SV-11B, SV-11A, SV-9, SV-7, SV-19, one 6ft away from SV-7, and one by Z-85P1
This line is not on drawings

Test Witness Signatures: [signature]

Environmental: [signature]

Western Representative: [signature]

Ciniza Refinery Sewer Test Form

Test Data for Main Line Upstream of Listed Manhole

Unit & Line #: 101-A90, 102-A90, 100-A90
Test Fluid: Water: Yes
Test Water Column (ft.): 21
Test Duration (min.): 30min
Manhole Number: DRN# 412
Date: 7-20-09

Were all process sewer cup branches from the above manholes filled with water to verify that branch lines held level? Yes

Did all branch lines hold level? Yes

List any branch lines and location of branch lines that did not hold level (if any): N/A All held

Test lines from Manhole #412 and branch lines, SP-3A, SV-13, near South end of SV-3, near middle of SV-3, near SP-26, near SC-5, near SV-12, near SC-2, near SV-10, and SP-2A all of them held

Test Witness Signatures: Sean Walker

Environmental: Alex R

Western Representative: Stephen Sandoval

Ciniza Refinery Sewer Test Form

Test Data for Main Line Upstream of Listed Manhole

Unit & Line #: 104-A90, 100-A90
Test Fluid: Water: Yes
Test Water Column (ft.): 2'
Test Duration (min.): 30 min
Manhole Number: DRN 491
Date: 7-21-09

Were all process sewer cup branches from the above manholes filled with water to verify that branch lines held level? Yes

Did all branch lines hold level? Yes

List any branch lines and location of branch lines that did not hold level (if any): N/A All held

Test lines from Manhole DRN-491 and branch lines near SV-4, N. E of SE-10, and N. of SV-4, under SV-8, and under SV-6. branch lines under SV-8 & SV-6, showed on old drawings tied into main drain line they actually cut across and tie into pipe #104-A90

Test Witness Signatures: Sean Wolfe

Environmental:

Western Representative: 7-21-09

Ciniza Refinery Sewer Test Form

Test Data for Main Line Upstream of Listed Manhole

Unit & Line #: 100-A90
Test Fluid: Water: Yes
Test Water Column (ft.): 21
Test Duration (min.): 30 min
Manhole Number: DNR-493
Date: 7-21-09

Were all process sewer cup branches from the above manholes filled with water to verify that branch lines held level? Yes

Did all branch lines hold level? Yes

List any branch lines and location of branch lines that did not hold level (if any): N/A

Tested line 100-A90 out on DNR-493, and branch line from SV-1

Test Witness Signatures: Sean Watkins

Environmental:

Western Representative: Stephanie Davis

EPA/NMED/RCRA ACTIVITY

January 16, 2009

Mr. James P. Bearzi
New Mexico Environmental Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6303

Dear Mr. Bearzi:

This letter is a response to your letter dated December 19, 2008, re: Revision of the Part A Permit Application and Additional Facility requirement pertaining to the Wastewater Treatment System, Western Refining Southwest Inc., Gallup Refinery, EPA ID# NMD000333211, HWB-GRCC-MISC. On January 12, 2009, we responded to the information requests due on that day. In this letter we are responding to your request of point (f) in your December 19, 2008 letter.

We have gone through archived daily API Separator records maintained by our staff and have compiled the shifts in which overflows occurred. You will note that we have some missing months in our records. Days on which no overflows occurred are not listed. The compiled data are presented in Attachment A.

Using this available information found to date, we have estimated the amounts of overflows. Our estimation procedure is as follows:

- The flow rate has been estimated as approximately 5 gallons per minute (gpm) on average for all overflow events. Please note that overflows occurred when our pumps were not able to handle the entire load to the API Separator, not with the entire API Separator system by-passed. There are two pumps, with any one pump capable of handling the normal load, with the other serving as a back-up to handle rapidly increasing flow rates. If any one pump was out of service, the other pump was working. Therefore, overflows only accounted for excess flows above what either one or two pumps could manage. There were times when the level indicators within the API Separator were not working properly, and this resulted in a simple manual override on the automatic pump switches to stop overflows – a matter that would have only taken a few minutes to resolve. We believe that for much of the time that overflows occurred, the overflow rate would have been much lower than 5 gpm, perhaps as low as 1 gpm. These estimates were made using best professional judgment. We also used estimates of the geometry of the arc made by a falling jet of water and the estimated percentage of fill in the overflow pipe to arrive at our value of 5 gpm. Therefore we believe that assuming

a consistent average flow rate of 5 gpm is a reasonable estimate for flow rates out of our overflow pipe.

- To estimate the duration of overflow events, we have interpreted the daily records as follows: if overflow was marked as having occurred only in one shift by itself, we have assumed that this overflow occurred for a 1/2-hour period. Our experience has been that overflows that stopped within a one four-hour shift period are usually of the kind that could be fixed by the local operator and usually within about 15 minutes. Therefore, assuming that a 1/2-hour overflow occurred in a shift that had overflows only during that shift is a reasonable estimate of the duration of the overflow. For all shifts that are marked contiguously as having had overflows, we have assumed that overflows would have occurred intermittently for about half the time of the entire 4-hours of each contiguous shift, as support personnel would have had to come out and assist the local operator. Thus, a 4-hour shift by itself would have had a total overflow of 150 gallons (at 5 gpm for 30 minutes); and, two or more contiguous 4-hour shifts marked as having overflows would have had total overflows of 600 gallons for each shift period (at 5 gpm for 120 minutes).

Please do not hesitate to contact me at 505-722-0217 if you (or your staff) have any further questions.

Best regards,

Ed Riege
Environmental Manager

Days of Overflow of API Separator into Aeration Lagoon 1
2008

Date			Shift - Overflow occurring				Overflow
	12:00 AM	4:00 AM	8:00 AM	12:00 PM	4:00 PM	8:00 PM	gallons
1/2/2008	N	Y	N	N	N	N	150
1/5/2007			Y	Y	N		1200
1/6/2008	N	N	Y	Y	Y	Y	2400
1/8/2008	N	N	N	Y	N	N	150
1/14/2008	Y	N	N	N	N	Y	200
1/17/2008			N	Y	Y		1200
1/18/2008	Y	Y				Y	1350
1/19/2008	Y	N	N	N	N	N	150
1/20/2008	N	Y	N	N	N	N	150
1/21/2008			Y	Y	Y		1800
1/22/2008	Y	N	N	N	N	Y	300
1/24/2008	N	N	N	N	Y	N	150
1/25/2008	N	N	Y	N	N	N	150
2/11/2008			Y	N	N	Y	300
March -July	Records being located.						
8/4/2008	N	N	N	N	Y	N	150
8/5/2008	Y	Y	Y	N	N	N	1800
8/6/2008	Y	Y	Y	N	N	N	1800
8/7/2008	Y	Y	Y	Y	Y	Y	3600
8/8/2008	Y	Y	N	N	N	N	1200
8/9/2008	Y	Y	Y	N	N	N	1800
8/10/2008	Y	Y	Y	Y	Y	Y	3000
8/11/2008	Y	Y	Y	N	N	N	1800
8/12/2008	Y	Y	Y	N	N	N	1800
8/13/2008	Y	Y	Y	Y	Y	Y	3600
8/14/2008	Y	Y	Y	N	N	N	1800
8/15/2008	Y	Y	Y	Y	Y	N	3000
8/16/2008	Y	Y	Y	Y	Y	Y	3600
8/17/2008	Y	Y	Y	Y	Y	Y	3600
8/18/2008	Y	Y	y	Y	Y	Y	3600
8/19/2008	Y	y	Y	Y	Y	Y	3600
8/20/2008	Y	Y	Y	Y	Y	Y	3600
8/21/2008	Y	Y	Y	Y	Y	Y	3600
8/22/2008	Y	Y	Y	Y	y	Y	3600
8/23/2008	N	N	Y	Y	N	Y	1350
8/24/2008	N	N	N	y	Y	Y	1800
8/26/2008	Y	y	Y	Y	Y	Y	3600
8/28/2008	Y	Y	Y	Y	Y	Y	3600
8/29/2008	Y	Y	Y	Y	Y	Y	3600
8/30/2008	Y	Y	Y	Y	Y	Y	3600
8/31/2008	Y	Y	Y	Y	Y	Y	3600

9/1/2008	Y	Y	Y	Y	Y	Y	3600
9/2/2008	Y	Y	Y	Y	Y	Y	3600
9/3/2008	Y	Y	Y	Y	Y	Y	3600
9/4/2008	N	N	Y	Y	Y	N	1800
9/5/2008	Y	Y	Y	N	N	N	1800
9/14/2008	Y	N	N	N	N	N	150
9/16/2008	N	N	N	N	Y	Y	1200
9/24/2008	N	N	N	Y	N	N	150
10/1/2008	N	N	N	N	N	Y	150
10/2/2008	N	Y	N	N	N	N	150
10/7/2008	N	Y	N	N	N	N	150
10/16/2008	N	Y	Y	N	N	N	1200
10/29/2008	Y	Y	Y	N	N	N	1800
10/30/2008	Y	N	N	N	N	N	150

Nov-08

No days of overflow to the lagoons 0

12/11/2008	N	N	Y	N	N	N	150
12/15/2008	N	N	Y	N	N	N	150
12/17/2008	N	N	N	Y	Y	N	300
12/18/2008	N	N	Y	Y	N	N	300

Days of Overflow
2006

Date			Shift - Overflow occurring				Overflow
	12:00 AM	4:00 AM	8:00 AM	12:00 PM	4:00 PM	8:00 PM	gallons
1/8/2006	N	Y	N	N	N	N	150
1/22/2006	N	N	N	N	N	Y	150
1/25/2006	N	N	Y	Y	Y	N	1800
1/26/2006	N	N	N	N	Y	N	150
1/30/2006	N	N	N	N	N	Y	150
2/3/2006	Y	Y	N	N	N	Y	1350
2/8/2006	N	N	N	Y	Y	N	1200
2/15/2006	Y	N	N	N	N	Y	300
2/18/2006	N	N	N	N	Y	N	150
2/20/2006	N	N	Y	N	N	N	150
3/3/2006	N	N	Y	N	N	N	150
3/14/2006	N	N	N	N	Y	N	150
							0
4/15/2006	N	Y	N	N	N	N	150
4/21/2006	N	Y	Y	Y		N	1800
4/25/2006	N	N	N	N/Y	N	N	150
5/1/2006	N	N	Y	Y	Y	N	1800
5/3/2006	N	N	N	Y	N	N	150
5/8/2006	N	Y	N	N	N	N	150
5/10/2006	Y	Y	N	N	N	N	1200
6/1/2006	Y	N	N	N	N	N	150
6/14/2006	Y	Y	N	N	Y/N	Y	2400
6/20/2006	N	N	N	N	Y	N	150
7/6/2006	N	N	N/Y	N	N	N	150
7/14/2006	Y/N	N	N	N	N	N	150
7/19/2006	N	N	N	N	Y/N	Y	1200
7/20/2006	N	Y	N	N	Y/N	N	300
7/21/2006	Y	Y	N	N	N	Y	1350
7/24/2006	N	N	N	N	Y	N	150
7/25/2006	N	N	N	N	Y	N	150
7/26/2006	N	N	Y	N	N	N	150
7/30/2006	N	N	N	Y/N	N	N	150
8/10/2006	N	N	N	N	Y	N	150
8/28/2006	N	N	N	N	Y	N	150
8/29/2006	N	N	N	Y/N	Y	N	1200
9/2/2006	N	Y	N	N	N	N	150
9/4/2006	N	N	Y	N	N	N	150
9/9/2006	N	N	Y	Y	Y	N	1800
9/11/2006	N	Y	Y	Y	Y/N	N	2400

9/12/2006	Y/N	Y/N	Y	Y	Y	N	2400
9/16/2006	N	N	N	Y	Y	N	1200
9/17/2006	Y	Y	Y/N	N	N	Y	1350
9/18/2006	N	Y/N	Y/N	N	N	N	1200
9/19/2006	N	N	N	Y	N	N	150
9/23/2006	N	N	N	Y	N	Y/N	300
9/24/2006	N	N	Y	Y	Y	N	1800
9/25/2006	N	N	Y	Y	Y	Y/N	2400
9/26/2006	N	N	Y	Y	Y	N	1800
9/27/2006	N	N	N	N	Y	N	
9/28/2006	N	N	Y	Y/N	Y	N	1800
9/29/2006	N	Y	Y	Y	Y	Y	3000
9/30/2006	N	N	Y	Y	Y	N	1800
10/1/2006	Y	Y	N	N	Y	Y	2400
10/2/2006	N	N	Y	N	N	N	150
10/4/2006	N	N	Y	N	N	N	150
10/5/2006	Y	Y	Y	Y	Y		3000
10/6/2006	N	N	Y	Y	Y	N	1800
10/11/2006	Y	Y	N	Y/N	Y	Y	1950
10/12/2006	Y	Y	Y	Y	Y	Y	3000
10/13/2006	Y	Y	Y	Y	Y	Y	3000
10/14/2006	N	N	N	Y	Y	N	1200
10/15/2006	N	N	N	Y	N	N	150
10/16/2006	Y	N	Y	N	N	N	150
10/19/2006	Y	Y	N	N	N	N	150
10/23/2006	N	N	N	Y	N	N	150
10/24/2006	N	N	N	Y	N	N	150
10/25/2006	N	N	N	N	N	Y	150
10/29/2006	N	N	Y	Y	N	N	1200
11/4/2006	N	N	Y	Y	N	N	1200
11/5/2006	Y	Y	Y	Y	Y	Y	3600
11/6/2006	N	Y	N	N	N	N	150
11/11/2006	N	N	Y	Y	N	N	1200
11/12/2006	Y	Y	N	N	N	N	1200
11/15/2006	N	N	N	N	Y	N	150
11/16/2006	Y	Y	Y	Y	Y	Y	3600
11/17/2006	Y	Y	Y	Y	Y	Y	3600
11/18/2006	Y	Y	N	N	N	Y	1350
11/19/2006	N	N	N	N	Y	N	150
11/20/2006	N	N	Y	Y	Y	N	1800
11/22/2006	N	N	N	Y	Y	N	1200
11/27/2006	N	Y	N	N	Y	N	150
11/28/2006	Y	Y	Y	Y	Y	Y	3600
11/29/2006	Y	Y	Y	Y	Y	Y	3600
11/30/2006	Y	Y	Y	Y	Y	Y	3600
12/1/2006	N	N	Y	Y	Y	N	1800
12/4/2006	N		Y	N	N	N	150
12/5/2006	N	N	N	N	Y	N	150
12/6/2006	Y	Y	N	N	N	N	1200

12/9/2006	N	Y	N	N	Y	N	300
12/12/2006	Y	Y	N	Y	Y	N	2400
12/13/2006	N	N	Y	Y	Y	N	1800
12/17/2006	Y	Y	Y	Y	Y	Y	3600
12/24/2006	N	Y	N	N	N	N	150

Days of Overflow
2007

Date			Shift - Overflow occurring				Overflow
	12:00 AM	4:00 AM	8:00 AM	12:00 PM	4:00 PM	8:00 PM	gallons
1/2/2007	N	N	Y	Y	N	N	1200
1/3/2007	N	N	N	Y	Y	N	1200
1/4/2007	N	N	Y	N	N	N	150
1/13/2007	N	Y	N	N	N	N	150
1/14/2007	N	N	Y	Y	Y	N	1800
1/15/2007	Y	Y	Y	Y	Y	Y	3600
1/16/2007	Y	Y	Y	Y	Y	Y	3600
1/17/2007	Y		Y	Y	Y	Y	3000
1/18/2007	Y	Y	Y	Y	Y	Y	3600
1/19/2007	Y	Y	Y	Y	Y	Y	3600
1/20/2007	N	N	N	N	Y	Y	1200
1/21/2007	N	N	N	Y	N	N	150
1/22/2007	Y	N	Y	Y	Y	N	1950
1/23/2007	Y	N	N	N	N	Y	300
1/24/2007	N	N	N	N	Y	Y/N	1200
1/26/2007	N	N	N	N	Y	N	150
1/27/2007	N	N	N	N	Y	N	300
1/28/2007	N	Y	N	N	N	Y	300
1/29/2007	N	N	Y	N	N	N	150
1/30/2007	N	N	Y	Y	Y	N	1800
2/8/2007	N	N	N	Y/N	N	N	150
						Average	150
3/5/2007	N	N	N	N	N	Y	150
3/6/2007	Y	N	N	N	N	N	150
3/9/2007	N	N	N	Y	Y	N	1200
3/25/2007	Y	N	N	N	N	Y	300
3/26/2007	N	N	N	N	N	N	
3/27/2007	N	N	N	N	N	N	
3/28/2007			N	N	N		
3/29/2007	N	N	N	Y/N	Y/N	N	1200
3/30/2007			N	N	Y		150
3/31/2007	N	N	N	N	N	N	
4/2/2007	N	N	Y			N	150
4/4/2007	N	N	Y/N	N	N	N	150
4/9/2007	N	N	Y	N	N	N	150
4/16/2007	N	N	N	Y	N	N	150
4/21/2007	N	N	N	N	Y	N	150
4/26/2007	N	Y	N	N	N	N	150
4/27/2007	N	N	Y	Y	Y	N	1800
5/3/2007	N	N	Y/N	Y/N	N	N	1200
5/4/2007	N	Y	N	N	N	Y	300

5/8/2007	N	N	N	Y	Y	N	1200
5/9/2007	N	N	Y	Y	Y	N	1800
5/10/2007	N	N	N	Y	N	N	150
5/15/2007	N	N	N	N	Y/N	N	150
5/20/2007	N	N	Y/N	N	N	N	150
5/26/2007	N	N	N	Y/N	N	N	150
6/8/2007	Y/N	N	N	N	N	N	150
6/14/2007	N	N	N	N	N	Y	150
6/19/2007	N	N	Y/N	N	N	N	150
6/23/2007	Y	N	N	N	Y	Y	1350
6/24/2007	N	N	Y	Y	Y	N	1800
6/25/2007	N	N	N	N	N	N	
6/26/2007	Y	N	N	N	N	Y	300
6/28/2007	N	N	N	N	N	Y/N	
6/29/2007	N	N	N	Y/N	N	N	150
7/1/2007	N	N	N	Y/N	N	N	150
7/2/2007	N	N	Y	N	N	N	150
7/3/2007	Y		N	N	N	N	150
7/7/2007	N	N	Y	Y	N	N	1200
7/9/2007	Y/N	N	N	N	Y	N	300
7/14/2007	N		N	N	N	Y	150
7/15/2007	N	N	Y/N	N	N	N	150
7/16/2007	N	N	N	Y	N	N	150
7/19/2007	N	Y	N	N	N	N	150
7/20/2007	N	Y	N	N	Y	N	300
7/22/2007	N	Y	N	N	N	N	300
7/25/2007	N	Y/N	N	N	N	N	150
7/26/2007	Y	N	N	Y/N	N	Y	300
7/27/2007	N	Y	Y/N	N	N	Y	1350
7/28/2007	Y	Y	N	N	N	Y	1350
7/29/2007	N	N	N	N	Y/N	N	150
7/30/2007	N	N	Y	Y	N	N	1200
7/31/2007	N	N	N	Y	N	N	150
8/2/2007	N	N	N	Y	N	N	150
8/6/2007	N	N	N	N	N	Y	150
8/8/2007	N	Y	Y/N	N	Y/N	N	1350
8/9/2007	Y	Y	N	N	N	Y	1350
8/10/2007	Y	N	N	N	N	Y	300
8/12/2007	N	N	Y	Y	N	Y	1350
8/13/2007	N	N	Y	N	N	N	150
8/14/2007	Y/N	N	Y	N	Y/N	N	450
8/18/2007	N	N	Y/N	N	Y/N	N	300
8/19/2007	N	N	N	Y	Y/N	N	1200
8/20/2007	N	N	N	N	N	Y	150
8/21/2007	N	N	N	N	N	Y	150
8/24/2007	N	N	N	N	Y	N	150
8/27/2007	Y	N	N			Y	150
8/28/2007	N	N	N	Y	N	N	150
8/29/2007	N	N	Y	Y	N	N	1200

9/2/2007	N	Y	N	N	N	N	150
9/3/2007	N	N	N	N	N	Y	150
9/5/2007	N	Y	N	N	N	N	150
9/6/2007	N	N	N	N	N	Y	150
9/12/2007	Y	Y	N	N	N	N	150
9/13/2007	Y	N	N	N	Y	Y	1350
9/17/2007	N	N	Y	Y	N	N	1200
9/18/2007	N	N	N	N	N	N	
9/19/2007	N	N	N	N	N	N	
9/20/2007	N		N	N	N	Y	150
9/23/2007	N	N	N	N	Y	N	150
9/28/2007	Y	N				N	150
9/29/2007	Y	Y				N	1200
9/30/2007	N	Y	N	N	N	N	150
10/1/2007	N	N	Y	Y	N	N	1200
10/2/2007	N	Y	N	Y	Y	N	1350
10/4/2007	Y	N	N	N	N	Y	300
10/5/2007	N	N				Y	150
10/6/2007	N	Y	N	N	N	N	150
10/7/2007	N	N	N	Y	Y	N	1200
10/8/2007	N	N	N	Y	Y	N	1200
10/9/2007	N	N	Y	Y	Y	N	1800
10/10/2007	N	N	Y	Y	Y	N	1800
10/11/2007	Y	Y	Y	Y		Y	3000
10/12/2007	Y	Y	Y	Y	Y	Y	3600
10/13/2007	Y	Y	N	N	N	Y	1850
10/14/2007	Y	Y	Y	Y	Y	Y	3600
10/15/2007	Y	Y	Y	Y	Y	Y	3600
10/16/2007	N	N	Y	N	N	N	150
10/17/2007	N	N				N	
10/18/2007	Y	N	N	Y	N	N	300
10/19/2007	N	N	N	N		Y	150
10/23/2007	N	N	N	Y	Y	N	1200
10/24/2007	N	N	N	Y	Y	N	1200
11/10/2007	N	N	Y	Y	Y	N	1800
11/11/2007	Y	Y	Y	Y	Y	Y	3600
11/12/2007	Y	Y	Y	Y	Y	Y	3600
11/13/2007	Y	Y	Y	Y	Y	Y	3600
11/14/2007	N	N	N	Y	N	N	150
11/16/2007	N	N	N	Y	N	N	150
11/18/2007	N	N	N	Y	Y	N	1200
11/19/2007	N		N	N	Y	N	150
11/25/2007	N	N	N	N	N	Y	600
11/29/2007	Y	Y	Y	Y	Y	Y	3600
11/30/2007	Y					Y	750
12/1/2007	Y	Y	Y	Y	Y	Y	3600
12/4/2007	N	N	N	N	N	N	
12/5/2007	Y	N	Y	N	Y	Y	1500

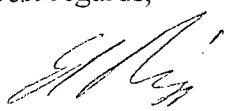
12/6/2007	Y		Y	N	Y	Y	1500
12/7/2007	N	N	Y	N	N	N	150
12/8/2007	N	N	Y	Y	N	N	1200
12/9/2007	Y	Y	N	N	N	N	1200
12/12/2007	N	N	Y	Y	Y	N	1800
12/13/2007	N	N	N	N	N	N	150
12/14/2007	Y	Y	N	N	N	Y	1850
12/18/2007	N	Y	N	N	N	N	150
12/20/2007	Y		N	N	N	Y	300
12/21/2007	N	N	Y	N	N	N	150
12/22/2007				Y	Y	Y	1800
12/29/2007	Y	N	N	N	N	N	600
12/30/2007	N	Y	N	N	N	N	150

12/6/2007	Y		Y	N	Y	Y	1500
12/7/2007	N	N	Y	N	N	N	150
12/8/2007	N	N	Y	Y	N	N	1200
12/9/2007	Y	Y	N	N	N	N	1200
12/12/2007	N	N	Y	Y	Y	N	1800
12/13/2007	N	N	N	N	N	N	150
12/14/2007	Y	Y	N	N	N	Y	1850
12/18/2007	N	Y	N	N	N	N	150
12/20/2007	Y		N	N	N	Y	300
12/21/2007	N	N	Y	N	N	N	150
12/22/2007				Y	Y	Y	1800
12/29/2007	Y	N	N	N	N	N	600
12/30/2007	N	Y	N	N	N	N	150

12/6/2007	Y		Y	N	Y	Y	1500
12/7/2007	N	N	Y	N	N	N	150
12/8/2007	N	N	Y	Y	N	N	1200
12/9/2007	Y	Y	N	N	N	N	1200
12/12/2007	N	N	Y	Y	Y	N	1800
12/13/2007	N	N	N	N	N	N	150
12/14/2007	Y	Y	N	N	N	Y	1850
12/18/2007	N	Y	N	N	N	N	150
12/20/2007	Y		N	N	N	Y	300
12/21/2007	N	N	Y	N	N	N	150
12/22/2007				Y	Y	Y	1800
12/29/2007	Y	N	N	N	N	N	600
12/30/2007	N	Y	N	N	N	N	150

Please do not hesitate to contact me at 505-722-3833 if you (or your staff) have any further questions.

Best regards,



Ed Riege
Environmental Manager

Certified Mail 7008 2810 0000 4726 0560

January 30, 2009

New Mexico Environmental Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6303

Dear Hope Monzeglio,

This letter is in response to your emails dated January 15, 2009 and January 21, 2009 requesting additional information. NMED reviewed Gallup's January 12, 2009 letter which responded to NMED's December 19, 2008 letter. In the January 15, 2009 email NMED requested additional information identified below.

1. Item (e) of NMED's December 19, 2008 letter stated "[s]ubmit monthly flow rates into the new API separator and into the third benzene stripper to NMED on the seventh day of each month. If the seventh day falls on a weekend, then the data must be submitted on the next business day. This must begin January 1, 2009." Gallup responded stating that "[f]low into the new API separator and to the third benzene stripper is not currently monitored."

NMED responded in the January 15, 2009 email stating "Since the flow rate into the new API separator (NAPI) is not monitored; NMED is assuming flow rates are monitored leaving the NAPI. If this is the case, Gallup must provide NMED with monthly flow rates leaving the NAPI and adhere to the same reporting requirements in item (e) of the December 19, 2008 letter. If any of this information is estimated, the information must still be submitted but include how the estimates are derived. Pertaining to the third benzene stripper: Gallup must have some idea or estimate of flow into or out of the third benzene stripper. Therefore, Gallup must submit any estimates of flow into or out of the third benzene stripper and provide how the estimates are derived. This must also be submitted on a monthly basis in accordance with item (e) of NMED's 12/19/08 letter."

The total outflow of the API Separator is measured by taking the outflow from the benzene strippers 1 & 2 (flume depth readings are taken approximately six times in a 24-hour period) plus the overflow into our temporary Baker tank (if any). Gallup will provide these data on the 7th of each month for the previous month starting from January 1, 2009 as requested.

Regarding the third benzene stripper flow, the refinery does have estimates of the likely flows from all major sources into Benzene Stripper 3 and Gallup will provide these on the 7th of each month for the previous month starting from January 1, 2009 as requested.

2. NMED also stated in the January 15, 2009 email "From a brief review of Gallup's air quality permits; volatile organic compounds (VOCs) and benzene, toluene, ethyl benzene, xylenes (BTEX) emissions emitted from the benzene strippers are calculated monthly and/or quarterly. Gallup must submit to NMED all VOC and BTEX emissions data and calculations pertaining to benzene strippers one and two, and three for the past year (2008). The information must include how the emission data is calculated."

Attached is the 2008 emission calculation. The calculations are based on the following requirements from NSR Permit No. 063M7. Condition 3.s. reads "Once per calendar month, the permittee shall monitor the BTEX concentration in the pipe feeding the benzene stripper and discharging from the benzene stripper using Method 8260B." Condition 4.p. reads "Monthly, the permittee shall calculate the amount of BTEX that is emitted monthly and the 12 month rolling BTEX emission rate (TPY) from the benzene stripper using the data collected in Specific Condition 3." Condition 3.r. reads "Once per calendar quarter, the permittee shall measure the total VOC emissions from the benzene strippers or shall measure the total VOC concentration in the pipe feeding the benzene strippers and discharging from the benzene strippers using a method that tests, at a minimum, total VOCs." Condition 4.q. reads "Quarterly, the permittee shall calculate the amount of VOC emitted during the quarter, and the quarterly rolling 4 –quarter (annual) VOC emissions (TPY) from the benzene stripper and the API oil water separator using the data collected in Specific Condition 3."

3. In the January 21, 2009 email NMED requested additional information from the meeting with Western Refining, OCD and NMED in Santa Fe the morning of January 21, 2009 to discuss the design of the new above ground wastewater treatment system as shown below:

1) If Gallup were to remove the third benzene stripper from service, would the wastewater treatment system (WWTS) design be changed at all or could the presented WWTS be able to handle the increased benzene levels?

The design as presented only took into account the shutdown of benzene strippers 1 and 2. Additional modifications would be necessary if the third stripper was required to be taken out of service.

2) This may have been covered in the meeting; what will be the flow rate from the Travel Center into the wastewater treatment system?

The flow rate from the Travel Center is usually about 20 gpm; our contract with the Travel Center allows for sanitary wastewater up to a maximum of approximately 50 gpm.

Please contact me if further clarification is required.

Sincerely,

Ed Riege
Environmental Manager

Western Re[illegible]g Gallup

Air Quality Perm[illegible]633M7 Condtion 3s, 4p and 3r

Compliance Determination Method For VOC Emission Limits

MONTHLY SAMPLING BTEX

	ppb benzene	ppb benzene	ppb benzene	ppb toluene	ppb toluene	ppb toluene	ppb ethylbenzene	ppb ethylbenzene	ppb ethylbenzene	ppb xylene
Month	Z84-V7 inlet	Z84-V7 outlet	Z84-V7 emitted	Z84-V7 inlet	Z84-V7 outlet	Z84-V7 emitted	Z84-V7 inlet	Z84-V7 outlet	Z84-V7 emitted	Z84-V7 inlet
Feb-08	35000	9100	25900	36000	24000	12000	2500	3100	-600	11000
	Z84-V1-2 inlet	Z84-V1-2 outlet	Z84-V1-2 emitted	Z84-V1-2 inlet	Z84-V1-2 outlet	Z84-V1-2 emitted	Z84-V1-2 inlet	Z84-V1-2 outlet	Z84-V1-2 emitted	Z84-V1-2 inlet
	7200	1200	6000	9300	1600	7700	660	230	430	6700
Mar-08	Z84-V7 inlet	Z84-V7 outlet	Z84-V7 emitted	Z84-V7 inlet	Z84-V7 outlet	Z84-V7 emitted	Z84-V7 inlet	Z84-V7 outlet	Z84-V7 emitted	Z84-V7 inlet
	25000	520	24480	24000	1400	22600	2500	410	2090	12000
	Z84-V1-2 inlet	Z84-V1-2 outlet	Z84-V1-2 emitted	Z84-V1-2 inlet	Z84-V1-2 outlet	Z84-V1-2 emitted	Z84-V1-2 inlet	Z84-V1-2 outlet	Z84-V1-2 emitted	Z84-V1-2 inlet
	6400	630	5770	9700	1600	8100	1200	400	800	6800
Apr-08	Z84-V7 inlet	Z84-V7 outlet	Z84-V7 emitted	Z84-V7 inlet	Z84-V7 outlet	Z84-V7 emitted	Z84-V7 inlet	Z84-V7 outlet	Z84-V7 emitted	Z84-V7 inlet
	29000	1500	27500	32000	910	31090	1800	0	1800	10000
	Z84-V1-2 inlet	Z84-V1-2 outlet	Z84-V1-2 emitted	Z84-V1-2 inlet	Z84-V1-2 outlet	Z84-V1-2 emitted	Z84-V1-2 inlet	Z84-V1-2 outlet	Z84-V1-2 emitted	Z84-V1-2 inlet
	9100	2000	7100	21000	5900	15100	2000	870	1130	12000
May-08	Z84-V7 inlet	Z84-V7 outlet	Z84-V7 emitted	Z84-V7 inlet	Z84-V7 outlet	Z84-V7 emitted	Z84-V7 inlet	Z84-V7 outlet	Z84-V7 emitted	Z84-V7 inlet
	28000	150	27850	25000	110	24890	1500	9.2	1490.8	7600
	Z84-V1-2 inlet	Z84-V1-2 outlet	Z84-V1-2 emitted	Z84-V1-2 inlet	Z84-V1-2 outlet	Z84-V1-2 emitted	Z84-V1-2 inlet	Z84-V1-2 outlet	Z84-V1-2 emitted	Z84-V1-2 inlet
	6100	2100	4000	12000	4700	7300	950	460	490	4800
Jun-08	Z84-V7 inlet	Z84-V7 outlet	Z84-V7 emitted	Z84-V7 inlet	Z84-V7 outlet	Z84-V7 emitted	Z84-V7 inlet	Z84-V7 outlet	Z84-V7 emitted	Z84-V7 inlet
	29000	1900	27100	28000	1400	26600	1500	84	1416	8000
	Z84-V1-2 inlet	Z84-V1-2 outlet	Z84-V1-2 emitted	Z84-V1-2 inlet	Z84-V1-2 outlet	Z84-V1-2 emitted	Z84-V1-2 inlet	Z84-V1-2 outlet	Z84-V1-2 emitted	Z84-V1-2 inlet
	15000	1600	13400	22000	4300	17700	1700	670	1030	9000
Jul-08	Z84-V7 inlet	Z84-V7 outlet	Z84-V7 emitted	Z84-V7 inlet	Z84-V7 outlet	Z84-V7 emitted	Z84-V7 inlet	Z84-V7 outlet	Z84-V7 emitted	Z84-V7 inlet
	22000	1100	20900	25000	1900	23100	2200	220	1980	14000
	Z84-V1-2 inlet	Z84-V1-2 outlet	Z84-V1-2 emitted	Z84-V1-2 inlet	Z84-V1-2 outlet	Z84-V1-2 emitted	Z84-V1-2 inlet	Z84-V1-2 outlet	Z84-V1-2 emitted	Z84-V1-2 inlet
	3700	2200	1500	9100	3400	5700	1100	210	890	6800
Aug-08	Z84-V7 inlet	Z84-V7 outlet	Z84-V7 emitted	Z84-V7 inlet	Z84-V7 outlet	Z84-V7 emitted	Z84-V7 inlet	Z84-V7 outlet	Z84-V7 emitted	Z84-V7 inlet
	23750	2100	21650	30000	2200	27800	2100	200	1900	14000
	Z84-V1-2 inlet	Z84-V1-2 outlet	Z84-V1-2 emitted	Z84-V1-2 inlet	Z84-V1-2 outlet	Z84-V1-2 emitted	Z84-V1-2 inlet	Z84-V1-2 outlet	Z84-V1-2 emitted	Z84-V1-2 inlet
	8675	591	8084	28000	910	27090	1500	53	1447	9300
Sep-08	Z84-V7 inlet	Z84-V7 outlet	Z84-V7 emitted	Z84-V7 inlet	Z84-V7 outlet	Z84-V7 emitted	Z84-V7 inlet	Z84-V7 outlet	Z84-V7 emitted	Z84-V7 inlet
	28000	20000	8000	27000	18000	9000	2100	1400	700	12000
	Z84-V1-2 inlet	Z84-V1-2 outlet	Z84-V1-2 emitted	Z84-V1-2 inlet	Z84-V1-2 outlet	Z84-V1-2 emitted	Z84-V1-2 inlet	Z84-V1-2 outlet	Z84-V1-2 emitted	Z84-V1-2 inlet
	10000	950	9050	14000	1400	12600	970	130	840	5200
Oct-08	Z84-V7 inlet	Z84-V7 outlet	Z84-V7 emitted	Z84-V7 inlet	Z84-V7 outlet	Z84-V7 emitted	Z84-V7 inlet	Z84-V7 outlet	Z84-V7 emitted	Z84-V7 inlet
	39000	10455	28545	24000	9350	14650	1400	780	620	8700
	Z84-V1-2 inlet	Z84-V1-2 outlet	Z84-V1-2 emitted	Z84-V1-2 inlet	Z84-V1-2 outlet	Z84-V1-2 emitted	Z84-V1-2 inlet	Z84-V1-2 outlet	Z84-V1-2 emitted	Z84-V1-2 inlet
	9700	1275	8425	14000	1800	12200	1185	200	985	6950
Nov-08	Z84-V7 inlet	Z84-V7 outlet	Z84-V7 emitted	Z84-V7 inlet	Z84-V7 outlet	Z84-V7 emitted	Z84-V7 inlet	Z84-V7 outlet	Z84-V7 emitted	Z84-V7 inlet
	50000	910	49090	21000	700	20300	780	160	620	5400
	Z84-V1-2 inlet	Z84-V1-2 outlet	Z84-V1-2 emitted	Z84-V1-2 inlet	Z84-V1-2 outlet	Z84-V1-2 emitted	Z84-V1-2 inlet	Z84-V1-2 outlet	Z84-V1-2 emitted	Z84-V1-2 inlet
	9400	1600	7800	14000	2200	11800	1400	270	1130	8700
Dec-08	Z84-V7 inlet	Z84-V7 outlet	Z84-V7 emitted	Z84-V7 inlet	Z84-V7 outlet	Z84-V7 emitted	Z84-V7 inlet	Z84-V7 outlet	Z84-V7 emitted	Z84-V7 inlet
	67000	380	66620	19000	240	18760	440	21	419	3000
	Z84-V1-2 inlet	Z84-V1-2 outlet	Z84-V1-2 emitted	Z84-V1-2 inlet	Z84-V1-2 outlet	Z84-V1-2 emitted	Z84-V1-2 inlet	Z84-V1-2 outlet	Z84-V1-2 emitted	Z84-V1-2 inlet
	5200	1500	3700	12000	3500	8500	1100	380	720	5200

QUARTERLY SAMPLING TOTAL VOC

1st QTR 08	Z84-V7 inlet	Z84-V7 outlet	Z84-V7 emitted	**1st QTR 08**	0.84
	86750	50882	35868		
	Z84-V1-2 inlet	Z84-V1-2 outlet	Z84-V1-2 emitted		
	36368	6312	30056		
2nd QTR 08	Z84-V7 inlet	Z84-V7 outlet	Z84-V7 emitted	**2nd QTR 08**	5.87
	63020	1002.2	62017.8		
	Z84-V1-2 inlet	Z84-V1-2 outlet	Z84-V1-2 emitted		
	37190	23614	13576		
3rd QTR 08	Z84-V7 inlet	Z84-V7 outlet	Z84-V7 emitted	**3rd QTR 08**	14.37
	120100	37070	83030		
	Z84-V1-2 inlet	Z84-V1-2 outlet	Z84-V1-2 emitted		
	135790	11069	124721		
4th QTR 08	Z84-V7 inlet	Z84-V7 outlet	Z84-V7 emitted	**4th QTR 08**	7.93
	96290	2429	93861		
	Z84-V1-2 inlet	Z84-V1-2 outlet	Z84-V1-2 emitted		
	29070	11952	17118		

API OIL WATER SEPARATOR Z84-T5

	Z84-T5
	Flow (gal)
1st QTR 08	3,382,502
2nd QTR 08	20,528,000
3rd QTR 08	18,277,000
4th QTR 08	18,876,800

	Strippers V1-2, 7 TPY VOC Mass 12 months rolling	Total VOC Mass 12 months rolling
1st QTR 08	0.84	0.84
2nd QTR 08	6.72	6.72
3rd QTR 08	21.09	21.09
4th QTR 08	29.02	29.02

NOTE: We had anomalously high BTEX levels for Stripper 1 & 2 (Z-84-V1-2) and 3 (Z-84-V7) for October. These were not physically possible as the output of Stripper 3 becomes a part of the inflow of Strippers 1 and 2, and the data did not match. Therefore, we used an average of the September and November results for the month of October.

ppb xylene	ppb xylene	ppb total BTEX	A mass fraction	Gallons (G) TOTAL FLOW/month	B TONS/month)	tons BTEX Mass A X B	tons BTEX Mass all strippers	TPY BTEX Mass 12 months rolling	ppb total Benzene
Z84-V7 outlet	Z84-V7 emitted	Z84-V7 emitted							
13000	0	37300	0.0000373	970,002	3671.7	0.1			25900
Z84-V1-2 outlet	Z84-V1-2 emitted	Z84-V1-2 emitted							
1400	5300	19430	0.00001943	3,880,006	14687.0	0.3	0.4	0.8	6000
Z84-V7 outlet	Z84-V7 emitted	Z84-V7 emitted							
1900	10100	59270	0.00005927	952,500	3605.5	0.2			24480
Z84-V1-2 outlet	Z84-V1-2 emitted	Z84-V1-2 emitted							
2500	4300	18970	0.00001897	3,810,000	14422.0	0.3	0.5	0.91	5770
Z84-V7 outlet	Z84-V7 emitted	Z84-V7 emitted							
220	9780	70170	0.00007017	1,460,000	5526.5	0.4			27500
Z84-V1-2 outlet	Z84-V1-2 emitted	Z84-V1-2 emitted							
5200	6800	30130	0.000003013	5,840,000	22106.2	0.1	0.5	1.36	7100
Z84-V7 outlet	Z84-V7 emitted	Z84-V7 emitted							
53	7547	61777.8	6.17778E-05	2,137,500	8091.1	0.5			27850
Z84-V1-2 outlet	Z84-V1-2 emitted	Z84-V1-2 emitted							
2500	2300	14090	0.00001409	8,550,000	32364.3	0.5	1.0	2.32	4000
Z84-V7 outlet	Z84-V7 emitted	Z84-V7 emitted							
530	7470	62586	0.000062586	1,534,500	5808.5	0.4			27100
Z84-V1-2 outlet	Z84-V1-2 emitted	Z84-V1-2 emitted							
3500	5500	37630	0.00003763	6,138,000	23234.2	0.9	1.2	3.56	13400
Z84-V7 outlet	Z84-V7 emitted	Z84-V7 emitted							
1800	12200	58180	0.00005818	1,449,750	5487.7	0.3			20900
Z84-V1-2 outlet	Z84-V1-2 emitted	Z84-V1-2 emitted							
1400	5400	13490	0.00001349	5,799,000	21951.0	0.3	0.6	4.17	1500
Z84-V7 outlet	Z84-V7 emitted	Z84-V7 emitted							
1400	12600	63950	0.00006395	1,400,500	5301.3	0.3			21650
Z84-V1-2 outlet	Z84-V1-2 emitted	Z84-V1-2 emitted							
280	9020	45641	0.000045641	5,602,000	21205.3	1.0	1.3	5.48	8084
Z84-V7 outlet	Z84-V7 emitted	Z84-V7 emitted							
8100	3900	21600	0.0000216	1,719,000	6506.9	0.1			8000
Z84-V1-2 outlet	Z84-V1-2 emitted	Z84-V1-2 emitted							
740	4460	26950	0.00002695	6,876,000	26027.7	0.7	0.8	6.32	9050
Z84-V7 outlet	Z84-V7 emitted	Z84-V7 emitted							
4650	4050	47865	0.000047865	1,837,500	6955.5	0.3			28545
Z84-V1-2 outlet	Z84-V1-2 emitted	Z84-V1-2 emitted							
1220	5730	27340	0.00002734	7,350,000	27822.0	0.8	1.1	7.42	8425
Z84-V7 outlet	Z84-V7 emitted	Z84-V7 emitted							
1200	4200	74210	0.00007421	1,440,850	5454.0	0.4			49090
Z84-V1-2 outlet	Z84-V1-2 emitted	Z84-V1-2 emitted							
1700	7000	27730	0.00002773	5,763,400	21816.2	0.6	1.0	8.43	7800
Z84-V7 outlet	Z84-V7 emitted	Z84-V7 emitted							
170	2830	88629	0.000088629	1,440,850	5454.0	0.5			66620
Z84-V1-2 outlet	Z84-V1-2 emitted	Z84-V1-2 emitted							
1900	3300	16220	0.00001622	5,763,400	21816.2	0.4	0.8	9.26	3700

	Total VOC ppb				tons VOC Mass
Z84-V7 emitted	35868	0.000035868	3,382,502	12803.8	0.46
Z84-V1-2 emitted	30056	0.000030056	3,382,502	12803.8	0.38
	62017.8	6.20178E-05	20,528,000	77704.6	4.82
	13576	0.000013576	20,528,000	77704.6	1.05
	83030	0.00008303	18,277,000	69183.9	5.74
	124721	0.000124721	18,277,000	69183.9	8.63
	93861	0.000093861	18,876,800	71454.4	6.71
	17118	0.000017118	18,876,800	71454.4	1.22

NEW MEXICO
ENVIRONMENT DEPARTMENT

Hazardous Waste Bureau

2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6303
Phone (505) 476-6000 Fax (505) 476-6030
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BILL RICHARDSON
Governor

DIANE DENISH
Lieutenant Governor

RON CURRY
Secretary

JON GOLDSTEIN
Deputy Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

February 9, 2009

Mr. Ed Riege
Environmental Superintendent
Western Refining, Southwest Inc., Gallup Refinery
Route 3, Box 7
Gallup, New Mexico 87301

RE: FACILITY WIDE GROUNDWATER MONITORING WORK PLAN
WESTERN REFINING COMPANY, SOUTHWEST, INC., GALLUP REFINERY
EPA ID # NMD000333211
HWB-GRCC-09-001

Dear Mr. Riege:

The New Mexico Environment Department (NMED) requires Western Refining Company, Southwest Inc., Gallup Refinery (Permittee) to submit a Facility Wide Groundwater Monitoring Plan (Monitoring Plan). The purpose of this Monitoring Plan is to characterize the nature and extent of groundwater contamination at, and migrating from the facility and provide one plan that contains all groundwater monitoring activities that will satisfy both NMED and the New Mexico Energy Minerals and Natural Resource Department Oil Conservation Division (OCD) requirements. The Monitoring Plan must be revised on an annual basis to accommodate monitoring changes at the facility and to alleviate the need to update NMED and OCD permits.

Currently, the groundwater monitoring requirements are established in the OCD Discharge Plan dated August 23, 2007, specifically items 16 (the Sampling Schedule Resulting from historical New API Separator Spills), 19, 20 (A & B), and 25.

Once this Monitoring Plan is approved, this plan will include and replace the requirements of the OCD Discharge Plan. The information gathered per the Monitoring Plan will then be included in the Annual Groundwater Monitoring Report. The Annual Groundwater Monitoring Report is considered a Periodic Monitoring Report for the purpose of compliance with NMED requirements and the OCD Discharge Plan items 20 (A and B) and 25. Attachment 2 provides general guidance for the preparation of Periodic Monitoring Reports.

The Permittee must submit the Monitoring Plan to NMED and the OCD on or before May 11, 2009. If you have questions regarding this letter please contact Hope Monzeglio of my staff at 505-476-6045.

Sincerely,

John E. Kieling
Program Manager
Permits Management Program
Hazardous Waste Bureau

cc: D. Cobrain NMED HWB
H. Monzeglio, NMED HWB
W. Price, OCD
B. Jones, OCD
G. Rajen, Gallup
File: Reading File and GRCC 2009 File
HWB-GRCC-09-001

ATTACHMENT 1
GENERAL GUIDE FOR COMPOSING THE MONITORING PLAN

- An Executive Summary (Abstract) must be included to provide a brief summary of the purpose and scope of the Monitoring Plan. This section must include the facility name and portions of the facility including any areas of concern (AOCs), Solid Waste Management Units (SWMUs) or other locations that the Monitoring Plan will be addressing.

- A Table of Contents must be included that lists all text sections, subsections, tables, figures, and appendices or attachments included in the Monitoring Plan.

- An Introduction must be included in the Monitoring Plan to include general information on the current facility and a brief description of the purpose of the proposed groundwater monitoring and the types of activities that will be conducted.

- A Background section must be added that briefly describes relevant general background information, including historical site uses, potential receptors, the type and characteristics of the waste or contaminants and any known and possible source(s), and a summary of the history of contaminant releases which could be contributing to groundwater contamination.

- The Permittee must include a Site Conditions section to provide a detailed description of current site topography and locations of natural features and manmade structures. This section must include a description of drainages, vegetation types, erosional features, and current site uses, in addition to, descriptions of features located in surrounding sites (i.e. SWMUs, AOCs) that may have an impact on the subject site regarding recharge sediment transport, surface water runoff, or contaminant fate and transport. A description of subsurface conditions must also be included that provides a discussion of the conditions observed during previous subsurface investigations, including but not limited to soil types and associations, stratigraphy, and the presence and flow direction of groundwater.

- A Scope of Activities section must include a list of all anticipated activities to be performed during the facility-wide groundwater monitoring sampling events.

- A section must be included that provides a description of all anticipated locations to be sampled and methods for conducting the activities during the facility wide groundwater monitoring events. This section must include, but is not limited to, descriptions of: sampling methods, sample handling procedures, procedures for collecting field water quality measurements, any field equipment and calibration procedures, water level measurement, purging activities, and decontamination procedures. This section must also address Investigation Derived Waste (IDW).

ATTACHMENT 2
GENERAL OUTLINE FOR THE PERIODIC MONITORING REPORT
(For the Facility Wide Groundwater Monitoring Report)

Periodic monitoring Report

The Permittee shall use the following guidance for preparing periodic monitoring reports. The reports shall present the reporting of periodic groundwater, vapor, and remediation system monitoring at the Facility. The following sections provide a general outline for monitoring reports, and also provide the minimum requirements for reporting within each subsection when preparing periodic monitoring reports for groundwater monitoring. All data collected during each monitoring and sampling event in the reporting period shall be included in the reports. In general, interpretation of data shall be presented only in the Background, Conclusions, and Recommendations sections of the reports. The other text sections of the reports shall be reserved for presentation of facts and data without interpretation or qualifications. The general report outline is provided below.

Title Page

The title page shall include the type of document; Facility name and the submittal date. A signature block providing spaces for the name, title, and organization of the preparer and the responsible Permittee representative shall be provided on the title page in accordance with 20.4.1.900 NMAC incorporating 40 CFR 270.11(d)(1).

Executive Summary

The executive summary shall provide a brief summary of the purpose, scope, and results of the monitoring conducted at the subject site during the reporting period. The Facility, unit, SWMU, and AOC names and location shall be included in the executive summary. In addition, this section shall include a brief summary of conclusions based on the monitoring data collected.

Table of Contents

The table of contents shall list all text sections, subsections, tables, figures, and appendices or attachments included in the report. The corresponding page numbers for the titles of each section of the report shall be included in the table of contents.

Introduction

The introduction section shall include the Facility name, unit name and location and unit status (e.g. active operations, closed, corrective action). General information on the site usage and status shall be included in this section. A brief description of the purpose of the monitoring, type of monitoring conducted, and the type of results presented in the report also shall be provided in this section.

reporting period shall also be included in this section. A summary table may be substituted for this section.

Summary

A summary section shall provide a discussion and conclusions of the monitoring conducted at the site. In addition, this section shall provide a comparison of the results to applicable cleanup levels, and to relevant historical monitoring and chemical analytical data. An explanation shall be provided with regard to data gaps. A discussion of remediation system performance, monitoring results, modifications if applicable, and compliance with discharge requirements shall be provided in this section. Recommendations and explanations regarding future monitoring, remedial actions, or site closure shall also be included in this section.

Tables

With prior approval from the NMED, the Permittee may combine one or more of the tables. Data presented in the tables shall include the current data plus data from the three previous monitoring events or, if data from fewer than three monitoring events is available, data acquired during previous investigations and vapor, groundwater, and remediation system monitoring. The dates of data collection shall be included in the tables. Summary tables may be substituted for portions of the text. All data tables shall include only detected analytes and data quality exceptions that could potentially mask detections. A section shall provide the following summary tables:

1. A table summarizing the regulatory criteria (a Regulatory Criteria text section may be substituted for this table or the applicable cleanup levels may be included in the analytical data tables),

2. A table summarizing groundwater elevations, SPH thickness, and depths to groundwater data. The table shall include the monitoring well depths, SPH thickness, casing elevations, the screened intervals in each well, and the dates and times of measurements,

3. A table summarizing field measurements of surface water quality data, if applicable,

4. A table summarizing field measurements of vapor monitoring data (including historical vapor monitoring data as described above),

5. A table summarizing field measurements of groundwater quality data (including historical water quality data as described above),

6. A table summarizing vapor sample chemical analytical data, if applicable (including historical vapor sample analytical data as described above),

7. A table summarizing surface water chemical analytical data, if applicable (including historical surface water analytical data as described above),

Field Methods

An appendix shall include the methods used to acquire field measurements of groundwater elevations, SPH thickness, vapor and water quality data, and vapor and groundwater samples. It shall include the methods and types of instruments used to measure depths to water, air or headspace parameters, and water quality parameters. In addition, decontamination, well purging techniques, well sampling techniques, and sample handling procedures shall be provided in this appendix. Methods of measuring and sampling remediation systems shall be reported in this section, if applicable. Purge and decontamination water storage and disposal methods shall also be presented in this appendix. Copies of purge and decontamination water disposal documentation shall be provided in a separate appendix.

Chemical Analytical Program

An appendix shall discuss the analytical program. It shall include the analytical methods, a summary of data quality objectives, and data quality review procedures. A summary of data quality exceptions and their effect on the acceptability of the analytical data with regard to the monitoring event and the site status shall be included in this appendix along with references to case narratives provided in the laboratory reports.

Chemical Analytical Reports

This appendix shall include all laboratory chemical analytical data generated for the reporting period. The data may be submitted electronically on a compact disc in Microsoft Excel format. The reports shall include all chain-of-custody records and QA/QC results provided by the laboratory. Hard (paper) copies of all chain-of-custody records shall be submitted as part of this appendix.

BILL RICHARDSON
Governor

DIANE DENISH
Lieutenant Governor

NEW MEXICO ENVIRONMENT DEPARTMENT

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RON CURRY
Secretary

JON GOLDSTEIN
Deputy Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

March 26, 2009

Mr. Ed Riege
Environmental Superintendent
Western Refining, Southwest Inc., Gallup Refinery
Route 3, Box 7
Gallup, New Mexico 87301

RE: NOTICE OF DISAPROVAL
OIL CONSERVATION DIVISION (OCD) 2007 ANNUAL GROUNDWATER REPORT (AND OCD ADDENDUM)
WESTERN REFINING COMPANY, SOUTHWEST, INC., GALLUP REFINERY
HWB-GRCC-08-005
EPA ID # NMD000333211

Dear Mr. Riege:

The New Mexico Environment Department (NMED) has completed its review of the *Oil Conservation Division 2007 Annual Groundwater Report (and OCD Addendum)* (Report), dated August 28, 2008, submitted on behalf of Western Refining Company, Southwest Inc., Gallup Refinery (Permittee). NMED hereby issues this Notice of Disapproval (NOD). NMED does not require the submittal of a revised report. However, all comments contained in this NOD must be applied and corrected in future groundwater monitoring reports (Annual Report) due to NMED and the Oil Conservation Division on September 1, 2009.

Comment 1

On page 2 of the Executive Summary and in Section 4.0 (Groundwater Monitoring Results), page 17, the Permittee addresses Methyl Tetra-Butyl Ether (MTBE) detections in monitoring wells (MTBE is also addressed in other Sections of the Report) and applied the Water Quality

included in all future Annual Reports.

d. The Permittee must ensure that the water levels in monitoring wells GWM-2 and GWM-3 are checked quarterly and all four dates and the associated water levels (or absence of water) are presented in future Annual Reports. The Table in Section 2 states "Dry" for these wells under "Date Sampled;" it is not clear how often these wells were checked.

e. According to the Discharge Permit, the inlet to Pond 1 is to be sampled semi-annually. The Table in Section 2 identified the Pond 1 inlet as being sampled once. The Permittee must ensure that the inlet to Pond 1 is sampled according to the Discharge Permit, and that all sampling information is included in future Annual Reports.

f. NMED assumes that the November 29, 2007 sampling of Ponds 1-8 was considered to be in the first quarter. The Permittee must ensure that the data for all four quarters are included in future Annual Reports.

g. NMED stated in its January 16, 2008 NOD to the Annual Groundwater Report that "[t]he Permittee must ensure the next annual groundwater monitoring report incorporates OCD's Discharge Permit requirements, including the most current groundwater sampling schedule." This task was not completed. The Permittee must complete all sampling requirements in the Discharge Permit.

Comment 4

The following sampling locations required by the Discharge Permit were not found in Section 2 (Scope Activities) of the Report: NAPIS -1, NAPIS-3, NAPIS-3D, OW-1, OW-10, OW-29, OW-30, PW-2, Effluent from the Pilot Station to Aeration Lagoon, Effluent from the new API separator, and boiler water inlet to EP-2. NMED is aware that the sampling data for the NAPIS wells may not have been included in the Report because the sampling requirements were not established until late 2007. However, the Permittee must ensure that all sampling requirements are completed, and that if sampling did not occur, an explanation must be included. Future Annual Reports must be revised accordingly.

Comment 5

The Permittee compared the analytical data to the WQCC standards and the MCLs. The Permittee must apply the RSLs for tap water for those constituents where a WQCC Standard or a MCL has not been established. This must be implemented in future Annual Reports.

Comment 9

Some of the tables provided in Section 4 (Groundwater Monitoring Results) do not include a WQCC standard or MCL where one exists (e.g., Table 2 did not include a WQCC or MCL standard for iron, manganese, zinc, and phenols). In addition, the RSLs should have been applied to some constituents in Table 2 as well (e.g., 2,4, dimethylphenol). For the tables provided in Section 4.0, where diesel range organics (DRO) are present, the Permittee must apply NMED's TPH Screening Guideline of 0.2 mg/l for "unknown oil" found in Table 2a. In future Annual Reports, the Permittee must revise the tables found in Section 4.0 to include the appropriate standards and include data from the previous three sampling events.

Comment 10

The Permittee analyzed some samples for RCRA metals and other samples for the larger list of WQCC metals (e.g., GWM-1 analyzed for RCRA metals; the Evaporation Ponds analyzed for WQCC metals). The Discharge Permit requires all samples to be analyzed for the WQCC metals list. The Permittee must ensure the samples are analyzed for the correct constituents. This must be reflected in future Annual Reports. If different analyses are used, the Permittee must provide an explanation for the deviations from the Discharge Permit.

Comment 11

The difference between Section 5 (Groundwater Chemical Analytical Data) in binder 1 and Section 3b (Results of all Sampling and Monitoring Events) in binder 2 is not clear; both contain analytical laboratory reports. In future Annual Reports, the Permittee must include all laboratory reports in one section. Only laboratory reports that apply to the groundwater monitoring requirements found in the Discharge Permit need to be included. The Permittee must ensure the entire laboratory report is included; some laboratory reports found in Section 3b were missing pages (e.g., sample location AL-1 Inlet only included the last page of SVOC data, (Lab ID 0705252-02, collection date 5/17/07)).

Comment 12

This comment pertains to Section 6 (Summary of Groundwater Testing), OW-11. The Permittee states "[t]he sample was analyzed for Mercury (EPA Method 7470), Total Recoverable Metals (EPA Method 6010B), and Volatiles (EPA Method 8260B).....In 2006, the general chemistry results showed that fluoride (2.5) mg/l) and sulfate (1,100 mg/l) were present at levels greater than the NMWQS for fluoride (1.6 mg/l) and sulfate (600 mg/l). However, these analyses could not be conducted in 2007, as the sample was frozen by the time it reached the analytical laboratory."

It is not clear how the frozen groundwater sample could be analyzed for mercury, total recoverable metals and volatile organic compounds, but not fluoride and sulfate. The Permittee must clarify this type of discrepancy in future Annual Reports.

Permit (Item 19) must be included in this section. The Permittee must revise future Annual Reports accordingly.

Comment 17

There are discrepancies between when PW-2, PW-3, and PW-4 are to be sampled, the schedule presented in Section 6, and what is identified in the Discharge Permit. The Permittee must apply the sampling schedule found in the Discharge Permit dated August 23, 2007. This must be updated in future Annual Reports.

Comment 18

The information provided by the Permittee in Section 7 (List of Tables) is not organized and does not correlate with the headings identified on the first page of this Section. In future Annual Reports, the Permittee must revise this Section as follows:

a. The Permittee must only provide relevant information and remove random pages that do not pertain to the headings provided on the first page of the Section. For example, the page after the "Well Data Summary Table" states "Well Closures." This information is not relevant. The second page of this Section is "Ground Water Depth to Water 2007." This information is already present in the "Well Data Summary Table." Relevant information should be included together.

b. Revise page 2 of the "Well Data Summary Table" to include the 2007 data; the table provides 2006 data.

c. Include the total well depth of recovery wells 1, 2, 5, and 6 in the "Well Data Summary Table."

d. The "Ground Water Depth to Water 2007" table contains hand written information. This information must be included in the Well Data Summary Table, and the page removed from the Report.

e. If the Permittee includes their field notes, this information should be included in a separate section (e.g., an appendix) of the Report, and removed from the Tables section of the Report.

Comment 19

In Section 7, the Permittee provides tables that contain recovery well information and state "Condition Permit ID: OCD Sect., 9, Item 4". The table contains three columns entitled "Depth to Product (feet)", "Depth to Water (Feet)" and "Product Level Thickness (feet)." The values presented in these columns are listed in both feet and inches and appear to be rounded numbers.

wells is drained onto the ground."

In future Annual Reports, the Permittee must clearly state that the analytical data for the purge water from historically non-contaminated wells is reviewed for detections before it is discharged to the ground.

Comment 25
The Permittee must revise future Annual Reports to include the accuracy to which depth to groundwater and separate phase hydrocarbons (SPH) water levels are measured (e.g., to the nearest 0.01 foot). See Section 8 (List of Figures), Appendix A, under Groundwater Elevation and Well Evacuation.

Comment 26
In Section 8 (List of Figures), Appendix A, under Well Evacuation, the Permittee states "[t]he water level in the well, total depth of well and thickness of floating product (if any) will be measured using the Dipper T electric[onic] water depth tape. A transparent bailer will be used to check for the presence and measure the thickness of floating product."

In future Annual Reports, the Permittee must revise the above paragraph to indicate if the floating product is measured using the Dipper T or a bailer.

Comment 27
In Section 8 (List of Figures), Appendix A, under Well Evacuation, page 50 and 51, the Permittee uses the term "should" (e.g., the Permittee states the first sample *should* be tested for pH, temperature...). It is unclear what the Permittee actually did. In future Annual Reports, the Permittee must revise these pages to state what the Permittee actually did, not what they should do.

Comment 28
In Section 3e (Summary of all Leaks, Spills & Releases & Corrective Actions), the Permittee provides dates and descriptions of spills that occurred during the year at the refinery.

In future Annual Reports, the Permittee must provide more detail concerning the descriptions of the spills. Some of the explanations are vague and do not indicate if the spill was cleaned up. The cleanup and what measures the refinery implemented when the spill occurred must be included. For example, on 7/19/07, the API weir box ran over. The last sentence states "[e]stimate 5-10 bbls of oil/water spilled to the ground." The Permittee did not mention anything about the cleanup. In any event, the cleanup must be addressed in detail, including the volumes recovered, the amount of soil removed, if removed, and where waste was disposed.

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JON GOLDSTEIN
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CERTIFIED MAIL - RETURN RECEIPT REQUESTED

April 15, 2009

Mr. Ed Riege
Environmental Superintendent
Western Refining, Southwest Inc., Gallup Refinery
Route 3, Box 7
Gallup, New Mexico 87301

RE: NOTICE OF DISAPPROVAL
PROCESS DESIGN REPORT FOR WASTEWATER TREATMENT PLANT UPGRADE
WESTERN REFINING COMPANY, SOUTHWEST, INC., GALLUP REFINERY
EPA ID # NMD000333211
HWB-GRCC-09-002

Dear Mr. Riege:

The New Mexico Environment Department (NMED) and the New Mexico Energy Minerals, and Natural Resource Department, Oil Conservation Division (OCD) have completed their review of the *Process Design Report For Wastewater Treatment Plan Upgrade* (Report), dated February 26, 2009, submitted on behalf of Western Refining Company, Southwest Inc., Gallup Refinery (the Permittee). The Permittee must provide additional information before NMED and OCD can complete their technical review and hereby issues this Notice of Disapproval (NOD) and provides comments below. Comments 5 through 10 are not directly related to the system design

but are part of the wastewater treatment plan upgrade. The Permittee may choose to address these comments in an appendix of the revised Report.

Comment 1
In Section 3.3 (Biological Treatment), the Permittee states "[t]he biological treatment technology selected for [Wastewater Treatment Plant] WWTP upgrade project was a Bioreactor without sludge (biomass) recycle. This technology is akin to an aerated lagoon, but in an above-ground steel tank."

The Permittee currently does not have a National Pollutant Discharge Elimination System (NPDES) Permit. Therefore, the wastewater treatment system (WWTS) upgrade is subject to the Resource Conservation Recovery Act (RCRA) and the New Mexico Hazardous Waste Act (HWA). The bioreactors, tank-based separator, and any future tanks must comply with 20.4.1.500, incorporating 40 CFR 264 Subpart J. The Permittee must revise the Report to show that the tanks comply with the Subpart J design requirements. The Permittee must revise the text and attachments as necessary.

Comment 2
In Section 3.3 (Biological Treatment), page 3-3, the Permittee states "[t]he shutdown of Benzene Stripper No. 3 will increase the benzene loading in the NAPIS effluent above current levels. In the detailed engineering phase, Brown and Caldwell will evaluate the impact of this change on the design conditions and evaluate whether or not MBBR media addition to the Bioreactors will be required as a result."

The Permittee must revise the Report to include all changes to the WWTS to account for the increased benzene load resulting from the removal of Benzene Stripper 3.

Comment 3
In Section 4.5 (Secondary Containment and Leak Detection), page 4-5, the Permittee states "[t]he proposed design does not include leak detection or containment berms for the Bioreactors (T11 and T12)....However, the Bioreactors will be situated such that a potential leak would flow into EP-1, which is the destination of the Bioreactor effluent."

If the system has a leak, the discharge may not be completely treated and therefore may potentially be characteristic for benzene and/or be a F037/F038 listed waste, which would then enter EP-1. Hazardous waste must not be discharged to EP-1 since it is not permitted by NMED to received hazardous waste and requirements in the OCD Discharge Plan. Because the Permittee does not have a NPDES Permit for the wastewater treatment system, the tank systems within the WWTS are subject to the requirements of 20.4.1.500 NMAC, incorporating 40 CFR 264 Subpart J. The Permittee must revise this Report to reflect compliance with the requirements of 40 CFR 264 Subpart J and revise the attachments as applicable. The Permittee

must also revise the Report to comply with Condition 9 (Above Ground Tanks) of the OCD Discharge Permit (GW-32), dated August 23, 2007. The WWTS cannot be retrofitted and does not qualify for the exemption (tanks that contain fresh water or fluids that are gases at atmospheric temperature and pressure are exempt) under Condition 9 of the OCD Permit.

Comment 4
The Permittee must revise the Report to include the following modifications:

a. The WWTS must contain influent and effluent sampling ports to accommodate sampling at the new API separator, the tank based separator, and the bioreactors.

b. The WWTS must include air vents for the Tank Based Separator and the Bioreactors. These locations must be constructed to allow for emissions sampling.

The text and attachments must be revised as necessary to address items a and b above.

Comment 5
In Section 2.2 (Refinery Wastewaters), page 2-1, the Permittee states "[t]he sanitary wastewater generated at the Refinery and the seven adjacent homes owned by the Refinery currently discharges to septic systems and not the WWTP. However, the WWTP upgrades will include the option for these sanitary sources to be redirected to the WWTP at a future date at Western Refining's discretion."

If and when the sanitary sources are redirected to the WWTS, the Permittee must notify the OCD and the Gallup Field Office (http://www.nmenv.state.nm.us/NMED/field_op.html) prior to implementing this change over and comply with all requirements. No revision is necessary.

Comment 6
In Section 3.3 (Biological Treatment), page 3-3, the Permittee states "[b]iomass will exit the Bioreactors by being carried out in the Bioreactor effluent. The biomass will settle out in the downstream evaporation ponds, primarily [Evaporation Pond] EP-1. Over time, the settled biomass may accumulate in EP-1 to the extent that dredging will be required."

The Permittee has allowed upsets with the current wastewater treatment system resulting in hazardous waste being discharged to EP-1. Therefore the following requirements apply and the Permittee must revise the Report to address these requirements.

a. Within 30 days of demonstration that the new wastewater treatment system is achieving cleanup criteria, the Permittee must dredge EP-1. The dredged material must be properly characterized and managed for proper disposal. All dredging and waste disposal activities must be approved by both NMED and OCD prior to

implementation. The Report must be revised to describe the dredging process, alternatively, the Permittee may submit a separate work plan to NMED and OCD for approval that addresses the dredging activities.

b. After the initial dredging of EP-1, the Permittee must dredge the biomass from EP-1 anytime the biomass accumulation is greater than one foot. The dredged biomass must be properly characterized as nonhazardous if considered for placement in the OCD landfarm to assist the remediation of contamination soils, pending OCD approval. NMED must be included on all correspondence.

Comment 7

In Section 4.2.1 (Stormwater/Diversion tanks), page 4-1, the Permittee states "[i]n the new system, stormwater will flow by gravity to two Stormwater/Diversion Tanks. These tanks are existing with a numerical designation of Z84-T27 and T-28....Stormwater that collects in the tanks will be pumped at a rate of 50 to 200 gpm to the process sewer that feeds to the NAPIS."

Since the stormwater and process wastewater at the refinery comingle, any sludge removed from the bottom of the Stormwater/Diversion tanks must be managed as hazardous waste.

Comment 8

In Section 4.2.1 (Stormwater/Diversion tanks), page 4-1, the Permittee states "[c]leanouts will be installed on the conveyance pipelines to and from the Stormwater/Diversion Tanks. Cleaning events will be scheduled on a regular, recurring basis."

Any sludge removed during the cleanouts of the pipelines must be managed as hazardous waste. The Permittee must revise the Report to address the management of this sludge.

Comment 9

In Section 4.2.5 (Bioreactors), page 4-3 and 4-4 the Permittee states "[t]here will be provisions for diverting the Bioreactor effluent away from EP-1 in the event that the treated water quality is not acceptable. A diversion line will be connected to the combined Bioreactor effluent, with its valve normally closed. To divert, this valve would be opened and the valve to EP-1 closed" and the Permittee later states in Section 4.4 (Management of Off-Spec Wastewater), page 4-5, that "[i]f at anytime the Bioreactor effluent were deemed unsuitable for discharge to EP-1, it could be diverted to the new Stormwater/Diversion Tanks as described in Section 4.2.5."

The Permittee must provide a sampling plan that explains how the Permittee will characterize the effluent from the bioreactors entering EP-1. The sampling plan must identify the location of samples that will be collected and address sampling frequency, water quality parameters, and test methods. The effluent must comply with the Water Quality Control Commission standards found in 20.6.2.3103.

Comment 10
In Section 4.3.3 (OAPIS), page 4-5, the Permittee states "the [Old API Separator] OAPIS will no longer be required and can be decommissioned."

The OAPIS is Solid Waste Management Unit (SWMU) No. 14. This SWMU is subject to corrective action under the Refinery's RCRA Permit. In the response letter, the Permittee must provide a schedule for the submittal of an investigation work plan to assess releases from the OAPIS.

The Permittee must address all comments contained in this NOD. The revised Report must be submitted with a response letter that details where all revisions have been made, cross-referencing NMED's numbered comments. In addition, an electronic version of the revised Report must be submitted that identifies where all changes made in red-line strikeout format. The Permittee must submit the revised Report to NMED, OCD, and EPA on or before May 30, 2009.

If you have questions regarding this letter please contact Hope Monzeglio of my staff at 505-476-6045.

Sincerely,

James P. Bearzi
Chief
Hazardous Waste Bureau

cc: J. Kieling, NMED HWB
D. Cobrain NMED HWB
H. Monzeglio, NMED HWB
B. Jones, OCD
C. Chavez, OCD
G. Rajen, Gallup
J. Dougherty, EPA Region 6
File: Reading File and GRCC 2009 File
HWB-GRCC-09-002

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CERTIFIED MAIL - RETURN RECEIPT REQUESTED

May 6, 2009

Mr. Ed Riege
Environmental Superintendent
Western Refining, Southwest Inc., Gallup Refinery
Route 3, Box 7
Gallup, New Mexico 87301

RE: NOTICE OF DISAPROVAL
CLOSURE PLAN AERATION LAGOONS
WESTERN REFINING COMPANY, SOUTHWEST, INC., GALLUP REFINERY
EPA ID # NMD000333211
HWB-GRCC-09-003

Dear Mr. Riege:

The New Mexico Environment Department (NMED) has completed its review of the *Closure Plan Aeration Lagoons* (Plan), dated February, 2009, submitted on behalf of Western Refining Company, Southwest Inc., Gallup Refinery (Permittee). The Permittee has not provided sufficient information for NMED to complete a technical review. NMED hereby issues this Notice of Disapproval (NOD) and provides comments below.

(incorporating 40 CFR 264.101) of the Hazardous Waste Management Regulations. In the revision to the Plan, the Permittee must revise the above paragraph to reference the Permit and the correct regulations. See also Comment 1.

Comment 5

In Section 2.2 (Surface Impoundment Operations), page 4, paragraph 1, the Permittee states "[t]he refinery process wastewater generated (approximately 100 gallons per minute (gpm)) as measured in March 2006) at the Gallup Refinery is managed first by physical treatment in an API separator..."

The refinery's wastewater flow rates at times likely exceed 100 gallons per minute. Therefore, the Permittee must revise the Plan to provide an average flow rate of the process wastewater produced over the last year (2008) and include details pertaining to how the average was derived.

Comment 6

In Section 2.2 (Surface Impoundment Operations), page 4, paragraph 2, the Permittee states "[a]n investigation of the aeration lagoons was conducted in April 2008 to characterize the volume and nature of sediments in each basin. A copy of the report of the investigation prepared by Trihydro Corporation is included in Appendix A." (Appendix A was also referenced on page 5)

Appendix A was not included in the Plan, nor was it identified in the Table of Contents. The Permittee's revision to the Plan must include Trihydro's investigation report, and any other investigation information related to AL-1 and AL-2.

Comment 7

In Section 2.3 (Assessment Activities), page 5, paragraph 1, the Permittee states "[c]opies of EPA's letter dated January 7, 1994 and a subsequent facsimile dated March 15, 1996, which notes the changed monitoring frequency to five years, are included in Appendix B."

Appendix B was not included in the Plan nor was it identified in the Table of Contents. EPA's letter, fax, and the sampling that was conducted in 1990's (paragraph 1 and 2 of Section 2.3) will not affect the investigation or remediation activities for AL-1 and AL-2 because these units have received and treated hazardous waste characteristic for benzene and also likely generated F037 and F038 listed wastes since 1996. The Permittee must re-evaluate the information provided in Section 2.3 (Assessment Activities) and determine if the information is relevant to the cleanup activities for AL-1 and AL-2 and revise the Plan accordingly. The Permittee must also revise the text as it addresses Appendix B where appropriate.

The Permittee should consider the following when choosing the cleanup standards for AL-1 and AL-2. If the Permittee chooses to clean up AL-1 and AL-2 using the industrial/occupational NMED Soil Screening Levels (SSLs), then AL-1 and AL-2 will be closed as corrective action complete with controls (CACWC) (i.e., no additional remedial activity is required but the unit requires continued operation and maintenance, monitoring actions for engineering controls, or institutional controls; the unit will stay on the Permit and annual fees will continue to be incurred) or AL-1 and AL-2 can be cleaned to meet the residential NMED SSLs and AL-1 and AL-2 will be closed as corrective action complete without controls (CACWOC) (no additional remedial activity is required at the unit and the Permittee can petition for a corrective action complete determination). In light of this, the Permittee may wish to revise the target cleanup levels referenced in the Plan. (The definitions for CACWC and CACWOC can be found at NMAC 20.4.2.7 (Definitions) J and K)

If NMED determines the Permittee is unable to achieve residential cleanup standards, the Permittee will be directed to submit a Corrective Measures Study to evaluate remedial alternatives. NMED will select a remedy based on the information provided in the CMS. The remedy selection is subject to public participation in accordance with 20.4.1.901 NMAC. Upon selection of a remedy, NMED will establish a due date for submittal of a Corrective Measures Implementation Work Plan that shall include the details for implementation of the selected remedy and a schedule for completion of such implementation.

Comment 11

In Section 4 (Proposed Closure Procedures), page 7, paragraph 3, the Permittee states "[i]t is anticipated that excavation will extend into the upper portion of the natural clay liner with a goal to remove all waste materials and impacted soil with concentrations of constituents exceeding the applicable industrial/occupational NMED Soil Screening Levels, which satisfies any "contained-in" concerns."

Cleaning up to the industrial/occupational NMED SSLs does not satisfy "contained-in concerns." If the Permittee seeks a "no longer contained in" determination for a listed hazardous waste, it must request it in writing and obtain approval by NMED. The Permittee must revise the last sentence of this paragraph to remove reference to "contained-in concerns" because this term and reference to the NM SSLs are used incorrectly. The Permittee must also address how it will determine that all waste materials and contaminated soils have been removed. The Plan must be revised accordingly.

Comment 12

In Section 4 (Proposed Closure Procedures), page 7, paragraph 3, the Permittee states "[t]he excavated materials will be sampled for hazardous characteristics in accordance with 40 CFR 261, Subpart C – Characteristics of Hazardous Waste. Samples of the sludge and soil will be

Petroleum Hydrocarbon Screening Guidelines (October 2006) (this applies to all analytical data collected).

d. The Permittee must collect the samples from the base and sidewalls of the excavations of AL-1 and AL-2 every 20 feet instead of every 50 feet.

Comment 15

In Section 4 (Proposed Closure Procedures), page 8, paragraph 3, the Permittee states "[t]he dikes surrounding the aeration lagoon will be leveled and clean fill material imported, as necessary, to bring the land surface to final grade."

Because the dikes will be used to fill in the aeration lagoons, the Permittee must revise the Plan to include the collection of dike samples. In addition, the surface soil samples must be collected at 25 foot intervals from the center of the dike. At each sample location, a sample must be collected from the surface and at the one to two foot interval. All samples collected must be analyzed for VOCs, SVOCs, DRO extended, GRO, iron, manganese and the Skinner List (organics and inorganics). The Permittee must include a figure showing the proposed dike sample locations. If the dike material is to be used as backfill in AL-1 and AL-2, any residual contaminant concentrations must meet NMED's residential SSLs. The Permittee must obtain NMED and OCD permission before backfilling AL-1 and AL-2 with the dike material.

Comment 16

As part of the wastewater treatment system upgrade, the Permittee will be removing from service benzene strippers one and two at the aeration lagoons. Since the benzene strippers discharged to AL-1 as part of the aeration lagoon closure process, the benzene strippers must be dismantled and this area investigated and remediated in accordance with 20.4.1.500 NMAC (incorporating 40 CFR 264.101). The Permittee must revise the Plan to include the process to remove the benzene strippers and proposed sampling and remediation of this area as necessary.

Comment 17

The Permittee must revise the Plan to include and address the items listed below:

a. Provide a scope of services.

b. Discuss site conditions.

c. Discuss the history of operation of AL-1 and AL-2.

d. Discuss if AL-1 and AL-2 have ever been dredged in the past and, if so, the volumes of sediment removed.

The Permittee must address all comments contained in this NOD and submit a revised Plan (see Comment 1) to NMED on or before July 31, 2009. The revised Plan must be submitted with a response letter that details where all revisions have been made, cross-referencing NMED's numbered comments. In addition, an electronic version of the revised Plan must be submitted that identifies where all changes have been made in red-line strikeout format. If you have questions regarding this letter please contact Hope Monzeglio of my staff at 505-476-6045.

Sincerely,

James P. Bearzi
Chief
Hazardous Waste Bureau

cc: J. Kieling, NMED HWB
D. Cobrain NMED HWB
H. Monzeglio, NMED HWB
B. Jones, OCD
C. Chavez, OCD
G. Rajen, Gallup
J. Dougherty, EPA Region 6
A. Allen, Western El Paso
File: Reading File and GRCC 2009 File
HWB-GRCC-09-003

Attachment 1

Exhibit 3

CONSTITUENTS OF CONCERN FOR WASTES FROM PETROLEUM PROCESSES

Inorganics

Antimony	Lead
Arsenic	Mercury
Barium	Nickel
Beryllium	Selenium
Cadmium	Silver
Chromium	Vanadium
Cyanide	Zinc

Organics

Acenaphthene	2,4-Dinitrotoluene
Benzene	Di-n-octyl phthalate
Benzo(a)anthracene	1,4-Dioxane
Benzo(b)fluoranthene	Ethylbenzene
Benzo(a)pyrene	Ethylene dibromide
Bis(2-ethylhexyl)phthalate	Fluoranthene
Butyl benzyl phthalate	Fluorene
Carbon disulfide	Indeno(1,2,3-cd)pyrene
Chlorobenzene	Methyl ethyl ketone
Chloroform	Naphthalene
Chrysene	Nitrobenzene
Cresols	Phenol
Dibenz(a,h)anthracene	Pyrene
Di-n-butyl phthalate	Pyridine
1,2-Dichlorobenzene	Styrene
1,4-Dichlorobenzene	Tetrachloroethylene
1,2-Dichloroethane	Toluene
1,1-Dichloroethylene	1,1,1-Trichloroethane
7,12-Dimethylbenz(a)anthracene	Trichloroethylene
2,4-Dimethylphenol	Xylenes (total)

Western Refining

GALLUP REFINERY

WNR LISTED NYSE

May 11, 2009

James Bearzi, Chief
New Mexico Environment Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East, BLDG 1
Santa Fe NM 87505

Re: Facility Wide Groundwater Monitoring Work Plan, Western Refining Company Southwest, Inc., EPA ID# NMD000333211, HWB-GRCC-09-001

Dear Mr. Bearzi:

The purpose of this letter is to submit our Facility Wide Groundwater Monitoring Plan as required in your letter dated February 9, 2009.

Many thanks to Ms. Hope Monzeglio of your staff, who was kind enough to share her thoughts, give us direction and share a similar plan developed for the Fort Wingate Army Depot.

If you have any questions, or if we can be of further service to you, please do not hesitate to call Dr. Gaurav Rajen at (505) 722-0227, or myself at (505) 722-0217.

Sincerely,

Ed Riege
Environmental Manager

Cc: Hope Monzeglio, HWB/NMED
Brad Jones, OCD
Mark Turri, Western Refining
Ann Allen, Western Refining
Gaurav Rajen, Western Refining

BILL RICHARDSON
Governor

DIANE DENISH
Lieutenant Governor

NEW MEXICO ENVIRONMENT DEPARTMENT

Hazardous Waste Bureau

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RON CURRY
Secretary

JON GOLDSTEIN
Deputy Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

May 28, 2009

Mr. Ed Riege
Environmental Superintendent
Western Refining, Southwest Inc., Gallup Refinery
Route 3, Box 7
Gallup, New Mexico 87301

RE: REQUIREMENT TO INSTALL MONITORING WELLS
WESTERN REFINING COMPANY, SOUTHWEST, INC., GALLUP REFINERY
HWB-GRCC-MISC
EPA ID # NMD000333211

Dear Mr. Riege:

The New Mexico Environment Department (NMED) requires Western Refining Southwest Inc., (the Permittee) to install two monitoring wells. This requirement was addressed in Comment 14 of NMED's March 26, 2009 Notice of Disapproval (NOD) to the *Oil Conservation Division 2007 Annual Groundwater Report (and OCD Addendum)*, dated August 28, 2008. In Comment 14, NMED stated "[t]he Permittee must install another well(s) downgradient of OW-13 and OW-29 to determine if contamination has migrated north, northwest of the refinery and potentially offsite. NMED will address the installation of additional well(s) in a separate letter."

The Permittee must install two monitoring wells at the Gallup Refinery to meet the specifications described below:

a. The Permittee must locate the extension of the sand/gravel water bearing layer that extends north of OW-29 and install one monitoring well at the approximate location specified in the attached Figure 1.

If you have questions regarding this letter please contact Hope Monzeglio of my staff at 505-476-6045.

Sincerely,

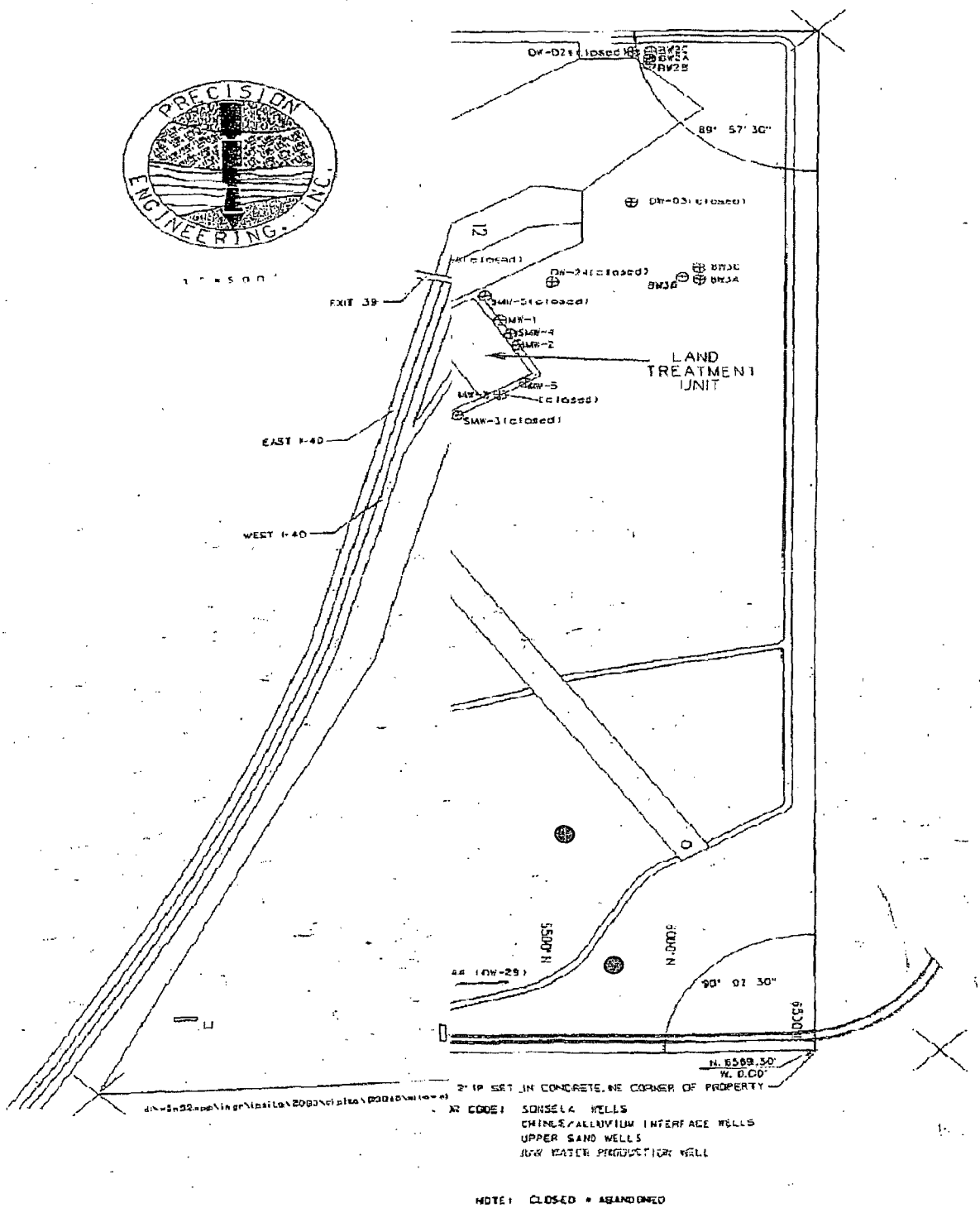
John E. Kieling
Program Manager
Permits Management Program
Hazardous Waste Bureau

cc: D. Cobrain NMED HWB
H. Monzeglio NMED HWB
B. Jones, OCD
C. Chavez, OCD
R. Gaurav, Gallup
File: Reading File and GRCC 2009 File
HWB-GRCC-MISC

Figure 1

Monitoring Well Locatior

Monitoring well locations are ap



May 28, 2009 135741.021.300

Mr. James P. Bearzi
Chief, Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505-6303

Subject: Response to Notice of Disapproval
Process Design Report for Wastewater Treatment Plant Upgrade
Western Refining Company Southwest, Inc. (Gallup Refinery)
EPA ID# NMD000333211
HWB-GRCC-09-022

Dear Mr. Bearzi:

This letter is in response to the Notice of Disapproval (NOD) for Western Refining's Process Design Report for Wastewater Treatment Plant Upgrade (Report). The comments from the NOD and the responses addressing those comments are included below. In addition, the Report has been revised and is being re-submitted with this response.

> **Comment 1**: "In Section 3.3 (Biological Treatment), the Permittee states '[t]he biological treatment technology selected for [Wastewater Treatment Plant] WWTP upgrade project was a Bioreactor without sludge (biomass) recycle. This technology is akin to an aerated lagoon, but in an above-ground steel tank.'
> The Permittee currently does not have a National Pollutant Discharge Elimination System (NPDES) Permit. Therefore, the wastewater treatment system (WWTS) upgrade is subject to the Resource Conservation Recovery Act (RCRA) and the New Mexico Hazardous Waste Act (HWA). The bioreactors, tank-based separator, and any future tanks must comply with 20.4.1.500, incorporating 40 CFR 264 Subpart J. The Permittee must revise the Report to show that the tanks comply with the Subpart J design requirements. The Permittee must revise the text and attachments as necessary."

Response 1: Western Refining is in the process of preparing a NPDES permit application to be submitted to USEPA Region 6. We have assumed that the permit will be approved and in-place by the time the upgraded WWTS is operational. Therefore, the design basis for the Report assumes that the upgraded WWTS is not subject to HWA 20.4.1.600 (incorporating 40 CFR 265 Subpart J). The NPDES permit should be issued within the next 9 months. Should at any time it become evident that a NPDES permit will not be issued prior to WWTS start-up, the tank design will then be modified to comply with 20.4.1.600 and 40 CFR 265 Subpart J and the Report will be resubmitted to NMED/OCD for approval. Contingencies will be built into the design approach to accommodate these potential modifications such that the schedule presented in Section 5 of the Report will not be jeopardized. Sections 4.2.4 and 4.2.5 of the Report have been modified to reflect this approach.

Note: The Refinery is an interim status facility so the correct regulatory citations are HWA 20.4.1.600

and 40 CFR 265 as indicated in the response, rather than 20.4.1.500 and 40 CFR 264 stated in the original comment.

> **Comment 2**: "In Section 3.3 (Biological Treatment), page 3-3, the Permittee states '[t]he shutdown of Benzene Stripper No. 3 will increase the benzene loading in the NAPIS effluent above current levels. In the detailed engineering phase, Brown and Caldwell will evaluate the impact of this change on the design conditions and evaluate whether or not MBBR media addition to the Bioreactors will be required as a result.' The Permittee must revise the Report to include all changes to the WWTS to account for the increased benzene load resulting from the removal of Benzene Stripper 3."

Response 2: Section 3.3 has been modified to reflect this comment. The design approach for the upgraded WWTS will be to add MBBR media to the Bioreactors in order to accommodate the higher benzene loading from the shutdown of Benzene Stripper No. 3. However, Western Refining reserves the right to conduct further wastewater treatability studies that may prove media addition is not required.

The modeling of benzene removal efficiency in the Bioreactors was based on a conservative benzene biodegradation rate. The biodegradation rate was taken as the default value from the USEPA WATER9 modeling. Brown and Caldwell's experience is that the WATER9 default biodegradation rates for individual volatile organic compounds typically under predict actual biodegradation rates observed in full-scale systems with acclimated biomass. USEPA recognizes the potential for this underestimation by allowing for the site-specific measurement of biodegradation rates through BOX testing as prescribed in 40 CFR 63 Appendix C.

Should Western Refining elect to perform BOX testing, and should that testing indicate that the addition of MBBR media is not required, then Western Refining will seek approval from OCD to modify the Bioreactor design to exclude media.

> **Comment 3**: "In Section 4.5 (Secondary Containment and Leak Detection), page 4-5, the Permittee states '[t]he proposed design does not include leak detection or containment berms for the Bioreactors (T11 and T12)...However, the Bioreactors will be situated such that a potential leak would flow into EP-1, which is the destination of the Bioreactor effluent.' If the system has a leak, the discharge may not be completely treated and therefore may potentially be characteristic for benzene and/or be a F037/F038 listed waste, which would then enter EP-1. Hazardous waste must not be discharged to EP-1 since it is not permitted by the NMED to receive hazardous waste and requirements in the OCD Discharge Plan. Because the Permittee does not have a NPDES Permit for the WWTS, the tank systems within the WWTS are subject to the requirements of 20.4.1.500 NMAC, incorporating 40 CFR 264 Subpart J. The Permittee must revise this Report to reflect compliance with the requirements of 40 CFR 264 Subpart J and revise the attachments as applicable. The Permittee must also revise the Report to comply with Condition 9 (Above Ground Tanks) of the OCD Discharge Permit (GW-32), dated August 23, 2007. The WWTS cannot be retrofitted and does not qualify for the exemption (tanks that contain fresh water or fluids that are gases at atmospheric temperature and pressure are exempt) under Condition 9 of the OCD Permit."

Response 3: Section 4.5 of the Report has been modified to incorporate this comment. Leak

detection will be provided by installing channels in the concrete foundation under the tank or by an alternative method that is suitable to OCD. The secondary containment for the Bioreactors will be an earthen secondary containment berm (or by an alternative method that is suitable to OCD) and will meet the requirements of Condition 9 of GW-32. As discussed in Response 1, the leak detection and secondary containment for the Bioreactors will not be intended to meet 40 CFR 265 Subpart J requirements, unless it is later determined that a NPDES permit cannot be obtained.

Comment 4: "The Permittee must revise the Report to include the following modifications:

a. The WWTS must contain influent and effluent sampling ports to accommodate sampling at the new API separator, the tank-based separator, and the bioreactors.
b. The WWTS must include air vents for the tank-based separator and the bioreactors. These locations must be constructed to allow for emissions sampling.

The text and attachments must be revised as necessary to address items a and b above."

Response 4: Item (a) of Comment 4 has been addressed by the addition of Section 6.0 Sampling and Analysis to the Report. This new section includes the identification of sampling locations as well as the anticipated parameters and measurement frequencies. The process flow diagrams in Attachment A and Attachment C also include notations to indicate sampling locations.

Item (b) of Comment 4 has been addressed in Section 4.2.4 of the Report for the Tank-based Separator and in Section 4.2.5 of the Report for the Bioreactors. The Tank-based Separator will have an external floating roof that will maintain a condition of no air headspace above the liquid. Further, the roof will have appropriate primary and secondary seals per 40 CFR 60.693-2 (NSPS Subpart QQQ standards), which are designed to prevent a venting situation. Therefore, T10 will have near-zero air emissions and an air emission sampling point is not applicable. The roof will be equipped with pressure and vacuum vents for non-routine start-up/shutdown events. The roofs of the Bioreactors will be equipped with vents to allow the aeration air a means of exiting the tank. A mechanism for sampling the air emissions from the roofs will be included.

Comment 5: "In Section 2.2 (Refinery Wastewaters), page 2-1, the Permittee states '[t]he sanitary wastewater generated at the Refinery and the seven adjacent homes owned by the Refinery currently discharges to the septic systems and not the WWTP. However, the WWTP upgrades will include the option for these sanitary sources to be redirected to the WWTP at a future date at Western Refining's discretion.' If and when the sanitary sources are redirected to the WWTS, the Permittee must notify the OCD and the Gallup Field Office (http://www.nmenv.state.nm.us/NMED/field_op.html) prior to implementing this change over and comply with all requirements. No revision is necessary."

Response 5: The text of Section 2.2 has been revised to affirm Western Refining's intent to implement this change. Ed Riege of Western Refining sent an e-mail to OCD and NMED HWB staff members on April 1, 2009 informing them of this change. Mr. Riege also included drawings for review. As requested above, the same information was emailed to Charles Lundstrom of the Gallup Field Office on April 29, 2009. Please advise if additional notification is required per Comment 5.

Comment 6: "In Section 3.3 (Biological Treatment), page 3-3, the Permittee states '[b]iomass will exit the Bioreactors by being carried out in the Bioreactor effluent. The biomass will settle out in the downstream evaporation ponds, primarily [Evaporation Pond] EP-1. Over time, the settled

biomass may accumulate in EP-1 to the extent that dredging will be required.' The Permittee has allowed upsets with the current WWTS resulting in hazardous waste being discharged to EP-1. Therefore the follow requirements apply and the Permittee must revise the Report to address these requirements.

a. Within 30 days of demonstration that the new WWTS is achieving cleanup criteria, the Permittee must dredge EP-1. The dredged material must be properly characterized and managed for proper disposal. All dredging and waste disposal activities must be approved by both NMED and OCD prior to implementation. The Report must be revised to describe the dredging process, alternatively, the Permittee may submit a separate work plan to NMED and OCD for approval that addresses the dredging activities.

b. After the initial dredging of EP-1, the Permittee must dredge the biomass from EP-1 anytime the biomass accumulation is greater than one foot. The dredged biomass must be properly characterized as nonhazardous if considered for placement in the OCD landfarm to assist the remediation of contamination soil, pending OCD approval. NMED must be included on all correspondence."

Response 6: Dredging of EP-1 will be addressed in the Corrective Measures Implementation Work Plan due to NMED on July 31, 2009. Western Refining will take the position that the initial dredging is not warranted and that the frequency a future dredging events can allow for more than one foot of accumulation.

Comment 7: "In Section 4.2.1 (Stormwater/Diversion tanks), page 4-1, the Permittee states '[i]n the new system, stormwater will flow by gravity to two Stormwater/Diversion Tanks. These tanks are existing with a numerical designation of Z84-T27 and T-28...Stormwater that collects in the tanks will be pumped at a rate of 50 to 200 gpm to the process sewer that feeds to the NAPIS.' Since the stormwater and process wastewater at the refinery comingle, any sludge removed from the bottom of the Stormwater/Diversion tanks must be managed as hazardous waste."

Response 7: Section 4.2.1 of the Report has been revised in to address this comment. This material will normally be recycled to an off-site refining process. If recycling to a refining process is not available, the material removed from the bottom of the Stormwater/Diversion tanks will be managed as a hazardous waste.

Comment 8: "In Section 4.2.1 (Stormwater/Diversion tanks), page 4-1, the Permittee states '[c]leanouts will be installed on the conveyance pipelines to and from the Stormwater/Diversion Tanks. Cleaning events will be scheduled on a regular, recurring basis.' Any sludge removed during the cleanouts of the pipelines must be managed as hazardous waste. The Permittee must revise the Report to address the management of this sludge."

Response 8: Section 4.2.1 of the report has been revised to address this comment. This material will normally be recycled to an off-site refining process. If recycling to a refining process is not available, the cleanout sludge will be managed as a hazardous waste.

Comment 9: "In Section 4.2.5 (Bioreactors), page 4-3 and 4-4 the Permittee states '[t]here will be provisions for diverting the Bioreactor effluent away from EP-1 in the event that the treated water quality it not acceptable. A diversion line will be connected to the combined Bioreactor effluent, with its valve normally closed. To divert, this valve would be opened and the valve to EP-1 closed' and the Permittee later states in Section 4.4 (Management of Off-Spec Wastewater),

page 4-5, that '[i]f at anytime the Bioreactor effluent were deemed unsuitable for discharge to EP--1, it could be diverted to the new Stormwater/Diversion Tanks as described in Section 4.2.5' The Permittee must provide a sampling plan that explains how the Permittee will characterize the effluent from the bioreactors entering EP-1. The sampling plan must identify the location of samples that will be collected and address sampling frequency, water quality parameters, and test methods. The effluent must comply with the Water Quality Control Commission standards found in 20.6.2.3103."

Response 9: Section 6.0 Sampling and Analysis has been added to the Report to provide a sampling plan for the Bioreactor effluent/EP-1 influent.

Meeting the 20.6.2.3103 standards is not a stated treatment objective of the upgraded WWTS. The treatment objectives (as stated in Section 1.4 of the Report) are for there to be no visible free oil and <0.5 mg/L benzene. The concentrations of other parameters are expected to be consistent with the historical data reported for the EP-1 inlet under the GW-32 monitoring requirements.

Comment 10: "In Section 4.3.3 (OAPIS), page 4-5, the Permittee states 'the [Old API Separator] OAPIS will no longer be required and can be decommissioned.'
The OAPIS is Solid Waste Management Unit (SWMU) No. 14. This SWMU is subject to correction action under the Refinery's RCRA Permit. The Permittee must provide a schedule for the submittal of an investigation work plan to assess releases from the OAPIS."

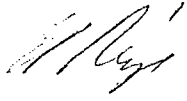
Response 10: A schedule for submitting this investigation work plan will be included in the Corrective Measures Implementation Work Plan due to NMED on July 31, 2009.

Closing

A hardcopy of the revised report is included with this response letter. Additionally, an electronic red-line version of the Report is being emailed. The distribution list for these submittals includes NMED HWB, OCD, and EPA Region 6.

I can be reached at (505) 722-0217 or ed.riege@wnr.com.

Very truly yours,



Ed Riege
Environmental Manager

BILL RICHARDSON
Governor

DIANE DENISH
Lieutenant Governor

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RON CURRY
Secretary

JON GOLDSTEIN
Deputy Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

August 5, 2009

Dear RCRA-Regulated Facilities and Stakeholders:

The New Mexico Environment Department (NMED) revised the *Technical Background Document for Development of Soil Screening Levels* (SSG) issued in June 2006. The SSG, Revision 5.0, dated August 2009, incorporates updated toxicological information, physical/chemical parameters, and fate and transport data.

The SSG is available at:
NMED Technical Background Document for Development of Soil Screening Levels, Rev 5.0 (August 2009)
A redline/strikeout version is also provided on the webpage at:
redline version of Revision 4.0 (June 2006).

Should you have questions regarding the update to the SSG please contact John Kieling at (505) 476-6035.

Sincerely,

James P. Bearzi
Chief
Hazardous Waste Bureau

NEW MEXICO
ENVIRONMENT DEPARTMENT

Hazardous Waste Bureau

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BILL RICHARDSON
Governor

DIANE DENISH
Lieutenant Governor

RON CURRY
Secretary

JON GOLDSTEIN
Deputy Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

August 11, 2009

Mr. Ed Riege
Environmental Superintendent
Western Refining, Southwest Inc.,
Gallup Refinery
Route 3 Box 7
Gallup, New Mexico 87301

Beck Larsen
Environmental Engineer
Western Refining, Southwest Inc.,
Gallup Refinery
Route 3 Box 7
Gallup, New Mexico 87301

SUBJECT: REQUEST FOR CONTAINED-IN DETERMINATION REGARDING CONTAMINATED SOIL REMOVED FROM THE JUNE 10, 2009 API OVERFLOW WESTERN REFINING, SOUTHWEST INC., GALLUP REFINERY EPA ID NO. NMD000333211 HWB-GRCC-MISC

Dear Messrs Riege and Larsen:

The New Mexico Environment Department (NMED) has received Western Refining Southwest Inc., Gallup Refinery's (the Permittee) letter titled *Request For "Contained-In" Determination For Petroleum Contaminated Soils Resulting From API Separator Overflow On June 10, 2009*, dated June 22, 2009. The Permittee is requesting a "contained-in" determination for petroleum contaminated soils excavated in the vicinity of the API separator. The contaminated soil was generated in an overflow at the API separator; therefore, the excavated soil is potentially characteristic for Benzene (D018) and carries the hazardous waste listings for K051 API separator sludge, and F037/F038 primary and secondary oil/water/separation sludge.

NEW MEXICO
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RON CURRY
Secretary

JON GOLDSTEIN
Deputy Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

August 14, 2009

Mr. Ed Riege
Environmental Superintendent
Western Refining, Southwest Inc., Gallup Refinery
Route 3, Box 7
Gallup, New Mexico 87301

RE: INSTALLALATION OF MONITORING WELLS
WESTERN REFINING COMPANY, SOUTHWEST, INC.,
GALLUP REFINERY; EPA ID # NMD000333211
HWB-GRCC-MISC

Dear Mr. Riege:

The New Mexico Environment Department (NMED) required Western Refining Southwest Inc., Gallup Refinery (the Permittee) in a letter dated May 28, 2009, to install two monitoring wells downgradient of wells OW-13 and OW-29 to determine if contaminants are migrating in groundwater toward the north/northwest of the refinery tank farm. Since the issuance of this letter, the Permittee and NMED have exchanged e-mail correspondence pertaining to the installation of the monitoring wells. The Permittee requested to install only one monitoring well and for the installation to occur after monitoring groundwater for two additional quarters. The Permittee proposed that depending on the analytical results of the first well, another well may or may not be necessary. NMED's response in a June 15, 2009 e-mail stated "Gallup may either install two monitoring wells in accordance with NMED's May 28, 2009 letter or install one monitoring well following the requirements in NMED's May 28, 2009 letter and remobilize and install the other well at a later date. Remediation cannot be used as an alternative to installing the monitoring wells" and "[a]fter installing the new monitoring well, we will review the monitoring data and determine if an additional well is necessary. Please submit the monitoring

The Permittee must adhere to all requirements established in NMED's May 28, 2009 letter. If you have questions regarding this letter please contact Hope Monzeglio of my staff at 505-476-6045.

Sincerely,

John E. Kieling
Program Manager
Permits Management Program
Hazardous Waste Bureau

cc: D. Cobrain NMED HWB
H. Monzeglio NMED HWB
C. Chavez, OCD
R. Gaurav, Gallup
File: Reading File and GRCC 2009 File
HWB-GRCC-MISC

August 17, 2009

Via Email [hope.monzeglio@state.nm.us]

Hope Monzeglio
New Mexico Environmental Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6303

Re: Withdrawal of Work Plan

Dear Hope:

This letter serves as Western Refining Gallup's ("Gallup") withdrawal from NMED's consideration of the Process Design Report For Wastewater Treatment Plan Upgrade (Rev. A) prepared by Brown and Caldwell and submitted to NMED on May 26, 2009. As we have discussed, Gallup intends to submit to NMED an alternate wastewater treatment system work plan.

If you have any questions, please let me know.

Sincerely,

Ed Riege
Environmental Manager

BILL RICHARDSON
Governor

DIANE DENISH
Lieutenant Governor

NEW MEXICO ENVIRONMENT DEPARTMENT

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RON CURRY
Secretary

JON GOLDSTEIN
Deputy Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

August 27, 2009

Mr. Ed Riege
Environmental Superintendent
Western Refining, Southwest Inc., Gallup Refinery
Route 3, Box 7
Gallup, New Mexico 87301

RE: INTERIM MEASURES WORK PLAN REQUIREMENTS
WESTERN REFINING COMPANY, SOUTHWEST, INC.,
GALLUP REFINERY; EPA ID # NMD000333211
HWB-GRCC-MISC

Dear Mr. Riege:

The EPA Compliant and Consent Agreement and Final Order (CAFO) requires Western Refining Southwest,.Inc., Gallup Refinery (Gallup) to submit to the New Mexico Environment Department (NMED) an Interim Measures Work Plan (Work Plan) pursuant to Section IV (Compliance Order) item 100) D. The objective of the Work Plan is to monitor Gallup's ability to prevent discharge of hazardous waste into Aeration Lagoon 1 and Aeration Lagoon 2 (AL-1 and AL-2). The CAFO states "[d]ischarge of any hazardous wastewater to any surface impoundment shall cease within 120 days following NMED's approval of the Interim Measures Workplan, unless such discharge complies with applicable RCRA requirements."

This letter provides general requirements that need to be included in the Work Plan. The Work Plan must identify the interim measures that will be implemented to eliminate wastewater characteristically hazardous for benzene from entering AL-1 and AL-2. Gallup must continue to sample the effluent wastewater at their current frequency to demonstrate compliance and consistently achieve the discharge limit below 0.5 mg/L during the initial 120 days after the effective date of the CAFO. In addition, Gallup must measure effluent flow rates during that same time period from the waste streams discharging to AL-1 and EP-1 on a weekly basis. The flow rate measurements must be submitted to NMED on the first day of each month. Reporting the flow rate data by e-mail is acceptable.

If you have questions regarding this letter please contact Hope Monzeglio of my staff at 505-476-6045.

Sincerely,

John E. Kieling
Program Manager
Permits Management Program
Hazardous Waste Bureau

cc: D. Cobrain NMED HWB
H. Monzeglio NMED HWB
C. Chavez, OCD
A. Allen, Western Refining Southwest, Inc.
D. Edelstein, EPA Region 6
J. Dougherty, EPA Region 6
File: Reading File and GRCC 2009 File
HWB-GRCC-MISC

NEW MEXICO
ENVIRONMENT DEPARTMENT

Hazardous Waste Bureau

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Deputy Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

August 27, 2009

Mr. Ed Riege
Environmental Superintendent
Western Refining, Southwest Inc., Gallup Refinery
Route 3, Box 7
Gallup, New Mexico 87301

**RE: INTERIM MEASURES WORK PLAN REQUIREMENTS
WESTERN REFINING COMPANY, SOUTHWEST, INC.,
GALLUP REFINERY; EPA ID # NMD000333211
HWB-GRCC-MISC**

Dear Mr. Riege:

The EPA Compliant and Consent Agreement and Final Order (CAFO) requires Western Refining Southwest, Inc., Gallup Refinery (Gallup) to submit to the New Mexico Environment Department (NMED) an Interim Measures Work Plan (Work Plan) pursuant to Section IV (Compliance Order) item 100) D. The objective of the Work Plan is to monitor Gallup's ability to prevent discharge of hazardous waste into Aeration Lagoon 1 and Aeration Lagoon 2 (AL-1 and AL-2). The CAFO states "[d]ischarge of any hazardous wastewater to any surface impoundment shall cease within 120 days following NMED's approval of the Interim Measures Workplan, unless such discharge complies with applicable RCRA requirements."

This letter provides general requirements that need to be included in the Work Plan. The Work Plan must identify the interim measures that will be implemented to eliminate wastewater characteristically hazardous for benzene from entering AL-1 and AL-2. Gallup must continue to sample the effluent wastewater at their current frequency to demonstrate compliance and consistently achieve the discharge limit below 0.5 mg/L during the initial 120 days after the effective date of the CAFO. In addition, Gallup must measure effluent flow rates during that same time period from the waste streams discharging to AL-1 and EP-1 on a weekly basis. The flow rate measurements must be submitted to NMED on the first day of each month. Reporting the flow rate data by e-mail is acceptable.

As a contingency, Gallup must submit the Work Plan to conduct additional action in the event they are unable to maintain compliance with the discharge limits. Gallup must implement the Work Plan in addition to the current sampling regime if they are unable to achieve compliance with the discharge limits at any time between the effective date of the CAFO and 120 days from the date of NMED's approval of the Work Plan. The Work Plan must include the following:

a. Beginning on day 121, Gallup must collect daily effluent samples of wastewater entering AL-1 and AL-2 for analyses of benzene, toluene, ethylbenzene, and xylenes (BTEX). The effluent wastewater samples must be submitted to a certified off-site laboratory and analyzed using EPA Method 8021B or EPA Method 8260. The analytical results for each sample must be submitted to NMED within four days of collection. The laboratory results may be forwarded to NMED by e-mail or sent in hard copy.

b. Daily effluent wastewater samples must be collected until NMED is satisfied that Gallup is consistently achieving the discharge limit of 0.5 mg/L. Based on the sampling results, NMED will adjust the frequency of sampling.

c. Gallup must measure discharge flow rates entering AL-1 and entering Evaporation Pond 1 (EP-1) on a daily basis. The daily discharge flow rates must be submitted every Friday beginning on day 121. E-mail reporting of this data is acceptable.

d. Gallup must provide a detailed explanation of how all effluent wastewater samples are proposed to be collected.

The Work Plan must be submitted within 30 days of the effective date of the CAFO. If Gallup is unable to achieve the discharge limits, it is subject to the stipulated penalties included in Section V. (Civil Penalty and Terms of Settlement), item B (General Provisions) 110.

If you have questions regarding this letter please contact Hope Monzeglio of my staff at 505-476-6045.

Sincerely,

John E. Kieling
Program Manager
Permits Management Program
Hazardous Waste Bureau

cc: D. Cobrain NMED HWB
H. Monzeglio NMED HWB
C. Chavez, OCD
A. Allen, Western Refining Southwest, Inc.
D. Edelstein, EPA Region 6
J. Dougherty, EPA Region 6
File: Reading File and GRCC 2009 File
HWB-GRCC-MISC

BILL RICHARDSON
Governor

DIANE DENISH
Lieutenant Governor

NEW MEXICO ENVIRONMENT DEPARTMENT

Hazardous Waste Bureau

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www.nmenv.state.nm.us

RON CURRY
Secretary

JON GOLDSTEIN
Deputy Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

September 1, 2009

Mr. Ed Riege
Environmental Superintendent
Western Refining, Southwest Inc., Gallup Refinery
Route 3, Box 7
Gallup, New Mexico 87301

RE: APPROVAL WITH MODIFICATION
PROCESS DESIGN REPORT FOR WASTEWATER TREATMENT PLANT UPGRADE (REV. A)
WESTERN REFINING COMPANY, SOUTHWEST, INC., GALLUP REFINERY
EPA ID # NMD000333211
HWB-GRCC-09-002

Dear Mr. Riege:

The New Mexico Environment Department (NMED) has reviewed the *Process Design Report For Wastewater Treatment Plan Upgrade (REV. A)* (Work Plan), dated May 26, 2009, submitted on behalf of Western Refining Company, Southwest Inc., Gallup Refinery (the Respondent). On August 17, 2009, NMED received an e-mail with an attached letter from the Respondent stating "[t]his letter serves as Western Refining Gallup's ("Gallup") withdrawal from NMED's consideration of the Process Design Report For Wastewater Treatment Plan Upgrade (Rev. A) prepared by Brown and Caldwell and submitted to NMED on May 26, 2009. As we discussed, Gallup intends to submit to NMED an alternative wastewater treatment system work plan." The

b. As long as the Respondent continues to treat wastewater in AL-1 and AL-2 that is characteristically hazardous for benzene, the facility is treating hazardous waste. The CAFO allows the Respondent 120 days from NMED's approval of an Interim Measure Work Plan to achieve compliance.

c. The regulations cited by the Respondent ("HWA [sic] 20.4.1.600 and 40 CFR 265") are incorrect. The Respondent has not met the requirements for interim status; therefore, 40 CFR 265 (20.4.1.600 NMAC) does not apply.

d. The CAFO appropriately requires the Respondent to comply with the hazardous waste generator requirements found in 20.4.1.300 NMAC (incorporating) 40 CFR 262.34(a).

Comment 2/Repsonse 2
In the Response Letter, Response 2, the Respondent states "[s]hould Western Refining elect to perform BOX testing, and should that testing indicate that the addition of the MBBR media is not required, then Western Refining will seek approval from OCD to modify the Bioreactor design to exclude media."

NMED Response: The Respondent must also obtain approval from NMED to modify any portion of the wastewater treatment system.

Comment 4/Response 4
In the Response letter, Comment 4, NMED states "[t]he WWTS must contain influent and effluent sampling ports to accommodate sampling at the new API separator...."

NMED Response: From review of Section 6.1 (Sampling Locations), the influent to the API separator cannot be sampled. NMED reserves the right to require sampling of the influent entering the new API separator and the Respondent must be capable of collecting such samples.

Comment 6/Response 6
In the Response letter, Comment 6/Response 6 addresses dredging of Evaporation Pond 1 (EP-1). The Respondent responded stating "[d]redging of EP-1 will be addressed in the Corrective Measures Implementation Work Plan due to NMED on July 31, 2009. Western Refining will take the position that the initial dredging is not warranted and that the frequency a [of] future dredging events can allow for more than one foot of accumulation."

NMED Response: Storm water at the refinery comingles with process water and therefore potentially contains hazardous waste (D018 and F037/F038 listed wastes). The Respondent is not allowed to accumulate hazardous waste in Tanks T27 and T28 for more than 90 days. Therefore, the Respondent's must design their storm water system to direct the ongoing low flow of process wastewater in the storm water system to the API separator except during storm events when higher flows trigger diversion of storm water to Tanks T27 and T28 at flow rates greater than approximately 30 gallons per minute (gpm) to prevent flow rates from exceeding capacity of the API separator or wastewater treatment system.

Comment B

In Section 4.2.4 (Tank-Based Separator), page 4-2, paragraph 5, the Respondent states "[t]he Tank-based separator is not designed to be compliant with 40 CFR 265 Subpart J due to Western Refining's intention to obtain an NPDES permit for the WWTP. If an NPDES permit cannot be obtained, the design of the Tank-based separator will be modified to be compliant with 40 CFR 265 Subpart J."

NMED Response: The CAFO requires the Respondent to comply with the requirements found in 20.4.1.300 NMAC (incorporating) 40 CFR 262.34(a). This applies to all applicable sections within the Work Plan (e.g. Section 4.2.5 (Bioreactors), paragraph 1 and Section 4.5 (Secondary Containment and Leak Detection)).

Comment C

In Section 4.6 (Alternative Upgrade Approach), page 4-6, last sentence, the Respondent states "Western Refining will submit the alternative design approach to OCD for approval prior to implementation."

NMED Response: The Respondent discussed an alternative approach to the upgraded WWTS to NMED and OCD in a meeting on July 1, 2009 that addressed the use of Macro Porous Polymer Extraction and a dissolved gas flotation unit. On August 17, 2009, the Respondent submitted a letter withdrawing the Process Design Report For Wastewater Treatment Plan Upgrade (REV. A). If the Respondent chooses to pursue an alternative wastewater treatment system, a new work plan must be submitted to OCD and NMED for approval by both agencies. The new work plan must describe all aspects of the alternative design. The implementation of an alternative approach will not change the deadline established in Comment D below which provides a deadline for the start of operation of an upgraded WWTS.

Effluent (i.e., "Effluent from the new API Separator) as required by Condition 19 of GW-032...." The Respondent must also obtain approval from NMED. Since this page is being resubmitted, this proposed revision must be included with the replacement pages.

Comment G

During the month of June 2009, the refinery reported an overflow at the API separator due to intense rain events. The API separator must be able to handle storm water surges caused by rain events. The overflow at the API separator implies that the storm water and the process water sewer systems are still interconnected. The Respondent must account for intense rain events in the wastewater treatment system design to ensure API overflows do not occur in the future.

The Respondent must comply with all comments contained in this letter. The replacement page(s) as specified must be submitted to NMED and OCD on or before September 25, 2009 in the event that an alternate wastewater treatment system design plan is not submitted. Provided that the Respondent complies with all the requirements of this letter, NMED approves the May 26, 2009 Work Plan. In any event, the upgraded wastewater treatment system must be installed and operating by September 4, 2010.

If you have questions regarding this letter please contact Hope Monzeglio of my staff at 505-476-6045.

Sincerely,

James P. Bearzi
Chief
Hazardous Waste Bureau

cc: J. Kieling, NMED HWB
D. Cobrain NMED HWB
H. Monzeglio, NMED HWB
C. Chavez, OCD
G. Rajen, Gallup
J. Dougherty, EPA Region 6
D. Edelstein, EPA Region 6
A. Allen, Western
File: Reading File and GRCC 2009 File
HWB-GRCC-09-002

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NEW MEXICO ENVIRONMENT DEPARTMENT

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RON CURRY
Secretary

JON GOLDSTEIN
Deputy Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

September 15, 2009

Mr. Ed Riege
Environmental Superintendent
Western Refining, Southwest Inc.,
Gallup Refinery
Route 3 Box 7
Gallup, New Mexico 87301

Mr. Beck Larsen
Environmental Engineer
Western Refining, Southwest Inc.,
Gallup Refinery
Route 3 Box 7
Gallup, New Mexico 87301

SUBJECT: FORMAL REPORT SUBMITTAL TO THE SEPTEMBER 5, 2009 API SEPARATOR OVERFLOW WESTERN REFINING, SOUTHWEST INC., GALLUP REFINERY EPA ID NO. NMD000333211 HWB-GRCC-MISC

Dear Messrs Riege and Larsen:

The New Mexico Environment Department (NMED) requires Western Refining Southwest Inc., Gallup Refinery (the Permittee) to submit a formal report summarizing the events and actions taken to address the API separator overflow which occurred on September 5, 2009. This spill released K051, F038, and potentially D018 hazardous wastes into the environment. As a reminder, the Permittee must comply with Section II.F.2 (Twenty-four Hour Reporting) of the Post-Closure Care Permit which can be found using the following link: http://www.nmenv.state.nm.us/hwb/giant/GRC-C%20PCC%20PERMIT.pdf.

The Permittee met the 24-hour oral reporting requirements by contacting Steve Connolly, the NMED Incident Response Coordinator. When reporting all future spills, the facility may continue to contact Steve Connolly; however, the Permittee must also contact the Project Leader for Gallup (Hope Monzeglio) of the Hazardous Waste Bureau.

September 24, 2009

John Kieling, Program Manager
New Mexico Environmental Department
Permits Management Program
Hazardous Waste Bureau
2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6303

Joel Dougherty (6EN-HE)
Hazardous Waste Enforcement Branch
U.S. EPA Region 6, Suite 1200
1445 Ross Ave.
Dallas, TX 75202-2733

RE: **INTERIM MEASURES WORK PLAN, WESTERN REFINING COMPANY, SOUTHWEST INC., GALLUP REFINERY; EPA ID #NMD000333211**

Dear Mr. Kieling,

Enclosed please find the Western Refining Gallup's ("Gallup") Interim Measures Work Plan (Work Plan) pursuant to Section IV (Compliance Order) item 100.D of the Consent Agreement and Final Order ("CAFO") between Western, NMED and U.S. EPA Region 6.

I certify that the information contained in or accompanying this submission is true, accurate and complete. As to those identified portions of this submission for which I cannot personally verify the truth and accuracy, I certify as the company official having supervisory responsibility for the person(s) who, acting upon my direct instructions, made the verification, that this information is true, accurate, and complete.

Thank you for your review of this Work Plan. Please feel free to contact Ed Riege at 505-722-0217 with any questions.

Sincerely,

Mark B. Turri
Refinery Manager

cc: Hope Monzeglio NMED HWB
Carl Chavez OCD
Ann Allen Western Refining
Ed Riege Western Refining

Western Refining

GALLUP REFINERY

WNR LISTED NYSE

Certified Mail #7008 2810 0000 4726 1024

September 24, 2009

John Kieling, Program Manager
New Mexico Environmental Department
Permits Management Program
Hazardous Waste Bureau
2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6303

RE: **INTERIM MEASURES WORK PLAN, WESTERN REFINING COMPANY, SOUTHWEST INC., GALLUP REFINERY; EPA ID #NMD000333211**

Dear Mr. Kieling,

Enclosed please find the Western Refining Gallup's ("Gallup") Interim Measures Work Plan (Work Plan) pursuant to Section IV (Compliance Order) item 100.D of the Consent Agreement and Final Order ("CAFO") between Western, NMED and U.S. EPA Region 6.

Thank you for your review of this Work Plan. Please feel free to contact me with any questions.

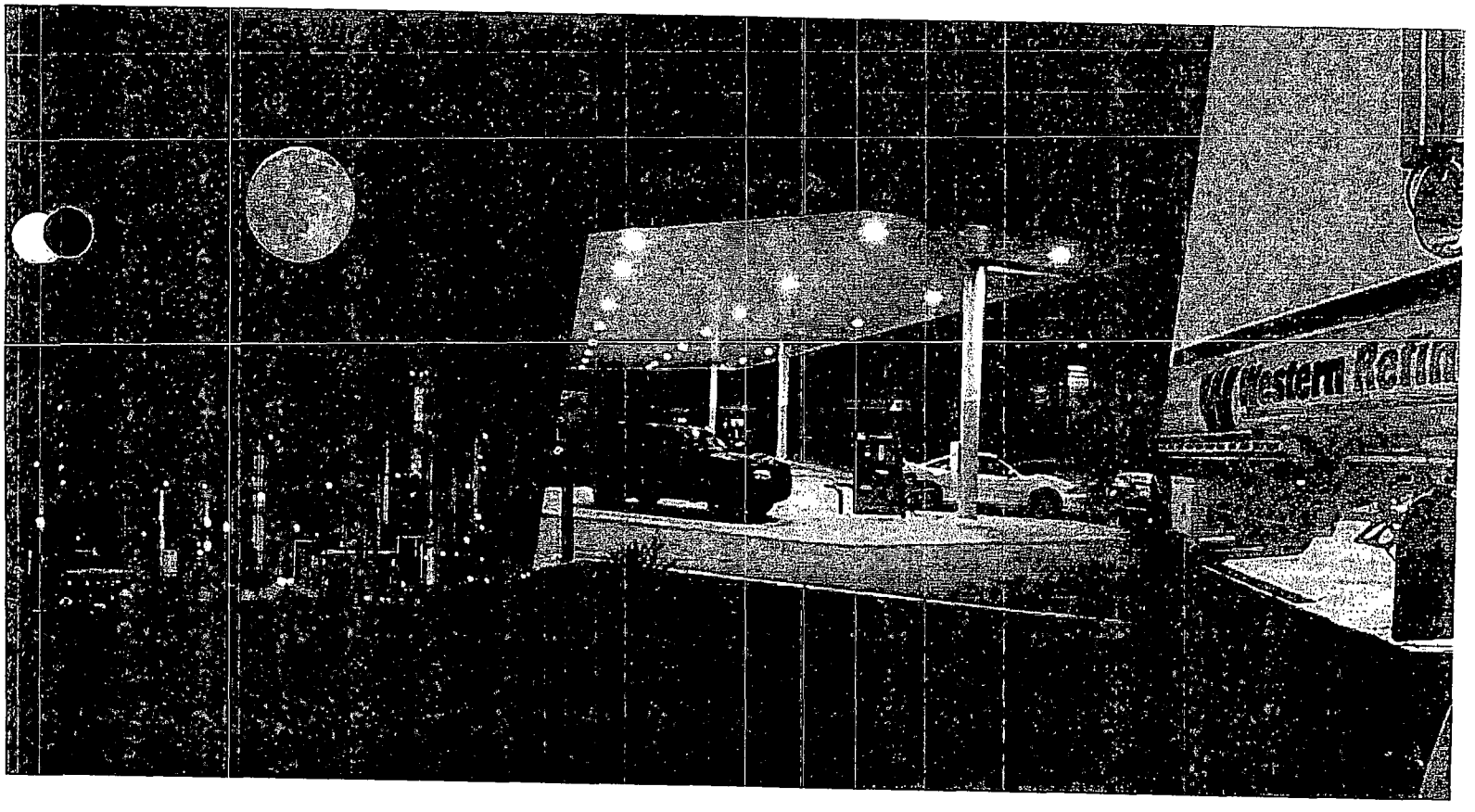
Sincerely,

Ed Riege
Environmental Manager

cc: Hope Monzeglio NMED HWB
Carl Chavez OCD
Mark Turri Western Refining
Ann Allen Western Refining

Interim Measures Work Plan to Comply with RCRA Standards for Discharge of Wastewater to Surface Impoundments

Western Refining
Gallup, New Mexico



September 2009

Executive Summary

This report describes Western Refining's Interim Measures Work Plan to comply with RCRA standards on discharge of wastewater containing benzene to surface impoundments. The proposed Interim Measures fall into 3 categories: (i) physical/design changes to the wastewater treatment system; (ii) an aggressive monitoring and reporting schedule; and (iii) submittal of status reports to the NMED. The most important element of this plan is to install a fourth stripper prior to the two existing strippers that processes effluent from the new API separator. This new stripper will substantially increase the removal efficiencies of the current stripper system and will consistently result in benzene levels less than 0.5 ppm in our treated wastewater before it enters Aeration Lagoon-1 (AL-1). In addition to the fourth stripper, we propose aggressive monitoring and sampling schedules (divided into three distinct periods). We hope that by establishing compliance well ahead of any mandatory need to do so (the CAFO provides a period of 120 days for Western Refining to come into compliance), we will be able to satisfy our future compliance requirements with a relaxed monitoring schedule (to be set by the NMED).

Since early 2009, many months before the Consent Agreement and Final Order ("CAFO") went into effect, the Gallup Refinery undertook to evaluate, develop and implement a series of improvements to the Refinery's existing wastewater treatment system. The goal is to achieve consistent compliance with RCRA standards for benzene containing wastewater discharges to surface impoundments. A working group of the refinery manager, engineers, and operators was created that meets bi-weekly. Personnel from our sister refinery in El Paso were invited to visit the Gallup Refinery and share their experience. Consultants and manufacturers' representatives were brought on-site and their recommendations were implemented. A temporary tank was located next to the new API separator which allowed all overflows to be contained and later sent through the wastewater treatment system. This ensures that only treated wastewater enters AL-1.

Key issues related to the existing benzene strippers were identified as – improper mixing of air and water; fouling of the internal packing media; and inefficient oil recovery in the new API oil/water separator. A series of steps to improve the performance of the strippers by addressing these key issues were identified. Some have been implemented and others are in progress. Simultaneously, a program of source control to reduce oil reaching the sewers was instituted. A need for rapid screening tests was also identified, and we implemented a testing program at our internal laboratory to provide screening data on a more frequent basis than the analyses done at an external EPA and NMED certified laboratory. Performance of the strippers has been considerably enhanced, and overall benzene levels in the strippers' outlet have dropped substantially. In the past two months, on average, we have maintained outlet benzene levels below 0.5 ppm.

The Interim Measure Work Plan surveyed the compliance requirements of other refineries in the nation and proposes that compliance for the Gallup Refinery be determined based on a rolling annual average calculated from weekly grab samples of our treated wastewater. We present a detailed discussion of this issue in Appendix A.

In summary, our major requests for approval are –

- Western Refining will install a fourth benzene stripper as an interim measure. However, Western Refining proposes that it retain the discretion not to implement measures that would, therefore, be unnecessary to achieve compliance. For example, if improved performance of our existing two strippers meets compliance, the fourth rental stripper may be discontinued.
- Western Refining has proposed an aggressive monitoring plan designed to provide meaningful information to the NMED and Western Refining well enough in advance of the conclusion of the Interim Measures period to allow for adjustments in the Interim Measures. Western Refining seeks approval to sample at different frequencies and report on corresponding different schedules during three (3) discrete periods identified in this plan. Western Refining proposes an increased sampling and reporting protocol as a contingency if our wastewater is found to be out of compliance.
- Western Refining requests approval that compliance be demonstrated by calculating a rolling annual average of weekly grab samples of strippers' effluent tested for benzene. This is a standard applied to other refineries.

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1.0 Introduction and Background

The August 26, 2009 Consent Agreement and Final Order ("CAFO") between and among Western Refining Southwest, Inc. ("Western Refining"), the New Mexico Environment Department ("NMED"), and the U.S. Environmental Protection Agency (EPA) Region 6. Section IV, Paragraph 100.D. requires Western Refining to submit to NMED for approval an Interim Measures Work Plan for "ceasing the discharge of any hazardous wastewater to any surface impoundment, unless such discharge complies with applicable RCRA standards" at Western Refining's Gallup Refinery. In accordance with that requirement, Western Refining seeks NMED's approval to conduct the activities identified in this Interim Measures Work Plan (the "IM Work Plan") which are designed to eliminate the discharge of wastewater exhibiting the toxicity characteristic of benzene from entering Aeration Lagoon 1 (AL-1) at the Gallup Refinery.

In early 2009, many months before the CAFO went into effect, the Gallup Refinery undertook to evaluate, develop and implement a series of improvements to the refinery's existing wastewater treatment system with a goal of achieving consistent compliance with RCRA standards for discharges to surface impoundments.

A working group of the refinery manager, engineers, and operators was created that meets bi-weekly. A list of action items was developed that are being evaluated and implemented. Personnel from our sister refinery in El Paso were invited to visit the Gallup Refinery and share their experience. Consultants and manufacturers' representatives were brought on-site and their recommendations were implemented.

2.0 Current Conditions

Key issues related to the benzene strippers were identified as – improper mixing of air and water; fouling of the internal packing media; and inefficient oil recovery in the new API oil/water separator. A series of steps to improve the performance of the strippers by addressing these key issues were identified. Some have been implemented and others are in progress. Simultaneously, a program of source control to reduce oil reaching the sewers was instituted. A need for rapid screening tests was also identified, and we implemented a testing program at our internal laboratory to provide screening data on a more frequent basis than the analyses done at an external EPA and NMED certified laboratory.

A temporary tank was located next to the new API separator which allowed all overflows to AL-1 to be contained and later sent back through the wastewater treatment system.

Performance of the strippers has been considerably enhanced, and overall benzene levels have dropped substantially in the outlet of the strippers. In the past two months, on average, we have maintained outlet benzene levels below 0.5 ppm.

2.1 Voluntary Measures Implemented

Table 1 lists measures that have been implemented. These are grouped as follows: 1) Source control; 2) Improvements to the performance of the strippers; 3) Improvements to the performance of the new API separator.

Table 1: Recent measures that have been implemented

Measures	Activity	Activity Status
Source Control		
Desalter Optimization	Use NALCO recommendations to optimize the operation of the two desalters.	The Operations staff completed the necessary steps to optimize the desalters and they are currently running efficiently.
Improve Strippers' Performance		
Determine if packing height in the benzene towers requires modification	Determine if there is adequate packing in the tower and if a new packing design would be appropriate	Packing height is adequate. New packing identified and has been stocked for future use. This packing was installed during the last change-out.
Air to Water Ratio in Benzene Strippers	Determine the right mixture of air to water in the current strippers	There is currently adequate air flow; the Process Department will use a pitot tube to verify that the air flow maintains an adequate flow rate.
Specify new distribution nozzles for the Benzene Strippers	Determine what type of spray nozzle would help distribution of benzene contaminated water over the packing	Installed new spray nozzles on strippers one and two; these will provide well-distributed flow of water over the entire packing.
Upgrade air ducting for Benzene Strippers 1 and 2	Find and plug holes in air piping	The new ducting has been fabricated and installed.
Improve New API Separator Performance		
Change API inlet piping	Create larger inlets	The new installed piping will provide an equal flow to both bays
Create second sample point to monitor API inlet	Install new sample point	New sample point is installed
API separator skimmer level	Find a method or mechanical device that will determine the oil level in the API bays.	The Operations Department determined that a visual inspection of the level is adequate.
Put Weir Box back into service	Perform tests to determine if Weir Box functions properly with API separator modifications; reconnect Weir Box level indicator	The Weir Box is in service and no problems with its operation have been encountered

2.2 Voluntary Measures In-Progress

There are additional measures that are in the process of being evaluated. These are also related to - 1) source control; 2) improvements to the performance of the strippers; 3) improvements to the performance of the new API separator. Among such measures, for example, are enhanced process controls in the API separator, such as temperature, level controls, and etc.

These activities are intended to be implemented incrementally until such time as compliance is consistently achieved.

3.0 Proposed Interim Measures Requiring NMED Approval

Although Western Refining believes that the recent sampling results are indicative of progress resulting from evaluation and implementation of the measures listed in Table 1, in order to ensure compliance with the CAFO, Western Refining has identified the following proposed Interim Measures that will be implemented on an expedited schedule upon the effective date of this IM Work Plan. The proposed Interim Measures fall into 3 categories: (i) physical/design changes to the wastewater treatment system; (ii) an aggressive monitoring and reporting schedule; and (iii) submittal of status reports to the NMED.

3.1 Physical/Design Changes

The most significant change is that we have rented an additional stripper which has a removal efficiency rated higher than our current strippers. This is a Carbonair STAT 400 that will assist in controlling benzene along with the two existing strippers which are located after the oil water separator. See Appendix B for a specification sheet, description, and photos of the new rental stripper. (This element was discussed with NMED in the negotiation of the CAFO.)

In order to move this element of the Interim Measures Work Plan along as quickly as possible, Western Refining submitted a technical air permit application to NMED on August 24, prior to the effective date of the CAFO. A conference call was held on September 15, 2009, with the AQB in which Western Refining requested enforcement discretion to install the rental stripper along with pilot wastewater treatment test equipment. The AQB accepted the general outline of the Western Refining proposal and requested some additional information that will be submitted this week.

Once the new rental stripper system is installed we will have an enhanced stripper system made up of three strippers – a single stripper in series with two others in parallel. Flow from the API separator will first flow to one of two filter pots followed by the rental

stripper. Flow will then be split between the two existing strippers, treated further, and then discharged to AL-1. If Gallup can achieve continuous compliance using the rental stripper, then Western Refining proposes that it retains the discretion not to run one or both of the existing strippers.

During the interim period, Western Refining will continue to operate the benzene stripper three (BZ-3) located upstream of the NAPI next to the units whose main influent is desalter effluent.

When compliance is consistently demonstrated during the Interim Measures Period prior to implementation of all above measures, Western Refining proposes that it retain the discretion not to implement measures that would, therefore, be unnecessary to achieve compliance. For example, if improved performance of our existing two strippers meets compliance, the fourth rental stripper may be discontinued.

3.2 Monitoring and Reporting

Western Refining proposes an aggressive monitoring plan designed to provide meaningful information to Western Refining and the NMED. This plan will be implemented well enough in advance of the conclusion of the Interim Measures period to allow for adjustments in the Interim Measures, if needed. Western Refining will commence sampling and analyzing, as described, even in advance of NMED's approval of the IM Work Plan to provide the best database for comparison.

We believe compliance is best demonstrated by calculating a rolling annual average of weekly grab samples which is the standard applied to other refineries (see Appendix A for a detailed discussion).

Western Refining proposes to sample at different frequencies and report on corresponding schedules during three (3) discrete periods identified below. Western Refining proposes an increased sampling and reporting protocol as a contingency under certain circumstances. Table 2 at the end of this section summarizes the different sampling locations and frequencies for BTEX+MTBE monitoring and reporting.

Flows will be monitored at inlets to AL-1 and EP-1 on a daily basis and reported on the fifth business day of each month for the previous month.

Flows through BZ-3 are currently estimated and reported to the NMED/HWB. This will be discontinued at the end of Period 1, as we believe BZ-3 will not need to be monitored any more to determine compliance at AL-1. BZ-3 will continue to be monitored as a part of our air quality permit's emissions monitoring requirements.

3.2.1 Period 1: First 75 days from the Effective Date of the Interim Measures Work Plan

During Period 1, Western Refining proposes to collect (i) weekly effluent samples of wastewater entering AL-1 and exiting BZ-3 for analyses of benzene, toluene, ethylbenzene, and xylenes plus MTBE (BTEX + MTBE) and (ii) monthly inlet samples of wastewater entering BZ-3 and exiting the New API Separator for analyses of benzene, toluene, ethylbenzene, and xylenes plus MTBE (BTEX + MTBE). The analytical results for each sample will be submitted to NMED within five (5) business days of receipt of report from the external laboratory during Period 1. (The refinery currently is required to provide effluent sampling data 30 days after the end of each month.) The laboratory results will be forwarded to NMED by e-mail or sent in hard copy.

Western Refining also will measure effluent flow rates from the waste streams discharging to AL-1 and EP-1 on a daily basis. The flow rate measurements for the previous month will be submitted to NMED on the fifth business day of each month. Reporting the flow rate by email is acceptable.

Finally, Western Refining will estimate the monthly average gallons per minute through the benzene stripper BZ-3 located in the process area. The flow rate estimate will be submitted to NMED by the fifth business day of each month. Reporting the flow rate by email is acceptable.

3.2.2 Period 2: 75 days to 120 days from the Effective Date of the Interim Measures Work Plan

During Period 2, Western Refining will collect effluent samples two (2) times a week of wastewater entering AL-1 for analyses of benzene, toluene, ethylbenzene, and xylenes plus MTBE (BTEX + MTBE). The analytical results for each sample will be submitted to NMED within five (5) days of receipt of report from the external laboratory during Period 2. (The refinery currently is required to provide effluent sampling data 30 days after the end of each month.) The laboratory results will be forwarded to NMED by e-mail or sent in hard copy.

Western Refining will continue to measure effluent flow rates from the waste streams discharging to AL-1 and EP-1 on a daily basis. The flow rate measurements for the previous month will be submitted to NMED on the fifth business day of each month. Reporting the flow rate by email is acceptable.

3.2.3 Period 3: 120 days from the Effective Date of the Interim Measures Work Plan to startup of new upgraded wastewater treatment system

During Period 3, Western Refining will collect weekly effluent samples of wastewater entering AL-1 for analyses of benzene, toluene, ethylbenzene, and xylenes plus MTBE (BTEX + MTBE). The analytical results for each sample will be submitted to NMED

within five (5) business days of receipt of the report from the external laboratory during Period 3. (The refinery currently is required to provide effluent sampling data 30 days after the end of each month.) The laboratory results will be forwarded to NMED by e-mail or sent in hard copy.

Western Refining will continue to measure effluent flow rates from the waste streams discharging to AL-1 and EP-1 on a daily basis. The flow rate measurements for the previous month will be submitted to NMED on the fifth day of each month. Reporting the flow rate by email is acceptable.

3.2.4 Contingency Sampling and Reporting

In the event that discharges to AL-1 have not achieved a rolling average benzene concentration level less than 0.5 ppm during Period 2 or thereafter, Western Refining will immediately implement the following contingency sampling and reporting activities in addition to the ongoing sampling regime.

a) Beginning on day 121, if an exceedance occurs, Western Refining will collect daily effluent samples of wastewater entering AL-1 and EP-1 for analyses of benzene, toluene, ethylbenzene, and xylenes (BTEX). The effluent wastewater samples will be submitted to a certified off-site laboratory and analyzed using EPA Method 8021B or EPA Method 8260. The analytical results for each sample will be submitted to NMED within four days of collection. The laboratory results may be forwarded to NMED by e-mail or sent in hard copy.

b) Daily effluent wastewater samples will be collected until three consecutive days of achieving the discharge limit of 0.5 mg/L. After this period, Western Refining will again revert to the sampling frequency of Period 3.

c) Western Refining will measure discharge flow rates entering AL-1 and entering Evaporation Pond 1 (EP-1) on a daily basis. The daily discharge flow rates must be submitted to NMED every Friday beginning on day 121. E-mail reporting of this data is acceptable.

3.3 Status Reports

Western Refining believes an important part of implementation of Interim Measures is a regular and frequent series of communications between Western Refining and NMED during the Interim Measures period. Western Refining proposes a monthly summary progress reports on measures being implemented. These reports will be submitted five (5) business days after the end of each month or quarter.

Table 2: Schedule of sampling and reporting in various periods for BTEX + MTBE in treated wastewater entering AL-1

Period	Sample locations	Frequency	Reporting to NMED
Period 1: First 75 days after IM Work Plan approved	Inlet to AL-1 and outlet of BZ-3	Weekly	5 business days after receipt of laboratory reports
Period 2: 75 to 120 days after IM Work Plan approved	Inlet to AL-1	2 times/week	5 business days after receipt of laboratory reports
Period 3: 120 days onwards after IM Work Plan approved	Inlet to AL-1	Weekly	5 business days after receipt of laboratory reports
Contingency – after any non-compliance	Inlet to AL-1	Daily, until three consecutive days of achieving the discharge limit of 0.5 mg/L	Four days after sample collection

4.0 Schedule

Western Refining is prepared to implement this Interim Measures Plan upon NMED HWB approval.

5.0 Summary of Major Approval Requests

- The most important element of the Interim Measures Work Plan is to install a fourth stripper.
- Western Refining has proposed an aggressive monitoring plan designed to provide meaningful information to Western Refining and the NMED well enough in advance of the conclusion of the Interim Measures period to allow for adjustments in the Interim Measures, if needed. Western Refining seeks approval to sample at different frequencies and report on corresponding different schedules during three (3) discrete periods identified in this plan. Additionally, Western Refining proposes an increased sampling and reporting protocol as a contingency if our wastewater is found to be out of compliance.
- Western Refining requests approval that compliance be demonstrated by calculating a rolling average on an annual basis of weekly grab samples of strippers' effluent tested for benzene. This is a standard applied to other refineries.

Appendix A: Sampling Methodology

All effluent wastewater samples described in this plan will be submitted to a certified off-site laboratory and analyzed using EPA Method 8021B or EPA Method 8260.

Based on weekly grab samples, we will then calculate a rolling average to determine compliance. Rolling average is calculated over the days of sample collection until 365 days of data are collected after which the annual average for any given day will be calculated using that day's data and the prior 364 days of data. These quotes from the American Petroleum Institute (API)[1] best describe our situation and suggested strategy –

"A representative sample of solid waste is defined at 40 CFR 260.10. This definition is as follows:

- "*Representative sample* means a sample of a universe or a whole (e.g., waste pile, lagoon, ground water) which can be expected to exhibit the average properties of the universe or whole."
- See *U.S.* v. *WCI Steel*, 72 F.Supp.2d 810, 820 –25 (N.D. OH 1999) (samples from surface impoundment must be representative of the "whole" impoundment, as by random sampling).

"The toxicity characteristic (TC) regulation at 40 CFR 261.24 states that a waste is hazardous if an extract of a *representative sample* of the waste exceeds regulatory levels. Chapter 9 of SW-846[2] describes representative sampling of solid waste in detail. The regulatory objectives of representative sampling are stated in Section 9.1.1.1 of SW-846 and are repeated below, because they clearly describe EPA's intent regarding sampling for characterizing solid wastes.

"The EPA, in its hazardous waste management system, has required that certain solid wastes be analyzed for physical and chemical properties. It is mostly chemical properties that are of concern, and, in the case of a number of chemical contaminants, the EPA has promulgated levels (regulatory thresholds) that cannot be equaled or exceeded. The regulations pertaining to the management of hazardous wastes contain three references regarding the sampling of solid wastes for analytical properties. The first reference, which occurs throughout the regulations, requires that representative samples of waste be collected and defines representative samples as exhibiting average properties of the whole waste. (Page Nine-5, SW-846)

"For example, in the case of a typical wastewater that is generated from the same source and operations on a continuous or intermittent basis, the concentration of a contaminant will vary with time. Thus, a representative sample of wastewater must consist of multiple

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[1] These API comments are available at - http://www.uswag.org/2003/sw846jc.pdf

[2] EPA, December 1997, *Test Methods for Evaluating Solid Waste Physical/Chemical Methods*, Office of Solid Waste.

individual measurements in order to exhibit the *average properties* of the universe or whole.

"The language in SW-846 reiterates the regulatory definition of what constitutes a representative sample of waste. It is generally a sample that represents the *average* properties of the *whole* waste and is typically not the concentration of a constituent in a single grab sample, or even in multiple grab samples unless those samples are collected pursuant to a sampling plan that is designed to measure the average properties of the whole waste."

A possible acceptable strategy for determining if wastewater is exceeding the TC level of benzene of 0.5 ppm is suggested by the API –

"One example is a sampling plan used by a petroleum refinery located in EPA Region II that is typical for a continuously generated process wastewater. This wastewater is treated in an activated sludge system that uses surface impoundments for aeration. Therefore, it must demonstrate that the wastewater that enters the impoundments is not a hazardous waste by any of the characteristics of hazardous waste at 40 CFR 261. The specific waste constituent of this concern is benzene and the regulatory target is the Toxicity Characteristic (TC) threshold for benzene.

The refinery utilized the SW-846 recommended approach for defining the upper level of uncertainty in the long-term average in its waste analysis plan. The plan also recognizes that to properly characterize the process wastewater, sampling has to be conducted over an extended period of time to obtain a representative sample.

Samples are collected at the aeration basin influent feed as grab samples at least once each week. These samples are analyzed for benzene. The refinery defines a one-year moving average as representative of its operations, based on its evaluation of the underlying basis of the TC threshold concentrations and the variability of benzene concentrations in its wastewater. The upper limit of a confidence interval calculated as prescribed in SW-846[3] is then compared to the TC regulatory threshold of 0.5 mg/L to determine whether the wastewater is hazardous. The one-year averaging interval is updated on a regular basis (i.e., it is a one-year moving average based on the most recent samples collected).

The one-year averaging approach was selected using the representative sampling concepts in the SW-846 guidance to comply with an evaluation of what a representative time period would be for that facility. The refinery has used this sampling methodology since 1994 and reports its results to EPA Region II on a monthly basis, as requested by EPA."

---

[3] The confidence interval is calculated using Equation 8 in Table 9-1 and the appropriate Student's t-values in Table 9-2 of SW-846.

Appendix B: Details of Stat-400 Carbonair Air Stripper

Additional Stripper – Carbonair STAT-400

The fourth stripper we have rented, the Carbonair STAT-400 model, has the following features –

- The material of construction is stainless steel
- Gasket material is Neoprene
- Blower is direct drive
- Self prime transfer pump

We have added filters upstream of the API strippers. The effluent from this unit will be routed through the existing two strippers that are in parallel. The photographs below depict the additional stripper placed next to the existing strippers.

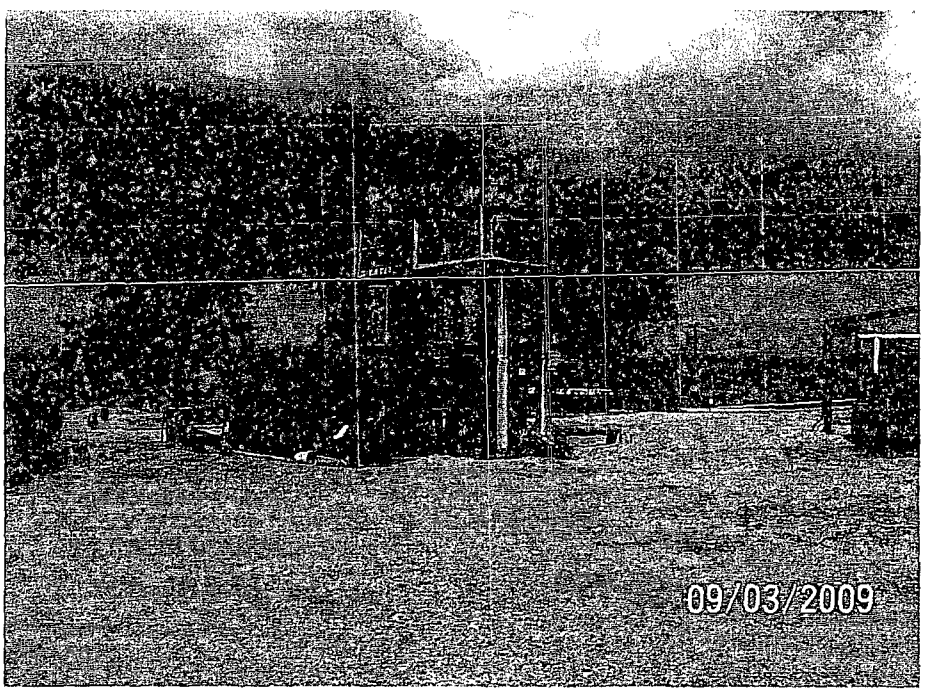

Figure A.1: Photograph of new additional stripper located next to existing strippers.

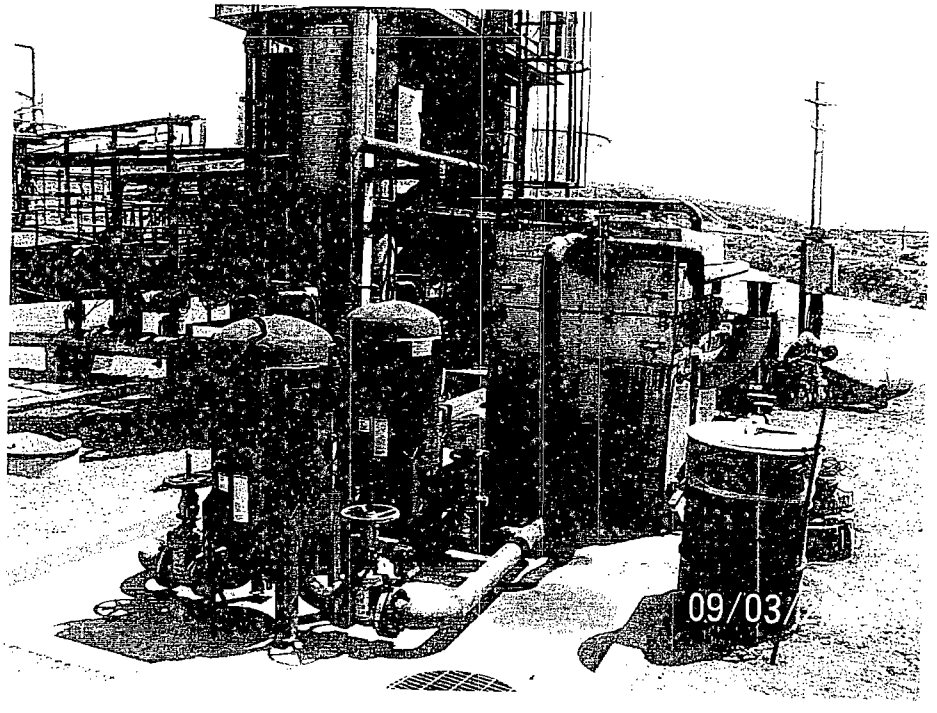

Figure A.2: Looking south at the new additional stripper and the new pre-filters (in blue)

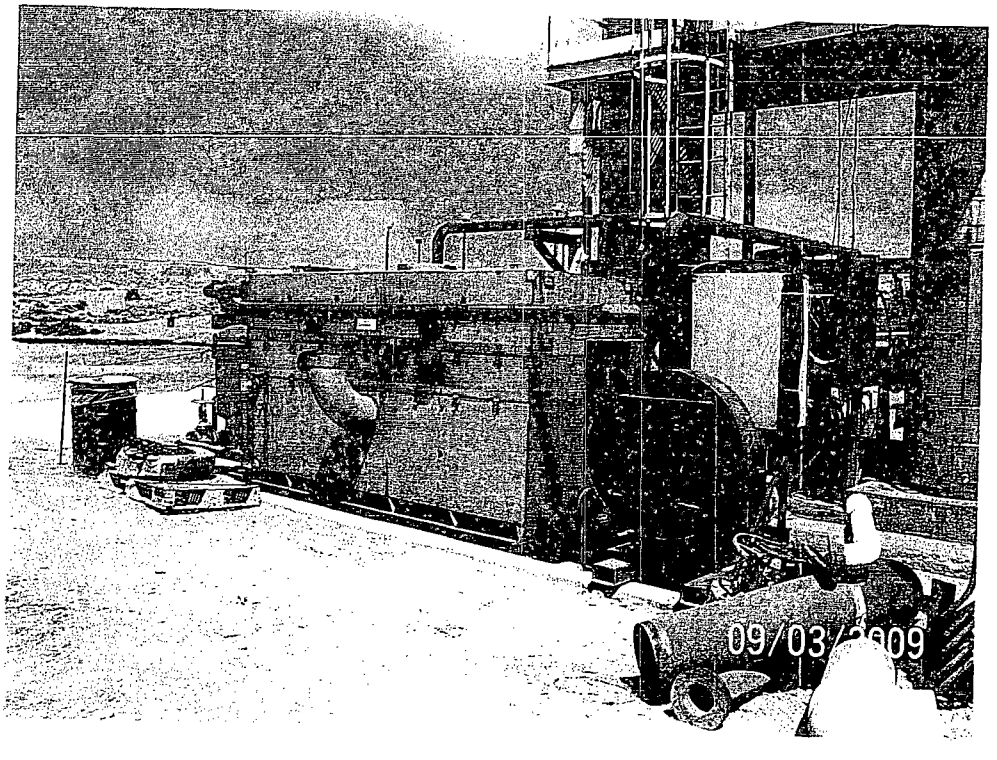

Figure A.3: Looking north-east at the new additional stripper

Carbonair's patented STAT Low Profile Air Strippers are ideally suited for removing volatile organic compounds (VOCs) from water in a variety of applications including industrial process and waste water treatment.

STAT low profile air strippers combine high removal efficiencies of VOCs, flexibility, and ease of maintenance and durability. Since 1992, Carbonair has provided thousands of STAT low profile air strippers in a myriad of applications and configurations. Many of these are still operating today.

STAT Standard Design Features

All STAT models are made of high quality 304 stainless steel and have 125 lb flanged inlet and outlet connections to ensure the integrity of piping connections. The trays and sump sections come equipped with clean out ports that facilitate easy inspection and routine cleaning of the aeration trays. The aerations trays are connected using adjustable over-center latching stainless steel clips, making assembly and disassembly quick and easy, while ensuring a tight fit and good seal to prevent leaks. All STAT aeration trays come equipped with an anti-bypass valve that prevents air from bypassing the aeration trays by flowing up through the down comers. This eliminates the need to "prime" the system at startup and ensures that the first drop of water that goes through the air strippers is treated as well as the last.

STATs configured for pump out discharge have sumps that are sized to minimize pump cycling and to maintain sufficient air distribution across the aeration trays. STATs come with direct coupled industrial grade blowers as standard equipment. All STATs are equipped with a low pressure switch mounted on the blower to shut down the water input upstream in the event of a blower failure, thereby ensuring that no untreated water is passing through to discharge.

October 12, 2009

VIA EMAIL AND CERTIFIED MAIL No. 7008 2810 0000 4726 2014

Chief
Hazardous Waste Bureau
New Mexico Environmental Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6303

Joel Dougherty (6EN-HE)
Hazardous Waste Enforcement Branch
U.S. EPA Region 6, Suite 1200
1445 Ross Ave.
Dallas, TX 75202-2733

RE: **FINAL CLOSURE COST ESTIMATE, WESTERN REFINING COMPANY, SOUTHWEST INC., GALLUP REFINERY; EPA ID #NMD000333211**

Dear Chief,

Enclosed please find the Western Refining Gallup's ("Gallup") final closure cost estimate for Lagoons AL-1 and AL-2 pursuant to Section IV (Compliance Order) item 100.H of the Consent Agreement and Final Order ("CAFO") between Western, NMED and U.S. EPA Region 6.

I certify that the information contained in or accompanying this submission is true, accurate and complete. As to those identified portions of this submission for which I cannot personally verify the truth and accuracy, I certify as the company official having supervisory responsibility for the person(s) who, acting upon my direct instructions, made the verification, that this information is true, accurate, and complete.

Thank you for your review and approval of this cost estimate. Please feel free to contact Ed Riege at 505-722-0217 with any questions.

Sincerely,

Mark B. Turri
Refinery Manager

cc: Hope Monzeglio NMED HWB
Carl Chavez OCD
Ann Allen Western Refining
Ed Riege Western Refining

RPS JDC
404 Camp Craft Rd., Austin, Texas 78746
Tel: (512) 347 7588 Fax: (512) 347 8243
Internet: www.rpsgroup.com/energy

October 12, 2009

Ed Riege
Environmental Manager
Gallup Refinery - Western Refining Company
Rout 3, Box 7
Gallup, NM 87301

Re: Lagoons AL-1 and AL-2 Final Closure Cost Estimate
Gallup Refinery – Western Refining Company, Gallup, New Mexico
NMD000333211

Dear Mr. Riege:

Attached to this letter is a final closure cost estimate for Lagoons AL-1 and AL-2 at the Gallup Refinery. The estimate was prepared by RPS at the request of the Gallup Refinery and as required by provision IV.H of Complaint and Consent Agreement and Final Order Document RCRA-06-2009-0936. This provision requires a final closure cost estimate be prepared to establish the amount of financial assurance Western Refining must secure for closure of the lagoons. The estimate has been prepared assuming the closure would be done by a third party responsible for project administration, performing a pre-construction investigation of the soils surrounding the lagoons, and preparing a final closure report.

The cost estimate consists of three tables. Table 1A is the cost estimate for closure of the lagoons under Option 1, which assumes a portion of the sludge in the lagoon is excavated and temporarily placed in the adjacent temporarily out-of-service evaporation pond. The sludge placed in the evaporation pond and the remaining in-situ sludge are then bioremediated, which reduces the sludge volume by approximately 30%. Table 1B is the cost estimate for closure of the lagoons under Option 2, which assumes the sludge is stabilized in place, which increases the sludge volume by approximately 10%. Both Option 1 and 2 assume the top foot of the lagoons' clay liner has to be removed due to contamination. Both options also assume that the sludge and contaminated soils are disposed as special waste at Waste Management's San Juan landfill. Table 3 is the cost estimate for the pre-construction site investigation and clean soil confirmation sampling and testing (line item 1 in Tables 1A and 1B).

In addition to the scope of work described above, the cost estimates include removal of the existing benzene strippers adjacent to the lagoons. The total cost for Options 1 and 2 are $779,000 and $941,000, respectively. To assure adequate financial resources to close the lagoons under either option, financial assurance would have to be established for the higher amount.

We appreciate the opportunity to prepare the cost estimates for final closure of the lagoons. Please contact Scott Crouch or me at 512-347-7588 if we can be of further assistance.

Sincerely,

RPS

James Isensee

James Isensee, P.E.

JWI/gjg

Attachment

cc: Allen Hains – Western Refining
Rajev Gaurav – Western Refining
Scott Crouch - RPS

Final Closure Cost Estimate
Option 1 - Bioremediation and Disposal
Lagoons AL-1 & AL-2 Closure
October 12, 2009

Item	Description	Quantity	Units	Unit Cost	Cost
	Professional Services				
1	Investigation & clean soil confirmation sampling	1	LS	$87,000	$87,000
2	Final closure report	1	LS	$20,000	$20,000
3	Project administration (engineering, bidding, construction administration, etc.)	1	LS	$71,000	$71,000
	Demolition				
4	Dismantling and disposal of benzene strippers	1	LS	$5,000	$5,000
	Construction				
5	Mobilization	1	LS	$25,000	$25,000
6	Administrative costs (office facilities & staff, H&S plan, SWPPP, insurance, eqpmt decon, QA/QC, etc.)	1	LS	$28,000	$28,000
7	Dewater lagoons (3 ft water over 0.8 ac). Dispose at API Separator (200' distance)	800,000	Gal	$0.011	$9,000
8	Excavate and transfer portion of sludge from AP-1 to EP-1 for Bioremediation	3,600	CY	$4	$13,000
9	Bioremediate sludges in-situ and within EP-1	5,600	CY	$25	$140,000
10	*Dispose bioremediated sludge offsite as Special Waste* [1]	3,900	CY	$50	$195,000
11	Excavate top 1 ft of clay liner (AL-1 and AL-2)	850	CY	$7	$6,000
12	Dispose of excavated clay as Special Waste [2]	850	CY	$55	$47,000
13	Sludge characterization sampling - one per 100 CY	48	EA	$610	$29,000
14	Backfill lagoons	6,000	CY	$15	$90,000
15	Demobilization	1	LS	$14,000	$14,000
	TOTAL				**$779,000**

Notes

1 Assumes 30% reduction in sludge volume due to bioremediation and disposal at Waste Management landfill in San Juan (TPH > 1,000 ppm, metals < 20X rule)

2 Assumes disposal of liner soils at same location as bioremediated sludges

3 Assumes one sample per 100 CY analyzed for Haz Characteristics per 40 CFR 261 ($140), TCLP Skinner Metals ($190), TCLP BTEX ($130), TPH ($90) + 10% markup

Final Closure Cost Estimate
Option 2 - Stabilization and Disposal
Lagoons AL-1 & AL-2 Closure
October 12, 2009

Item	Description	Quantity	Units	Unit Cost	Cost
	Professional Services				
1	Investigation & clean soil confirmation sampling	1	LS	$87,000	$87,000
2	Final closure report	1	LS	$20,000	$20,000
3	Project administration (engineering, bidding, construction administration, etc.)	1	LS	$86,000	$86,000
	Demolition				
4	Dismantling and disposal of benzene strippers	1	LS	$5,000	$5,000
	Construction				
5	Mobilization	1	LS	$25,000	$25,000
6	Administrative costs (office facilities & staff, H&S plan, SWPPP, insurance, eqpmt decon, QA/QC, etc.)	1	LS	$28,000	$28,000
7	Dewater lagoons (3 ft water over 0.8 ac). Dispose at API Separator (200' distance)	800,000	Gal	$0.011	$9,000
8	Stabilize sludges in place	5,600	CY	$25	$140,000
9	Dispose stabilized sludges as Special Waste[1]	6,200	CY	$55	$341,000
10	Excavate top 1 ft of clay liner (AL-1 & AL-2)	850	CY	$7	$6,000
11	Dispose of excavated clay as Special Waste[2]	850	CY	$55	$47,000
12	Sludge characterization sampling - one per 100 CY	71	EA	$610	$43,000
13	Backfill lagoons	6,000	CY	$15	$90,000
14	Demobilization	1	LS	$14,000	$14,000
	TOTAL				**$941,000**

Notes

1 Assumes 10% increase in sludge volume due to stabilization and disposal at Waste Management landfill in San Juan (TPH > 1,000 ppm, metals < 20X rule)

2 Assumes disposal of liner soils at same location as bioremediated sludges

3 Assumes one sample per 100 CY analyzed for Haz Characteristics per 40 CFR 261 ($140), TCLP Skinner Metals ($190), TCLP BTEX ($130), TPH ($90) + 10% markup

TABLE 2
Investigation & Confirmation Sampling Cost Estimate
Lagoon AL-1 & AL-2 Closure
October 12, 2009

Dike & Surrounding Soils Characterization Samples			
Analysis	**# of Samples**	**Cost/Sample**	**Costs**
8260B	101	$90	$9,090
8270C	101	$220	$22,220
8015B (GRO, DRO, MRO)	101	$90	$9,090
Skinner List Metals & Fe, Mn	101	$185	$525
Sampling Labor	five 8-hour days	$75/hour	$3,000
Sampling Equipment	two days	$1500/day	$3,000
		Subtotal	**$46,925**

Benzene Stripper Area Characterization Samples			
Analysis	**# of Samples**	**Cost/Sample**	**Costs**
8260B	11	$90	$990
8270C	11	$220	$2,420
8015B (GRO, DRO, MRO)	11	$90	$990
Skinner List Metals & Fe, Mn	11	$185	$2,035
Sampling Labor	one 8-hour day	$75/hour	$600
Sampling Equipment	one day	$1500/day	$1,500
		Subtotal	**$8,535**

AL-1 & AL-2 Confirmation Samples			
Analysis	**# of Samples**	**Cost/Sample**	**Costs**
8260B	49	$90	$4,410
8270C	49	$220	$10,780
8015B (GRO, DRO, MRO)	49	$90	$4,410
Skinner List Metals & Fe, Mn	49	$185	$9,065
Sampling Labor	four 8-hour days	$75/hour	$2,400
		Subtotal	**$31,065**
		Total	**$86,525**

GRO - Gasoline Range Organics
DRO - Diesel Range Organics
MRO - Motor Oil Range Organics
AL - Aeration Lagoon

NEW MEXICO
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Hazardous Waste Bureau

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BILL RICHARDSON
Governor

DIANE DENISH
Lieutenant Governor

RON CURRY
Secretary

JON GOLDSTEIN
Deputy Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

October 22, 2009

Mr. Ed Riege
Environmental Superintendent
Western Refining, Southwest Inc., Gallup Refinery
Route 3, Box 7
Gallup, New Mexico 87301

RE: NOTICE OF DISAPPROVAL
INTERIM MEASURES WORK PLAN TO COMPLY WITH RCRA STANDARDS FOR DISCHRGE OF WASTEWATER TO SURFACE IMPOUNDMENTS
WESTERN REFINING COMPANY, SOUTHWEST, INC., GALLUP REFINERY
EPA ID # NMD000333211
HWB-GRCC-09-005

Dear Mr. Riege:

The New Mexico Environment Department (NMED) has received Western Refining Southwest Inc., Gallup Refinery (the Permittee) *Interim Measures Work Plan to Comply with RCRA Standards for Discharge of Wastewater to Surface Impoundments* (Work Plan), dated September 2009. NMED has identified deficiencies with the Work Plan, and hereby issues this Notice of Disapproval (NOD).

Comment 1

In the Executive Summary, page iii, bullet 1, the Permittee states "Western will install a fourth benzene stripper as an interim measure. However, Western Refining proposes that it retain the discretion not to implement measures that would, therefore, be unnecessary to achieve compliance. For example, if improved performance of our existing two strippers meets compliance, the fourth rental stripper may be discontinued" [this was also stated in the last paragraph of Section 3.1 on page 4]. In Section 3.1 (Physical/Design Changes), pages 3 and 4, the Permittee states "[o]nce the new rental stripper system is installed we will have an enhanced stripper system made up of three strippers – a single stripper in series with two others in parallel. Flow from the API separator will first flow to one of two filter pots followed by the rental

(Contingency Sampling and Reporting) of the Work Plan. The Permittee must revise the Work Plan to reflect the following requirements:

a. If **any** of the effluent wastewater samples collected from AL-1 during "Period 2" of [implementation of] the Work Plan meet or exceed the discharge limit at or above 0.5 mg/L for benzene, beginning on day 121, the Permittee must implement the sampling requirements established in NMED's August 27, 2009 letter (Interim Measures Work Plan Requirements).

b. If **all** wastewater effluent samples collected from AL-1 during "Period 2" are below the discharge limit of 0.5 mg/L for benzene, the Permittee must continue to follow the sampling requirements for "Period 2" for an additional 30 days. If benzene concentrations in all effluent samples collected from AL-1 during the additional 30 days are below the discharge limit, then the Permittee must resume sampling effluent entering into AL-1 once a week until notified otherwise by NMED. The effluent samples must be analyzed for benzene, toluene, ethylbenzene, and total xylenes plus MTBE. If at any time benzene concentrations detected in any effluent sample meet or exceeds the discharge limit, the Permittee must implement the sampling requirements established in NMED's August 27, 2009 letter (Interim Measures Work Plan Requirements)

c. Beginning with Period 2, unless otherwise notified by NMED, all analytical laboratory reports must be submitted to NMED within five business days of sample collection.

d. The Work Plan must be revised to include a detailed description of how all effluent samples will be collected. The effluent samples must be collected using valid techniques to minimize the loss of the volatile organic compounds (VOCs) within each sample (i.e., the sample location must have a sample port that allows for samples to be collected at a low flow rate to minimize volatilization).

Comment 5

In Section 3.2.2 (Period 2: 75 days to 120 days from the Effective Date of the Interim Measure Work Plan), the Permittee states "[t]he analytical results for each sample will be submitted to NMED within five (5) business days of receipt of report from the external laboratory during Period 2."

NMED Response

The laboratory reports for all samples collected during "Period 2" and thereafter must be submitted to NMED within five business days of sample collection. See Comment 4 item c above. The Permittee must revise the Work Plan accordingly.

The Permittee must address all comments contained in this NOD and submit a revised Work Plan to NMED on or before November 30, 2009. The revised Work Plan must be submitted with a response letter that details where all revisions have been made, cross-referencing NMED's numbered comments. In addition, the Permittee must include an electronic version of the revised Work Plan that include all edits and modifications in redline strikeout format.

If you have questions regarding this letter please contact Hope Monzeglio of my staff at 505-476-6045.

Sincerely,

James P. Bearzi
Chief
Hazardous Waste Bureau

cc: J. Kieling, NMED HWB
D. Cobrain NMED HWB
H. Monzeglio NMED HWB
D. McElroy, NMED AQB
C. Chavez, OCD
A. Allen, Western Refining Southwest, Inc.
D. Edelstein, EPA Region 6
J. Dougherty, EPA Region 6
File: Reading File and GRCC 2009 File
HWB-GRCC-09-005

BILL RICHARDSON
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Lieutenant Governor

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RON CURRY
Secretary

JON GOLDSTEIN
Deputy Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

October 27, 2009

Mr. Ed Riege
Environmental Superintendent
Western Refining, Southwest Inc., Gallup Refinery
Route 3, Box 7
Gallup, New Mexico 87301

RE: NOTICE OF DISAPPROVAL
PROCESS DESIGN REPORT FOR THE WASTEWATER TREATMENT PLANT WORK PLAN (ALTERNATIVE DESIGN)
WESTERN REFINING COMPANY, SOUTHWEST INC., GALLUP REFINERY
EPA ID # NMD000333211
HWB-GRCC-09-006

Dear Mr. Riege:

The New Mexico Environment Department (NMED) has completed its review of the *Process Design Report for the Wastewater Treatment Plant Work Plan (Alternative Design)* (Work Plan), dated September 2009, submitted on behalf of Western Refining Company, Southwest Inc., Gallup Refinery (the Permittee). The Permittee must provide additional information before NMED can complete its technical review. NMED hereby issues this Notice of Disapproval (NOD).

Permittee already has an approved work plan and could have begun implementing the plan as of September 1, 2009. The Permittee has known since the first submittal of the February 26, 2009 *Process Design Report For Wastewater Treatment Plant Upgrade* that the system would likely have to comply with 40 CFR 262.34(a). In addition, a meeting was held on August 7, 2009 between NMED and Gallup explaining that these requirements would be required. No response is necessary.

Below are Comments addressing the Work Plan

Comment 4
In Section 1.2 (Project Scope), bullet one, page 2, the Permittee states "[t]wo existing tanks put in service for the storage of process area stormwater and diversion of off-spec wastewater."

NMED Response
It is not clear which two existing tanks are being referenced, nor is it clear what "off-spec wastewater" is. The Permittee must revise the Work Plan to identify the two existing tanks by name (e.g., Tanks 27 and 28). The Permittee must clearly define what "off-spec wastewater" is (identify all sources) since this term is used throughout the Work Plan. The Permittee must also discuss the capacity of these tanks and their ability to handle the additional flow volumes and the ability of the API separator to handle potential increased flow from these tanks.

Comment 5
In Section 1.4 (Treatment Objectives), page 2, the Permittee states "[t]he treatment objectives for the WWTP upgrade are to provide water quality that is suitable for discharge to the unlined EP-1. Specifically, the objectives are for there to be no visible free oil and $\leq$ 0.5 mg/L benzene. This project design was developed based on these objectives."

NMED Response
The effluent entering into the unlined Evaporation Pond 1 (EP-1) must have benzene concentrations less than 0.5 mg/L. In addition, the treatment objective of the upgraded wastewater treatment system (WWTS) is for all effluent entering into EP-1 to comply with all applicable regulations. Discharges to the unlined Evaporation Ponds must not create the potential for impacts to groundwater. The Permittee must revise the Work Plan to state that benzene concentrations will be below 0.5 mg/L for benzene.

Comment 6
In Section 2.3 (Pilot Travel Center Wastewaters), page 4, the Permittee states "[t]he lift station's submersible pumps then transfer the wastewater through a pipeline to the refinery for further pumping and treatment." In Section 4.2.5 (Travel Center Pretreatment), page 9, the Permittee states "The sanitary wastewater from the Pilot Travel Center and the refinery will be pretreated

what measures will be implemented to demonstrate that mixing was successful.

c. Explain how the refinery will demonstrate that the liquids and solids in Tanks T27 and T28 meet the 90-day storage requirements, by clearly explaining the type of measurements and record keeping to be implemented to assure that the 90-day accumulation period is not exceeded.

d. Tanks T27 and T28 shall not accumulate more than two feet of sludge during any 90-day accumulation period. The Permittee must demonstrate how the sludge level will be measured.

Comment 9
In Section 4.2.1 (Stormwater/Diversion Tanks), page 8, paragraph 3, the Permittee states "Cleanouts will be installed on the conveyance pipelines to and from the Stormwater/Diversion Tanks....[u]nderground piping will be buried below the frost line to prevent freezing. Above ground piping will be electric heat traced to prevent freezing."

NMED Response
The Permittee must revise the Work Plan to provide a figure of the WWST that identifies where all cleanouts and above and below ground piping will be placed and describe how pipelines will be tested for mechanical integrity or leakage.

Comment 10
In Section 4.2.1 (Stormwater/Diversion Tanks), page 8, paragraph 3, the Permittee states "[u]nderground piping will be buried below the frost line to prevent freezing. Above ground piping will be electric heat traced to prevent freezing. The piping design is referenced in section 4.5."

NMED Response
Section 4.5 does not include many details relating to the piping design as stated above. Section 4.5 states "[t]he secondary containment and leak detection requirements for piping systems covered by the CAFO will also be implemented where required." The Permittee must revise the Work Plan to describe what type of secondary containment and leak detection will be used for the piping systems. All design details proposed to comply with the CAFO must be included in the Work Plan.

Comment 11
The Permittee addresses the Equalization Tank (EQ) in Section 4.2.2.

system will consist of retention tanks with gravity dewatering. This material will normally be recycled to a refining process (on-site or off-site). If recycling is not available, the float material will be managed as a hazardous waste."

NMED Response
The Permittee must provide more details about the DGF unit and DGF float storage and dewatering system and revise the Work Plan to identify how many retention tanks will be utilized and discuss all maintenance requirements and frequency of maintenance of the DGF unit and the DGF float storage and dewatering system.

Comment 15
In Section 4.4 (Management of Off-Spec Wastewater), page 10, the Permittee states "[p]rocess monitoring will be used to identify when this diversion is needed."

NMED Response
The Permittee did not describe or define the process monitoring, does not address how the upgraded WWTS will be monitored to ensure system is operating correctly, or discuss how the Permittee will demonstrate that the effluent entering into EP-1 is not a hazardous waste. The Permittee must revise the Work Plan to include sampling activities that will be conducted to monitor the upgraded wastewater treatment system and describe "process monitoring." In addition, the Permittee must discuss in detail in the text of the Work Plan where sample ports will be located within the wastewater treatment system (influent and effluent sampling ports in the EQ Tank, new API separator, DGF, MPPE, T27/T28). The sampling ports must be constructed in a manner that allows for reduced flow rates (low flow) to minimize the loss of volatile organic compounds (VOCs) when samples are collected (Figure 1 depicts sample points but these are not described within the text).

Comment 16
In Section 4.5 (Tank Design, Secondary Containment, and Leak Detection), page 11, the Permittee states "Under the terms of the CAFO, the tanks and ancillary equipment downstream of the API Separator, including diversion tank systems, are subject to 40 CFR §262.34(a). By reference, these systems are therefore subject to 40 CFR 265 Subpart J for tank systems. Accordingly, the systems downstream of the new API separator will comply with the tank design requirements of 40 CFR 265 Subpart J, including secondary containment and leak detection. Since the CAFO was signed just recently, Western Refining is still determining how the specific design requirements of the CAFO will be implemented."

NMED Response
NMED cannot evaluate a Work Plan that does not include complete design specifications. The Permittee must revise the Work Plan to include all the design details that comply with 40 CFR

identify and describe air sampling ports and their locations within the WWTS.

Comment 20

The Permittee provided supplemental information for the DGF and MPPE in Attachments A and B, respectively. The attachments provide the general manufacturers information about the DGF and MPPE units, which also include system diagrams. The diagrams are not necessarily specific to the WWTS. The Permittee must revise the Work Plan to include the design and process flow diagrams for the actual DGF and MPPE units that will be installed at the refinery. See Comment 21 Below.

Comment 21

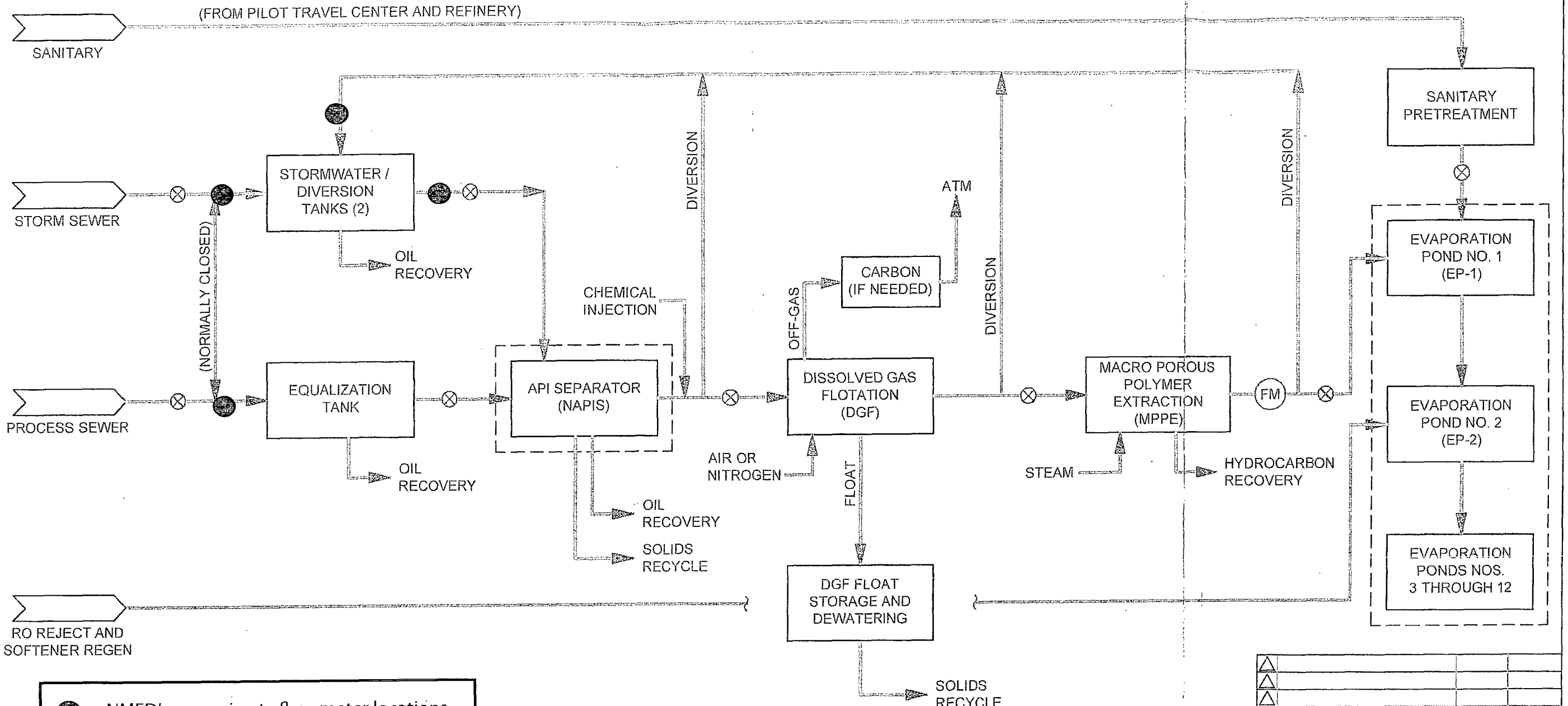
The Permittee included a flow diagram of the alternative design to the WWTS in Figure 1 Flow Diagram Alternative WWTP UPGRADE (attached). The Permittee must revise the figure and add additional figures as necessary to address the following in the revised Work Plan.

a. The Legend found in Figure 1 defines dashed lines as existing; the figure has the API separator surrounded by dashed lines because it is an existing structure. In the response letter, the Permittee must explain why the Storm Water Tanks T27 and T28 were not surrounded by dashed lines since these also are existing structures. The Permittee must revise the figure accordingly.

b. The figure(s) must be design drawings of the actual WWTS that will be installed. The drawings must include the exact number of tanks that make up each component of the WWTS, piping, secondary containment, and leak detection. The drawing must also depict exactly where the flows will be entering and exiting through the various WWTS units (e.g., will influent enter at the top of tanks, sides).

c. The flow diagram must present all above and underground piping associated with the WWTS.

d. NMED requires additional flow meters. The locations of the flow meters are shown on the Attached Figure 1.



REV.	REVISION DESCRIPTION	RFC No.	DATE

P&ID DWG. REV.

PIPING ORTHO. DWG. REV.

LINE No.	SIZE	SPEC	OPER. TEMP.°F	OPER. PRESS	DESIGN TEMP.°F	DESIGN PRESS	HYDRO TEST	INSULATION THK.	INSULATION TYPE	STRESS RELIEF

Western Refining
Gallup Refinery

FLOW DIAGRAM
ALTERNATIVE WWTP
UPGRADE

RFE No:		INSP/RT/UT:	
DRN. BY: RAC	DATE: 09/23/2009	WELD SPEC:	
CHK'D. BY:	DATE:	PAINT:	
APP'D. BY:	DATE:	CAD REF:	
DRAWING NO. FIGURE 1		SHEET 1	REV 0

November 12, 2009

VIA EMAIL AND CERTIFIED MAIL No. 7008 2810 0000 4726 2021

Chief
Hazardous Waste Bureau
New Mexico Environmental Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6303

Joel Dougherty (6EN-HE)
Hazardous Waste Enforcement Branch
U.S. EPA Region 6, Suite 1200
1445 Ross Ave.
Dallas, TX 75202-2733

RE: **REVISED FINAL CLOSURE COST ESTIMATE, WESTERN REFINING COMPANY, SOUTHWEST INC., GALLUP REFINERY; EPA ID #NMD000333211**

Dear Chief,

Enclosed please find the revised Western Refining Gallup's ("Gallup") final closure cost estimate for Lagoons AL-1 and AL-2 pursuant to Section IV (Compliance Order) item 100.H of the Consent Agreement and Final Order ("CAFO") between Western, NMED and U.S. EPA Region 6.

I certify that the information contained in or accompanying this submission is true, accurate and complete. As to those identified portions of this submission for which I cannot personally verify the truth and accuracy, I certify as the company official having supervisory responsibility for the person(s) who, acting upon my direct instructions, made the verification, that this information is true, accurate, and complete.

Thank you for your review and approval of this cost estimate. Please feel free to contact Ed Riege at 505-722-0217 with any questions.

Sincerely,

for Mark Turri

Mark B. Turri
Refinery Manager

cc: Hope Monzeglio NMED HWB
Carl Chavez OCD

404 Camp Craft Rd., Austin, Texas 78746, USA
T +1 512 347 7588 F +1 512 347 8243 W www.rpsgroup.com

November 10, 2009

Ed Riege
Environmental Manager
Gallup Refinery - Western Refining Company
Rout 3, Box 7
Gallup, NM 87301

Re: Lagoons AL-1 and AL-2 Final Closure Cost Estimate
Gallup Refinery – Western Refining Company, Gallup, New Mexico
NMD000333211

Dear Mr. Riege:

Attached is a final closure cost estimate for Lagoons AL-1 and AL-2 at the Gallup Refinery. The estimate was prepared by RPS at the request of the Gallup Refinery and as required by provision IV.H of Complaint and Consent Agreement and Final Order Document RCRA-06-2009-0936. This provision requires a final closure cost estimate be prepared to establish the amount of financial assurance Western Refining must secure for closure of the lagoons. The estimate has been prepared assuming the closure would be done by a third party responsible for project administration, performing a pre-construction investigation of the soils surrounding the lagoons, and preparing a final closure report.

The cost estimate consists of three tables. Table 1A is the cost estimate for closure of the lagoons under Option 1, which assumes a portion of the sludge in the lagoon is excavated and temporarily placed in the adjacent temporarily out-of-service evaporation pond. The sludge placed in the evaporation pond and the remaining in-situ sludge is then bioremediated, which reduces the sludge volume by approximately 30%. Table 1B is the cost estimate for closure of the lagoons under Option 2, which assumes the sludge is stabilized in place, which increases the sludge volume by approximately 10%. Both Option 1 and 2 assume the top foot of the lagoons' clay liner has to be removed due to contamination. Both options also assume that the sludge and contaminated soils are disposed as special waste at Waste Management's San Juan landfill, with 25% disposed as characteristically hazardous waste at US Ecology's landfill in Battie, NV. Table 3 is the cost estimate for the pre-construction site investigation and clean soil confirmation sampling and testing (line item 1 in Tables 1A and 1B).

In addition to the scope of work described above, the cost estimates include removal of the existing benzene strippers adjacent to the lagoons. The total cost for Options 1 and 2 are $1,016,000 and $1,257,000, respectively. To assure adequate financial resources to close the lagoons under either option, financial assurance would have to be established for the higher amount.

We appreciate the opportunity to prepare the cost estimates for final closure of the lagoons. Please contact Scott Crouch or me at 512-347-7588 if we can be of further assistance.

Sincerely,

RPS

James W. Isensee, P.E.
Manager - Engineering

JWI/sab
Attachment

cc: Allen Hains – Western Refining
Rajev Gaurav – Western Refining
Scott Crouch - RPS

TABLE 1A
Final Closure Cost Estimate
Option 1 - Bioremediation and Disposal
Lagoons AL-1 & AL-2 Closure
November 10, 2009

Item	Description	Quantity	Units	Unit Cost	Cost
	Professional Services				
1	Investigation & clean soil confirmation sampling	1	LS	$87,000	$87,000
2	Final closure report	1	LS	$20,000	$20,000
3	Project administration (engineering, bidding, construction administration, etc.)	1	LS	$93,000	$93,000
	Demolition				
4	Dismantling and disposal of benzene strippers	1	LS	$5,000	$5,000
	Construction				
5	Mobilization	1	LS	$25,000	$25,000
6	Administrative costs (office facilities & staff, H&S plan, SWPPP, insurance, eqpmt decon, QA/QC, etc.)	1	LS	$28,000	$28,000
7	Dewater lagoons (3 ft water over 0.8 ac). Dispose at API Separator (200' distance)	800,000	Gal	$0.011	$9,000
8	Excavate and transfer portion of sludge from AP-1 to EP-1 for Bioremediation	3,600	CY	$4	$13,000
9	Bioremediate sludges in-situ and within EP-1	5,600	CY	$25	$140,000
10	Dispose 75% of bioremediated sludge offsite as special waste[1]	2,900	CY	$55	$160,000
11	Dispose 25% of bioremediated sludges as hazardous waste[2]	1,000	CY	$250	$250,000
12	Excavate top 1 ft of clay liner (AL-1 and AL-2)	850	CY	$7	$6,000
13	Dispose of excavated clay as Special Waste[3]	850	CY	$55	$47,000
14	Sludge characterization sampling - one per 100 CY[4]	48	EA	$610	$29,000
15	Backfill lagoons	6,000	CY	$15	$90,000
16	Demobilization	1	LS	$14,000	$14,000
	TOTAL				**$1,016,000**

Notes

1. Assumes 30% reduction in sludge volume due to bioremediation and disposal at Waste Management landfill in San Juan (TPH > 1,000 ppm, metals < 20X rule)
2. Assumes 30% reduction in sludge volume due to stabilization and disposal at U.S. Ecology landfill in Battie, NV (<500 mg/kg volatiles).
3. Assumes disposal of liner soils at same location as nonhazardous sludges.
4. Assumes one sample per 100 CY analyzed for Haz Characteristics per 40 CFR 261 ($140), TCLP Skinner Metals ($190), TCLP BTEX ($130), TPH ($90) + 10% markup

TABLE 1B
Final Closure Cost Estimate
Option 2 - Stabilization and Disposal
Lagoons AL-1 & AL-2 Closure
November 10, 2009

Item	Description	Quantity	Units	Unit Cost	Cost
	Professional Services				
1	Investigation & clean soil confirmation sampling	1	LS	$87,000	$87,000
2	Final closure report	1	LS	$20,000	$20,000
3	Project administration (engineering, bidding, construction administration, etc.)	1	LS	$115,000	$115,000
	Demolition				
4	Dismantling and disposal of benzene strippers	1	LS	$5,000	$5,000
	Construction				
5	Mobilization	1	LS	$25,000	$25,000
6	Administrative costs (office facilities & staff, H&S plan, SWPPP, insurance, equipment decon, QA/QC, etc.)	1	LS	$28,000	$28,000
7	Dewater lagoons (3 ft water over 0.8 ac). Dispose at API Separator (200' distance)	800,000	Gal	$0.011	$9,000
8	Stabilize sludges in place and in unused adjacent evaporation pond	5,600	CY	$25	$140,000
9	Dispose 75% of stabilized sludges as special waste[1]	4,600	CY	$55	$253,000
10	Dispose 25% of stabilized sludges as hazardous waste[2]	1,500	CY	$250	$375,000
11	Excavate top 1 ft of clay liner (AL-1 & AL-2)	850	CY	$7	$6,000
12	Dispose of excavated clay as special waste[3]	850	CY	$55	$47,000
13	Sludge characterization sampling - one per 100 CY[4]	71	EA	$610	$43,000
14	Backfill lagoons	6,000	CY	$15	$90,000
15	Demobilization	1	LS	$14,000	$14,000
	TOTAL				**$1,257,000**

Notes

1 Assumes 10% increase in sludge volume due to stabilization and disposal at Waste Management landfill in San Juan (TPH > 1,000 ppm, metals < 20X rule)

2 Assumes 10% increase in sludge volume due to stabilization and disposal at U.S. Ecology landfill in Battie, NV (<500 mg/kg volatiles).

3 Assumes disposal of liner soils at same location as nonhazardous sludges.

4 Assumes one sample per 100 CY analyzed for Haz Characteristics per 40 CFR 261 ($140), TCLP Skinner Metals ($190), TCLP BTEX ($130), TPH ($90) + 10% markup

TABLE 2
Investigation & Confirmation Sampling Cost Estimate
Lagoon AL-1 & AL-2 Closure
November 10, 2009

Analysis	# of Samples	Cost/Sample	Costs
Dike & Surrounding Soils Characterization Samples			
8260B	101	$90	$9,090
8270C	101	$220	$22,220
8015B (GRO, DRO, MRO)	101	$90	$9,090
Skinner List Metals & Fe, Mn	101	$185	$525
Sampling Labor	five 8-hour days	$75/hour	$3,000
Sampling Equipment	two days	$1500/day	$3,000
		Subtotal	**$46,925**
Benzene Stripper Area Characterization Samples			
8260B	11	$90	$990
8270C	11	$220	$2,420
8015B (GRO, DRO, MRO)	11	$90	$990
Skinner List Metals & Fe, Mn	11	$185	$2,035
Sampling Labor	one 8-hour day	$75/hour	$600
Sampling Equipment	one day	$1500/day	$1,500
		Subtotal	**$8,535**
AL-1 & AL-2 Confirmation Samples			
8260B	49	$90	$4,410
8270C	49	$220	$10,780
8015B (GRO, DRO, MRO)	49	$90	$4,410
Skinner List Metals & Fe, Mn	49	$185	$9,065
Sampling Labor	four 8-hour days	$75/hour	$2,400
		Subtotal	**$31,065**
		Total	**$86,525**

GRO - Gasoline Range Organics
DRO - Diesel Range Organics
MRO - Motor Oil Range Organics
AL - Aeration Lagoon

November 25, 2009

VIA EMAIL AND CERTIFIED MAIL No. 7008 2810 0000 4726 2038

Mr. James Bearzi, Chief
Hazardous Waste Bureau
New Mexico Environmental Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6303

Joel Dougherty (6EN-HE)
Hazardous Waste Enforcement Branch
U.S. EPA Region 6, Suite 1200
1445 Ross Ave.
Dallas, TX 75202-2733

RE: **REVISED INTERIM MEASURES WORKPLAN, WESTERN REFINING SOUTHWEST INC., GALLUP REFINERY; EPA ID #NMD000333211**

Dear Mr. Bearzi,

Enclosed please find the Western Refining Gallup Refinery's (Gallup) Revised Interim Measures Work Plan (Work Plan) pursuant to Section IV item 100. D of the Consent Agreement and Final Order ("CAFO) among Western, NMED and U.S. EPA Region 6. This letter and Work Plan address the Notice of Disapproval letter from NMED dated October 22, 2009 (see attached copy). This letter details where all revisions have been made, cross-referencing the numbered comments in the October 22 NMED letter.

Comment 1

Western agrees that strippers one, two, or four may be removed from service only for maintenance purposes. If Gallup wishes to remove these benzene strippers from service for any other reason, it will seek prior approval from NMED in writing, including the justification for removal. The Work Plan has been revised to address these changes in the Executive Summary, page III, bullet 1 and the last paragraph of Section 3.1 on page 4.

Comment 2

The "filter pots" are two vessels that will be placed upstream of the new benzene stripper. The filter pots are vessels that will be used to remove large particles and help in reducing fouling in the strippers. These two vessels will be operated one at a time with one on stand by with a clean filter inside. When the first filter fouls, the second one will be put on-line and the fouled vessel's

filter element will be cleaned or changed. Section 3.1 of the plan has been revised to reflect the above description.

Comment 3

Gallup has removed all text referring to a rolling average. Western Refining understands NMED's concerns regarding the importance of collecting, analyzing, and responding to benzene concentrations in representative wastewater samples entering Aeration Lagoon 1 (AL-1). Based upon Comments 3, 4, 5, and 6 in the October 22 NMED letter, we have re-examined our approach to verifying waste characteristics for AL-1 influent and effluent samples. Our overarching objective is to collect appropriate representative samples per Section 20.4.1.100 NMAC and 40 CFR 260.10, wherein "*Representative sample* means a sample of a universe or whole (e.g., waste pile, lagoon, ground water) which can be expected to exhibit the average properties of the universe or whole." The sampling, analysis, evaluation, reporting, and response(s) for AL-1 influent and effluent will be described in a Waste Analysis Plan (WAP). The WAP will be developed consistent with EPA's guidance manual titled "Waste Analysis at Facilities that Generate, Treat, Store, and Dispose of Hazardous Wastes (OSWER 9938.4-03), as applicable. The anticipated principal components of the Gallup Refinery WAP will include:

- Facility Description
- Waste Analysis Parameters
- Sampling Procedures
- Laboratory and Testing Procedures
- Waste Evaluation/Re-Evaluation Frequency
- Reporting and Response

In addition, the WAP will draw heavily upon the appropriate portions of EPA SW-846, "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods." Waste characteristic measurement data will be evaluated per the statistical methods in Chapter 9 of SW-846 pertaining to the upper confidence interval (CI) of the population mean for the waste analyses. When AL-1 is taken out of service and the new treatment unit is operating, we will amend our WAP to sample the influent to Evaporation Pond 1 (EP-1).

Comment 4

a. Section 3.2.3 has been revised to indicate that if any of the effluent samples collected from effluent entering AL-1 during "Period 2" of implementation of the Work Plan meet or exceed the discharge limit at or above 0.5 mg/l for benzene, beginning on day 121, Gallup must implement the sampling requirements established in NMED's August 27, 2009 letter (Interim Measures Work Plan Requirements).

b. Section 3.2.3 has been revised to indicate that if all wastewater effluent samples collected from effluent entering AL-1 during "Period 2" are below the discharge limit of 0.5 mg/l for benzene, Gallup must continue to follow the sampling requirements for "Period 2" for an additional 30 days. If benzene concentrations in all effluent samples collected from AL-1 during the additional 30 days are below the discharge limit, then Gallup must resume sampling effluent entering into AL-1 once a week until notified otherwise by

NMED. The effluent samples will be analyzed for benzene, toluene, ethylbenzene, and total xylenes plus MTBE. If at any time benzene concentrations detected in any effluent sample meet or exceed the discharge limit, Gallup must implement the sampling requirements established in NMED's August 27, 2009 letter (Interim Measures Work Plan Requirements).

c. Sections 3.2.2 and 3.2.3 have been revised to reflect that beginning with Period 2, unless otherwise notified by NMED, all analytical laboratory reports will be submitted to NMED within 5 business days of sample collection.

d. Appendix A: (Sampling Methodology) of the Work Plan has been revised to include a detailed description of how all effluent samples entering AL-1 will be collected.

Comment 5

Gallup agrees that the laboratory reports for all samples collected during "Period 2" and thereafter will be submitted to NMED within 5 business days of sample collection. Section 3.2.2 of the Work Plan has been revised to reflect this.

Comment 6

No comment required as it has been addressed in comments 3 and 4.

Comment 7

Gallup has taken note of NMED's four reminders in Comment 7. Appendix A of the revised Work Plan addresses Comment 7a regarding the definition of "daily wastewater effluent sample". In keeping with Comment 7b, all laboratory reports submitted will contain copies of relevant chain of custody forms as noted in the revised Work Plan. As clarified in Comment 7c, we recognize that NMED reserves the right to collect effluent samples; however, Western notes that NMED's reservation of rights is (i) independent of the CAFO, (ii) does not create CAFO obligations for Western, and (iii) does not subject Western to stipulated penalties. As stated in Comment 7d, Western recognizes its liabilities related to the stipulated penalties in Section V of the CAFO.

I certify that the information contained in or accompanying this submission is true, accurate and complete. As to those identified portions of this submission for which I cannot personally verify the truth and accuracy, I certify as the company official having supervisory responsibility for the person(s) who, acting upon my direct instructions, made the verification, that this information is true, accurate, and complete.

Thank you for your review of this revised Work Plan. Please feel free to contact Ed Riege at 505-722-0217 with any questions.

Sincerely,

Mark B. Turri
Refinery Manager

cc: Hope Monzeglio NMED HWB
Carl Chavez OCD
Ann Allen Western Refining
Ed Riege Western Refining

New Mexico Energy, Minerals and Natural Resources Department

Bill Richardson
Governor

Joanna Prukop
Cabinet Secretary

Mark Fesmire
Division Director
Oil Conservation Division

November 20, 2009

Mr. Mark B. Turri
Refinery Manager
Western Refining Southwest- Gallup Refinery
Route 3 Box 7
Gallup, New Mexico 87301

Re: Discharge Permit "Modification" Request to Discharge (GW-032)
Western Refining Southwest- Gallup Refinery
McKinley County, New Mexico

Dear Mr. Turri:

The New Mexico Oil Conservation Division (OCD) has received Western Refining Southwest, Inc. (Western's), "Modification" application with all appropriate fees dated October 30, 2009, for authorization to discharge an estimated 100,000 gallons (~0.5 ft of evaporation pond network free board) of treated and untreated wastewater into Outfall 001 (N 35° 29' 26.23" & W 108° 26' 26.01") or "Waters of the State" at the west side of the property. Western proposes to minimize discharges from occurring into Outfall 001. When Outfall 001 (basically the furthest down gradient evaporation pond) overflows, runoff discharges into an off-property tributary ("South Fork") located about 0.8 miles from the Rio Puerco River (ephemeral or intermittent stream) on state land. Tribal land is located approximately 1-mile west and down-gradient from the Outfall 001 location.

OCD's review of the application is to determine if any additional information may be required before deeming the permit application "administratively" complete and will facilitate a complete technical review of the proposed modification by OCD. OCD has determined that the modification application is not "Administratively Complete."

Therefore, OCD requires additional information. In accordance with Subsection A of 20.6.2.3108 NMAC of the New Mexico Water Quality Control Commission regulations (WQCC), "to be deemed administratively complete, an application shall provide all of the information required by Paragraphs (4) through (5) of Subsection F of 20.6.2.3108 NMAC and shall indicate, for department approval, the proposed locations for providing notice (English and Spanish) required by Paragraphs (1) and (4) of Subsection B or Paragraph (2) of Subsection C of 20.6.2.3108 NMAC." Western did not provide any water quality information in support of its statement that "the waste water will have no hazardous components and levels of all contaminants will be below regulatory standards." Items 7, 9, 11, and 12 of the application (cross-section information is not discernable at the scale provided and boring logs with hydrogeologic information were not included with the cross sections) are not

adequately addressed. At least one cross-section with hydrogeologic information is required from the New API Separator (NAPIS) with well boring logs to the Outfall 001 area to evaluate the hydrogeology (aquifer(s)) present in the area of interest.

To satisfy the 20.6.2.3108F(4) NMAC "quality" and application form item requirements, submit historical water quality analytical data from historical pond monitoring data that supports the above statement and demonstrates compliance with 20.6.2.7(ww), 20.6.2.3103, 20.6.4.109 and 20.6.4.900 NMAC applicable water quality standards. In addition, Western must also provide new water quality data for evaporation pond 2 (EP-2) effluent, since the applicant indicated that there was about 1667 bbl/day of cooling tower blow down effluent and 1071 bbl/day of boiler effluent discharging into EP-2.

Due to the presence of sanitary effluent in the refinery wastewater treatment system (discharge location unknown at this time- aeration lagoon vs. EP-2?), biological analytical data in comparison with 20.6.2.2101 NMAC parameters must be provided in order to characterize any discharge to "Waters of the State" or Outfall 001. The existing approved facility "Biohazard Plan" may also need to be modified before the discharge to Outfall 001 can be considered.

Western should already be aware from its historical water quality monitoring data that some pond wastewater exceeds regulatory water quality standards. Consequently, a treatment system for the wastewater should have been proposed in the application to address the contaminants, but was not. With regard to the F(4) "volume", Western did not factor in the additional wastewater flow volume to the existing treatment system from its Bloomfield Refinery, which will be closed (~18,000 bbl/day crude oil refining capacity). Western is in the midst of a major wastewater treatment system conversion, which has yet to be specified. OCD is aware of the situation with one NAPIS and treatment capacity problems that occur routinely during precipitation events and has questioned the ability of the existing treatment system to handle wastewater at the facility without the additional wastewater that will occur as a result of the Bloomfield Refinery closure. This must be addressed along with the final waste water treatment system that will handle the type and total volume of treated effluent that may be discharged into Outfall 001.

To satisfy the 20.6.2.3108(F) NMAC "depth to and total dissolved solids concentration of the ground water", Western must submit data from nearby monitor wells.

From available pond monitoring information, there will likely be ground water contamination, which will require additional monitor wells to monitor ground water quality at the "mixing zone" where ground water interfaces with surface water, as well as ground water remediation system(s) to capture and prevent contamination from migrating down gradient to state and tribal lands. In addition, OCD will require Western to conduct more hydrogeologic work to assess the "mixing zone" and the complete hydrogeology beneath the facility before permitting the discharge of contaminants to Outfall 001. Plans to discharge into Outfall 001 without acknowledging the contaminants of concern and stipulating the type of treatment system needed to facilitate a discharge to Outfall 001 with plans to re-route fluids between ponds to avoid what appears to be an inevitable daily discharge scenario at Outfall 001 is of major concern to the OCD.

Please review the attached 20.6.2.3108 NMAC flow chart and regulatory language pertaining to the WQCC public notice requirements for "Modifications." After the application is deemed "Administratively Complete", the revised WQCC notice requirements of 20.6.2.3108 NMAC must be satisfied and demonstrated to the OCD. OCD will provide public notice pursuant to the revised WQCC notice requirements of 20.6.2.3108 NMAC to determine if there is any public interest.

If there are any questions regarding this matter, please contact Carl J. Chavez at (505) 476-3490 or carlj.chavez@state.nm.us. On behalf of the staff of the OCD, I wish to thank you and your staff for your cooperation during this discharge permit review.

Sincerely,

Carl J. Chávez
Environmental Engineer

CJC/cjc

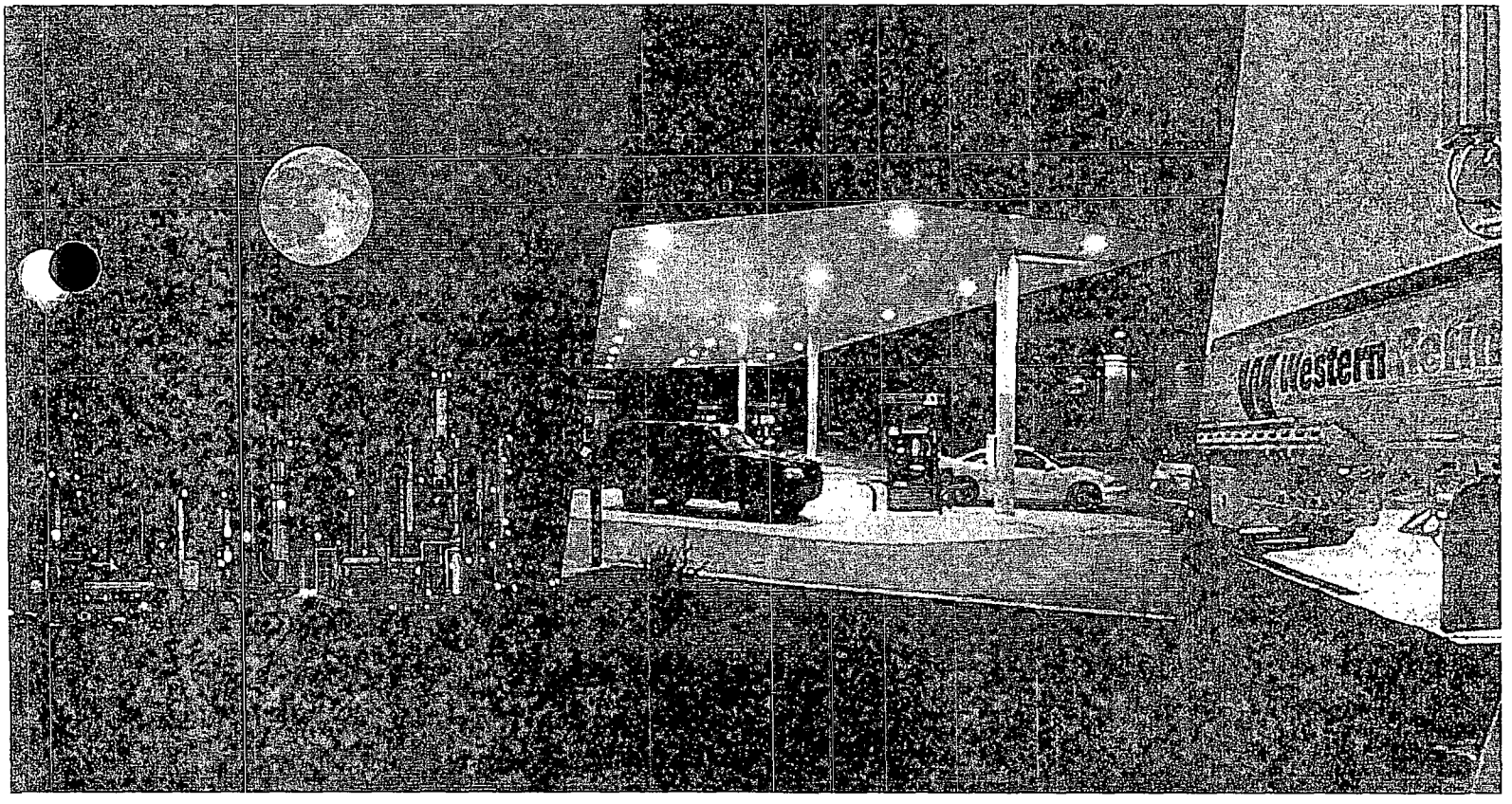
Attachments: 20.6.2.3108 NMAC (Public Notice)

xc: Willie Lane, EPA Region 6
Marcy Leavitt, NMED
Dave Cobrain, NMED
Glenn von Gonten, OCD
OCD District III Office, Aztec

Interim Measures Work Plan to Comply with RCRA Standards for Discharge of Wastewater to Surface Impoundments

Revision 1

Western Refining
Gallup, New Mexico



November 2009

Executive Summary

This report describes Western Refining's Interim Measures Work Plan to comply with RCRA standards on discharge of wastewater containing benzene to surface impoundments. The most important element of this plan is to install a fourth stripper prior to the two existing strippers that accept effluent from the new API separator. This new stripper will substantially increase the removal efficiencies of the current stripper system; and, we anticipate, will result in benzene levels less than 0.5 ppm in our treated wastewater before it enters Aeration Lagoon-1 (AL-1). In addition to the fourth stripper, we propose aggressive monitoring and sampling schedules (divided into three distinct periods) in advance of any legal requirement to do so. Appendix A describes our sampling methodology. We hope that by establishing compliance well ahead of any mandatory need to do so (the Consent Agreement and Final Order (CAFO)[1] provides a period of 120 days for Western Refining to come into compliance), we will be able to satisfy our future compliance requirements with a relaxed monitoring schedule (to be set by the NMED).

Since early 2009, many months before the CAFO went into effect, the Gallup Refinery undertook to evaluate, develop and implement a series of improvements to the Refinery's existing wastewater treatment system with the goal of achieving consistent compliance with RCRA standards for benzene containing wastewater discharges to surface impoundments. A working group of refinery managers, engineers, and operators was created that meets bi-weekly. Personnel from our sister refinery in El Paso were invited to visit the Gallup Refinery and share their experience. Consultants and manufacturers' representatives were brought on-site and their recommendations were implemented. A temporary tank was located next to the new API separator which allowed all overflows to be contained and later sent through the wastewater treatment system. This ensures that only treated wastewater enters AL-1.

Key issues related to the existing benzene strippers were identified as – improper mixing of air and water; fouling of the internal packing media; and inefficient oil recovery in the new API oil/water separator. A series of steps to improve the performance of the strippers by addressing these key issues were identified. Some have been implemented and others are in progress. Simultaneously, a program of source control to reduce oil reaching the sewers was instituted. A need for rapid screening tests was also identified, and we implemented a testing program at our internal laboratory to provide screening data on a more frequent basis than the analyses done at an external EPA and NMED certified

[1] The August 26, 2009 Consent Agreement and Final Order ("CAFO") between Western Refining Southwest, Inc. ("Western Refining"), the New Mexico Environment Department ("NMED"), and the U.S. Environmental Protection Agency (EPA) Region 6

laboratory. Performance of the strippers has been considerably enhanced, and overall benzene levels in the strippers' outlet have dropped substantially.

In summary, our major requests for approval are –

- Western Refining has been granted approval from the NMED/AQB to install stripper 4, the rental stripper. Western agrees that strippers one, two, or four may be removed from service only for maintenance purposes. If Gallup wishes to remove these benzene strippers from service for any other reason, it will seek prior approval from NMED in writing, including the justification for removal.
- Western Refining has proposed an aggressive monitoring plan designed to provide meaningful information to Western Refining and the NMED well enough in advance of the conclusion of the Interim Measures period to allow for adjustments in the Interim Measures. Western Refining seeks approval to sample at different frequencies and report on corresponding different schedules during three (3) discrete periods identified in this plan. Western Refining proposes an increased sampling and reporting protocol as a contingency if our wastewater is ever found to be out of compliance.

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1.0 Introduction and Background

The August 26, 2009 Consent Agreement and Final Order ("CAFO") between Western Refining Southwest, Inc. ("Western Refining"), the New Mexico Environment Department ("NMED"), and the U.S. Environmental Protection Agency (EPA) Region 6, Section IV, Paragraph 100.D. requires Western Refining to submit to NMED for approval an Interim Measures Work Plan for "ceasing the discharge of any hazardous wastewater to any surface impoundment, unless such discharge complies with applicable RCRA standards" at Western Refining's Gallup Refinery In accordance with that requirement, Western Refining seeks NMED's approval to conduct the activities identified in this Interim Measures Work Plan (the "IM Work Plan") which are designed to eliminate the discharge of wastewater exhibiting the toxicity characteristic of benzene from entering Aeration Lagoon 1 (AL-1) at the Gallup Refinery.

In early 2009, many months before the CAFO went into effect, the Gallup Refinery undertook to evaluate, develop and implement a series of improvements to the refinery's existing wastewater treatment system with a goal of achieving consistent compliance with RCRA standards for discharges to surface impoundments.

A working group of refinery managers, engineers, and operators was created that meets bi-weekly. A list of action items was developed that are being evaluated and implemented. Personnel from our sister refinery in El Paso were invited to visit the Gallup Refinery and share their experience. Consultants and manufacturers' representatives were brought on-site and their recommendations were implemented.

2.0 Current Conditions

Key issues related to the benzene strippers were identified as – improper mixing of air and water; fouling of the internal packing media; and inefficient oil recovery in the new API oil/water separator. A series of steps to improve the performance of the strippers by addressing these key issues were identified. Some have been implemented and others are in progress. Simultaneously, a program of source control to reduce oil reaching the sewers was instituted. A need for rapid screening tests was also identified, and we implemented a testing program at our internal laboratory to provide screening data on a more frequent basis than the analyses done at an external EPA and NMED certified laboratory.

A temporary tank was located next to the new API separator which allowed all overflows to AL-1 to be contained and later sent back through the wastewater treatment system.

Performance of the strippers has been considerably enhanced, and overall benzene levels have dropped substantially in the outlet of the strippers.

2.1 Voluntary Measures Implemented

Table 1 lists measures that have been implemented. These are grouped as follows: 1) Source control; 2) Improvements to the performance of the strippers; 3) Improvements to the performance of the new API separator.

Table 1: Recent measures that have been implemented

Measures	Activity	Activity Status
Source Control		
Desalter Optimization	Use NALCO recommendations to optimize the operation of the two desalters.	The Operations staff completed the necessary steps to optimize the desalters and they are currently running efficiently.
Improve Strippers' Performance		
Determine if packing height in the benzene towers requires modification	Determine if there is adequate packing in the tower and if a new packing design would be appropriate	Packing height is adequate. New packing identified and has been stocked for future use. This packing installed during last change-out.
Air to Water Ratio in Benzene Strippers	Determine the right mixture of air to water in the current strippers	There is currently adequate air flow; the Process Department will use a pitot tube to verify that the air flow maintains an adequate flow rate.
Specify new distribution nozzles for the Benzene Strippers	Determine what type of spray nozzle would help distribution of benzene contaminated water over the packing	Installed new spray nozzles on strippers one and two; these will provide well-distributed flow of water over the entire packing.
Upgrade air ducting for Benzene Strippers 1 and 2	Find and plug holes in air piping	The new ducting has been fabricated and installed.
Improve New API Separator Performance		
Change API East Bay inlet piping	Create larger inlets in the East Bay.	The new installed piping will provide an equal flow to both bays
Create second sample point to monitor API inlet	Install new sample point.	New sample point is installed
API separator skimmer level	Find a method or mechanical device that will determine the oil level in the API bays.	The Operations Department determined that a visual inspection of the level is adequate.
Put Weir Box back into service	Perform tests to determine if Weir Box functions properly with API separator modifications; reconnect Weir Box level indicator	The Weir Box is in service and no problems with its operation have been encountered

2.2 Voluntary Measures In-Progress

There are additional measures that are in the process of being evaluated. These are also related to - 1) source control; 2) improvements to the performance of the strippers; 3) improvements to the performance of the new API separator. Among such measures, for example, are enhanced process controls in the API separator, such as temperatures and level controls, etc.

These activities are intended to be implemented incrementally until such time as compliance is consistently achieved.

3.0 Proposed Interim Measures Requiring NMED Approval

Although Western Refining believes that the recent sampling results are indicative of progress resulting from evaluation and implementation of the measures listed in Table 1, in order to ensure compliance with the CAFO, Western Refining has identified the following proposed Interim Measures that will be implemented on an expedited schedule upon the effective date of this IM Work Plan. The proposed Interim Measures fall into 3 categories: (i) physical/design changes to the wastewater treatment system; (ii) an aggressive monitoring and reporting schedule; and (iii) submittal of status reports to the NMED.

3.1 Physical/Design Changes

The most significant change is that we have rented an additional stripper which has a removal efficiency rated higher than our current strippers. This is a Carbonair STAT 400 that will assist in controlling benzene along with the two existing strippers which are located after the oil water separator. See Appendix B for a specification sheet, description, and photos of the new rental stripper. (This element was discussed with NMED in the negotiation of the CAFO.)

In order to move this element of the Interim Measures Work Plan along as quickly as possible, Western Refining submitted a technical air permit application to NMED on August 24, prior to the effective date of the CAFO. A conference call was held on September 15, 2009, with the AQB in which Western Refining requested enforcement discretion to install the rental stripper along with pilot wastewater treatment test equipment. The AQB accepted the general outline of the Western Refining proposal and requested some additional information that has been submitted. Western Refining has

received approval so the rental stripper can be installed upstream of the existing two strippers.

Once the new rental stripper system is installed we will have an enhanced stripper system made up of three strippers – a single stripper in series with two others in parallel. Flow from the API separator will first flow to one of two filter pots followed by the rental stripper. The "filter pots" are two vessels that will be placed upstream of the new benzene stripper. The filter pots are vessels that will be used to remove large particles and help in reducing fouling in the strippers. These two vessels will be operated one at a time with one on stand by with a clean filter inside. When the first filter fouls, the second one will be put on-line and the fouled vessel's filter element will be cleaned or changed. After the filter pots, flow will then be split between the two existing strippers, treated further, and then discharged to AL-1. Western Refining will also have the option to run part or all of the effluent from the new stripper back through the new stripper a second time should it be needed.

During the interim period Western Refining will continue to operate the benzene stripper three (BZ-3) located upstream of the NAPI next to the units whose main influent is desalter effluent.

When compliance is consistently demonstrated during the Interim Measures Period prior to implementation of all above measures, Western Refining proposes that it retain the discretion not to implement measures that would, therefore, be unnecessary to achieve compliance. Western agrees that strippers one, two, or four may be removed from service only for maintenance purposes. If Western Refining wishes to remove these benzene strippers from service for any other reason, it will seek prior approval from NMED in writing, including the justification for removal

3.2 Monitoring and Reporting

Western Refining proposes an aggressive monitoring plan designed to provide meaningful information to Western Refining and the NMED well enough in advance of the conclusion of the Interim Measures period to allow for adjustments in the Interim Measures. Western Refining will commence sampling, as described, even in advance of NMED's approval to provide the best database for comparison.

Western Refining proposes to sample at different frequencies and report on corresponding schedules during three (3) discrete periods identified below. Western Refining proposes an increased sampling and reporting protocol as a contingency under certain circumstances. Table 2 at the end of this section summarizes the different sampling locations and frequencies for BTEX+MTBE monitoring and reporting. In Appendix A provides a detailed explanation of how all effluent wastewater samples are to be collected.

Flows will be monitored at inlets to AL-1 and EP-1 on a daily basis and reported on the 3rd day of each month for the previous month.

Flows through BZ-3 are currently estimated and reported to the NMED/HWB. This will be discontinued at the end of Period 1, as we believe BZ-3 will not need to be monitored any more to determine compliance at AL-1. BZ-3 will continue to be monitored as a part of our air quality permit's emissions monitoring requirements.

3.2.1 Period 1: 75 days from the Effective Date of the Interim Measures Work Plan

During Period 1, Western Refining proposes to collect (i) weekly effluent samples of wastewater exiting strippers 1, 2 and 4, that is, entering AL-1, and exiting BZ-3 for analyses of benzene, toluene, ethylbenzene, and xylenes plus MTBE (BTEX + MTBE) and (ii) monthly inlet samples of wastewater entering strippers 1, 2 and 4, that is exiting the New API Separator and separate wastewater samples entering BZ-3 for analyses of benzene, toluene, ethylbenzene, and xylenes plus MTBE (BTEX + MTBE). The analytical results for each sample will be submitted to NMED within three (3) days of receipt of report from the external laboratory during Period 1. (The refinery currently is required to provide effluent sampling data 30 days after the end of each month.) The laboratory results will be forwarded to NMED by e-mail or sent in hard copy. All laboratory reports will contain copies of the chain-of-custody forms.

Western Refining also will measure effluent flow rates from the waste streams discharging to AL-1 and EP-1 on a daily basis. The flow rate measurements for the previous month will be submitted to NMED on the third day of each month. Reporting the flow rate by email is acceptable.

Finally, Western Refining will estimate the monthly average gallons per minute through the benzene stripper located in the process area. The flow rate estimate will be submitted to NMED by the third day of each month. Reporting the flow rate by email is acceptable.

3.2.2 Period 2: 75 days to 120 days from the Effective Date of the Interim Measures Work Plan

During Period 2, Western Refining will collect effluent samples two (2) times a week of wastewater entering AL-1 for analyses of benzene, toluene, ethylbenzene, and xylenes plus MTBE (BTEX + MTBE). The analytical results for each sample will be submitted to NMED within five business (5) days of sample collection. (The refinery currently is required to provide effluent sampling data 30 days after the end of each month.) The laboratory results will be forwarded to NMED by e-mail or sent in hard copy. All laboratory reports will contain copies of the chain-of-custody forms.

Western Refining will continue to measure effluent flow rates from the waste streams discharging to AL-1 and EP-1 on a daily basis. These data will be sent to the NMED on the third day of each month.

3.2.3 Period 3: 120 days from the Effective Date of the Interim Measures Work Plan to Startup of New Upgraded Wastewater Treatment System

During Period 3, Western Refining will collect weekly effluent samples of wastewater entering AL-1 for analyses of benzene, toluene, ethylbenzene, and xylenes plus MTBE (BTEX + MTBE). The analytical results for each sample will be submitted to NMED within five business (5) days of sample collection. The laboratory results will be forwarded to NMED by e-mail or sent in hard copy. All laboratory reports will contain copies of the chain-of-custody forms.

Western Refining will continue to measure effluent flow rates from the waste streams discharging to AL-1 and EP-1 on a daily basis. The flow rate measurements in Period 3 will be submitted to NMED on the third day of each month. Reporting the flow rate by email is acceptable.

If any of the effluent samples collected from the inlet of AL-1 meet or exceed the discharge limit at or above 0.5 mg/l for benzene, beginning on day 121, Western Refining will implement the sampling requirements established in NMED's August 27, 2009 letter (Interim Measures Work Plan Requirements – a copy is attached in Appendix C).

If all wastewater effluent samples collected from wastewater entering AL-1 during "Period 2" are below the discharge limit of 0.5 mg/l for benzene, Western Refining will continue to follow the sampling requirements for "Period 2" for an additional 30 days. If benzene concentrations in all effluent samples collected from wastewater entering AL-1 during the additional 30 days are below the discharge limit, then Western Refining will resume sampling effluent entering into AL-1 once a week until notified otherwise by NMED. The effluent samples will be analyzed for benzene, toluene, ethylbenzene, and total xylenes plus MTBE. If at any time benzene concentrations detected in any effluent sample meet or exceed the discharge limit, Western Refining will implement the sampling requirements established in NMED's August 27, 2009 letter (Interim Measures Work Plan Requirements) – see Appendix C.

3.2.4 Contingency Sampling and Reporting

In the event that discharges to AL-1 have not achieved a benzene concentration level less than 0.5 ppm during Period 2 or thereafter, Western Refining will immediately implement the following contingency sampling and reporting activities:

Western Refining will continue to measure effluent flow rates from the waste streams discharging to AL-1 and EP-1 on a daily basis. These data will be sent to the NMED on the third day of each month.

3.2.3 Period 3: 120 days from the Effective Date of the Interim Measures Work Plan to Startup of New Upgraded Wastewater Treatment System

During Period 3, Western Refining will collect weekly effluent samples of wastewater entering AL-1 for analyses of benzene, toluene, ethylbenzene, and xylenes plus MTBE (BTEX + MTBE). The analytical results for each sample will be submitted to NMED within five business (5) days of sample collection. The laboratory results will be forwarded to NMED by e-mail or sent in hard copy. All laboratory reports will contain copies of the chain-of-custody forms.

Western Refining will continue to measure effluent flow rates from the waste streams discharging to AL-1 and EP-1 on a daily basis. The flow rate measurements in Period 3 will be submitted to NMED on the third day of each month. Reporting the flow rate by email is acceptable.

If any of the effluent samples collected from the inlet of AL-1 meet or exceed the discharge limit at or above 0.5 mg/l for benzene, beginning on day 121, Western Refining will implement the sampling requirements established in NMED's August 27, 2009 letter (Interim Measures Work Plan Requirements – a copy is attached in Appendix C).

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3.2.4 Contingency Sampling and Reporting

In the event that discharges to AL-1 have not achieved a benzene concentration level less than 0.5 ppm during Period 2 or thereafter, Western Refining will immediately implement the following contingency sampling and reporting activities:

Beginning on day 121, if an exceedance occurs, Western Refining will collect daily effluent samples of wastewater entering AL-1 and EP-1 for analyses of benzene, toluene, ethylbenzene, and xylenes (BTEX). The effluent wastewater samples will be submitted to a certified off-site laboratory and analyzed using EPA Method 8021B or EPA Method 8260. The analytical results for each sample will be submitted to NMED within four days of collection. The laboratory results may be forwarded to NMED by e-mail or sent in hard copy. All laboratory reports will contain copies of the chain-of-custody forms.

a) Daily effluent wastewater samples will be collected until three consecutive days of achieving the discharge limit of 0.5 mg/L. After this period, Western Refining will again revert to the sampling frequency of Period 3.
b) Western Refining will measure discharge flow rates entering AL-1 and entering Evaporation Pond 1 (EP-1) on a daily basis. The daily discharge flow rates must be submitted every Friday beginning on day 121, and during this contingency period. E-mail reporting of this data is acceptable.
c) Western Refining has provided a detailed explanation of how all effluent wastewater samples are proposed to be collected in Appendix A.

3.3 Status Reports

Western Refining believes an important part of implementation of Interim Measures is a regular and frequent series of communications between Western Refining and NMED during the Interim Measures period. Western Refining proposes the following: 1) monthly summary progress reports on measures being implemented; 2) quarterly detailed reports on measures implemented and results of evaluations. These reports will be submitted three (3) days after the end of each month or quarter.

Table 2: Schedule of sampling and reporting in various periods for BTEX + MTBE in treated wastewater entering AL-1

Period	Sample locations	Frequency	Reporting to NMED
Period 1: 75 days after IM Work Plan approved	Inlet to AL-1 and outlet of BZ-3	Weekly	3 days after receipt of laboratory reports
Period 2: 75 to 120 days after IM Work Plan approved	Inlet to AL-1	2 times/week	5 business days after sample collection
Period 3: 120 days onwards after IM Work Plan approved	Inlet to AL-1	Weekly	5 business days after sample collection
Contingency – after any non-compliance	Inlet to AL-1	Daily, until three consecutive days of achieving the discharge limit of 0.5 mg/L	Four days after sample collection

4.0 Schedule

Western Refining will be prepared to implement this Interim Measures Plan as quickly as practicable upon approval from the NMED/HWB.

5.0 Summary of Major Approval Requests

- The most important element of the Interim Measures Work Plan is to install a fourth stripper prior to the two existing strippers that accept effluent from the new API separator. Western Refining has been granted approval from the NMED/AQB to install fourth stripper, a rental stripper. Western agrees that strippers one, two, or four may be removed from service only for maintenance purposes. If Gallup wishes to remove these benzene strippers from service for any other reason, it will seek prior approval from NMED in writing, including the justification for removal.
- Western Refining has proposed an aggressive monitoring plan designed to provide meaningful information to Western Refining and the NMED well enough in advance of the conclusion of the Interim Measures period to allow for adjustments in the Interim Measures. Western Refining seeks approval to sample at different frequencies and report on corresponding different schedules during three (3) discrete periods identified in this plan. Western Refining proposes an increased sampling and reporting protocol as a contingency if our wastewater is found to be out of compliance.

Appendix A: Sampling Methodology

Western Refining understands NMED's concerns regarding the importance of collecting, analyzing, and responding to benzene concentrations in representative wastewater samples entering Aeration Lagoon 1 (AL-1). Our overarching objective is to collect appropriate representative samples per Section 20.4.1.100 NMAC and 40 CFR 260.10, wherein "*Representative sample* means a sample of a universe or whole (e.g., waste pile, lagoon, ground water) which can be expected to exhibit the average properties of the universe or whole." The sampling, analysis, evaluation, reporting, and response(s) for AL-1 influent and effluent will be described in a forthcoming Waste Analysis Plan (WAP). The WAP will be developed consistent with EPA's guidance manual titled "Waste Analysis at Facilities that Generate, Treat, Store, and Dispose of Hazardous Wastes (OSWER 9938.4-03), as applicable. The anticipated principal components of the Gallup Refinery WAP will include:

- Facility Description
- Waste Analysis Parameters
- Sampling Procedures
- Laboratory and Testing Procedures
- Waste Evaluation/Re-Evaluation Frequency
- Reporting and Response

In addition, the WAP will draw heavily upon the appropriate portions of EPA SW-846, "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods." Waste characteristic measurement data will be evaluated per the statistical methods in Chapter 9 of SW-846 pertaining to the upper confidence interval (CI) of the population mean for the waste analyses. When AL-1 is taken out of service and the new treatment unit is operating, we will amend our WAP to sample the influent to Evaporation Pond 1 (EP-1).

Sample collection procedures will be as follows:

Inlet samples to the benzene strippers will be obtained from existing sampling ports at the outlet of the API separator. These ports allow for samples to be collected at a low flow rate to minimize the loss of Volatile Organic Compounds. Outlet samples from the benzene strippers are collected from within a flow rate monitoring open channel flume. Although flow rate is constant at this location and cannot be adjusted, the samples are collected with minimal agitation of the liquids entering the sample container, and from the mid-depth of the channel. The liquids move from this flume into AL-1 through a discharge pipe and an open drop of several feet. (See Figure A.1) We have collected and analyzed samples from the flume and from within the turbulent liquids dropping from the open pipe into AL-1 – the analytical results are identical. Therefore, there is no significant loss of Volatile Organic Compounds occurring between the flume channel and the open pipe. If there is any such loss, the samples collected in the flume will be at higher concentrations than samples collected at the end of pipe and dropping into AL-1. Therefore, our location is appropriate and, we believe, the sample collected from the

:e is representative of the effluent industrial wastewater entering AL-1. There is no refinery-related industrial effluent at any time discharged to AL-1 from another n. (Non-industrial sanitary sewage from the refinery and the Pilot Travel Center is .arged into AL-1 from a separate location – this effluent is monitored regularly and results reported to the NMED/HWB and the New Mexico Energy Minerals and Natural Resources Department's Oil Conservation Division (OCD) under the requirements of a Groundwater Discharge permit GW-032.issued by the OCD.) Sample collection methods will be documented in the field monitoring reports. The samples will be transferred to the appropriate, clean, laboratory-prepared containers provided by the analytical laboratory.

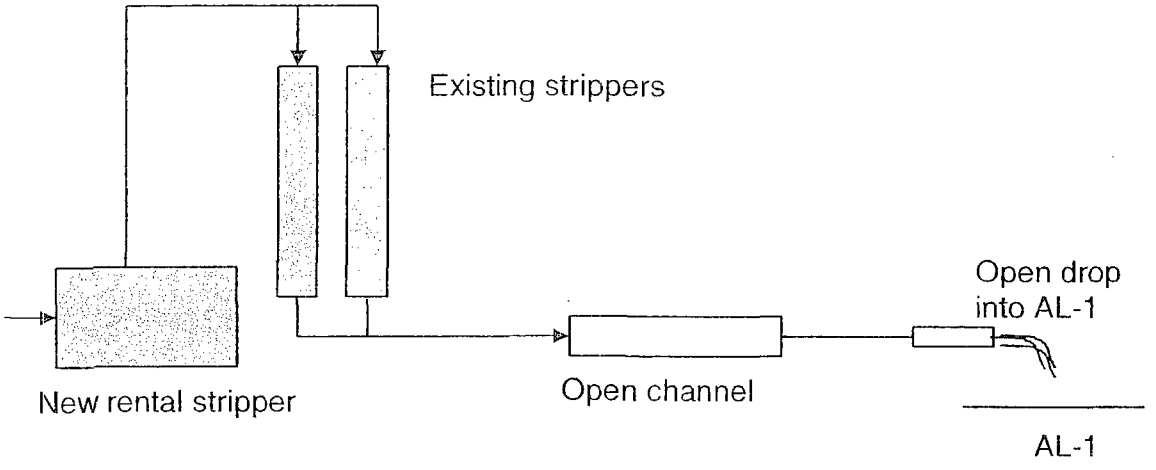

Figure A.1 Description of benzene strippers' effluent monitoring location – samples are collected from within the open channel flume with minimal agitation of the liquids

At a minimum, the following procedures will be used when collecting samples:

- Samples will be collected from the mid-depth of the channel away from the surface, and the containers inserted in and removed with minimal disturbance.
- Neoprene or other protective gloves will be worn when collecting samples. New disposable gloves will be used to collect each sample.
- All volatile organic analyte (VOA) samples for chemical analysis will be collected in clean VOA sample containers supplied by the analytical laboratory. The VOA vials will be submerged beneath the surface of the water with the opening pointed toward the upstream direction in the flume, and then capped while submerged to mitigate sample volatilization. The sample container will be clearly marked. Sample container volumes and preservation methods will be in

accordance with the most recent standard EPA and industry accepted practices for use by accredited analytical laboratories. Sufficient sample volume will be obtained for the laboratory to complete the method-specific QC analyses on a laboratory-batch basis.

- Sample labels and documentation will be completed for each sample.

Immediately after the samples are collected, they will be stored in a cooler with ice or other appropriate storage method until they are delivered to the analytical laboratory. Standard chain-of-custody procedures will be followed for all samples collected. All samples will be submitted to the laboratory to allow the laboratory to conduct the analyses within the method holding times, and meet the schedules specified in this Interim Measures plan.

The following shipping procedures will be performed during each sampling event:

- Individual sample containers will be packed to prevent breakage and transported in a sealed cooler with ice or other suitable coolant or other EPA or industry-wide accepted method. The drainage hole at the bottom of the cooler will be sealed and secured in case of sample container leakage.
- Each cooler or other container will be delivered directly to the analytical laboratory.
- Glass bottles will be separated in the shipping container by cushioning material to prevent breakage.
- Plastic containers will be protected from possible puncture during shipping using cushioning material.
- The chain-of-custody form and sample request form will be shipped inside the sealed storage container to be delivered to the laboratory.
- Chain-of-custody seals will be used to seal the sample-shipping container in conformance with EPA protocol.
- Signed and dated chain-of-custody seals will be applied to each cooler prior to transport of samples from the site.

Appendix B: Details of Stat-400 Carbonair Air Stripper

Additional Stripper – Carbonair STAT-400

The fourth stripper we have added, the Carbonair STAT-400 model, has the following features –

- The material of construction is stainless steel
- Gasket material is Neoprene
- Blower is direct drive
- Self prime transfer pump

It has the capability of processing from 20 - 400 GPM. The lower the flow rate the better the removal. The unit is pre-wired and plumbed. We have added filters upstream of this stripper. The effluent from this unit will be routed through the existing two strippers that are in parallel. The photographs below depict the additional stripper placed next to the existing strippers.

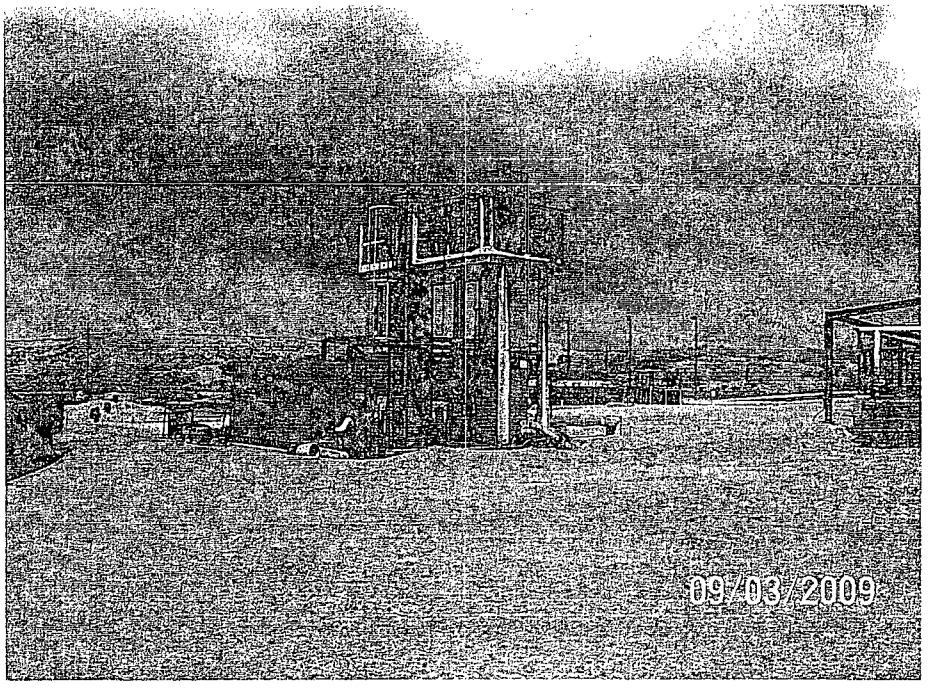

Figure A.1: Photograph of new additional stripper located next to existing strippers.

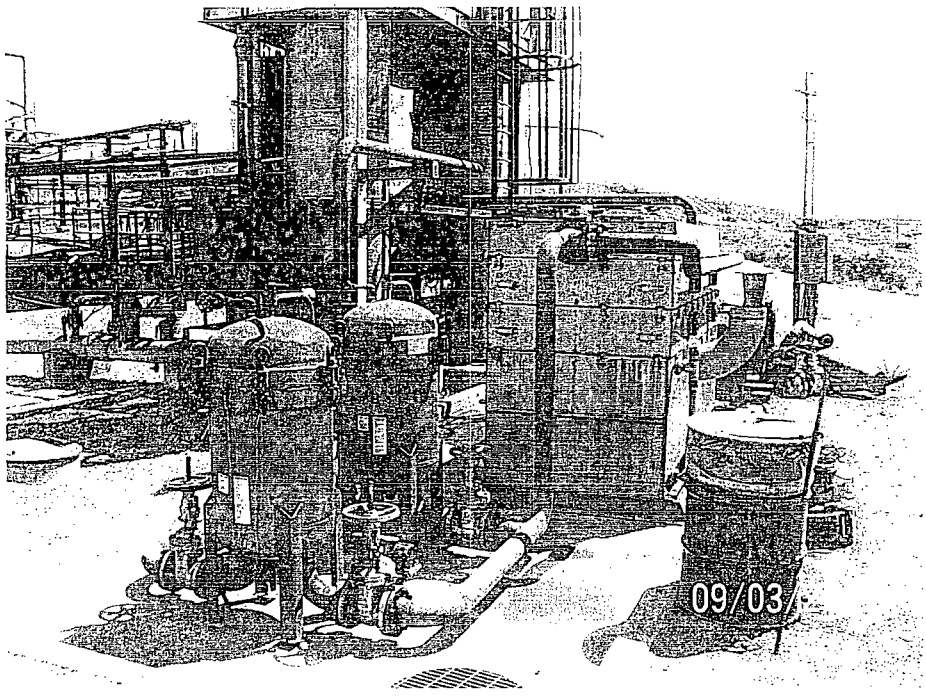

Figure A.2: Looking south at the new additional stripper and the new pre-filters (in blue)

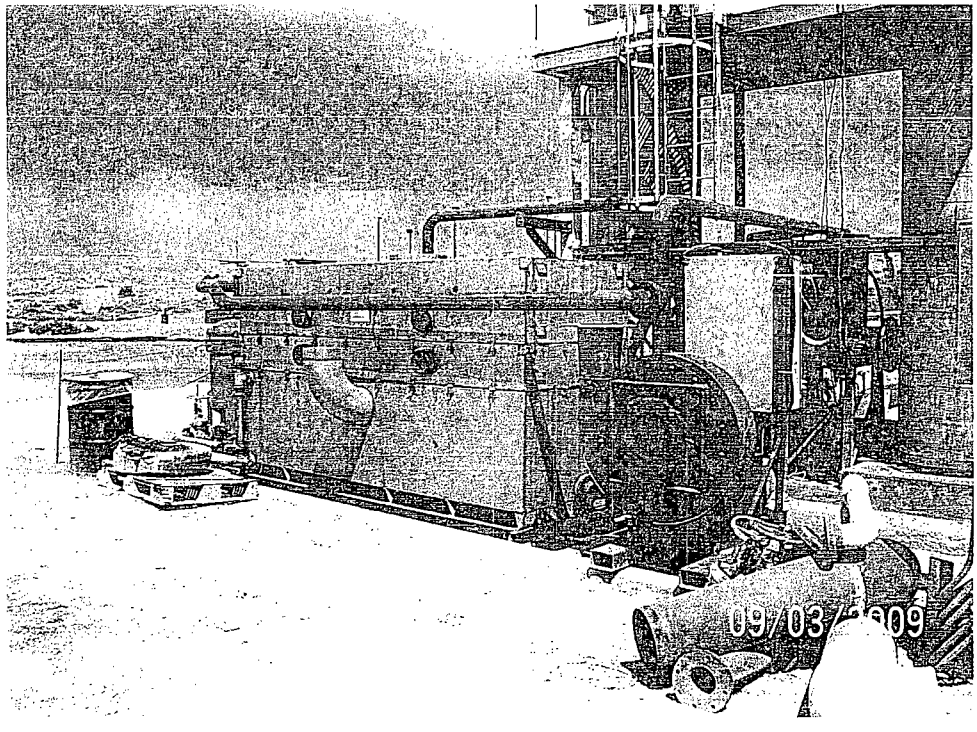

Figure A.3: Looking north-east at the new additional stripper

Carbonair's patented STAT Low Profile Air Strippers are ideally suited for removing volatile organic compounds (VOCs) from water in a variety of applications including industrial process and waste water treatment.

STAT low profile air strippers combine high removal efficiencies (99.9% or greater removal efficiencies for many VOCs), flexibility, and ease of maintenance and durability. Since 1992 Carbonair has provided thousands of STAT low profile air strippers in a myriad of applications and configurations. Many of these are still operating today.

STAT Standard Design Features

All STAT models are made of high quality 304 stainless steel and have 125 lb flanged inlet and outlet connections to ensure the integrity of piping connections. The trays and sump sections come equipped with clean out ports that facilitate easy inspection and routine cleaning of the aeration trays. The aerations trays are connected using adjustable over-center latching stainless steel clips, making assembly and disassembly quick and easy, while ensuring a tight fit and good seal to prevent leaks. All STAT aeration trays come equipped with an anti-bypass valve that prevents air from bypassing the aeration trays by flowing up through the down comers. This eliminates the need to "prime" the system at startup and ensures that the first drop of water that goes through the air strippers is treated as well as the last.

STATs configured for pump out discharge have sumps that are sized to minimize pump cycling and to maintain sufficient air distribution across the aeration trays. STATs come with direct coupled industrial grade blowers as standard equipment. All STATs are equipped with a low pressure switch mounted on the blower to shut down the water input upstream in the event of a blower failure, thereby ensuring that no untreated water is passing through to discharge.

Appendix C: NMED's August 27, 2009 letter (Interim Measures Work Plan Requirements

NEW MEXICO
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CERTIFIED MAIL - RETURN RECEIPT REQUESTED

December 16, 2009

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Western Refining, Southwest Inc., Gallup Refinery
Route 3, Box 7
Gallup, New Mexico 87301

RE: APPROVAL WITH MODIFICATIONS
INTERIM MEASURES WORK PLAN TO COMPLY WITH RCRA STANDARDS FOR DISCHARGE OF WASTEWATER TO SURFACE IMPOUNDMENTS
WESTERN REFINING COMPANY, SOUTHWEST, INC., GALLUP REFINERY
EPA ID # NMD000333211
HWB-GRCC-09-005

Dear Mr. Riege:

The New Mexico Environment Department (NMED) has received Western Refining Southwest Inc., Gallup Refinery (the Permittee) *Interim Measures Work Plan to Comply with RCRA Standards for Discharge of Wastewater to Surface Impoundments, Revision 1*(Work Plan), dated November 2009. NMED hereby issues this Approval with Modifications. The Permittee must adhere to all requirements included in the Work Plan as modified by this letter.

Comment 1

In Comment 1 of NMED's *Interim Measures Work Plan to Comply With RCRA Standards For Discharge of Wastewater to Surface Impoundments* October 22, 2009 letter (October 22, 2009 letter), NMED stated that the Permittee "must operate all three benzene strippers in series." However, the Work Plan states that the Permittee will operate three benzene strippers as "a single stripper in series with two others in parallel." The facility may operate the benzene strippers as indicated; however, the sampling requirements will be more stringent because of the Facility's history of non-compliance with the discharge limit with the current system using two benzene strippers. See the Table in Comment 4.

Revised Table 2

Period	Sample locations	Frequency	Analytical analyses	Reporting to NMED
Period 2: 75 to 120 days after IM Work Plan approved	Inlet to AL-1[1]	2 samples times/week	BTEX and MTBE[3]	All sample results submitted within 5 business days after sample collection
Period 2: 75 to 120 days after IM Work Plan approved	Measure effluent flow rates from the waste streams discharging to AL-1[1] and EP-1[2] on a daily basis			Daily effluent flow rates submitted on the third day of each month
Period 3: Day 121 onwards after IM Work Plan approval by NMED	If any of the effluent wastewater samples collected from the inlet of AL-1 during "Period 2" of [implementation of] the Work Plan meet or exceed the discharge limit at or above 0.5 mg/l for benzene, beginning on day 121, the Permittee must implement the sampling requirements established in NMED's August 27, 2009 letter (Interim Measures Work Plan Requirements, Attached). If benzene concentrations in all wastewater effluent samples collected from the inlet to AL-1 during "Period 2" are less than the discharge limit of 0.5 mg/l for benzene, the Permittee must continue to follow the sampling requirements for "Period 2" for an additional 30 days. If benzene concentrations in all effluent samples collected from wastewater entering AL-1 during the additional 30 days are less than the discharge limit, then the Permittee must resume sampling effluent entering into AL-1 once a week until notified otherwise by NMED. The effluent samples must be analyzed for BTEX and MTBE. If at any time benzene concentrations detected in any effluent sample meet or exceed the discharge limit, the Permittee must implement the sampling requirements established in NMED's August 27, 2009 letter (Interim Measures Work Plan Requirements, Attached)			
Period 3: Day 121 onwards after IM Work Plan approved	Measure effluent flow rates from the waste streams discharging to AL-1 and EP-1 on a daily basis			Daily effluent flow rates submitted every Friday to be consistent with Attachment 1 c.

[1] AL-1 =Aeration lagoon 1
[2] EP-1 = Evaporation Pond 1
[3] BTEX and MTBE = benzene, toluene, ethylbenzene, total xylenes and methyltertiarybutylether

a. A representative sample does not apply to the effluent sample(s) required to be collected at the influent to AL-1 to demonstrate all effluent entering into the Aeration Lagoons meets the discharge limit for benzene. As stated in Comment 7 item a of NMED's October 22, 2009 letter (Notice of Disapproval Interim Measures Work Plan to Comply with RCRA Standards for Discharge of Wastewater to Surface Impoundments), a daily wastewater effluent sample is defined as an effluent sample collected from the process wastewater effluent discharged into AL-1.

b. The EPA document "Waste Analysis at Facilities that Generate, Treat, Store, and Dispose of Hazardous Wastes (OSWER 9938.4-03)" is a guidance document; however, the New Mexico is the authorized State for both the RCRA permitting and the corrective action programs. Therefore, the Permittee must comply with all conditions required by NMED.

c. According to EPA's guidance document (Waste Analysis at Facilities that Generate, Treat, Store, and Dispose of Hazardous Wastes (OSWER 9938.4-03)), a "WAP is required for all TSDF, as well as generators treating hazardous waste in tanks, containers, or containment buildings to meet LDR standards." The WAP guidance does not directly apply to the Aeration Lagoons or the Evaporation Ponds. The Aeration Lagoons and Evaporation Ponds cannot receive, treat, or store hazardous waste because the Permittee does not have a permit to conduct these activities.

d. The Permittee's response to Comment 3 of NMED's October 22, 2009 letter was inadequate.

Comment 8

NMED provided general reminders to the Work Plan in Comment 7 of the October 22, 2009 letter. The following comments apply to the Permittee's responses to Comment 7.

a. In Comment 7, item (a), the Permittee states "[a]ppendix A of the revised Work Plan addresses Comment 7a regarding the definition of "daily wastewater effluent sample". NMED does not approve the discussion of a representative sample and a WAP in Appendix A (see Comment 7). Any wastewater entering into the Aeration Lagoons that contains characteristic levels of benzene result in illegal treatment of hazardous waste; averaging is not acceptable. In addition, per Section IV (Compliance Order), item 100 D of the Compliant and Consent Agreement and Final Order (CAFO), dated August 26, 2009 states "[d]ischarges of any hazardous wastewater to any surface impoundment shall cease within 120 days following NMED's approval of the Interim Measures Work Plan..." Item 100 D applies to any discharge.

Attachment 1

Gallup must comply with the sampling requirements below as stated in NMED's August 27, 2009 letter (Interim Measures Work Plan Requirements).

a. Beginning on day 121, Gallup must collect daily effluent samples of wastewater entering AL-1 and AL-2 for analyses of benzene, toluene, ethylbenzene, and xylenes (BTEX). The effluent wastewater samples must be submitted to a certified off-site laboratory and analyzed using EPA Method 8021B or EPA Method 8260. The analytical results for each sample must be submitted to NMED within four days of collection. The laboratory results may be forwarded to NMED by e-mail or delivered in hard copy.

b. Daily effluent wastewater samples must be collected until NMED is satisfied that Gallup is consistently achieving the discharge limit of 0.5 mg/L. Based on the sampling results, NMED will adjust the frequency of sampling.

c. Gallup must measure discharge flow rates entering AL-1 and entering Evaporation Pond 1 (EP-1) on a daily basis. The daily discharge flow rates must be submitted every Friday beginning on day 121. E-mail reporting of this data is acceptable.

NEW MEXICO
ENVIRONMENT DEPARTMENT

Hazardous Waste Bureau

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BILL RICHARDSON
Governor

DIANE DENISH
Lieutenant Governor

RON CURRY
Secretary

JON GOLDSTEIN
Deputy Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

December 16, 2009

Mr. Ed Riege
Environmental Manager
Western Refining, Southwest Inc., Gallup Refinery
Route 3, Box 7
Gallup, New Mexico 87301

RE: NOTICE OF DISAPPROVAL
FACILITY WIDE GROUNDWATER MONITORING WORK PLAN
WESTERN REFINING COMPANY, SOUTHWEST, INC., GALLUP REFINERY
EPA ID # NMD000333211
HWB-GRCC-09-001

Dear Mr. Riege:

The New Mexico Environment Department (NMED) has completed its review of the *Facility Wide Groundwater Monitoring Work Plan* (Work Plan), dated May 11, 2009, submitted on behalf of Western Refining Company, Southwest Inc., Gallup Refinery (Permittee) and hereby issues this Notice of Disapproval (NOD). The Permittee must address the following comments.

Comment 1

The Table of Contents (TOC) does not include all subsections within the Work Plan and some page numbers are inaccurate (e.g., Section 4 is missing subsections 4.1 through 4.4.5.8, TOC shows Section 4.0 beginning on page 23 but it actually begins on page 24). The Permittee must revise the Work Plan to ensure that the TOC corresponds to all sections, subsections, and page numbers within the Work Plan. Additionally, the Permittee must revise the TOC to include the titles of Appendices A though E.

statement. This section must summarize contaminant releases that could contribute to groundwater contamination.

Comment 6

In Section 2.4 (Summary of contaminant releases that could contribute to groundwater contamination), page 16, paragraph 5, the Permittee states "[t]here has always been the possibility that the wastewater treatment system of the facility based on aeration lagoons and evaporation ponds may have leaked contaminants into shallow groundwater. However, contaminants have not been found at any substantial levels in groundwater monitoring wells that have been placed next to and around these lagoons and ponds (the GWM series of wells). There is clay in the soil that serves as a natural liner and this clay has clearly prevented any such releases."

The statements regarding the extent of contamination and related clay properties are presumptive; hydrocarbon contamination has been detected in some wells and in groundwater in and around the wastewater treatment system at concentrations exceeding the Water Quality Commission Control (WQCC) standards (e.g., GWM-1 contains benzene that exceeds the WQCC standard of 0.01 mg/L and groundwater contamination is present in monitoring well NAPIS-2 near the API separator). Additionally, the properties of the clay are not necessarily consistent throughout the facility. The Permittee must revise the Work Plan to remove the statement "[h]owever, contaminants have not been found at any substantial levels in groundwater monitoring wells that have been placed next to and around these lagoons and ponds (the GWM series of wells). There is clay in the soil that serves as a natural liner and this clay has clearly prevented any such releases."

Comment 7

In Section 2.4 (Summary of contaminant releases that could contribute to groundwater contamination), page 16 and 17, paragraph 6 and 1 respectively, the Permittee states "[u]sing a contaminant transport model developed by the US Environmental Protection Agency, called CHEMFLO, that models the transport of contaminants through unsaturated soils, we have estimated that benzene could not travel more than a few feet into the subsurface under a pond with about 3 feet of standing water even with a very high concentration of benzene."

The above statement is unsubstantiated; the Permittee cannot make such assertions without valid supporting data. Also, it is not clear if sand stringers in this area were accounted for. This Section must address only know or suspected contaminant releases that may contribute to groundwater contamination. The Permittee must remove the above statement from the Work Plan.

Comment 12
In Section 4.1 (Groundwater elevation surveys), page 24, paragraph 1, the Permittee states "[g]round water elevation data will be collected from the wells listed in Table 1. As directed by NMED HWB, groundwater elevation data will be collected on a quarterly or annual basis."

Table 1 has several inaccuracies (e.g., SMW-6 is closed, see Figure 7). NMED has revised Table 3 (see also Comment 23) to include the information from Table 1 as well as the groundwater monitoring requirements. The Permittee must revise the Work Plan to remove Table 1 and revise the above statement to reference the revised Table 3 (or as otherwise designated).

Comment 13
In Section 4.1 (Groundwater elevation surveys), page 24, paragraph 1, the Permittee states "[g]roundwater levels and SPH thickness measurements (from the RW series of wells) will be collected on a quarterly or annual basis to monitor groundwater elevation fluctuations over time."

The groundwater levels and SPH thickness measurements from the recovery wells must be collected on a quarterly basis. These requirements are established in the revised Table 3. The Permittee must revise the Work Plan to include this requirement. (See also Comment 22)

Comment 14
In Section 4.1 (Groundwater Elevation surveys), page 24, paragraph 2, the Permittee states "[t]he frequency for collection of groundwater elevation data may be adjusted based on review of data collected during the initial four quarters."

Changes to the frequency for the collection of groundwater elevation data and sampling may only be proposed in the annual revision to the Facility Wide Groundwater Monitoring Plan. The Permittee must revise the above statement to reflect this in the revised Work Plan.

Comment 15
In Section 4.2.1 (Well Purging), pages 24 and 26, the Permittee states "[t]otal purge volume will be determined by monitoring groundwater pH, and specific conductance, dissolved oxygen (DO) concentrations, oxidation-reduction potential (ORP), and temperature after every two gallons or each well volume, whichever is less, has been purged from the well. Field parameters will be measured using a YSI 63 pH/Conductivity hand-held instrument or equivalent. Purging will continue, as needed until the field parameter readings stabilize to within ten percent between readings for three consecutive measurements. Once the readings are within 10%, purging will stop and the well is ready for sample collection."

Regardless of the field water quality measurements, the Permittee must purge a minimum of two well volumes before collecting a water sample. Field water quality measurements must stabilize

this Section to remove references to the "Order;" the Permittee has a Post-Closure Care Permit and is not currently subject to an Order. (See also Comment 11)

Comment 21

In Section 5.0 (Monitoring and Sampling Program), page 37, paragraph 2, the Permittee states "[t]he combined data from these investigation areas will be used to establish background groundwater quality, asses groundwater quality beneath and immediately down-gradient of the Facility, and evaluate local groundwater flow conditions."

Background groundwater quality values have not been established at the facility and background values will not be established based on the results of the proposed monitoring. In order to establish background groundwater values, upgradient wells from refinery activities must be installed and a statistically valid number of samples collected and evaluated to establish background concentrations. The Permittee must revise the Work Plan to remove all references to background groundwater quality.

Comment 22

Table 3 (Summary of sampling locations, frequencies, and tests required) on page 39, identifies the sampling requirements for the Work Plan. The table did not include all sampling requirements from items 16 and 19 of the OCD Discharge Plan and the table organization is unclear. Additionally, it is not clear why the Permittee has the NAPI secondary containment as a sample location, because the secondary containment should not contain water. NMED has revised Table 3 to include all sampling requirements, sampling locations and frequencies, and analytical methods. The Permittee must revise the Work Plan to include the attached revised Table 3, which replaces Table 1. The Permittee must justify the need to sample the NAPI secondary containment sample location and revise Table 3 to either include or remove this location. These changes must be reflected in the revised Work Plan. An electronic version of the revised Table 3 is available from NMED upon request.

Comment 23

The Permittee must revise Sections 5.1.2 (Sampling Frequency and Analysis) and Section 5.2.2 (Sampling Frequency and Analyses) to reference the revised Table 3 for the sampling requirements and frequencies or otherwise remove these Sections from the Work Plan. (See also Comment 22)

Comment 24

The Permittee states in Appendix C (Gallup Field Sampling Collection and Handling Procedures), under "Field Data Collection," page 48, paragraph 2, that "[a]ll water/product levels are measured to an accuracy of the nearest 0.01 foot using an electrical Conductivity based meter." On page 49, the Permittee states under "Groundwater Elevation" that "[a]ll water

Comment 28
In Appendix C (Gallup Field Sampling Collection and Handling Procedures), page 50, under "Hand Bailing," the Permittee indicates that NAPIS-1, NAPIS-2, NAPIS-3, and KA-3 are hand bailed. However, on page 50 under "Pumping," the Permittee states all wells are pumped with the exception of the recovery wells. The Permittee must revise the Work Plan to clarify whether NAPIS-1, NAPIS-2, NAPIS-3, and KA-3 will be hand bailed or pumped.

Comment 29
In Appendix C, page 53, "Equipment Calibration Procedures," the Permittee provides step by step instructions regarding calibration. The Permittee does not need to provide the step by step calibration instructions, but must state that all equipment (identify all equipment by name) will be calibrated according to the manufactures specifications. The Permittee must revise the Work Plan accordingly.

Comment 30
The information provided under "Order of Collection" found in Appendix C (Gallup Field Sampling Collection and Handling Procedures), page 51, must reflect the sampling that will be conducted during the facility wide groundwater monitoring events. Cyanide and radionuclides are not included in the analysis and therefore must be removed from the "Order of Collection" list. In addition, TOX must be defined. The Permittee must revise this section accordingly.

Comment 31
In Appendix C (Gallup Field Sampling Collection and Handling Procedures), pages 53 through 55, the Permittee provides the "Guidelines for Sampling at Ponds." The information provided in this Appendix is written as a Standard Operating Procedure and does not explain how the Evaporation Ponds will be sampled. In addition, the sampling objectives will most likely not be completed because the Permittee discusses sampling at depths that will be dictated by study objectives and physical, chemical, and biological characteristics of the water body and compositing or splitting samples (note: water samples should not be composited). Also some of the references within this section of Appendix C are incorrect (e.g., the text on page 54, under the heading "Step 4. Collect sample" references Steps 4A and 4B, which are not present.)
The Permittee must either remove this section of Appendix C from the Work Plan or revise this section to explain how Evaporation Pond samples will collected. Samples collected from the Evaporation Ponds must be collected from the inlet of each Evaporation Pond (see also Comment 18). The Permittee must revise Appendix C accordingly.

Comment 32
The Permittee provides "Field Procedures for Purging Monitor Wells" on page 49 of Appendix C. The Permittee states that "the casing volumes are calculated using the formula: One casing volume = L x F" and states that the variable F is provided on the *Well Volume Sheet* provided at

Comment 37

In Appendix B, the Permittee states "[a]ll well logs will be submitted by June 30, 2009." The Permittee has provided the wells logs electronically. Therefore, this information does not need to be included in the revised Work Plan. The Permittee must revise the Work Plan to remove this Appendix.

The Permittee must address all comments contained in this NOD and submit a revised Work Plan to NMED and OCD on or before March 1, 2010. The revised Work Plan must be accompanied by a response letter that details where all revisions have been made, cross-referencing NMED's numbered comments.

If you have questions regarding this NOD please contact Kristen Van Horn of my staff at 505-476-6046.

Sincerely,

James P. Bearzi
Chief
Hazardous Waste Bureau

cc: J. Kieling, NMED HWB
D. Cobrain NMED HWB
H. Monzeglio NMED HWB
K. Van Horn NMED HWB
C. Chavez, OCD
R. Gaurav, Gallup
File: Reading File and GRCC 2009 File
HWB-GRCC-09-001

Gallup Refining Company
Groundwater Monitoring Schedule
Revised Table 3

Sampling Location ID	Sampling Frequency	Collect GW elevation, DTW, DTP	Water Quality Parameters	Analytical Suite
Pilot Effluent	Quarterly (Q)			VOC/ DRO extended/ GRO/BOD/ COD/ WQCC Metals
NAPIS Effluent	Q			Gen Chem/ VOC/ SVOC (Phenol)/ DRO extended/ GRO/ WQCC Metals
AL2 to EP-1	Q			major cations/ major anions/ VOC/ SVOC (Phenol)/ DRO extended/ GRO/ WQCC Metals
Influent toAL-1	Q			VOC/ BOD/ COD/ chlorides/ DRO extended/ GRO/ pH/ phenol
Influent toAL-2	Q			VOC/ BOD/ COD/ chlorides/ DRO extended/ GRO/ pH/ phenol
Influent to Evaporation Pond 1	Q			major cations/ major anions/ pH/ BOD/ COD/ chlorides/ VOC/ SVOC (Phenol)/ DRO extended/ GRO/ WQCC metals
NAPI 2ndary Containment	Q			BTEX/ DRO extended/ GRO/ WQCC Metals or check for fluids
RW-1	Q	X		Measure DTW, DTP
RW-2	Q	X		Measure DTW, DTP
RW-5	Q	X		Measure DTW, DTP
RW-6	Q	X		Measure DTW, DTP

The Analyte list for EPA Method 8260 must include MTBE

(a) NAPIS 1, NAPIS-2, NAPIS 3: detection of product during quarterly monitoring must comply Section II.F.2 (Twenty-Four Hour Reporting) of NMED Post-Closure Care Permit.

(b) Sample using the State of New Mexico approved analytical methods as required by 20.6.4.14 NMAC, as amended through February 16, 2006 (use Methods: 9221-E and 9221-F, until EPA approves 40 CFR 136 methods (Colilert, Colilert-18, m-ColiBlue24, membrane filter method)). Parameters are subject to change.

WQCC metals include the RCRA 8 metals, must be analyzed as totals and dissolved

Evaporation Pond samples must be collected at the inlet, where wastewater flows into the evaporation pond

Sampling Location ID	Sampling Frequency	Collect GW elevation, DTW, DTP	Water Quality Parameters	Analytical Suite
GWM-2	Q	X		Check for water –if water is detected report to OCD & NMED within 24 hours; sample for BTEX + MTBE/ GRO/ DRO extended/ major cations/ major anions
GWM-3	Q	X		Check for water –if water is detected report to OCD & NMED within 24 hours; sample for BTEX + MTBE/ GRO/ DRO extended/ major cations/ major anions
GWM-1	Q	X	pH, E.C., D.O, ORP, Temp, TDS	major cations/ major anions/ VOC/DRO extended/ GRO/ WQCC Metals
NAPIS -1 **(a)**	Q	X	pH, E.C., D.O, ORP, Temp, TDS	major cations/ major anions/ BTEX + MTBE/ SVOCs/ DRO/ GRO/ WQCC Metals
NAPIS -2 **(a)**	Q	X	pH, E.C., D.O, ORP, Temp, TDS	major cations/ major anions/ BTEX + MTBE/ SVOCs/ DRO/ GRO/ WQCC Metals
NAPIS -3 **(a)**	Q	X	pH, E.C., D.O, ORP, Temp, TDS	major cations/ major anions/ BTEX + MTBE/ SVOCs/ DRO/ GRO/ WQCC Metals

The Analyte list for EPA Method 8260 must include MTBE

(a) NAPIS 1, NAPIS-2, NAPIS 3: detection of product during quarterly monitoring must comply Section II.F.2 (Twenty-Four Hour Reporting) of NMED Post-Closure Care Permit.

(b) Sample using the State of New Mexico approved analytical methods as required by 20.6.4.14 NMAC, as amended through February 16, 2006 (use Methods: 9221-E and 9221-F, until EPA approves 40 CFR 136 methods (Colilert, Colilert-18, m-ColiBlue24, membrane filter method)). Parameters are subject to change.

WQCC metals include the RCRA 8 metals, must be analyzed as totals and dissolved

Evaporation Pond samples must be collected at the inlet, where wastewater flows into the evaporation pond

Sampling Location ID	Sampling Frequency	Collect GW elevation, DTW, DTP	Water Quality Parameters	Analytical Suite
Evaporation Pond 5 **(b)**	SA		pH, E.C., D.O, ORP, Temp, TDS	Same as Evaporation Pond 1
Evaporation Pond 6 **(b)**	SA		pH, E.C., D.O, ORP, Temp, TDS	Same as Evaporation Pond 1
Evaporation Pond 7 **(b)**	SA		pH, E.C., D.O, ORP, Temp, TDS	Same as Evaporation Pond 1
Evaporation Pond 8 **(b)**	SA		pH, E.C., D.O, ORP, Temp, TDS	Same as Evaporation Pond 1
Evaporation Pond 9A **(b)**	SA		pH, E.C., D.O, ORP, Temp, TDS	Same as Evaporation Pond 1
Evaporation Pond 11 **(b)**	SA		pH, E.C., D.O, ORP, Temp, TDS	Same as Evaporation Pond 1

The Analyte list for EPA Method 8260 must include MTBE

(a) NAPIS 1, NAPIS-2, NAPIS 3: detection of product during quarterly monitoring must comply Section II.F.2 (Twenty-Four Hour Reporting) of NMED Post-Closure Care Permit.

(b) Sample using the State of New Mexico approved analytical methods as required by 20.6.4.14 NMAC, as amended through February 16, 2006 (use Methods: 9221-E and 9221-F, until EPA approves 40 CFR 136 methods (Colilert, Colilert-18, m-ColiBlue24, membrane filter method)). Parameters are subject to change.

WQCC metals include the RCRA 8 metals, must be analyzed as totals and dissolved

Evaporation Pond samples must be collected at the inlet, where wastewater flows into the evaporation pond

Sampling Location ID	Sampling Frequency	Collect GW elevation, DTW, DTP	Water Quality Parameters	Analytical Suite
BW-2-A	A	X	pH, E.C., D.O, ORP, Temp, TDS	major cations/ major anions/ VOC/ SVOC/ WQCC metals
BW-2-B	A	X	pH, E.C., D.O, ORP, Temp, TDS	major cations/ major anions/ VOC/ SVOC/ WQCC metals
BW-2-C	A	X	pH, E.C., D.O, ORP, Temp, TDS	major cations/ major anions/ VOC/ SVOC/ WQCC metals
BW-3-A	A	X	pH, E.C., D.O, ORP, Temp, TDS	major cations/ major anions/ VOC/ SVOC/ WQCC metals
BW-3-B	A	X	pH, E.C., D.O, ORP, Temp, TDS	major cations/ major anions/ VOC/ SVOC/ WQCC metals
BW-3-C	A	X	pH, E.C., D.O, ORP, Temp, TDS	major cations/ major anions/ VOC/ SVOC/ WQCC metals
Pond 2 Inlet	A			VOC/ DRO extended/ GRO/ BOD/ COD/ TDS

The Analyte list for EPA Method 8260 must include MTBE

(a) NAPIS 1, NAPIS-2, NAPIS 3: detection of product during quarterly monitoring must comply Section II.F.2 (Twenty-Four Hour Reporting) of NMED Post-Closure Care Permit.

(b) Sample using the State of New Mexico approved analytical methods as required by 20.6.4.14 NMAC, as amended through February 16, 2006 (use Methods: 9221-E and 9221-F, until EPA approves 40 CFR 136 methods (Colilert, Colilert-18, m-ColiBlue24, membrane filter method)). Parameters are subject to change.

WQCC metals include the RCRA 8 metals, must be analyzed as totals and dissolved

Evaporation Pond samples must be collected at the inlet, where wastewater flows into the evaporation pond

Sampling Location ID	Sampling Frequency	Collect GW elevation, DTW, DTP	Water Quality Parameters	Analytical Suite
SWM-4	A	X	pH, E.C., D.O, ORP, Temp, TDS	major cations/ major anions/ VOC/ DRO extended/ GRO/ WQCC metals
PW-2	Every 3 yrs starting in 2008			VOC/ SVOC/ WQCC metals/ cyanide/ nitrates
PW-3	Every 3 yrs starting in 2008			VOC/ SVOC/ WQCC metals/ cyanide/ nitrates
PW-4	Every 3 yrs starting in 2007			VOC/ SVOC/ WQCC metals/ cyanide/ nitrates
Effluent from Old API (storm water separator effluent)	Monthly flow rate measurements to New API Separator			Collect monthly flow rate readings from the Old API to the New API Separator. If effluent is re-routed to any other location than the New API Separator, NMED/OCD must be contacted to determine whether additional sampling and analysis is required.

The Analyte list for EPA Method 8260 must include MTBE

(a) NAPIS 1, NAPIS-2, NAPIS 3: detection of product during quarterly monitoring must comply Section II.F.2 (Twenty-Four Hour Reporting) of NMED Post-Closure Care Permit.

(b) Sample using the State of New Mexico approved analytical methods as required by 20.6.4.14 NMAC, as amended through February 16, 2006 (use Methods: 9221-E and 9221-F, until EPA approves 40 CFR 136 methods (Colilert, Colilert-18, m-ColiBlue24, membrane filter method)). Parameters are subject to change.

WQCC metals include the RCRA 8 metals, must be analyzed as totals and dissolved

Evaporation Pond samples must be collected at the inlet, where wastewater flows into the evaporation pond

Table Notes

Pilot Effluent – Effluent from the Pilot Gas Station to the Aeration Lagoon

Pond 2 Inlet - Sample collected at the inlet to Evaporation Pond 2 from Evaporation Pond 1

NAPIS Effluent – Effluent leaving the New API Separator

AL-2 to EP-1 – sample collection at the inlet from Aeration Lagoon 2 to Evaporation Pond 1 (influent location into EP 1)

NAPIS 1=(KA-1R); NAPIS-2 =(KA-2R), NAPIS 3 =(KA-3R) – monitor wells positioned around NAPIS to detect leakage

DO - dissolved oxygen; ORP - oxygen reduction potential temp - temperature E.C. - electrical or specific conductivity

TDS – total dissolved solids VOCs – volatile organic compounds –EPA Method 8260, must include MTBE

SVOCs – semi volatile organic compounds – EPA Method 8270, must include phenol

DRO – diesel-range organics – EPA Method 8015B (or as modified)

GRO – gasoline range organics – EPA Method 8015B (or as modified)

BTEX – benzene, toluene, ethylbenzene, xylene, plus Methyl Tertiary-Butyl Ether (MTBE) – EPA Method 8021 + MTBE

DTW – depth to water DTP – depth to product EP- Evaporation Pond

BW wells – boundary wells GWM wells - are located around the aeration lagoons to detect leakage

MW – Monitor Well OW – observation well RW – recovery well PW – raw water production well

APPENDIX G

Major Refinery Activities and Events in 2009

January: Installed Baker tanks for NAPIS overflows.

February: Benzene source reductions implemented.

WNR Waste Water Treatment Plant upgrade process design reported was submitted to NMED.

Western submits lagoons closure plan.

May: Western submits response to NOD on the WWTP process design.

June: SkyWest Development Inc. was retained to repair erosion on the dikes on evaporation ponds 6, 9 and 8 and to place rip rap on evaporation ponds 6 to reduce erosion from high winds.

The Pilot sanitary waste water lift station was completed and put into service.

July: Annual Sampling event for 2009 was completed. The RCRA 10 year monitoring of the monitoring wells MW-2 and SMW-2 and SMW-4 was also conducted in July.

The Sats Unit underground sewer line testing took place. No issues were noted as all lines held and passed.

September: Western submits an alternative design plan to the WWTP.
Western submits an Interim Measures Work Plan to prevent discharge of hazardous waste into the aeration lagoons.

October: Two new wells were drilled and completed on the East side down gradient of observation well OW-29. OW-50 and OW-52 were installed to begin monitoring the MTBE plume in wells OW-14, OW-29 and OW-30 for possible migration of the contaminant as requested by NMED.

December: LTU – Land Treatment Unit 10 year RCRA soil sampling was conducted by Trihydro and Western.

Work continues on the clean up of the SWMU at the Fan out Area north of the railroad rack lagoon. Samples were taken and analyzed and work is progressing for the closure of this site.

CC: Ed
Michelle
James

DENNIS FUHS
OWNER

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DOZERS • LOADERS 3 YD. TO 8 YD. • BACKHOES
SCRAPERS • MOTOR GRADERS
P.O. BOX 630 - GALLUP, N.M. 87305

Work: (505) 722-3909
Home: (505) 722-5348
FAX: (505) 722-7323

April 21, 2009

Western Refining
Attention: Ed Riege
(c/o Butch)

Subject: price quote for repair of Pond # 9
West Berm 650 LF North Berm 1200 LF (+ or -)

Seepage from the Pond is occurring on both the West berm and the North berm. To repair the existing berm, the pond would have to be drained. With all Ponds full at this time, this would NOT be an option.

We would propose to haul clay dirt from the Pit Northeast of the gate on the well Road and place to widen the existing berms from the outside. Placing lifts not to exceed one foot (1') and compacting with sheepsfoot roller to 90%. Also, no moisture testing, leaving a 10' top minimum.

West berm would take 1850 cy (+or-) @ 6.50	12025.00
North berm would take 3600 cy (+or--) @ 6.50	23400.00

TOTAL: $35,425.00

This price does not include any applicable sales taxes.
This work would take 3 to 4 weeks to complete.

Should you have any questions, please call me.

Sincerely,

Dennis Fuhs
Fuhs Trucking Co., Inc.
P.O. Box 630
Gallup, NM 87305-0630

21367 2009 Pond Dike Work

Invoice

Skywest Development Inc. License #89202

POB 1923 Gallup NM 87305
(John) (505) 870-1915 cell
Phone (505) 722-7003
Fax (505) 863-8132

Date	Invoice #
6/1/2009	2082

Bill To	Ship To
Western Refining Southwest, Inc. Rt. 3 Box 7 Gallup NM 87301	Pond #9 Berm N.E. Side

RECEIVED
JUN 1 2009
BY:

P.O. Number	Terms	Rep	Ship	Via	F.O.B.	Project
C22649			6/1/2009			Pond # 9 & 4

Quantity	Item Code	Description	Price Each	Amount
4	980C	980C Front End Loader Ronald 3 hrs Johnny 2 Hrs Stockpiling clay material	135.00	540.00T
2	03Dump	IHC Tandem Dump Truck# 03 haul clay material to soft areas to get ready for Belly Dump Ronald	75.00	150.00T
3	700J	700J John Deere Dozer Ed	125.00	375.00T
2	HyPac 852	Hypac 852B 29,000# W/Blade Ed	85.00	170.00T
3	12G	Caterpillar Motor Grader Ed	100.00	300.00T
4	Employee	Safety Orientation meeting Johnny Ed Ronald	0.00	0.00T
		Sales Tax	6.625%	101.69

	C/C	A/C	AMOUNT	PO / REF
208	4060	5723.03	818.35	
208	4060	5722	818.34	

Date Paid

Total $1,636.69

21367

Invoice

Skywest Development Inc. License #89202

POB 1923 Gallup NM 87305
(John) (505) 870-1915 cell
Phone (505) 722-7003
Fax (505) 863-8132

Date	Invoice #
6/2/2009	2083

Bill To	Ship To
Western Refining Southwest, Inc. Rt. 3 Box 7 Gallup NM 87301	Pond #9 Berm N.E. Side

RECEIVED
JUN 1 9 2009
BY:

P.O. Number	Terms	Rep	Ship	Via	F.O.B.	Project
C22649			6/2/2009			Pond # 9 & 4

Quantity	Item Code	Description	Price Each	Amount
9	980C	980C Front End Loader Loading truck & Stockpiling clay material Lucas	135.00	1,215.00T
9	Freightliner	Freightliner Dump Truck haul clay material Belly Dump Ronald	75.00	675.00T
1	700J	700J John Deere Dozer Ed	125.00	125.00T
9	HyPac 852	Hypac 852B 29,000# W/Blade Steven	85.00	765.00T
6	12G	Caterpillar Motor Grader Ed	100.00	600.00T
2	IHC Water	IHC Water Truck Ed	75.00	150.00T
		Sales Tax	6.625%	233.86

C/C	A/C	AMOUNT	PO / REF
4060	5723.03	1,881.93	
4060	5722	1,881.93	
Date Paid			

Total $3,763.86

21367

Skywest Development Inc. License #89202

POB 1923 Gallup NM 87305
(John) (505) 870-1915 cell
Phone (505) 722-7003
Fax (505) 863-8132

Invoice

Date	Invoice #
6/3/2009	2084

Bill To	Ship To
Western Refining Southwest, Inc. Rt. 3 Box 7 Gallup NM 87301	Pond #9 Berm N.E. Side

RECEIVED
JUN 1 2009
BY:

P.O. Number	Terms	Rep	Ship	Via	F.O.B.	Project
C22649			6/3/2009			Pond # 9 & 4

Quantity	Item Code	Description	Price Each	Amount
7	980C	980C Front End Loader Loading truck & Stockpiling clay material Lucas O Ring on tire leaking shut down early	135.00	945.00T
7	Freightliner	Freightliner Dump Truck haul clay material Belly Dump Ronald/Tim	75.00	525.00T
1	700J	700J John Decre Dozer Ed	125.00	125.00T
8	HyPac 852	Hypac 852B 29,000# W/Blade Steven	85.00	680.00T
6	12G	Caterpillar Motor Grader Ed	100.00	600.00T
2	IHC Water	IHC Water Truck Ed	75.00	150.00T
7	HyPac	Pad Foot Vibrating Compactor Marvin compact sides of burm	75.00	525.00T
		Sales Tax	6.625%	235.19

	G/C	A/C	AMOUNT	PO / REF
200	4060	5723.03	1,892.60	
200	4060	5722	1,892.59	
Date Paid				

Total $3,785.19

21367

Skywest Development Inc. License #89202

POB 1923 Gallup NM 87305
(John) (505) 870-1915 cell
Phone (505) 722-7003
Fax (505) 863-8132

Invoice

Date	Invoice #
6/4/2009	2089

Bill To	Ship To
Western Refining Southwest, Inc. Rt. 3 Box 7 Gallup NM 87301	Pond #9 Berm N.E. Side

RECEIVED
JUN 19 2009
BY:

P.O. Number	Terms	Rep	Ship	Via	F.O.B.	Project
C22649			6/3/2009			Pond # 9 & 4

Quantity	Item Code	Description	Price Each	Amount
9	980C	980C Front End Loader Loading truck & Stockpiling clay material Lucas	135.00	1,215.00T
9	Freightliner	Freightliner Dump Truck haul clay material Belly Dump Ronald/Tim	75.00	675.00T
2	700J	700J John Deere Dozer Ed/Ronald	125.00	250.00T
9	HyPac 852	Hypac 852B 29,000# W/Blade Steven	85.00	765.00T
7	12G	Caterpillar Motor Grader Ed	100.00	700.00T
2	IHC Water	IHC Water Truck Ed	75.00	150.00T
		Sales Tax	6.625%	248.77

C/C	A/C	AMOUNT	PO / REF
4060	5723.03	2,001.69	
4060	5722	2,001.88	
Date Paid			

Total $4,003.77

21367

Invoice

Skywest Development Inc. License #89202

POB 1923 Gallup NM 87305
(John) (505) 870-1915 cell
Phone (505) 722-7003
Fax (505) 863-8132

Date	Invoice #
6/5/2009	2097

Bill To	Ship To
Western Refining Southwest, Inc. Rt. 3 Box 7 Gallup NM 87301	Pond #9 Berm N.E. Side

RECEIVED
JUN 1 2009
BY:

P.O. Number	Terms	Rep	Ship	Via	F.O.B.	Project
C22649			6/12/2009			Pond # 9 & 4

Quantity	Item Code	Description	Price Each	Amount
7	980C	980C Front End Loader Loading truck & Stockpiling clay material Lucas	135.00	945.00T
7	Freightliner	Freightliner Dump Truck haul clay material Belly Dump Ronald/Tim	75.00	525.00T
4	700J	700J John Deere Dozer Ed/Ronald	125.00	500.00T
7	HyPac 852	Hypac 852B 29,000# W/Blade Steven	85.00	595.00T
3	12G	Caterpillar Motor Grader Ed	100.00	300.00T
0	IHC Water	IHC Water Truck Ed	75.00	0.00T
		Sales Tax	6.625%	189.81

C/C	A/C	AMOUNT	PO / REF
4060	5723.03	1,527.41	
4060	5722	1,527.40	
Date Paid			

Total $3,054.81

21367

Skywest Development Inc. License #89202

POB 1923 Gallup NM 87305
(John) (505) 870-1915 cell
Phone (505) 722-7003
Fax (505) 863-8132

Invoice

Date	Invoice #
6/8/2009	2098

Bill To	Ship To
Western Refining Southwest, Inc. Rt. 3 Box 7 Gallup NM 87301	Pond #9 Berm N.E. Side

RECEIVED
JUN 19 2009
BY:

P.O. Number	Terms	Rep	Ship	Via	F.O.B.	Project
C22649			6/8/2009			Pond # 9 & 4

Quantity	Item Code	Description	Price Each	Amount
9	980C	980C Front End Loader Loading truck & Stockpiling clay material Drove to concrete pile and loaded bank concrete to put into bottom of outside burn #3 Lucas	135.00	1,215.00T
9	Freightliner	Freightliner Dump Truck haul clay material Belly Dump Ronald	75.00	675.00T
7	700J	700J John Deere Dozer Ed/Ronald	125.00	875.00T
9	HyPac 852	Hypac 852B 29,000# W/Blade Steven	85.00	765.00T
2	IHC Water	IHC Water Truck Ed	75.00	150.00T
		Sales Tax	6.625%	243.80

C/C	A/C	AMOUNT	PO / REF
4060	5723.03	1,961.90	
4060	5722	1,961.90	
Date Paid			

Total $3,923.80

21387

Skywest Development Inc. License #89202

POB 1923 Gallup NM 87305
(John) (505) 870-1915 cell
Phone (505) 722-7003
Fax (505) 863-8132

Invoice

Date	Invoice #
6/9/2009	2099

Bill To	Ship To
Western Refining Southwest, Inc. Rt. 3 Box 7 Gallup NM 87301	Pond #9 Berm N.E. Side

RECEIVED
JUN 1 [illegible]
BY:

P.O. Number	Terms	Rep	Ship	Via	F.O.B.	Project
C22649			6/9/2009			Pond # 9 & 4

Quantity	Item Code	Description	Price Each	Amount
9	980C	980C Front End Loader Loading truck & Stockpiling clay material Drove to concrete pile and loaded bank concrete to put into bottom of outside burm #3 Lucas	135.00	1,215.00T
9	Freightliner	Freightliner Dump Truck haul clay material Belly Dump Ronald	75.00	675.00T
6	700J	700J John Deere Dozer Ed/Ronald	125.00	750.00T
9	HyPac 852	Hypac 852B 29,000# W/Blade Steven	85.00	765.00T
3	IHC Water	IHC Water Truck Ed	75.00	225.00T
		Sales Tax	6.625%	240.49

C/C	A/C	AMOUNT	PO / REF
206 4060	5723.03	1935.25	
200 4060	5722	1935.24	
Date Paid			

Total $3,870.49

21387

Invoice

Skywest Development Inc. License #39202

POB 1923 Gallup NM 87305
(John) (505) 870-1915 cell
Phone (505) 722-7003
Fax (505) 863-8132

Date	Invoice #
6/11/2009	2088

Bill To	Ship To
Western Refining Southwest, Inc. Rt. 3 Box 7 Gallup NM 87301	Pond #9 Berm N.E. Side

RECEIVED
JUN 1 2009
BY:

P.O. Number	Terms	Rep	Ship	Via	F.O.B.	Project
C22649			6/3/2009			Pond # 9 & 4

Quantity	Item Code	Description	Price Each	Amount
11	980C	980C Front End Loader Loading truck & Stockpiling clay material Lucas	135.00	1,485.00T
11	Freightliner	Freightliner Dump Truck haul clay material Belly Dump Ronald/Tim	75.00	825.00T
11	02Dump	IHC Tandem Dump Truck# 02	75.00	825.00T
11	03Dump	IHC Tandem Dump Truck# 03	75.00	825.00T
3	700J	700J John Deere Dozer Ed	125.00	375.00T
11	HyPac 852	Hypac 852B 29,000# W/Blade Steven	85.00	935.00T
1	IHC Water	IHC Water Truck Ed	75.00	75.00T
		Sales Tax	6.625%	354.11

	C/C	A/C	AMOUNT	PO / REF	
206	4060	5723.03	2,849.56		
206	4060	5722	2,849.55		
	Date Paid				

Total $5,699.11

21367

Skywest Development Inc. License #89202

POB 1923 Gallup NM 87305
(John) (505) 870-1915 cell
Phone (505) 722-7003
Fax (505) 863-8132

Invoice

Date	Invoice #
6/12/2009	2100

Bill To	Ship To
Western Refining Southwest, Inc. Rt. 3 Box 7 Gallup NM 87301	Pond #9 Berm N.E. Side

RECEIVED
JUN 19 2009
BY:

P.O. Number	Terms	Rep	Ship	Via	F.O.B.	Project
C22649			6/3/2009			Pond # 9 & 4

Quantity	Item Code	Description	Price Each	Amount
7	980C	980C Front End Loader Loading truck & Stockpiling clay material Lucas	135.00	945.00T
7	Freightliner	Freightliner Dump Truck haul clay material Belly Dump Ronald/Tim	75.00	525.00T
7	02Dump	IHC Tandem Dump Truck# 02	75.00	525.00T
7	700J	700J John Deere Dozer Ed	125.00	875.00T
7	HyPac 852	Hypac 852B 29,000# W/Blade Steven	85.00	595.00T
1	IHC Water	IHC Water Truck Ed	75.00	75.00T
		Sales Tax	6.625%	234.53

QB	C/C	A/C	AMOUNT	PO / REF
206	4060	5723.03	1,887.27	
206	4060	5722	1,887.26	
Date Paid				

Total $3,774.53

21367

Invoice

Skywest Development Inc. License #89202

POB 1923 Gallup NM 87305
(John) (505) 870-1915 cell
Phone (505) 722-7003
Fax (505) 863-8132

Date	Invoice #
6/15/2009	2103

Bill To	Ship To
Western Refining Southwest, Inc. Rt. 3 Box 7 Gallup NM 87301	Pond #9 Berm N.E. Side

RECEIVED
JUN 1 9 2009
BY:

P.O. Number	Terms	Rep	Ship	Via	F.O.B.	Project
C22649			6/15/2009			Pond # 9 & 4

Quantity	Item Code	Description	Price Each	Amount
5	980C	980C Front End Loader Loading truck & Stockpiling clay material Lucas	135.00	675.00T
5	Freightliner	Freightliner Dump Truck haul clay material Belly Dump Ronald/Tim	75.00	375.00T
5	700J	700J John Deere Dozer Ed	125.00	625.00T
5	HyPac 852	Hypac 852B 29,000# W/Blade Steven	85.00	425.00T
1	IHC Water	IHC Water Truck Ed	75.00	75.00T
		Sales Tax	6.625%	144.09

$	C/C	A/C	AMOUNT	PO / REF
208	4060	5723.03	1,159.55	
208	4060	5722	1,159.54	
Date Paid				

Total $2,319.09

Summary of all Leaks/Spills/Releases

Date of Event	Time of Event	Product/Stream Name	Location of Event	Result of Event	Route Cause of Event	Person making Notification	Estimated Quantity (bbls)
5/23/09	1500 hrs	T-108 (Alkylate)	T-108	Overfilling Tank	Faulty gauge	Butch Turpen	6
6/10/09	0500 hrs	API Overflow	API	Heavy Rain	Storm surge	Process Shift Super	< 2
9/5/09	1143 hrs	API Overflow	API	Heavy Rain	Storm surge	Rodney James	6.5
12/8/09	0430 hrs	API Overflow	API	Heavy Rain	Storm surge	Ed Riege	739
12/23/09	1615 hrs	ULSD	Truck Rack	Underground Line Leak	Faulty Piping	Off-site Supervisor	1848 gal
5/23/09	1500 hrs	T-108 (Alkylate)	At approximately 1500 hrs (5/23/2009), a Maintenance employee was making rounds and saw T-108 (Alkylation Tank) running over. The on-site fire department was immediately notified. The rundown was immediately switched out of the tank. Safety and the off-site manager were notified of the incident. The alkylation tank (T-108) is located within a tank farm berm. The on-site fire department personnel put foam over the affected area as a precaution. Veolia Environmental Vacuum Services was called out. T-108 is located within a tank farm berm area. The affected area was approximately 225 square feet. Clean up operations of the soil are completed and shipped off site to an approved disposal facility.					
6/10/09	0500 hrs	API Overflow	At approximately 0230 hrs, Wednesday, June 10, 2009, a heavy rain and thunderstorms passed over the facility. During this storm event, portion of the API overflowed. A description of the incident was previously provided to the Agency of the initial C-141. Clean up efforts began on June 10, 2009. Maintenance and contract personnel began cleaning up the aqueous/oily overflow contamination and any contaminated soil and rock debris surrounding the API area. Personnel conducted cleanup of areas such as depressions or other conveyances adjacent to the API area where the oily water ran onto the ground. All contaminated material was put into a roll-off box to be tested (analyzed for any hazardous constituents) by an outside lab, prior to shipment off site for disposal. Clean dirt and gravel was placed around the API spill area. Final clean up was completed on June 26, 2009.					
9/5/09	1143 hrs	API Overflow	On Saturday, September 5, at about 1200 to 1230 hrs, a heavy rain and thunderstorms passed over the facility. It began raining heavily for about 20 to 30 minutes. The NAPIS began to overflow into the baker frac tank from excessive rain. The API continued to overflow for about an hour. At 1800 hours, a second rain event occurred causing the NAPIS to overflow for a second time. The total overflow for both events was approximately 2 hours. A total rainfall for both events was approximated at 1.6 inches. Clean up efforts consisted of using a vacuum truck to pick up any free floating fluid. Maintenance and contract personnel began cleaning up the contaminated soil and debris surrounding the API area. The volume of release to ground was estimated to be 6.5 barrels (bbls) of oily water. The amount of liquid recovered by the vacuum truck is estimated to be 4.6 bbls. All contaminated dirt, debris was removed and placed in a roll-off box to be tested for hazardous constituents by an outside lab prior to shipment offsite to an approved disposal facility. Clean dirt and gravel was placed around the NAPIS spill area. Final clean up was completed by September 14, 2009.					
12/8/09	0430 hrs	API Overflow	At or about midnight on Tuesday, December 8, a winter storm passed through the area precipitating heavy snow and high winds. Due to this event at 0300 hours, a plant wide electrical power failure occurred. After a thorough power distribution evaluation the cause of the this incident was found to be related to several power glitches or amperage line deviations from Tri-State Power Company in Albuquerque, NM. As a result of high winds in the Albuquerque area, several power deviations occurred between 0241hours to 0249 hours causing the power outage at the Gallup Refinery. The API incurred intermittent overflows for approximately 10 to 12 hours in the amount of 739 bbls of oil water onto the ground surface. The affected area was localized around the API and the baker frac tank containment area. Vacuum truck was used to clean up any free floating liquid. Contaminated dirt and debris was picked up and placed in a roll off box to be analyzed for hazardous constituents by an outside lab prior to shipment off site to an approved disposal facility.					

12/23/09	1615 hrs	ULSD	At approximately 4 pm on 12/23/2009, maintenance personnel noticed Ultra-low Sulfur Diesel (ULSD) emanating from a buried pipe at the west end of the truck loading rack. Immediate action was taken to isolate the line. Soil was excavated to uncover the leaking line. A vacuum truck was used to collect approximately 750 gallons of product from the hole around the leaking line. Later the asphalt in the area was washed down and approximately 700 gallons of wash water was captured by the vacuum truck. This mixture was approximately 5% product, or 35 gallons. Some of the ULSD and water mixture had run off the asphalt into an adjacent field where it pooled in a depression in the ground. Approximately 1400 gallons of this liquid was picked up by the vacuum truck. We estimate conservatively that 66% of this mixture was ULSD. Soil samples were collected at leak site and in the adjacent area. The subsurface area affected is approximately 5 feet square and 5 feet deep. This area was excavated to get to the leak. Contaminated soil is currently being stored on plastic sheeting in a staging area awaiting final disposition. The pit has been back filled as this is an extremely active area of the refinery. There is another area of approximately 10 feet by 20 feet where an oil-water mixture had pooled in the adjacent field. There is also the channel along the flow path which is approximately 250 feet in length and about 1 foot wide. Because the ground was frozen, material could not penetrate very deep into the ground. Immediately on noting the leak, the ULSD sales line was shut down and trucks moved out of the area. In further clean up actions, contaminated soils will be excavated, confirmatory environmental samples will be collected and analyzed and all contaminated materials will be disposed of in accordance with applicable regulations.

APPENDIX H

At approximately 1500 hours on 5/23/09, T-108 containing alkylate was found to be running over. Rundown was immediately switched out of the tank. Safety and on-site manager were immediately notified of the incident. The on-site fire department was notified and put foam over the affected area. Approximately 6 bbls of product ran over onto the ground. Veolia Environmental was called to vacuum out the floating product. Clean up operations of the soil are completed and shipped off-site for disposal. Tank 108 is located within a tank farm berm.

At approximately 0230 hours on 6/10/09, heavy rain storms caused the API to overflow. Less than 2 bbls of oil water overflowed onto the ground surface. Maintenance and contract employees began clean up of the contaminated soil. Soil was placed in roll-offs for shipment to an approved disposal site. New gravel and rock material was placed on clean up area. Clean up was completed on 6/26/09.

At approximately 1200 hours on 9/5/09, heavy rain storms caused the API to overflow. Approximately 6.5 bbls of oil water overflowed onto the ground. A vacuum truck was used to vacuum out all floating product around the area. The amount of oily water recovered was estimated to be approximately 4.6 bbls based on available data. All contaminated dirt was placed in roll-offs for shipment to an approved disposal site. New soil and gravel was placed around the affected area. Final clean up completed on 9/14/09.

On 12/8/09 around midnight the Refinery experienced a power failure caused by a severe snow storm with high winds, causing a plant wide power failure. During this power failure the API incurred intermittent overflows for about 10 to 12 hours. It is estimated that approximately 739 bbls of oil water overflowed onto the ground near the API and the baker frac tank containment area. Clean up efforts began immediately utilizing an onsite vacuum truck to pick up any floating product. The contaminated soil was removed and placed in roll-offs and sent for disposal to an approved disposal site facility. Clean up efforts were completed on 12/14/09.

On 12/23/09 at approximately 1600 hours, at the truck loading rack, a buried pipe was discovered to be leaking ULSD (ultra low sulfur diesel). Truck rack was shutdown. Pipe was uncovered and a vacuum truck was used to collect approximately 750 gallons of product from the hole around the leaking line. Some of the ULSD had flowed into an adjacent field. A vacuum truck was used to pick up any floating material on the ground. Clean up consisted of washing down the asphalt area and picking up contaminated soil in the adjacent field. Contaminated soil was excavated and placed on plastic sheeting awaiting final disposition. Soil samples were taken for further clean up actions.

APPENDIX H

EVENT INFORMATION

Date of Event	Time of Event	Product/Stream Name	Location of Event	Result of Event	Route Cause of Event	Person making Notification	Estimated Quantity (bbls)
5/23/09	1500	T-108 (Alkylate)	T-108	Overfilling Tank	Faulty gauge	Butch Turpen	6
6/10/09	0500	API Overflow	API	Heavy Rain	Storm surge	Process Shift Super	< 2
9/5/09	1143	API Overflow	API	Heavy Rain	Storm surge	Rodney James	6.5
12/8/09,	0430	API Overflow	API	Heavy Rain	Storm surge	Ed Riege	739
12/23/09	1615	ULSD	Truck Rack	Underground Line Leak	Faulty Piping	Off-site Supervisor	1848 gal

5/23/09		T-108 (Alkylate)

At approximately 1500 hrs (5/23/2009), a Maintenance employee was making rounds and saw T-108 (Aikylation Tank) running over. The on-site Fire Department was immediately notified. The rundown was immediately switched out of the tank. Safety and the Off-Site Manager was notified of the incident. The Alkylation Tank (T-108) is located within a Tank Farm Berm. The on-site Fire Department personnel put foam over the affected area as a precaution. Veolia Environmental Vacuum Services was called out.The Alkylation Tank (T-108) is located within a Tank Farm Berm area. The affected area was approximately 225 sq ft. Cleanup operations of the soil are completed and shipment off-site for disposal.

6/10/09		API Overflow

At approximately 0230 hrs, Wednesday, June 10, 2009, a heavy rain and thunderstorms passed over the facility. During this storm event, portion the API overflowed. A description of the incident was previously provided to the Agency on the initial C-141.Cleanup efforts began on June 10, 2009. Maintenance and Contract personnel began cleaning up the any aqueous/oilyof overflow contamination and any contaminated soil and rock debris surrounding the API area. Personnel conduct cleanup of areas such as depressions or other conveyances adjacent to the API area that any contamination may or did spread. After immediate cleanup efforts were completed, All contaminated material was put into a roll-off box to be tested (analyzed by an outside lab), prior to shipment off site for disposal to an approved facility. Contract personnel delivered and spread new gravel and rock material around the API area. Final cleanup of this area was completed on or about June 26, 2009.

9/5/09		API Overflow

On Saturday, September 5, at about 1200 to 1230 hrs, a heavy rain and thunderstorms passed over the facility. It began raining heavily for about 20 to 30 minutes. At 1220 hrs the new API began to overflow into the Baker Frac Tank. The rain slacked off from a heavy to a moderate to light. At 1245 hrs the new API (East and West) Bays began to overflow due to the excessive rain. The API continued to overflow for about an hour. At 1800 hrs once again, a second rain event began due to a secondary thunderstorm cell passing over the facility. The new API began to overflow a second time for an hour due to excess stormwater. The total overflow for both events was approximately 2 hours. A total rainfall for both events was approximately 1.6 inches. Cleanup efforts began immediately on September 5, 2009 during the rain event using a vacuum truck. Maintenance and Contract personnel began cleaning up the any aqueous/oily portion of overflow contamination and any contaminated soil and rock debris surrounding the API area. Personnel conduct cleanup of areas such as depressions or other conveyances adjacent to the API area that any contamination may or did spread. The volume of release to the environment was approximately 6.6 barrels (bbls) of oil. The amount of oil recovered was calculated to be approximately 4.6 bbls based on the available data. After immediate cleanup efforts were completed, all contaminated material were put into a roll-off box to be tested (analyzed by an outside lab), prior to shipment off site for disposal to an approved facility. Contract personnel delivered and spread new gravel and rock material around the API area. Final cleanup of this area was completed on or about September 11-14, 2009.

12/8/09		API Overflow

At or about midnight on Tuesday, December 8, a winter storm passed through the area precipitating heavy snow and high winds. Due to this event at 0300 hrs (December 8), a plant wide electrical power failure occurred to all units throughout the facility. After a thorough power distribution evaluation, the cause of this incident was found to be resultant of several power glitches or amperage line deviations from Tristate Power Company in Albuquerque. As a result of high winds in the Albuquerque area, several power deviations occurred between 0241 to 0249 hours causing two power lines to slap together creating a Phase A / Phase C power line short at the Tristate distribution center or substation. These power glitches were transmitted to Western Refinery (Gallup Refinery) as an incoming line fluctuation or line distortion in amperage. This transmitted to a decrease in amperage of 15 to 20 percent. This distortion caused two of compressors to go off line initiating a plant wide electrical power failure to all units. After all information was collected from various sources, it was estimated thatdue to this power failure, the API incurred intermittently overflowed for about 10 to 12 hours. An onsite vacuum truck was immediately dispatched during this event in order to minimize and spread of contamination and to begin cleanup operations. No injuries were incurred during this event as a result of this power failure. The affected area was localized around the API and baker frac tank containment areas. Initial cleanup efforts began immediately on Tuesday, December 8, 2009 during this event utilizing an onsite vacuum truck. Maintenance and Contract personnel began cleaning up the any aqueous/oily portion of overflow contamination and any contaminated soil and rock debris surrounding the API area. Personnel conduct cleanup of areas such as depressions or other conveyances adjacent to the API area in order that contamination would not spread. Initial cleanup efforts were completed on Monday, December 14, 2009. All contaminated material were put into a roll-off box to be tested (analyzed by an outside lab), prior to shipment off site for disposal to an approved facility. Final cleanup of this area will be determined based on laboratory analysis.

12/23/09		ULSD

At approximately 4 pm on 12/23/2009, maintenance personnel noticed Ultra-low Sulfur Diesel (ULSD) emanating from a buried pipe at the west end of the truck loading rack. Immediate action was taken to isolate the line. Soil was excavated to uncover the leaking line, and a vacuum truck was used to collect approximately 750 gallons of product from the hole around the leaking line. Later, the asphalt in the area was washed down, and approximately 700 gallons of the wash water was captured by the vacuum truck. This mixture was approximately 5% product, or 35 gallons. Some of the ULSD and water mixture had run off the truck loading rack area and into an adjacent field where it had pooled in a depression. Approximately 1400 gallons of these liquids were picked up by the vacuum truck. We estimate conservatively that 66% of this mixture was ULSD, though probably a lesser fraction. We have collected soil samples in this area, which will allow for a better estimate. Near the leaking line, the subsurface area affected is approximately 5 feet square and 5 feet deep. This area was excavated to get to the leak. Contaminated soil that was excavated to find the leak is currently being stored on plastic sheeting in a staging area, awaiting final disposition. The pit has been back-filled as this is an extremely active area of the refinery. There is another area of approximately 10 feet by 20 feet where an oily-water mixture had pooled in the adjacent field. There is also the channel along the flow path which is approximately 250 feet in length and about 1 foot wide. Because the ground was frozen, material could not penetrate very deep into the ground. Immediately on noting the leak, the ULSD sales line was shut down and trucks moved out of the area. A vacuum truck was used to collect product emanating from the leaking underground line, while it was being isolated. The asphalt was washed down and the oily-water mixture was also collected by the vacuum truck. Material that had run off the asphalt and into an adjacent field was also collected from the depression where it had pooled. The soils in this area are stained with ULSD. In further cleanup actions, contaminated soils will be excavated, confirmatory environmental samples will be collected and analyzed, and all contaminated materials will be disposed off in accordance with applicable regulations.

EVENT INFORMATION

Date of Event	Time of Event	Product/Stream Name	Location of Event	Result of Event	Route Cause of Event	Person making Notification	Initial Estimated Quantity (bbls)
5/23/09	1500	T-108 (Alkylate)	T-108	Overfilling Tank	Faulty gauge	Butch Turpen	6-12
6/10/09	0500	API Overflow	API	Heavy Rain	Storm surge	Process Shift Super	< 2
9/5/09	1143	API Overflow	API	Heavy Rain	Storm surge	Rodney James	6.5
12/8/09	0430	API Overflow	API	Heavy Rain	Storm surge	Ed Riege	739
12/23/09	1615	ULSD	Truck Rack	Underground Line Leak	Faulty Piping	Off-site Supervisor	1848 gal

District I
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1000 Rio Brazos Road, Aztec, NM 87410
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1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

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Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company Western Refining-Southwest	Contact Beck Larsen
Address I-40/Exit 39, Jamestown, NM 87347	Telephone No.(505) 722-0258
Facility Name Gallup Refinery	Facility Type Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	28	15N	15W					McKinley

Latitude 35° 29'030'' **Longitude** 108° 24'040''

NATURE OF RELEASE

Type of Release Spill (T-108 Overfill)	Volume of Release 10 bbls	Volume Recovered 6-8 bbls
Source of Release T-108	Date and Hour of Occurrence	Date and Hour of Discovery
Was Immediate Notice Given? ☒ Yes ☐ No ☒ Not Required	If YES, To Whom? OCD, NMED	
By Whom? Beck Larsen	Date and Hour 5/23/2009; 1500 hrs	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.* No

Describe Cause of Problem and Remedial Action Taken.* At approximately 1500 hrs (5/23/2009), a Maintenance employee was making rounds and saw T-108 (Alkylation Tank) running over. The on-site Fire Department was immediately notified. The rundown was immediately switched out of the tank. Safety and the Off-Site Manager was notified of the incident. The Alkylation Tank (T-108) is located within a Tank Farm Berm. The on-site Fire Department personnel put foam over the affected area as a precaution. Veolia Environmental Vacuum Services was called out to cleanup the material. The estimated recovery was approximately 6 to 8 bbls.

Describe Area Affected and Cleanup Action Taken.* The Alkylation Tank (T-108) is located within a Tank Farm Berm area. The affected area was approximately 225 sq ft. Cleanup operations of the soil are underway for analytical testing and shipment off-site for disposal.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	OIL CONSERVATION DIVISION	
Printed Name: Beck Larsen	Approved by District Supervisor:	
Title: Environmental Engineer	Approval Date:	Expiration Date:
E-mail Address: Thurman.larsen@wnr.com	Conditions of Approval:	Attached ☐
Date: 5/28/2009 Phone: (505) 722-0258		

* Attach Additional Sheets If Necessary

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1625 N. French Dr., Hobbs, NM 88240
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1301 W. Grand Avenue, Artesia, NM 88210
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OPERATOR

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Name of Company Western Refining-Southwest	Contact Beck Larsen
Address I-40/Exit 39, Jamestown, NM 87347	Telephone No.(505) 722-0258
Facility Name Gallup Refinery	Facility Type Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	28	15N	15W					McKinley

Latitude 35° 29'030'' **Longitude** 108° 24'040''

NATURE OF RELEASE

Type of Release API Overflow	Volume of Release < 2.0 bbls (oil)	Volume Recovered 1.3 bbls (oil) (estimated)
Source of Release API	Date and Hour of Occurrence 6/10/2009; 0500 hrs	Date and Hour of Discovery 6/10/2009; 0500
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? OCD & NMED	
By Whom? Beck Larsen	Date and Hour 6/10/2009; 1045 hrs AM	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
At approximately 0230 hrs, Wednesday, June 10, 2009, a heavy rain and thunderstorms passed over the facility. During this storm event, the API overflowed. A description of the incident was previously provided to the Agency on the initial C-141.

Describe Area Affected and Cleanup Action Taken.*
Cleanup efforts began on June 10, 2009. Maintenance and Contract personnel began cleaning up the any aqueous/oily portion of overflow contamination and any contaminated soil and rock debris surrounding the API area. Personnel conduct cleanup of areas such as depressions or other conveyances adjacent to the API area that any contamination may or did spread. After immediate cleanup efforts were completed, All contaminated material were put into a roll-off box to be tested (analyzed by an outside lab), prior to shipment off site for disposal to an approved facility. Contract personnel delivered and spread new gravel and rock material around the API area. Final cleanup of this area was completed on or about June 26, 2009.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	OIL CONSERVATION DIVISION
Printed Name: Beck Larsen	Approved by District Supervisor:
Title: Environmental Engineer	Approval Date: / Expiration Date:
E-mail Address: Thurman.larsen@wnr.com	Conditions of Approval: / Attached ☐
Date: 7/21/2009 Phone: (505) 722-0258	

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Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Western Refining-Southwest	Contact Beck Larsen
Address I-40/Exit 39, Jamestown, NM 87347	Telephone No.(505) 722-0258
Facility Name Gallup Refinery	Facility Type Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	28	15N	15W					McKinley

Latitude 35° 29′030″ **Longitude** 108° 24′040″

NATURE OF RELEASE

Type of Release API Overflow	Volume of Release < 2.0 bbls (oil)	Volume Recovered 1.3 bbls (oil) (estimated)
Source of Release API	Date and Hour of Occurrence 6/10/2009; 0500 hrs	Date and Hour of Discovery 6/10/2009; 0500
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? OCD & NMED	
By Whom? Beck Larsen	Date and Hour 6/10/2009; 1045 hrs AM	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

At approximately 0230 hrs, Wednesday, June 10, 2009, a heavy rain and thunderstorms passed over the facility. As soon as it started raining, the Wastewater Operators and Supervisors started pumping water from new API to the old API in order to reduce the level in the new API. They also started up a "yellow" trash pump in front of the new API going to the old API.. The Baker Tank started filling up until it overflowed. The API Operators blocked in the Baker Tank At approximately 0330 hrs, the new API began overflowing from the top onto the ground. Only the West Bay is operational since the East Bay of the API is down for repairs. The overflow lasted for about 30 minutes. However, the overflow from the Baker Tank was contained in the berm area surrounding the tank. At approximately 0430 hrs, the old API began draining into Aeration Lagoon #1 due to excessive stormwater, thus by-passing the Benzene Strippers. It continued raining from about 0430 to 0630 hrs. (about 1 ½ to 2 hrs). At 0630 hrs, flow stopped from the old API in to Lagoon #1. The amount of rainfall was about 0.76 inches during this time period. During this rain event, the old API sump was being pumped continuously to Tank (T-107) in order to control the level in the old API. At approximately 0500 hrs on Wednesday, June 10, 2009, the Process Shift Superintendent, initially notified Richard Schmitt that the API was overflowing. Then, Mr. Schmitt notified Mr. Mark Turri, Joel Quinones, James Geer, and the Environmental Department about the incident. The Environmental Department was officially notified on Wednesday, 6/10/2009 at approximately 0524 hrs. Environmental personnel arrived at 0609 hrs, Wednesday, June 10, 2009. A site determination and evaluation proceeded during daylight hours. The actual quantity of oil released is difficult to measure with any accuracy. Once daylight arrived, assessment began. Maintenance and Offsite personnel immediately began cleanup. Final quantification was determined to be approximately <2.0 bbls of oil discharged, a crude estimation. All recoverable liquid in areas (oil/water mixtures) around the API and Baker Tank were immediately vacuumed and brought to one of the process drains for further processing by the API.

Describe Area Affected and Cleanup Action Taken.*

Once daylight arrived, assessment began. Maintenance and Offsite personnel immediately began cleanup. All recoverable liquids in areas (oil/water mixture) around the API and the Baker Tank were immediately vacuumed and brought to one of the process drains for further processing by the API. Soil and area remediation around API and Baker Tanks is in progress.

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Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Western Refining-Southwest	Contact Beck Larsen
Address I-40/Exit 39, Jamestown, NM 87347	Telephone No.(505) 722-0258
Facility Name Gallup Refinery	Facility Type Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	28	15N	15W					McKinley

Latitude 35° 29′030″ **Longitude** 108° 24′040″

NATURE OF RELEASE

Type of Release API Overflow	Volume of Release 739 bbls (API oily water)	Volume Recovered >720 bbls (API oily Water)
Source of Release API UNIT	Date and Hour of Occurrence 12/08/2009; 0300 hrs	Date and Hour of Discovery 12/05/2009; 0300 hrs
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? OCD & NMED (Carl Chavez, Steve Conley, Hope Monzeglio)	
By Whom? Beck Larsen	Date and Hour 12/08/2009 / ~ 1030 hrs	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

At or about midnight on Tuesday, December 8, a winter storm passed through the area precipitating heavy snow and high winds. Due to this event at 0300 hrs (December 8), a plant wide electrical power failure occurred to all units throughout the facility. After a thorough power distribution evaluation, the cause of this incident was found to be resultant of several power glitches or amperage line deviations from Tristate Power Company in Albuquerque. As a result of high winds in the Albuquerque area, several power deviations occurred between 0241 to 0249 hours causing two power lines to slap together creating a Phase A / Phase C power line short at the Tristate distribution center or substation. These power glitches were transmitted to Western Refinery (Gallup Refinery) as an incoming line fluctuation or line distortion in amperage. This transmitted to a decrease in amperage of 15 to 20 percent. This distortion caused two of compressors to go off line initiating a plant wide electrical power failure to all units. After all information was collected from various sources, it was estimated that due to this power failure, the API incurred intermittently overflowed for about 10 to 12 hours. An onsite vacuum truck was immediately dispatched during this event in order to minimize and spread of contamination and to begin cleanup operations. No injuries were incurred during this event as a result of this power failure.

Describe Area Affected and Cleanup Action Taken.*

The affected area was localized around the API and baker frac tank containment areas. Initial cleanup efforts began immediately on Tuesday, December 8, 2009 during this event utilizing an onsite vacuum truck. Maintenance and Contract personnel began cleaning up the any aqueous/oily portion of overflow contamination and any contaminated soil and rock debris surrounding the API area. Personnel conduct cleanup of areas such as depressions or other conveyances adjacent to the API area in order that contamination would not spread. Initial cleanup efforts were completed on Monday, December 14, 2009. All contaminated material were put into a roll-off box to be tested (analyzed by an outside lab), prior to shipment off site for disposal to an approved facility. Final cleanup of this area will be determined based on laboratory analysis.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:

Printed Name: Beck Larsen

OIL CONSERVATION DIVISION

Approved by District Supervisor:

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OPERATOR

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Name of Company Western Refining-Southwest	Contact Beck Larsen
Address I-40/Exit 39, Jamestown, NM 87347	Telephone No.(505) 722-0258
Facility Name Gallup Refinery	Facility Type Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	28	15N	15W					McKinley

Latitude 35° 29'030'' **Longitude** 108° 24'040''

NATURE OF RELEASE

Type of Release API Overflow	Volume of Release 6.6 bbls (oil)	Volume Recovered 5.5 bbls (oil) (estimated)
Source of Release API UNIT	Date and Hour of Occurrence 9/05/2009; 1215 hrs / 1830 hrs	Date and Hour of Discovery 9/05/2009; 1215 hrs / 1830 hrs
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? OCD & NMED	
By Whom? Beck Larsen	Date and Hour 9/06/2009 / 1750 hrs	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

On Saturday, September 5, at about 1200 to 1230 hrs, a heavy rain and thunderstorms passed over the facility. It began raining heavily for about 20 to 30 minutes. At 1220 hrs the new API began to overflow into the Baker Frac Tank. The rain slacked off from a heavy to a moderate to light. At 1245 hrs the new API (East and West) Bays began to overflow due to the excessive rain. The API continued to overflow for about an hour. At 1800 hrs once again, a second rain event began due to a secondary thunderstorm cell passing over the facility. The new API began to overflow a second time for an hour due to excess stormwater. The total overflow for both events was approximately 2 hours. A total rainfall for both events was approximately 1.6 inches.

Describe Area Affected and Cleanup Action Taken.*

Cleanup efforts began immediately on September 5, 2009 during the rain event using a vacuum truck. Maintenance and Contract personnel began cleaning up the any aqueous/oily portion of overflow contamination and any contaminated soil and rock debris surrounding the API area. Personnel conduct cleanup of areas such as depressions or other conveyances adjacent to the API area that any contamination may or did spread. After immediate cleanup efforts were completed, all contaminated material were put into a roll-off box to be tested (analyzed by an outside lab), prior to shipment off site for disposal to an approved facility. Contract personnel delivered and spread new gravel and rock material around the API area. Final cleanup of this area was completed on or about September 11-14, 2009.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	OIL CONSERVATION DIVISION
Printed Name: Beck Larsen	Approved by District Supervisor:

Title: Environmental Engineer	Approval Date:	Expiration Date:
E-mail Address: Thurman.larsen@wnr.com	Conditions of Approval:	Attached ☐
e: 10/16/2009 Phone: (505) 722-0258		

* Attach Additional Sheets If Necessary

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OPERATOR

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Name of Company Western Refining-Southwest	Contact Beck Larsen
Address I-40/Exit 39, Jamestown, NM 87347	Telephone No.(505) 722-0258
Facility Name Gallup Refinery	Facility Type Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	28	15N	15W					McKinley

Latitude 35° 29'030'' **Longitude** 108° 24'040''

NATURE OF RELEASE

Type of Release API Overflow	Volume of Release 6.5 bbls (oil)	Volume Recovered 5.5 bbls (oil) (estimated)
Source of Release API UNIT	Date and Hour of Occurrence 9/05/2009; 1215 hrs / 1830 hrs	Date and Hour of Discovery 9/05/2009; 1215 hrs / 1830 hrs
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? OCD & NMED	
By Whom? Beck Larsen	Date and Hour 9/06/2009 / 1750 hrs	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

On Saturday, September 5 at approximately 1143 hrs, Off-site personnel began bypassing filters and weir box in preparation for a possible rain event. At about 1200 to 1230 hrs, Saturday, September, 5, 2009, a heavy rain and thunderstorms passed over the facility. It began raining heavily for about 20 to 30 minutes. At 1220 hrs the new API began to overflow into the Baker Frac Tank. The API Operators began pumping from the new API to T-105/T-107 in order to remove as much water as possible from the API. The rain slacked off from a heavy to a moderate to light. At 1245 hrs the new API (East and West) Bays began to overflow due to the excessive rain. The API continued to overflow for about an hour. At 1800 hrs a second rain event began due to a secondary thunderstorm cell passing over the facility. Once again, the new API began to overflow a second time for an hour due to excess stormwater. The total overflow for both events was approximately 2 hours. A total rainfall for both events was approximately 1.6 inches.

Describe Area Affected and Cleanup Action Taken.*

Cleanup efforts began immediately on September 5, 2009 during the rain event using a vacuum truck. Maintenance and Contract personnel began cleaning up the any aqueous/oily portion of overflow contamination and any contaminated soil and rock debris surrounding the API area. Personnel conduct cleanup of areas such as depressions or other conveyances adjacent to the API area that any contamination may or did spread. After immediate cleanup efforts were completed, all contaminated material were put into a roll-off box to be tested (analyzed by an outside lab), prior to shipment off site for disposal to an approved facility. Contract personnel delivered and spread new gravel and rock material around the API area. Final cleanup of this area was completed on or about September 10, 2009.

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Signature:	OIL CONSERVATION DIVISION
Printed Name: Beck Larsen	Approved by District Supervisor:
Title: Environmental Engineer	Approval Date: / Expiration Date:
E-mail Address: Thurman.larsen@wnr.com	Conditions of Approval: / Attached ☐
Date: 7/21/2009 Phone: (505) 722-0258	

* Attach Additional Sheets If Necessary

CERTIFIED MAIL: 7008 0000 4726 1055

July 23, 2009

New Mexico Environmental Department (NMED)
Hazardous Waste Bureau (HWB)
2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505
Attention: Ms Hope Monzeglio

New Mexico Energy Minerals and Natural Resources Department
New Mexico Oil Conservation Division (NMOCD)
1220 South Street-Francis Drive
Santa Fe, New Mexico 87505
Attn: Mr. Carl J. Chavez

Reference: API OVERFLOW on JUNE 10, 2009

Dear Ms Monzeglio and Mr. Chavez;

Please accept the following letter is in response to an e-mail (June 18, 2009) from Ms Hope Monzeglio of the New Mexico Environmental Department (NMED) - Hazardous Waste Bureau (HWB). This e-mail references two separate events, one on June10, the other on June 16, 2009. Once again it should be clarified that the API overflowed only once, June 10, 2009. A verbal communication was made between Western Refining and NMED (HWB) to correct and clarify this information on June 22, 2009.

The following information shall address by describing the nature of the event leading to and causes of the overflow event, remedial actions that were taken, and corrective action made to the API area in order to prevent future occurrence. Diagrams have been included in order to provide a visual reference of the API area, extent of contamination, and to aid in a better understanding of the event. Also enclosed are e-mails and Release Notification Forms (C-141) (Initial and Final) Reports for your reference.

DESCRIPTION AND CAUSES OF OVERFLOW EVENT: (Refer to API & AERATION LAGOON and API AREA ENLARGED DIAGRAMS)
On Wednesday, June 10, 2009 at approximately 0230 hrs, Western Refining-Southwest (Gallup Refinery) had a moderate rain event due to storms passing through the area. At approximately 0330 hrs, the new API began overflowing from the top onto the ground. At the time, only the West bay of the New API (NAPI) was operational because the east Bay was down for repairs. An above ground Baker Frac Tank located in the vicinity of or near the new API is used for overflow during upset or excessive rain conditions. Oily water from Process Sewers comingles with stormwater from area slabs flow directly to the new APIS. Under normal conditions when both bays are operational, the API can handle such an event. However, during this rain event, the

API began to fill to an overflow condition because of the East Bay was down for repairs. A small portion began to seep out of the top of the API as well, primarily water. A small amount of seepage from the API overflow went across the roadway into Aeration Lagoon #1 due to a depression contour in the roadway (roadway erosion) between the New API (West Bay) and Aeration Lagoon #1. Also, some API overflow went along the backside of the API toward and slightly past the Baker Tank. When the API (West Bay) reached the overflow level, it began to flow into the Baker Frac Tank. The Baker Tank started filling up until it overflowed at the top of the tank. However, the overflow from the Baker Tank was all contained in a berm surrounding the tank. There was not any oil or oily sheen observed to be in the area where the API overflowed from its top or in the Frac Tank containment berm. The API Operator began pumping from the new API to the old API. At or approximately 0430 hrs, the old API reached an overfill level that drains directly into the Aeration Lagoon #1 due to excessive stormwater, thus bypassing the Benzene Strippers. (Refer to API & Aeration Lagoon Area and API Area Enlarged Area Diagrams) It continued raining from about 0430 hrs to 0630 hrs (about 1 ½ to 2 hrs). The total amount of rainfall was about 0.76 inches during this time frame. At approximately 0500 hrs on Wednesday, June 10, 2009, the API (Off-site) Relief Supervisor notified Facility Management personnel. The Environmental Department was notified at approximately 0524 hrs. Environmental personnel arrived at the facility at approximately 0609 hrs, June 10, 2009. A site determination and evaluation was conducted immediately. Assessment and cleanup operations were immediately initiated by Maintenance and Contract personnel.

The road leading to and along side of the API and Lagoon Areas are close to grade. During moderate to heavy rain events, road conditions are nearly prohibitive for equipment and large vacuum truck due to the heavy clay in this area. Therefore, entry for vehicular traffic is extremely dangerous due to possibilities of sliding into the Aeration Lagoons. Due to these conditions, the vacuum truck could not reach the API and Baker Frac Tank Area in order to pump out the Frac Tank.

REMEDIAL ACTIVITIES/ CLEANUP OPERATIONS: (Refer to API & AERATION LAGOON and API AREA ENLARGED DIAGRAMS)

Cleanup operations were initiated. An Outside Contract Vacuum Truck Service (Veolia Environmental Services) was deployed to the facility to begin vacuuming up any liquids from the API overflow areas. After the vacuum operation concluded, Veolia removed approximately 31,700 gallons (754.76 bbls) of oily/water mixture. The amount of oil recovered from this operation was calculated to be 11.79 gallons (0.28 bbls) based on information supplied by Veolia and best engineering methodology. Maintenance and Contract personnel began removing or remediating in and around the API and associated areas by removing approximately 1 to 2 inches contaminated top soils, any contaminated vegetation, and rock with a back-hoe or shovels. Cleanup crews removed soils along the backside of API extending north alongside the Baker Frac Tank as well as removing material where the API flowed over the road depression to Aeration Lagoon #1. Also, a cleanup crew was deployed to remove contaminated soil within the Baker Frac Tank containment dike area. Remedial activities terminated on or about June 24, 2009. After completion of remedial activities, a composite sample of the excavated material was collected by the Environmental Department, and submitted to Hall Environmental Laboratories for analysis. The sample was submitted to Hall Laboratory to be analyzed for the following

parameters: RCI, TCLP Metals/1311, TCLP Voas/1311, Hexavalent Chromium (Cr+6), TCLP Semi-voas/1311, and Total Petroleum Hydrocarbon (TPH). The analysis from Hall Environmental Laboratory (date of collection: 6/25/2009) for these parameters indicated non-hazardous for all parameters. (Refer to API Overflow Sampling Analysis) Under normal conditions the API overflow material normally would be declared as a hazardous waste (F037/F038) and properly disposed accordingly; however, based on the analytical data and the small quantity of material generated, a "Request for Contained-in Determination for Petroleum Contaminated Soils" has recently been submitted to the New Mexico Environmental Department- Hazardous Waste Bureau (Certified Mail: 7008 2810 0000 1048) requesting disposal of this material as a non-hazardous waste stream.(Reference to 20.4.1.800 NMED and 40CFR268.7 (e)) The quantity excavated has been estimated to be approximately 20 to 30 yd^3 (cubic yards) or about 1 to 1 ½ roll-off boxes. (Refer to API & Aeration Lagoon Area and API Area Enlarged Area Diagrams)

CORRECTIVE ACTIONS / IMPROVEMENTS FOR API AREA

After completion of the remedial project, Western began working on improvements in order to prevent a similar occurrence in the future. Several modification or upgrades to the API area have been completed. These modifications include the following items:

1. API Repair / Maintenance of East Bay-The East Bay of the API has been repaired and put back in to service. A stainless steel liner extension was added to the existing liner of the East Bay of the API in order to prevent future overflow leakage.

2. Road between the API (West Bay) and Aeration Lagoon #1- The road between Aeration Lagoon #1 and the API Separator was raised to approximately 8 to 10 inches by Sky West Construction (formerly Fuhs Trucking). This increase in road height provides a natural berm between the API and the Aeration Lagoon #1. The berm will act as a barrier to prevent any further discharge from any API overflows to reach the Aeration Lagoon #1. Also, the newly constructed road will allow vacuum trucks more accessibility to the API area during excessive rain events. The road way was compacted with a base of course clay-rock mixture in order to allow a firmer surface. The course clay-rock mixture was placed on the road for better traction. Previously, vacuum trucks would not be able to access this area during heavy rain due to the possibility of sliding in Aeration Lagoon #1 or getting stuck in that area.

3. Roadway from Flare to API area- The roadway from the flare to the API roadway was also increased 8 to 10 inches, using a course clay-rock mixture in order to allow for better accessibility by vehicular traffic to the API area.

4. Inlet Valve (6 inches) change- A 6 inch butterfly valve was changed to a 6 inch gate valve in order to prevent trash buildup within the valve. This modification will allow more volume to flow into the API.

5. Weir Box Screen Addition- A weir box screen was added to the weir box in order to prevent trash build-up going into the API, thus by improving operations. Also, by

placement of a screen into the weir box, it will prevent trash build-up into the Benzene Strippers and thereby improve stripping efficiency.

All modification and upgrades to the API and the ancillary equipment have been completed. Both bays to the API have been put back in service and are now fully operational.

If you require additional information concerning this matter, please contact me at (505) 722-0258.

Sincerely,

Beck Larsen-CHMM, REM
Environmental Engineer
Western Refining (Southwest)(Gallup Refinery)

Enc: NMED Agency, Letter of Request for "Contained-In Determination for Petroleum Contaminated Soil" from API Separator Overflow on June 10, 2009
API & Aeration Lagoon Area Diagram
API Area Enlarged Diagram
NMED Correspondence (e-mail) of June 22, 2009
OCD (Release Notification and Corrective Action, C-141 (Initial) Report
OCD (Release Notification and Corrective Action, C-141 (Final) Report
API Overflow Sampling Analysis (Hall Environmental Laboratories), 6/25/2009

Cc: Mr. Mark Turri, Western Refining (Southwest), Refinery Manager
Mr. Ed Riege, Western Refining (Southwest), Environmental Manager)
File

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company Western Refining-Southwest	Contact Beck Larsen
Address I-40/Exit 39, Jamestown, NM 87347	Telephone No.(505) 722-0258
Facility Name Gallup Refinery	Facility Type Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	28	15N	15W					McKinley

Latitude 35° 29′030″ **Longitude** 108° 24′040″

NATURE OF RELEASE

Type of Release API Overflow	Volume of Release < 2.0 bbls (oil)	Volume Recovered 1.3 bbls (oil) (estimated)
Source of Release API	Date and Hour of Occurrence 6/10/2009; 0500 hrs	Date and Hour of Discovery 6/10/2009; 0500
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? OCD & NMED	
By Whom? Beck Larsen	Date and Hour 6/10/2009; 1045 hrs AM	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
At approximately 0230 hrs, Wednesday, June 10, 2009, a heavy rain and thunderstorms passed over the facility. During this storm event, the API overflowed. A description of the incident was previously provided to the Agency on the initial C-141.

Describe Area Affected and Cleanup Action Taken.*
Cleanup efforts began on June 10, 2009. Maintenance and Contract personnel began cleaning up the any aqueous/oily portion of overflow contamination and any contaminated soil and rock debris surrounding the API area. Personnel conduct cleanup of areas such as depressions or other conveyances adjacent to the API area that any contamination may or did spread. After immediate cleanup efforts were completed, All contaminated material were put into a roll-off box to be tested (analyzed by an outside lab), prior to shipment off site for disposal to an approved facility. Contract personnel delivered and spread new gravel and rock material around the API area. Final cleanup of this area was completed on or about June 26, 2009.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	OIL CONSERVATION DIVISION
Printed Name: Beck Larsen	Approved by District Supervisor:
Title: Environmental Engineer	Approval Date: / Expiration Date:
E-mail Address: Thurman.larsen@wnr.com	Conditions of Approval: / Attached ☐
Date: 7/21/2009 Phone: (505) 722-0258	

District I
1625 N. French Dr., Hobbs, NM 88240
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State of New Mexico
Energy Minerals and Natural Resources

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1220 South St. Francis Dr.
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Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Western Refining-Southwest	Contact Beck Larsen
Address I-40/Exit 39, Jamestown, NM 87347	Telephone No.(505) 722-0258
Facility Name Gallup Refinery	Facility Type Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	28	15N	15W					McKinley

Latitude 35° 29'030'' **Longitude** 108° 24'040''

NATURE OF RELEASE

Type of Release API Overflow	Volume of Release < 2.0 bbls (oil)	Volume Recovered 1.3 bbls (oil) (estimated)
Source of Release API	Date and Hour of Occurrence 6/10/2009; 0500 hrs	Date and Hour of Discovery 6/10/2009; 0500
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? OCD & NMED	
By Whom? Beck Larsen	Date and Hour 6/10/2009; 1045 hrs AM	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

At approximately 0230 hrs, Wednesday, June 10, 2009, a heavy rain and thunderstorms passed over the facility. As soon as it started raining, the Wastewater Operators and Supervisors started pumping water from new API to the old API in order to reduce the level in the new API. They also started up a "yellow" trash pump in front of the new API going to the old API.. The Baker Tank started filling up until it overflowed. The API Operators blocked in the Baker Tank At approximately 0330 hrs, the new API began overflowing from the top onto the ground. Only the West Bay is operational since the East Bay of the API is down for repairs. The overflow lasted for about 30 minutes. However, the overflow from the Baker Tank was contained in the berm area surrounding the tank. At approximately 0430 hrs, the old API began draining into Aeration Lagoon #1 due to excessive stormwater, thus by-passing the Benzene Strippers. It continued raining from about 0430 to 0630 hrs. (about 1 ½ to 2 hrs). At 0630 hrs, flow stopped from the old API in to Lagoon #1. The amount of rainfall was about 0.76 inches during this time period. During this rain event, the old API sump was being pumped continuously to Tank (T-107) in order to control the level in the old API. At approximately 0500 hrs on Wednesday, June 10, 2009, the Process Shift Superintendent, initially notified Richard Schmitt that the API was overflowing. Then, Mr. Schmitt notified Mr. Mark Turri, Joel Quinones, James Geer, and the Environmental Department about the incident. The Environmental Department was officially notified on Wednesday, 6/10/2009 at approximately 0524 hrs. Environmental personnel arrived at 0609 hrs, Wednesday, June 10, 2009. A site determination and evaluation proceeded during daylight hours. The actual quantity of oil released is difficult to measure with any accuracy. Once daylight arrived, assessment began. Maintenance and Offsite personnel immediately began cleanup. Final quantification was determined to be approximately <2.0 bbls of oil discharged, a crude estimation. All recoverable liquid in areas (oil/water mixtures) around the API and Baker Tank were immediately vacuumed and brought to one of the process drains for further processing by the API.

Describe Area Affected and Cleanup Action Taken.*

Once daylight arrived, assessment began. Maintenance and Offsite personnel immediately began cleanup. All recoverable liquids in areas (oil/water mixture) around the API and the Baker Tank were immediately vacuumed and brought to one of the process drains for further processing by the API. Soil and area remediation around API and Baker Tanks is in progress.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	OIL CONSERVATION DIVISION	
Printed Name: Beck Larsen	Approved by District Supervisor:	
Title: Environmental Engineer	Approval Date:	Expiration Date:
E-mail Address: Thurman.larsen@wnr.com	Conditions of Approval:	Attached ☐
Date: 6/22/2009 Phone: (505) 722-0258		

* Attach Additional Sheets If Necessary

Western Refining

WNR LISTED NYSE

GALLUP REFINERY

CERTIFIED MAIL: 7008 2810 0000 4726 1673

October 16, 2009

New Mexico Environmental Department (NMED)
Hazardous Waste Bureau (HWB)
2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505
Attention: Ms Hope Monzeglio

New Mexico Energy Minerals and Natural Resources Department
New Mexico Oil Conservation Division (NMOCD)
1220 South Saint Francis Drive
Santa Fe, New Mexico 87505
Attn: Mr. Carl J. Chavez

Reference: API OVERFLOW on SEPTEMBER 5, 2009

Dear Ms Monzeglio and Mr. Chavez;

Please accept the following letter in response to a letter from Ms Hope Monzeglio of the New Mexico Environmental Department (NMED) (Hazardous Waste Bureau (HWB) (September 15, 2009) that references an API overflow which occurred on Saturday, September 5, 2009.

The following information shall address describing the nature of the event leading to and causes of the overflow event, remedial actions that were taken, and corrective action made to the API area in order to prevent future occurrence. Diagrams have been included in order to provide a visual reference of the API area, extent of contamination, and to aid in a better understanding of the event. (Refer to "API & Aeration Lagoon Diagram") Also enclosed are Release Notification Forms (C-141) (Initial and Final) Reports, NMED Correspondence (letters and e-mails), API Overflow Summary, API Sampling Plan with a Laboratory Data Summary and Hall Environmental Laboratory Analysis, and NMED Soil Screening Levels (Table A-1) for your reference and convenience.

I. THE INCIDENT- "DESCRIPTION AND CAUSES OF OVERFLOW EVENT": (Refer to "API & AERATION LAGOON DIAGRAM")

On Saturday, September 5, 2009 at 1215 hours, a heavy rain and thunderstorms passed over the facility. It began raining heavily for about 20 to 30 minutes. At 1245 hours, the API began to overflow into an above ground Baker Tank that is located near the new API and is used for overflow during upset or excessive rain conditions. The API Operator began pumping from the new API to T-105/T-107 in order to divert as much water as possible from the new API. The rain slacked off from a heavy to light intensity. At 1245 hours due to continued excessive rain, the new API (both East and West) Bays began overflowing from the top hatches of and from two overflow spouts (located on the north end of the API).

The Environmental Department/Qualified Individual (QI) was notified at 1320 hours. The QI arrived on site at 1410 hours during the storm event. At the time of QI arrival, response personnel were in the process of simultaneous containment and remedial activities in order to minimize any environmental impact.

At approximately 1600 hrs, a second rain event began due to another thunderstorm cell passing over the facility. At approximately 1830 to 1900 hrs the new API began to overflow in the same manner as described previously due to excessive stormwater. The overflow during this second thunderstorm also lasted for about an hour. The total rainfall during these incidents was about 1.6 inches based on the Process Area rain gauge. The total estimated time of the overflows of both events was approximately two (2) hours.

Under normal conditions, the API can handle a minor storm event. However, during this rain event, the API began to fill to an overflow condition because the rainfall intensity was greater than the design flow for the new API. As the rainfall intensity and flow volume increased during these two events, the process and stormwater quantity exceeded the design capacity of the new API Units causing water to be forced out of the top hatches and of the overflow spouts.

During this storm event, the API overflow was concentrated around the new API and Baker overflow tank containment area due to the increased height of the roadway construction as a result of prior modification activities. The berm that was created due to previous road maintenance separated any overflow coming from the API area from reaching Aeration Lagoon #1. Also, some API overflow went along the backside of the new API into the API overflow Baker frac tank containment area. The overflow was either isolated around the new API area or contained in the API overflow tank containment area. As a result of this storm event, oil or oily sheen was found around the API area and the API overflow tank containment area.

The total volume released to the environment was based on the best engineering methodology available and the information supplied by on-site personnel. The methodology utilized for this determination will be discussed below under a separate category.

II. THE VOLUME OF OVERFLOW and HOW IT WAS DETERMINED- "QUANTITY ESTIMATION AND BEST ENGINEERING METHODOLOGY" (Refer to "API OVERFLOW SUMMARY")

The quantification of the amount of API overflow was determined using various methodologies and Best Engineering Practices available during this event. These methodologies and Best Engineering Practices were used in order to make a reasonable quantification that included such items as conversations with facility personnel, vacuum truck logs, available diagrams or drawings, best approximations or assumptions at the time of the event, and any available data records collected during and after this event. A combination of these methods had to be used in order to make a reasonable determination or estimation of the volumes from the API overflow.

Various engineering principles that were used in order to make a reasonable quantification included material balance (flow in =flow out) in conjunction with basic hydrologic principles. First, an approximation or assumption of the amount of "oil" on the API at any given time was used. The quantity of oil can be exaggerated due to the inability of being able to open the API at any given time in order to ascertain an accurate measurement of its level. This level or quantity was assumed

to be released out of the API at the time of overflow. This assumption probably was an over estimation of the actual quantity of oil that was in the API at the time of overflow and that was actually released. It was assumed that the entire quantity of oil as determined above was actually released from the API. Next, a material balance was used to determine the required flow into and out of the API at the time of the overflow. One of the elements of the material balance requires rainfall and Process Unit run off data in order to ascertain flow input to the API based on hydrologic principles.

It was estimated that a total of 6.6 bbls of oil was discharged to the ground at the termination of the API overflow. Approximately 4.6 bbls of oil was recovered as a result of the vacuum truck remediation during this event. There was approximately 2 bbls that was not recovered or not accounted for in the calculations based on the information available. These values are approximated based on material balance and other engineering principles and are as accurate as the available known information.

Vacuum truck data was used in the determination of oil and oil/water mixture volumes at the time of the overflow. A vacuum truck log was used to determine the amount of oil/water mixture recovered. The amount of oil (percentage) in the API at the time of the overflow was applied to this mixture in order to quantify or estimate the quantity of oil recovered. It was determined that approximately 1320 bbls of the oily/water mixture was recovered from the vacuum truck operation based on the number of loads retrieved and from a known quantity per load. The amount of oil recovered from this operation was found to be approximately 4.6 bbls based on information supplied by the vacuum truck operators, API Area Operator, and best engineering methodology.

A summary of the incident using applicable methodologies for volume calculations are indicated below (Refer to "API Overflow Summary" Spreadsheet as enclosed):

Qty of Oil in API at time of Incident:	1.8 bbls
Qty of Oil from Process Unit at time of Incident:	1.3 bbls
Qty of Oil from Baker Tank Containment:	2.6 bbls
Qty of Oil Transferred to T-105/107:	0.9 bbls
- Qty of Oil Recovered (Vacuum Truck):	- 4.6 bbls
TOTAL (OIL RELEASED to the ENVIRONMENT)	6.6 bbls
Qty Oil Recovered (Vacuum Truck)	4.6 bbls
Oil Discharged to the Environment (Oil Not Recovered)	2.0 bbls

The Oil discharged to the environment was based on the calculations from available information and could not be determined at a more accurate value. Operation personnel removed as much oil as possible during the cleanup operation. The remainder of the oil was removed in the clay as part of the remediation project.

III. CLEANUP ACTIVITIES- "REMEDIAL ACTIVITIES/ CLEANUP OPERATIONS":
(Refer to "API & AERATION LAGOON DIAGRAM")

Cleanup operations were immediately initiated after the first rain cell passed over the facility in order to minimize the environmental impact. Western Refining recently purchased a vacuum truck for onsite use instead of utilizing outside contractor equipment and their personnel. After the first

rain cell passed over the facility, the vacuum truck was immediately deployed in order to begin vacuuming up any oil/water liquids from the affected areas as a part of initial cleanup efforts.

Maintenance also began soil remediation around the API, Baker Tank, and associated areas by removing approximately 1 to 2 inches of contaminated top soils, any contaminated vegetation, and rock with a back-hoe or shovels as required. Cleanup and remedial activities terminated on September 14, 2009. After completion of all remedial activities, the Refinery Environmental Department proceeded to collect ten (10) core samples of the material in the area of potential contamination.

IV. HAZARDOUS WASTE POTENTIALLY RELEASED TO THE ENVORNMENT- (Refer to "HALL ENVIRONMENT LABORATORY DATA SUMMARY", and "HALL ENVIRONMENTAL LABORATORY DATA REPORTS", and "NMED SOIL SCREENING LEVEL (Table A-1)" as Enclosure)-

Hall Environmental Laboratories analyzed the ten (10) core samples. After remediation of the overflow was completed, samples were collected on September 16, 2009. Final analysis was received on October 8, 2009. The data from these samples were put on an excel spreadsheet in order to provide a comparison of data points in order to compare against the New Mexico Environmental Department- Hazardous Waste Bureau (NMED-HWB) Industrial Soil Screening Levels for Cleanup Operations. The comparison between actual analytical and the Industrial Soil Cleaning Levels as established by the New Mexico Environmental Department- Hazardous Waste Bureau (NMED-HWB), clearly reflect that our soil cleanup was complete and that there was minimal environmental impact. However, as the regulations specify, this cleanup material will by definition, be classified as a Hazardous Waste (Specific and Non-Specific Sources) (K051, F037, F038) for disposal purposes.

V. DEMONSTRATION OF SUSESSFUL SPILL CLEANUP- LABORATORY DATA ANALYSIS (Refer to HALL ENVIRONMENT LABORATORY DATA SUMMARY, and HALL ENVIRONMENTAL LABORATORY DATA REPORTS, and NMED SOIL SCREENING LEVEL (Table A-1) as Enclosure)

A "Sampling Plan" was first devised as directed by the New Mexico Environmental Department-Hazardous Waste Bureau (NMED-HWB) in response to the letter of September 15, 2009. The Environmental Department proceeded to collect ten (10) core samples of the material in the area of potential contamination on September 17, 2009. These ten (10) soil samples were then submitted to Hall Environmental Laboratories to be analyzed for the following parameters: RCI, RCRA Eight (8) Metals, Total Petroleum Hydrocarbon (TPH) using Method 8015B to include Gasoline Range Organics (GRO) and Diesel Range Organics (DRO), Total Volatile Organic Compounds (Total VOC) using Method 8260.In addition, if the DRO was greater that 200 ppm, the lab was instructed to perform semi-volatile organic analysis using Method 8270 as directed by the Agency. Please note that Method 8270 for semi-volatiles was run for all ten (10) samples instead of just the ones with a DRO greater than 200 ppm.

Final data from Hall Environmental Laboratory (date of collection: 9/17/2009) was received on all ten (10) core sample points on October 9, 2009. A Hall Environmental Laboratory Data Summary is enclosed for the Agency's convenience and as matter of reference.

Laboratory data was first put on an Excel Spreadsheet for a more convenient format and comparison. Also, the NMED Soil Screen Levels (Soil Cleanup Levels) for Industrial Facilities (2006) were included on the same spreadsheet. Next, a comparison was performed between the analytical data and the NMED Soil Screen Levels to determine if further remedial action would be required or necessary. Based on this comparison from Hall Laboratory Data and the NMED Soil Screening Cleanup Levels, it was determined that "no further action" or "cleanup efforts" would be necessary or required. After all remediation and sampling was completed, the API area was again covered with clean limestone.

VI. DISPOSAL ACTIVITIES

The soil cleanup material will be shipped off for disposal in a roll-off box as Hazardous Listed Waste (Specific and Non-Specific Sources) (K051, F037, F038). The quantity that was actually remediated during this cleanup was approximately 20 to 30 cubic yards. This material will then be shipped by Rinchem to an approved landfill for proper disposal in accordance with our Oil Conservation Division (OCD) Permit (# GW-032) and in accordance with all applicable Federal, and State regulations.

VII. STEPS TO IMPLEMENT TO ENSURE THAT OVERFLOWS TO API SEPARATOR DO NOT CONTINUE TO OCCUR

All modifications and upgrades to the API area were identified after the spill of June 10, 2009 and completed. Both bays to the API were in service and fully operational at the time of the API overflow on September 5, 2009.

The API under both current and past operations has been subject to various overflow condition during excessive rain events. Western Refining has continually improved the API and surrounding areas in order to minimize possible future occurrences.

The API performance has had overflow issues during the past that may be attributed to several key issues. Some of these performance issues are as follows:

Mechanical Issues:

1. Level Indicator Failure- controls the back-up pumps at the API outlet
2. Pump Issues- cavitations, loss of suction, or blocked lines on the discharge side of the pump

Forces of Nature: (Force Majeure)

Unannounced storm events that inundate the API System; i.e. storm surges (flow into the API System) exceeds the design capacity of the API

The first two (2) mechanical issues have been resolved. All overflows are routed to a Baker Tank to be pumped out via an on-site vacuum truck. The aqueous portion of this material is later sent back to the sewer system which eventually will be rerouted back through the API System. At the time of the September 5, 2009API overflow, all systems were operating at optimal capacity.

Force of Nature or a Force Majeure is problematic for our current API System due to the design flow characteristics. The API (both East and West Bays) have an accumulated rating of 500 gpm (design performance). During an excessive rain event or storm surge such as the one that occurred

on September 5, 2009, the API was inundated with stormwater that exceeded its design capacity. Therefore, the API began overflowing.

Western Refining is in the design phase of a new "Stormwater Diversion Project" in order to provide relief from unexpected or inundated stormwater discharges to the API System. This project will be composed of two (2) Stormwater Diversion Tanks (T-27 and T-28). This new system will connect directly into the current stormwater system in order to divert stormwater away from the Old API into Tanks (T-27 and T-28). A new twenty-four inch (24") pipe will connect the old system to the Stormwater Diversion Tanks (T-27 and T-28) The stormwater will be pumped from the diversion tanks (T-27 and T-28) to the new API.

If you require additional information concerning this matter, please contact me at (505) 722-0258.

Sincerely,

Beck Larsen-CHMM, REM
Environmental Engineer
Western Refining (Southwest) (Gallup Refinery)

Enc: API & Aeration Lagoon Area Diagram
OCD (Release Notification and Corrective Action, C-141 (Initial) & Final Reports
NMED Correspondence (letter of September 15, 2009), (e-mail of September 10, 2009)
API Overflow Summary for September 5, 2009
API Sampling Plan, Hall Environmental Laboratory Data Summary, Hall Environmental Laboratory Data Reports (Sampled on September 16, 2009)
NMED Soil Screening Levels (Table A-1)

Cc: Mr. Mark Turri, Western Refining (Southwest), Refinery Manager
Mr. Ed Riege, Western Refining (Southwest), Environmental Manager)
File

Rec'd 9/16/09

NEW MEXICO ENVIRONMENT DEPARTMENT

Hazardous Waste Bureau

BILL RICHARDSON
Governor

DIANE DENISH
Lieutenant Governor

2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6303
Phone (505) 476-6000 Fax (505) 476-6030
www.nmenv.state.nm.us

RON CURRY
Secretary

JON GOLDSTEIN
Deputy Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

September 15, 2009

Mr. Ed Riege
Environmental Superintendent
Western Refining, Southwest Inc.,
Gallup Refinery
Route 3 Box 7
Gallup, New Mexico 87301

Mr. Beck Larsen
Environmental Engineer
Western Refining, Southwest Inc.,
Gallup Refinery
Route 3 Box 7
Gallup, New Mexico 87301

SUBJECT: FORMAL REPORT SUBMITTAL TO THE SEPTEMBER 5, 2009 API SEPARATOR OVERFLOW WESTERN REFINING, SOUTHWEST INC., GALLUP REFINERY EPA ID NO. NMD000333211 HWB-GRCC-MISC

Dear Messrs Riege and Larsen:

The New Mexico Environment Department (NMED) requires Western Refining Southwest Inc., Gallup Refinery (the Permittee) to submit a formal report summarizing the events and actions taken to address the API separator overflow which occurred on September 5, 2009. This spill released K051, F038, and potentially D018 hazardous wastes into the environment. As a reminder, the Permittee must comply with Section II.F.2 (Twenty-four Hour Reporting) of the Post-Closure Care Permit which can be found using the following link: http://www.nmenv.state.nm.us/hwb/giant/GRC-C%20PCC%20PERMIT.pdf.

The Permittee met the 24-hour oral reporting requirements by contacting Steve Connolly, the NMED Incident Response Coordinator. When reporting all future spills, the facility may continue to contact Steve Connolly; however, the Permittee must also contact the Project Leader for Gallup (Hope Monzeglio) of the Hazardous Waste Bureau.

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company Western Refining-Southwest	Contact Beck Larsen
Address I-40/Exit 39, Jamestown, NM 87347	Telephone No.(505) 722-0258
Facility Name Gallup Refinery	Facility Type Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	28	15N	15W					McKinley

Latitude 35° 29'030'' **Longitude** 108° 24'040''

NATURE OF RELEASE

Type of Release API Overflow	Volume of Release 6.6 bbls (oil)	Volume Recovered 5.5 bbls (oil) (estimated)
Source of Release API UNIT	Date and Hour of Occurrence 9/05/2009; 1215 hrs / 1830 hrs	Date and Hour of Discovery 9/05/2009; 1215 hrs / 1830 hrs
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? OCD & NMED	
By Whom? Beck Larsen	Date and Hour 9/06/2009 / 1750 hrs	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

On Saturday, September 5, at about 1200 to 1230 hrs, a heavy rain and thunderstorms passed over the facility. It began raining heavily for about 20 to 30 minutes. At 1220 hrs the new API began to overflow into the Baker Frac Tank. The rain slacked off from a heavy to a moderate to light. At 1245 hrs the new API (East and West) Bays began to overflow due to the excessive rain. The API continued to overflow for about an hour. At 1800 hrs once again, a second rain event began due to a secondary thunderstorm cell passing over the facility. The new API began to overflow a second time for an hour due to excess stormwater. The total overflow for both events was approximately 2 hours. A total rainfall for both events was approximately 1.6 inches.

Describe Area Affected and Cleanup Action Taken.*

Cleanup efforts began immediately on September 5, 2009 during the rain event using a vacuum truck. Maintenance and Contract personnel began cleaning up the any aqueous/oily portion of overflow contamination and any contaminated soil and rock debris surrounding the API area. Personnel conduct cleanup of areas such as depressions or other conveyances adjacent to the API area that any contamination may or did spread. After immediate cleanup efforts were completed, all contaminated material were put into a roll-off box to be tested (analyzed by an outside lab), prior to shipment off site for disposal to an approved facility. Contract personnel delivered and spread new gravel and rock material around the API area. Final cleanup of this area was completed on or about September 11-14, 2009.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: 	OIL CONSERVATION DIVISION
Printed Name: Beck Larsen	Approved by District Supervisor:

Title: Environmental Engineer	Approval Date:	Expiration Date:
E-mail Address: Thurman.larsen@wnr.com	Conditions of Approval:	Attached ☐
Date: 10/16/2009 Phone: (505) 722-0258		

* Attach Additional Sheets If Necessary.

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Western Refining-Southwest	Contact Beck Larsen
Address I-40/Exit 39, Jamestown, NM 87347	Telephone No.(505) 722-0258
Facility Name Gallup Refinery	Facility Type Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	28	15N	15W					McKinley

Latitude 35° 29′030″ **Longitude** 108° 24′040″

NATURE OF RELEASE

Type of Release API Overflow	Volume of Release 6.5 bbls (oil)	Volume Recovered 5.5 bbls (oil) (estimated)
Source of Release API UNIT	Date and Hour of Occurrence 9/05/2009; 1215 hrs / 1830 hrs	Date and Hour of Discovery 9/05/2009; 1215 hrs / 1830 hrs
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? OCD & NMED	
By Whom? Beck Larsen	Date and Hour 9/06/2009 / 1750 hrs	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

On Saturday, September 5 at approximately 1143 hrs, Off-site personnel began bypassing filters and weir box in preparation for a possible rain event. At about 1200 to 1230 hrs, Saturday, September, 5, 2009, a heavy rain and thunderstorms passed over the facility. It began raining heavily for about 20 to 30 minutes. At 1220 hrs the new API began to overflow into the Baker Frac Tank. The API Operators began pumping from the new API to T-105/T-107 in order to remove as much water as possible from the API. The rain slacked off from a heavy to a moderate to light. At 1245 hrs the new API (East and West) Bays began to overflow due to the excessive rain. The API continued to overflow for about an hour. At 1800 hrs a second rain event began due to a secondary thunderstorm cell passing over the facility. Once again, the new API began to overflow a second time for an hour due to excess stormwater. The total overflow for both events was approximately 2 hours. A total rainfall for both events was approximately 1.6 inches.

Describe Area Affected and Cleanup Action Taken.*

Cleanup efforts began immediately on September 5, 2009 during the rain event using a vacuum truck. Maintenance and Contract personnel began cleaning up the any aqueous/oily portion of overflow contamination and any contaminated soil and rock debris surrounding the API area. Personnel conduct cleanup of areas such as depressions or other conveyances adjacent to the API area that any contamination may or did spread. After immediate cleanup efforts were completed, all contaminated material were put into a roll-off box to be tested (analyzed by an outside lab), prior to shipment off site for disposal to an approved facility. Contract personnel delivered and spread new gravel and rock material around the API area. Final cleanup of this area was completed on or about September 10, 2009.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	OIL CONSERVATION DIVISION		
Printed Name: Beck Larsen	Approved by District Supervisor:		
Title: Environmental Engineer	Approval Date:	Expiration Date:	
E-mail Address: Thurman.larsen@wnr.com	Conditions of Approval:		Attached ☐
Date: 7/21/2009 Phone: (505) 722-0258			

* Attach Additional Sheets If Necessary

CERTIFIED MAIL: 7008 2810 0000 4726 1727

April 16, 2010

New Mexico Environmental Department (NMED)
Hazardous Waste Bureau (HWB)
2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505
Attention: James P. Bearzi

New Mexico Energy Minerals and Natural Resources Department
New Mexico Oil Conservation Division (NMOCD)
1220 South Saint Francis Drive
Santa Fe, New Mexico 87505
Attn: Mr. Carl J. Chavez

Reference: RESPONSE LETTER- "NOTICE OF DISAPPROVAL", "CLEANUP STATUS FOR API SEPARATOR OVERFLOWS" (SEPTEMBER 5, 2009 and DECEMBER 8, 2009) WESTERN REFINING SOUTHWEST INC, GALLUP REFINERY EPA ID NO. NMD000333211 HWB-GRCC-MISC

Dear Mr. Bearzi and Mr. Chavez;

Please accept the following letter in response to a letter from Mr. James Bearzi of the New Mexico Environmental Department (NMED) (Hazardous Waste Bureau (HWB) (March 4, 2010) that references API overflows that occurred on September 5, 2009 and December 8, 2009.

The following shall address the comments as identified by the New Mexico Environmental Department (NMED)/Hazardous Waste Bureau. Enclosed is the Interim Measures Work Plan for the control and prevention of overflows from the API that is due on April 19, 2010 as required according to the letter of March 4, 2010.

I. COMMENT 1-"Permittee must describe in detail the sampling collection methods and procedures that were used to collect the confirmation samples (eg., how were the samples collected, were they discrete or composite samples, how were any composite samples collected, what equipment was used (shovel, encore sampler) to collect the samples). The Permittee must also describe the decontamination process of the sampling equipment (eg., equipment was cleaned in a non-phosphate solution followed by a rinse using de-ionized water."

RESPONSE:

a. Sample Collection- Six inches of soil was removed at each of the fourteen (14) sample locations using a stainless steel (6") garden spade. Fourteen (14) discrete samples were

collected in individual 8 oz glass jars at the indicated sample collection point locations as indicated on the initial Sampling Plan. (Figure 1)

b. Sampling Equipment-A clean stainless steel (6 inch) garden spade was used to collect each sample. The sampler used clean latex gloves in order to minimize any cross contamination that may occur during the sampling event. After collecting an individual sample and before collecting the next sample, the latex gloves were replaced with a new pair of latex gloves.

c. Decontamination Process or Procedures- The spade was decontaminated before and after each sample collection using an Alconox solution or Simple Green cleaner followed by a de-ionized water rinse.

II. COMMENT 2-"Permittee states "Gallup is proceeding to excavate contaminated soil based on the analysis received from Hall Environmental Laboratories." The Permittee must provide a schedule for when the additional sampling and clean up activities will be conducted and be completed.

RESPONSE: This project will be separated into two phases in order to assure the agency that an overflow condition will not occur.

Phase 1 is the installation of four (4) additional Baker Tanks as described in the Interim Measures Work Plan. The importance of this as the first step is to be able to handle any API overflows in order to assure that this will not occur. Tank installation has to be the first step because any API overflow will cause additional contamination in this same area that we are trying to remediate. Dirt Work has to be done to insure a solid foundation for the baker tanks. The dirt work and frac tank installation will be on a non-contaminated area north of the existing baker tank. Next, piping has to be fabricated. The four (4) frac tanks have to be delivered and placed at this location. Piping will then have to be connected to each frac tank. This phase should take up to two and one-half weeks to complete. (Refer to Attachment)

Phase 2 is the clean up activities around the API and other contaminated areas. All contaminated material including around the API is to be remediated. This soil will be put in roll-off boxes to be shipped off-site as Hazardous Waste. The clean up activities will take about two to two and one-half weeks to complete. Next, sampling will be conducted for the same sample locations as described in a previous location plot of December 8 Sampling Plan. It will take up to four weeks to receive analysis from Hall Environmental Laboratory with a normal turn-around. (Figure 1)

III. COMMENT 3-The Permittee must address the following regarding the "Confirmation Samples" figure that identifies the areas requiring additional excavation and confirmation sampling.

a. **The figure shows two hatched areas: the blue hatch identifies the "Area of Possible Contamination" and the red hatch identifies that the "Area is Contaminated." The report indicates that the red hatch area is where additional excavation and confirmation sampling will occur. The Permittee must explain the difference between the red and blue hatch areas, and specifically why the "Area of Possible Contamination" does not require additional sampling."**

RESPONSE: The "Red" hatch (Area is Contaminated) and the BLUE hatch (area of Possible Contamination) was based on the Total Petroleum Hydrocarbon (TPH) values greater than 200 mg/kg as determined from 2006 (2009) Soil Screening Levels (SSL). Areas that were greater than 200 mg/kg were considered to be a "HOT ZONE", i.e., shaded in "RED" hatch or "Area is Contaminated". Areas that were less than 200 mg/kg was considered to be "BLUE" hatch or "Area of Possible Contamination" Clean up efforts will be made for both "RED" and "BLUE" hatch areas. These areas do not determine if excavation is required, only which areas are more contaminated than others.

b. **The area west of the Baker Tank is hatched, red indicating that additional excavation and confirmation sampling will occur; however, there are two small areas within the red hatch that are blue (west edge of the excavation and the southwest corner edge of the excavation), an area which indicates no further sampling will be conducted. It is not clear how the Permittee determined that these "blue" areas do not need additional excavation and sampling. Additionally, it is unclear how the Permittee determined the areas north and south of the sample location API-W-6 do not need additional excavation. The Permittee must explain how the borders between the "Area of Possible Contamination" and the "Area is Contaminated" were determined.**

RESPONSE: The two small areas of concern are due to a drawing error. These two areas are all considered as contaminated, should have been identified as a red hatch area, and will also be excavated. Excavation and sampling of the areas north and south of the sample location API-W-6 will also be performed. A detailed description of the red and blue hatch areas was previously identified under comment (3 a) above.

c. **Additional sampling is necessary to define the horizontal and vertical extent of contamination in areas where contaminants are still present. The Permittee must revise the Confirmation Sampling figure to address items a and b and propose additional sampling. The Permittee must be able to demonstrate that clean up of contamination surrounding the API separator and Baker Tank has been completed.**

RESPONSE: The facility is in process of addressing the API overflow issue which is the cause of the contamination. An "Interim Measures Work Plan" is being submitted along with this report. This plan addresses the API overflow issues in more detail. Additional excavation and sampling will be conducted around the API and Baker Tanks both under the "BLUE" and "RED" hatch areas. (Figure 2)

IV. **COMMENT 4- In NMED's September 15, 2009 letter regarding the Formal Report submittal to the September 5, 2009 API Separator Overflow, NMED directed the Permittee to provide steps that would be implemented to ensure overflow to the API separator do not continue to occur. On page 5 of the Report, the Permittee states "both of the API overflows were the direct result of inclement weather conditions that were beyond the control of the refinery. Gallup is in the design phase of a new "Stormwater Diversion Project" in order to eliminate overflows from the new API due to unexpected or inundated**

stormwater discharges. This project will be composed of two (2) Stormwater diversion Tanks (T-27 and T-28) and additional diversionary tank. The new system will connect directly into the current stormwater system. A new twenty-four inch (24" pipe will connect the old system to the Stormwater Diversion Tanks (T-27 and T-28). The stormwater will be pumped from the diversion tanks (T-27 and T-28) to the new API."

The overflows were a direct result of the weather, which cannot be controlled by the Permittee; however, the Permittee can control how the overflows are handled so that the wastewater will not flow to the ground surface. The Stormwater diversion Project is no yet installed. Until it is, the API separator must prevent releases from the API separator to the ground surface. The Permittee must propose an interim measures in accordance with Section IV.B.6 (Interim Measure (IM)) of the Post-Closure Care Permit that will control and prevent all overflow from the API separator to the ground surface until the Stormwater diversion Project is installed and operational. The Interim Measures Work Plan is due to NMED on or before April 19, 2010.

RESPONSE: An "Interim Measures Work Plan for control and prevention of Overflow from the API Separator" has been prepared. The plan discusses the amendments to the API area through the use of four (4) additional frac tanks in conjunction with an existing frac tank. The Interim Measures Work Plan is being submitted in conjunction with this report. (Attachment)

V. **COMMENT 5- The following comments address the "Hall Environmental Laboratory Data Summary" Table.**

a. **NMED updated their Soil Screening Levels (NMED SSLs), (December 2009). The updated NMED SSLs must be applied to all future comparisons. The change in the December 2009 version of the NMED SSLs do not affect the information provided in this table with the exception of xylenes, for which the reported detection is below the NM SSL industrial value of 3,610 mg/kg. No revision to the Table is necessary.**

RESPONSE: Changes have been adopted to use the December 2009 NMED Soil Screening Levels (SSL) for future comparisons. The 2006 SSL for Xylene was 82 mg/kg. The December 2009 SSL of 3610 mg/kg has been adopted. The table has been modified to reflect these changes. (Figure 3)

b. **In the Table, the Permittee presents the chromium III value of 100,000 mg/kg. In the future, the Permittee must apply the chromium VI values unless chromium has been speciated or the Permittee can otherwise demonstrate the chromium present in the sample is chromium III. No revision is necessary as the chromium detections are below the industrial chromium VI value.**

RESPONSE: According to the table, the 2006 SSL value for Cr(+3) is 100,000 mg/kg. This is the Soil Screening Level (SSL) not the Cr(+3) value. This value has been changed in accordance with the December 2009 SSL value of 1,570,000 mg/kg. The

maximum Cr(+3) value of 73 mg/kg is below either SSL versions (2006 or 2009). (Figure 3)

The 2006 SSL value for Cr(+6) is 3400 mg/kg. The 2009 SSL value for Cr(+6) is 2900 mg/kg. This value will be used in future comparisons. A maximum Cr(+3) value is well below either 2006 or the 2009 SSL values. (Figure 3)

c. **The benzene standard in the table states "258 mg/kg". The standard in the NMED SSLs June 2006 is 25.8 mg/kg. No revisions to the Table us necessary since the benzene detection are below the NMED SSLs December 2009 industrial standard of 85.4 mg/kg.**

RESPONSE: A decimal error was made in the original submittal reporting a SSL (2006 version) of 258 mg/kg for Benzene. This value should have been designated as 25.8 mg/kg as a SSL. This value has been changed to reflect a new SSL of 85.4 mg/kg. The new 2009 SSL will be applied in future comparisons. No revision to table is required. (Figure 3)

d. **The "DRO" row under the brown shaded column titled "Cleanup Status" states "ok", indicating no additional cleanup is necessary. However, listed detection exceed the cleanup standard and additional cleanup activities are required. No revision is necessary as the locations that have detections above the cleanup standard are designated as requiring additional cleanup in the Report. The Permittee must ensure the text, tables, and figures are consistent with one another. No revisions are necessary.**

RESPONSE: The SSL detection for TPH for both 2006 and 2009 is 200 mg/kg. According to the NMED tables, there are no SSL values for DRO, MRO, and GRO. However, the comparison will reflect a DRO, MRO, and GRO change based on the TPH values in the future. (Figure 3)

e. **According to the laboratory reports, gasoline range organics (GRO) were not detected at the following sample locations: API-N-1, API-E-2, API-S-4, API-W-5, API-W-6, CHN-C-10, CHN-C-11, NBT-W-12, and NBT-E-14; however, the Table includes detections for these locations. The detections provided in the Table are the PQL values found in the laboratory reports. Since there were no detections, no revision is necessary. In the future, the Permittee must ensure the tables are consistent with the laboratory reports.**

RESPONSE: The comparison chart submitted was based on an actual value to reflect any "Clean Up Status" as indicated in "Brown". Therefore, the lowest value that could be put in the table was a PQL. For future comparisons, if the value is a "non-detect, ND", the letters of "ND" will be put in table.

VI. SUMMARY- The comments as identified by the New Mexico Environmental Department (NMED)/Hazardous Waste Bureau were addressed in detail as indicated above. Enclosed is the Interim Measures Work Plan for the control and prevention of overflows from the API that is due on April 19, 2010 as required according to the letter of March 4, 2010.

VI. DOCUMENT ENCLOSURES/ATTACHMENTS:

The following enclosures or attachments have been included in order to provide the Agency with a visual reference in order to aid in a better understanding of the event surrounding the API overflows that include sampling. These enclosures include the following:

NMED correspondence letter of March, 2010 "Notice of Disapproval, Clean up Status for API Separator Overflows",
Figure 1- Sampling / Clean Up Plan
Figure 2- Drawing of the API area indicating the extent of overflow contamination,
Figure 3- Hall Environmental Laboratory Data Summary Spreadsheet (Corrected),
Attachment- Interim Measures Work Plan for Control and Prevention of Overflows from the API Separator- Installation of four (4) additional frac tanks, letter from NMED "Notice of Disapproval Cleanup Status for API Separator Overflows"

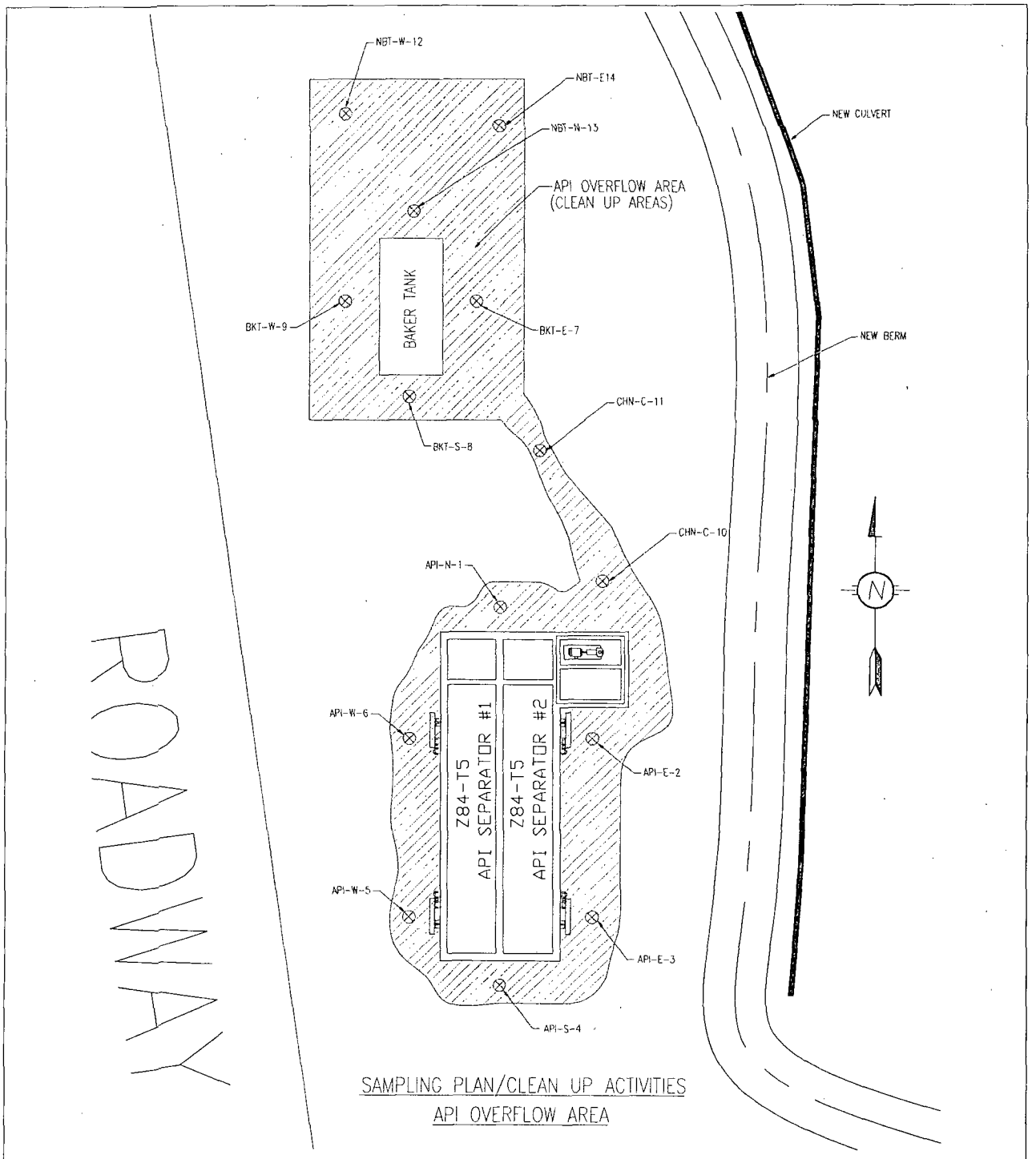
If you require additional information concerning this matter, please contact me at (505) 722-0258.

Sincerely,

Beck Larsen-CHMM, REM
Environmental Engineer
Western Refining (Southwest) (Gallup Refinery)

Enc: NMED correspondence letter of March 4, 2010
Figure 1- Sampling / Clean Up Plan
Figure 2- Drawing of the API area indicating extent of contamination
Figure 3- Hall Environmental Laboratory Data Summary Spreadsheet (Corrected)
Attachment- Interim Measures Work Plan for Control and Prevention of Overflows from the API Separator- Installation of four (4) Additional Frac Tanks

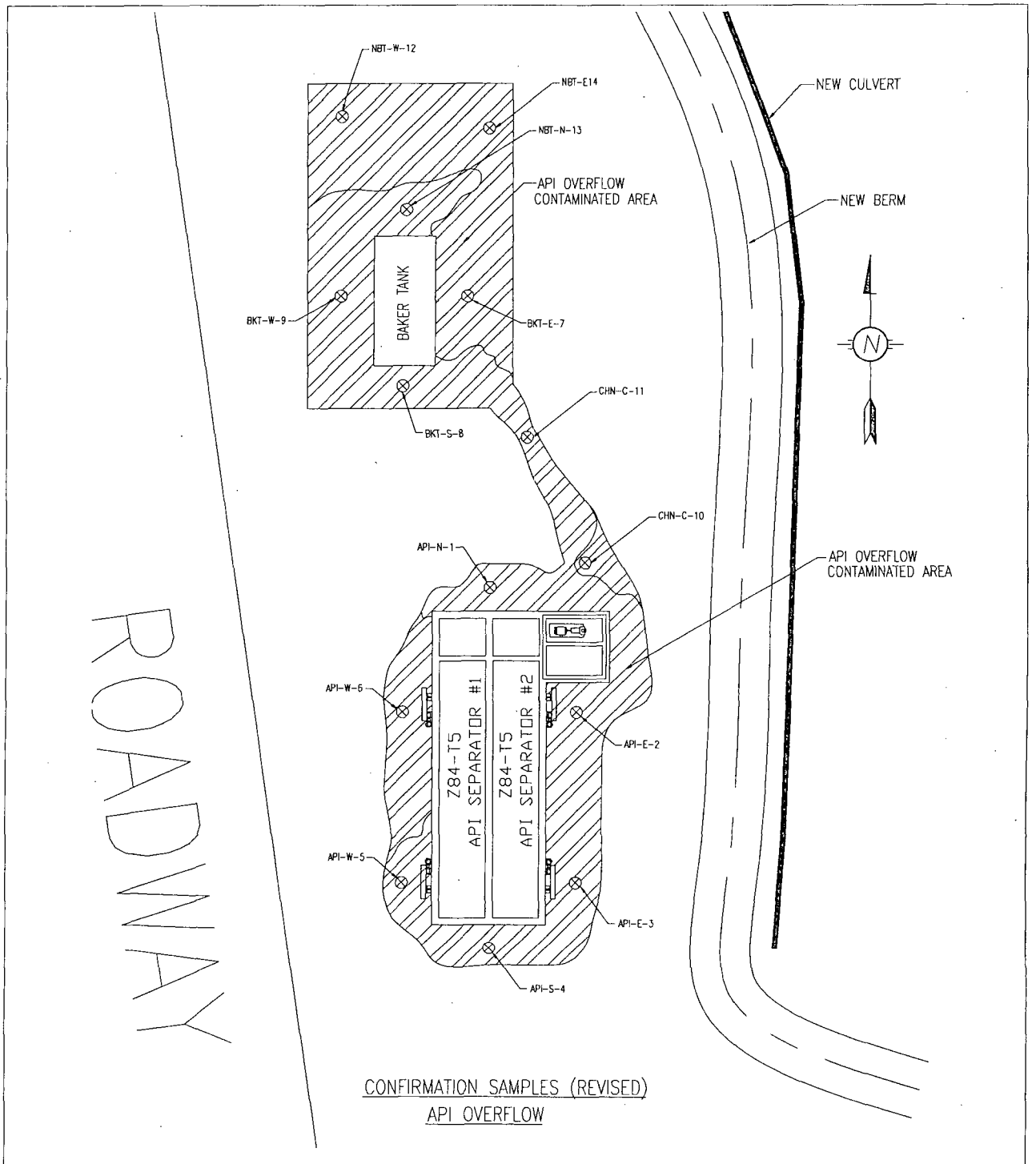
Cc: Mr. Mark Turri, Gallup (Southwest), Refinery Manager
Mr. Ed Riege, Gallup (Southwest), Environmental Manager)
File
NMED (HWB)- Ms Hope Monzeglio



SAMPLING PLAN/CLEAN UP ACTIVITIES
API OVERFLOW AREA

FIGURE 1

Western Refining
Gallup Refinery



CONFIRMATION SAMPLES (REVISED)
API OVERFLOW

FIGURE 2

Western Refining
Gallup Refinery

CERTIFIED MAIL: 7008 2810 0000 4726 1680

January 25, 2010

New Mexico Environmental Department (NMED)
Hazardous Waste Bureau (HWB)
2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505
Attention: Ms Hope Monzeglio

New Mexico Energy Minerals and Natural Resources Department
New Mexico Oil Conservation Division (NMOCD)
1220 South Saint Francis Drive
Santa Fe, New Mexico 87505
Attn: Mr. Carl J. Chavez

Reference: CLEANUP STATUS for Western Refining (Gallup Refinery) for API OVERFLOW on SEPTEMBER 5, 2009 and API OVERFLOW on DECEMBER 8, 2009 EPA ID NO. NMD000333211 HWB-GRCC-MISC

Dear Ms Monzeglio and Mr. Chavez;

Please accept the following letter in response to a letter from Ms Hope Monzeglio of the New Mexico Environmental Department (NMED) (Hazardous Waste Bureau (HWB) (January 7, 2010) that references an API overflow that occurred on December 8, 2009. Additionally, this letter will be in response to the API overflow that also occurred on September 5, 2009. This letter will address these two events as a combination due to the close proximity of these two events and due to the required remedial activities. A separate C-141 (Final Report) for each event will be pending at the completion of the remediation project. The following information shall address the nature of the API overflow events of September 5, 2009 and December 8, 2009, remedial actions that have been performed to date, and additional remediation activity that will be required based on analytical data recently received.

I. THE INCIDENT- "API OVER FLOW on SEPTEMBER 5, 2009" (Report due 2/1/2010)

Preliminary analytical samples were originally collected on September 16, 2009. The laboratory results were received on October 8, 2009. Gallup received a letter from the New Mexico Environmental Department-Hazardous Waste Bureau on October 27, 2009 requiring additional cleanup and sampling activities to be performed.

The following items are to address the issues as originally prescribed in the October 27 letter from the New Mexico Environmental Department-Hazardous Waste Bureau.

a. "The Permittee must remove additional contaminated soil in the vicinity of the API Separator and the Baker Tank within the hatched area identified in the "Sampling Plan" figure."

Cleanup efforts began around the first week of November and continued through the third week of November 2009. Contaminated soil in the vicinity of the API Separator and the Baker Tank areas as indicated on the revised Sampling Plan from the Hazardous Waste Bureau was excavated. This excavated material was put in a roll-off box for disposal off-site as Hazardous Waste. The amount of material excavated was approximately 18 to 25 cu yd. This material was later manifested and shipped off-site as Hazardous Waste via Rinchem (US. Ecology, Beatty, NV).

b. "The Permittee must collect confirmation soil samples from the approximate locations of the former sample locations with the exception the roll-off box location. The Permittee must also collect samples from the additional sample locations identified in the attached figure. All samples must be collected from the limit of the excavation not to exceed six inches in depth."

The confirmation sampling was originally scheduled to be collected during the first week of December 2009. On December 8, Gallup had an area wide power outage from the Utility Company that supplies electrical power to the plant. Due to this power outage at our facility, the plant was without power in order to prevent the API from overflowing. As a result of the December 8 event and clean up efforts merging with the clean up efforts of the September 5 event, confirmation sampling was not conducted until January 6, 2010. Discussion on the API overflow from the event on December 8, 2009 will be provided below.

c. "All confirmation samples must be analyzed for DRO extended. In addition, samples collected from locations API-E-2 and BKT-E-7, BKT-S-8 and BKT-W-9 must also be analyzed for gasoline range organics."

Due to issues addressed above, confirmation samples were not collected until January 6, 2009. All fourteen (14) sample points as previously identified and directed by the Agency were to be collected and analyzed for the following: Volatile Organic Compounds (VOC) (Method 8260), Semi-volatile Compounds (Method 8270), Total Petroleum Hydrocarbon (THP) (including DRO/MRO/GRO) (Method 8015) and RCRA 8 Metals. The sampling methodology and the analytical results from the confirmation sampling event will be discussed below.

d. "The confirmation samples must not exceed organic concentrations of 200 mg/kg, if such concentrations exceed 200 mg/kg then additional soil removal will be required until detected concentrations are less than 200 mg/kg."

As previously identified above (b) due to overlapping API overflow events, confirmation samples were not collected until January 6, 2010. The results were received on January 15, 2010. As determined from the analytical, it was determined that additional soil remediation will be necessary. An explanation of the sampling and analytical results will be discussed in detail below.

e. "The Permittee must submit a report (letter format is acceptable) that describes the additional soil clean up activities, explain how additional contaminated soil was removed, describe how confirmation samples are collected and documents the disposal of the contaminated soils. The Permittee must also include all analytical data in table format, copies

of the final laboratory reports, and include a figure that identifies the locations of all confirmation samples.

As previously noted above, remediation was concluded near the end of November 2009, but, confirmation sampling was not conducted until January 6, 2010. The additional remedial activities including contaminated soil removal, confirmation sampling, and disposal methods of the contaminated soil will be discussed below for the December 8, 2009 API Overflow. Additionally, analytical data of the confirmation sampling will be discussed below.

II. THE INCIDENT- "API OVER FLOW on DECEMBER 8, 2009" (Report due 1/25/2010)

Gallup received a follow-up e-mail from the New Mexico Environmental Department-HWB on December 21, 2009 requesting additional information about the API overflow that occurred on December 8, 2009. A response e-mail to that request was submitted to HWB on December 23, 2009. Gallup received additional correspondence (via e-mail) on January 7, 2010 requesting a formal report addressing additional concerns. The following addresses issues as identified by the HWB based on the Agency's concerns.

a. Soil Remediation Activities-

Clean up efforts for the API overflow on September 5 was completed by the end of November 2009. Contaminated soil in the vicinity of the API Separator and the Baker Tank areas as indicated on the revised Sampling Plan from the Hazardous Waste Bureau was excavated. This excavated material was put in a roll-off box for disposal off-site as Hazardous Waste. The amount of material excavated was approximately 18 to 25 cu yd. This material was later manifested and shipped off-site as Hazardous Waste via Rinchem (US. Ecology, Beatty, NV). Confirmation sampling had not been conducted at this time.

The API overflows from December 8 cleanup efforts around the API and Baker Tank area coincide with clean up operations from September 5, 2009 event. Contamination was localized within the API and Baker Tank containment areas providing a similar contamination foot print for confirmation sampling. Confirmation samples were collected on January 6, 2010 for both events. Based on the analytical results, it is determined that additional remediation and confirmation sampling will be required.

b. Hazardous Waste Management / Transportation Procedures-

The contaminated soil and gravel from both API overflows, September 5 and December 8, will be treated and managed as a Listed Hazardous Waste in accordance with applicable generator requirements as found in 40CFR262 and 40CFR265 (Subpart I). All contaminated soil and gravel will be containerized in a roll-off box, manifested as Hazardous Waste with a designated Hazardous Waste Code (F037/F038/K051), and transported off-site for disposal via Rinchem to US Ecology, Beatty, NV, an approved TSD Facility. A profile has already been established for this waste stream through Rinchem.

c. Revised Sampling Plan-

Due to the containment areas surrounding the API and Baker Tanks, the spill foot print for both incidents are the same. Fourteen sample points were previously identified through an approved sampling plan by the New Mexico Environmental Department-Hazardous Waste Bureau (HWB) as

addressed in correspondence via e-mail of October 27, 2009 (for September 5 API overflow) and January 7, 2010 (for the December 8 API overflow). Therefore, sampling will be in accordance with the HWB direction.

d. Confirmation Sampling-
After the contaminated soil and gravel from the API overflows events of September 5 and December 8, 2009 were excavated and placed in roll-off boxes, confirmation sampling was conducted. On January 6, 2010, confirmation sampling was conducted as required by the Agency. The analysis was directed by the HWB based on the approved sampling plan.

The sampler excavated potentially contaminated soil at the locations as designated on the sampling plan to a maximum depth of 6 inches. The sampler followed proper decontamination procedures between all fourteen sample points in order to minimize any cross contamination. The samples were collected in an 8 oz jar for shipment to Hall Environmental Laboratory. The laboratory analyzed each sample received for the following: Volatile Organic Compounds (VOC) (Method 8260), Semi-volatile Compounds (Method 8270), Total Petroleum Hydrocarbon (THP) (including DRO/MRO/GRO) (Method 8015) and RCRA 8 Metals.

e. Laboratory Results-
Gallup received analytical results from Hall Environmental Laboratories on January 15, 2010 for the contaminated soil as a result of the two API overflows that occurred on September 5 and December 8, 2009. The analysis indicated nine sample areas with TPH (DRO and GRO) values exceeding the 200 mg/kg (>200 mg/kg) in accordance with NMED "TPH Screening Guidelines". The contaminated areas identified are as follows: API-N-1, API-E-2, API-E-3, API-S-4, API-W-5, BKT-S-8, BKT-W-9, CHN-C-11, NBT-N-13. Additionally, BKT-W-9 indicated an elevated level of Xylene (180 mg/kg) which is above the NMED screening levels of 82 mg/kg as indicated in NMED "Technical Background Document for development of Soil Screening Levels". These contaminated areas are indicated on the attached "Hall Environmental Laboratory Data Summary" spreadsheet.

Based on the analysis as indicated above and the attached spreadsheet with inclusive data, it is concluded that additional remedial activities and confirmation sampling will be required for the API area.

f. Over flow volume determination-
The initial C-141 indicated 739 bbls of API oily/water overflow during a 10 to 12 hour intermittent discharge as a result of the API overflow of December 8, 2009. During this time frame, the facility was experiencing an area wide power outage as a result of storms at Tristate Power Company distribution center (substation) located in Albuquerque. During this time period, many pumps and auxiliary equipment were not operational in order to handle normal flow conditions. A material balance was primarily used to determine the quantity of API oily/water that was discharged. The amount of oily/water mixture recovered was determined from information supplied by vacuum truck operators after this event. The oily/water was retrieved via a vacuum truck and routed to the process sewer system for reprocessing through the API. A quantification of oil recovery could not be determined.

III. SUMMARY:

As indicated from the confirmation samples that were collected on January 6, 2010, additional remediation of the API area contamination will be required. Gallup received analysis from Hall Environmental Laboratories on January 15, 2010. The analysis indicated nine sample areas with TPH (DRO and GRO) values exceeding the 200 mg/kg (>200 mg/kg) level as specified in accordance with NMED "TPH Screening Guidelines". These contaminated areas are indicated on the attached "Hall Environmental Laboratory Data Summary" spreadsheet.

Gallup is proceeding to excavate contaminated soil based on the analysis received from Hall Environmental Laboratories. The Hall Analytical Summary and Confirmation Sample drawing defines the locations that will be required to be excavated. Confirmation samples will then be collected.

The soil will be treated as Hazardous Waste (F037/F038/K051), placed in roll-off boxes under the 90 day status requirements, and be properly disposed in accordance with all Federal and State Regulations.

Both of these API overflows were the direct result of inclement weather conditions that were beyond the control of the Refinery. Gallup is in the design phase of a new "Stormwater Diversion Project" in order to eliminate overflows from the new API due to unexpected or inundated stormwater discharges. This project will be composed of two (2) Stormwater Diversion Tanks (T-27 and T-28) and an additional diversionary tank. This new system will connect directly into the current stormwater system. A new twenty-four inch (24") pipe will connect the old system to the Stormwater Diversion Tanks (T-27 and T-28). The stormwater will be pumped from the diversion tanks (T-27 and T-28) to the new API.

IV. DOCUMENT ENCLOSURE/ATTACHMENTS:

The following enclosures or attachments have been included in order to provide the Agency with a visual reference in order to aid in a better understanding of the event surrounding the API overflows that occurred on September 5 and December 8, 2009. These enclosures include the following: drawing of the API area indicating the extent of overflow contamination, Release Notification Forms (C-141) (Initial) Reports Filed with OCD/NMED, NMED correspondence, approved API Sampling Plan, Hall Environmental Laboratory Data Summary Spreadsheet, Hall Environmental Laboratory Analysis.

If you require additional information concerning this matter, please contact me at (505) 722-0258.

Sincerely,

Beck Larsen-CHMM, REM
Environmental Engineer
Western Refining (Southwest) (Gallup Refinery)

Enc: **NMED correspondence letters of January 7, 2010 and October 27, 2009**
Drawing of the API area
Drawing of the API area-confirmation samples
Drawing of API Sampling Plan, API Overflow of 12/8/2009
Drawing of API Sampling Plan, API Overflow of 09/5/2009
Drawing of NMED Corrected Sampling Plan (Refer to October 27, 2009 NMED Letter)
OCD (Release Notification and Corrective Action, C-141 (Initial) Report Submittals for September 5 and December 8, 2009 API Overflow events
Hall Environmental Laboratory Data Summary Spreadsheet
Hall Environmental Laboratory Analytical Report

Cc: Mr. Mark Turri, Gallup (Southwest), Refinery Manager
Mr. Ed Riege, Gallup (Southwest), Environmental Manager)
File

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Western Refining-Southwest	Contact Beck Larsen
Address I-40/Exit 39, Jamestown, NM 87347	Telephone No.(505) 722-0258
Facility Name Gallup Refinery	Facility Type Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	28	15N	15W					McKinley

Latitude 35° 29'030'' **Longitude** 108° 24'040''

NATURE OF RELEASE

Type of Release API Overflow	Volume of Release 739 bbls (API oily water)	Volume Recovered >720 bbls (API oily Water)
Source of Release API UNIT	Date and Hour of Occurrence 12/08/2009; 0300 hrs	Date and Hour of Discovery 12/05/2009; 0300 hrs
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? OCD & NMED (Carl Chavez, Steve Conley, Hope Monzeglio)	
By Whom? Beck Larsen	Date and Hour 12/08/2009 / ~ 1030 hrs	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

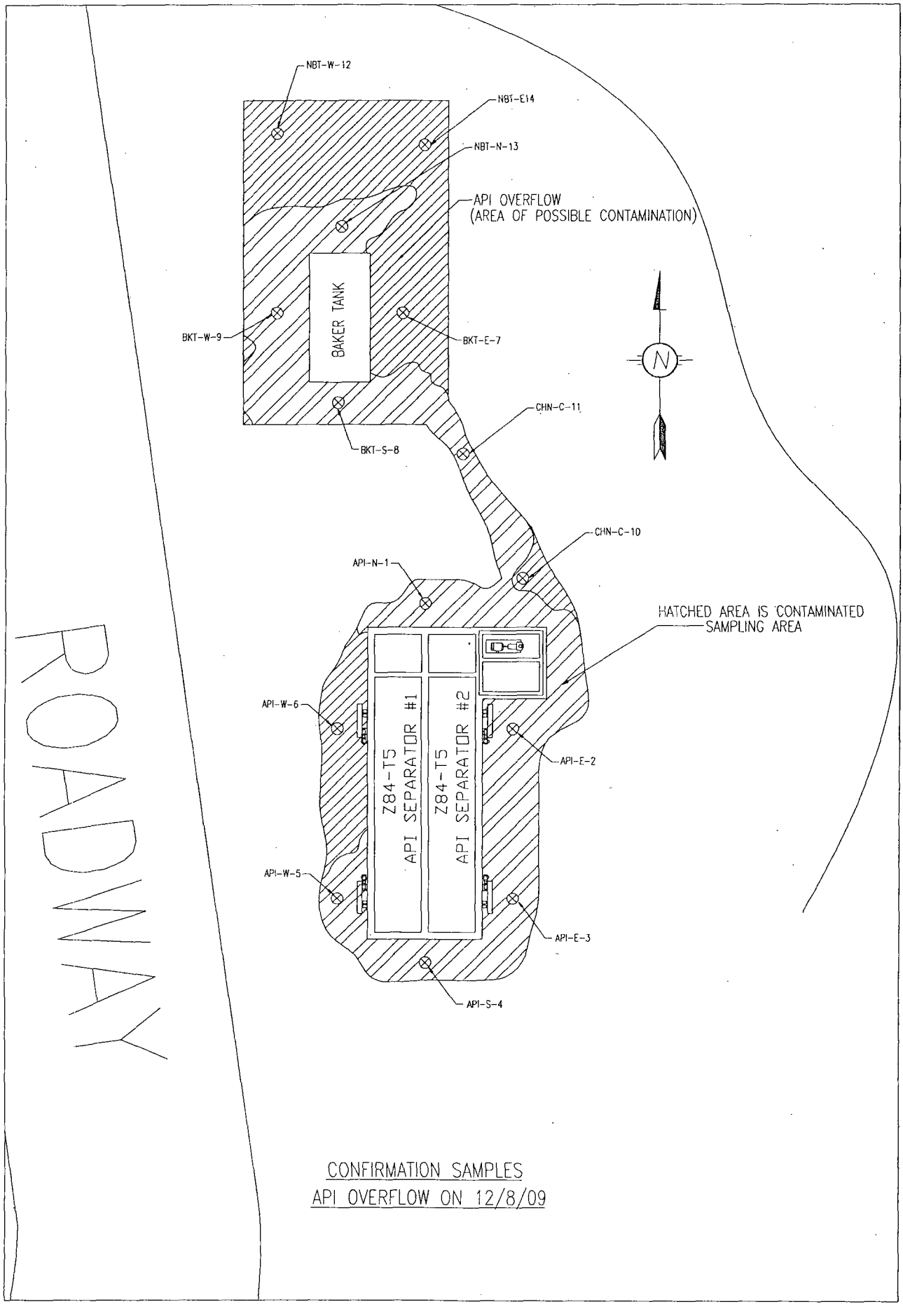
At or about midnight on Tuesday, December 8, a winter storm passed through the area precipitating heavy snow and high winds. Due to this event at 0300 hrs (December 8), a plant wide electrical power failure occurred to all units throughout the facility. After a thorough power distribution evaluation, the cause of this incident was found to be resultant of several power glitches or amperage line deviations from Tristate Power Company in Albuquerque. As a result of high winds in the Albuquerque area, several power deviations occurred between 0241 to 0249 hours causing two power lines to slap together creating a Phase A / Phase C power line short at the Tristate distribution center or substation. These power glitches were transmitted to Western Refinery (Gallup Refinery) as an incoming line fluctuation or line distortion in amperage. This transmitted to a decrease in amperage of 15 to 20 percent. This distortion caused two of compressors to go off line initiating a plant wide electrical power failure to all units. After all information was collected from various sources, it was estimated that due to this power failure, the API incurred intermittently overflowed for about 10 to 12 hours. An onsite vacuum truck was immediately dispatched during this event in order to minimize and spread of contamination and to begin cleanup operations. No injuries were incurred during this event as a result of this power failure.

Describe Area Affected and Cleanup Action Taken.*

The affected area was localized around the API and baker frac tank containment areas. Initial cleanup efforts began immediately on Tuesday, December 8, 2009 during this event utilizing an onsite vacuum truck. Maintenance and Contract personnel began cleaning up the any aqueous/oily portion of overflow contamination and any contaminated soil and rock debris surrounding the API area. Personnel conduct cleanup of areas such as depressions or other conveyances adjacent to the API area in order that contamination would not spread. Initial cleanup efforts were completed on Monday, December 14, 2009. All contaminated material were put into a roll-off box to be tested (analyzed by an outside lab), prior to shipment off site for disposal to an approved facility. Final cleanup of this area will be determined based on laboratory analysis.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	OIL CONSERVATION DIVISION
Printed Name: Beck Larsen	Approved by District Supervisor:



CONFIRMATION SAMPLES
API OVERFLOW ON 12/8/09

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
NMD000333211	1 of 1	505-722-0258	002576928 FLE

5. Generator's Name and Mailing Address: Western Refining Southwest Gallup, I-40 EXIT 39, JAMESTOWN, NM 87347
Generator's Site Address (if different than mailing address)
Generator's Phone: 505-722-3833

SEP 15 2009

6. Transporter 1 Company Name: RINCHEM CO INC — U.S. EPA ID Number: NMD982208627

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address: US Ecology, Highway 95, 11 miles south of Beatt, Beatty, NV 89003
Facility's Phone: (800)239-3943 — U.S. EPA ID Number: NVT330010000

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. UN3077, RQ HAZARDOUS WASTE, SOLID, N.O.S., (soil contaminated with process waste waters), 9, PGIII (F037)	1	CM	18	Y	F037 F038
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
170701924330
1) ERG# 171

Bio # 104050 PO# 03987

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Carol Johnson — Signature — Month: 8 Day: 24 Year: 09

INT'L
16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER
17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Eugene Vigil — Signature — Month: 08 Day: 24 Year: 09

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY
18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month — Day — Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H132			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name — Signature — Month — Day — Year: 09

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	NMD000333211	1 of 1	505-722-0258	002576927 FLE

GENERATOR

5. Generator's Name and Mailing Address / Generator's Site Address (if different than mailing address)

Western Refining Southwest Gallup
I-40 EXIT 39
JAMESTOWN, NM 87347

Generator's Phone: 505 722-3833

6. Transporter 1 Company Name: RINCHEM CO INC — U.S. EPA ID Number: NMD002208627

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address — U.S. EPA ID Number

US Ecology
Highway 95, 11 miles south of Beatt
Beatty, NV 89003

Facility's Phone: (800)239-3943 — NVT330010000

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. UN3077, RQ HAZARDOUS WASTE, SOLID, N.O.S., (soil contaminated with process waste waters), 9, PGIII (F037)	1	CM	18	Y	F037 F038
	2.					
	3.					
	4.					

11. Special Handling Instructions and Additional Information — 1) ERG# 171

T. # 208008 Ref# 039860

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Cheryl Johnson — Signature — Month: 08 Day: 26 Year: 09

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Gustavo Vigil — Signature — Month: 08 Day: 26 Year: 09

Transporter 2 Printed/Typed Name — Signature — Month: 08 Day: 26 Year: 09

NATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H132			9

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: [illegible] — Signature — Month: 08 Day: 1 Year: 09

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	NMD000333211	1 of 1	505 722 0256	002577035 FLE

GENERATOR

5. Generator's Name and Mailing Address: Western Refining Southwest Gallup, I-40 EXIT 39, JAMESTOWN NM 87347

Generator's Site Address (if different than mailing address)

Generator's Phone: 505 722-3833

6. Transporter 1 Company Name: RINCHEM CO INC — U.S. EPA ID Number: NMD002208627

7. Transporter 2 Company Name — U.S. EPA ID Number

RECEIVED DEC 01 2009 BY:

8. Designated Facility Name and Site Address: US Ecology, Highway 95, 11 miles south of Beatty, NV 89003

Facility's Phone: (800)239-3943 — U.S. EPA ID Number: NVT330010000

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. UN3077, RQ Hazardous Waste Solid, N.O.S., (soil contaminated with process waste water), 9, PG III (F037)	1	CM	18 YDS	Y	F037 F038
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information: 11 ERG# 171

Bill # 20-30 PO# 04135

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Alvin Doisey — Signature — Month 11 Day 02 Year 09

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Eugene Vigil — Signature — Month 11 Day 02 Year 09

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H132			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Pat Rebollo — Signature — Month 11 Day 04

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO (

DePauli Engineering
& Surveying, LLC.
Civil Engineers and Land Surveyors

Phone: 505-863-5440 • Fax: 505-863-1919 • des@cnetco.com
102 W. Hill Avenue • Gallup, NM 87301
PO Box 876 • Gallup, NM 87305

July 16, 2010

Western Refining Southwest, Inc.
Attn: Michelle Young, Manager Refinery Services
Gallup Refinery
I-40 Exit 49
Jamestown, NM 87347

RE: Monitoring Well Locations

Dear Michelle,

The horizontal and vertical positions of the top of each monitoring well casing and ground surface at each monitoring well is shown below.

Monitoring Well	Northern	Easting	Top of Casing Elevation	Ground Surface Elevation
OW-50	1,636,295.69	2,547,393.65	6,914.37	6,914.37
OW-52	1,636,497.32	2,546,917.59	6,907.68	6,906.26

The horizontal positions are NAD83 datum and the vertical positions are NGVD 1929. All positions are measured to the nearest 0.01 ft.

If you have any questions, pleases feel free to contact me.

Sincerely,

Marc DePauli 7/16/2010

Marc DePauli, NMPS 13606 Date

MARC A. DEPAULI
NEW MEXICO
13606
REGISTERED PROFESSIONAL SURVEYOR

GROUNDWATER PURGE AND SAMPLING FIELD DATA SHEET

1. PROJECT INFORMATION

WELL ID: OW-50

Project Number: 9-517-057 Task Number: _____ Date: 11/17/09 Time: 12:30

Client: Western Refinery Personnel: J. Cotter

Project Location: Western Refinery - Gallup Weather: Clear 50°F

2. WELL DATA

Casing Diameter: 2" inches Type of Casing: PVC

Screen Diameter: 2" inches (d) Type of Screen: PVC Screen Length: 15

Total Depth of Well from TOC: 63' feet

Depth to Static Water from TOC: 18.20 feet

Depth to Product from TOC: N/A feet

Length of Water Column (h): 44.8 feet Calculated Casing Volume: 7.6 gal (3 to 5 times one well volume)

Purge Volume Calculation (one casing volume = 0.041d²h):

23 9915

Note: 2-inch well = 0.167 gal/ft 4-inch well = 0.667 gal/ft

3. PURGE DATA

Purge Method: Moonsoon Pump

Materials: Pump/Bailer _____

Materials: Rope/Tubing _____

Was well purged dry? ☐ Yes ☐ No Pumping Rate: gal/min

Equipment Model(s)

1. _____

2. _____

Time	Cum. Gallons Removed	pH	Temp (Units)	Spec. Cond. (Units)	Eh (Units)	DO (Units)	Turbidity (NTU)	Other: ORP	Comments
12:56	3	7.79	12.47	638		0.56		-22.9	Purge Start
13:03	7	7.82	12.50	661		0.06		-23.3	Clear
13:08	12	7.83	12.50	668		0.04		-22.2	mostly Clear
13:18	22	7.84	12.50	674		0.03		-21.3	Clear
13:19	23	7.84	12.50	674		0.03		-21.3	Sample
									End.

4. SAMPLING DATA

Method(s): MoonSoon + FlowCell

Materials: Pump/Bailer —

Materials: Tubing/Rope — Poly Tubing

Depth to Water at Time of Sampling: _____ Field Filtered? ☑ Yes ☐ No

Sample ID: OW-50 Sample Time: 13:20 # of Containers: 8

Duplicate Sample Collected? ☐ Yes ☑ No ID:

Analyses Requested:

6010 C

8260 B

8270

8015B – GRO

– DRO

5. COMMENTS

GROUNDWATER PURGE AND SAMPLING FIELD DATA SHEET

1. PROJECT INFORMATION

WELL ID: OW-52

Project Number: 9-517-057 Task Number: _____ Date: 11/17/09 Time: 11:17

Client: Western Refinery Personnel: J. Cotter

Project Location: GALLUP, NM Weather: Clear 40°F

2. WELL DATA

Casing Diameter: 2" inches Type of Casing: PVC

Screen Diameter: 2" inches (d) Type of Screen: 0.010 PVC Screen Length: 15'

Total Depth of Well from TOC: 79' feet

Depth to Static Water from TOC: 16.75 feet

Depth to Product from TOC: NA feet

Length of Water Column (h): 62.25 feet Calculated Casing Volume: 10 gal (3 to 5 times one well volume)

Purge Volume Calculation (one casing volume = 0.041d²h): 3 9 9 15

Note: 2-inch well = 0.167 gal/ft 4-inch well = 0.667 gal/ft

3. PURGE DATA

Purge Method: Monsoon Pump

Materials: Pump/Bailer _____

Materials: Rope/Tubing _____

Was well purged dry? ☐ Yes ☐ No Pumping Rate: 1.5 gal/min

Equipment Model(s)

1. _____

2. _____

Time	Cum. Gallons Removed	pH	Temp (Units)	Spec. Cond. (Units)	Eh (Units)	DO (Units)	Turbidity (NTU)	Other: ORP	Comments	
11:45	5	7.97	12.24	665		0.20		-87.5	Muddy	START
11:55	15	7.89	12.21	667		0.05		-60.6	Clear	
12:05	25	7.84	12.19	671		0.03		-58.1	Clear	
12:10	30	7.83	12.19	674				-56.5	"	End Purge

4. SAMPLING DATA

Method(s): Monsoon + Flow Cell

Materials: Pump/Bailer _____

Materials: Tubing/Rope POLY - Tubing

Depth to Water at Time of Sampling: _____ Field Filtered? ☑ Yes ☐ No

Sample ID: OW-52 Sample Time: 12:20 # of Containers: 8

Duplicate Sample Collected? ☐ Yes ☑ No ID:

Analyses Requested:

8260B - VOCs

8270 - SVOCs

RCRA Metals 6010

DRO GRO 8015

5. COMMENTS

1L AMBER = 8270 SVOCs

Chain-of-Custody Record

Client: Western Refining-Gallup

Mailing Address: Route 3, Box 7
GALLUP NM 87301

Phone #: 505-722-3833

email or Fax#:

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

Accreditation
☐ NELAP ☐ Other ____

☐ EDD (Type) ____

Turn-Around Time:
☑ Standard ☐ Rush ____

Project Name: New Monitoring Wells

Project #:

Project Manager: Gaurav Rajen

Sampler:

On Ice: ☐ Yes ☐ No

Sample Temperature:

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	6010 C RCRA metals	8015R GRO/DRO			Air Bubbles (Y or N)
11-17-09	12:20	H_2O	OW-52	4 x 40mls 1 x 1L 1 x 125ml	$HgCl_2$											X	X	X	X			
11-17-09	13:20	H_2O	OW-50	11 11	+ HNO_3											X	X	X	X			

Date:	Time:	Relinquished by:	Received by:	Date	Time
11-17-09	1600	[signature]	[signature]	11/17/09	1600
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks: Bill TO Western Refining-Gallup Per Gaurav Rajen

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

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Thursday, December 03, 2009

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

TEL: (505) 722-0227
FAX (505) 722-0210

RE: New Monitoring Wells

Order No.: 0911331

Dear Gaurav Rajen:

Hall Environmental Analysis Laboratory, Inc. received 3 sample(s) on 11/17/2009 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901
AZ license # AZ0682
ORELAP Lab # NM100001
Texas Lab# T104704424-08-TX

Hall Environmental Analysis Laboratory, Inc.

Date: *03-Dec-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	OW-52
Lab Order:	0911331	**Collection Date:**	11/17/2009 12:20:00 PM
Project:	New Monitoring Wells	**Date Received:**	11/17/2009
Lab ID:	0911331-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **SCC**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	11/29/2009 9:10:06 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/29/2009 9:10:06 PM
Surr: DNOP	129	58-140		%REC	1	11/29/2009 9:10:06 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	11/20/2009 3:14:17 PM
Surr: BFB	97.0	55.2-107		%REC	1	11/20/2009 3:14:17 PM
EPA METHOD 7470: MERCURY						Analyst: **IC**
Mercury	ND	0.00020		mg/L	1	11/25/2009 4:59:27 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **SNV**
Arsenic	ND	0.020		mg/L	1	12/1/2009 3:22:37 PM
Barium	0.027	0.020		mg/L	1	12/2/2009 7:11:21 PM
Cadmium	ND	0.0020		mg/L	1	12/1/2009 3:22:37 PM
Chromium	ND	0.0060		mg/L	1	12/1/2009 3:22:37 PM
Lead	ND	0.0050		mg/L	1	12/1/2009 3:22:37 PM
Selenium	ND	0.050		mg/L	1	12/1/2009 3:22:37 PM
Silver	ND	0.0050		mg/L	1	12/1/2009 3:22:37 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **LBJ**
Acenaphthene	ND	10		µg/L	1	11/25/2009 12:56:30 PM
Acenaphthylene	ND	10		µg/L	1	11/25/2009 12:56:30 PM
Aniline	ND	10		µg/L	1	11/25/2009 12:56:30 PM
Anthracene	ND	10		µg/L	1	11/25/2009 12:56:30 PM
Azobenzene	ND	10		µg/L	1	11/25/2009 12:56:30 PM
Benz(a)anthracene	ND	10		µg/L	1	11/25/2009 12:56:30 PM
Benzo(a)pyrene	ND	10		µg/L	1	11/25/2009 12:56:30 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	11/25/2009 12:56:30 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/25/2009 12:56:30 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	11/25/2009 12:56:30 PM
Benzoic acid	ND	20		µg/L	1	11/25/2009 12:56:30 PM
Benzyl alcohol	ND	10		µg/L	1	11/25/2009 12:56:30 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/25/2009 12:56:30 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/25/2009 12:56:30 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/25/2009 12:56:30 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	11/25/2009 12:56:30 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/25/2009 12:56:30 PM
Butyl benzyl phthalate	ND	10		µg/L	1	11/25/2009 12:56:30 PM
Carbazole	ND	10		µg/L	1	11/25/2009 12:56:30 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/25/2009 12:56:30 PM
4-Chloroaniline	ND	10		µg/L	1	11/25/2009 12:56:30 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *03-Dec-09*

CLIENT: Western Refining Southwest, Gallup
Lab Order: 0911331
Project: New Monitoring Wells
Lab ID: 0911331-01

Client Sample ID: OW-52
Collection Date: 11/17/2009 12:20:00 PM
Date Received: 11/17/2009
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: LBJ
2-Chloronaphthalene	ND	10		µg/L	1	11/25/2009 12:56:30 PM
2-Chlorophenol	ND	10		µg/L	1	11/25/2009 12:56:30 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/25/2009 12:56:30 PM
Chrysene	ND	10		µg/L	1	11/25/2009 12:56:30 PM
Di-n-butyl phthalate	ND	10		µg/L	1	11/25/2009 12:56:30 PM
Di-n-octyl phthalate	ND	10		µg/L	1	11/25/2009 12:56:30 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/25/2009 12:56:30 PM
Dibenzofuran	ND	10		µg/L	1	11/25/2009 12:56:30 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	11/25/2009 12:56:30 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	11/25/2009 12:56:30 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	11/25/2009 12:56:30 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/25/2009 12:56:30 PM
Diethyl phthalate	ND	10		µg/L	1	11/25/2009 12:56:30 PM
Dimethyl phthalate	ND	10		µg/L	1	11/25/2009 12:56:30 PM
2,4-Dichlorophenol	ND	20		µg/L	1	11/25/2009 12:56:30 PM
2,4-Dimethylphenol	ND	10		µg/L	1	11/25/2009 12:56:30 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/25/2009 12:56:30 PM
2,4-Dinitrophenol	ND	20		µg/L	1	11/25/2009 12:56:30 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	11/25/2009 12:56:30 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	11/25/2009 12:56:30 PM
Fluoranthene	ND	10		µg/L	1	11/25/2009 12:56:30 PM
Fluorene	ND	10		µg/L	1	11/25/2009 12:56:30 PM
Hexachlorobenzene	ND	10		µg/L	1	11/25/2009 12:56:30 PM
Hexachlorobutadiene	ND	10		µg/L	1	11/25/2009 12:56:30 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/25/2009 12:56:30 PM
Hexachloroethane	ND	10		µg/L	1	11/25/2009 12:56:30 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/25/2009 12:56:30 PM
Isophorone	ND	10		µg/L	1	11/25/2009 12:56:30 PM
2-Methylnaphthalene	ND	10		µg/L	1	11/25/2009 12:56:30 PM
2-Methylphenol	ND	10		µg/L	1	11/25/2009 12:56:30 PM
3+4-Methylphenol	ND	10		µg/L	1	11/25/2009 12:56:30 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/25/2009 12:56:30 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	11/25/2009 12:56:30 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/25/2009 12:56:30 PM
Naphthalene	ND	10		µg/L	1	11/25/2009 12:56:30 PM
2-Nitroaniline	ND	10		µg/L	1	11/25/2009 12:56:30 PM
3-Nitroaniline	ND	10		µg/L	1	11/25/2009 12:56:30 PM
4-Nitroaniline	ND	10		µg/L	1	11/25/2009 12:56:30 PM
Nitrobenzene	ND	10		µg/L	1	11/25/2009 12:56:30 PM
2-Nitrophenol	ND	10		µg/L	1	11/25/2009 12:56:30 PM
4-Nitrophenol	ND	10		µg/L	1	11/25/2009 12:56:30 PM
Pentachlorophenol	ND	20		µg/L	1	11/25/2009 12:56:30 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *03-Dec-09*

CLIENT: Western Refining Southwest, Gallup
Lab Order: 0911331
Project: New Monitoring Wells
Lab ID: 0911331-01

Client Sample ID: OW-52
Collection Date: 11/17/2009 12:20:00 PM
Date Received: 11/17/2009
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: LBJ
Phenanthrene	ND	10		µg/L	1	11/25/2009 12:56:30 PM
Phenol	ND	10		µg/L	1	11/25/2009 12:56:30 PM
Pyrene	ND	10		µg/L	1	11/25/2009 12:56:30 PM
Pyridine	ND	10		µg/L	1	11/25/2009 12:56:30 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/25/2009 12:56:30 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/25/2009 12:56:30 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/25/2009 12:56:30 PM
Surr: 2,4,6-Tribromophenol	67.2	16.6-150		%REC	1	11/25/2009 12:56:30 PM
Surr: 2-Fluorobiphenyl	43.6	19.6-134		%REC	1	11/25/2009 12:56:30 PM
Surr: 2-Fluorophenol	25.4	9.54-113		%REC	1	11/25/2009 12:56:30 PM
Surr: 4-Terphenyl-d14	36.6	22.7-145		%REC	1	11/25/2009 12:56:30 PM
Surr: Nitrobenzene-d5	41.0	14.6-134		%REC	1	11/25/2009 12:56:30 PM
Surr: Phenol-d5	19.5	10.7-80.3		%REC	1	11/25/2009 12:56:30 PM
EPA METHOD 8260B: VOLATILES						Analyst: HL
Benzene	ND	1.0		µg/L	1	11/18/2009 8:18:48 PM
Toluene	ND	1.0		µg/L	1	11/18/2009 8:18:48 PM
Ethylbenzene	ND	1.0		µg/L	1	11/18/2009 8:18:48 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	11/18/2009 8:18:48 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/18/2009 8:18:48 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/18/2009 8:18:48 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/18/2009 8:18:48 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/18/2009 8:18:48 PM
Naphthalene	ND	2.0		µg/L	1	11/18/2009 8:18:48 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	11/18/2009 8:18:48 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	11/18/2009 8:18:48 PM
Acetone	ND	10		µg/L	1	11/18/2009 8:18:48 PM
Bromobenzene	ND	1.0		µg/L	1	11/18/2009 8:18:48 PM
Bromodichloromethane	ND	1.0		µg/L	1	11/18/2009 8:18:48 PM
Bromoform	ND	1.0		µg/L	1	11/18/2009 8:18:48 PM
Bromomethane	ND	1.0		µg/L	1	11/18/2009 8:18:48 PM
2-Butanone	ND	10		µg/L	1	11/18/2009 8:18:48 PM
Carbon disulfide	ND	10		µg/L	1	11/18/2009 8:18:48 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	11/18/2009 8:18:48 PM
Chlorobenzene	ND	1.0		µg/L	1	11/18/2009 8:18:48 PM
Chloroethane	ND	2.0		µg/L	1	11/18/2009 8:18:48 PM
Chloroform	ND	1.0		µg/L	1	11/18/2009 8:18:48 PM
Chloromethane	ND	1.0		µg/L	1	11/18/2009 8:18:48 PM
2-Chlorotoluene	ND	1.0		µg/L	1	11/18/2009 8:18:48 PM
4-Chlorotoluene	ND	1.0		µg/L	1	11/18/2009 8:18:48 PM
cis-1,2-DCE	ND	1.0		µg/L	1	11/18/2009 8:18:48 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/18/2009 8:18:48 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *03-Dec-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	OW-52
Lab Order:	0911331	**Collection Date:**	11/17/2009 12:20:00 PM
Project:	New Monitoring Wells	**Date Received:**	11/17/2009
Lab ID:	0911331-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/18/2009 8:18:48 PM
Dibromochloromethane	ND	1.0		µg/L	1	11/18/2009 8:18:48 PM
Dibromomethane	ND	1.0		µg/L	1	11/18/2009 8:18:48 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/18/2009 8:18:48 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/18/2009 8:18:48 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/18/2009 8:18:48 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/18/2009 8:18:48 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	11/18/2009 8:18:48 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	11/18/2009 8:18:48 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	11/18/2009 8:18:48 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	11/18/2009 8:18:48 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	11/18/2009 8:18:48 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	11/18/2009 8:18:48 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	11/18/2009 8:18:48 PM
2-Hexanone	ND	10		µg/L	1	11/18/2009 8:18:48 PM
Isopropylbenzene	ND	1.0		µg/L	1	11/18/2009 8:18:48 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	11/18/2009 8:18:48 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	11/18/2009 8:18:48 PM
Methylene Chloride	ND	3.0		µg/L	1	11/18/2009 8:18:48 PM
n-Butylbenzene	ND	1.0		µg/L	1	11/18/2009 8:18:48 PM
n-Propylbenzene	ND	1.0		µg/L	1	11/18/2009 8:18:48 PM
sec-Butylbenzene	ND	1.0		µg/L	1	11/18/2009 8:18:48 PM
Styrene	ND	1.0		µg/L	1	11/18/2009 8:18:48 PM
tert-Butylbenzene	ND	1.0		µg/L	1	11/18/2009 8:18:48 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/18/2009 8:18:48 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/18/2009 8:18:48 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/18/2009 8:18:48 PM
trans-1,2-DCE	ND	1.0		µg/L	1	11/18/2009 8:18:48 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/18/2009 8:18:48 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/18/2009 8:18:48 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/18/2009 8:18:48 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/18/2009 8:18:48 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/18/2009 8:18:48 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/18/2009 8:18:48 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	11/18/2009 8:18:48 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/18/2009 8:18:48 PM
Vinyl chloride	ND	1.0		µg/L	1	11/18/2009 8:18:48 PM
Xylenes, Total	ND	1.5		µg/L	1	11/18/2009 8:18:48 PM
Surr: 1,2-Dichloroethane-d4	97.7	54.6-141		%REC	1	11/18/2009 8:18:48 PM
Surr: 4-Bromofluorobenzene	110	60.1-133		%REC	1	11/18/2009 8:18:48 PM
Surr: Dibromofluoromethane	95.3	78.5-130		%REC	1	11/18/2009 8:18:48 PM
Surr: Toluene-d8	105	79.5-126		%REC	1	11/18/2009 8:18:48 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *03-Dec-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	OW-52
Lab Order:	0911331	**Collection Date:**	11/17/2009 12:20:00 PM
Project:	New Monitoring Wells	**Date Received:**	11/17/2009
Lab ID:	0911331-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *03-Dec-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	OW-50
Lab Order:	0911331	**Collection Date:**	11/17/2009 1:20:00 PM
Project:	New Monitoring Wells	**Date Received:**	11/17/2009
Lab ID:	0911331-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **SCC**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	11/29/2009 9:45:46 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/29/2009 9:45:46 PM
Surr: DNOP	127	58-140		%REC	1	11/29/2009 9:45:46 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	11/20/2009 4:11:57 PM
Surr: BFB	98.0	55.2-107		%REC	1	11/20/2009 4:11:57 PM
EPA METHOD 7470: MERCURY						Analyst: **IC**
Mercury	ND	0.00020		mg/L	1	11/25/2009 5:01:10 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **SNV**
Arsenic	ND	0.020		mg/L	1	12/1/2009 3:29:43 PM
Barium	0.042	0.020		mg/L	1	12/2/2009 8:23:22 PM
Cadmium	ND	0.0020		mg/L	1	12/1/2009 3:29:43 PM
Chromium	ND	0.0060		mg/L	1	12/1/2009 3:29:43 PM
Lead	ND	0.0050		mg/L	1	12/1/2009 3:29:43 PM
Selenium	ND	0.050		mg/L	1	12/1/2009 3:29:43 PM
Silver	ND	0.0050		mg/L	1	12/1/2009 3:29:43 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **LBJ**
Acenaphthene	ND	10		µg/L	1	11/25/2009 1:26:14 PM
Acenaphthylene	ND	10		µg/L	1	11/25/2009 1:26:14 PM
Aniline	ND	10		µg/L	1	11/25/2009 1:26:14 PM
Anthracene	ND	10		µg/L	1	11/25/2009 1:26:14 PM
Azobenzene	ND	10		µg/L	1	11/25/2009 1:26:14 PM
Benz(a)anthracene	ND	10		µg/L	1	11/25/2009 1:26:14 PM
Benzo(a)pyrene	ND	10		µg/L	1	11/25/2009 1:26:14 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	11/25/2009 1:26:14 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	11/25/2009 1:26:14 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	11/25/2009 1:26:14 PM
Benzoic acid	ND	20		µg/L	1	11/25/2009 1:26:14 PM
Benzyl alcohol	ND	10		µg/L	1	11/25/2009 1:26:14 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	11/25/2009 1:26:14 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	11/25/2009 1:26:14 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	11/25/2009 1:26:14 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	11/25/2009 1:26:14 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	11/25/2009 1:26:14 PM
Butyl benzyl phthalate	ND	10		µg/L	1	11/25/2009 1:26:14 PM
Carbazole	ND	10		µg/L	1	11/25/2009 1:26:14 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	11/25/2009 1:26:14 PM
4-Chloroaniline	ND	10		µg/L	1	11/25/2009 1:26:14 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *03-Dec-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	OW-50
Lab Order:	0911331	**Collection Date:**	11/17/2009 1:20:00 PM
Project:	New Monitoring Wells	**Date Received:**	11/17/2009
Lab ID:	0911331-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: LBJ
2-Chloronaphthalene	ND	10		µg/L	1	11/25/2009 1:26:14 PM
2-Chlorophenol	ND	10		µg/L	1	11/25/2009 1:26:14 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	11/25/2009 1:26:14 PM
Chrysene	ND	10		µg/L	1	11/25/2009 1:26:14 PM
Di-n-butyl phthalate	ND	10		µg/L	1	11/25/2009 1:26:14 PM
Di-n-octyl phthalate	ND	10		µg/L	1	11/25/2009 1:26:14 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	11/25/2009 1:26:14 PM
Dibenzofuran	ND	10		µg/L	1	11/25/2009 1:26:14 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	11/25/2009 1:26:14 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	11/25/2009 1:26:14 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	11/25/2009 1:26:14 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	11/25/2009 1:26:14 PM
Diethyl phthalate	ND	10		µg/L	1	11/25/2009 1:26:14 PM
Dimethyl phthalate	ND	10		µg/L	1	11/25/2009 1:26:14 PM
2,4-Dichlorophenol	ND	20		µg/L	1	11/25/2009 1:26:14 PM
2,4-Dimethylphenol	ND	10		µg/L	1	11/25/2009 1:26:14 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	11/25/2009 1:26:14 PM
2,4-Dinitrophenol	ND	20		µg/L	1	11/25/2009 1:26:14 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	11/25/2009 1:26:14 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	11/25/2009 1:26:14 PM
Fluoranthene	ND	10		µg/L	1	11/25/2009 1:26:14 PM
Fluorene	ND	10		µg/L	1	11/25/2009 1:26:14 PM
Hexachlorobenzene	ND	10		µg/L	1	11/25/2009 1:26:14 PM
Hexachlorobutadiene	ND	10		µg/L	1	11/25/2009 1:26:14 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	11/25/2009 1:26:14 PM
Hexachloroethane	ND	10		µg/L	1	11/25/2009 1:26:14 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	11/25/2009 1:26:14 PM
Isophorone	ND	10		µg/L	1	11/25/2009 1:26:14 PM
2-Methylnaphthalene	ND	10		µg/L	1	11/25/2009 1:26:14 PM
2-Methylphenol	ND	10		µg/L	1	11/25/2009 1:26:14 PM
3+4-Methylphenol	ND	10		µg/L	1	11/25/2009 1:26:14 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	11/25/2009 1:26:14 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	11/25/2009 1:26:14 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	11/25/2009 1:26:14 PM
Naphthalene	ND	10		µg/L	1	11/25/2009 1:26:14 PM
2-Nitroaniline	ND	10		µg/L	1	11/25/2009 1:26:14 PM
3-Nitroaniline	ND	10		µg/L	1	11/25/2009 1:26:14 PM
4-Nitroaniline	ND	10		µg/L	1	11/25/2009 1:26:14 PM
Nitrobenzene	ND	10		µg/L	1	11/25/2009 1:26:14 PM
2-Nitrophenol	ND	10		µg/L	1	11/25/2009 1:26:14 PM
4-Nitrophenol	ND	10		µg/L	1	11/25/2009 1:26:14 PM
Pentachlorophenol	ND	20		µg/L	1	11/25/2009 1:26:14 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *03-Dec-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	OW-50
Lab Order:	0911331	**Collection Date:**	11/17/2009 1:20:00 PM
Project:	New Monitoring Wells	**Date Received:**	11/17/2009
Lab ID:	0911331-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: LBJ
Phenanthrene	ND	10		µg/L	1	11/25/2009 1:26:14 PM
Phenol	ND	10		µg/L	1	11/25/2009 1:26:14 PM
Pyrene	ND	10		µg/L	1	11/25/2009 1:26:14 PM
Pyridine	ND	10		µg/L	1	11/25/2009 1:26:14 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	11/25/2009 1:26:14 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	11/25/2009 1:26:14 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	11/25/2009 1:26:14 PM
Surr: 2,4,6-Tribromophenol	65.7	16.6-150		%REC	1	11/25/2009 1:26:14 PM
Surr: 2-Fluorobiphenyl	43.8	19.6-134		%REC	1	11/25/2009 1:26:14 PM
Surr: 2-Fluorophenol	27.0	9.54-113		%REC	1	11/25/2009 1:26:14 PM
Surr: 4-Terphenyl-d14	40.7	22.7-145		%REC	1	11/25/2009 1:26:14 PM
Surr: Nitrobenzene-d5	40.4	14.6-134		%REC	1	11/25/2009 1:26:14 PM
Surr: Phenol-d5	21.0	10.7-80.3		%REC	1	11/25/2009 1:26:14 PM
EPA METHOD 8260B: VOLATILES						Analyst: HL
Benzene	ND	1.0		µg/L	1	11/18/2009 8:46:37 PM
Toluene	ND	1.0		µg/L	1	11/18/2009 8:46:37 PM
Ethylbenzene	ND	1.0		µg/L	1	11/18/2009 8:46:37 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	11/18/2009 8:46:37 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/18/2009 8:46:37 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/18/2009 8:46:37 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/18/2009 8:46:37 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/18/2009 8:46:37 PM
Naphthalene	ND	2.0		µg/L	1	11/18/2009 8:46:37 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	11/18/2009 8:46:37 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	11/18/2009 8:46:37 PM
Acetone	ND	10		µg/L	1	11/18/2009 8:46:37 PM
Bromobenzene	ND	1.0		µg/L	1	11/18/2009 8:46:37 PM
Bromodichloromethane	ND	1.0		µg/L	1	11/18/2009 8:46:37 PM
Bromoform	ND	1.0		µg/L	1	11/18/2009 8:46:37 PM
Bromomethane	ND	1.0		µg/L	1	11/18/2009 8:46:37 PM
2-Butanone	ND	10		µg/L	1	11/18/2009 8:46:37 PM
Carbon disulfide	ND	10		µg/L	1	11/18/2009 8:46:37 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	11/18/2009 8:46:37 PM
Chlorobenzene	ND	1.0		µg/L	1	11/18/2009 8:46:37 PM
Chloroethane	ND	2.0		µg/L	1	11/18/2009 8:46:37 PM
Chloroform	ND	1.0		µg/L	1	11/18/2009 8:46:37 PM
Chloromethane	ND	1.0		µg/L	1	11/18/2009 8:46:37 PM
2-Chlorotoluene	ND	1.0		µg/L	1	11/18/2009 8:46:37 PM
4-Chlorotoluene	ND	1.0		µg/L	1	11/18/2009 8:46:37 PM
cis-1,2-DCE	ND	1.0		µg/L	1	11/18/2009 8:46:37 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/18/2009 8:46:37 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *03-Dec-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	OW-50
Lab Order:	0911331	**Collection Date:**	11/17/2009 1:20:00 PM
Project:	New Monitoring Wells	**Date Received:**	11/17/2009
Lab ID:	0911331-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/18/2009 8:46:37 PM
Dibromochloromethane	ND	1.0		µg/L	1	11/18/2009 8:46:37 PM
Dibromomethane	ND	1.0		µg/L	1	11/18/2009 8:46:37 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/18/2009 8:46:37 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/18/2009 8:46:37 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/18/2009 8:46:37 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/18/2009 8:46:37 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	11/18/2009 8:46:37 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	11/18/2009 8:46:37 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	11/18/2009 8:46:37 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	11/18/2009 8:46:37 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	11/18/2009 8:46:37 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	11/18/2009 8:46:37 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	11/18/2009 8:46:37 PM
2-Hexanone	ND	10		µg/L	1	11/18/2009 8:46:37 PM
Isopropylbenzene	ND	1.0		µg/L	1	11/18/2009 8:46:37 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	11/18/2009 8:46:37 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	11/18/2009 8:46:37 PM
Methylene Chloride	ND	3.0		µg/L	1	11/18/2009 8:46:37 PM
n-Butylbenzene	ND	1.0		µg/L	1	11/18/2009 8:46:37 PM
n-Propylbenzene	ND	1.0		µg/L	1	11/18/2009 8:46:37 PM
sec-Butylbenzene	ND	1.0		µg/L	1	11/18/2009 8:46:37 PM
Styrene	ND	1.0		µg/L	1	11/18/2009 8:46:37 PM
tert-Butylbenzene	ND	1.0		µg/L	1	11/18/2009 8:46:37 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/18/2009 8:46:37 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/18/2009 8:46:37 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/18/2009 8:46:37 PM
trans-1,2-DCE	ND	1.0		µg/L	1	11/18/2009 8:46:37 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/18/2009 8:46:37 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/18/2009 8:46:37 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/18/2009 8:46:37 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/18/2009 8:46:37 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/18/2009 8:46:37 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/18/2009 8:46:37 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	11/18/2009 8:46:37 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/18/2009 8:46:37 PM
Vinyl chloride	ND	1.0		µg/L	1	11/18/2009 8:46:37 PM
Xylenes, Total	ND	1.5		µg/L	1	11/18/2009 8:46:37 PM
Surr: 1,2-Dichloroethane-d4	98.3	54.6-141		%REC	1	11/18/2009 8:46:37 PM
Surr: 4-Bromofluorobenzene	109	60.1-133		%REC	1	11/18/2009 8:46:37 PM
Surr: Dibromofluoromethane	100	78.5-130		%REC	1	11/18/2009 8:46:37 PM
Surr: Toluene-d8	106	79.5-126		%REC	1	11/18/2009 8:46:37 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *03-Dec-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	OW-50
Lab Order:	0911331	**Collection Date:**	11/17/2009 1:20:00 PM
Project:	New Monitoring Wells	**Date Received:**	11/17/2009
Lab ID:	0911331-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *03-Dec-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	Trip Blank
Lab Order:	0911331	**Collection Date:**	
Project:	New Monitoring Wells	**Date Received:**	11/17/2009
Lab ID:	0911331-03	**Matrix:**	TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	11/20/2009 4:40:45 PM
Surr: BFB	97.7	55.2-107		%REC	1	11/20/2009 4:40:45 PM
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
Benzene	ND	1.0		µg/L	1	11/18/2009 9:14:23 PM
Toluene	ND	1.0		µg/L	1	11/18/2009 9:14:23 PM
Ethylbenzene	ND	1.0		µg/L	1	11/18/2009 9:14:23 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	11/18/2009 9:14:23 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/18/2009 9:14:23 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/18/2009 9:14:23 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/18/2009 9:14:23 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/18/2009 9:14:23 PM
Naphthalene	ND	2.0		µg/L	1	11/18/2009 9:14:23 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	11/18/2009 9:14:23 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	11/18/2009 9:14:23 PM
Acetone	ND	10		µg/L	1	11/18/2009 9:14:23 PM
Bromobenzene	ND	1.0		µg/L	1	11/18/2009 9:14:23 PM
Bromodichloromethane	ND	1.0		µg/L	1	11/18/2009 9:14:23 PM
Bromoform	ND	1.0		µg/L	1	11/18/2009 9:14:23 PM
Bromomethane	ND	1.0		µg/L	1	11/18/2009 9:14:23 PM
2-Butanone	ND	10		µg/L	1	11/18/2009 9:14:23 PM
Carbon disulfide	ND	10		µg/L	1	11/18/2009 9:14:23 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	11/18/2009 9:14:23 PM
Chlorobenzene	ND	1.0		µg/L	1	11/18/2009 9:14:23 PM
Chloroethane	ND	2.0		µg/L	1	11/18/2009 9:14:23 PM
Chloroform	ND	1.0		µg/L	1	11/18/2009 9:14:23 PM
Chloromethane	ND	1.0		µg/L	1	11/18/2009 9:14:23 PM
2-Chlorotoluene	ND	1.0		µg/L	1	11/18/2009 9:14:23 PM
4-Chlorotoluene	ND	1.0		µg/L	1	11/18/2009 9:14:23 PM
cis-1,2-DCE	ND	1.0		µg/L	1	11/18/2009 9:14:23 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/18/2009 9:14:23 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/18/2009 9:14:23 PM
Dibromochloromethane	ND	1.0		µg/L	1	11/18/2009 9:14:23 PM
Dibromomethane	ND	1.0		µg/L	1	11/18/2009 9:14:23 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/18/2009 9:14:23 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/18/2009 9:14:23 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/18/2009 9:14:23 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/18/2009 9:14:23 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	11/18/2009 9:14:23 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	11/18/2009 9:14:23 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	11/18/2009 9:14:23 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	11/18/2009 9:14:23 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *03-Dec-09*

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Trip Blank
Lab Order: 0911331
Collection Date:
Project: New Monitoring Wells
Date Received: 11/17/2009
Lab ID: 0911331-03
Matrix: TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
2,2-Dichloropropane	ND	2.0		µg/L	1	11/18/2009 9:14:23 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	11/18/2009 9:14:23 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	11/18/2009 9:14:23 PM
2-Hexanone	ND	10		µg/L	1	11/18/2009 9:14:23 PM
Isopropylbenzene	ND	1.0		µg/L	1	11/18/2009 9:14:23 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	11/18/2009 9:14:23 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	11/18/2009 9:14:23 PM
Methylene Chloride	ND	3.0		µg/L	1	11/18/2009 9:14:23 PM
n-Butylbenzene	ND	1.0		µg/L	1	11/18/2009 9:14:23 PM
n-Propylbenzene	ND	1.0		µg/L	1	11/18/2009 9:14:23 PM
sec-Butylbenzene	ND	1.0		µg/L	1	11/18/2009 9:14:23 PM
Styrene	ND	1.0		µg/L	1	11/18/2009 9:14:23 PM
tert-Butylbenzene	ND	1.0		µg/L	1	11/18/2009 9:14:23 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/18/2009 9:14:23 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/18/2009 9:14:23 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/18/2009 9:14:23 PM
trans-1,2-DCE	ND	1.0		µg/L	1	11/18/2009 9:14:23 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/18/2009 9:14:23 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/18/2009 9:14:23 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/18/2009 9:14:23 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/18/2009 9:14:23 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/18/2009 9:14:23 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/18/2009 9:14:23 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	11/18/2009 9:14:23 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/18/2009 9:14:23 PM
Vinyl chloride	ND	1.0		µg/L	1	11/18/2009 9:14:23 PM
Xylenes, Total	ND	1.5		µg/L	1	11/18/2009 9:14:23 PM
Surr: 1,2-Dichloroethane-d4	101	54.6-141		%REC	1	11/18/2009 9:14:23 PM
Surr: 4-Bromofluorobenzene	107	60.1-133		%REC	1	11/18/2009 9:14:23 PM
Surr: Dibromofluoromethane	96.7	78.5-130		%REC	1	11/18/2009 9:14:23 PM
Surr: Toluene-d8	103	79.5-126		%REC	1	11/18/2009 9:14:23 PM

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: New Monitoring Wells **Work Order:** 0911331

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8015B: Diesel Range											
Sample ID: MB-20702		*MBLK*				Batch ID:	**20702**	Analysis Date:	11/29/2009 7:23:03 PM		
Diesel Range Organics (DRO)	ND	mg/L	1.0								
Motor Oil Range Organics (MRO)	ND	mg/L	5.0								
Sample ID: LCS-20702		*LCS*				Batch ID:	**20702**	Analysis Date:	11/29/2009 7:58:44 PM		
Diesel Range Organics (DRO)	5.932	mg/L	1.0	5	0	119	74	157			
Method: EPA Method 8015B: Gasoline Range											
Sample ID: 5ML RB		*MBLK*				Batch ID:	**R36285**	Analysis Date:	11/20/2009 9:51:02 AM		
Gasoline Range Organics (GRO)	ND	mg/L	0.050								
Sample ID: 2.5UG GRO LCS		*LCS*				Batch ID:	**R36285**	Analysis Date:	11/20/2009 5:09:36 PM		
Gasoline Range Organics (GRO)	0.5096	mg/L	0.050	0.5	0	102	80	115			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: New Monitoring Wells **Work Order:** 0911331

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES											
Sample ID: 5ml rb		*MBLK*					**Batch ID: R36238**		**Analysis Date:**	11/18/2009 9:05:28 AM	
Benzene	ND	µg/L	1.0								
Toluene	ND	µg/L	1.0								
Ethylbenzene	ND	µg/L	1.0								
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0								
1,2,4-Trimethylbenzene	ND	µg/L	1.0								
1,3,5-Trimethylbenzene	ND	µg/L	1.0								
1,2-Dichloroethane (EDC)	ND	µg/L	1.0								
1,2-Dibromoethane (EDB)	ND	µg/L	1.0								
Naphthalene	ND	µg/L	2.0								
1-Methylnaphthalene	ND	µg/L	4.0								
2-Methylnaphthalene	ND	µg/L	4.0								
Acetone	ND	µg/L	10								
Bromobenzene	ND	µg/L	1.0								
Bromodichloromethane	ND	µg/L	1.0								
Bromoform	ND	µg/L	1.0								
Bromomethane	ND	µg/L	1.0								
2-Butanone	ND	µg/L	10								
Carbon disulfide	ND	µg/L	10								
Carbon Tetrachloride	ND	µg/L	1.0								
Chlorobenzene	ND	µg/L	1.0								
Chloroethane	ND	µg/L	2.0								
Chloroform	ND	µg/L	1.0								
Chloromethane	ND	µg/L	1.0								
2-Chlorotoluene	ND	µg/L	1.0								
4-Chlorotoluene	ND	µg/L	1.0								
cis-1,2-DCE	ND	µg/L	1.0								
cis-1,3-Dichloropropene	ND	µg/L	1.0								
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0								
Dibromochloromethane	ND	µg/L	1.0								
Dibromomethane	ND	µg/L	1.0								
1,2-Dichlorobenzene	ND	µg/L	1.0								
1,3-Dichlorobenzene	ND	µg/L	1.0								
1,4-Dichlorobenzene	ND	µg/L	1.0								
Dichlorodifluoromethane	ND	µg/L	1.0								
1,1-Dichloroethane	ND	µg/L	1.0								
1,1-Dichloroethene	ND	µg/L	1.0								
1,2-Dichloropropane	ND	µg/L	1.0								
1,3-Dichloropropane	ND	µg/L	1.0								
2,2-Dichloropropane	ND	µg/L	2.0								
1,1-Dichloropropene	ND	µg/L	1.0								
Hexachlorobutadiene	ND	µg/L	1.0								
2-Hexanone	ND	µg/L	10								
Isopropylbenzene	ND	µg/L	1.0								
4-Isopropyltoluene	ND	µg/L	1.0								

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: New Monitoring Wells **Work Order:** 0911331

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES											
Sample ID: 5ml rb		*MBLK*					Batch ID: **R36238**		Analysis Date: 11/18/2009 9:05:28 AM		
4-Methyl-2-pentanone	ND	µg/L	10								
Methylene Chloride	ND	µg/L	3.0								
n-Butylbenzene	ND	µg/L	1.0								
n-Propylbenzene	ND	µg/L	1.0								
sec-Butylbenzene	ND	µg/L	1.0								
Styrene	ND	µg/L	1.0								
tert-Butylbenzene	ND	µg/L	1.0								
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0								
1,1,2,2-Tetrachloroethane	ND	µg/L	2.0								
Tetrachloroethene (PCE)	ND	µg/L	1.0								
trans-1,2-DCE	ND	µg/L	1.0								
trans-1,3-Dichloropropene	ND	µg/L	1.0								
1,2,3-Trichlorobenzene	ND	µg/L	1.0								
1,2,4-Trichlorobenzene	ND	µg/L	1.0								
1,1,1-Trichloroethane	ND	µg/L	1.0								
1,1,2-Trichloroethane	ND	µg/L	1.0								
Trichloroethene (TCE)	ND	µg/L	1.0								
Trichlorofluoromethane	ND	µg/L	1.0								
1,2,3-Trichloropropane	ND	µg/L	2.0								
[illegible]chloride	ND	µg/L	1.0								
Xylenes, Total	ND	µg/L	1.5								
Sample ID: b6		*MBLK*					Batch ID: **R36238**		Analysis Date: 11/18/2009 10:09:57 PM		
Benzene	ND	µg/L	1.0								
Toluene	ND	µg/L	1.0								
Ethylbenzene	ND	µg/L	1.0								
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0								
1,2,4-Trimethylbenzene	ND	µg/L	1.0								
1,3,5-Trimethylbenzene	ND	µg/L	1.0								
1,2-Dichloroethane (EDC)	ND	µg/L	1.0								
1,2-Dibromoethane (EDB)	ND	µg/L	1.0								
Naphthalene	ND	µg/L	2.0								
1-Methylnaphthalene	ND	µg/L	4.0								
2-Methylnaphthalene	ND	µg/L	4.0								
Acetone	ND	µg/L	10								
Bromobenzene	ND	µg/L	1.0								
Bromodichloromethane	ND	µg/L	1.0								
Bromoform	ND	µg/L	1.0								
Bromomethane	ND	µg/L	1.0								
2-Butanone	ND	µg/L	10								
Carbon disulfide	ND	µg/L	10								
Carbon Tetrachloride	ND	µg/L	1.0								
Chlorobenzene	ND	µg/L	1.0								
Chloroethane	ND	µg/L	2.0								
Chloroform	ND	µg/L	1.0								

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: New Monitoring Wells **Work Order:** 0911331

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES											
Sample ID: b6		*MBLK*									
Chloromethane	ND	µg/L	1.0								
2-Chlorotoluene	ND	µg/L	1.0								
4-Chlorotoluene	ND	µg/L	1.0								
cis-1,2-DCE	ND	µg/L	1.0								
cis-1,3-Dichloropropene	ND	µg/L	1.0								
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0								
Dibromochloromethane	ND	µg/L	1.0								
Dibromomethane	ND	µg/L	1.0								
1,2-Dichlorobenzene	ND	µg/L	1.0								
1,3-Dichlorobenzene	ND	µg/L	1.0								
1,4-Dichlorobenzene	ND	µg/L	1.0								
Dichlorodifluoromethane	ND	µg/L	1.0								
1,1-Dichloroethane	ND	µg/L	1.0								
1,1-Dichloroethene	ND	µg/L	1.0								
1,2-Dichloropropane	ND	µg/L	1.0								
1,3-Dichloropropane	ND	µg/L	1.0								
2,2-Dichloropropane	ND	µg/L	2.0								
1,1-Dichloropropene	ND	µg/L	1.0								
Hexachlorobutadiene	ND	µg/L	1.0								
2-Hexanone	ND	µg/L	10								
Isopropylbenzene	ND	µg/L	1.0								
4-Isopropyltoluene	ND	µg/L	1.0								
4-Methyl-2-pentanone	ND	µg/L	10								
Methylene Chloride	ND	µg/L	3.0								
n-Butylbenzene	ND	µg/L	1.0								
n-Propylbenzene	ND	µg/L	1.0								
sec-Butylbenzene	ND	µg/L	1.0								
Styrene	ND	µg/L	1.0								
tert-Butylbenzene	ND	µg/L	1.0								
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0								
1,1,2,2-Tetrachloroethane	ND	µg/L	2.0								
Tetrachloroethene (PCE)	ND	µg/L	1.0								
trans-1,2-DCE	ND	µg/L	1.0								
trans-1,3-Dichloropropene	ND	µg/L	1.0								
1,2,3-Trichlorobenzene	ND	µg/L	1.0								
1,2,4-Trichlorobenzene	ND	µg/L	1.0								
1,1,1-Trichloroethane	ND	µg/L	1.0								
1,1,2-Trichloroethane	ND	µg/L	1.0								
Trichloroethene (TCE)	ND	µg/L	1.0								
Trichlorofluoromethane	ND	µg/L	1.0								
1,2,3-Trichloropropane	ND	µg/L	2.0								
Vinyl chloride	ND	µg/L	1.0								
Xylenes, Total	ND	µg/L	1.5								
Sample ID: 100ng lcs		*LCS*									

Batch ID: **R36238** Analysis Date: 11/18/2009 10:09:57 PM

Batch ID: **R36238** Analysis Date: 11/18/2009 11:24:13 AM

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: New Monitoring Wells **Work Order:** 0911331

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES											
Sample ID: 100ng lcs		*LCS*				Batch ID:	**R36238**	Analysis Date:	11/18/2009 11:24:13 AM		
Benzene	18.99	µg/L	1.0	20	0	95.0	76.7	114			
Toluene	21.60	µg/L	1.0	20	0	108	78.4	117			
Chlorobenzene	21.22	µg/L	1.0	20	0	106	80.7	127			
1,1-Dichloroethene	22.64	µg/L	1.0	20	0	113	80.2	128			
Trichloroethene (TCE)	16.54	µg/L	1.0	20	0	82.7	77.4	115			
Sample ID: 100ng lcs_b		*LCS*				Batch ID:	**R36238**	Analysis Date:	11/18/2009 11:05:21 PM		
Benzene	20.54	µg/L	1.0	20	0	103	76.7	114			
Toluene	22.13	µg/L	1.0	20	0	111	78.4	117			
Chlorobenzene	20.88	µg/L	1.0	20	0	104	80.7	127			
1,1-Dichloroethene	23.25	µg/L	1.0	20	0	116	80.2	128			
Trichloroethene (TCE)	17.61	µg/L	1.0	20	0	88.0	77.4	115			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: New Monitoring Wells **Work Order:** 0911331

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8270C: Semivolatiles											
Sample ID: mb-20706		*MBLK*					Batch ID: **20706**		Analysis Date: 11/25/2009 11:28:13 AM		
Acenaphthene	ND	µg/L	10								
Acenaphthylene	ND	µg/L	10								
Aniline	ND	µg/L	10								
Anthracene	ND	µg/L	10								
Azobenzene	ND	µg/L	10								
Benz(a)anthracene	ND	µg/L	10								
Benzo(a)pyrene	ND	µg/L	10								
Benzo(b)fluoranthene	ND	µg/L	10								
Benzo(g,h,i)perylene	ND	µg/L	10								
Benzo(k)fluoranthene	ND	µg/L	10								
Benzoic acid	ND	µg/L	20								
Benzyl alcohol	ND	µg/L	10								
Bis(2-chloroethoxy)methane	ND	µg/L	10								
Bis(2-chloroethyl)ether	ND	µg/L	10								
Bis(2-chloroisopropyl)ether	ND	µg/L	10								
Bis(2-ethylhexyl)phthalate	ND	µg/L	10								
4-Bromophenyl phenyl ether	ND	µg/L	10								
Butyl benzyl phthalate	ND	µg/L	10								
Carbazole	ND	µg/L	10								
[illegible]oro-3-methylphenol	ND	µg/L	10								
4-Chloroaniline	ND	µg/L	10								
2-Chloronaphthalene	ND	µg/L	10								
2-Chlorophenol	ND	µg/L	10								
4-Chlorophenyl phenyl ether	ND	µg/L	10								
Chrysene	ND	µg/L	10								
Di-n-butyl phthalate	ND	µg/L	10								
Di-n-octyl phthalate	ND	µg/L	10								
Dibenz(a,h)anthracene	ND	µg/L	10								
Dibenzofuran	ND	µg/L	10								
1,2-Dichlorobenzene	ND	µg/L	10								
1,3-Dichlorobenzene	ND	µg/L	10								
1,4-Dichlorobenzene	ND	µg/L	10								
3,3'-Dichlorobenzidine	ND	µg/L	10								
Diethyl phthalate	ND	µg/L	10								
Dimethyl phthalate	ND	µg/L	10								
2,4-Dichlorophenol	ND	µg/L	20								
2,4-Dimethylphenol	ND	µg/L	10								
4,6-Dinitro-2-methylphenol	ND	µg/L	20								
2,4-Dinitrophenol	ND	µg/L	20								
2,4-Dinitrotoluene	ND	µg/L	10								
2,6-Dinitrotoluene	ND	µg/L	10								
Fluoranthene	ND	µg/L	10								
Fluorene	ND	µg/L	10								
Hexachlorobenzene	ND	µg/L	10								

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: New Monitoring Wells **Work Order:** 0911331

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8270C: Semivolatiles											
Sample ID: mb-20706		*MBLK*				Batch ID:	**20706**	Analysis Date:	11/25/2009 11:28:13 AM		
Hexachlorobutadiene	ND	µg/L	10								
Hexachlorocyclopentadiene	ND	µg/L	10								
Hexachloroethane	ND	µg/L	10								
Indeno(1,2,3-cd)pyrene	ND	µg/L	10								
Isophorone	ND	µg/L	10								
2-Methylnaphthalene	ND	µg/L	10								
2-Methylphenol	ND	µg/L	10								
3+4-Methylphenol	ND	µg/L	10								
N-Nitrosodi-n-propylamine	ND	µg/L	10								
N-Nitrosodimethylamine	ND	µg/L	10								
N-Nitrosodiphenylamine	ND	µg/L	10								
Naphthalene	ND	µg/L	10								
2-Nitroaniline	ND	µg/L	10								
3-Nitroaniline	ND	µg/L	10								
4-Nitroaniline	ND	µg/L	10								
Nitrobenzene	ND	µg/L	10								
2-Nitrophenol	ND	µg/L	10								
4-Nitrophenol	ND	µg/L	10								
Pentachlorophenol	ND	µg/L	20								
Phenanthrene	ND	µg/L	10								
Phenol	ND	µg/L	10								
Pyrene	ND	µg/L	10								
Pyridine	ND	µg/L	10								
1,2,4-Trichlorobenzene	ND	µg/L	10								
2,4,5-Trichlorophenol	ND	µg/L	10								
2,4,6-Trichlorophenol	ND	µg/L	10								
Sample ID: lcs-20706		*LCS*				Batch ID:	**20706**	Analysis Date:	11/25/2009 11:57:25 AM		
Acenaphthene	55.80	µg/L	10	100	0	55.8	33.2	88.1			
4-Chloro-3-methylphenol	107.8	µg/L	10	200	0	53.9	26.5	101			
2-Chlorophenol	79.52	µg/L	10	200	0	39.8	27.5	88.7			
1,4-Dichlorobenzene	38.44	µg/L	10	100	0	38.4	27.2	74.1			
2,4-Dinitrotoluene	68.86	µg/L	10	100	0	68.9	32.6	107			
N-Nitrosodi-n-propylamine	46.14	µg/L	10	100	0	46.1	27.1	96.3			
4-Nitrophenol	51.70	µg/L	10	200	0	25.9	6.78	74.7			
Pentachlorophenol	81.54	µg/L	20	200	3.44	39.1	14.8	113			
Phenol	48.90	µg/L	10	200	0	24.5	17	53.4			
Pyrene	53.62	µg/L	10	100	0	53.6	27	96.3			
1,2,4-Trichlorobenzene	45.94	µg/L	10	100	0	45.9	30	77.9			
Method: EPA Method 7470: Mercury											
Sample ID: MB-20729		*MBLK*				Batch ID:	**20729**	Analysis Date:	11/25/2009 4:41:21 PM		
Mercury	ND	mg/L	0.00020								
Sample ID: LCS-20729		*LCS*				Batch ID:	**20729**	Analysis Date:	11/25/2009 4:43:07 PM		
Mercury	0.005101	mg/L	0.00020	0.005	0	102	80	120			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: New Monitoring Wells **Work Order:** 0911331

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA 6010B: Total Recoverable Metals											
Sample ID: MB-20666		*MBLK*				Batch ID:	**20666**	Analysis Date:	11/19/2009 2:50:51 PM		
Arsenic	ND	mg/L	0.020								
Barium	ND	mg/L	0.010								
Cadmium	ND	mg/L	0.0020								
Chromium	ND	mg/L	0.0060								
Lead	ND	mg/L	0.0050								
Selenium	ND	mg/L	0.050								
Silver	ND	mg/L	0.0050								
Sample ID: LCS-20666		*LCS*				Batch ID:	**20666**	Analysis Date:	11/19/2009 3:02:40 PM		
Arsenic	0.4988	mg/L	0.020	0.5	0	99.8	80	120			
Barium	0.4977	mg/L	0.010	0.5	0	99.5	80	120			
Cadmium	0.4972	mg/L	0.0020	0.5	0	99.4	80	120			
Chromium	0.4948	mg/L	0.0060	0.5	0	99.0	80	120			
Lead	0.4892	mg/L	0.0050	0.5	0	97.8	80	120			
Selenium	0.4828	mg/L	0.050	0.5	0	96.6	80	120			
Silver	0.5077	mg/L	0.0050	0.5	0.0012	101	80	120			

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name **WESTERN REFINING GALLU** Date Received: 11/17/2009

Work Order Number **0911331** Received by: ARS

Checklist completed by: _____ 11/17/09 Sample ID labels checked by: _____
Signature Date Initials

Matrix: Carrier name: Client drop-off

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☐	Not Shipped ☑
Custody seals intact on sample bottles?	Yes ☑	No ☐	N/A ☐	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☑	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☑	No ☐	N/A ☐	
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐	
Container/Temp Blank temperature?	**3.8°**	*<6° C Acceptable* *If given sufficient time to cool.*		

Number of preserved bottles checked for pH: 2

(<2 or >12 unless noted below.)

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: poured off from 1 x 1 ltr amber into 1 x 500 HNO3 for more VOA vial for RCRA 8 metals. JM 11/18/09

Corrective Action _____

Chain-of-Custody Record

Client: Western Refining - Gallup

Mailing Address: Route 3, Box 7
Gallup, NM 87301

Phone #: 505-722-3833

email or Fax#:

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

Accreditation
☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:
☑ Standard ☐ Rush

Project Name:
New Monitoring Wells

Project #:

Project Manager:
Gaurav Raten

Sampler:

On Ice: ☑ Yes ☐ No

Sample Temperature: 3.8

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 0911331
11-17-09	12:20	H_2O	OW-52	6x 40ml 1x 1L 1x 120ml	$HgCl_2$	1
11-17-09	13:20	H_2O	OW-50	" "	+ HNO_3	2
			Trip Blank			3

Date	Time	Relinquished by:	Received by:	Date	Time
11-17-09	1600			11/17/09	16:00
Date:	Time:	Relinquished by:	Received by:	Date	Time

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Gold C RCRA metals	8015B GRO/DRO			Air Bubbles (Y or N)
									X	X	X	X			
									X	X	X	X			

Remarks:
Bill TO Western Refining - Gallup
Per Gaurav Raten

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.

WESTERN REFINING
OCD DISCHARGE PERMIT (GW-032)
BI-MONTHLY PERIMETER INSPECTION

Instructions: Inspection shall be conducted on a bimonthly basis or as needed in accordance with OCD Discharge Permit (GW-032)(Section #20)(Revision of: March 12,2008).The inspection is to focus on hydrocarbon staining or any release that could potentially result in contamination leaving the property boundaries.

DATE OF INSPECTION: 01/09/2009

NOTE ANY FINDINGS: No Issues found.

Print Name / Title:: Beck Larsen / Environmental Engineer

Signature of Inspector:

WESTERN REFINING
OCD DISCHARGE PERMIT (GW-032)
BI-MONTHLY PERIMETER INSPECTION

Instructions: Inspection shall be conducted on a bimonthly basis or as needed in accordance with OCD Discharge Permit (GW-032)(Section #20)(Revision of: March 12,2008).The inspection is to focus on hydrocarbon staining or any release that could potentially result in contamination leaving the property boundaries.

DATE OF INSPECTION: 01/21/2009

NOTE ANY FINDINGS: No Issues found.

Print Name / Title:: Beck Larsen / Environmental Engineer

Signature of Inspector:

WESTERN REFINING
OCD DISCHARGE PERMIT (GW-032)
BI-MONTHLY PERIMETER INSPECTION

Instructions: Inspection shall be conducted on a bimonthly basis or as needed in accordance with OCD Discharge Permit (GW-032)(Section #20)(Revision of: March 12,2008).The inspection is to focus on hydrocarbon staining or any release that could potentially result in contamination leaving the property boundaries.

DATE OF INSPECTION: 02/10/2009

NOTE ANY FINDINGS: No Issues found.

Print Name / Title:: Beck Larsen / Environmental Engineer

Signature of Inspector:

WESTERN REFINING
OCD DISCHARGE PERMIT (GW-032)
BI-MONTHLY PERIMETER INSPECTION

Instructions: Inspection shall be conducted on a bimonthly basis or as needed in accordance with OCD Discharge Permit (GW-032)(Section #20)(Revision of: March 12,2008).The inspection is to focus on hydrocarbon staining or any release that could potentially result in contamination leaving the property boundaries.

DATE OF INSPECTION: 02/23/2009

NOTE ANY FINDINGS: No Issues found.

Print Name / Title:: Beck Larsen / Environmental Engineer

Signature of Inspector:

WESTERN REFINING
OCD DISCHARGE PERMIT (GW-032)
BI-MONTHLY PERIMETER INSPECTION

Instructions: Inspection shall be conducted on a bimonthly basis or as needed in accordance with OCD Discharge Permit (GW-032)(Section #20)(Revision of: March 12,2008).The inspection is to focus on hydrocarbon staining or any release that could potentially result in contamination leaving the property boundaries.

DATE OF INSPECTION: 03/12/2009

NOTE ANY FINDINGS: No Issues found.

Print Name / Title:: Beck Larsen / Environmental Engineer

Signature of Inspector:

WESTERN REFINING
OCD DISCHARGE PERMIT (GW-032)
BI-MONTHLY PERIMETER INSPECTION

Instructions: Inspection shall be conducted on a bimonthly basis or as needed in accordance with OCD Discharge Permit (GW-032)(Section #20)(Revision of: March 12,2008).The inspection is to focus on hydrocarbon staining or any release that could potentially result in contamination leaving the property boundaries.

DATE OF INSPECTION: 03/26/2009

NOTE ANY FINDINGS: No Issues found.

Print Name / Title:: Beck Larsen / Environmental Engineer

Signature of Inspector:

WESTERN REFINING
OCD DISCHARGE PERMIT (GW-032)
BI-MONTHLY PERIMETER INSPECTION

Instructions: Inspection shall be conducted on a bimonthly basis or as needed in accordance with OCD Discharge Permit (GW-032)(Section #20)(Revision of: March 12,2008).The inspection is to focus on hydrocarbon staining or any release that could potentially result in contamination leaving the property boundaries.

DATE OF INSPECTION: 04/06/2009

NOTE ANY FINDINGS: No Issues found.

Print Name / Title:: Beck Larsen / Environmental Engineer

Signature of Inspector:

WESTERN REFINING
OCD DISCHARGE PERMIT (GW-032)
BI-MONTHLY PERIMETER INSPECTION

Instructions: Inspection shall be conducted on a bimonthly basis or as needed in accordance with OCD Discharge Permit (GW-032)(Section #20)(Revision of: March 12,2008).The inspection is to focus on hydrocarbon staining or any release that could potentially result in contamination leaving the property boundaries.

DATE OF INSPECTION: 04/16/2009

NOTE ANY FINDINGS: No Issues found.

Print Name / Title:: Beck Larsen / Environmental Engineer

Signature of Inspector:

WESTERN REFINING
OCD DISCHARGE PERMIT (GW-032)
BI-MONTHLY PERIMETER INSPECTION

Instructions: Inspection shall be conducted on a bimonthly basis or as needed in accordance with OCD Discharge Permit (GW-032)(Section #20)(Revision of: March 12,2008).The inspection is to focus on hydrocarbon staining or any release that could potentially result in contamination leaving the property boundaries.

DATE OF INSPECTION: 05/05/2009

NOTE ANY FINDINGS: No Issues found.

Print Name / Title:: Beck Larsen / Environmental Engineer

Signature of Inspector:

WESTERN REFINING
OCD DISCHARGE PERMIT (GW-032)
BI-MONTHLY PERIMETER INSPECTION

Instructions: Inspection shall be conducted on a bimonthly basis or as needed in accordance with OCD Discharge Permit (GW-032)(Section #20)(Revision of: March 12,2008).The inspection is to focus on hydrocarbon staining or any release that could potentially result in contamination leaving the property boundaries.

DATE OF INSPECTION: 05/19/2009

NOTE ANY FINDINGS: No Issues found.

Print Name / Title:: Beck Larsen / Environmental Engineer

Signature of Inspector:

WESTERN REFINING
OCD DISCHARGE PERMIT (GW-032)
BI-MONTHLY PERIMETER INSPECTION

Instructions: Inspection shall be conducted on a bimonthly basis or as needed in accordance with OCD Discharge Permit (GW-032)(Section #20)(Revision of: March 12,2008).The inspection is to focus on hydrocarbon staining or any release that could potentially result in contamination leaving the property boundaries.

DATE OF INSPECTION: 05/22/2009

NOTE ANY FINDINGS: No Issues found.

Slight over-night rain; Rain fall < 0.5 inches

Print Name / Title:: Beck Larsen / Environmental Engineer

Signature of Inspector:

WESTERN REFINING
OCD DISCHARGE PERMIT (GW-032)
BI-MONTHLY PERIMETER INSPECTION

Instructions: Inspection shall be conducted on a bimonthly basis or as needed in accordance with OCD Discharge Permit (GW-032)(Section #20)(Revision of: March 12,2008).The inspection is to focus on hydrocarbon staining or any release that could potentially result in contamination leaving the property boundaries.

DATE OF INSPECTION: 06/04/2009

NOTE ANY FINDINGS: No Issues found.

Fuhs working on Dike Erosion

Print Name / Title:: Beck Larsen / Environmental Engineer

Signature of Inspector:

WESTERN REFINING
OCD DISCHARGE PERMIT (GW-032)
BI-MONTHLY PERIMETER INSPECTION

Instructions: Inspection shall be conducted on a bimonthly basis or as needed in accordance with OCD Discharge Permit (GW-032)(Section #20)(Revision of: March 12,2008).The inspection is to focus on hydrocarbon staining or any release that could potentially result in contamination leaving the property boundaries.

DATE OF INSPECTION: 06/10/2009

NOTE ANY FINDINGS: No Issues found.

Fuhs working on Dike Erosion

Rainfall- 0.76 inches / No discharge observed

Print Name / Title:: Beck Larsen / Environmental Engineer

Signature of Inspector:

WESTERN REFINING
OCD DISCHARGE PERMIT (GW-032)
BI-MONTHLY PERIMETER INSPECTION

Instructions: Inspection shall be conducted on a bimonthly basis or as needed in accordance with OCD Discharge Permit (GW-032)(Section #20)(Revision of: March 12,2008).The inspection is to focus on hydrocarbon staining or any release that could potentially result in contamination leaving the property boundaries.

DATE OF INSPECTION: 07/06/2009

NOTE ANY FINDINGS: Dike Erosion found along west side of Cell #26 near Rail Rack

Print Name / Title:: Beck Larsen / Environmental Engineer

Signature of Inspector:

WESTERN REFINING
OCD DISCHARGE PERMIT (GW-032)
BI-MONTHLY PERIMETER INSPECTION

Instructions: Inspection shall be conducted on a bimonthly basis or as needed in accordance with OCD Discharge Permit (GW-032)(Section #20)(Revision of: March 12,2008).The inspection is to focus on hydrocarbon staining or any release that could potentially result in contamination leaving the property boundaries.

DATE OF INSPECTION: 07/22/2009

NOTE ANY FINDINGS: Minor dike erosion found along several cells/pond areas.

Print Name / Title:: Beck Larsen / Environmental Engineer

Signature of Inspector:

WESTERN REFINING
OCD DISCHARGE PERMIT (GW-032)
BI-MONTHLY PERIMETER INSPECTION

Instructions: Inspection shall be conducted on a bimonthly basis or as needed in accordance with OCD Discharge Permit (GW-032)(Section #20)(Revision of: March 12,2008).The inspection is to focus on hydrocarbon staining or any release that could potentially result in contamination leaving the property boundaries.

DATE OF INSPECTION: 08/03/2009

NOTE ANY FINDINGS: Minor dike erosion found along several cells/pond areas.

Print Name / Title:: Beck Larsen / Environmental Engineer

Signature of Inspector:

WESTERN REFINING
OCD DISCHARGE PERMIT (GW-032)
BI-MONTHLY PERIMETER INSPECTION

Instructions: Inspection shall be conducted on a bimonthly basis or as needed in accordance with OCD Discharge Permit (GW-032)(Section #20)(Revision of: March 12,2008).The inspection is to focus on hydrocarbon staining or any release that could potentially result in contamination leaving the property boundaries.

DATE OF INSPECTION: 08/17/2009

NOTE ANY FINDINGS: Minor dike erosion found on sides of several cells.

Print Name / Title:: Beck Larsen / Environmental Engineer

Signature of Inspector:

WESTERN REFINING
OCD DISCHARGE PERMIT (GW-032)
BI-MONTHLY PERIMETER INSPECTION

Instructions: Inspection shall be conducted on a bimonthly basis or as needed in accordance with OCD Discharge Permit (GW-032)(Section #20)(Revision of: March 12,2008).The inspection is to focus on hydrocarbon staining or any release that could potentially result in contamination leaving the property boundaries.

DATE OF INSPECTION: 09/09/2009

NOTE ANY FINDINGS: Minor dike erosion found on sides of several cells.

Print Name / Title:: Beck Larsen / Environmental Engineer

Signature of Inspector:

WESTERN REFINING
OCD DISCHARGE PERMIT (GW-032)
BI-MONTHLY PERIMETER INSPECTION

Instructions: Inspection shall be conducted on a bimonthly basis or as needed in accordance with OCD Discharge Permit (GW-032)(Section #20)(Revision of: March 12,2008).The inspection is to focus on hydrocarbon staining or any release that could potentially result in contamination leaving the property boundaries.

DATE OF INSPECTION: 09/28/2009

NOTE ANY FINDINGS: Minor dike erosion found on sides of several cells.

Print Name / Title:: Beck Larsen / Environmental Engineer

Signature of Inspector:

WESTERN REFINING
OCD DISCHARGE PERMIT (GW-032)
BI-MONTHLY PERIMETER INSPECTION

Instructions: Inspection shall be conducted on a bimonthly basis or as needed in accordance with OCD Discharge Permit (GW-032)(Section #20)(Revision of: March 12,2008).The inspection is to focus on hydrocarbon staining or any release that could potentially result in contamination leaving the property boundaries.

DATE OF INSPECTION: 10/07/2009

NOTE ANY FINDINGS: Minor dike erosion found on sides of several cells. Daily Rainfall- 0.07 inches as measured at Safety Building/Process Area; Monthly Rainfall- 0.11 as measured at Safety Building/Process Area; Perimeter Rainfall~ 0.0 inches.

Print Name / Title:: Beck Larsen / Environmental Engineer

Signature of Inspector:

WESTERN REFINING
OCD DISCHARGE PERMIT (GW-032)
BI-MONTHLY PERIMETER INSPECTION

Instructions: Inspection shall be conducted on a bimonthly basis or as needed in accordance with OCD Discharge Permit (GW-032)(Section #20)(Revision of: March 12,2008).The inspection is to focus on hydrocarbon staining or any release that could potentially result in contamination leaving the property boundaries.

DATE OF INSPECTION: 10/21/2009

NOTE ANY FINDINGS: Minor dike erosion found on sides of several cells. Daily Rainfall- 0.00 inches as measured at Safety Building/Process Area; Monthly Rainfall- 0.00 as measured at Safety Building/Process Area; Perimeter Rainfall~ 0.0 inches.

Print Name / Title:: Beck Larsen / Environmental Engineer

Signature of Inspector:

WESTERN REFINING
OCD DISCHARGE PERMIT (GW-032)
BI-MONTHLY PERIMETER INSPECTION

Instructions: Inspection shall be conducted on a bimonthly basis or as needed in accordance with OCD Discharge Permit (GW-032)(Section #20)(Revision of: March 12,2008).The inspection is to focus on hydrocarbon staining or any release that could potentially result in contamination leaving the property boundaries.

DATE OF INSPECTION: 11/10/2009

NOTE ANY FINDINGS: Minor dike erosion found on sides of several cells. Daily Rainfall- 0.00 inches as measured at Safety Building/Process Area; Monthly Rainfall- 0.00 as measured at Safety Building/Process Area; Perimeter Rainfall~ 0.0 inches.

Print Name / Title:: Beck Larsen / Environmental Engineer

Signature of Inspector:

WESTERN REFINING
OCD DISCHARGE PERMIT (GW-032)
BI-MONTHLY PERIMETER INSPECTION

Instructions: Inspection shall be conducted on a bimonthly basis or as needed in accordance with OCD Discharge Permit (GW-032)(Section #20)(Revision of: March 12,2008).The inspection is to focus on hydrocarbon staining or any release that could potentially result in contamination leaving the property boundaries.

DATE OF INSPECTION: 11/17/2009

NOTE ANY FINDINGS: Minor dike erosion found on sides of several cells. Daily Rainfall- 0.00 inches as measured at Safety Building/Process Area; Monthly Rainfall- 0.00 as measured at Safety Building/Process Area; Perimeter Rainfall~ 0.0 inches. No issues found.

Print Name / Title:: Beck Larsen / Environmental Engineer

Signature of Inspector:

WESTERN REFINING
OCD DISCHARGE PERMIT (GW-032)
BI-MONTHLY PERIMETER INSPECTION

Instructions: Inspection shall be conducted on a bimonthly basis or as needed in accordance with OCD Discharge Permit (GW-032)(Section #20)(Revision of: March 12,2008).The inspection is to focus on hydrocarbon staining or any release that could potentially result in contamination leaving the property boundaries.

DATE OF INSPECTION: 12/15/2009

NOTE ANY FINDINGS: Minor dike erosion found on sides of several cells. Daily Rainfall- 0.00 inches as measured at Safety Building/Process Area; Monthly Rainfall- 0.00 as measured at Safety Building/Process Area; Perimeter Rainfall~ 0.0 inches. No issues found.

Print Name / Title:: Beck Larsen / Environmental Engineer

Signature of Inspector:

WESTERN REFINING
OCD DISCHARGE PERMIT (GW-032)
BI-MONTHLY PERIMETER INSPECTION

Instructions: Inspection shall be conducted on a bimonthly basis or as needed in accordance with OCD Discharge Permit (GW-032)(Section #20)(Revision of: March 12,2008).The inspection is to focus on hydrocarbon staining or any release that could potentially result in contamination leaving the property boundaries.

DATE OF INSPECTION: 12/10/2009

NOTE ANY FINDINGS: Minor dike erosion found on sides of several cells. Daily Rainfall- 0.00 inches as measured at Safety Building/Process Area; Monthly Rainfall- 0.00 as measured at Safety Building/Process Area; Perimeter Rainfall~ 0.0 inches. No issues found.

Print Name / Title:: Beck Larsen / Environmental Engineer

Signature of Inspector:

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Monday, January 05, 2009

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

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

RE: OCD Landfarms Soil Samples December 2008

Order No.: 0812512

Dear Gaurav Rajen:

Hall Environmental Analysis Laboratory, Inc. received 10 sample(s) on 12/24/2008 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

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

ACCREDITED IN ACCORDANCE WITH nelac

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

CLIENT: Western Refining Southwest, Gallup
Project: OCD Landfarms Soil Samples December 2008
Lab Order: 0812512

CASE NARRATIVE

Analytical Comments for METHOD 8015DRO_S, SAMPLE 0812512-09A: DNOP not recovered due to dilution Analytical Comments for METHOD 8015DRO_S, SAMPLE 0812512-10A: DNOP not recovered due to dilution Analytical Comments for METHOD 8015GRO_S, SAMPLE 0812512-10A: dilution necessary for foamy nature of sample

Hall Environmental Analysis Laboratory, Inc.

Date: *05-Jan-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	Central LF Cell 29
Lab Order:	0812512	**Collection Date:**	12/22/2008 9:00:00 AM
Project:	OCD Landfarms Soil Samples December 2008	**Date Received:**	12/24/2008
Lab ID:	0812512-01	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	12/30/2008
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	12/30/2008
Surr: DNOP	93.4	61.7-135		%REC	1	*12/30/2008*
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **DAM**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	1/1/2009 1:49:22 AM
Surr: BFB	91.3	58.8-123		%REC	1	1/1/2009 1:49:22 AM
EPA METHOD 8021B: VOLATILES						Analyst: **DAM**
Methyl tert-butyl ether (MTBE)	ND	0.10		mg/Kg	1	1/1/2009 1:49:22 AM
Benzene	ND	0.050		mg/Kg	1	1/1/2009 1:49:22 AM
Toluene	ND	0.050		mg/Kg	1	1/1/2009 1:49:22 AM
Ethylbenzene	ND	0.050		mg/Kg	1	1/1/2009 1:49:22 AM
Xylenes, Total	ND	0.10		mg/Kg	1	1/1/2009 1:49:22 AM
Surr: 4-Bromofluorobenzene	93.7	66.8-139		%REC	1	1/1/2009 1:49:22 AM
EPA METHOD 300.0: ANIONS						Analyst: **RAGS**
Chloride	440	3.0		mg/Kg	10	12/31/2008 7:08:16 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *05-Jan-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	Central LF Cell 91
Lab Order:	0812512	**Collection Date:**	12/22/2008 9:45:00 AM
Project:	OCD Landfarms Soil Samples December 2008	**Date Received:**	12/24/2008
Lab ID:	0812512-02	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	12/30/2008
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	12/30/2008
Surr: DNOP	93.9	61.7-135		%REC	1	12/30/2008
EPA METHOD 8015B: GASOLINE RANGE						Analyst: DAM
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	1/1/2009 2:19:39 AM
Surr: BFB	85.9	58.8-123		%REC	1	1/1/2009 2:19:39 AM
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Methyl tert-butyl ether (MTBE)	ND	0.10		mg/Kg	1	1/1/2009 2:19:39 AM
Benzene	ND	0.050		mg/Kg	1	1/1/2009 2:19:39 AM
Toluene	ND	0.050		mg/Kg	1	1/1/2009 2:19:39 AM
Ethylbenzene	ND	0.050		mg/Kg	1	1/1/2009 2:19:39 AM
Xylenes, Total	ND	0.10		mg/Kg	1	1/1/2009 2:19:39 AM
Surr: 4-Bromofluorobenzene	85.4	66.8-139		%REC	1	1/1/2009 2:19:39 AM
EPA METHOD 300.0: ANIONS						Analyst: RAGS
Chloride	1900	6.0		mg/Kg	20	12/31/2008 7:25:41 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *05-Jan-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	Central LF Cell 94
Lab Order:	0812512	**Collection Date:**	12/22/2008 10:30:00 AM
Project:	OCD Landfarms Soil Samples December 2008	**Date Received:**	12/24/2008
Lab ID:	0812512-03	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	12/30/2008
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	12/30/2008
Surr: DNOP	95.8	61.7-135		%REC	1	12/30/2008
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **DAM**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	1/1/2009 6:22:10 AM
Surr: BFB	87.2	58.8-123		%REC	1	1/1/2009 6:22:10 AM
EPA METHOD 8021B: VOLATILES						Analyst: **DAM**
Methyl tert-butyl ether (MTBE)	ND	0.10		mg/Kg	1	1/1/2009 6:22:10 AM
Benzene	ND	0.050		mg/Kg	1	1/1/2009 6:22:10 AM
Toluene	ND	0.050		mg/Kg	1	1/1/2009 6:22:10 AM
Ethylbenzene	ND	0.050		mg/Kg	1	1/1/2009 6:22:10 AM
Xylenes, Total	ND	0.10		mg/Kg	1	1/1/2009 6:22:10 AM
Surr: 4-Bromofluorobenzene	88.2	66.8-139		%REC	1	1/1/2009 6:22:10 AM
EPA METHOD 300.0: ANIONS						Analyst: **RAGS**
Chloride	190	3.0		mg/Kg	10	12/30/2008 3:26:58 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *05-Jan-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	Central LF Cell 110
Lab Order:	0812512	**Collection Date:**	12/22/2008 11:30:00 AM
Project:	OCD Landfarms Soil Samples December 2008	**Date Received:**	12/24/2008
Lab ID:	0812512-04	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	12/30/2008
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	12/30/2008
Surr: DNOP	96.9	61.7-135		%REC	1	12/30/2008
EPA METHOD 8015B: GASOLINE RANGE						Analyst: DAM
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	1/1/2009 6:52:25 AM
Surr: BFB	89.5	58.8-123		%REC	1	1/1/2009 6:52:25 AM
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Methyl tert-butyl ether (MTBE)	ND	0.10		mg/Kg	1	1/1/2009 6:52:25 AM
Benzene	ND	0.050		mg/Kg	1	1/1/2009 6:52:25 AM
Toluene	ND	0.050		mg/Kg	1	1/1/2009 6:52:25 AM
Ethylbenzene	ND	0.050		mg/Kg	1	1/1/2009 6:52:25 AM
Xylenes, Total	ND	0.10		mg/Kg	1	1/1/2009 6:52:25 AM
Surr: 4-Bromofluorobenzene	90.2	66.8-139		%REC	1	1/1/2009 6:52:25 AM
EPA METHOD 300.0: ANIONS						Analyst: RAGS
Chloride	650	3.0		mg/Kg	10	12/31/2008 7:43:05 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *05-Jan-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	NE-LF Cell 25
Lab Order:	0812512	**Collection Date:**	12/23/2008 9:00:00 AM
Project:	OCD Landfarms Soil Samples December 2008	**Date Received:**	12/24/2008
Lab ID:	0812512-05	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	12/30/2008
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	12/30/2008
Surr: DNOP	81.0	61.7-135		%REC	1	12/30/2008
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **DAM**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	1/1/2009 7:22:43 AM
Surr: BFB	85.5	58.8-123		%REC	1	1/1/2009 7:22:43 AM
EPA METHOD 8021B: VOLATILES						Analyst: **DAM**
Methyl tert-butyl ether (MTBE)	ND	0.10		mg/Kg	1	1/1/2009 7:22:43 AM
Benzene	ND	0.050		mg/Kg	1	1/1/2009 7:22:43 AM
Toluene	ND	0.050		mg/Kg	1	1/1/2009 7:22:43 AM
Ethylbenzene	ND	0.050		mg/Kg	1	1/1/2009 7:22:43 AM
Xylenes, Total	ND	0.10		mg/Kg	1	1/1/2009 7:22:43 AM
Surr: 4-Bromofluorobenzene	84.4	66.8-139		%REC	1	1/1/2009 7:22:43 AM
EPA METHOD 300.0: ANIONS						Analyst: **RAGS**
Chloride	67	3.0		mg/Kg	10	12/30/2008 4:36:37 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *05-Jan-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	NE-LF Cell 58
Lab Order:	0812512	**Collection Date:**	12/23/2008 9:30:00 AM
Project:	OCD Landfarms Soil Samples December 2008	**Date Received:**	12/24/2008
Lab ID:	0812512-06	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	12/30/2008
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	12/30/2008
Surr: DNOP	95.0	61.7-135		%REC	1	12/30/2008
EPA METHOD 8015B: GASOLINE RANGE						Analyst: DAM
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	1/1/2009 7:53:06 AM
Surr: BFB	84.2	58.8-123		%REC	1	1/1/2009 7:53:06 AM
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Methyl tert-butyl ether (MTBE)	ND	0.10		mg/Kg	1	1/1/2009 7:53:06 AM
Benzene	ND	0.050		mg/Kg	1	1/1/2009 7:53:06 AM
Toluene	ND	0.050		mg/Kg	1	1/1/2009 7:53:06 AM
Ethylbenzene	ND	0.050		mg/Kg	1	1/1/2009 7:53:06 AM
Xylenes, Total	ND	0.10		mg/Kg	1	1/1/2009 7:53:06 AM
Surr: 4-Bromofluorobenzene	83.1	66.8-139		%REC	1	1/1/2009 7:53:06 AM
EPA METHOD 300.0: ANIONS						Analyst: RAGS
Chloride	110	0.30		mg/Kg	1	12/30/2008 4:54:02 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *05-Jan-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	NE-LF Cell 113
Lab Order:	0812512	**Collection Date:**	12/23/2008 10:00:00 AM
Project:	OCD Landfarms Soil Samples December 2008	**Date Received:**	12/24/2008
Lab ID:	0812512-07	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	12/30/2008
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	12/30/2008
Surr: DNOP	74.0	61.7-135		%REC	1	12/30/2008
EPA METHOD 8015B: GASOLINE RANGE						Analyst: DAM
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	1/1/2009 8:23:40 AM
Surr: BFB	80.3	58.8-123		%REC	1	1/1/2009 8:23:40 AM
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Methyl tert-butyl ether (MTBE)	ND	0.10		mg/Kg	1	1/1/2009 8:23:40 AM
Benzene	ND	0.050		mg/Kg	1	1/1/2009 8:23:40 AM
Toluene	ND	0.050		mg/Kg	1	1/1/2009 8:23:40 AM
Ethylbenzene	ND	0.050		mg/Kg	1	1/1/2009 8:23:40 AM
Xylenes, Total	ND	0.10		mg/Kg	1	1/1/2009 8:23:40 AM
Surr: 4-Bromofluorobenzene	77.6	66.8-139		%REC	1	1/1/2009 8:23:40 AM
EPA METHOD 300.0: ANIONS						Analyst: RAGS
Chloride	86	3.0		mg/Kg	10	12/30/2008 5:11:26 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *05-Jan-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	NE-LF Cell 148
Lab Order:	0812512	**Collection Date:**	12/23/2008 10:30:00 AM
Project:	OCD Landfarms Soil Samples December 2008	**Date Received:**	12/24/2008
Lab ID:	0812512-08	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	12/30/2008
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	12/30/2008
Surr: DNOP	94.5	61.7-135		%REC	1	12/30/2008
EPA METHOD 8015B: GASOLINE RANGE						Analyst: DAM
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	1/1/2009 8:54:01 AM
Surr: BFB	82.1	58.8-123		%REC	1	1/1/2009 8:54:01 AM
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Methyl tert-butyl ether (MTBE)	ND	0.10		mg/Kg	1	1/1/2009 8:54:01 AM
Benzene	ND	0.050		mg/Kg	1	1/1/2009 8:54:01 AM
Toluene	ND	0.050		mg/Kg	1	1/1/2009 8:54:01 AM
Ethylbenzene	ND	0.050		mg/Kg	1	1/1/2009 8:54:01 AM
Xylenes, Total	ND	0.10		mg/Kg	1	1/1/2009 8:54:01 AM
Surr: 4-Bromofluorobenzene	80.1	66.8-139		%REC	1	1/1/2009 8:54:01 AM
EPA METHOD 300.0: ANIONS						Analyst: RAGS
Chloride	140	3.0		mg/Kg	10	12/31/2008 8:00:30 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *05-Jan-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	NE-TZ
Lab Order:	0812512	**Collection Date:**	12/23/2008 1:30:00 PM
Project:	OCD Landfarms Soil Samples December 2008	**Date Received:**	12/24/2008
Lab ID:	0812512-09	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	76	10		mg/Kg	1	1/5/2009
Motor Oil Range Organics (MRO)	64	50		mg/Kg	1	1/5/2009
Surr: DNOP	99.6	61.7-135		%REC	1	1/5/2009
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **DAM**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	1/2/2009 12:43:30 PM
Surr: BFB	87.1	58.8-123		%REC	1	1/2/2009 12:43:30 PM
EPA METHOD 300.0: ANIONS						Analyst: **RAGS**
Chloride	280	3.0		mg/Kg	10	12/31/2008 8:17:55 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *05-Jan-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	Central TZ
Lab Order:	0812512	**Collection Date:**	12/23/2008 2:30:00 PM
Project:	OCD Landfarms Soil Samples December 2008	**Date Received:**	12/24/2008
Lab ID:	0812512-10	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	3400	500		mg/Kg	50	12/30/2008
Motor Oil Range Organics (MRO)	ND	2500		mg/Kg	50	12/30/2008
Surr: DNOP	0	61.7-135	S	%REC	50	12/30/2008
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **DAM**
Gasoline Range Organics (GRO)	ND	10		mg/Kg	2	1/2/2009 1:13:56 PM
Surr: BFB	88.5	58.8-123		%REC	2	1/2/2009 1:13:56 PM
EPA METHOD 300.0: ANIONS						Analyst: **RAGS**
Chloride	220	3.0		mg/Kg	10	12/31/2008 8:35:19 PM

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: OCD Landfarms Soil Samples December 2008 **Work Order:** 0812512

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 300.0: Anions									
Sample ID: MB-17971		*MBLK*			Batch ID: **17971**		Analysis Date:	12/30/2008 1:25:06 PM	
Chloride	ND	mg/Kg	0.30						
Sample ID: LCS-17971		*LCS*			Batch ID: **17971**		Analysis Date:	12/30/2008 1:42:30 PM	
Chloride	15.29	mg/Kg	0.30	102	90	110			
Method: EPA Method 8015B: Diesel Range Organics									
Sample ID: MB-17952		*MBLK*			Batch ID: **17952**		Analysis Date:	12/30/2008	
Diesel Range Organics (DRO)	ND	mg/Kg	10						
Motor Oil Range Organics (MRO)	ND	mg/Kg	50						
Sample ID: LCS-17952		*LCS*			Batch ID: **17952**		Analysis Date:	12/30/2008	
Diesel Range Organics (DRO)	43.27	mg/Kg	10	86.5	64.6	116			
Sample ID: LCSD-17952		*LCSD*			Batch ID: **17952**		Analysis Date:	12/30/2008	
Diesel Range Organics (DRO)	43.19	mg/Kg	10	86.4	64.6	116	0.192	17.4	
Method: EPA Method 8015B: Gasoline Range									
Sample ID: MB-17946		*MBLK*			Batch ID: **17946**		Analysis Date:	12/31/2008 7:14:09 PM	
Gasoline Range Organics (GRO)	ND	mg/Kg	5.0						
Method: EPA Method 8021B: Volatiles									
Sample ID: 0812512-05A MSD		*MSD*			Batch ID: **17946**		Analysis Date:	1/1/2009 3:20:22 AM	
Methyl tert-butyl ether (MTBE)	0.9938	mg/Kg	0.10	99.4	67.9	135	0.504	28	
Benzene	0.9089	mg/Kg	0.050	90.9	78.8	132	3.00	27	
Toluene	1.028	mg/Kg	0.050	103	78.9	112	3.45	19	
Ethylbenzene	1.074	mg/Kg	0.050	107	69.3	125	4.00	10	
Xylenes, Total	3.213	mg/Kg	0.10	107	73	128	5.08	13	
Sample ID: MB-17946		*MBLK*			Batch ID: **17946**		Analysis Date:	12/31/2008 7:14:09 PM	
Methyl tert-butyl ether (MTBE)	ND	mg/Kg	0.10						
Benzene	ND	mg/Kg	0.050						
Toluene	ND	mg/Kg	0.050						
Ethylbenzene	ND	mg/Kg	0.050						
Xylenes, Total	ND	mg/Kg	0.10						
Sample ID: 0812512-05A MS		*MS*			Batch ID: **17946**		Analysis Date:	1/1/2009 2:49:58 AM	
Methyl tert-butyl ether (MTBE)	0.9888	mg/Kg	0.10	98.9	67.9	135			
Benzene	0.8820	mg/Kg	0.050	88.2	78.8	132			
Toluene	0.9935	mg/Kg	0.050	99.4	78.9	112			
Ethylbenzene	1.032	mg/Kg	0.050	103	69.3	125			
Xylenes, Total	3.054	mg/Kg	0.10	102	73	128			

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name WESTERN REFINING GALLU | Date Received: 12/24/2008

Work Order Number 0812512 | Received by: AT

Checklist completed by: _____ 12/24/08 | Sample ID labels checked by: _____

Signature | Date | Initials

Matrix: | Carrier name Client drop-off

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☐	Not Shipped ☑
Custody seals intact on sample bottles?	Yes ☑	No ☐	N/A ☐	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Water - VOA vials have zero headspace? No VOA vials submitted ☑		Yes ☐	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☐	No ☐	N/A ☑	
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑	
Container/Temp Blank temperature?	3°	*<6° C Acceptable* If given sufficient time to cool.		

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

Chain-of-Custody Record

Client: Western Refining Company - Gallup

Mailing Address: Route 3 Box 7 Gallup, NM 87301

Phone #: 505 722 3833

email or Fax#: 505722 0210

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

Turn-Around Time:
☒ Standard ☐ Rush _____

Project Name: OCD Landfarms Soil Samples December 2008

Project #:

Project Manager: Gaurav Rajen

Sampler: Steve Morris

On Ice: ☒ YES ☐ NO

Sample Temperature: 3

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL NO. 0812512	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F^-, Cl^-, NO_3, NO_2, PO_4, SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
12-22-08	0900	Soil	Central LF Cell 29			-1	X		X					X				
"	0945	"	Central LF Cell 91			-2	X		X					X				
"	1030	"	Central LF Cell 94			-3	X		X					X				
"	1130	"	Central LF Cell 110			-4	X		X					X				
12-23-08	0900	"	NE-LF Cell 25			-5	X		X					X				
"	0930	"	NE-LF Cell 58			-6	X		X					X				
"	1000	"	NE-LF Cell 113			-7	X		X					X				
"	1030	"	NE-LF Cell 148			-8	X		X					X				
"	1330	"	NE-TZ			-9			X					X				
"	1430	"	Central TZ			-10			X					X				

Date:	Time:	Relinquished by:	Received by:	Date	Time
12-24-08	0930			12/24/08	0930
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

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

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Friday, July 10, 2009

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

TEL: (505) 722-0227
FAX (505) 722-0210

RE: Landfarms Semi-Annual

Order No.: 0906596

Dear Gaurav Rajen:

Hall Environmental Analysis Laboratory, Inc. received 12 sample(s) on 6/29/2009 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

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

Hall Environmental Analysis Laboratory, Inc. **Date:** *10-Jul-09*

CLIENT: Western Refining Southwest, Gallup
Project: Landfarms Semi-Annual
Lab Order: 0906596

CASE NARRATIVE

Analytical Comments for METHOD 8015DRO_S, SAMPLE 0906596-12A: DNOP not recovered due to dilution

Hall Environmental Analysis Laboratory, Inc.

Date: *10-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	LFOCD-001-062509
Lab Order:	0906596	**Collection Date:**	6/25/2009 1:30:00 PM
Project:	Landfarms Semi-Annual	**Date Received:**	6/29/2009
Lab ID:	0906596-01	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	7/7/2009 5:38:54 PM
Toluene	ND	0.050		mg/Kg	1	7/7/2009 5:38:54 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/7/2009 5:38:54 PM
Xylenes, Total	ND	0.10		mg/Kg	1	7/7/2009 5:38:54 PM
Surr: 4-Bromofluorobenzene	97.4	66.8-139		%REC	1	7/7/2009 5:38:54 PM
EPA METHOD 300.0: ANIONS						Analyst: **TAF**
Chloride	1500	15		mg/Kg	50	7/7/2009 1:29:04 PM
EPA METHOD 418.1: TPH						Analyst: **LRW**
Petroleum Hydrocarbons, TR	72	20		mg/Kg	1	7/1/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *10-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	LFOCD-002-062509
Lab Order:	0906596	**Collection Date:**	6/25/2009 1:45:00 PM
Project:	Landfarms Semi-Annual	**Date Received:**	6/29/2009
Lab ID:	0906596-02	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	7/7/2009 6:09:20 PM
Toluene	ND	0.050		mg/Kg	1	7/7/2009 6:09:20 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/7/2009 6:09:20 PM
Xylenes, Total	ND	0.10		mg/Kg	1	7/7/2009 6:09:20 PM
Surr: 4-Bromofluorobenzene	96.4	66.8-139		%REC	1	7/7/2009 6:09:20 PM
EPA METHOD 300.0: ANIONS						Analyst: **TAF**
Chloride	240	6.0		mg/Kg	20	7/6/2009 6:50:21 PM
EPA METHOD 418.1: TPH						Analyst: **LRW**
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	7/1/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *10-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	LFOCD-003-062509
Lab Order:	0906596	**Collection Date:**	6/25/2009 2:00:00 PM
Project:	Landfarms Semi-Annual	**Date Received:**	6/29/2009
Lab ID:	0906596-03	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **TAF**
Chloride	230	1.5		mg/Kg	5	7/7/2009 1:11:40 PM
EPA METHOD 418.1: TPH						Analyst: **LRW**
Petroleum Hydrocarbons, TR	12000	400		mg/Kg	20	7/1/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *10-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	LFOCD-004-062509
Lab Order:	0906596	**Collection Date:**	6/25/2009 2:15:00 PM
Project:	Landfarms Semi-Annual	**Date Received:**	6/29/2009
Lab ID:	0906596-04	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	7/7/2009 7:10:20 PM
Toluene	ND	0.050		mg/Kg	1	7/7/2009 7:10:20 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/7/2009 7:10:20 PM
Xylenes, Total	ND	0.10		mg/Kg	1	7/7/2009 7:10:20 PM
Surr: 4-Bromofluorobenzene	98.5	66.8-139		%REC	1	7/7/2009 7:10:20 PM
EPA METHOD 300.0: ANIONS						Analyst: **TAF**
Chloride	240	3.0		mg/Kg	10	7/6/2009 7:07:46 PM
EPA METHOD 418.1: TPH						Analyst: **LRW**
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	7/1/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *10-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	LFOCD-005-062509
Lab Order:	*0906596*	**Collection Date:**	6/25/2009 2:30:00 PM
Project:	Landfarms Semi-Annual	**Date Received:**	6/29/2009
Lab ID:	0906596-05	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	7/7/2009 7:40:50 PM
Toluene	ND	0.050		mg/Kg	1	7/7/2009 7:40:50 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/7/2009 7:40:50 PM
Xylenes, Total	ND	0.10		mg/Kg	1	7/7/2009 7:40:50 PM
Surr: 4-Bromofluorobenzene	92.3	66.8-139		%REC	1	7/7/2009 7:40:50 PM
EPA METHOD 300.0: ANIONS						Analyst: **TAF**
Chloride	180	6.0		mg/Kg	20	7/6/2009 11:11:30 PM
EPA METHOD 418.1: TPH						Analyst: **LRW**
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	7/1/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *10-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	LFOCD-006-062509
Lab Order:	0906596	**Collection Date:**	6/25/2009 2:45:00 PM
Project:	Landfarms Semi-Annual	**Date Received:**	6/29/2009
Lab ID:	0906596-06	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	7/7/2009 8:11:23 PM
Toluene	ND	0.050		mg/Kg	1	7/7/2009 8:11:23 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/7/2009 8:11:23 PM
Xylenes, Total	ND	0.10		mg/Kg	1	7/7/2009 8:11:23 PM
Surr: 4-Bromofluorobenzene	91.6	66.8-139		%REC	1	7/7/2009 8:11:23 PM
EPA METHOD 300.0: ANIONS						Analyst: **TAF**
Chloride	240	6.0		mg/Kg	20	7/6/2009 11:28:55 PM
EPA METHOD 418.1: TPH						Analyst: **LRW**
Petroleum Hydrocarbons, TR	180	20		mg/Kg	1	7/1/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *10-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	LFNE-007-062509
Lab Order:	0906596	**Collection Date:**	6/25/2009 3:15:00 PM
Project:	Landfarms Semi-Annual	**Date Received:**	6/29/2009
Lab ID:	0906596-07	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **TAF**
Chloride	140	6.0		mg/Kg	20	7/6/2009 11:46:19 PM
EPA METHOD 418.1: TPH						Analyst: **LRW**
Petroleum Hydrocarbons, TR	240	20		mg/Kg	1	7/1/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *10-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	LFNE-008-062509
Lab Order:	0906596	**Collection Date:**	6/25/2009 3:30:00 PM
Project:	Landfarms Semi-Annual	**Date Received:**	6/29/2009
Lab ID:	0906596-08	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	7/8/2009 2:16:09 AM
Toluene	ND	0.050		mg/Kg	1	7/8/2009 2:16:09 AM
Ethylbenzene	ND	0.050		mg/Kg	1	7/8/2009 2:16:09 AM
Xylenes, Total	ND	0.10		mg/Kg	1	7/8/2009 2:16:09 AM
Surr: 4-Bromofluorobenzene	96.5	66.8-139		%REC	1	7/8/2009 2:16:09 AM
EPA METHOD 300.0: ANIONS						Analyst: **TAF**
Chloride	87	6.0		mg/Kg	20	7/7/2009 12:55:56 AM
EPA METHOD 418.1: TPH						Analyst: **LRW**
Petroleum Hydrocarbons, TR	24	20		mg/Kg	1	7/1/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *10-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	LFNE-009-062509
Lab Order:	*0906596*	**Collection Date:**	*6/25/2009 3:45:00 PM*
Project:	Landfarms Semi-Annual	**Date Received:**	6/29/2009
Lab ID:	0906596-09	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	7/8/2009 2:46:27 AM
Toluene	ND	0.050		mg/Kg	1	7/8/2009 2:46:27 AM
Ethylbenzene	ND	0.050		mg/Kg	1	7/8/2009 2:46:27 AM
Xylenes, Total	ND	0.10		mg/Kg	1	7/8/2009 2:46:27 AM
Surr: 4-Bromofluorobenzene	96.8	66.8-139		%REC	1	7/8/2009 2:46:27 AM
EPA METHOD 300.0: ANIONS						Analyst: **TAF**
Chloride	130	6.0		mg/Kg	20	7/7/2009 1:13:21 AM
EPA METHOD 418.1: TPH						Analyst: **LRW**
Petroleum Hydrocarbons, TR	39	20		mg/Kg	1	7/1/2009

Qualifiers:

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

all Environmental Analysis Laboratory, Inc.

Date: *10-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	LFNE-010-062509
Lab Order:	0906596	**Collection Date:**	6/25/2009 4:00:00 PM
Project:	Landfarms Semi-Annual	**Date Received:**	6/29/2009
Lab ID:	0906596-10	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	7/8/2009 3:17:04 AM
Toluene	ND	0.050		mg/Kg	1	7/8/2009 3:17:04 AM
Ethylbenzene	ND	0.050		mg/Kg	1	7/8/2009 3:17:04 AM
Xylenes, Total	ND	0.10		mg/Kg	1	7/8/2009 3:17:04 AM
Surr: 4-Bromofluorobenzene	90.9	66.8-139		%REC	1	7/8/2009 3:17:04 AM
EPA METHOD 300.0: ANIONS						Analyst: **TAF**
Chloride	150	6.0		mg/Kg	20	7/7/2009 1:30:45 AM
EPA METHOD 418.1: TPH						Analyst: **LRW**
Petroleum Hydrocarbons, TR	36	20		mg/Kg	1	7/1/2009

Qualifiers:

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

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	LFNE-011-062509
Lab Order:	0906596	**Collection Date:**	6/25/2009 4:30:00 PM
Project:	Landfarms Semi-Annual	**Date Received:**	6/29/2009
Lab ID:	0906596-11	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	7/8/2009 3:47:29 AM
Toluene	ND	0.050		mg/Kg	1	7/8/2009 3:47:29 AM
Ethylbenzene	ND	0.050		mg/Kg	1	7/8/2009 3:47:29 AM
Xylenes, Total	ND	0.10		mg/Kg	1	7/8/2009 3:47:29 AM
Surr: 4-Bromofluorobenzene	93.1	66.8-139		%REC	1	7/8/2009 3:47:29 AM
EPA METHOD 300.0: ANIONS						Analyst: **TAF**
Chloride	150	6.0		mg/Kg	20	7/7/2009 1:48:10 AM
EPA METHOD 418.1: TPH						Analyst: **LRW**
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	7/1/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *10-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	RRFOA-001-062509
Lab Order:	0906596	**Collection Date:**	6/25/2009 4:30:00 PM
Project:	Landfarms Semi-Annual	**Date Received:**	6/29/2009
Lab ID:	0906596-12	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	*Units*	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	2900	100		mg/Kg	10	7/6/2009
Motor Oil Range Organics (MRO)	ND	500		mg/Kg	10	7/6/2009
Surr: DNOP	0	61.7-135	S	%REC	10	7/6/2009

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: Landfarms Semi-Annual **Work Order:** 0906596

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 300.0: Anions									
Sample ID: 0906596-04AMSD		*MSD*			Batch ID:	**19543**	Analysis Date:		7/6/2009 7:42:34 PM
Chloride	250.6	mg/Kg	3.0	101	53.9	146	9.04	20	
Sample ID: MB-19525		*MBLK*			Batch ID:	**19525**	Analysis Date:		7/2/2009 9:32:42 AM
Chloride	ND	mg/Kg	0.30						
Sample ID: MB-19543		*MBLK*			Batch ID:	**19543**	Analysis Date:		7/6/2009 6:15:33 PM
Chloride	ND	mg/Kg	0.30						
Sample ID: LCS-19525		*LCS*			Batch ID:	**19525**	Analysis Date:		7/2/2009 9:50:06 AM
Chloride	14.59	mg/Kg	0.30	97.3	90	110			
Sample ID: LCS-19543		*LCS*			Batch ID:	**19543**	Analysis Date:		7/6/2009 6:32:57 PM
Chloride	14.73	mg/Kg	0.30	98.2	90	110			
Sample ID: 0906596-04AMS		*MS*			Batch ID:	**19543**	Analysis Date:		7/6/2009 7:25:10 PM
Chloride	229.0	mg/Kg	3.0	-43.8	53.9	146			S
Method: EPA Method 418.1: TPH									
Sample ID: 0906596-10AMSD		*MSD*			Batch ID:	**19521**	Analysis Date:		7/1/2009
Petroleum Hydrocarbons, TR	127.7	mg/Kg	20	92.0	82	114	1.74	20	
Sample ID: MB-19521		*MBLK*			Batch ID:	**19521**	Analysis Date:		7/1/2009
Petroleum Hydrocarbons, TR	ND	mg/Kg	20						
Sample ID: LCS-19521		*LCS*			Batch ID:	**19521**	Analysis Date:		7/1/2009
Petroleum Hydrocarbons, TR	94.90	mg/Kg	20	94.9	82	114			
Sample ID: 0906596-10AMS		*MS*			Batch ID:	**19521**	Analysis Date:		7/1/2009
Petroleum Hydrocarbons, TR	125.5	mg/Kg	20	89.8	82	114			
Method: EPA Method 8015B: Diesel Range Organics									
Sample ID: MB-19509		*MBLK*			Batch ID:	**19509**	Analysis Date:		7/2/2009
Diesel Range Organics (DRO)	ND	mg/Kg	10						
Motor Oil Range Organics (MRO)	ND	mg/Kg	50						
Sample ID: LCS-19509		*LCS*			Batch ID:	**19509**	Analysis Date:		7/2/2009
Diesel Range Organics (DRO)	54.78	mg/Kg	10	110	64.6	116			
Sample ID: LCSD-19509		*LCSD*			Batch ID:	**19509**	Analysis Date:		7/2/2009
Diesel Range Organics (DRO)	56.89	mg/Kg	10	114	64.6	116	3.77	17.4	

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: Landfarms Semi-Annual **Work Order:** 0906596

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8021B: Volatiles									
Sample ID: MB-19506		*MBLK*			Batch ID:	**19506**	Analysis Date:		7/6/2009 7:08:00 PM
Benzene	ND	mg/Kg	0.050						
Toluene	ND	mg/Kg	0.050						
Ethylbenzene	ND	mg/Kg	0.050						
Xylenes, Total	ND	mg/Kg	0.10						
Sample ID: LCS-19506		*LCS*			Batch ID:	**19506**	Analysis Date:		7/6/2009 6:07:04 PM
Benzene	0.8697	mg/Kg	0.050	85.3	78.8	132			
Toluene	0.8987	mg/Kg	0.050	89.9	78.9	112			
Ethylbenzene	0.9764	mg/Kg	0.050	97.6	69.3	125			
Xylenes, Total	2.908	mg/Kg	0.10	96.9	73	128			
Sample ID: LCSD-19506		*LCSD*			Batch ID:	**19506**	Analysis Date:		7/6/2009 6:37:31 PM
Benzene	0.9850	mg/Kg	0.050	96.9	78.8	132	12.4	27	
Toluene	0.9929	mg/Kg	0.050	99.3	78.9	112	9.96	19	
Ethylbenzene	1.082	mg/Kg	0.050	108	69.3	125	10.2	10	R
Xylenes, Total	3.232	mg/Kg	0.10	108	73	128	10.6	13	

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name WESTERN REFINING GALLU | Date Received: 6/29/2009

Work Order Number 0906596 | Received by: AMF

Checklist completed by: [signature] Signature 6/29/09 Date | Sample ID labels checked by: [initials] Initials

Matrix: | Carrier name: Client drop-off

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☐	Not Shipped ☑
Custody seals intact on sample bottles?	Yes ☑	No ☐	N/A ☐	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		Number of preserved bottles checked for pH:
Water - VOA vials have zero headspace?	No VOA vials submitted ☑	Yes ☐	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☐	No ☐	N/A ☑	
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑	*<2 >12 unless noted below.*
Container/Temp Blank temperature?	**7.5°**	*<6° C Acceptable* If given sufficient time to cool.		

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

Chain-of-Custody Record

Client: WESTERN REFINING

Mailing Address: GALLUP, NM

Phone #: 505 722 3833

email or Fax#:

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

Turn-Around Time:
☑ Standard ☐ Rush

Project Name: LAND FARMS SEMI-ANNUAL

Project #: 09-01

Project Manager: GAURAU RAJEN

Sampler: ALVIN DORSEY/RAJ

On Ice: ☑ Yes ☐ No

Sample Temperature: 1.5

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 0901052	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	BTEX	Chlorides 300.0			Air Bubbles (Y or N)
6/25	1:30	SOIL	LFOCD-001-062509	1 402 GLASS	NONE	1				X								X	X			
6/25	1:45	SOIL	LFOCD-002-062509	"	"	2				X								X	X			
6/25	2:00	"	LFOCD-003-062509			3				X									X			
6/25	2:15	"	LFOCD-004-062509			4				X								X	X			
6/25	2:30	"	LFOCD-005-062509			5				X								X	X			
6/25	2:45	"	LFOCD-006-062509			6				X								X	X			
6/25	3:15	"	LFNE-007-062509			7				X									X			
6/25	3:30	"	LFNE-008-062509			8				X								X	X			
6/25	3:45	"	LFNE-009-062509			9				X								X	X			
6/25	4:00	"	LFNE-010-062509			10				X								X	X			
6/25	4:15	"	LFNE-011-062509			11				X								X	X			
6/25	4:30	"	RRFOA-001-062509			12			X													

Analysis Request

Remarks:

Date:	Time:	Relinquished by:	Received by:	Date	Time
6/29/09	1320			6/29/09	1320
Date:	Time:	Relinquished by:	Received by:	Date	Time

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.

Western Refining Gallup

Air Quality Permit 0633M7-R3 Condition 3s, 4p and 3r

Compliance Determination Method For VOC Emission Limits
MONTHLY SAMPLING BTEX

	IN	OUT	
	ppb benzene	**ppb benzene**	**Gallons (G) TOTAL FLOW/month**
Month	Z84-V7 inlet	Z84-V7 outlet	
Jan-09	36500	6175	937,440
	Z84-V1-2 inlet	Z84-V1-2 outlet	
	6450	4220	9,167,711
Feb-09	Z84-V7 inlet	Z84-V7 outlet	
	26950	12160	937,440
	Z84-V1-2 inlet	Z84-V1-2 outlet	
	7400	1162.5	8,817,392
Mar-09	Z84-V7 inlet	Z84-V7 outlet	
	59650	3450	937,440
	Z84-V1-2 inlet	Z84-V1-2 outlet	
	4475	630	10,136,803
Apr-09	Z84-V7 inlet	Z84-V7 outlet	
	30000	4100	937,440
	Z84-V1-2 inlet	Z84-V1-2 outlet	
	2400	180	9,172,250
May-09	Z84-V7 inlet	Z84-V7 outlet	
	34500	4000	937,440
	Z84-V1-2 inlet	Z84-V1-2 outlet	
	7167	1013	8,591,211
Jun-09	Z84-V7 inlet	Z84-V7 outlet	
	32500	6472.5	937,440
	Z84-V1-2 inlet	Z84-V1-2 outlet	
	4875	1082.5	10,969,408
Jul-09	Z84-V7 inlet	Z84-V7 outlet	
	26750	4320	825,840
	Z84-V1-2 inlet	Z84-V1-2 outlet	
	2760	500	12,008,160
Aug-09	Z84-V7 inlet	Z84-V7 outlet	
	81250	2330	848,160
	Z84-V1-2 inlet	Z84-V1-2 outlet	
	6100	360	11,784,960
Sep-09	Z84-V7 inlet	Z84-V7 outlet	
	40400	3350	741,360
	Z84-V1-2 inlet	Z84-V1-2 outlet	
	5650	262.5	8,441,280
Oct-09	Z84-V7 inlet	Z84-V7 outlet	
	23600	3924	669,600
	Z84-V1-2 inlet	Z84-V1-2 outlet	
	5800	608	9,329,760
Nov-09	Z84-V7 inlet	Z84-V7 outlet	

	21250	2700	950,400
	Z84-V1-2 inlet	Z84-V1-2 outlet	
	11325	755	9,720,000
Dec-09	Z84-V7 inlet	Z84-V7 outlet	
	31800	2036	814,044
	Z84-V1-2 inlet	Z84-V1-2 outlet	
	16000	314	9,925,642

QUARTERLY SAMPLING TOTAL VOC

1st QTR 09	Z84-V7 inlet	Z84-V7 outlet	
	83140	6888	2,812,320
	Z84-V1-2 inlet	Z84-V1-2 outlet	
	24190	10837	**28,121,906**
2nd QTR 09	Z84-V7 inlet	Z84-V7 outlet	
	75010	12529	2,812,320
	Z84-V1-2 inlet	Z84-V1-2 outlet	
	16468	5121	**28,732,869**
3rd QTR 09	Z84-V7 inlet	Z84-V7 outlet	
	102130	36658	2,700,720
	Z84-V1-2 inlet	Z84-V1-2 outlet	
	31463	13061	**32,234,400**
4th QTR 09	Z84-V7 inlet	Z84-V7 outlet	
	128500	34630	2,611,440
	Z84-V1-2 inlet	Z84-V1-2 outlet	
	35680	13934	**28,975,402**

API OIL WATER SEPARATOR Z84-T5 Condition 3.t.

	Z84-T5 Flow (gal)
1st QTR 09	28,121,906
2nd QTR 09	28,732,869
3rd QTR 09	32,234,400
4th QTR 09	28,975,402
	118,064,577

$\frac{28,975,402\ Gal}{365\ Days} \times \frac{Day}{24\ hr} \times \frac{hr}{60\ min}$

$X \sim 3307$ GAL/Hr

$X \sim 55$ GAL/Min.

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Thursday, February 12, 2009

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

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

RE: AL-1, AL-2, EP-1

Order No.: 0901375

Dear Gaurav Rajen:

Hall Environmental Analysis Laboratory, Inc. received 3 sample(s) on 1/28/2009 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

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

Hall Environmental Analysis Laboratory, Inc.

Date: *12-Feb-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL-1 Inlet
Lab Order:	0901375	**Collection Date:**	1/27/2009 9:15:00 AM
Project:	AL-1, AL-2, EP-1	**Date Received:**	1/28/2009
Lab ID:	0901375-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
4-Chloro-3-methylphenol	ND	50		µg/L	1	2/2/2009
2-Chlorophenol	ND	50		µg/L	1	2/2/2009
2,4-Dichlorophenol	ND	100		µg/L	1	2/2/2009
2,4-Dimethylphenol	840	50		µg/L	1	2/2/2009
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	2/2/2009
2,4-Dinitrophenol	ND	100		µg/L	1	2/2/2009
2-Methylphenol	1100	50		µg/L	1	2/2/2009
3+4-Methylphenol	4200	500		µg/L	10	2/2/2009
2-Nitrophenol	ND	50		µg/L	1	2/2/2009
4-Nitrophenol	ND	50		µg/L	1	2/2/2009
Pentachlorophenol	ND	100		µg/L	1	2/2/2009
Phenol	7900	500		µg/L	10	2/2/2009
2,4,5-Trichlorophenol	ND	50		µg/L	1	2/2/2009
2,4,6-Trichlorophenol	ND	50		µg/L	1	2/2/2009
Surr: 2,4,6-Tribromophenol	61.7	16.6-150		%REC	1	2/2/2009
Surr: 2-Fluorobiphenyl	61.4	19.6-134		%REC	1	2/2/2009
Surr: 2-Fluorophenol	46.9	9.54-113		%REC	1	2/2/2009
Surr: 4-Terphenyl-d14	56.9	22.7-145		%REC	1	2/2/2009
Surr: Nitrobenzene-d5	61.7	14.6-134		%REC	1	2/2/2009
Surr: Phenol-d5	43.7	10.7-80.3		%REC	1	2/2/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *12-Feb-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL-2-Inlet
Lab Order:	0901375	**Collection Date:**	1/27/2009 9:25:00 AM
Project:	AL-1, AL-2, EP-1	**Date Received:**	1/28/2009
Lab ID:	0901375-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
4-Chloro-3-methylphenol	ND	50		µg/L	1	2/2/2009
2-Chlorophenol	ND	50		µg/L	1	2/2/2009
2,4-Dichlorophenol	ND	100		µg/L	1	2/2/2009
2,4-Dimethylphenol	350	50		µg/L	1	2/2/2009
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	2/2/2009
2,4-Dinitrophenol	ND	100		µg/L	1	2/2/2009
2-Methylphenol	1000	50		µg/L	1	2/2/2009
3+4-Methylphenol	2400	500		µg/L	10	2/2/2009
2-Nitrophenol	ND	50		µg/L	1	2/2/2009
4-Nitrophenol	ND	50		µg/L	1	2/2/2009
Pentachlorophenol	ND	100		µg/L	1	2/2/2009
Phenol	2500	500		µg/L	10	2/2/2009
2,4,5-Trichlorophenol	ND	50		µg/L	1	2/2/2009
2,4,6-Trichlorophenol	ND	50		µg/L	1	2/2/2009
Surr: 2,4,6-Tribromophenol	49.5	16.6-150		%REC	1	2/2/2009
Surr: 2-Fluorobiphenyl	46.7	19.6-134		%REC	1	2/2/2009
Surr: 2-Fluorophenol	29.8	9.54-113		%REC	1	2/2/2009
Surr: 4-Terphenyl-d14	46.5	22.7-145		%REC	1	2/2/2009
Surr: Nitrobenzene-d5	48.0	14.6-134		%REC	1	2/2/2009
Surr: Phenol-d5	29.1	10.7-80.3		%REC	1	2/2/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *12-Feb-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	EP-1 Inlet
Lab Order:	0901375	**Collection Date:**	1/27/2009 9:35:00 AM
Project:	AL-1, AL-2, EP-1	**Date Received:**	1/28/2009
Lab ID:	0901375-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
4-Chloro-3-methylphenol	ND	50		µg/L	1	2/2/2009
2-Chlorophenol	ND	50		µg/L	1	2/2/2009
2,4-Dichlorophenol	ND	100		µg/L	1	2/2/2009
2,4-Dimethylphenol	380	50		µg/L	1	2/2/2009
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	2/2/2009
2,4-Dinitrophenol	ND	100		µg/L	1	2/2/2009
2-Methylphenol	2200	500		µg/L	10	2/2/2009
3+4-Methylphenol	4700	500		µg/L	10	2/2/2009
2-Nitrophenol	ND	50		µg/L	1	2/2/2009
4-Nitrophenol	ND	50		µg/L	1	2/2/2009
Pentachlorophenol	ND	100		µg/L	1	2/2/2009
Phenol	1500	500		µg/L	10	2/2/2009
2,4,5-Trichlorophenol	ND	50		µg/L	1	2/2/2009
2,4,6-Trichlorophenol	ND	50		µg/L	1	2/2/2009
Surr: 2,4,6-Tribromophenol	61.4	16.6-150		%REC	1	2/2/2009
Surr: 2-Fluorobiphenyl	73.5	19.6-134		%REC	1	2/2/2009
Surr: 2-Fluorophenol	57.4	9.54-113		%REC	1	2/2/2009
Surr: 4-Terphenyl-d14	61.8	22.7-145		%REC	1	2/2/2009
Surr: Nitrobenzene-d5	70.8	14.6-134		%REC	1	2/2/2009
Surr: Phenol-d5	48.6	10.7-80.3		%REC	1	2/2/2009

Qualifiers:

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

Explanation of codes	
B	Analyte Detected in Method Blank
E	Result is Estimated
H	Analyzed Out of Hold Time
N	Tentatively Identified Compound
S	Subcontracted
1-9	See Footnote

HALL ENVIRONMENTAL
attn: ANDY FREEMAN
4901 HAWKINS NE, SUITE D
ALBUQUERQUE NM 87109-4372

STANDARD

Assalgal Analytical Laboratories, Inc.

Certificate of Analysis

All samples are reported on an "as received" basis, unless otherwise noted (i.e. - Dry Weight).

Client: **HALL ENVIRONMENTAL**
Project: **0901375**
Order: **09010690 HAL03** Receipt: **01-28-09**

William P. Biave: President of Assalgal Analytical Laboratories, Inc.

Sample: ***0901375-01B AL-1 INLET*** Collected: *01-27-09 9:15:00* By:
Matrix: ***AQUEOUS***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09010690-001A		**EPA 410.1 Chemical Oxygen Demand**						By: ECC		
WCOD-09-008	WC.2009.410.5	C-004	Chemical Oxygen Demand	3380	mg/L	10	10		02-11-09	02-12-09

Sample: ***0901375-01C AL-1 INLET*** Collected: *01-27-09 9:15:00* By:
Matrix: ***AQUEOUS***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09010690-002A		**EPA 405.1 Biochemical Oxygen Demand**						By: JKG		
WBOD090012	WC.2009.330.11	10-26-4	Biochemical Oxygen Demand	1846	mg/L	1	4		01-29-09	02-03-09

Sample: ***0901375-02B AL-2 INLET*** Collected: *01-27-09 9:25:00* By:
Matrix: ***AQUEOUS***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09010690-003A		**EPA 410.1 Chemical Oxygen Demand**						By: ECC		
WCOD-09-008	WC.2009.410.6	C-004	Chemical Oxygen Demand	3380	mg/L	10	10		02-11-09	02-12-09

Report Date: 2/12/2009 4:47:58 PM

Assalgal Analytical Laboratories, Inc.

Certificate of Analysis

All samples are reported on an "as received" basis, unless otherwise noted (i.e. - Dry Weight).

Client: **HALL ENVIRONMENTAL**
Project: **0901375**
Order: **09010690 HAL03** Receipt: **01-26-09**

Sample: ***0901375-02C AL-2 INLET*** Collected: *01-27-09 9:25:00* By:
Matrix: ***AQUEOUS***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09010690-004A		**EPA 405.1 Biochemical Oxygen Demand**						By: JKG		
WBOD090012	WC.2009.330.12	10-26-4	Biochemical Oxygen Demand	969	mg/L	1	4		01-29-09	02-03-09

Sample: ***0901375-03B EP-1 INLET*** Collected: *01-27-09 9:35:00* By:
Matrix: ***AQUEOUS***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09010690-005A		**EPA 410.1 Chemical Oxygen Demand**						By: ECC		
WCOD-09-008	WC.2009.410.7	C-004	Chemical Oxygen Demand	3110	mg/L	10	10		02-11-09	02-12-09

Sample: ***0901375-03C EP-1 INLET*** Collected: *01-27-09 9:35:00* By:
Matrix: ***AQUEOUS***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09010690-006A		**EPA 405.1 Biochemical Oxygen Demand**						By: JKG		
WBOD090012	WC.2009.330.13	10-26-4	Biochemical Oxygen Demand	1572	mg/L	1	4		01-29-09	02-03-09

Unless otherwise noted, all samples were received in acceptable condition and all sampling was performed by client or client representative. Sample result of ND indicates Not Detected, ie result is less than the sample specific Detection Limit. Sample specific Detection Limit is determined by multiplying the sample Dilution Factor by the listed Reporting Detection Limit. All results relate only to the items tested. Any miscellaneous workorder information or foonotes will appear below.

Analytical results are not corrected for method blank or field blank contamination.

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: AL-1, AL-2, EP-1 **Work Order:** 0901375

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8270C: Semivolatiles									
Sample ID: mb-18194		*MBLK*			Batch ID:	**18194**	Analysis Date:		2/2/2009
4-Chloro-3-methylphenol	ND	µg/L	10						
2-Chlorophenol	ND	µg/L	10						
2,4-Dichlorophenol	ND	µg/L	20						
2,4-Dimethylphenol	ND	µg/L	10						
4,6-Dinitro-2-methylphenol	ND	µg/L	20						
2,4-Dinitrophenol	ND	µg/L	20						
2-Methylphenol	ND	µg/L	10						
3+4-Methylphenol	ND	µg/L	10						
2-Nitrophenol	ND	µg/L	10						
4-Nitrophenol	ND	µg/L	10						
Pentachlorophenol	ND	µg/L	20						
Phenol	ND	µg/L	10						
2,4,5-Trichlorophenol	ND	µg/L	10						
2,4,6-Trichlorophenol	ND	µg/L	10						
Sample ID: lcs-18194		*LCS*			Batch ID:	**18194**	Analysis Date:		2/2/2009
4-Chloro-3-methylphenol	125.2	µg/L	10	62.6	15.4	119			
2-Chlorophenol	114.8	µg/L	10	57.4	12.2	122			
4-Nitrophenol	92.52	µg/L	10	46.3	12.5	87.4			
Pentachlorophenol	144.4	µg/L	20	72.2	3.55	114			
Phenol	74.86	µg/L	10	37.4	7.53	73.1			
Sample ID: lcsd-18194		*LCSD*			Batch ID:	**18194**	Analysis Date:		2/2/2009
4-Chloro-3-methylphenol	127.2	µg/L	10	63.6	15.4	119	1.55	28.6	
2-Chlorophenol	113.1	µg/L	10	56.5	12.2	122	1.56	107	
4-Nitrophenol	96.82	µg/L	10	48.4	12.5	87.4	4.54	36.3	
Pentachlorophenol	153.2	µg/L	20	76.6	3.55	114	5.95	49	
Phenol	75.12	µg/L	10	37.6	7.53	73.1	0.347	52.4	

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name WESTERN REFINING GALLU Date Received: 1/28/2009

Work Order Number 0901375 Received by: ARS

Checklist completed by: _____ 1/28/09 Sample ID labels checked by: TS

Signature Date Initials

Matrix: Carrier name UPS

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	N/A ☑	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Water - VOA vials have zero headspace?	No VOA vials submitted ☑	Yes ☐	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☑	No ☐	N/A ☐	
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐	
Container/Temp Blank temperature?	1°	<6° C *Acceptable* If given sufficient time to cool.		

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

Chain-of-Custody Record

Client: WESTERN-REFINING
GALLUP REFINERY
Mailing Address: RT 3 BOX 9
GALLUP NM 87301
Phone #: 505 722 3833
email or Fax#: 505 722 0210
QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)
☐ Other
☐ EDD (Type)

Turn-Around Time:
☐ Standard ☐ Rush
Project Name: AL-1, AL-2, EP-1
Project #:
Project Manager: GAURAV, RAJEN
Sampler: A. DORSEY
On Ice: ☑ Yes ☐ No
Sample Temperature: 1.5

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 0901575	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals ~~TCLP~~	Anions (F,Cl,NO3,NO2,PO4,SO4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	BOD	COD	8270 PHENOL		Air Bubbles (Y or N)
1-27-09	0915		AL-1 INLET	1-1000mL	—	1												X				
1-27-09	0915		AL-1 INLET	1-500mL	H_2SO_4	1													X			
1-27-09	0915		AL-1 INLET	1-liter	H_2SO_4	1														X		
1-27-09	0925		AL-2 INLET	1-1000mL	—	2												X				
1-27-09	0925		AL-2 INLET	1-500mL	H_2SO_4	2													X			
1-27-09	0925		AL-2 INLET	1-liter	H_2SO_4	2														X		
1-27-09	0935		EP-1 INLET	1-1000mL	—	3												X				
1-27-09	0935		EP-1 INLET	1-500mL	H_2SO_4	3													X			
1-27-09	0935		EP-1 INLET	1-liter	H_2SO_4	3														X		

Analysis Request

Date:	Time:	Relinquished by:	Received by:	Date	Time
1-27-09	12:00			1/28/09	13:00
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

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

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Friday, March 13, 2009

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

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

RE: AL-1, AL-2, EP-1

Order No.: 0902308

Dear Gaurav Rajen:

Hall Environmental Analysis Laboratory, Inc. received 3 sample(s) on 2/27/2009 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

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

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

Hall Environmental Analysis Laboratory, Inc.

Date: *13-Mar-09*

CLIENT: Western Refining Southwest, Gallup
Lab Order: 0902308
Project: AL-1, AL-2, EP-1
Lab ID: 0902308-01

Client Sample ID: AL-1 Inlet
Collection Date: 2/26/2009 7:30:00 AM
Date Received: 2/27/2009
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
4-Chloro-3-methylphenol	ND	50		µg/L	1	3/2/2009
2-Chlorophenol	ND	50		µg/L	1	3/2/2009
2,4-Dichlorophenol	ND	100		µg/L	1	3/2/2009
2,4-Dimethylphenol	66	50		µg/L	1	3/2/2009
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	3/2/2009
2,4-Dinitrophenol	ND	100		µg/L	1	3/2/2009
2-Methylphenol	750	50		µg/L	1	3/2/2009
3+4-Methylphenol	1900	500		µg/L	10	3/2/2009
2-Nitrophenol	ND	50		µg/L	1	3/2/2009
4-Nitrophenol	ND	50		µg/L	1	3/2/2009
Pentachlorophenol	ND	100		µg/L	1	3/2/2009
Phenol	4700	500		µg/L	10	3/2/2009
2,4,5-Trichlorophenol	ND	50		µg/L	1	3/2/2009
2,4,6-Trichlorophenol	ND	50		µg/L	1	3/2/2009
Surr: 2,4,6-Tribromophenol	17.7	16.6-150		%REC	1	3/2/2009
Surr: 2-Fluorobiphenyl	68.3	19.6-134		%REC	1	3/2/2009
Surr: 2-Fluorophenol	12.8	9.54-113		%REC	1	3/2/2009
Surr: 4-Terphenyl-d14	49.8	22.7-145		%REC	1	3/2/2009
Surr: Nitrobenzene-d5	73.1	14.6-134		%REC	1	3/2/2009
Surr: Phenol-d5	24.9	10.7-80.3		%REC	1	3/2/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *13-Mar-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL-2-Inlet
Lab Order:	0902308	**Collection Date:**	2/26/2009 7:55:00 AM
Project:	AL-1, AL-2, EP-1	**Date Received:**	2/27/2009
Lab ID:	0902308-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
4-Chloro-3-methylphenol	ND	50		µg/L	1	3/2/2009
2-Chlorophenol	ND	50		µg/L	1	3/2/2009
2,4-Dichlorophenol	ND	100		µg/L	1	3/2/2009
2,4-Dimethylphenol	ND	50		µg/L	1	3/2/2009
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	3/2/2009
2,4-Dinitrophenol	ND	100		µg/L	1	3/2/2009
2-Methylphenol	1200	50		µg/L	1	3/2/2009
3+4-Methylphenol	2400	500		µg/L	10	3/2/2009
2-Nitrophenol	ND	50		µg/L	1	3/2/2009
4-Nitrophenol	ND	50		µg/L	1	3/2/2009
Pentachlorophenol	ND	100		µg/L	1	3/2/2009
Phenol	5600	500		µg/L	10	3/2/2009
2,4,5-Trichlorophenol	ND	50		µg/L	1	3/2/2009
2,4,6-Trichlorophenol	ND	50		µg/L	1	3/2/2009
Surr: 2,4,6-Tribromophenol	62.7	16.6-150		%REC	1	3/2/2009
Surr: 2-Fluorobiphenyl	67.0	19.6-134		%REC	1	3/2/2009
Surr: 2-Fluorophenol	39.0	9.54-113		%REC	1	3/2/2009
Surr: 4-Terphenyl-d14	61.4	22.7-145		%REC	1	3/2/2009
Surr: Nitrobenzene-d5	69.2	14.6-134		%REC	1	3/2/2009
Surr: Phenol-d5	35.4	10.7-80.3		%REC	1	3/2/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *13-Mar-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	EP-1 Inlet
Lab Order:	0902308	**Collection Date:**	2/26/2009 8:30:00 AM
Project:	AL-1, AL-2, EP-1	**Date Received:**	2/27/2009
Lab ID:	0902308-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
4-Chloro-3-methylphenol	ND	50		µg/L	1	3/3/2009
2-Chlorophenol	ND	50		µg/L	1	3/3/2009
2,4-Dichlorophenol	ND	100		µg/L	1	3/3/2009
2,4-Dimethylphenol	ND	50		µg/L	1	3/3/2009
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	3/3/2009
2,4-Dinitrophenol	ND	100		µg/L	1	3/3/2009
2-Methylphenol	1300	500		µg/L	10	3/2/2009
3+4-Methylphenol	2500	500		µg/L	10	3/2/2009
2-Nitrophenol	ND	50		µg/L	1	3/3/2009
4-Nitrophenol	ND	50		µg/L	1	3/3/2009
Pentachlorophenol	ND	100		µg/L	1	3/3/2009
Phenol	4800	500		µg/L	10	3/2/2009
2,4,5-Trichlorophenol	ND	50		µg/L	1	3/3/2009
2,4,6-Trichlorophenol	ND	50		µg/L	1	3/3/2009
Surr: 2,4,6-Tribromophenol	58.2	16.6-150		%REC	1	3/3/2009
Surr: 2-Fluorobiphenyl	65.5	19.6-134		%REC	1	3/3/2009
Surr: 2-Fluorophenol	44.1	9.54-113		%REC	1	3/3/2009
Surr: 4-Terphenyl-d14	64.8	22.7-145		%REC	1	3/3/2009
Surr: Nitrobenzene-d5	64.5	14.6-134		%REC	1	3/3/2009
Surr: Phenol-d5	38.6	10.7-80.3		%REC	1	3/3/2009

Qualifiers:

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

ASSAIGAI ANALYTICAL LABORATORIES, INC.
4301 Masthead NE • Albuquerque, New Mexico 87109 • (505) 345-8964 • FAX (505) 345-7259

Explanation of codes	
B	Analyte Detected in Method Blank
E	Result is Estimated
H	Analyzed Out of Hold Time
N	Tentatively Identified Compound
S	Subcontracted
1-9	See Footnote

HALL ENVIRONMENTAL
attn: **ANDY FREEMAN**
4901 HAWKINS NE, SUITE D
ALBUQUERQUE NM 87109-4372

STANDARD

Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

All samples are reported on an "as received" basis, unless otherwise noted (i.e. - Dry Weight).

Client: **HALL ENVIRONMENTAL**
Project: **0902308**
Order: **09020615 HAL03** Receipt: **02-27-09**

William P. Blevs: President of Assaigai Analytical Laboratories, Inc.

Sample: ***0902308-01B AL-1 INLET*** Collected: *02-26-09 7:30:00* By:
Matrix: ***AQUEOUS***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09020615-001A		SM 5220C						By: ECC		
WCOD-09-012	WC.2009.597.7	C-004	Chemical Oxygen Demand	871	mg/L	1	10		03-09-09	03-09-09

Sample: ***0902308-01C AL-1 INLET*** Collected: *02-26-09 7:30:00* By:
Matrix: ***AQUEOUS***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09020615-002A		SM 5210B						By: JKG		
BOD090026	WC.2009.561.10	10-26-4	Biochemical Oxygen Demand	488	mg/L	1	4		02-27-09	03-04-09

Sample: ***0902308-02B AL-2-INLET*** Collected: *02-26-09 7:55:00* By:
Matrix: ***AQUEOUS***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09020615-003A		SM 5220C						By: ECC		
WCOD-09-012	WC.2009.597.8	C-004	Chemical Oxygen Demand	1106	mg/L	1	10		03-09-09	03-09-09

ARS ANALYTICAL, LLC

4301 Masthead NE | Albuquerque, New Mexico 87109 505.344.3777 | 505.345.8964

Explanation of codes	
B	Analyte Detected in Method Blank
E	Result Is Estimated
H	Analyzed Out of Hold Time
N	Tentatively Identified Compound
S	Subcontracted
1-9	See Footnote

HALL ENVIRONMENTAL
attn ANDY FREEMAN
4901 HAWKINS NE, SUITE D
ALBUQUERQUE NM 87109-4372

STANDARD

ARS Analytical, LLC

Certificate of Analysis

All samples are reported on an "as received" basis, unless otherwise noted (i.e. - Dry Weight).

Client: **HALL ENVIRONMENTAL**
Project: **0906325**
Order: **09060418 HAL03** Receipt: **06-17-09**

Elvin J. Chavez: President of ARS Analytical, LLC

Sample: ***0906325-01B AL-1 INLET*** Collected: *06-15-09 13:00:00* By:
Matrix: ***AQUEOUS***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09060418-001A		SM 5220C						By: ECC		
COD-09-029	WC.2009.1661.7	C-004	Chemical Oxygen Demand	1447	mg/L	1	10	2	07-28-09	07-28-09
COD-09-030	WC.2009.1699.2	C-004	Chemical Oxygen Demand	928	mg/L	1	10	1,2	07-31-09	07-31-09

Sample: ***0906325-01C AL-1 INLET*** Collected: *06-15-09 13:00:00* By:
Matrix: ***AQUEOUS***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09060418-002A		SM 5210B						By: ECC		
BOD090070	WC.2009.1557.19	10-26-4	Biochemical Oxygen Demand	664	mg/L	1	4		06-17-09	06-23-09

Sample: ***0906325-02B AL-2 INLET*** Collected: *06-15-09 13:20:00* By:
Matrix: ***AQUEOUS***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09060418-003A		SM 5220C						By: ECC		
COD-09-026	WC.2009.1659.17	C-004	Chemical Oxygen Demand	593	mg/L	1	10		07-01-09	07-02-09

ARS Analytical, LLC

Certificate of Analysis

All samples are reported on an "as received" basis, unless otherwise noted (i.e. - Dry Weight).

Client: **HALL ENVIRONMENTAL**

Project: **0906325**

Order: **09060418** **HAL03** Receipt: **06-17-09**

Sample: ***0906325-02C AL-2 INLET*** Collected: *06-15-09 13:20:00* By:

Matrix: ***AQUEOUS***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09060418-004A		SM 5210B						By: ECC		
BOD090070	WC.2009.1557.21	10-26-4	Biochemical Oxygen Demand	328	mg/L	1	4		06-17-09	06-23-09

Sample: ***0906325-03B EP-1 INLET*** Collected: *06-15-09 13:50:00* By:

Matrix: ***AQUEOUS***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09060418-005A		SM 5220C						By: ECC		
COD-09-026	WC.2009.1659.18	C-004	Chemical Oxygen Demand	1309	mg/L	1	10		07-01-09	07-02-09

Sample: ***0906325-03C EP -1 INLET*** Collected: *06-15-09 13:50:00* By:

Matrix: ***AQUEOUS***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09060418-006A		SM 5210B						By: ECC		
BOD090070	WC.2009.1557.20	10-26-4	Biochemical Oxygen Demand	320	mg/L	1	4		06-17-09	06-23-09

Unless otherwise noted, all samples were received in acceptable condition and all sampling was performed by client or client representative. Sample result of ND indicates Not Detected, ie result is less than the sample specific Detection Limit. Sample specific Detection Limit is determined by multiplying the sample Dilution Factor by the listed Reporting Detection Limit. All results relate only to the items tested. Any miscellaneous workorder information or footnotes will appear below.

Analytical results are not corrected for method blank or field blank contamination.

1 The MS/MSD recoveries were outside of QA/QC criteria due to matrix interference. The LCS was within QA/QC criteria, demonstrating accuracy for the method.

2 Heterogeneous sample

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: AL-1, AL-2, EP-I **Work Order:** 0906325

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8270C: Semivolatiles									
Sample ID: mb-19412		*MBLK*			Batch ID:	**19412**	Analysis Date:		6/23/2009
4-Chloro-3-methylphenol	ND	µg/L	10						
2-Chlorophenol	ND	µg/L	10						
2,4-Dichlorophenol	ND	µg/L	20						
2,4-Dimethylphenol	ND	µg/L	10						
4,6-Dinitro-2-methylphenol	ND	µg/L	20						
2,4-Dinitrophenol	ND	µg/L	20						
2-Methylphenol	ND	µg/L	10						
3+4-Methylphenol	ND	µg/L	10						
2-Nitrophenol	ND	µg/L	10						
4-Nitrophenol	ND	µg/L	10						
Pentachlorophenol	ND	µg/L	20						
Phenol	ND	µg/L	10						
2,4,5-Trichlorophenol	ND	µg/L	10						
2,4,6-Trichlorophenol	ND	µg/L	10						
Sample ID: lcs-19412		*LCS*			Batch ID:	**19412**	Analysis Date:		6/23/2009
4-Chloro-3-methylphenol	112.4	µg/L	10	56.2	26.5	101			
2-Chlorophenol	87.28	µg/L	10	43.6	27.5	88.7			
4-Nitrophenol	53.98	µg/L	10	27.0	6.78	74.7			
Pentachlorophenol	86.00	µg/L	20	43.0	14.8	113			
Phenol	55.82	µg/L	10	27.9	17	53.4			
Sample ID: lcsd-19412		*LCSD*			Batch ID:	**19412**	Analysis Date:		6/23/2009
4-Chloro-3-methylphenol	102.7	µg/L	10	51.3	26.5	101	9.00	28.6	
2-Chlorophenol	86.44	µg/L	10	43.2	27.5	88.7	0.967	107	
4-Nitrophenol	63.12	µg/L	10	31.6	6.78	74.7	15.6	36.3	
Pentachlorophenol	93.26	µg/L	20	46.6	14.8	113	8.10	49	
Phenol	54.36	µg/L	10	27.2	17	53.4	2.65	52.4	

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name WESTERN REFINING GALLU | Date Received: 6/17/2009

Work Order Number 0906325 | Received by: TLS

Checklist completed by: _____ Signature | 6/17/09 Date | Sample ID labels checked by: _____ Initials

Matrix: | Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	N/A ☑	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		Number of preserved bottles checked for pH:
Water - VOA vials have zero headspace? No VOA vials submitted ☑		Yes ☐	No ☐	3
Water - Preservation labels on bottle and cap match?	Yes ☑	No ☐	N/A ☐	
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐	(<2) >12 unless noted below.
Container/Temp Blank temperature?	10.3°	<6° C Acceptable If given sufficient time to cool.		

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

Chain-of-Custody Record

Client: WESTERN-REFINING
Gallup Refinery
Mailing Address: RT 3 Box 9
Gallup NM 87301
Phone #: 505 722 3833
email or Fax#: 505 722 0210

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

Turn-Around Time:
☐ Standard ☐ Rush

Project Name: AL-1, AL-2 EP-1
Project #:

Project Manager: GAURAV, RAJEN
Sampler: ALVIN DORSEY
On Ice: ☑ Yes ☐ No
Sample Temperature: 10.3

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 0906522	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	BOD	COD	8270 PHENOL		Air Bubbles (Y or N)
06-15-09	1300	Ag	AL-1 Inlet	1000mL-1		1												X				
06-15-09	1300		AL-1 Inlet	1-500mL		1													X			
06-15-09	1300		AL-1 Inlet	1-liter		1														X		
06-15-09	1320		AL-2 Inlet	1-1000mL		2												X				
06-15-09	1320		AL-2 Inlet	1-500mL		2													X			
06-15-09	1320		AL-2 Inlet	1-liter		2														X		
06-15-09	1350		EP-1 Inlet	1-1000mL		3												X				
06-15-09	1350		EP-1 Inlet	1-500mL		3													X			
06-15-09	1350		EP-1 Inlet	1-liter		3														X		

Date	Time	Relinquished by	Received by	Date	Time
06-16-09	1200	Alvin R			
				6/17/09	915

Remarks:

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

1st Qtr OW

COVER LETTER

Tuesday, March 03, 2009

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

TEL: (505) 722-0227
FAX (505) 722-0210

RE: 1st QTR 2009 OW Wells

Order No.: 0902288

Dear Gaurav Rajen:

Hall Environmental Analysis Laboratory, Inc. received 4 sample(s) on 2/26/2009 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

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

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

Hall Environmental Analysis Laboratory, Inc.

Date: *03-Mar-09*

CLIENT: Western Refining Southwest, Gallup
Project: 1st QTR 2009 OW Wells
Lab Order: 0902288

Lab ID: 0902288-01 **Collection Date:** 2/23/2009 10:00:00 AM
Client Sample ID: OW-30 **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Methyl tert-butyl ether (MTBE)	1000	130		µg/L	50	3/2/2009 2:53:26 PM
Benzene	ND	1.0		µg/L	1	2/28/2009 7:21:05 AM
Toluene	ND	1.0		µg/L	1	2/28/2009 7:21:05 AM
Ethylbenzene	ND	1.0		µg/L	1	2/28/2009 7:21:05 AM
Xylenes, Total	ND	2.0		µg/L	1	2/28/2009 7:21:05 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	2/28/2009 7:21:05 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	2/28/2009 7:21:05 AM
Surr: 4-Bromofluorobenzene	90.3	65.9-130		%REC	1	2/28/2009 7:21:05 AM

Lab ID: 0902288-02 **Collection Date:** 2/23/2009 12:00:00 PM
Client Sample ID: OW-14 **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Methyl tert-butyl ether (MTBE)	1000	130		µg/L	50	3/2/2009 3:26:40 PM
Benzene	13	1.0		µg/L	1	2/28/2009 7:51:29 AM
Toluene	1.4	1.0		µg/L	1	2/28/2009 7:51:29 AM
Ethylbenzene	5.5	1.0		µg/L	1	2/28/2009 7:51:29 AM
Xylenes, Total	ND	2.0		µg/L	1	2/28/2009 7:51:29 AM
1,2,4-Trimethylbenzene	1.6	1.0		µg/L	1	2/28/2009 7:51:29 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	2/28/2009 7:51:29 AM
Surr: 4-Bromofluorobenzene	106	65.9-130		%REC	1	2/28/2009 7:51:29 AM

Lab ID: 0902288-03 **Collection Date:** 2/24/2009 11:00:00 AM
Client Sample ID: OW-13 **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	3/2/2009 3:57:17 PM
Benzene	ND	1.0		µg/L	1	3/2/2009 3:57:17 PM
Toluene	ND	1.0		µg/L	1	3/2/2009 3:57:17 PM
Ethylbenzene	ND	1.0		µg/L	1	3/2/2009 3:57:17 PM
Xylenes, Total	ND	2.0		µg/L	1	3/2/2009 3:57:17 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	3/2/2009 3:57:17 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	3/2/2009 3:57:17 PM
Surr: 4-Bromofluorobenzene	85.7	65.9-130		%REC	1	3/2/2009 3:57:17 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *03-Mar-09*

CLIENT: Western Refining Southwest, Gallup
Project: 1st QTR 2009 OW Wells
Lab Order: 0902288

Lab ID: 0902288-04
Client Sample ID: OW-29
Collection Date: 2/25/2009 9:32:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **DAM**
Methyl tert-butyl ether (MTBE)	21	2.5		µg/L	1	2/28/2009 8:52:29 AM
Benzene	ND	1.0		µg/L	1	2/28/2009 8:52:29 AM
Toluene	ND	1.0		µg/L	1	2/28/2009 8:52:29 AM
Ethylbenzene	ND	1.0		µg/L	1	2/28/2009 8:52:29 AM
Xylenes, Total	ND	2.0		µg/L	1	2/28/2009 8:52:29 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	2/28/2009 8:52:29 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	2/28/2009 8:52:29 AM
Surr: 4-Bromofluorobenzene	89.1	65.9-130		%REC	1	2/28/2009 8:52:29 AM

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 1st QTR 2009 OW Wells **Work Order:** 0902288

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8021B: Volatiles									
Sample ID: 5ML RB		*MBLK*			Batch ID: **R32612**		Analysis Date:	2/27/2009 9:29:45 AM	
Methyl tert-butyl ether (MTBE)	ND	µg/L	2.5						
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
1,2,4-Trimethylbenzene	ND	µg/L	1.0						
1,3,5-Trimethylbenzene	ND	µg/L	1.0						
Sample ID: 100NG BTEX LCS		*LCS*			Batch ID: **R32612**		Analysis Date:	3/2/2009 12:18:16 PM	
Methyl tert-butyl ether (MTBE)	20.61	µg/L	2.5	103	51.2	138			
Benzene	18.34	µg/L	1.0	91.7	85.9	113			
Toluene	18.55	µg/L	1.0	92.8	86.4	113			
Ethylbenzene	19.05	µg/L	1.0	95.3	83.5	118			
Xylenes, Total	58.64	µg/L	2.0	97.7	83.4	122			
1,2,4-Trimethylbenzene	18.39	µg/L	1.0	92.0	83.5	115			
1,3,5-Trimethylbenzene	18.81	µg/L	1.0	94.1	85.2	113			

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name WESTERN REFINING GALLU Date Received: 2/26/2009

Work Order Number 0902288 Received by: ARS

Checklist completed by: Signature 2/26/09 Date Sample ID labels checked by: Initials

Matrix: Carrier name: UPS

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☑	No ☐	N/A ☐	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☑	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☐	No ☐	N/A ☑	
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑	
Container/Temp Blank temperature?	3°	<6° C *Acceptable* If given sufficient time to cool.		

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: Per CJ collection date for OW-30 & OW-14 is 2/23/09

AT 3/2/09

Corrective Action _____

Chain-of-Custody Record

Client: Western Refining Gallup Refinery

Mailing Address: Rt 3 Box 7 Gallup, NM 87301

Phone #: 505 722 3833

email or Fax#: 505 722 0210

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

Turn-Around Time:
☒ Standard ☐ Rush

Project Name: 1st QTR 2009 OW wells

Project #:

Project Manager: G. Rajen

Sampler: Cheryl Johnson

On Ice: ☒ Yes ☐ No

Sample Temperature: 3

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 0902288	BTEX + MTBE + TMB's (8021)B	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)				Air Bubbles (Y or N)
AT 3/2/09 23																					
2/22/09	1000	Aqueous	OW-30	3 VOA	HCl	1	X														
2/23	1200	"	OW-14	3 VOA	HCl	2															
2/24/09	1100	"	OW-13	3 VOA	HCl	3															
2/25	0932	"	OW-29	3 VOA	HCl	4															

Date:	Time:	Relinquished by:	Received by:	Date	Time
2/25/09	1045				
Date:	Time:	Relinquished by:	Received by:	2/26/09	10:10

Remarks: 8021B +MTBE

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

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Tuesday, April 21, 2009

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

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

RE: 2009 1st QTR

Order No.: 0903415

Dear Gaurav Rajen:

Hall Environmental Analysis Laboratory, Inc. received 4 sample(s) on 3/26/2009 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

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

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

Hall Environmental Analysis Laboratory, Inc.

Date: *21-Apr-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	NAPIS-1
Lab Order:	0903415	**Collection Date:**	3/24/2009 2:00:00 PM
Project:	2009 1st QTR	**Date Received:**	3/26/2009
Lab ID:	0903415-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **SCC**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	3/30/2009
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/30/2009
Surr: DNOP	116	58-140		%REC	1	3/30/2009
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **DAM**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	3/31/2009 4:32:48 PM
Surr: BFB	87.5	59.9-122		%REC	1	3/31/2009 4:32:48 PM
EPA METHOD 8021B: VOLATILES						Analyst: **DAM**
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	3/31/2009 4:32:48 PM
Benzene	ND	1.0		µg/L	1	3/31/2009 4:32:48 PM
Toluene	1.0	1.0		µg/L	1	3/31/2009 4:32:48 PM
Ethylbenzene	ND	1.0		µg/L	1	3/31/2009 4:32:48 PM
Xylenes, Total	ND	2.0		µg/L	1	3/31/2009 4:32:48 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	3/31/2009 4:32:48 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	3/31/2009 4:32:48 PM
Surr: 4-Bromofluorobenzene	92.3	65.9-130		%REC	1	3/31/2009 4:32:48 PM
EPA METHOD 8310: PAHS						Analyst: **DMG**
Naphthalene	ND	2.0		µg/L	1	4/3/2009 5:45:00 PM
1-Methylnaphthalene	ND	2.0		µg/L	1	4/3/2009 5:45:00 PM
2-Methylnaphthalene	ND	2.0		µg/L	1	4/3/2009 5:45:00 PM
Acenaphthylene	ND	2.5		µg/L	1	4/3/2009 5:45:00 PM
Acenaphthene	ND	5.0		µg/L	1	4/3/2009 5:45:00 PM
Fluorene	ND	0.80		µg/L	1	4/3/2009 5:45:00 PM
Phenanthrene	ND	0.60		µg/L	1	4/3/2009 5:45:00 PM
Anthracene	ND	0.60		µg/L	1	4/3/2009 5:45:00 PM
Fluoranthene	ND	0.30		µg/L	1	4/3/2009 5:45:00 PM
Pyrene	ND	0.30		µg/L	1	4/3/2009 5:45:00 PM
Benz(a)anthracene	ND	0.070		µg/L	1	4/3/2009 5:45:00 PM
Chrysene	ND	0.20		µg/L	1	4/3/2009 5:45:00 PM
Benzo(b)fluoranthene	ND	0.10		µg/L	1	4/3/2009 5:45:00 PM
Benzo(k)fluoranthene	ND	0.070		µg/L	1	4/3/2009 5:45:00 PM
Benzo(a)pyrene	ND	0.070		µg/L	1	4/3/2009 5:45:00 PM
Dibenz(a,h)anthracene	ND	0.070		µg/L	1	4/3/2009 5:45:00 PM
Benzo(g,h,i)perylene	ND	0.080		µg/L	1	4/3/2009 5:45:00 PM
Indeno(1,2,3-cd)pyrene	ND	0.080		µg/L	1	4/3/2009 5:45:00 PM
Surr: Benzo(e)pyrene	66.4	44.8-104		%REC	1	4/3/2009 5:45:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **IC**
Fluoride	0.69	0.10		mg/L	1	3/26/2009 11:31:28 PM
Chloride	120	1.0		mg/L	10	3/26/2009 11:48:53 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *21-Apr-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	NAPIS-1
Lab Order:	0903415	**Collection Date:**	3/24/2009 2:00:00 PM
Project:	2009 1st QTR	**Date Received:**	3/26/2009
Lab ID:	0903415-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **IC**
Nitrate (As N)+Nitrite (As N)	ND	1.0		mg/L	5	4/19/2009 5:57:43 AM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	3/26/2009 11:31:28 PM
Sulfate	38	0.50		mg/L	1	3/26/2009 11:31:28 PM
EPA METHOD 7470: MERCURY						Analyst: **SNV**
Mercury	ND	0.00020		mg/L	1	4/6/2009 5:29:17 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **NMO**
Arsenic	ND	0.020		mg/L	1	4/6/2009 11:53:56 AM
Barium	0.10	0.020		mg/L	1	4/6/2009 11:53:56 AM
Cadmium	ND	0.0020		mg/L	1	4/6/2009 11:53:56 AM
Calcium	67	1.0		mg/L	1	4/6/2009 11:53:56 AM
Chromium	ND	0.0060		mg/L	1	4/6/2009 11:53:56 AM
Lead	ND	0.0050		mg/L	1	4/6/2009 11:53:56 AM
Magnesium	12	1.0		mg/L	1	4/6/2009 11:53:56 AM
Potassium	ND	1.0		mg/L	1	4/6/2009 11:53:56 AM
Selenium	ND	0.25		mg/L	5	4/8/2009 8:27:38 AM
Silver	ND	0.0050		mg/L	1	4/6/2009 11:53:56 AM
Sodium	340	10		mg/L	10	4/6/2009 12:43:06 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **NSB**
Specific Conductance	2000	0.010		µmhos/cm	1	3/27/2009
SM4500-H+B: PH						Analyst: **NSB**
pH	7.69	0.1		pH units	1	3/28/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *21-Apr-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	NAPIS-2
Lab Order:	0903415	**Collection Date:**	3/24/2009 2:15:00 PM
Project:	2009 1st QTR	**Date Received:**	3/26/2009
Lab ID:	0903415-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **SCC**
Diesel Range Organics (DRO)	4.3	1.0		mg/L	1	3/30/2009
Motor Oil Range Organics (MRO)	5.1	5.0		mg/L	1	3/30/2009
Surr: DNOP	118	58-140		%REC	1	3/30/2009
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **DAM**
Gasoline Range Organics (GRO)	0.37	0.050		mg/L	1	4/2/2009 11:34:12 AM
Surr: BFB	101	59.9-122		%REC	1	4/2/2009 11:34:12 AM
EPA METHOD 8021B: VOLATILES						Analyst: **DAM**
Methyl tert-butyl ether (MTBE)	90	25		µg/L	10	3/31/2009 5:03:20 PM
Benzene	19	1.0		µg/L	1	4/2/2009 11:34:12 AM
Toluene	1.1	1.0		µg/L	1	4/2/2009 11:34:12 AM
Ethylbenzene	8.1	1.0		µg/L	1	4/2/2009 11:34:12 AM
Xylenes, Total	ND	2.0		µg/L	1	4/2/2009 11:34:12 AM
1,2,4-Trimethylbenzene	2.0	1.0		µg/L	1	4/2/2009 11:34:12 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	4/2/2009 11:34:12 AM
Surr: 4-Bromofluorobenzene	91.9	65.9-130		%REC	1	4/2/2009 11:34:12 AM
EPA METHOD 8310: PAHS						Analyst: **DMG**
Naphthalene	ND	4.0		µg/L	1	4/3/2009 6:05:00 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	4/3/2009 6:05:00 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	4/3/2009 6:05:00 PM
Acenaphthylene	ND	5.0		µg/L	1	4/3/2009 6:05:00 PM
Acenaphthene	ND	10		µg/L	1	4/3/2009 6:05:00 PM
Fluorene	ND	1.6		µg/L	1	4/3/2009 6:05:00 PM
Phenanthrene	ND	1.2		µg/L	1	4/3/2009 6:05:00 PM
Anthracene	ND	1.2		µg/L	1	4/3/2009 6:05:00 PM
Fluoranthene	ND	0.60		µg/L	1	4/3/2009 6:05:00 PM
Pyrene	ND	0.60		µg/L	1	4/3/2009 6:05:00 PM
Benz(a)anthracene	ND	0.14		µg/L	1	4/3/2009 6:05:00 PM
Chrysene	ND	0.40		µg/L	1	4/3/2009 6:05:00 PM
Benzo(b)fluoranthene	ND	0.20		µg/L	1	4/3/2009 6:05:00 PM
Benzo(k)fluoranthene	ND	0.14		µg/L	1	4/3/2009 6:05:00 PM
Benzo(a)pyrene	ND	0.14		µg/L	1	4/3/2009 6:05:00 PM
Dibenz(a,h)anthracene	ND	0.14		µg/L	1	4/3/2009 6:05:00 PM
Benzo(g,h,i)perylene	ND	0.16		µg/L	1	4/3/2009 6:05:00 PM
Indeno(1,2,3-cd)pyrene	ND	0.16		µg/L	1	4/3/2009 6:05:00 PM
Surr: Benzo(e)pyrene	64.6	44.8-104		%REC	1	4/3/2009 6:05:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **IC**
Fluoride	1.5	0.10		mg/L	1	3/27/2009 12:06:17 AM
Chloride	240	1.0		mg/L	10	3/27/2009 12:23:43 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *21-Apr-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	NAPIS-2
Lab Order:	0903415	**Collection Date:**	3/24/2009 2:15:00 PM
Project:	2009 1st QTR	**Date Received:**	3/26/2009
Lab ID:	0903415-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **IC**
Nitrate (As N)+Nitrite (As N)	ND	1.0		mg/L	5	4/19/2009 6:32:33 AM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	3/27/2009 12:06:17 AM
Sulfate	23	0.50		mg/L	1	3/27/2009 12:06:17 AM
EPA METHOD 7470: MERCURY						Analyst: **SNV**
Mercury	ND	0.00020		mg/L	1	4/6/2009 5:31:02 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **NMO**
Arsenic	ND	0.020		mg/L	1	4/6/2009 11:58:19 AM
Barium	0.76	0.020		mg/L	1	4/6/2009 11:58:19 AM
Cadmium	ND	0.0020		mg/L	1	4/6/2009 11:58:19 AM
Calcium	53	1.0		mg/L	1	4/6/2009 11:58:19 AM
Chromium	ND	0.0060		mg/L	1	4/6/2009 11:58:19 AM
Lead	ND	0.0050		mg/L	1	4/6/2009 11:58:19 AM
Magnesium	10	1.0		mg/L	1	4/6/2009 11:58:19 AM
Potassium	ND	1.0		mg/L	1	4/6/2009 11:58:19 AM
Selenium	ND	0.25		mg/L	5	4/8/2009 8:30:48 AM
Silver	ND	0.0050		mg/L	1	4/6/2009 11:58:19 AM
Sodium	280	10		mg/L	10	4/6/2009 12:45:52 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **NSB**
Specific Conductance	1800	0.010		µmhos/cm	1	3/27/2009
SM4500-H+B: PH						Analyst: **NSB**
pH	7.47	0.1		pH units	1	3/28/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *21-Apr-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	KA-3
Lab Order:	0903415	**Collection Date:**	3/25/2009 8:15:00 AM
Project:	2009 1st QTR	**Date Received:**	3/26/2009
Lab ID:	0903415-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **SCC**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	3/30/2009
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/30/2009
Surr: DNOP	113	58-140		%REC	1	3/30/2009
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **DAM**
Gasoline Range Organics (GRO)	0.18	0.050		mg/L	1	3/31/2009 5:33:56 PM
Surr: BFB	86.1	59.9-122		%REC	1	3/31/2009 5:33:56 PM
EPA METHOD 8021B: VOLATILES						Analyst: **DAM**
Methyl tert-butyl ether (MTBE)	110	25		µg/L	10	4/2/2009 2:07:02 PM
Benzene	ND	1.0		µg/L	1	3/31/2009 5:33:56 PM
Toluene	ND	1.0		µg/L	1	3/31/2009 5:33:56 PM
Ethylbenzene	ND	1.0		µg/L	1	3/31/2009 5:33:56 PM
Xylenes, Total	ND	2.0		µg/L	1	3/31/2009 5:33:56 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	3/31/2009 5:33:56 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	3/31/2009 5:33:56 PM
Surr: 4-Bromofluorobenzene	89.4	65.9-130		%REC	1	3/31/2009 5:33:56 PM
EPA METHOD 8310: PAHS						Analyst: **DMG**
Naphthalene	ND	2.0		µg/L	1	4/3/2009 6:25:00 PM
1-Methylnaphthalene	ND	2.0		µg/L	1	4/3/2009 6:25:00 PM
2-Methylnaphthalene	ND	2.0		µg/L	1	4/3/2009 6:25:00 PM
Acenaphthylene	ND	2.5		µg/L	1	4/3/2009 6:25:00 PM
Acenaphthene	ND	5.0		µg/L	1	4/3/2009 6:25:00 PM
Fluorene	ND	0.80		µg/L	1	4/3/2009 6:25:00 PM
Phenanthrene	ND	0.60		µg/L	1	4/3/2009 6:25:00 PM
Anthracene	ND	0.60		µg/L	1	4/3/2009 6:25:00 PM
Fluoranthene	ND	0.30		µg/L	1	4/3/2009 6:25:00 PM
Pyrene	ND	0.30		µg/L	1	4/3/2009 6:25:00 PM
Benz(a)anthracene	ND	0.070		µg/L	1	4/3/2009 6:25:00 PM
Chrysene	ND	0.20		µg/L	1	4/3/2009 6:25:00 PM
Benzo(b)fluoranthene	ND	0.10		µg/L	1	4/3/2009 6:25:00 PM
Benzo(k)fluoranthene	ND	0.070		µg/L	1	4/3/2009 6:25:00 PM
Benzo(a)pyrene	ND	0.070		µg/L	1	4/3/2009 6:25:00 PM
Dibenz(a,h)anthracene	ND	0.070		µg/L	1	4/3/2009 6:25:00 PM
Benzo(g,h,i)perylene	ND	0.080		µg/L	1	4/3/2009 6:25:00 PM
Indeno(1,2,3-cd)pyrene	ND	0.080		µg/L	1	4/3/2009 6:25:00 PM
Surr: Benzo(e)pyrene	57.2	44.8-104		%REC	1	4/3/2009 6:25:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **IC**
Fluoride	1.5	0.10		mg/L	1	3/26/2009 10:56:39 PM
Chloride	340	1.0		mg/L	10	3/26/2009 11:14:04 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *21-Apr-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	KA-3
Lab Order:	0903415	**Collection Date:**	3/25/2009 8:15:00 AM
Project:	2009 1st QTR	**Date Received:**	3/26/2009
Lab ID:	0903415-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **IC**
Nitrogen, Nitrite (As N)	ND	1.0		mg/L	10	3/26/2009 11:14:04 PM
Nitrogen, Nitrate (As N)	0.90	0.10		mg/L	1	3/26/2009 10:56:39 PM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	3/26/2009 10:56:39 PM
Sulfate	76	0.50		mg/L	1	3/26/2009 10:56:39 PM
EPA METHOD 7470: MERCURY						Analyst: **SNV**
Mercury	ND	0.00020		mg/L	1	4/6/2009 5:32:49 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **NMO**
Arsenic	ND	0.020		mg/L	1	4/8/2009 8:56:41 AM
Barium	0.22	0.020		mg/L	1	4/8/2009 8:56:41 AM
Cadmium	ND	0.0020		mg/L	1	4/8/2009 8:56:41 AM
Calcium	67	1.0		mg/L	1	4/8/2009 8:56:41 AM
Chromium	ND	0.0060		mg/L	1	4/8/2009 8:56:41 AM
Lead	0.0055	0.0050		mg/L	1	4/8/2009 8:56:41 AM
Magnesium	10	1.0		mg/L	1	4/8/2009 8:56:41 AM
Potassium	ND	1.0		mg/L	1	4/8/2009 8:56:41 AM
Selenium	ND	0.050		mg/L	1	4/11/2009 4:23:03 PM
Silver	ND	0.0050		mg/L	1	4/8/2009 8:56:41 AM
Sodium	360	10		mg/L	10	4/8/2009 12:01:26 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **NSB**
Specific Conductance	2400	0.010		µmhos/cm	1	3/27/2009
SM4500-H+B: PH						Analyst: **NSB**
pH	7.64	0.1		pH units	1	3/28/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *21-Apr-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	NAPIS-3
Lab Order:	0903415	**Collection Date:**	3/25/2009 7:45:00 AM
Project:	2009 1st QTR	**Date Received:**	3/26/2009
Lab ID:	0903415-04	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	3/30/2009
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/30/2009
Surr: DNOP	118	58-140		%REC	1	3/30/2009
EPA METHOD 8015B: GASOLINE RANGE						Analyst: DAM
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	3/31/2009 6:04:30 PM
Surr: BFB	90.7	59.9-122		%REC	1	3/31/2009 6:04:30 PM
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	3/31/2009 6:04:30 PM
Benzene	ND	1.0		µg/L	1	3/31/2009 6:04:30 PM
Toluene	ND	1.0		µg/L	1	3/31/2009 6:04:30 PM
Ethylbenzene	ND	1.0		µg/L	1	3/31/2009 6:04:30 PM
Xylenes, Total	ND	2.0		µg/L	1	3/31/2009 6:04:30 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	3/31/2009 6:04:30 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	3/31/2009 6:04:30 PM
Surr: 4-Bromofluorobenzene	98.9	65.9-130		%REC	1	3/31/2009 6:04:30 PM
EPA METHOD 8310: PAHS						Analyst: DMG
Naphthalene	ND	2.0		µg/L	1	4/3/2009 6:46:00 PM
1-Methylnaphthalene	ND	2.0		µg/L	1	4/3/2009 6:46:00 PM
2-Methylnaphthalene	ND	2.0		µg/L	1	4/3/2009 6:46:00 PM
Acenaphthylene	ND	2.5		µg/L	1	4/3/2009 6:46:00 PM
Acenaphthene	ND	5.0		µg/L	1	4/3/2009 6:46:00 PM
Fluorene	ND	0.80		µg/L	1	4/3/2009 6:46:00 PM
Phenanthrene	ND	0.60		µg/L	1	4/3/2009 6:46:00 PM
Anthracene	ND	0.60		µg/L	1	4/3/2009 6:46:00 PM
Fluoranthene	ND	0.30		µg/L	1	4/3/2009 6:46:00 PM
Pyrene	ND	0.30		µg/L	1	4/3/2009 6:46:00 PM
Benz(a)anthracene	ND	0.070		µg/L	1	4/3/2009 6:46:00 PM
Chrysene	ND	0.20		µg/L	1	4/3/2009 6:46:00 PM
Benzo(b)fluoranthene	ND	0.10		µg/L	1	4/3/2009 6:46:00 PM
Benzo(k)fluoranthene	ND	0.070		µg/L	1	4/3/2009 6:46:00 PM
Benzo(a)pyrene	ND	0.070		µg/L	1	4/3/2009 6:46:00 PM
Dibenz(a,h)anthracene	ND	0.070		µg/L	1	4/3/2009 6:46:00 PM
Benzo(g,h,i)perylene	ND	0.080		µg/L	1	4/3/2009 6:46:00 PM
Indeno(1,2,3-cd)pyrene	ND	0.080		µg/L	1	4/3/2009 6:46:00 PM
Surr: Benzo(e)pyrene	57.4	44.8-104		%REC	1	4/3/2009 6:46:00 PM
EPA METHOD 300.0: ANIONS						Analyst: IC
Fluoride	0.43	0.10		mg/L	1	3/26/2009 10:21:50 PM
Chloride	1200	5.0		mg/L	50	4/19/2009 7:07:22 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *21-Apr-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	NAPIS-3
Lab Order:	0903415	**Collection Date:**	3/25/2009 7:45:00 AM
Project:	2009 1st QTR	**Date Received:**	3/26/2009
Lab ID:	0903415-04	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **IC**
Nitrogen, Nitrite (As N)	ND	1.0		mg/L	10	3/26/2009 10:39:14 PM
Nitrogen, Nitrate (As N)	14	0.10		mg/L	1	3/26/2009 10:21:50 PM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	3/26/2009 10:21:50 PM
Sulfate	340	5.0		mg/L	10	3/26/2009 10:39:14 PM
EPA METHOD 7470: MERCURY						Analyst: **SNV**
Mercury	ND	0.00020		mg/L	1	4/6/2009 5:34:36 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **NMO**
Arsenic	ND	0.020		mg/L	1	4/8/2009 9:01:13 AM
Barium	0.13	0.020		mg/L	1	4/8/2009 9:01:13 AM
Cadmium	ND	0.0020		mg/L	1	4/8/2009 9:01:13 AM
Calcium	47	1.0		mg/L	1	4/8/2009 9:01:13 AM
Chromium	ND	0.0060		mg/L	1	4/8/2009 9:01:13 AM
Lead	ND	0.0050		mg/L	1	4/8/2009 9:01:13 AM
Magnesium	6.5	1.0		mg/L	1	4/8/2009 9:01:13 AM
Potassium	3.9	1.0		mg/L	1	4/8/2009 9:01:13 AM
Selenium	ND	0.050		mg/L	1	4/11/2009 4:28:15 PM
Silver	ND	0.0050		mg/L	1	4/8/2009 9:01:13 AM
Sodium	880	10		mg/L	10	4/8/2009 12:04:08 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **NSB**
Specific Conductance	5200	0.010		µmhos/cm	1	3/27/2009
SM4500-H+B: PH						Analyst: **NSB**
pH	8.11	0.1		pH units	1	3/28/2009

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 1st QTR **Work Order:** 0903415

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 300.0: Anions									
Sample ID: MB		*MBLK*			Batch ID:	**R32985**	Analysis Date:	3/26/2009 11:20:19 AM	
Fluoride	ND	mg/L	0.10						
Chloride	ND	mg/L	0.10						
Nitrogen, Nitrite (As N)	ND	mg/L	0.10						
Nitrogen, Nitrate (As N)	ND	mg/L	0.10						
Nitrate (As N)+Nitrite (As N)	ND	mg/L	0.20						
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50						
Sulfate	ND	mg/L	0.50						
Sample ID: MB		*MBLK*			Batch ID:	**R32985**	Analysis Date:	3/27/2009 1:15:57 AM	
Fluoride	ND	mg/L	0.10						
Chloride	ND	mg/L	0.10						
Nitrogen, Nitrite (As N)	ND	mg/L	0.10						
Nitrogen, Nitrate (As N)	ND	mg/L	0.10						
Nitrate (As N)+Nitrite (As N)	ND	mg/L	0.20						
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50						
Sulfate	ND	mg/L	0.50						
Sample ID: MB-2		*MBLK*			Batch ID:	**R32985**	Analysis Date:	3/27/2009 9:58:09 AM	
Fluoride	ND	mg/L	0.10						
Chloride	ND	mg/L	0.10						
Nitrogen, Nitrite (As N)	ND	mg/L	0.10						
Nitrogen, Nitrate (As N)	ND	mg/L	0.10						
Nitrate (As N)+Nitrite (As N)	ND	mg/L	0.20						
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50						
Sulfate	ND	mg/L	0.50						
Sample ID: MB		*MBLK*			Batch ID:	**R33317**	Analysis Date:	4/18/2009 7:13:34 PM	
Fluoride	ND	mg/L	0.10						
Chloride	ND	mg/L	0.10						
Nitrogen, Nitrite (As N)	ND	mg/L	0.10						
Nitrogen, Nitrate (As N)	ND	mg/L	0.10						
Nitrate (As N)+Nitrite (As N)	ND	mg/L	0.20						
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50						
Sulfate	ND	mg/L	0.50						
Sample ID: LCS		*LCS*			Batch ID:	**R32985**	Analysis Date:	3/26/2009 11:37:43 AM	
Fluoride	0.5332	mg/L	0.10	107	90	110			
Chloride	5.231	mg/L	0.10	105	90	110			
Nitrogen, Nitrite (As N)	0.9374	mg/L	0.10	93.7	90	110			
Nitrogen, Nitrate (As N)	2.670	mg/L	0.10	107	90	110			
Nitrate (As N)+Nitrite (As N)	3.608	mg/L	0.20	103	90	110			
Phosphorus, Orthophosphate (As P)	5.417	mg/L	0.50	108	90	110			
Sulfate	10.67	mg/L	0.50	107	90	110			
Sample ID: LCS		*LCS*			Batch ID:	**R32985**	Analysis Date:	3/27/2009 1:33:22 AM	
Fluoride	0.5740	mg/L	0.10	115	90	110			S
Chloride	5.344	mg/L	0.10	107	90	110			
Nitrogen, Nitrite (As N)	1.151	mg/L	0.10	115	90	110			S

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 1st QTR **Work Order:** 0903415

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 300.0: Anions									
Sample ID: LCS		*LCS*			Batch ID: **R32985**		Analysis Date:		3/27/2009 1:33:22 AM
Nitrogen, Nitrate (As N)	2.605	mg/L	0.10	104	90	110			
Nitrate (As N)+Nitrite (As N)	3.757	mg/L	0.20	107	90	110			
Phosphorus, Orthophosphate (As P)	5.545	mg/L	0.50	111	90	110			S
Sulfate	10.89	mg/L	0.50	109	90	110			
Sample ID: LCS-2		*LCS*			Batch ID: **R32985**		Analysis Date:		3/27/2009 10:15:34 AM
Fluoride	0.5105	mg/L	0.10	102	90	110			
Chloride	5.202	mg/L	0.10	104	90	110			
Nitrogen, Nitrite (As N)	1.136	mg/L	0.10	114	90	110			S
Nitrogen, Nitrate (As N)	2.555	mg/L	0.10	102	90	110			
Nitrate (As N)+Nitrite (As N)	3.690	mg/L	0.20	105	90	110			
Phosphorus, Orthophosphate (As P)	5.363	mg/L	0.50	107	90	110			
Sulfate	10.50	mg/L	0.50	105	90	110			
Sample ID: LCS		*LCS*			Batch ID: **R33317**		Analysis Date:		4/18/2009 7:30:59 PM
Fluoride	0.5255	mg/L	0.10	105	90	110			
Chloride	5.284	mg/L	0.10	106	90	110			
Nitrogen, Nitrite (As N)	0.9148	mg/L	0.10	91.5	90	110			
Nitrogen, Nitrate (As N)	2.736	mg/L	0.10	109	90	110			
Nitrate (As N)+Nitrite (As N)	3.651	mg/L	0.20	104	90	110			
Phosphorus, Orthophosphate (As P)	5.280	mg/L	0.50	106	90	110			
Sulfate	10.39	mg/L	0.50	104	90	110			
Method: EPA Method 8015B: Diesel Range									
Sample ID: MB-18665		*MBLK*			Batch ID: **18665**		Analysis Date:		3/30/2009
Diesel Range Organics (DRO)	ND	mg/L	1.0						
Motor Oil Range Organics (MRO)	ND	mg/L	5.0						
Sample ID: LCS-18665		*LCS*			Batch ID: **18665**		Analysis Date:		3/30/2009
Diesel Range Organics (DRO)	6.364	mg/L	1.0	127	74	157			
Sample ID: LCSD-18665		*LCSD*			Batch ID: **18665**		Analysis Date:		3/30/2009
Diesel Range Organics (DRO)	5.941	mg/L	1.0	119	74	157	6.88	23	
Method: EPA Method 8015B: Gasoline Range									
Sample ID: 5ML RB		*MBLK*			Batch ID: **R33032**		Analysis Date:		3/31/2009 8:24:28 AM
Gasoline Range Organics (GRO)	ND	mg/L	0.050						
Sample ID: 5ML RB		*MBLK*			Batch ID: **R33070**		Analysis Date:		4/2/2009 8:00:37 AM
Gasoline Range Organics (GRO)	ND	mg/L	0.050						
Sample ID: 2.5UG GRO LCS		*LCS*			Batch ID: **R33032**		Analysis Date:		3/31/2009 6:35:10 PM
Gasoline Range Organics (GRO)	0.5046	mg/L	0.050	101	80	115			
Sample ID: 2.5UG GRO LCS		*LCS*			Batch ID: **R33070**		Analysis Date:		4/3/2009 3:19:09 AM
Gasoline Range Organics (GRO)	0.5306	mg/L	0.050	106	80	115			
Sample ID: 2.5UG GRO LCSD		*LCSD*			Batch ID: **R33070**		Analysis Date:		4/3/2009 3:49:28 AM
Gasoline Range Organics (GRO)	0.4966	mg/L	0.050	99.3	80	115	6.62	8.39	

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 1st QTR **Work Order:** 0903415

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8021B: Volatiles									
Sample ID: 0903415-01A MSD		*MSD*			Batch ID:	**R33032**	Analysis Date:		4/1/2009 4:50:28 AM
Methyl tert-butyl ether (MTBE)	22.74	µg/L	2.5	111	51.2	138	2.83	28	
Benzene	20.74	µg/L	1.0	103	85.9	113	4.08	27	
Toluene	21.82	µg/L	1.0	104	86.4	113	7.06	19	
Ethylbenzene	20.38	µg/L	1.0	102	83.5	118	6.24	10	
Xylenes, Total	60.46	µg/L	2.0	101	83.4	122	5.45	13	
1,2,4-Trimethylbenzene	20.45	µg/L	1.0	102	83.5	115	6.52	21	
1,3,5-Trimethylbenzene	19.31	µg/L	1.0	96.6	85.2	113	6.17	10	
Sample ID: 5ML RB		*MBLK*			Batch ID:	**R33032**	Analysis Date:		3/31/2009 8:24:28 AM
Methyl tert-butyl ether (MTBE)	ND	µg/L	2.5						
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
1,2,4-Trimethylbenzene	ND	µg/L	1.0						
1,3,5-Trimethylbenzene	ND	µg/L	1.0						
Sample ID: 100NG BTEX LCS		*LCS*			Batch ID:	**R33032**	Analysis Date:		3/31/2009 7:05:44 PM
Methyl tert-butyl ether (MTBE)	21.76	µg/L	2.5	109	51.2	138			
Benzene	20.44	µg/L	1.0	102	85.9	113			
Toluene	21.64	µg/L	1.0	108	86.4	113			
Ethylbenzene	20.91	µg/L	1.0	105	83.5	118			
Xylenes, Total	62.94	µg/L	2.0	105	83.4	122			
1,2,4-Trimethylbenzene	20.51	µg/L	1.0	103	83.5	115			
1,3,5-Trimethylbenzene	20.58	µg/L	1.0	102	85.2	113			
Sample ID: 0903415-01A MS		*MS*			Batch ID:	**R33032**	Analysis Date:		4/1/2009 4:19:46 AM
Methyl tert-butyl ether (MTBE)	23.39	µg/L	2.5	115	51.2	138			
Benzene	21.60	µg/L	1.0	107	85.9	113			
Toluene	23.42	µg/L	1.0	112	86.4	113			
Ethylbenzene	21.69	µg/L	1.0	108	83.5	118			
Xylenes, Total	63.85	µg/L	2.0	106	83.4	122			
1,2,4-Trimethylbenzene	21.83	µg/L	1.0	109	83.5	115			
1,3,5-Trimethylbenzene	20.54	µg/L	1.0	103	85.2	113			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 1st QTR **Work Order:** 0903415

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8310: PAHs									
Sample ID: MB-18692		*MBLK*			Batch ID: **18692**		Analysis Date:	4/3/2009 12:11:00 PM	
Naphthalene	ND	µg/L	2.0						
1-Methylnaphthalene	ND	µg/L	2.0						
2-Methylnaphthalene	ND	µg/L	2.0						
Acenaphthylene	ND	µg/L	2.5						
Acenaphthene	ND	µg/L	5.0						
Fluorene	ND	µg/L	0.80						
Phenanthrene	ND	µg/L	0.60						
Anthracene	ND	µg/L	0.60						
Fluoranthene	ND	µg/L	0.30						
Pyrene	ND	µg/L	0.30						
Benz(a)anthracene	ND	µg/L	0.070						
Chrysene	ND	µg/L	0.20						
Benzo(b)fluoranthene	ND	µg/L	0.10						
Benzo(k)fluoranthene	ND	µg/L	0.070						
Benzo(a)pyrene	ND	µg/L	0.070						
Dibenz(a,h)anthracene	ND	µg/L	0.070						
Benzo(g,h,i)perylene	ND	µg/L	0.080						
Indeno(1,2,3-cd)pyrene	ND	µg/L	0.080						
Sample ID: LCS-18692		*LCS*			Batch ID: **18692**		Analysis Date:	4/3/2009 12:31:00 PM	
Naphthalene	53.74	µg/L	2.0	67.2	31.5	90.7			
1-Methylnaphthalene	59.57	µg/L	2.0	74.3	32.5	93.3			
2-Methylnaphthalene	53.93	µg/L	2.0	67.4	32.8	89.6			
Acenaphthylene	60.98	µg/L	2.5	76.0	37.8	92.4			
Acenaphthene	63.42	µg/L	5.0	79.3	38.6	93.9			
Fluorene	4.710	µg/L	0.80	58.7	38	95.5			
Phenanthrene	2.990	µg/L	0.60	68.9	32.9	107			
Anthracene	2.880	µg/L	0.60	71.6	35.2	98.3			
Fluoranthene	5.800	µg/L	0.30	72.3	36.4	104			
Pyrene	5.050	µg/L	0.30	63.0	37.1	102			
Benz(a)anthracene	0.6300	µg/L	0.070	78.6	33.7	101			
Chrysene	3.000	µg/L	0.20	74.6	35.2	96.1			
Benzo(b)fluoranthene	0.7600	µg/L	0.10	75.8	33.6	94.2			
Benzo(k)fluoranthene	0.4000	µg/L	0.070	80.0	25.4	110			
Benzo(a)pyrene	0.3600	µg/L	0.070	71.7	26.9	102			
Dibenz(a,h)anthracene	0.7600	µg/L	0.070	75.8	40.7	92.1			
Benzo(g,h,i)perylene	0.7500	µg/L	0.080	70.0	24.3	109			
Indeno(1,2,3-cd)pyrene	1.530	µg/L	0.080	76.3	42.6	99.9			
Method: EPA Method 7470: Mercury									
Sample ID: MB-18742		*MBLK*			Batch ID: **18742**		Analysis Date:	4/6/2009 4:49:48 PM	
Mercury	ND	mg/L	0.00020						
Sample ID: LCS-18742		*LCS*			Batch ID: **18742**		Analysis Date:	4/6/2009 4:51:33 PM	
Mercury	0.005181	mg/L	0.00020	104	80	120			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 1st QTR **Work Order:** 0903415

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA 6010B: Total Recoverable Metals									
Sample ID: 0903415-04DMSD		*MSD*			Batch ID:	**18724**	Analysis Date:		4/8/2009 9:09:47 AM
Arsenic	0.5299	mg/L	0.020	106	75	125	1.65	20	
Barium	0.5860	mg/L	0.010	91.6	75	125	1.95	20	
Cadmium	0.4713	mg/L	0.0020	94.3	75	125	0.671	20	
Calcium	93.51	mg/L	0.50	93.3	75	125	3.59	20	
Chromium	0.4795	mg/L	0.0060	95.3	75	125	1.18	20	
Lead	0.4857	mg/L	0.0050	96.2	75	125	0.458	20	
Magnesium	53.12	mg/L	0.50	93.3	75	125	3.04	20	
Potassium	53.27	mg/L	1.0	98.8	75	125	2.79	20	
Silver	0.4767	mg/L	0.0050	95.2	75	125	2.37	20	
Sample ID: MBLK-18664		*MBLK*			Batch ID:	**18664**	Analysis Date:		4/6/2009 9:48:02 AM
Arsenic	ND	mg/L	0.020						
Barium	ND	mg/L	0.010						
Cadmium	ND	mg/L	0.0020						
Calcium	ND	mg/L	0.50						
Chromium	ND	mg/L	0.0060						
Lead	0.01354	mg/L	0.0050						B
Magnesium	ND	mg/L	0.50						
Potassium	ND	mg/L	1.0						
Selenium	ND	mg/L	0.050						
Silver	ND	mg/L	0.0050						
Sodium	ND	mg/L	0.50						
Sample ID: MB-18724		*MBLK*			Batch ID:	**18724**	Analysis Date:		4/8/2009 8:34:03 AM
Arsenic	ND	mg/L	0.020						
Barium	ND	mg/L	0.010						
Cadmium	ND	mg/L	0.0020						
Calcium	ND	mg/L	0.50						
Chromium	ND	mg/L	0.0060						
Lead	ND	mg/L	0.0050						
Magnesium	ND	mg/L	0.50						
Potassium	ND	mg/L	1.0						
Selenium	ND	mg/L	0.050						
Silver	ND	mg/L	0.0050						
Sodium	ND	mg/L	0.50						
Sample ID: LCS-18664		*LCS*			Batch ID:	**18664**	Analysis Date:		4/6/2009 9:51:16 AM
Arsenic	0.5031	mg/L	0.020	101	80	120			
Barium	0.4865	mg/L	0.010	97.3	80	120			
Cadmium	0.4949	mg/L	0.0020	99.0	80	120			
Calcium	50.36	mg/L	0.50	101	80	120			
Chromium	0.4955	mg/L	0.0060	99.1	80	120			
Lead	0.4870	mg/L	0.0050	94.7	80	120			B
Magnesium	50.90	mg/L	0.50	102	80	120			
Potassium	54.93	mg/L	1.0	110	80	120			
Selenium	0.4940	mg/L	0.050	98.8	80	120			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 1st QTR **Work Order:** 0903415

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA 6010B: Total Recoverable Metals									
Sample ID: LCS-18664		*LCS*			Batch ID:	**18664**	Analysis Date:		4/6/2009 9:51:16 AM
Silver	0.4909	mg/L	0.0050	98.2	80	120			
Sodium	54.90	mg/L	0.50	110	80	120			
Sample ID: LCS-18724		*LCS*			Batch ID:	**18724**	Analysis Date:		4/8/2009 8:36:30 AM
Arsenic	0.5519	mg/L	0.020	110	80	120			
Barium	0.5002	mg/L	0.010	100	80	120			
Cadmium	0.5107	mg/L	0.0020	102	80	120			
Calcium	50.14	mg/L	0.50	100	80	120			
Chromium	0.5241	mg/L	0.0060	105	80	120			
Lead	0.5378	mg/L	0.0050	108	80	120			
Magnesium	48.11	mg/L	0.50	96.2	80	120			
Potassium	50.32	mg/L	1.0	101	80	120			
Selenium	0.5100	mg/L	0.050	102	80	120			
Silver	0.5056	mg/L	0.0050	101	80	120			
Sodium	50.16	mg/L	0.50	100	80	120			
Sample ID: LCS-18664		*LCSD*			Batch ID:	**18664**	Analysis Date:		4/6/2009 9:54:43 AM
Arsenic	0.4943	mg/L	0.020	98.9	80	120	1.76	20	
Barium	0.4935	mg/L	0.010	98.7	80	120	1.43	20	
Cadmium	0.4938	mg/L	0.0020	98.8	80	120	0.215	20	
Calcium	49.66	mg/L	0.50	99.3	80	120	1.40	20	
Chromium	0.4958	mg/L	0.0060	99.2	80	120	0.0708	20	
Lead	0.4893	mg/L	0.0050	95.2	80	120	0.485	20	B
Magnesium	50.23	mg/L	0.50	100	80	120	1.32	20	
Potassium	54.00	mg/L	1.0	108	80	120	1.71	20	
Selenium	0.4947	mg/L	0.050	98.9	80	120	0.133	20	
Silver	0.4960	mg/L	0.0050	99.2	80	120	1.03	20	
Sodium	53.75	mg/L	0.50	108	80	120	2.11	20	
Sample ID: 0903415-04DMS		*MS*			Batch ID:	**18724**	Analysis Date:		4/8/2009 9:05:25 AM
Arsenic	0.5387	mg/L	0.020	108	75	125			
Barium	0.5975	mg/L	0.010	93.9	75	125			
Cadmium	0.4745	mg/L	0.0020	94.9	75	125			
Calcium	96.93	mg/L	0.50	100	75	125			
Chromium	0.4852	mg/L	0.0060	96.5	75	125			
Lead	0.4879	mg/L	0.0050	96.7	75	125			
Magnesium	54.76	mg/L	0.50	96.5	75	125			
Potassium	54.77	mg/L	1.0	102	75	125			
Silver	0.4881	mg/L	0.0050	97.4	75	125			

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name WESTERN REFINING GALLU Date Received: 3/26/2009

Work Order Number 0903415 Received by: ARS

Checklist completed by: _____ 3/26/09 Sample ID labels checked by: _____

Signature Date Initials

Matrix: Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐ Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☑	No ☐	N/A ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☑	No ☐
Water - Preservation labels on bottle and cap match?	Yes ☑	No ☐	N/A ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐
Container/Temp Blank temperature?	3°	*<6° C Acceptable* If given sufficient time to cool.	

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

Chain-of-Custody Record

Client: Western Refining
Gallup Refinery
Mailing Address: Rt 3 Box 7
Gallup NM 87301
Phone #: 505 722 3833
email or Fax#: 505 722 0210

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

Turn-Around Time:
☒ Standard ☐ Rush _____

Project Name: 2009 1st QTR
Project #: NAPIS
Project Manager: G. Rajen
Sampler: C Johnson
On Ice: ☒ Yes ☐ No
Sample Temperature: 3

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 0903111	BTEX + MTBE + TMB's (8021B)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals 6010	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Gen Chem				Air Bubbles (Y or N)
3/24/09	1400	Aqueous	NAPIS-1	3-VOA's	HCl	1	X															
				3-VOA's	HCl	1			X													
				1-500ml	HNO_3	1							X									
				1L Amber	None	1						X										
				1-500ml	None	1												X				
				1-500ml	H_2SO_4	1												X				
				1-500ml	HNO_3	1												X				
3/24/09	1415		NAPIS-2	3-VOA	HCl	2	X															
				3 VOA	HCl	2			X													
				1-500ml	HNO_3	2							X									
				1L	None	2						X										
				1 500ml	None	2												X				

Date: 3/25/09 Time: Relinquished by:
Received by: Date: 3/26/09 Time: 9:25

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

Remarks: Gen Chem - anions, pH, ec, cations
MT 3/24/09

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.

Chain-of-Custody Record

Client: Western Refining Gallup Refinery
Mailing Address: Rt 3 Box 7 Gallup NM 87301
Phone #: 505 722 3833
email or Fax#: 505 722 0210
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
☐ Other
☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: 2009 1st QTR
Project #: NAPIS
Project Manager: G. Rajen
Sampler: CJohnson
On Ice: ☒ Yes ☐ No
Sample Temperature: 3

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No 0903415	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Gen Chem				Air Bubbles (Y or N)
3/24/09	1415	Aqueous	NAPIS-2	1-500ml	H_2SO_4	2												X				
3/24/09	1415		NAPIS-2	1-500ml	HNO_3	2												X				
3-25-09	0815		KA-3	3-VOA	HCl	3	X															
				3-VOA	HCl	3			X													
				1-500ml	HNO_3	3							X									
				1-L	None	3						X										
				1-500ml	None	3												X				
				1-500ml	H_2SO_4	3												X				
				1-500ml	HNO_3	3												X				

Date	Time	Relinquished by:	Received by:	Date	Time
032509	1200			3/26/09	9:25
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

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

Chain-of-Custody Record

Client: Western Refining Gallup Refinery

Mailing Address: Rt 3 Box 7 Gallup ~~Refn~~ NM

Phone #: 505 722 3833

email or Fax#: 505 722 0210

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

Turn-Around Time:
☒ Standard ☐ Rush

Project Name: 2009 1st QTR

Project #: NAPIS

Project Manager: G. Rajen

Sampler: C. Johnson

On Ice: ☒ Yes ☐ No

Sample Temperature: 3

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No 0903115	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Gen-Chem				Air Bubbles (Y or N)
3/25/09	0945	Aqueous	NAPIS-3	3-VOA	HCl	4	X															
				3-VOA	HCl	4			X													
				1-500ml	HNO_3	4							X									
				1L	None	4						X										
				1-500ml	None	4												X				
				1-500ml	H_2SO_4	4												X				
				1-500ml	HNO_3	4												X				

Date	Time	Relinquished by:	Received by:	Date	Time
3/25/09	1200			3/26/09	9:25
Date	Time	Relinquished by:	Received by:	Date	Time

Remarks:

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

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Friday, April 17, 2009

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

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

RE: Quarterly Water Sample 1st Qtr 2009

Order No.: 0904003

Dear Gaurav Rajen:

Hall Environmental Analysis Laboratory, Inc. received 4 sample(s) on 4/1/2009 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

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

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

CLIENT: Western Refining Southwest, Gallup
Project: Quarterly Water Sample 1st Qtr 2009
Lab Order: 0904003

CASE NARRATIVE

"S" flags denote that the surrogate was not recoverable due to sample dilution or matrix interferences.

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Apr-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL-2-EP-1
Lab Order:	0904003	**Collection Date:**	3/31/2009 8:30:00 AM
Project:	Quarterly Water Sample 1st Qtr 2009	**Date Received:**	4/1/2009
Lab ID:	0904003-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **SCC**
Diesel Range Organics (DRO)	76	10		mg/L	10	4/2/2009
Motor Oil Range Organics (MRO)	57	50		mg/L	10	4/2/2009
Surr: DNOP	135	58-140		%REC	10	4/2/2009
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **DAM**
Gasoline Range Organics (GRO)	0.63	0.50		mg/L	10	4/7/2009 1:11:56 PM
Surr: BFB	106	59.9-122		%REC	10	4/7/2009 1:11:56 PM
EPA METHOD 7470: MERCURY						Analyst: **MMS**
Mercury	0.0032	0.00020		mg/L	1	4/13/2009 5:27:55 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **NMO**
Arsenic	0.024	0.020		mg/L	1	4/8/2009 9:28:53 AM
Barium	0.099	0.020		mg/L	1	4/8/2009 9:28:53 AM
Cadmium	ND	0.0020		mg/L	1	4/8/2009 9:28:53 AM
Chromium	0.016	0.0060		mg/L	1	4/8/2009 9:28:53 AM
Lead	0.0064	0.0050		mg/L	1	4/8/2009 9:28:53 AM
Selenium	ND	0.050		mg/L	1	4/11/2009 3:51:50 PM
Silver	ND	0.0050		mg/L	1	4/8/2009 9:28:53 AM
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
Benzene	ND	5.0		µg/L	5	4/6/2009 3:57:25 PM
Toluene	ND	5.0		µg/L	5	4/6/2009 3:57:25 PM
Ethylbenzene	ND	5.0		µg/L	5	4/6/2009 3:57:25 PM
Methyl tert-butyl ether (MTBE)	ND	5.0		µg/L	5	4/6/2009 3:57:25 PM
1,2,4-Trimethylbenzene	22	5.0		µg/L	5	4/6/2009 3:57:25 PM
1,3,5-Trimethylbenzene	5.8	5.0		µg/L	5	4/6/2009 3:57:25 PM
1,2-Dichloroethane (EDC)	ND	5.0		µg/L	5	4/6/2009 3:57:25 PM
1,2-Dibromoethane (EDB)	ND	5.0		µg/L	5	4/6/2009 3:57:25 PM
Naphthalene	50	10		µg/L	5	4/6/2009 3:57:25 PM
1-Methylnaphthalene	170	20		µg/L	5	4/6/2009 3:57:25 PM
2-Methylnaphthalene	240	20		µg/L	5	4/6/2009 3:57:25 PM
Acetone	930	100		µg/L	10	4/7/2009 8:48:18 AM
Bromobenzene	ND	5.0		µg/L	5	4/6/2009 3:57:25 PM
Bromodichloromethane	ND	5.0		µg/L	5	4/6/2009 3:57:25 PM
Bromoform	ND	5.0		µg/L	5	4/6/2009 3:57:25 PM
Bromomethane	ND	5.0		µg/L	5	4/6/2009 3:57:25 PM
2-Butanone	ND	50		µg/L	5	4/6/2009 3:57:25 PM
Carbon disulfide	ND	50		µg/L	5	4/6/2009 3:57:25 PM
Carbon Tetrachloride	ND	5.0		µg/L	5	4/6/2009 3:57:25 PM
Chlorobenzene	ND	5.0		µg/L	5	4/6/2009 3:57:25 PM
Chloroethane	ND	10		µg/L	5	4/6/2009 3:57:25 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Apr-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL-2-EP-1
Lab Order:	0904003	**Collection Date:**	3/31/2009 8:30:00 AM
Project:	Quarterly Water Sample 1st Qtr 2009	**Date Received:**	4/1/2009
Lab ID:	0904003-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Chloroform	ND	5.0		µg/L	5	4/6/2009 3:57:25 PM
Chloromethane	ND	5.0		µg/L	5	4/6/2009 3:57:25 PM
2-Chlorotoluene	ND	5.0		µg/L	5	4/6/2009 3:57:25 PM
4-Chlorotoluene	ND	5.0		µg/L	5	4/6/2009 3:57:25 PM
cis-1,2-DCE	ND	5.0		µg/L	5	4/6/2009 3:57:25 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	5	4/6/2009 3:57:25 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	5	4/6/2009 3:57:25 PM
Dibromochloromethane	ND	5.0		µg/L	5	4/6/2009 3:57:25 PM
Dibromomethane	ND	5.0		µg/L	5	4/6/2009 3:57:25 PM
1,2-Dichlorobenzene	ND	5.0		µg/L	5	4/6/2009 3:57:25 PM
1,3-Dichlorobenzene	ND	5.0		µg/L	5	4/6/2009 3:57:25 PM
1,4-Dichlorobenzene	ND	5.0		µg/L	5	4/6/2009 3:57:25 PM
Dichlorodifluoromethane	ND	5.0		µg/L	5	4/6/2009 3:57:25 PM
1,1-Dichloroethane	ND	5.0		µg/L	5	4/6/2009 3:57:25 PM
1,1-Dichloroethene	ND	5.0		µg/L	5	4/6/2009 3:57:25 PM
1,2-Dichloropropane	ND	5.0		µg/L	5	4/6/2009 3:57:25 PM
1,3-Dichloropropane	ND	5.0		µg/L	5	4/6/2009 3:57:25 PM
2,2-Dichloropropane	ND	10		µg/L	5	4/6/2009 3:57:25 PM
1,1-Dichloropropene	ND	5.0		µg/L	5	4/6/2009 3:57:25 PM
Hexachlorobutadiene	ND	5.0		µg/L	5	4/6/2009 3:57:25 PM
2-Hexanone	ND	50		µg/L	5	4/6/2009 3:57:25 PM
Isopropylbenzene	ND	5.0		µg/L	5	4/6/2009 3:57:25 PM
4-Isopropyltoluene	ND	5.0		µg/L	5	4/6/2009 3:57:25 PM
4-Methyl-2-pentanone	ND	50		µg/L	5	4/6/2009 3:57:25 PM
Methylene Chloride	ND	15		µg/L	5	4/6/2009 3:57:25 PM
n-Butylbenzene	7.9	5.0		µg/L	5	4/6/2009 3:57:25 PM
n-Propylbenzene	ND	5.0		µg/L	5	4/6/2009 3:57:25 PM
sec-Butylbenzene	ND	5.0		µg/L	5	4/6/2009 3:57:25 PM
Styrene	ND	5.0		µg/L	5	4/6/2009 3:57:25 PM
tert-Butylbenzene	ND	5.0		µg/L	5	4/6/2009 3:57:25 PM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	5	4/6/2009 3:57:25 PM
1,1,2,2-Tetrachloroethane	ND	10		µg/L	5	4/6/2009 3:57:25 PM
Tetrachloroethene (PCE)	ND	5.0		µg/L	5	4/6/2009 3:57:25 PM
trans-1,2-DCE	ND	5.0		µg/L	5	4/6/2009 3:57:25 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	5	4/6/2009 3:57:25 PM
1,2,3-Trichlorobenzene	ND	5.0		µg/L	5	4/6/2009 3:57:25 PM
1,2,4-Trichlorobenzene	ND	5.0		µg/L	5	4/6/2009 3:57:25 PM
1,1,1-Trichloroethane	ND	5.0		µg/L	5	4/6/2009 3:57:25 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	5	4/6/2009 3:57:25 PM
Trichloroethene (TCE)	ND	5.0		µg/L	5	4/6/2009 3:57:25 PM
Trichlorofluoromethane	ND	5.0		µg/L	5	4/6/2009 3:57:25 PM
1,2,3-Trichloropropane	ND	10		µg/L	5	4/6/2009 3:57:25 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Apr-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL-2-EP-1
Lab Order:	0904003	**Collection Date:**	3/31/2009 8:30:00 AM
Project:	Quarterly Water Sample 1st Qtr 2009	**Date Received:**	4/1/2009
Lab ID:	0904003-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Vinyl chloride	ND	5.0		µg/L	5	4/6/2009 3:57:25 PM
Xylenes, Total	30	7.5		µg/L	5	4/6/2009 3:57:25 PM
Surr: 1,2-Dichloroethane-d4	88.8	68.1-123		%REC	5	4/6/2009 3:57:25 PM
Surr: 4-Bromofluorobenzene	110	53.2-145		%REC	5	4/6/2009 3:57:25 PM
Surr: Dibromofluoromethane	84.2	68.5-119		%REC	5	4/6/2009 3:57:25 PM
Surr: Toluene-d8	90.8	64-131		%REC	5	4/6/2009 3:57:25 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Apr-09*

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EP1
Lab Order: 0904003
Collection Date: 3/31/2009 9:10:00 AM
Project: Quarterly Water Sample 1st Qtr 2009
Date Received: 4/1/2009
Lab ID: 0904003-02
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **SCC**
Diesel Range Organics (DRO)	28	1.0		mg/L	1	4/2/2009
Motor Oil Range Organics (MRO)	8.2	5.0		mg/L	1	4/2/2009
Surr: DNOP	126	58-140		%REC	1	4/2/2009
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **DAM**
Gasoline Range Organics (GRO)	ND	0.50		mg/L	10	4/7/2009 1:42:28 PM
Surr: BFB	94.5	59.9-122		%REC	10	4/7/2009 1:42:28 PM
EPA METHOD 300.0: ANIONS						Analyst: **RAGS**
Chloride	370	1.0		mg/L	10	4/1/2009 10:52:46 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
4-Chloro-3-methylphenol	ND	100		µg/L	1	4/10/2009
2-Chlorophenol	ND	50		µg/L	1	4/10/2009
2,4-Dichlorophenol	ND	50		µg/L	1	4/10/2009
2,4-Dimethylphenol	140	50		µg/L	1	4/10/2009
4,6-Dinitro-2-methylphenol	ND	250		µg/L	1	4/10/2009
2,4-Dinitrophenol	ND	250		µg/L	1	4/10/2009
2-Methylphenol	1600	380		µg/L	5	4/10/2009
3+4-Methylphenol	2500	500		µg/L	5	4/10/2009
2-Nitrophenol	ND	75		µg/L	1	4/10/2009
4-Nitrophenol	ND	250		µg/L	1	4/10/2009
Pentachlorophenol	ND	250		µg/L	1	4/10/2009
Phenol	4700	250		µg/L	5	4/10/2009
Surr: 2,4,6-Tribromophenol	48.2	16.6-150		%REC	1	4/10/2009
Surr: 2-Fluorobiphenyl	56.1	19.6-134		%REC	1	4/10/2009
Surr: 2-Fluorophenol	47.2	9.54-113		%REC	1	4/10/2009
Surr: 4-Terphenyl-d14	59.6	22.7-145		%REC	1	4/10/2009
Surr: Nitrobenzene-d5	53.2	14.6-134		%REC	1	4/10/2009
Surr: Phenol-d5	40.1	10.7-80.3		%REC	1	4/10/2009
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
Benzene	ND	1.0		µg/L	1	4/6/2009 4:26:05 PM
Toluene	5.8	1.0		µg/L	1	4/6/2009 4:26:05 PM
Ethylbenzene	1.8	1.0		µg/L	1	4/6/2009 4:26:05 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	4/6/2009 4:26:05 PM
1,2,4-Trimethylbenzene	15	1.0		µg/L	1	4/6/2009 4:26:05 PM
1,3,5-Trimethylbenzene	3.4	1.0		µg/L	1	4/6/2009 4:26:05 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	4/6/2009 4:26:05 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	4/6/2009 4:26:05 PM
Naphthalene	34	2.0		µg/L	1	4/6/2009 4:26:05 PM
1-Methylnaphthalene	68	4.0		µg/L	1	4/6/2009 4:26:05 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Apr-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	EP1
Lab Order:	0904003	**Collection Date:**	3/31/2009 9:10:00 AM
Project:	Quarterly Water Sample 1st Qtr 2009	**Date Received:**	4/1/2009
Lab ID:	0904003-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
2-Methylnaphthalene	81	40		µg/L	10	4/7/2009 9:16:46 AM
Acetone	680	100		µg/L	10	4/7/2009 9:16:46 AM
Bromobenzene	ND	1.0		µg/L	1	4/6/2009 4:26:05 PM
Bromodichloromethane	ND	1.0		µg/L	1	4/6/2009 4:26:05 PM
Bromoform	ND	1.0		µg/L	1	4/6/2009 4:26:05 PM
Bromomethane	ND	1.0		µg/L	1	4/6/2009 4:26:05 PM
2-Butanone	43	10		µg/L	1	4/6/2009 4:26:05 PM
Carbon disulfide	10	10		µg/L	1	4/6/2009 4:26:05 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	4/6/2009 4:26:05 PM
Chlorobenzene	ND	1.0		µg/L	1	4/6/2009 4:26:05 PM
Chloroethane	ND	2.0		µg/L	1	4/6/2009 4:26:05 PM
Chloroform	ND	1.0		µg/L	1	4/6/2009 4:26:05 PM
Chloromethane	ND	1.0		µg/L	1	4/6/2009 4:26:05 PM
2-Chlorotoluene	ND	1.0		µg/L	1	4/6/2009 4:26:05 PM
4-Chlorotoluene	ND	1.0		µg/L	1	4/6/2009 4:26:05 PM
cis-1,2-DCE	ND	1.0		µg/L	1	4/6/2009 4:26:05 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	4/6/2009 4:26:05 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	4/6/2009 4:26:05 PM
Dibromochloromethane	ND	1.0		µg/L	1	4/6/2009 4:26:05 PM
Dibromomethane	ND	1.0		µg/L	1	4/6/2009 4:26:05 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	4/6/2009 4:26:05 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	4/6/2009 4:26:05 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	4/6/2009 4:26:05 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	4/6/2009 4:26:05 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	4/6/2009 4:26:05 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	4/6/2009 4:26:05 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	4/6/2009 4:26:05 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	4/6/2009 4:26:05 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	4/6/2009 4:26:05 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	4/6/2009 4:26:05 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	4/6/2009 4:26:05 PM
2-Hexanone	ND	10		µg/L	1	4/6/2009 4:26:05 PM
Isopropylbenzene	ND	1.0		µg/L	1	4/6/2009 4:26:05 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	4/6/2009 4:26:05 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	4/6/2009 4:26:05 PM
Methylene Chloride	ND	3.0		µg/L	1	4/6/2009 4:26:05 PM
n-Butylbenzene	3.5	1.0		µg/L	1	4/6/2009 4:26:05 PM
n-Propylbenzene	1.4	1.0		µg/L	1	4/6/2009 4:26:05 PM
sec-Butylbenzene	ND	1.0		µg/L	1	4/6/2009 4:26:05 PM
Styrene	ND	1.0		µg/L	1	4/6/2009 4:26:05 PM
tert-Butylbenzene	ND	1.0		µg/L	1	4/6/2009 4:26:05 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	4/6/2009 4:26:05 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Apr-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	EP1
Lab Order:	0904003	**Collection Date:**	3/31/2009 9:10:00 AM
Project:	Quarterly Water Sample 1st Qtr 2009	**Date Received:**	4/1/2009
Lab ID:	0904003-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	4/6/2009 4:26:05 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	4/6/2009 4:26:05 PM
trans-1,2-DCE	ND	1.0		µg/L	1	4/6/2009 4:26:05 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	4/6/2009 4:26:05 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	4/6/2009 4:26:05 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	4/6/2009 4:26:05 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	4/6/2009 4:26:05 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	4/6/2009 4:26:05 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	4/6/2009 4:26:05 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	4/6/2009 4:26:05 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	4/6/2009 4:26:05 PM
Vinyl chloride	ND	1.0		µg/L	1	4/6/2009 4:26:05 PM
Xylenes, Total	21	1.5		µg/L	1	4/6/2009 4:26:05 PM
Surr: 1,2-Dichloroethane-d4	91.4	68.1-123		%REC	1	4/6/2009 4:26:05 PM
Surr: 4-Bromofluorobenzene	110	53.2-145		%REC	1	4/6/2009 4:26:05 PM
Surr: Dibromofluoromethane	101	68.5-119		%REC	1	4/6/2009 4:26:05 PM
Surr: Toluene-d8	88.0	64-131		%REC	1	4/6/2009 4:26:05 PM
SM4500-H+B: PH						Analyst: NSB
pH	7.95	0.1		pH units	1	4/2/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Apr-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	NAPIS-Eff
Lab Order:	0904003	**Collection Date:**	3/31/2009 9:15:00 AM
Project:	Quarterly Water Sample 1st Qtr 2009	**Date Received:**	4/1/2009
Lab ID:	0904003-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **SCC**
Diesel Range Organics (DRO)	880	60		mg/L	20	4/2/2009
Motor Oil Range Organics (MRO)	ND	300		mg/L	20	4/2/2009
Surr: DNOP	0	58-140	S	%REC	20	4/2/2009
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **DAM**
Gasoline Range Organics (GRO)	48	5.0		mg/L	100	4/6/2009 6:42:09 PM
Surr: BFB	103	59.9-122		%REC	100	4/6/2009 6:42:09 PM
EPA METHOD 300.0: ANIONS						Analyst: **RAGS**
Fluoride	20	1.0		mg/L	10	4/1/2009 10:35:22 PM
Chloride	140	1.0		mg/L	10	4/1/2009 10:35:22 PM
Nitrogen, Nitrite (As N)	ND	1.0		mg/L	10	4/1/2009 10:35:22 PM
Nitrogen, Nitrate (As N)	3.1	1.0		mg/L	10	4/1/2009 10:35:22 PM
Phosphorus, Orthophosphate (As P)	ND	5.0		mg/L	10	4/1/2009 10:35:22 PM
Sulfate	350	5.0		mg/L	10	4/1/2009 10:35:22 PM
EPA METHOD 7470: MERCURY						Analyst: **MMS**
Mercury	0.00030	0.00020		mg/L	1	4/13/2009 5:29:42 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **NMO**
Arsenic	ND	0.020		mg/L	1	4/8/2009 9:46:43 AM
Barium	0.069	0.010		mg/L	1	4/8/2009 9:46:43 AM
Cadmium	ND	0.0020		mg/L	1	4/8/2009 11:47:10 AM
Calcium	39	0.50		mg/L	1	4/8/2009 11:47:10 AM
Chromium	ND	0.0060		mg/L	1	4/8/2009 9:46:43 AM
Copper	0.054	0.0060		mg/L	1	4/8/2009 11:47:10 AM
Iron	1.7	0.50		mg/L	10	4/8/2009 1:02:23 PM
Lead	ND	0.0050		mg/L	1	4/8/2009 9:46:43 AM
Magnesium	8.7	0.50		mg/L	1	4/8/2009 11:47:10 AM
Manganese	0.056	0.0020		mg/L	1	4/11/2009 3:54:20 PM
Potassium	52	1.0		mg/L	1	4/8/2009 11:47:10 AM
Selenium	ND	0.050		mg/L	1	4/11/2009 3:54:20 PM
Silver	ND	0.0050		mg/L	1	4/8/2009 11:47:10 AM
Sodium	240	5.0		mg/L	10	4/8/2009 12:16:26 PM
Zinc	0.26	0.020		mg/L	1	4/8/2009 9:46:43 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	50		µg/L	1	4/10/2009
Acenaphthylene	ND	50		µg/L	1	4/10/2009
Aniline	ND	100		µg/L	1	4/10/2009
Anthracene	ND	50		µg/L	1	4/10/2009
Azobenzene	ND	50		µg/L	1	4/10/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Apr-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	NAPIS-Eff
Lab Order:	0904003	**Collection Date:**	3/31/2009 9:15:00 AM
Project:	Quarterly Water Sample 1st Qtr 2009	**Date Received:**	4/1/2009
Lab ID:	0904003-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Benz(a)anthracene	ND	75		µg/L	1	4/10/2009
Benzo(a)pyrene	ND	50		µg/L	1	4/10/2009
Benzo(b)fluoranthene	ND	75		µg/L	1	4/10/2009
Benzo(g,h,i)perylene	ND	50		µg/L	1	4/10/2009
Benzo(k)fluoranthene	ND	50		µg/L	1	4/10/2009
Benzoic acid	1000	250		µg/L	1	4/10/2009
Benzyl alcohol	ND	100		µg/L	1	4/10/2009
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	4/10/2009
Bis(2-chloroethyl)ether	ND	75		µg/L	1	4/10/2009
Bis(2-chloroisopropyl)ether	ND	75		µg/L	1	4/10/2009
Bis(2-ethylhexyl)phthalate	ND	75		µg/L	1	4/10/2009
4-Bromophenyl phenyl ether	ND	50		µg/L	1	4/10/2009
Butyl benzyl phthalate	ND	75		µg/L	1	4/10/2009
Carbazole	ND	50		µg/L	1	4/10/2009
4-Chloro-3-methylphenol	ND	100		µg/L	1	4/10/2009
4-Chloroaniline	ND	100		µg/L	1	4/10/2009
2-Chloronaphthalene	ND	50		µg/L	1	4/10/2009
2-Chlorophenol	ND	50		µg/L	1	4/10/2009
4-Chlorophenyl phenyl ether	ND	75		µg/L	1	4/10/2009
Chrysene	ND	75		µg/L	1	4/10/2009
Di-n-butyl phthalate	ND	50		µg/L	1	4/10/2009
Di-n-octyl phthalate	ND	75		µg/L	1	4/10/2009
Dibenz(a,h)anthracene	ND	50		µg/L	1	4/10/2009
Dibenzofuran	ND	50		µg/L	1	4/10/2009
1,2-Dichlorobenzene	ND	50		µg/L	1	4/10/2009
1,3-Dichlorobenzene	ND	50		µg/L	1	4/10/2009
1,4-Dichlorobenzene	ND	50		µg/L	1	4/10/2009
3,3'-Dichlorobenzidine	ND	75		µg/L	1	4/10/2009
Diethyl phthalate	ND	50		µg/L	1	4/10/2009
Dimethyl phthalate	ND	50		µg/L	1	4/10/2009
2,4-Dichlorophenol	ND	50		µg/L	1	4/10/2009
2,4-Dimethylphenol	ND	50		µg/L	1	4/10/2009
4,6-Dinitro-2-methylphenol	ND	250		µg/L	1	4/10/2009
2,4-Dinitrophenol	ND	250		µg/L	1	4/10/2009
2,4-Dinitrotoluene	ND	50		µg/L	1	4/10/2009
2,6-Dinitrotoluene	ND	50		µg/L	1	4/10/2009
Fluoranthene	ND	50		µg/L	1	4/10/2009
Fluorene	ND	50		µg/L	1	4/10/2009
Hexachlorobenzene	ND	50		µg/L	1	4/10/2009
Hexachlorobutadiene	ND	50		µg/L	1	4/10/2009
Hexachlorocyclopentadiene	ND	250		µg/L	1	4/10/2009
Hexachloroethane	ND	50		µg/L	1	4/10/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Apr-09*

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-Eff
Lab Order: 0904003
Collection Date: 3/31/2009 9:15:00 AM
Project: Quarterly Water Sample 1st Qtr 2009
Date Received: 4/1/2009
Lab ID: 0904003-03
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	4/10/2009
Isophorone	ND	50		µg/L	1	4/10/2009
2-Methylnaphthalene	ND	50		µg/L	1	4/10/2009
2-Methylphenol	ND	75		µg/L	1	4/10/2009
3+4-Methylphenol	570	100		µg/L	1	4/10/2009
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	4/10/2009
N-Nitrosodimethylamine	ND	50		µg/L	1	4/10/2009
N-Nitrosodiphenylamine	ND	50		µg/L	1	4/10/2009
Naphthalene	ND	50		µg/L	1	4/10/2009
2-Nitroaniline	ND	250		µg/L	1	4/10/2009
3-Nitroaniline	ND	250		µg/L	1	4/10/2009
4-Nitroaniline	ND	100		µg/L	1	4/10/2009
Nitrobenzene	ND	50		µg/L	1	4/10/2009
2-Nitrophenol	ND	75		µg/L	1	4/10/2009
4-Nitrophenol	ND	250		µg/L	1	4/10/2009
Pentachlorophenol	ND	250		µg/L	1	4/10/2009
Phenanthrene	ND	50		µg/L	1	4/10/2009
Phenol	56	50		µg/L	1	4/10/2009
Pyrene	ND	75		µg/L	1	4/10/2009
Pyridine	ND	150		µg/L	1	4/10/2009
1,2,4-Trichlorobenzene	ND	50		µg/L	1	4/10/2009
2,4,5-Trichlorophenol	ND	50		µg/L	1	4/10/2009
2,4,6-Trichlorophenol	ND	75		µg/L	1	4/10/2009
Surr: 2,4,6-Tribromophenol	69.9	16.6-150		%REC	1	4/10/2009
Surr: 2-Fluorobiphenyl	57.3	19.6-134		%REC	1	4/10/2009
Surr: 2-Fluorophenol	47.5	9.54-113		%REC	1	4/10/2009
Surr: 4-Terphenyl-d14	55.6	22.7-145		%REC	1	4/10/2009
Surr: Nitrobenzene-d5	60.7	14.6-134		%REC	1	4/10/2009
Surr: Phenol-d5	40.2	10.7-80.3		%REC	1	4/10/2009
EPA METHOD 8260B: VOLATILES						Analyst: HL
Benzene	2600	50		µg/L	50	4/6/2009 5:53:42 PM
Toluene	7400	200		µg/L	200	4/6/2009 5:24:47 PM
Ethylbenzene	540	50		µg/L	50	4/6/2009 5:53:42 PM
Methyl tert-butyl ether (MTBE)	ND	50		µg/L	50	4/6/2009 5:53:42 PM
1,2,4-Trimethylbenzene	660	50		µg/L	50	4/6/2009 5:53:42 PM
1,3,5-Trimethylbenzene	170	50		µg/L	50	4/6/2009 5:53:42 PM
1,2-Dichloroethane (EDC)	ND	50		µg/L	50	4/6/2009 5:53:42 PM
1,2-Dibromoethane (EDB)	ND	50		µg/L	50	4/6/2009 5:53:42 PM
Naphthalene	500	100		µg/L	50	4/6/2009 5:53:42 PM
1-Methylnaphthalene	290	200		µg/L	50	4/6/2009 5:53:42 PM
2-Methylnaphthalene	510	200		µg/L	50	4/6/2009 5:53:42 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Apr-09*

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-Eff
Lab Order: 0904003
Collection Date: 3/31/2009 9:15:00 AM
Project: Quarterly Water Sample 1st Qtr 2009
Date Received: 4/1/2009
Lab ID: 0904003-03
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Acetone	20000	2000		µg/L	200	4/6/2009 5:24:47 PM
Bromobenzene	ND	50		µg/L	50	4/6/2009 5:53:42 PM
Bromodichloromethane	ND	50		µg/L	50	4/6/2009 5:53:42 PM
Bromoform	ND	50		µg/L	50	4/6/2009 5:53:42 PM
Bromomethane	ND	50		µg/L	50	4/6/2009 5:53:42 PM
2-Butanone	2200	500		µg/L	50	4/6/2009 5:53:42 PM
Carbon disulfide	ND	500		µg/L	50	4/6/2009 5:53:42 PM
Carbon Tetrachloride	ND	50		µg/L	50	4/6/2009 5:53:42 PM
Chlorobenzene	ND	50		µg/L	50	4/6/2009 5:53:42 PM
Chloroethane	ND	100		µg/L	50	4/6/2009 5:53:42 PM
Chloroform	ND	50		µg/L	50	4/6/2009 5:53:42 PM
Chloromethane	ND	50		µg/L	50	4/6/2009 5:53:42 PM
2-Chlorotoluene	ND	50		µg/L	50	4/6/2009 5:53:42 PM
4-Chlorotoluene	ND	50		µg/L	50	4/6/2009 5:53:42 PM
cis-1,2-DCE	ND	50		µg/L	50	4/6/2009 5:53:42 PM
cis-1,3-Dichloropropene	ND	50		µg/L	50	4/6/2009 5:53:42 PM
1,2-Dibromo-3-chloropropane	ND	100		µg/L	50	4/6/2009 5:53:42 PM
Dibromochloromethane	ND	50		µg/L	50	4/6/2009 5:53:42 PM
Dibromomethane	ND	50		µg/L	50	4/6/2009 5:53:42 PM
1,2-Dichlorobenzene	ND	50		µg/L	50	4/6/2009 5:53:42 PM
1,3-Dichlorobenzene	ND	50		µg/L	50	4/6/2009 5:53:42 PM
1,4-Dichlorobenzene	ND	50		µg/L	50	4/6/2009 5:53:42 PM
Dichlorodifluoromethane	ND	50		µg/L	50	4/6/2009 5:53:42 PM
1,1-Dichloroethane	ND	50		µg/L	50	4/6/2009 5:53:42 PM
1,1-Dichloroethene	ND	50		µg/L	50	4/6/2009 5:53:42 PM
1,2-Dichloropropane	ND	50		µg/L	50	4/6/2009 5:53:42 PM
1,3-Dichloropropane	ND	50		µg/L	50	4/6/2009 5:53:42 PM
2,2-Dichloropropane	ND	100		µg/L	50	4/6/2009 5:53:42 PM
1,1-Dichloropropene	ND	50		µg/L	50	4/6/2009 5:53:42 PM
Hexachlorobutadiene	ND	50		µg/L	50	4/6/2009 5:53:42 PM
2-Hexanone	ND	500		µg/L	50	4/6/2009 5:53:42 PM
Isopropylbenzene	57	50		µg/L	50	4/6/2009 5:53:42 PM
4-Isopropyltoluene	ND	50		µg/L	50	4/6/2009 5:53:42 PM
4-Methyl-2-pentanone	ND	500		µg/L	50	4/6/2009 5:53:42 PM
Methylene Chloride	ND	150		µg/L	50	4/6/2009 5:53:42 PM
n-Butylbenzene	100	50		µg/L	50	4/6/2009 5:53:42 PM
n-Propylbenzene	85	50		µg/L	50	4/6/2009 5:53:42 PM
sec-Butylbenzene	ND	50		µg/L	50	4/6/2009 5:53:42 PM
Styrene	ND	50		µg/L	50	4/6/2009 5:53:42 PM
tert-Butylbenzene	ND	50		µg/L	50	4/6/2009 5:53:42 PM
1,1,1,2-Tetrachloroethane	ND	50		µg/L	50	4/6/2009 5:53:42 PM
1,1,2,2-Tetrachloroethane	ND	100		µg/L	50	4/6/2009 5:53:42 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Apr-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	NAPIS-Eff
Lab Order:	0904003	**Collection Date:**	3/31/2009 9:15:00 AM
Project:	Quarterly Water Sample 1st Qtr 2009	**Date Received:**	4/1/2009
Lab ID:	0904003-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
Tetrachloroethene (PCE)	ND	50		µg/L	50	4/6/2009 5:53:42 PM
trans-1,2-DCE	ND	50		µg/L	50	4/6/2009 5:53:42 PM
trans-1,3-Dichloropropene	ND	50		µg/L	50	4/6/2009 5:53:42 PM
1,2,3-Trichlorobenzene	ND	50		µg/L	50	4/6/2009 5:53:42 PM
1,2,4-Trichlorobenzene	ND	50		µg/L	50	4/6/2009 5:53:42 PM
1,1,1-Trichloroethane	ND	50		µg/L	50	4/6/2009 5:53:42 PM
1,1,2-Trichloroethane	ND	50		µg/L	50	4/6/2009 5:53:42 PM
Trichloroethene (TCE)	ND	50		µg/L	50	4/6/2009 5:53:42 PM
Trichlorofluoromethane	ND	50		µg/L	50	4/6/2009 5:53:42 PM
1,2,3-Trichloropropane	ND	100		µg/L	50	4/6/2009 5:53:42 PM
Vinyl chloride	ND	50		µg/L	50	4/6/2009 5:53:42 PM
Xylenes, Total	3500	75		µg/L	50	4/6/2009 5:53:42 PM
Surr: 1,2-Dichloroethane-d4	87.1	68.1-123		%REC	50	4/6/2009 5:53:42 PM
Surr: 4-Bromofluorobenzene	115	53.2-145		%REC	50	4/6/2009 5:53:42 PM
Surr: Dibromofluoromethane	90.8	68.5-119		%REC	50	4/6/2009 5:53:42 PM
Surr: Toluene-d8	82.5	64-131		%REC	50	4/6/2009 5:53:42 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **NSB**
Specific Conductance	2300	0.010		µmhos/cm	1	4/2/2009
SM4500-H+B: PH						Analyst: **NSB**
pH	9.12	0.1		pH units	1	4/2/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Apr-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	Pilot Effluent
Lab Order:	0904003	**Collection Date:**	3/31/2009 8:55:00 AM
Project:	Quarterly Water Sample 1st Qtr 2009	**Date Received:**	4/1/2009
Lab ID:	0904003-04	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **SCC**
Diesel Range Organics (DRO)	9.0	1.0		mg/L	1	4/2/2009
Motor Oil Range Organics (MRO)	9.0	5.0		mg/L	1	4/2/2009
Surr: DNOP	75.7	58-140		%REC	1	4/2/2009
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **DAM**
Gasoline Range Organics (GRO)	ND	0.25		mg/L	5	4/7/2009 2:12:49 PM
Surr: BFB	90.8	59.9-122		%REC	5	4/7/2009 2:12:49 PM
EPA METHOD 7470: MERCURY						Analyst: **MMS**
Mercury	ND	0.00020		mg/L	1	4/13/2009 5:31:29 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **NMO**
Arsenic	ND	0.020		mg/L	1	4/8/2009 9:50:11 AM
Barium	0.033	0.010		mg/L	1	4/8/2009 9:50:11 AM
Cadmium	ND	0.0020		mg/L	1	4/8/2009 11:51:03 AM
Chromium	ND	0.0060		mg/L	1	4/8/2009 9:50:11 AM
Copper	0.031	0.0060		mg/L	1	4/8/2009 11:51:03 AM
Iron	0.72	0.050		mg/L	1	4/8/2009 9:50:11 AM
Lead	ND	0.0050		mg/L	1	4/8/2009 9:50:11 AM
Manganese	0.12	0.0020		mg/L	1	4/11/2009 3:59:24 PM
Selenium	ND	0.050		mg/L	1	4/11/2009 3:59:24 PM
Silver	ND	0.0050		mg/L	1	4/8/2009 11:51:03 AM
Zinc	0.098	0.020		mg/L	1	4/8/2009 9:50:11 AM
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
Benzene	ND	1.0		µg/L	1	4/6/2009 6:52:19 PM
Toluene	6.8	1.0		µg/L	1	4/6/2009 6:52:19 PM
Ethylbenzene	ND	1.0		µg/L	1	4/6/2009 6:52:19 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	4/6/2009 6:52:19 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	4/6/2009 6:52:19 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	4/6/2009 6:52:19 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	4/6/2009 6:52:19 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	4/6/2009 6:52:19 PM
Naphthalene	ND	2.0		µg/L	1	4/6/2009 6:52:19 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	4/6/2009 6:52:19 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	4/6/2009 6:52:19 PM
Acetone	360	50		µg/L	5	4/6/2009 6:23:42 PM
Bromobenzene	ND	1.0		µg/L	1	4/6/2009 6:52:19 PM
Bromodichloromethane	ND	1.0		µg/L	1	4/6/2009 6:52:19 PM
Bromoform	ND	1.0		µg/L	1	4/6/2009 6:52:19 PM
Bromomethane	ND	1.0		µg/L	1	4/6/2009 6:52:19 PM
2-Butanone	12	10		µg/L	1	4/6/2009 6:52:19 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Apr-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	Pilot Effluent
Lab Order:	0904003	**Collection Date:**	3/31/2009 8:55:00 AM
Project:	Quarterly Water Sample 1st Qtr 2009	**Date Received:**	4/1/2009
Lab ID:	0904003-04	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Carbon disulfide	ND	10		µg/L	1	4/6/2009 6:52:19 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	4/6/2009 6:52:19 PM
Chlorobenzene	ND	1.0		µg/L	1	4/6/2009 6:52:19 PM
Chloroethane	ND	2.0		µg/L	1	4/6/2009 6:52:19 PM
Chloroform	3.0	1.0		µg/L	1	4/6/2009 6:52:19 PM
Chloromethane	ND	1.0		µg/L	1	4/6/2009 6:52:19 PM
2-Chlorotoluene	ND	1.0		µg/L	1	4/6/2009 6:52:19 PM
4-Chlorotoluene	ND	1.0		µg/L	1	4/6/2009 6:52:19 PM
cis-1,2-DCE	ND	1.0		µg/L	1	4/6/2009 6:52:19 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	4/6/2009 6:52:19 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	4/6/2009 6:52:19 PM
Dibromochloromethane	ND	1.0		µg/L	1	4/6/2009 6:52:19 PM
Dibromomethane	ND	1.0		µg/L	1	4/6/2009 6:52:19 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	4/6/2009 6:52:19 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	4/6/2009 6:52:19 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	4/6/2009 6:52:19 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	4/6/2009 6:52:19 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	4/6/2009 6:52:19 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	4/6/2009 6:52:19 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	4/6/2009 6:52:19 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	4/6/2009 6:52:19 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	4/6/2009 6:52:19 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	4/6/2009 6:52:19 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	4/6/2009 6:52:19 PM
2-Hexanone	ND	10		µg/L	1	4/6/2009 6:52:19 PM
Isopropylbenzene	ND	1.0		µg/L	1	4/6/2009 6:52:19 PM
4-Isopropyltoluene	7.9	1.0		µg/L	1	4/6/2009 6:52:19 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	4/6/2009 6:52:19 PM
Methylene Chloride	ND	3.0		µg/L	1	4/6/2009 6:52:19 PM
n-Butylbenzene	ND	1.0		µg/L	1	4/6/2009 6:52:19 PM
n-Propylbenzene	ND	1.0		µg/L	1	4/6/2009 6:52:19 PM
sec-Butylbenzene	ND	1.0		µg/L	1	4/6/2009 6:52:19 PM
Styrene	ND	1.0		µg/L	1	4/6/2009 6:52:19 PM
tert-Butylbenzene	ND	1.0		µg/L	1	4/6/2009 6:52:19 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	4/6/2009 6:52:19 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	4/6/2009 6:52:19 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	4/6/2009 6:52:19 PM
trans-1,2-DCE	ND	1.0		µg/L	1	4/6/2009 6:52:19 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	4/6/2009 6:52:19 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	4/6/2009 6:52:19 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	4/6/2009 6:52:19 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	4/6/2009 6:52:19 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Apr-09*

CLIENT: Western Refining Southwest, Gallup
Lab Order: 0904003
Project: Quarterly Water Sample 1st Qtr 2009
Lab ID: 0904003-04

Client Sample ID: Pilot Effluent
Collection Date: 3/31/2009 8:55:00 AM
Date Received: 4/1/2009
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
1,1,2-Trichloroethane	ND	1.0		µg/L	1	4/6/2009 6:52:19 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	4/6/2009 6:52:19 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	4/6/2009 6:52:19 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	4/6/2009 6:52:19 PM
Vinyl chloride	ND	1.0		µg/L	1	4/6/2009 6:52:19 PM
Xylenes, Total	ND	1.5		µg/L	1	4/6/2009 6:52:19 PM
Surr: 1,2-Dichloroethane-d4	87.5	68.1-123		%REC	1	4/6/2009 6:52:19 PM
Surr: 4-Bromofluorobenzene	143	53.2-145		%REC	1	4/6/2009 6:52:19 PM
Surr: Dibromofluoromethane	91.8	68.5-119		%REC	1	4/6/2009 6:52:19 PM
Surr: Toluene-d8	87.5	64-131		%REC	1	4/6/2009 6:52:19 PM

Qualifiers:

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

ASSAIGAI ANALYTICAL LABORATORIES, INC.
4301 Masthead NE • Albuquerque, New Mexico 87109 • (505) 345-8964 • FAX (505) 345-7259

Explanation of codes	
B	*Analyte Detected in Method Blank*
E	*Result Is Estimated*
H	*Analyzed Out of Hold Time*
N	*Tentatively Identified Compound*
S	*Subcontracted*
1-9	*See Footnote*

HALL ENVIRONMENTAL
attn: ANDY FREEMAN
4901 HAWKINS NE, SUITE D
ALBUQUERQUE NM 87109-4372

STANDARD

Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

All samples are reported on an "as received" basis, unless otherwise noted (i.e. - Dry Weight).

Client: HALL ENVIRONMENTAL
Project: 0904003
Order: 09040033 HAL03 Receipt: 04-01-09

William P. Blava: President of Assaigai Analytical Laboratories, Inc.

Sample: *0904003-02F EP1* Collected: *03-31-09 9:10:00* By:
Matrix: *AQUEOUS*

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09040033-001A		SM 5220C						By: ECC		
COD-09-016	WC.2009.878.8	C-004	Chemical Oxygen Demand	2025	mg/L	10	10		04-09-09	04-09-09

Sample: *0904003-02G EP1* Collected: *03-31-09 9:10:00* By:
Matrix: *AQUEOUS*

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09040033-002A		SM 5210B						By: ECC		
BOD090041	WC.2009.852.6	10-26-4	Biochemical Oxygen Demand	279	mg/L	1	4		04-02-09	04-07-09

Sample: *0904003-04D PILOT EFFLUENT* Collected: *03-31-09 8:55:00* By:
Matrix: *AQUEOUS*

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09040033-003A		SM 5220C						By: ECC		
COD-09-016	WC.2009.878.9	C-004	Chemical Oxygen Demand	1519	mg/L	10	10		04-09-09	04-09-09

Report Date: 4/14/2009 12:37:03 PM

Assalgal Analytical Laboratories, Inc.

Certificate of Analysis

All samples are reported on an "as received" basis, unless otherwise noted (i.e. - Dry Weight).

Client: **HALL ENVIRONMENTAL**

Project: **0904003**

Order: **09040033** **HAL03** Receipt: **04-01-09**

Sample: ***0904003-04E PILOT EFFLUENT*** Collected: *03-31-09 8:55:00* By:

Matrix: ***AQUEOUS***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09040033-004A		**SM 5210B**						By: **ECC**		
BOD090041	WC.2009.852.4	10-26-4	Biochemical Oxygen Demand	422	mg/L	1	4		04-02-09	04-07-09

Unless otherwise noted, all samples were received in acceptable condition and all sampling was performed by client or client representative. Sample result of ND indicates Not Detected, ie result is less than the sample specific Detection Limit. Sample specific Detection Limit is determined by multiplying the sample Dilution Factor by the listed Reporting Detection Limit. All results relate only to the items tested. Any miscellaneous workorder information or foonotes will appear below.

Analytical results are not corrected for method blank or field blank contamination.

ENERGY LABORATORIES, INC. • 2393 Salt Creek Highway (82601) • P.O. Box 3258 • Casper, WY 82602
Toll Free 888.235.0515 • 307.235.0515 • Fax 307.234.1639 • casper@energylab.com • www.energylab.com

LABORATORY ANALYTICAL REPORT

Client: Hall Environmental
Site Name: 0904003 **Report Date:** 04/10/09

Lab ID: C09040142-001 **Collection Date:** 03/31/09 09:15
Client Sample ID: NAPIS-Eff **DateReceived:** 04/03/09
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
METALS - TOTAL							
Uranium	ND	mg/L		0.001		SW6020	04/08/09 21:25 / sml

Lab ID: C09040142-002 **Collection Date:** 03/31/09 08:55
Client Sample ID: Pilot Effluent **DateReceived:** 04/03/09
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
METALS - TOTAL							
Uranium	0.001	mg/L		0.001		SW6020	04/08/09 21:31 / sml

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level.
QCL - Quality control limit. ND - Not detected at the reporting limit.

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QA/QC Summary Report

Client: Hall Environmental
Project: 0904003

Report Date: 04/10/09
Work Order: C09040142

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6020									Batch: 21959
Sample ID: MB-21959	Method Blank				Run: ICPMS4-C_090408A				04/08/09 20:51
Uranium	ND	mg/L	5E-05						
Sample ID: LCS3-21959	Laboratory Control Sample				Run: ICPMS4-C_090408A				04/08/09 20:58
Uranium	0.497	mg/L	0.00030	99	85	115			
Sample ID: C09040147-001AMS3	Sample Matrix Spike				Run: ICPMS4-C_090408A				04/08/09 22:33
Uranium	0.627	mg/L	0.00030	120	75	125			
Sample ID: C09040147-001AMSD3	Sample Matrix Spike Duplicate				Run: ICPMS4-C_090408A				04/08/09 22:39
Uranium	0.624	mg/L	0.00030	119	75	125	0.5	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: Quarterly Water Sample 1st Qtr 2009 **Work Order:** 0904003

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 300.0: Anions									
Sample ID: MB		*MBLK*			Batch ID: **R33068**		Analysis Date:	4/1/2009 8:04:55 AM	
Fluoride	ND	mg/L	0.10						
Chloride	ND	mg/L	0.10						
Nitrogen, Nitrite (As N)	ND	mg/L	0.10						
Nitrogen, Nitrate (As N)	ND	mg/L	0.10						
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50						
Sulfate	ND	mg/L	0.50						
Sample ID: MB-2		*MBLK*			Batch ID: **R33068**		Analysis Date:	4/1/2009 11:27:35 PM	
Fluoride	ND	mg/L	0.10						
Chloride	ND	mg/L	0.10						
Nitrogen, Nitrite (As N)	ND	mg/L	0.10						
Nitrogen, Nitrate (As N)	ND	mg/L	0.10						
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50						
Sulfate	ND	mg/L	0.50						
Sample ID: LCS		*LCS*			Batch ID: **R33068**		Analysis Date:	4/1/2009 8:22:20 AM	
Fluoride	0.5297	mg/L	0.10	106	90	110			
Chloride	5.159	mg/L	0.10	103	90	110			
Nitrogen, Nitrite (As N)	1.036	mg/L	0.10	104	90	110			
Nitrogen, Nitrate (As N)	2.596	mg/L	0.10	104	90	110			
Phosphorus, Orthophosphate (As P)	5.356	mg/L	0.50	107	90	110			
Sulfate	10.53	mg/L	0.50	105	90	110			
Sample ID: LCS-2		*LCS*			Batch ID: **R33068**		Analysis Date:	4/1/2009 11:45:00 PM	
Fluoride	0.4904	mg/L	0.10	98.1	90	110			
Chloride	4.953	mg/L	0.10	99.1	90	110			
Nitrogen, Nitrite (As N)	0.9756	mg/L	0.10	97.6	90	110			
Nitrogen, Nitrate (As N)	2.492	mg/L	0.10	99.7	90	110			
Phosphorus, Orthophosphate (As P)	5.064	mg/L	0.50	101	90	110			
Sulfate	10.09	mg/L	0.50	101	90	110			
Method: EPA Method 8015B: Diesel Range									
Sample ID: MB-18709		*MBLK*			Batch ID: **18709**		Analysis Date:	4/2/2009	
Diesel Range Organics (DRO)	ND	mg/L	1.0						
Motor Oil Range Organics (MRO)	ND	mg/L	5.0						
Sample ID: LCS-18709		*LCS*			Batch ID: **18709**		Analysis Date:	4/2/2009	
Diesel Range Organics (DRO)	6.696	mg/L	1.0	134	74	157			
Sample ID: LCSD-18709		*LCSD*			Batch ID: **18709**		Analysis Date:	4/2/2009	
Diesel Range Organics (DRO)	6.973	mg/L	1.0	139	74	157	4.06	23	
Method: EPA Method 8015B: Gasoline Range									
Sample ID: 5ML RB		*MBLK*			Batch ID: **R33112**		Analysis Date:	4/6/2009 10:05:03 AM	
Gasoline Range Organics (GRO)	ND	mg/L	0.050						
Sample ID: 2.5UG GRO LCS		*LCS*			Batch ID: **R33112**		Analysis Date:	4/6/2009 7:43:00 PM	
Gasoline Range Organics (GRO)	0.5404	mg/L	0.050	108	80	115			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: Quarterly Water Sample 1st Qtr 2009 **Work Order:** 0904003

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8270C: Semivolatiles									
Sample ID: mb-18739		*MBLK*			Batch ID: **18739**		Analysis Date:		4/10/2009
Acenaphthene	ND	µg/L	10						
Acenaphthylene	ND	µg/L	10						
Aniline	ND	µg/L	10						
Anthracene	ND	µg/L	10						
Azobenzene	ND	µg/L	10						
Benz(a)anthracene	ND	µg/L	10						
Benzo(a)pyrene	ND	µg/L	10						
Benzo(b)fluoranthene	ND	µg/L	10						
Benzo(g,h,i)perylene	ND	µg/L	10						
Benzo(k)fluoranthene	ND	µg/L	10						
Benzoic acid	ND	µg/L	20						
Benzyl alcohol	ND	µg/L	10						
Bis(2-chloroethoxy)methane	ND	µg/L	10						
Bis(2-chloroethyl)ether	ND	µg/L	10						
Bis(2-chloroisopropyl)ether	ND	µg/L	10						
Bis(2-ethylhexyl)phthalate	ND	µg/L	10						
4-Bromophenyl phenyl ether	ND	µg/L	10						
Butyl benzyl phthalate	ND	µg/L	10						
Carbazole	ND	µg/L	10						
4-[illegible]-3-methylphenol	ND	µg/L	10						
4-Chloroaniline	ND	µg/L	10						
2-Chloronaphthalene	ND	µg/L	10						
2-Chlorophenol	ND	µg/L	10						
4-Chlorophenyl phenyl ether	ND	µg/L	10						
Chrysene	ND	µg/L	10						
Di-n-butyl phthalate	ND	µg/L	10						
Di-n-octyl phthalate	ND	µg/L	10						
Dibenz(a,h)anthracene	ND	µg/L	10						
Dibenzofuran	ND	µg/L	10						
1,2-Dichlorobenzene	ND	µg/L	10						
1,3-Dichlorobenzene	ND	µg/L	10						
1,4-Dichlorobenzene	ND	µg/L	10						
3,3'-Dichlorobenzidine	ND	µg/L	10						
Diethyl phthalate	ND	µg/L	10						
Dimethyl phthalate	ND	µg/L	10						
2,4-Dichlorophenol	ND	µg/L	20						
2,4-Dimethylphenol	ND	µg/L	10						
4,6-Dinitro-2-methylphenol	ND	µg/L	20						
2,4-Dinitrophenol	ND	µg/L	20						
2,4-Dinitrotoluene	ND	µg/L	10						
2,6-Dinitrotoluene	ND	µg/L	10						
Fluoranthene	ND	µg/L	10						
Fluorene	ND	µg/L	10						
Hexachlorobenzene	ND	µg/L	10						

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: Quarterly Water Sample 1st Qtr 2009 **Work Order:** 0904003

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8270C: Semivolatiles									
Sample ID: mb-18739		*MBLK*			Batch ID: **18739**		Analysis Date:		4/10/2009
Hexachlorobutadiene	ND	µg/L	10						
Hexachlorocyclopentadiene	ND	µg/L	10						
Hexachloroethane	ND	µg/L	10						
Indeno(1,2,3-cd)pyrene	ND	µg/L	10						
Isophorone	ND	µg/L	10						
2-Methylnaphthalene	ND	µg/L	10						
2-Methylphenol	ND	µg/L	10						
3+4-Methylphenol	ND	µg/L	10						
N-Nitrosodi-n-propylamine	ND	µg/L	10						
N-Nitrosodimethylamine	ND	µg/L	10						
N-Nitrosodiphenylamine	ND	µg/L	10						
Naphthalene	ND	µg/L	10						
2-Nitroaniline	ND	µg/L	10						
3-Nitroaniline	ND	µg/L	10						
4-Nitroaniline	ND	µg/L	10						
Nitrobenzene	ND	µg/L	10						
2-Nitrophenol	ND	µg/L	10						
4-Nitrophenol	ND	µg/L	10						
Pentachlorophenol	ND	µg/L	20						
Phenanthrene	ND	µg/L	10						
Phenol	ND	µg/L	10						
Pyrene	ND	µg/L	10						
Pyridine	ND	µg/L	10						
1,2,4-Trichlorobenzene	ND	µg/L	10						
2,4,5-Trichlorophenol	ND	µg/L	10						
2,4,6-Trichlorophenol	ND	µg/L	10						
Sample ID: lcs-18739		*LCS*			Batch ID: **18739**		Analysis Date:		4/10/2009
Acenaphthene	49.84	µg/L	10	49.8	11	123			
4-Chloro-3-methylphenol	106.5	µg/L	10	53.3	15.4	119			
2-Chlorophenol	107.3	µg/L	10	53.6	12.2	122			
1,4-Dichlorobenzene	39.92	µg/L	10	39.9	16.9	100			
2,4-Dinitrotoluene	57.92	µg/L	10	57.9	13	138			
N-Nitrosodi-n-propylamine	55.04	µg/L	10	55.0	9.93	122			
4-Nitrophenol	59.68	µg/L	10	29.8	12.5	87.4			
Pentachlorophenol	110.5	µg/L	20	55.2	3.55	114			
Phenol	62.64	µg/L	10	31.3	7.53	73.1			
Pyrene	48.56	µg/L	10	48.6	12.6	140			
1,2,4-Trichlorobenzene	42.82	µg/L	10	42.8	17.4	98.7			
Sample ID: lcsd-18739		*LCSD*			Batch ID: **18739**		Analysis Date:		4/10/2009
Acenaphthene	56.56	µg/L	10	56.6	11	123	12.6	30.5	
4-Chloro-3-methylphenol	116.9	µg/L	10	58.4	15.4	119	9.26	28.6	
2-Chlorophenol	109.1	µg/L	10	54.6	12.2	122	1.72	107	
1,4-Dichlorobenzene	43.66	µg/L	10	43.7	16.9	100	8.95	62.1	
2,4-Dinitrotoluene	66.74	µg/L	10	66.7	13	138	14.2	14.7	

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: Quarterly Water Sample 1st Qtr 2009 **Work Order:** 0904003

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8270C: Semivolatiles									
Sample ID: lcsd-18739		*LCSD*			Batch ID:	**18739**	Analysis Date:		4/10/2009
N-Nitrosodi-n-propylamine	51.00	µg/L	10	51.0	9.93	122	7.62	30.3	
4-Nitrophenol	71.40	µg/L	10	35.7	12.5	87.4	17.9	36.3	
Pentachlorophenol	121.1	µg/L	20	60.6	3.55	114	9.19	49	
Phenol	64.44	µg/L	10	32.2	7.53	73.1	2.83	52.4	
Pyrene	52.00	µg/L	10	52.0	12.6	140	6.84	16.3	
1,2,4-Trichlorobenzene	49.68	µg/L	10	49.7	17.4	98.7	14.8	36.4	
Method: EPA Method 7470: Mercury									
Sample ID: MB-18808		*MBLK*			Batch ID:	**18808**	Analysis Date:		4/13/2009 4:42:53 PM
Mercury	ND	mg/L	0.00020						
Sample ID: LCS-18808		*LCS*			Batch ID:	**18808**	Analysis Date:		4/13/2009 4:44:36 PM
Mercury	0.005183	mg/L	0.00020	104	80	120			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: Quarterly Water Sample 1st Qtr 2009 **Work Order:** 0904003

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA 6010B: Total Recoverable Metals									
Sample ID: MB-18724		*MBLK*			Batch ID:	**18724**	Analysis Date:	4/8/2009 8:34:03 AM	
Arsenic	ND	mg/L	0.020						
Barium	ND	mg/L	0.010						
Cadmium	ND	mg/L	0.0020						
Calcium	ND	mg/L	0.50						
Chromium	ND	mg/L	0.0060						
Iron	ND	mg/L	0.050						
Lead	ND	mg/L	0.0050						
Magnesium	ND	mg/L	0.50						
Manganese	ND	mg/L	0.0020						
Potassium	ND	mg/L	1.0						
Selenium	ND	mg/L	0.050						
Silver	ND	mg/L	0.0050						
Sodium	ND	mg/L	0.50						
Zinc	ND	mg/L	0.020						
Sample ID: MBLK-18724		*MBLK*			Batch ID:	**18724**	Analysis Date:	4/11/2009 3:34:45 PM	
Copper	ND	mg/L	0.0060						
Sample ID: LCS-18724		*LCS*			Batch ID:	**18724**	Analysis Date:	4/8/2009 8:36:30 AM	
Arsenic	0.5519	mg/L	0.020	110	80	120			
Barium	0.5002	mg/L	0.010	100	80	120			
Cadmium	0.5107	mg/L	0.0020	102	80	120			
Calcium	50.14	mg/L	0.50	100	80	120			
Chromium	0.5241	mg/L	0.0060	105	80	120			
Iron	0.4929	mg/L	0.050	98.6	80	120			
Lead	0.5378	mg/L	0.0050	108	80	120			
Magnesium	48.11	mg/L	0.50	96.2	80	120			
Manganese	0.4973	mg/L	0.0020	99.4	80	120			
Potassium	50.32	mg/L	1.0	101	80	120			
Selenium	0.5100	mg/L	0.050	102	80	120			
Silver	0.5056	mg/L	0.0050	101	80	120			
Sodium	50.16	mg/L	0.50	100	80	120			
Zinc	0.5385	mg/L	0.020	108	80	120			
Sample ID: LCS-18724		*LCS*			Batch ID:	**18724**	Analysis Date:	4/11/2009 3:37:18 PM	
Copper	0.4995	mg/L	0.0060	99.9	80	120			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: Quarterly Water Sample 1st Qtr 2009 **Work Order:** 0904003

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: 5ml rb		*MBLK*			Batch ID: **R33094**		Analysis Date:	4/3/2009 1:38:37 PM	
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0						
1,2,4-Trimethylbenzene	ND	µg/L	1.0						
1,3,5-Trimethylbenzene	ND	µg/L	1.0						
1,2-Dichloroethane (EDC)	ND	µg/L	1.0						
1,2-Dibromoethane (EDB)	ND	µg/L	1.0						
Naphthalene	ND	µg/L	2.0						
1-Methylnaphthalene	ND	µg/L	4.0						
2-Methylnaphthalene	ND	µg/L	4.0						
Acetone	ND	µg/L	10						
Bromobenzene	ND	µg/L	1.0						
Bromodichloromethane	ND	µg/L	1.0						
Bromoform	ND	µg/L	1.0						
Bromomethane	ND	µg/L	1.0						
2-Butanone	ND	µg/L	10						
Carbon disulfide	ND	µg/L	10						
Carbon Tetrachloride	ND	µg/L	1.0						
Chlorobenzene	ND	µg/L	1.0						
Chloroethane	ND	µg/L	2.0						
Chloroform	ND	µg/L	1.0						
Chloromethane	ND	µg/L	1.0						
2-Chlorotoluene	ND	µg/L	1.0						
4-Chlorotoluene	ND	µg/L	1.0						
cis-1,2-DCE	ND	µg/L	1.0						
cis-1,3-Dichloropropene	ND	µg/L	1.0						
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0						
Dibromochloromethane	ND	µg/L	1.0						
Dibromomethane	ND	µg/L	1.0						
1,2-Dichlorobenzene	ND	µg/L	1.0						
1,3-Dichlorobenzene	ND	µg/L	1.0						
1,4-Dichlorobenzene	ND	µg/L	1.0						
Dichlorodifluoromethane	ND	µg/L	1.0						
1,1-Dichloroethane	ND	µg/L	1.0						
1,1-Dichloroethene	ND	µg/L	1.0						
1,2-Dichloropropane	ND	µg/L	1.0						
1,3-Dichloropropane	ND	µg/L	1.0						
2,2-Dichloropropane	ND	µg/L	2.0						
1,1-Dichloropropene	ND	µg/L	1.0						
Hexachlorobutadiene	ND	µg/L	1.0						
2-Hexanone	ND	µg/L	10						
Isopropylbenzene	ND	µg/L	1.0						
4-Isopropyltoluene	ND	µg/L	1.0						

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: Quarterly Water Sample 1st Qtr 2009 **Work Order:** 0904003

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: 5ml rb		*MBLK*			Batch ID: **R33094**		Analysis Date:	4/3/2009 1:38:37 PM	
4-Methyl-2-pentanone	ND	µg/L	10						
Methylene Chloride	ND	µg/L	3.0						
n-Butylbenzene	ND	µg/L	1.0						
n-Propylbenzene	ND	µg/L	1.0						
sec-Butylbenzene	ND	µg/L	1.0						
Styrene	ND	µg/L	1.0						
tert-Butylbenzene	ND	µg/L	1.0						
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0						
1,1,2,2-Tetrachloroethane	ND	µg/L	2.0						
Tetrachloroethene (PCE)	ND	µg/L	1.0						
trans-1,2-DCE	ND	µg/L	1.0						
trans-1,3-Dichloropropene	ND	µg/L	1.0						
1,2,3-Trichlorobenzene	ND	µg/L	1.0						
1,2,4-Trichlorobenzene	ND	µg/L	1.0						
1,1,1-Trichloroethane	ND	µg/L	1.0						
1,1,2-Trichloroethane	ND	µg/L	1.0						
Trichloroethene (TCE)	ND	µg/L	1.0						
Trichlorofluoromethane	ND	µg/L	1.0						
1,2,3-Trichloropropane	ND	µg/L	2.0						
Vinyl chloride	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	1.5						
Sample ID: b4		*MBLK*			Batch ID: **R33094**		Analysis Date:	4/4/2009 2:05:33 AM	
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0						
1,2,4-Trimethylbenzene	ND	µg/L	1.0						
1,3,5-Trimethylbenzene	ND	µg/L	1.0						
1,2-Dichloroethane (EDC)	ND	µg/L	1.0						
1,2-Dibromoethane (EDB)	ND	µg/L	1.0						
Naphthalene	ND	µg/L	2.0						
1-Methylnaphthalene	ND	µg/L	4.0						
2-Methylnaphthalene	ND	µg/L	4.0						
Acetone	19.78	µg/L	10						
Bromobenzene	ND	µg/L	1.0						
Bromodichloromethane	ND	µg/L	1.0						
Bromoform	ND	µg/L	1.0						
Bromomethane	ND	µg/L	1.0						
2-Butanone	ND	µg/L	10						
Carbon disulfide	ND	µg/L	10						
Carbon Tetrachloride	ND	µg/L	1.0						
Chlorobenzene	ND	µg/L	1.0						
Chloroethane	ND	µg/L	2.0						
Chloroform	ND	µg/L	1.0						

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: Quarterly Water Sample 1st Qtr 2009 **Work Order:** 0904003

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: b4		*MBLK*			Batch ID: **R33094**		Analysis Date:	4/4/2009 2:05:33 AM	
Chloromethane	ND	µg/L	1.0						
2-Chlorotoluene	ND	µg/L	1.0						
4-Chlorotoluene	ND	µg/L	1.0						
cis-1,2-DCE	ND	µg/L	1.0						
cis-1,3-Dichloropropene	ND	µg/L	1.0						
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0						
Dibromochloromethane	ND	µg/L	1.0						
Dibromomethane	ND	µg/L	1.0						
1,2-Dichlorobenzene	ND	µg/L	1.0						
1,3-Dichlorobenzene	ND	µg/L	1.0						
1,4-Dichlorobenzene	ND	µg/L	1.0						
Dichlorodifluoromethane	ND	µg/L	1.0						
1,1-Dichloroethane	ND	µg/L	1.0						
1,1-Dichloroethene	ND	µg/L	1.0						
1,2-Dichloropropane	ND	µg/L	1.0						
1,3-Dichloropropane	ND	µg/L	1.0						
2,2-Dichloropropane	ND	µg/L	2.0						
1,1-Dichloropropene	ND	µg/L	1.0						
Hexachlorobutadiene	ND	µg/L	1.0						
2-Hexanone	ND	µg/L	10						
Isopropylbenzene	ND	µg/L	1.0						
4-Isopropyltoluene	ND	µg/L	1.0						
4-Methyl-2-pentanone	ND	µg/L	10						
Methylene Chloride	ND	µg/L	3.0						
n-Butylbenzene	ND	µg/L	1.0						
n-Propylbenzene	ND	µg/L	1.0						
sec-Butylbenzene	ND	µg/L	1.0						
Styrene	ND	µg/L	1.0						
tert-Butylbenzene	ND	µg/L	1.0						
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0						
1,1,2,2-Tetrachloroethane	ND	µg/L	2.0						
Tetrachloroethene (PCE)	ND	µg/L	1.0						
trans-1,2-DCE	ND	µg/L	1.0						
trans-1,3-Dichloropropene	ND	µg/L	1.0						
1,2,3-Trichlorobenzene	ND	µg/L	1.0						
1,2,4-Trichlorobenzene	ND	µg/L	1.0						
1,1,1-Trichloroethane	ND	µg/L	1.0						
1,1,2-Trichloroethane	ND	µg/L	1.0						
Trichloroethene (TCE)	ND	µg/L	1.0						
Trichlorofluoromethane	ND	µg/L	1.0						
1,2,3-Trichloropropane	ND	µg/L	2.0						
Vinyl chloride	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	1.5						
Sample ID: 5ml rb		*MBLK*			Batch ID: **R33114**		Analysis Date:	4/6/2009 8:42:01 AM	

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: Quarterly Water Sample 1st Qtr 2009 **Work Order:** 0904003

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: 5ml rb		*MBLK*			Batch ID: **R33114**		Analysis Date:	4/6/2009 8:42:01 AM	
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0						
1,2,4-Trimethylbenzene	ND	µg/L	1.0						
1,3,5-Trimethylbenzene	ND	µg/L	1.0						
1,2-Dichloroethane (EDC)	ND	µg/L	1.0						
1,2-Dibromoethane (EDB)	ND	µg/L	1.0						
Naphthalene	ND	µg/L	2.0						
1-Methylnaphthalene	ND	µg/L	4.0						
2-Methylnaphthalene	ND	µg/L	4.0						
Acetone	ND	µg/L	10						
Bromobenzene	ND	µg/L	1.0						
Bromodichloromethane	ND	µg/L	1.0						
Bromoform	ND	µg/L	1.0						
Bromomethane	ND	µg/L	1.0						
2-Butanone	ND	µg/L	10						
Carbon disulfide	ND	µg/L	10						
Carbon Tetrachloride	ND	µg/L	1.0						
Chlorobenzene	ND	µg/L	1.0						
Chloroethane	ND	µg/L	2.0						
Chloroform	ND	µg/L	1.0						
Chloromethane	ND	µg/L	1.0						
2-Chlorotoluene	ND	µg/L	1.0						
4-Chlorotoluene	ND	µg/L	1.0						
cis-1,2-DCE	ND	µg/L	1.0						
cis-1,3-Dichloropropene	ND	µg/L	1.0						
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0						
Dibromochloromethane	ND	µg/L	1.0						
Dibromomethane	ND	µg/L	1.0						
1,2-Dichlorobenzene	ND	µg/L	1.0						
1,3-Dichlorobenzene	ND	µg/L	1.0						
1,4-Dichlorobenzene	ND	µg/L	1.0						
Dichlorodifluoromethane	ND	µg/L	1.0						
1,1-Dichloroethane	ND	µg/L	1.0						
1,1-Dichloroethene	ND	µg/L	1.0						
1,2-Dichloropropane	ND	µg/L	1.0						
1,3-Dichloropropane	ND	µg/L	1.0						
2,2-Dichloropropane	ND	µg/L	2.0						
1,1-Dichloropropene	ND	µg/L	1.0						
Hexachlorobutadiene	ND	µg/L	1.0						
2-Hexanone	ND	µg/L	10						
Isopropylbenzene	ND	µg/L	1.0						
4-Isopropyltoluene	ND	µg/L	1.0						

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: Quarterly Water Sample 1st Qtr 2009 **Work Order:** 0904003

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: 5ml rb		*MBLK*			Batch ID: **R33114**		Analysis Date:	4/6/2009 8:42:01 AM	
4-Methyl-2-pentanone	ND	µg/L	10						
Methylene Chloride	ND	µg/L	3.0						
n-Butylbenzene	ND	µg/L	1.0						
n-Propylbenzene	ND	µg/L	1.0						
sec-Butylbenzene	ND	µg/L	1.0						
Styrene	ND	µg/L	1.0						
tert-Butylbenzene	ND	µg/L	1.0						
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0						
1,1,2,2-Tetrachloroethane	ND	µg/L	2.0						
Tetrachloroethene (PCE)	ND	µg/L	1.0						
trans-1,2-DCE	ND	µg/L	1.0						
trans-1,3-Dichloropropene	ND	µg/L	1.0						
1,2,3-Trichlorobenzene	ND	µg/L	1.0						
1,2,4-Trichlorobenzene	ND	µg/L	1.0						
1,1,1-Trichloroethane	ND	µg/L	1.0						
1,1,2-Trichloroethane	ND	µg/L	1.0						
Trichloroethene (TCE)	ND	µg/L	1.0						
Trichlorofluoromethane	ND	µg/L	1.0						
1,2,3-Trichloropropane	ND	µg/L	2.0						
Vinyl chloride	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	1.5						
Sample ID: b3		*MBLK*			Batch ID: **R33114**		Analysis Date:	4/6/2009 10:15:26 PM	
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0						
1,2,4-Trimethylbenzene	ND	µg/L	1.0						
1,3,5-Trimethylbenzene	ND	µg/L	1.0						
1,2-Dichloroethane (EDC)	ND	µg/L	1.0						
1,2-Dibromoethane (EDB)	ND	µg/L	1.0						
Naphthalene	ND	µg/L	2.0						
1-Methylnaphthalene	ND	µg/L	4.0						
2-Methylnaphthalene	ND	µg/L	4.0						
Acetone	ND	µg/L	10						
Bromobenzene	ND	µg/L	1.0						
Bromodichloromethane	ND	µg/L	1.0						
Bromoform	ND	µg/L	1.0						
Bromomethane	ND	µg/L	1.0						
2-Butanone	ND	µg/L	10						
Carbon disulfide	ND	µg/L	10						
Carbon Tetrachloride	ND	µg/L	1.0						
Chlorobenzene	ND	µg/L	1.0						
Chloroethane	ND	µg/L	2.0						
Chloroform	ND	µg/L	1.0						

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: Quarterly Water Sample 1st Qtr 2009 **Work Order:** 0904003

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: b3		*MBLK*			Batch ID: **R33114**		Analysis Date:	4/6/2009 10:15:26 PM	
Chloromethane	ND	µg/L	1.0						
2-Chlorotoluene	ND	µg/L	1.0						
4-Chlorotoluene	ND	µg/L	1.0						
cis-1,2-DCE	ND	µg/L	1.0						
cis-1,3-Dichloropropene	ND	µg/L	1.0						
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0						
Dibromochloromethane	ND	µg/L	1.0						
Dibromomethane	ND	µg/L	1.0						
1,2-Dichlorobenzene	ND	µg/L	1.0						
1,3-Dichlorobenzene	ND	µg/L	1.0						
1,4-Dichlorobenzene	ND	µg/L	1.0						
Dichlorodifluoromethane	ND	µg/L	1.0						
1,1-Dichloroethane	ND	µg/L	1.0						
1,1-Dichloroethene	ND	µg/L	1.0						
1,2-Dichloropropane	ND	µg/L	1.0						
1,3-Dichloropropane	ND	µg/L	1.0						
2,2-Dichloropropane	ND	µg/L	2.0						
1,1-Dichloropropene	ND	µg/L	1.0						
Hexachlorobutadiene	ND	µg/L	1.0						
2-Hexanone	ND	µg/L	10						
Isopropylbenzene	ND	µg/L	1.0						
4-Isopropyltoluene	ND	µg/L	1.0						
4-Methyl-2-pentanone	ND	µg/L	10						
Methylene Chloride	ND	µg/L	3.0						
n-Butylbenzene	ND	µg/L	1.0						
n-Propylbenzene	ND	µg/L	1.0						
sec-Butylbenzene	ND	µg/L	1.0						
Styrene	ND	µg/L	1.0						
tert-Butylbenzene	ND	µg/L	1.0						
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0						
1,1,2,2-Tetrachloroethane	ND	µg/L	2.0						
Tetrachloroethene (PCE)	ND	µg/L	1.0						
trans-1,2-DCE	ND	µg/L	1.0						
trans-1,3-Dichloropropene	ND	µg/L	1.0						
1,2,3-Trichlorobenzene	ND	µg/L	1.0						
1,2,4-Trichlorobenzene	ND	µg/L	1.0						
1,1,1-Trichloroethane	ND	µg/L	1.0						
1,1,2-Trichloroethane	ND	µg/L	1.0						
Trichloroethene (TCE)	ND	µg/L	1.0						
Trichlorofluoromethane	ND	µg/L	1.0						
1,2,3-Trichloropropane	ND	µg/L	2.0						
Vinyl chloride	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	1.5						
Sample ID: 100ng lcs		*LCS*			Batch ID: **R33094**		Analysis Date:	4/3/2009 2:36:25 PM	

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: Quarterly Water Sample 1st Qtr 2009 **Work Order:** 0904003

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: 100ng lcs		*LCS*			Batch ID:	**R33094**	Analysis Date:	4/3/2009 2:36:25 PM	
Benzene	17.25	µg/L	1.0	86.3	88	116			S
Toluene	22.27	µg/L	1.0	111	82.9	112			
Chlorobenzene	20.92	µg/L	1.0	105	71.4	133			
1,1-Dichloroethene	18.17	µg/L	1.0	90.8	97.9	140			S
Trichloroethene (TCE)	18.31	µg/L	1.0	91.6	90.5	112			
Sample ID: 100ng lcs_b		*LCS*			Batch ID:	**R33094**	Analysis Date:	4/4/2009 3:02:23 AM	
Benzene	16.84	µg/L	1.0	84.2	88	116			S
Toluene	20.88	µg/L	1.0	104	82.9	112			
Chlorobenzene	20.96	µg/L	1.0	105	71.4	133			
1,1-Dichloroethene	18.39	µg/L	1.0	92.0	97.9	140			S
Trichloroethene (TCE)	17.32	µg/L	1.0	86.6	90.5	112			S
Sample ID: 100ng lcs_b		*LCS*			Batch ID:	**R33114**	Analysis Date:	4/6/2009 10:39:25 AM	
Benzene	19.55	µg/L	1.0	97.7	88	116			
Toluene	24.29	µg/L	1.0	121	82.9	112			S
Chlorobenzene	22.00	µg/L	1.0	110	71.4	133			
1,1-Dichloroethene	22.98	µg/L	1.0	115	97.9	140			
Trichloroethene (TCE)	19.41	µg/L	1.0	97.0	90.5	112			
Sample ID: 100ng lcs_c		*LCS*			Batch ID:	**R33114**	Analysis Date:	4/6/2009 11:12:35 PM	
Benzene	21.66	µg/L	1.0	108	88	116			
Toluene	19.00	µg/L	1.0	95.0	82.9	112			
Chlorobenzene	21.17	µg/L	1.0	106	71.4	133			
1,1-Dichloroethene	23.25	µg/L	1.0	116	97.9	140			
Trichloroethene (TCE)	19.67	µg/L	1.0	98.4	90.5	112			

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name WESTERN REFINING GALLU | Date Received: 4/1/2009

Work Order Number 0904003 | Received by: ARS

Checklist completed by: _____ 4/1/09 (Signature / Date) | Sample ID labels checked by: AT (Initials)

Matrix: | Carrier name UPS

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	N/A ☑	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☑	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☑	No ☐	N/A ☐	
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐	

Container/Temp Blank temperature? 1° <6° C Acceptable If given sufficient time to cool.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: EP-1 COD Sample preserved in lab w/ 1ml H2SO4 per CJ AL-2-EP-1-RCRA 8 metals EP1 & Pilot Eff - COD & BOD AT 4/1/09 4/1/09

Corrective Action _____

Chain-of-Custody Record

Client: WESTERN REFINING
COMPANY - GALLUP
Mailing Address: RT 3 Box 7
GALLUP NM 87301
Phone #: 505 722 3833
email or Fax#: 505 722 0210
QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)
☐ Other
☐ EDD (Type)

Turn-Around Time:
☐ Standard ☐ Rush
Project Name: QUARTERLY WATER SAMPLE 1ST QTR 2009
Project #:
Project Manager: GAURAV RAJEN
Sampler: ALVIN DORSEY / chey jones
On Ice: ☑ Yes ☐ No
Sample Temperature:

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 0904003	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	~~TPH (Method 418.1)~~ PH	EDB (Method 504.1)	~~8310 (PNA or PAH)~~	~~RCRA 8 Metals~~ WQCC Total	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	BOD - COD	GEN Chem	Chloride - 300.1	Phenol 8270	Air Bubbles (Y or N)
3-31-09	0830	Aq	AL-2- EP-1			-1			X			X	X			X						
3-31-09	0910		EP1			-2			X	X				4/1/09		X			X	X		
3-31-09	0915		NAPIS-EFF			-3			X				X			X	X		X			
3-31-09	0855	↓	PILOT EFFLUENT			-4			X				X			X		X				

Date	Time	Relinquished by:	Received by:	Date	Time
3-30-09	12:00			4/1/09	10:00

Remarks: AL2-EP1 8015B C6-C10, C10, C36
gen chem - cations, anions, pH, EC
AT 4/1/09

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

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Wednesday, June 03, 2009

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

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

RE: 2009 2nd QTR OW-Well

Order No.: 0905336

Dear Gaurav Rajen:

Hall Environmental Analysis Laboratory, Inc. received 3 sample(s) on 5/19/2009 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

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

Hall Environmental Analysis Laboratory, Inc.

Date: *03-Jun-09*

CLIENT: Western Refining Southwest, Gallup
Project: 2009 2nd QTR OW-Well
Lab Order: 0905336

Lab ID: 0905336-01 **Collection Date:** 5/13/2009 3:05:00 PM
Client Sample ID: OW-30 **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **DAM**
Benzene	ND	1.0		µg/L	1	5/22/2009 1:39:31 AM
Toluene	ND	1.0		µg/L	1	5/22/2009 1:39:31 AM
Ethylbenzene	ND	1.0		µg/L	1	5/22/2009 1:39:31 AM
Xylenes, Total	ND	2.0		µg/L	1	5/22/2009 1:39:31 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	5/22/2009 1:39:31 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	5/22/2009 1:39:31 AM
Surr: 4-Bromofluorobenzene	80.1	65.9-130		%REC	1	5/22/2009 1:39:31 AM
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **HL**
Methyl tert-butyl ether (MTBE)	1100	50		µg/L	50	5/26/2009 5:28:15 PM
Surr: 4-Bromofluorobenzene	104	80.4-119		%REC	50	5/26/2009 5:28:15 PM

Lab ID: 0905336-02 **Collection Date:** 5/14/2009 11:06:00 AM
Client Sample ID: OW-29 **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **DAM**
Methyl tert-butyl ether (MTBE)	4.1	2.5		µg/L	1	5/22/2009 2:09:59 AM
Benzene	ND	1.0		µg/L	1	5/22/2009 2:09:59 AM
Toluene	ND	1.0		µg/L	1	5/22/2009 2:09:59 AM
Ethylbenzene	ND	1.0		µg/L	1	5/22/2009 2:09:59 AM
Xylenes, Total	ND	2.0		µg/L	1	5/22/2009 2:09:59 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	5/22/2009 2:09:59 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	5/22/2009 2:09:59 AM
Surr: 4-Bromofluorobenzene	72.6	65.9-130		%REC	1	5/22/2009 2:09:59 AM

Lab ID: 0905336-03 **Collection Date:** 5/14/2009 3:22:00 PM
Client Sample ID: OW-13 **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	5/22/2009 10:44:10 PM
Benzene	ND	1.0		µg/L	1	5/22/2009 10:44:10 PM
Toluene	ND	1.0		µg/L	1	5/22/2009 10:44:10 PM
Ethylbenzene	ND	1.0		µg/L	1	5/22/2009 10:44:10 PM
Xylenes, Total	ND	2.0		µg/L	1	5/22/2009 10:44:10 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	5/22/2009 10:44:10 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	5/22/2009 10:44:10 PM
Surr: 4-Bromofluorobenzene	85.0	65.9-130		%REC	1	5/22/2009 10:44:10 PM

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 2nd QTR OW-Well **Work Order:** 0905336

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8021B: Volatiles									
Sample ID: 5ML RB		*MBLK*			Batch ID:	**R33777**	Analysis Date:	5/21/2009 9:22:24 AM	
Methyl tert-butyl ether (MTBE)	ND	µg/L	2.5						
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
1,2,4-Trimethylbenzene	ND	µg/L	1.0						
1,3,5-Trimethylbenzene	ND	µg/L	1.0						
Sample ID: 5ML RB		*MBLK*			Batch ID:	**R33820**	Analysis Date:	5/22/2009 10:02:47 AM	
Methyl tert-butyl ether (MTBE)	ND	µg/L	2.5						
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
1,2,4-Trimethylbenzene	ND	µg/L	1.0						
1,3,5-Trimethylbenzene	ND	µg/L	1.0						
Sample ID: 100NG BTEX LCS		*LCS*			Batch ID:	**R33777**	Analysis Date:	5/22/2009 6:13:09 AM	
Methyl tert-butyl ether (MTBE)	23.53	µg/L	2.5	58.8	51.2	138			
Benzene	21.86	µg/L	1.0	109	85.9	113			
Toluene	22.53	µg/L	1.0	113	86.4	113			
Ethylbenzene	21.99	µg/L	1.0	110	83.5	118			
Xylenes, Total	62.02	µg/L	2.0	103	83.4	122			
1,2,4-Trimethylbenzene	21.04	µg/L	1.0	104	83.5	115			
1,3,5-Trimethylbenzene	20.22	µg/L	1.0	100	85.2	113			
Sample ID: 100NG BTEX LCS		*LCS*			Batch ID:	**R33820**	Analysis Date:	5/22/2009 6:39:59 PM	
Methyl tert-butyl ether (MTBE)	24.85	µg/L	2.5	62.1	51.2	138			
Benzene	21.70	µg/L	1.0	108	85.9	113			
Toluene	22.22	µg/L	1.0	111	86.4	113			
Ethylbenzene	22.31	µg/L	1.0	112	83.5	118			
Xylenes, Total	64.10	µg/L	2.0	107	83.4	122			
1,2,4-Trimethylbenzene	23.13	µg/L	1.0	116	83.5	115			S
1,3,5-Trimethylbenzene	21.79	µg/L	1.0	109	85.2	113			
Sample ID: 100NG BTEX LCSD		*LCSD*			Batch ID:	**R33820**	Analysis Date:	5/22/2009 7:10:32 PM	
Methyl tert-butyl ether (MTBE)	23.56	µg/L	2.5	58.9	51.2	138	5.33	28	
Benzene	20.62	µg/L	1.0	103	85.9	113	5.07	27	
Toluene	20.79	µg/L	1.0	104	86.4	113	6.67	19	
Ethylbenzene	20.90	µg/L	1.0	104	83.5	118	6.56	10	
Xylenes, Total	59.42	µg/L	2.0	99.0	83.4	122	7.57	13	
1,2,4-Trimethylbenzene	21.06	µg/L	1.0	105	83.5	115	9.37	21	
1,3,5-Trimethylbenzene	20.20	µg/L	1.0	101	85.2	113	7.60	10	
Method: EPA Method 8260: Volatiles Short List									
Sample ID: 5ml rb		*MBLK*			Batch ID:	**R33844**	Analysis Date:	5/26/2009 8:43:52 AM	
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0						

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name WESTERN REFINING GALLU | Date Received: 5/19/2009

Work Order Number 0905336 | Received by: ARS

Checklist completed by: _____ 5/19/09 | Sample ID labels checked by: TD

Signature | Date | Initials

Matrix: | Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	N/A ☑	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☑	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☐	No ☐	N/A ☑	
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑	
Container/Temp Blank temperature?	**13.2°**	*<6° C Acceptable* If given sufficient time to cool.		

Number of preserved bottles checked for pH: _____

<2 >12 unless noted below.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

Chain-of-Custody Record

Client: Western Refining Gallup Refinery
Mailing Address: Rt 3 Box 7 Gallup, NM 87301
Phone #: 505-722-3833
email or Fax#: 505-722-0210

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

Accreditation
☐ NELAP ☐ Other _____
☐ EDD (Type) _____

Turn-Around Time:
☒ Standard ☐ Rush _____

Project Name: 2009 2nd QTR OW-Well

Project #:

Project Manager: G. Rajen

Sampler: C. Johnson

On Ice: ☒ Yes ☐ No

Sample Temperature: 15.2

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. 0905336	BTEX + MTBE + TMB's (8021B)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
5-13-09	1505	H2O	OW-30	3VOA	HCl	1	X											
5-14-09	1106	"	OW-29	"	"	2	"											
5-14-09	1522	"	OW-13	"	"	3	"											

Date	Time	Relinquished by:	Received by:	Date	Time
05-18-09	1000				
				5/19/09	9:00

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.

BWI + EPI
1st Semi Annual 2nd Qtr

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Thursday, May 21, 2009

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

TEL: (505) 722-0227
FAX (505) 722-0210

RE: 2009 Semi-Annual GW 032

Order No.: 0905111

Dear Gaurav Rajen:

Hall Environmental Analysis Laboratory, Inc. received 2 sample(s) on 5/7/2009 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

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

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

Hall Environmental Analysis Laboratory, Inc.

Date: *21-May-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	BWI-EP2
Lab Order:	0905111	**Collection Date:**	5/6/2009 8:20:00 AM
Project:	2009 Semi-Annual GW 032	**Date Received:**	5/7/2009
Lab ID:	0905111-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **RAGS**
Fluoride	0.90	0.10		mg/L	1	5/7/2009 6:21:04 PM
Chloride	45	1.0		mg/L	10	5/19/2009 9:11:38 AM
Nitrogen, Nitrite (As N)	ND	1.0		mg/L	10	5/7/2009 6:38:28 PM
Bromide	0.24	0.10		mg/L	1	5/7/2009 6:21:04 PM
Nitrogen, Nitrate (As N)	0.65	0.10		mg/L	1	5/7/2009 6:21:04 PM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	5/7/2009 6:21:04 PM
Sulfate	1500	25		mg/L	50	5/19/2009 9:29:02 AM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **TES**
Calcium	1.1	0.50		mg/L	1	5/15/2009 1:04:57 PM
Magnesium	ND	0.50		mg/L	1	5/15/2009 1:04:57 PM
Potassium	4.9	1.0		mg/L	1	5/15/2009 1:04:57 PM
Sodium	1200	25		mg/L	50	5/15/2009 3:03:37 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **BDH**
Specific Conductance	4200	0.010		µmhos/cm	1	5/11/2009
SM4500-H+B: PH						Analyst: **BDH**
pH	8.01	0.1		pH units	1	5/8/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *21-May-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	EPI-In
Lab Order:	0905111	**Collection Date:**	5/6/2009 8:35:00 AM
Project:	2009 Semi-Annual GW 032	**Date Received:**	5/7/2009
Lab ID:	0905111-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **SCC**
Diesel Range Organics (DRO)	100	3.0		mg/L	1	5/13/2009
Motor Oil Range Organics (MRO)	32	15		mg/L	1	5/13/2009
Surr: DNOP	133	58-140		%REC	1	5/13/2009
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **DAM**
Gasoline Range Organics (GRO)	2.1	1.0		mg/L	20	5/14/2009 12:03:41 AM
Surr: BFB	122	59.9-122	S	%REC	20	5/14/2009 12:03:41 AM
EPA METHOD 300.0: ANIONS						Analyst: **RAGS**
Fluoride	66	2.0		mg/L	20	5/7/2009 7:13:17 PM
Chloride	120	1.0		mg/L	10	5/19/2009 9:46:27 AM
Nitrogen, Nitrite (As N)	ND	1.0		mg/L	10	5/7/2009 6:55:53 PM
Bromide	ND	1.0		mg/L	10	5/7/2009 6:55:53 PM
Nitrogen, Nitrate (As N)	5.2	1.0		mg/L	10	5/7/2009 6:55:53 PM
Phosphorus, Orthophosphate (As P)	ND	5.0		mg/L	10	5/7/2009 6:55:53 PM
Sulfate	710	5.0		mg/L	10	5/7/2009 6:55:53 PM
EPA METHOD 7470: MERCURY						Analyst: **MMS**
Mercury	0.0019	0.00020		mg/L	1	5/11/2009 4:10:14 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **TES**
Barium	0.10	0.010		mg/L	1	5/15/2009 1:11:01 PM
Cadmium	ND	0.0020		mg/L	1	5/15/2009 1:11:01 PM
Calcium	60	0.50		mg/L	1	5/15/2009 1:11:01 PM
Chromium	0.012	0.0060		mg/L	1	5/15/2009 1:11:01 PM
Copper	0.023	0.0060		mg/L	1	5/15/2009 1:11:01 PM
Iron	11	5.0		mg/L	100	5/15/2009 3:50:18 PM
Lead	ND	0.0050		mg/L	1	5/15/2009 1:11:01 PM
Magnesium	17	0.50		mg/L	1	5/15/2009 1:11:01 PM
Manganese	0.19	0.0020		mg/L	1	5/15/2009 1:11:01 PM
Potassium	48	1.0		mg/L	1	5/15/2009 1:11:01 PM
Silver	ND	0.0050		mg/L	1	5/15/2009 1:11:01 PM
Sodium	430	5.0		mg/L	10	5/15/2009 3:06:39 PM
Zinc	0.60	0.020		mg/L	1	5/15/2009 1:11:01 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	50		µg/L	1	5/15/2009
Acenaphthylene	ND	50		µg/L	1	5/15/2009
Aniline	71	50		µg/L	1	5/15/2009
Anthracene	ND	50		µg/L	1	5/15/2009
Azobenzene	ND	50		µg/L	1	5/15/2009
Benz(a)anthracene	ND	50		µg/L	1	5/15/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *21-May-09*

CLIENT: Western Refining Southwest, Gallup
Lab Order: 0905111
Project: 2009 Semi-Annual GW 032
Lab ID: 0905111-02

Client Sample ID: EPI-In
Collection Date: 5/6/2009 8:35:00 AM
Date Received: 5/7/2009
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Benzo(a)pyrene	ND	50		µg/L	1	5/15/2009
Benzo(b)fluoranthene	ND	50		µg/L	1	5/15/2009
Benzo(g,h,i)perylene	ND	50		µg/L	1	5/15/2009
Benzo(k)fluoranthene	ND	50		µg/L	1	5/15/2009
Benzoic acid	ND	100		µg/L	1	5/15/2009
Benzyl alcohol	ND	50		µg/L	1	5/15/2009
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	5/15/2009
Bis(2-chloroethyl)ether	ND	50		µg/L	1	5/15/2009
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	5/15/2009
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	5/15/2009
4-Bromophenyl phenyl ether	ND	50		µg/L	1	5/15/2009
Butyl benzyl phthalate	ND	50		µg/L	1	5/15/2009
Carbazole	ND	50		µg/L	1	5/15/2009
4-Chloro-3-methylphenol	ND	50		µg/L	1	5/15/2009
4-Chloroaniline	ND	50		µg/L	1	5/15/2009
2-Chloronaphthalene	ND	50		µg/L	1	5/15/2009
2-Chlorophenol	ND	50		µg/L	1	5/15/2009
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	5/15/2009
Chrysene	ND	50		µg/L	1	5/15/2009
Di-n-butyl phthalate	ND	50		µg/L	1	5/15/2009
Di-n-octyl phthalate	ND	50		µg/L	1	5/15/2009
Dibenz(a,h)anthracene	ND	50		µg/L	1	5/15/2009
Dibenzofuran	ND	50		µg/L	1	5/15/2009
1,2-Dichlorobenzene	ND	50		µg/L	1	5/15/2009
1,3-Dichlorobenzene	ND	50		µg/L	1	5/15/2009
1,4-Dichlorobenzene	ND	50		µg/L	1	5/15/2009
3,3'-Dichlorobenzidine	ND	50		µg/L	1	5/15/2009
Diethyl phthalate	ND	50		µg/L	1	5/15/2009
Dimethyl phthalate	ND	50		µg/L	1	5/15/2009
2,4-Dichlorophenol	ND	100		µg/L	1	5/15/2009
2,4-Dimethylphenol	78	50		µg/L	1	5/15/2009
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	5/15/2009
2,4-Dinitrophenol	ND	100		µg/L	1	5/15/2009
2,4-Dinitrotoluene	ND	50		µg/L	1	5/15/2009
2,6-Dinitrotoluene	ND	50		µg/L	1	5/15/2009
Fluoranthene	ND	50		µg/L	1	5/15/2009
Fluorene	ND	50		µg/L	1	5/15/2009
Hexachlorobenzene	ND	50		µg/L	1	5/15/2009
Hexachlorobutadiene	ND	50		µg/L	1	5/15/2009
Hexachlorocyclopentadiene	ND	50		µg/L	1	5/15/2009
Hexachloroethane	ND	50		µg/L	1	5/15/2009
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	5/15/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *21-May-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	EPI-In
Lab Order:	0905111	**Collection Date:**	5/6/2009 8:35:00 AM
Project:	2009 Semi-Annual GW 032	**Date Received:**	5/7/2009
Lab ID:	0905111-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Isophorone	ND	50		µg/L	1	5/15/2009
2-Methylnaphthalene	ND	50		µg/L	1	5/15/2009
2-Methylphenol	480	50		µg/L	1	5/15/2009
3+4-Methylphenol	ND	50		µg/L	1	5/15/2009
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	5/15/2009
N-Nitrosodimethylamine	ND	50		µg/L	1	5/15/2009
N-Nitrosodiphenylamine	ND	50		µg/L	1	5/15/2009
Naphthalene	ND	50		µg/L	1	5/15/2009
2-Nitroaniline	ND	50		µg/L	1	5/15/2009
3-Nitroaniline	ND	50		µg/L	1	5/15/2009
4-Nitroaniline	ND	50		µg/L	1	5/15/2009
Nitrobenzene	ND	50		µg/L	1	5/15/2009
2-Nitrophenol	ND	50		µg/L	1	5/15/2009
4-Nitrophenol	ND	50		µg/L	1	5/15/2009
Pentachlorophenol	ND	100		µg/L	1	5/15/2009
Phenanthrene	120	50		µg/L	1	5/15/2009
Phenol	ND	50		µg/L	1	5/15/2009
Pyrene	ND	50		µg/L	1	5/15/2009
Pyridine	ND	50		µg/L	1	5/15/2009
1,2,4-Trichlorobenzene	ND	50		µg/L	1	5/15/2009
2,4,5-Trichlorophenol	ND	50		µg/L	1	5/15/2009
2,4,6-Trichlorophenol	ND	50		µg/L	1	5/15/2009
Surr: 2,4,6-Tribromophenol	50.1	16.6-150		%REC	1	5/15/2009
Surr: 2-Fluorobiphenyl	54.7	19.6-134		%REC	1	5/15/2009
Surr: 2-Fluorophenol	46.0	9.54-113		%REC	1	5/15/2009
Surr: 4-Terphenyl-d14	69.3	22.7-145		%REC	1	5/15/2009
Surr: Nitrobenzene-d5	57.8	14.6-134		%REC	1	5/15/2009
Surr: Phenol-d5	35.8	10.7-80.3		%REC	1	5/15/2009
EPA METHOD 8260B: VOLATILES						Analyst: HL
Benzene	ND	2.0		µg/L	2	5/12/2009 9:13:09 AM
Toluene	ND	2.0		µg/L	2	5/12/2009 9:13:09 AM
Ethylbenzene	ND	2.0		µg/L	2	5/12/2009 9:13:09 AM
Methyl tert-butyl ether (MTBE)	ND	2.0		µg/L	2	5/12/2009 9:13:09 AM
1,2,4-Trimethylbenzene	14	2.0		µg/L	2	5/12/2009 9:13:09 AM
1,3,5-Trimethylbenzene	6.1	2.0		µg/L	2	5/12/2009 9:13:09 AM
1,2-Dichloroethane (EDC)	ND	2.0		µg/L	2	5/12/2009 9:13:09 AM
1,2-Dibromoethane (EDB)	ND	2.0		µg/L	2	5/12/2009 9:13:09 AM
Naphthalene	ND	4.0		µg/L	2	5/12/2009 9:13:09 AM
1-Methylnaphthalene	95	8.0		µg/L	2	5/12/2009 9:13:09 AM
2-Methylnaphthalene	96	8.0		µg/L	2	5/12/2009 9:13:09 AM
Acetone	1400	100		µg/L	10	5/11/2009 1:32:42 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *21-May-09*

CLIENT: Western Refining Southwest, Gallup
Lab Order: 0905111
Project: 2009 Semi-Annual GW 032
Lab ID: 0905111-02

Client Sample ID: EPI-In
Collection Date: 5/6/2009 8:35:00 AM
Date Received: 5/7/2009
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Bromobenzene	ND	2.0		µg/L	2	5/12/2009 9:13:09 AM
Bromodichloromethane	ND	2.0		µg/L	2	5/12/2009 9:13:09 AM
Bromoform	ND	2.0		µg/L	2	5/12/2009 9:13:09 AM
Bromomethane	ND	2.0		µg/L	2	5/12/2009 9:13:09 AM
2-Butanone	120	20		µg/L	2	5/12/2009 9:13:09 AM
Carbon disulfide	ND	20		µg/L	2	5/12/2009 9:13:09 AM
Carbon Tetrachloride	ND	2.0		µg/L	2	5/12/2009 9:13:09 AM
Chlorobenzene	ND	2.0		µg/L	2	5/12/2009 9:13:09 AM
Chloroethane	ND	4.0		µg/L	2	5/12/2009 9:13:09 AM
Chloroform	ND	2.0		µg/L	2	5/12/2009 9:13:09 AM
Chloromethane	ND	2.0		µg/L	2	5/12/2009 9:13:09 AM
2-Chlorotoluene	ND	2.0		µg/L	2	5/12/2009 9:13:09 AM
4-Chlorotoluene	ND	2.0		µg/L	2	5/12/2009 9:13:09 AM
cis-1,2-DCE	ND	2.0		µg/L	2	5/12/2009 9:13:09 AM
cis-1,3-Dichloropropene	ND	2.0		µg/L	2	5/12/2009 9:13:09 AM
1,2-Dibromo-3-chloropropane	ND	4.0		µg/L	2	5/12/2009 9:13:09 AM
Dibromochloromethane	ND	2.0		µg/L	2	5/12/2009 9:13:09 AM
Dibromomethane	ND	2.0		µg/L	2	5/12/2009 9:13:09 AM
1,2-Dichlorobenzene	ND	2.0		µg/L	2	5/12/2009 9:13:09 AM
1,3-Dichlorobenzene	ND	2.0		µg/L	2	5/12/2009 9:13:09 AM
1,4-Dichlorobenzene	ND	2.0		µg/L	2	5/12/2009 9:13:09 AM
Dichlorodifluoromethane	ND	2.0		µg/L	2	5/12/2009 9:13:09 AM
1,1-Dichloroethane	ND	2.0		µg/L	2	5/12/2009 9:13:09 AM
1,1-Dichloroethene	ND	2.0		µg/L	2	5/12/2009 9:13:09 AM
1,2-Dichloropropane	ND	2.0		µg/L	2	5/12/2009 9:13:09 AM
1,3-Dichloropropane	ND	2.0		µg/L	2	5/12/2009 9:13:09 AM
2,2-Dichloropropane	ND	4.0		µg/L	2	5/12/2009 9:13:09 AM
1,1-Dichloropropene	ND	2.0		µg/L	2	5/12/2009 9:13:09 AM
Hexachlorobutadiene	ND	2.0		µg/L	2	5/12/2009 9:13:09 AM
2-Hexanone	ND	20		µg/L	2	5/12/2009 9:13:09 AM
Isopropylbenzene	ND	2.0		µg/L	2	5/12/2009 9:13:09 AM
4-Isopropyltoluene	ND	2.0		µg/L	2	5/12/2009 9:13:09 AM
4-Methyl-2-pentanone	ND	20		µg/L	2	5/12/2009 9:13:09 AM
Methylene Chloride	ND	6.0		µg/L	2	5/12/2009 9:13:09 AM
n-Butylbenzene	6.4	2.0		µg/L	2	5/12/2009 9:13:09 AM
n-Propylbenzene	ND	2.0		µg/L	2	5/12/2009 9:13:09 AM
sec-Butylbenzene	ND	2.0		µg/L	2	5/12/2009 9:13:09 AM
Styrene	ND	2.0		µg/L	2	5/12/2009 9:13:09 AM
tert-Butylbenzene	ND	2.0		µg/L	2	5/12/2009 9:13:09 AM
1,1,1,2-Tetrachloroethane	ND	2.0		µg/L	2	5/12/2009 9:13:09 AM
1,1,2,2-Tetrachloroethane	ND	4.0		µg/L	2	5/12/2009 9:13:09 AM
Tetrachloroethene (PCE)	ND	2.0		µg/L	2	5/12/2009 9:13:09 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *21-May-09*

CLIENT: Western Refining Southwest, Gallup
Lab Order: 0905111
Project: 2009 Semi-Annual GW 032
Lab ID: 0905111-02

Client Sample ID: EPI-In
Collection Date: 5/6/2009 8:35:00 AM
Date Received: 5/7/2009
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
trans-1,2-DCE	ND	2.0		µg/L	2	5/12/2009 9:13:09 AM
trans-1,3-Dichloropropene	ND	2.0		µg/L	2	5/12/2009 9:13:09 AM
1,2,3-Trichlorobenzene	ND	2.0		µg/L	2	5/12/2009 9:13:09 AM
1,2,4-Trichlorobenzene	ND	2.0		µg/L	2	5/12/2009 9:13:09 AM
1,1,1-Trichloroethane	ND	2.0		µg/L	2	5/12/2009 9:13:09 AM
1,1,2-Trichloroethane	ND	2.0		µg/L	2	5/12/2009 9:13:09 AM
Trichloroethene (TCE)	ND	2.0		µg/L	2	5/12/2009 9:13:09 AM
Trichlorofluoromethane	ND	2.0		µg/L	2	5/12/2009 9:13:09 AM
1,2,3-Trichloropropane	ND	4.0		µg/L	2	5/12/2009 9:13:09 AM
Vinyl chloride	ND	2.0		µg/L	2	5/12/2009 9:13:09 AM
Xylenes, Total	12	3.0		µg/L	2	5/12/2009 9:13:09 AM
Surr: 1,2-Dichloroethane-d4	107	68.1-123		%REC	2	5/12/2009 9:13:09 AM
Surr: 4-Bromofluorobenzene	73.7	53.2-145		%REC	2	5/12/2009 9:13:09 AM
Surr: Dibromofluoromethane	114	68.5-119		%REC	2	5/12/2009 9:13:09 AM
Surr: Toluene-d8	100	64-131		%REC	2	5/12/2009 9:13:09 AM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **BDH**
Specific Conductance	2600	0.010		µmhos/cm	1	5/11/2009
SM4500-H+B: PH						Analyst: **BDH**
pH	7.36	0.1		pH units	1	5/8/2009

Qualifiers:

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

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: 2094614 Hall
Pace Project No.: 1094879

Sample: EPI-IN **Lab ID: 20689796** Collected: 05/08/09 08:35 Received: 05/12/09 09:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020							
Arsenic	**11.8**	ug/L	2.5	5	05/15/09 13:06	05/18/09 11:55	7440-38-2	
Selenium	**30.2**	ug/L	2.5	5	05/15/09 13:06	05/18/09 11:55	7782-49-2	
Uranium-238	ND	ug/L	1.0	2	05/15/09 13:06	05/18/09 16:33	7440-61-1	D3

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: 2094614 Hall
Pace Project No.: 1094879

QC Batch: MPRP/15675
QC Batch Method: EPA 3020
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Associated Lab Samples: 20689796

METHOD BLANK: 620090 Matrix: Water
Associated Lab Samples: 20689796

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	ug/L	ND	0.50	05/18/09 11:46	
Selenium	ug/L	ND	0.50	05/18/09 11:46	
Uranium-238	ug/L	ND	0.50	05/18/09 11:46	

LABORATORY CONTROL SAMPLE: 620091

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	ug/L	80	80.3	100	85-115	
Selenium	ug/L	160	167	104	85-115	
Uranium-238	ug/L	40	44.9	112	85-115	

MATRIX SPIKE SAMPLE: 620094

Parameter	Units	1094925015 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Arsenic	ug/L	ND	80	82.7	103	70-130	
Selenium	ug/L	ND	160	172	108	70-130	
Uranium-238	ug/L	ND		45.9			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 620214 620215

Parameter	Units	20689796 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	ug/L	11.8	80	80	92.3	92.1	101	100	70-130	0	20	
Selenium	ug/L	30.2	160	160	193	193	102	102	70-130	0	20	
Uranium-238	ug/L	ND			46.8	47.0				0	20	

Date: 05/19/2009 04:11 PM

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALIFIERS

Project: 2094614 Hall
Pace Project No.: 1094879

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

U - Indicates the compound was analyzed for, but not detected.

ANALYTE QUALIFIERS

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

REPORT OF LABORATORY ANALYSIS

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Semi-Annual GW 032 **Work Order:** 0905111

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 300.0: Anions									
Sample ID: MB		*MBLK*			Batch ID: **R33584**		Analysis Date:		5/7/2009 11:05:48 AM
Fluoride	ND	mg/L	0.10						
Chloride	ND	mg/L	0.10						
Nitrogen, Nitrite (As N)	ND	mg/L	0.10						
Bromide	ND	mg/L	0.10						
Nitrogen, Nitrate (As N)	ND	mg/L	0.10						
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50						
Sulfate	ND	mg/L	0.50						
Sample ID: MB		*MBLK*			Batch ID: **R33743**		Analysis Date:		5/19/2009 8:36:48 AM
Fluoride	ND	mg/L	0.10						
Chloride	ND	mg/L	0.10						
Nitrogen, Nitrite (As N)	ND	mg/L	0.10						
Bromide	ND	mg/L	0.10						
Nitrogen, Nitrate (As N)	ND	mg/L	0.10						
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50						
Sulfate	ND	mg/L	0.50						
Sample ID: LCS		*LCS*			Batch ID: **R33584**		Analysis Date:		5/7/2009 11:23:13 AM
Fluoride	0.4984	mg/L	0.10	99.7	90	110			
Chloride	5.046	mg/L	0.10	101	90	110			
Nitrogen, Nitrite (As N)	0.9510	mg/L	0.10	95.1	90	110			
Bromide	2.543	mg/L	0.10	102	90	110			
Nitrogen, Nitrate (As N)	2.579	mg/L	0.10	103	90	110			
Phosphorus, Orthophosphate (As P)	5.096	mg/L	0.50	102	90	110			
Sulfate	10.25	mg/L	0.50	103	90	110			
Sample ID: LCS		*LCS*			Batch ID: **R33743**		Analysis Date:		5/19/2009 8:54:13 AM
Fluoride	0.4824	mg/L	0.10	96.5	90	110			
Chloride	4.965	mg/L	0.10	99.3	90	110			
Nitrogen, Nitrite (As N)	0.9277	mg/L	0.10	92.8	90	110			
Bromide	2.385	mg/L	0.10	95.4	90	110			
Nitrogen, Nitrate (As N)	2.519	mg/L	0.10	101	90	110			
Phosphorus, Orthophosphate (As P)	4.931	mg/L	0.50	98.6	90	110			
Sulfate	10.07	mg/L	0.50	101	90	110			
Sample ID: LCSD		*LCSD*			Batch ID: **R33584**		Analysis Date:		5/7/2009 8:22:57 PM
Fluoride	0.5578	mg/L	0.10	112	90	110	11.2	20	S
Nitrogen, Nitrite (As N)	0.9885	mg/L	0.10	98.9	90	110	3.87	20	
Bromide	2.622	mg/L	0.10	105	90	110	3.06	20	
Phosphorus, Orthophosphate (As P)	5.264	mg/L	0.50	105	90	110	3.24	20	
Sulfate	10.44	mg/L	0.50	104	90	110	1.77	20	

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Semi-Annual GW 032 **Work Order:** 0905111

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8015B: Diesel Range									
Sample ID: MB-19069		*MBLK*			Batch ID: **19069**		Analysis Date:		5/13/2009
Diesel Range Organics (DRO)	ND	mg/L	1.0						
Motor Oil Range Organics (MRO)	ND	mg/L	5.0						
Sample ID: LCS-19069		*LCS*			Batch ID: **19069**		Analysis Date:		5/13/2009
Diesel Range Organics (DRO)	6.162	mg/L	1.0	123	74	157			
Sample ID: LCSD-19069		*LCSD*			Batch ID: **19069**		Analysis Date:		5/13/2009
Diesel Range Organics (DRO)	6.658	mg/L	1.0	133	74	157	7.75	23	
Method: EPA Method 8015B: Gasoline Range									
Sample ID: 5ML RB		*MBLK*			Batch ID: **R33656**		Analysis Date:		5/13/2009 9:13:24 AM
Gasoline Range Organics (GRO)	ND	mg/L	0.050						
Sample ID: 2.5UG GRO LCS		*LCS*			Batch ID: **R33656**		Analysis Date:		5/13/2009 7:56:28 PM
Gasoline Range Organics (GRO)	0.5530	mg/L	0.050	106	80	115			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Semi-Annual GW 032 **Work Order:** 0905111

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: 5ml rb		*MBLK*			Batch ID: **R33624**		Analysis Date:	5/11/2009 8:44:44 AM	
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0						
1,2,4-Trimethylbenzene	ND	µg/L	1.0						
1,3,5-Trimethylbenzene	ND	µg/L	1.0						
1,2-Dichloroethane (EDC)	ND	µg/L	1.0						
1,2-Dibromoethane (EDB)	ND	µg/L	1.0						
Naphthalene	ND	µg/L	2.0						
1-Methylnaphthalene	ND	µg/L	4.0						
2-Methylnaphthalene	ND	µg/L	4.0						
Acetone	ND	µg/L	10						
Bromobenzene	ND	µg/L	1.0						
Bromodichloromethane	ND	µg/L	1.0						
Bromoform	ND	µg/L	1.0						
Bromomethane	ND	µg/L	1.0						
2-Butanone	ND	µg/L	10						
Carbon disulfide	ND	µg/L	10						
Carbon Tetrachloride	ND	µg/L	1.0						
Chlorobenzene	ND	µg/L	1.0						
Chloroethane	ND	µg/L	2.0						
Chloroform	ND	µg/L	1.0						
Chloromethane	ND	µg/L	1.0						
2-Chlorotoluene	ND	µg/L	1.0						
4-Chlorotoluene	ND	µg/L	1.0						
cis-1,2-DCE	ND	µg/L	1.0						
cis-1,3-Dichloropropene	ND	µg/L	1.0						
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0						
Dibromochloromethane	ND	µg/L	1.0						
Dibromomethane	ND	µg/L	1.0						
1,2-Dichlorobenzene	ND	µg/L	1.0						
1,3-Dichlorobenzene	ND	µg/L	1.0						
1,4-Dichlorobenzene	ND	µg/L	1.0						
Dichlorodifluoromethane	ND	µg/L	1.0						
1,1-Dichloroethane	ND	µg/L	1.0						
1,1-Dichloroethene	ND	µg/L	1.0						
1,2-Dichloropropane	ND	µg/L	1.0						
1,3-Dichloropropane	ND	µg/L	1.0						
2,2-Dichloropropane	ND	µg/L	2.0						
1,1-Dichloropropene	ND	µg/L	1.0						
Hexachlorobutadiene	ND	µg/L	1.0						
2-Hexanone	ND	µg/L	10						
Isopropylbenzene	ND	µg/L	1.0						
4-Isopropyltoluene	ND	µg/L	1.0						

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Semi-Annual GW 032 **Work Order:** 0905111

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: 5ml rb		*MBLK*			Batch ID: **R33624**		Analysis Date:	5/11/2009 8:44:44 AM	
4-Methyl-2-pentanone	ND	µg/L	10						
Methylene Chloride	ND	µg/L	3.0						
n-Butylbenzene	ND	µg/L	1.0						
n-Propylbenzene	ND	µg/L	1.0						
sec-Butylbenzene	ND	µg/L	1.0						
Styrene	ND	µg/L	1.0						
tert-Butylbenzene	ND	µg/L	1.0						
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0						
1,1,2,2-Tetrachloroethane	ND	µg/L	2.0						
Tetrachloroethene (PCE)	ND	µg/L	1.0						
trans-1,2-DCE	ND	µg/L	1.0						
trans-1,3-Dichloropropene	ND	µg/L	1.0						
1,2,3-Trichlorobenzene	ND	µg/L	1.0						
1,2,4-Trichlorobenzene	ND	µg/L	1.0						
1,1,1-Trichloroethane	ND	µg/L	1.0						
1,1,2-Trichloroethane	ND	µg/L	1.0						
Trichloroethene (TCE)	ND	µg/L	1.0						
Trichlorofluoromethane	ND	µg/L	1.0						
1,2,3-Trichloropropane	ND	µg/L	2.0						
Vinyl chloride	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	1.5						
Sample ID: b6		*MBLK*			Batch ID: **R33624**		Analysis Date:	5/11/2009 9:57:05 PM	
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0						
1,2,4-Trimethylbenzene	ND	µg/L	1.0						
1,3,5-Trimethylbenzene	ND	µg/L	1.0						
1,2-Dichloroethane (EDC)	ND	µg/L	1.0						
1,2-Dibromoethane (EDB)	ND	µg/L	1.0						
Naphthalene	ND	µg/L	2.0						
1-Methylnaphthalene	ND	µg/L	4.0						
2-Methylnaphthalene	ND	µg/L	4.0						
Acetone	ND	µg/L	10						
Bromobenzene	ND	µg/L	1.0						
Bromodichloromethane	ND	µg/L	1.0						
Bromoform	ND	µg/L	1.0						
Bromomethane	ND	µg/L	1.0						
2-Butanone	ND	µg/L	10						
Carbon disulfide	ND	µg/L	10						
Carbon Tetrachloride	ND	µg/L	1.0						
Chlorobenzene	ND	µg/L	1.0						
Chloroethane	ND	µg/L	2.0						
Chloroform	ND	µg/L	1.0						

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Semi-Annual GW 032 **Work Order:** 0905111

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: b6		*MBLK*			Batch ID: **R33624**		Analysis Date:	5/11/2009 9:57:05 PM	
Chloromethane	ND	µg/L	1.0						
2-Chlorotoluene	ND	µg/L	1.0						
4-Chlorotoluene	ND	µg/L	1.0						
cis-1,2-DCE	ND	µg/L	1.0						
cis-1,3-Dichloropropene	ND	µg/L	1.0						
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0						
Dibromochloromethane	ND	µg/L	1.0						
Dibromomethane	ND	µg/L	1.0						
1,2-Dichlorobenzene	ND	µg/L	1.0						
1,3-Dichlorobenzene	ND	µg/L	1.0						
1,4-Dichlorobenzene	ND	µg/L	1.0						
Dichlorodifluoromethane	ND	µg/L	1.0						
1,1-Dichloroethane	ND	µg/L	1.0						
1,1-Dichloroethene	ND	µg/L	1.0						
1,2-Dichloropropane	ND	µg/L	1.0						
1,3-Dichloropropane	ND	µg/L	1.0						
2,2-Dichloropropane	ND	µg/L	2.0						
1,1-Dichloropropene	ND	µg/L	1.0						
Hexachlorobutadiene	ND	µg/L	1.0						
2-[illegible]anone	ND	µg/L	10						
Isopropylbenzene	ND	µg/L	1.0						
4-Isopropyltoluene	ND	µg/L	1.0						
4-Methyl-2-pentanone	ND	µg/L	10						
Methylene Chloride	ND	µg/L	3.0						
n-Butylbenzene	ND	µg/L	1.0						
n-Propylbenzene	ND	µg/L	1.0						
sec-Butylbenzene	ND	µg/L	1.0						
Styrene	ND	µg/L	1.0						
tert-Butylbenzene	ND	µg/L	1.0						
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0						
1,1,2,2-Tetrachloroethane	ND	µg/L	2.0						
Tetrachloroethene (PCE)	ND	µg/L	1.0						
trans-1,2-DCE	ND	µg/L	1.0						
trans-1,3-Dichloropropene	ND	µg/L	1.0						
1,2,3-Trichlorobenzene	ND	µg/L	1.0						
1,2,4-Trichlorobenzene	ND	µg/L	1.0						
1,1,1-Trichloroethane	ND	µg/L	1.0						
1,1,2-Trichloroethane	ND	µg/L	1.0						
Trichloroethene (TCE)	ND	µg/L	1.0						
Trichlorofluoromethane	ND	µg/L	1.0						
1,2,3-Trichloropropane	ND	µg/L	2.0						
Vinyl chloride	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	1.5						
Sample ID: 100ng lcs		*LCS*			Batch ID: **R33624**		Analysis Date:	5/11/2009 10:08:27 AM	

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Semi-Annual GW 032 **Work Order:** 0905111

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: 100ng lcs		*LCS*			Batch ID: **R33624**		Analysis Date:	5/11/2009 10:08:27 AM	
Benzene	21.03	µg/L	1.0	105	76.7	114			
Toluene	17.99	µg/L	1.0	89.9	78.4	117			
Chlorobenzene	17.89	µg/L	1.0	89.5	80.7	127			
1,1-Dichloroethene	23.80	µg/L	1.0	119	80.2	128			
Trichloroethene (TCE)	21.42	µg/L	1.0	107	77.4	115			
Sample ID: 100ng lcs_b		*LCS*			Batch ID: **R33624**		Analysis Date:	5/11/2009 10:55:26 PM	
Benzene	21.98	µg/L	1.0	110	76.7	114			
Toluene	19.52	µg/L	1.0	97.6	78.4	117			
Chlorobenzene	18.19	µg/L	1.0	91.0	80.7	127			
1,1-Dichloroethene	23.27	µg/L	1.0	116	80.2	128			
Trichloroethene (TCE)	21.08	µg/L	1.0	105	77.4	115			
Method: EPA Method 7470: Mercury									
Sample ID: MB-19065		*MBLK*			Batch ID: **19065**		Analysis Date:	5/11/2009 3:20:37 PM	
Mercury	ND	mg/L	0.00020						
Sample ID: LCS-19065		*LCS*			Batch ID: **19065**		Analysis Date:	5/11/2009 3:22:22 PM	
Mercury	0.005102	mg/L	0.00020	102	80	120			
Sample ID: LCS-19065		*LCS*			Batch ID: **19065**		Analysis Date:	5/11/2009 4:40:40 PM	
Mercury	0.005399	mg/L	0.00020	108	80	120			

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
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R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Semi-Annual GW 032 **Work Order:** 0905111

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA 6010B: Total Recoverable Metals									
Sample ID: MB-19075		*MBLK*			Batch ID: **19075**		Analysis Date: 5/15/2009 11:13:06 AM		
Barium	ND	mg/L	0.010						
Cadmium	ND	mg/L	0.0020						
Calcium	ND	mg/L	0.50						
Chromium	ND	mg/L	0.0060						
Copper	ND	mg/L	0.0060						
Iron	ND	mg/L	0.050						
Lead	ND	mg/L	0.0050						
Magnesium	ND	mg/L	0.50						
Manganese	ND	mg/L	0.0020						
Potassium	ND	mg/L	1.0						
Silver	ND	mg/L	0.0050						
Sodium	ND	mg/L	0.50						
Zinc	ND	mg/L	0.020						
Sample ID: LCS-19075		*LCS*			Batch ID: **19075**		Analysis Date: 5/15/2009 11:16:17 AM		
Barium	0.4539	mg/L	0.010	90.8	80	120			
Cadmium	0.4620	mg/L	0.0020	92.4	80	120			
Calcium	47.61	mg/L	0.50	95.2	80	120			
Chromium	0.4631	mg/L	0.0060	92.6	80	120			
Copper	0.4628	mg/L	0.0060	92.6	80	120			
Iron	0.5020	mg/L	0.050	100	80	120			
Lead	0.4561	mg/L	0.0050	91.2	80	120			
Magnesium	47.64	mg/L	0.50	95.3	80	120			
Manganese	0.4521	mg/L	0.0020	90.4	80	120			
Potassium	50.76	mg/L	1.0	102	80	120			
Silver	0.4648	mg/L	0.0050	92.7	80	120			
Sodium	51.04	mg/L	0.50	102	80	120			
Zinc	0.4561	mg/L	0.020	90.8	80	120			
Sample ID: LCS-19075		*LCSD*			Batch ID: **19075**		Analysis Date: 5/15/2009 11:19:45 AM		
Barium	0.4682	mg/L	0.010	93.6	80	120	3.10	20	
Cadmium	0.4785	mg/L	0.0020	95.7	80	120	3.49	20	
Calcium	50.91	mg/L	0.50	102	80	120	6.71	20	
Chromium	0.4786	mg/L	0.0060	95.7	80	120	3.29	20	
Copper	0.4755	mg/L	0.0060	95.1	80	120	2.72	20	
Iron	0.5306	mg/L	0.050	106	80	120	5.53	20	
Lead	0.4695	mg/L	0.0050	93.9	80	120	2.90	20	
Magnesium	50.97	mg/L	0.50	102	80	120	6.76	20	
Manganese	0.4662	mg/L	0.0020	93.2	80	120	3.08	20	
Potassium	54.51	mg/L	1.0	109	80	120	7.12	20	
Silver	0.4782	mg/L	0.0050	95.3	80	120	2.84	20	
Sodium	54.67	mg/L	0.50	109	80	120	6.86	20	
Zinc	0.4705	mg/L	0.020	93.7	80	120	3.10	20	

Qualifiers:

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R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Semi-Annual GW 032 **Work Order:** 0905111

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8270C: Semivolatiles									
Sample ID: mb-19078		*MBLK*			Batch ID: **19078**		Analysis Date:		5/15/2009
Acenaphthene	ND	µg/L	10						
Acenaphthylene	ND	µg/L	10						
Aniline	ND	µg/L	10						
Anthracene	ND	µg/L	10						
Azobenzene	ND	µg/L	10						
Benz(a)anthracene	ND	µg/L	10						
Benzo(a)pyrene	ND	µg/L	10						
Benzo(b)fluoranthene	ND	µg/L	10						
Benzo(g,h,i)perylene	ND	µg/L	10						
Benzo(k)fluoranthene	ND	µg/L	10						
Benzoic acid	ND	µg/L	20						
Benzyl alcohol	ND	µg/L	10						
Bis(2-chloroethoxy)methane	ND	µg/L	10						
Bis(2-chloroethyl)ether	ND	µg/L	10						
Bis(2-chloroisopropyl)ether	ND	µg/L	10						
Bis(2-ethylhexyl)phthalate	ND	µg/L	10						
4-Bromophenyl phenyl ether	ND	µg/L	10						
Butyl benzyl phthalate	ND	µg/L	10						
Carbazole	ND	µg/L	10						
4-[illegible]o-3-methylphenol	ND	µg/L	10						
4-[illegible]roaniline	ND	µg/L	10						
2-Chloronaphthalene	ND	µg/L	10						
2-Chlorophenol	ND	µg/L	10						
4-Chlorophenyl phenyl ether	ND	µg/L	10						
Chrysene	ND	µg/L	10						
Di-n-butyl phthalate	ND	µg/L	10						
Di-n-octyl phthalate	ND	µg/L	10						
Dibenz(a,h)anthracene	ND	µg/L	10						
Dibenzofuran	ND	µg/L	10						
1,2-Dichlorobenzene	ND	µg/L	5.0						
1,3-Dichlorobenzene	ND	µg/L	10						
1,4-Dichlorobenzene	ND	µg/L	5.0						
3,3'-Dichlorobenzidine	ND	µg/L	10						
Diethyl phthalate	ND	µg/L	10						
Dimethyl phthalate	ND	µg/L	10						
2,4-Dichlorophenol	ND	µg/L	20						
2,4-Dimethylphenol	ND	µg/L	10						
4,6-Dinitro-2-methylphenol	ND	µg/L	20						
2,4-Dinitrophenol	ND	µg/L	5.0						
2,4-Dinitrotoluene	ND	µg/L	5.0						
2,6-Dinitrotoluene	ND	µg/L	10						
Fluoranthene	ND	µg/L	10						
Fluorene	ND	µg/L	10						
Hexachlorobenzene	ND	µg/L	5.0						

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Semi-Annual GW 032 **Work Order:** 0905111

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8270C: Semivolatiles									
Sample ID: mb-19078		*MBLK*			Batch ID: **19078**		Analysis Date:		5/15/2009
Hexachlorobutadiene	ND	µg/L	10						
Hexachlorocyclopentadiene	ND	µg/L	10						
Hexachloroethane	ND	µg/L	5.0						
Indeno(1,2,3-cd)pyrene	ND	µg/L	10						
Isophorone	ND	µg/L	10						
2-Methylnaphthalene	ND	µg/L	10						
2-Methylphenol	ND	µg/L	5.0						
3+4-Methylphenol	ND	µg/L	5.0						
N-Nitrosodi-n-propylamine	ND	µg/L	10						
N-Nitrosodimethylamine	ND	µg/L	10						
N-Nitrosodiphenylamine	ND	µg/L	10						
Naphthalene	ND	µg/L	10						
2-Nitroaniline	ND	µg/L	10						
3-Nitroaniline	ND	µg/L	10						
4-Nitroaniline	ND	µg/L	10						
Nitrobenzene	ND	µg/L	5.0						
2-Nitrophenol	ND	µg/L	10						
4-Nitrophenol	ND	µg/L	10						
Pentachlorophenol	ND	µg/L	5.0						
[illegible]anthrene	ND	µg/L	10						
[illegible]ol	ND	µg/L	10						
Pyrene	ND	µg/L	10						
Pyridine	ND	µg/L	5.0						
1,2,4-Trichlorobenzene	ND	µg/L	10						
2,4,5-Trichlorophenol	ND	µg/L	10						
2,4,6-Trichlorophenol	ND	µg/L	10						
Sample ID: LCS-19078		*LCSD4*			Batch ID: **19078**		Analysis Date:		5/15/2009
Acenaphthene	67.52	µg/L	10	67.5	40.8	101	0.591	20	
Acenaphthylene	69.72	µg/L	10	69.7	45.3	96.8	5.58	20	
Aniline	26.96	µg/L	10	27.0	24.9	94	1.19	20	
Anthracene	76.54	µg/L	10	76.5	39.8	115	5.09	20	
Azobenzene	70.02	µg/L	10	70.0	48.1	101	6.28	20	
Benz(a)anthracene	76.42	µg/L	10	76.4	34.8	114	2.76	20	
Benzo(a)pyrene	71.22	µg/L	10	71.2	42.6	107	3.86	20	
Benzo(b)fluoranthene	73.62	µg/L	10	73.6	42.7	107	5.96	20	
Benzo(g,h,i)perylene	66.78	µg/L	10	66.8	41	108	0.329	20	
Benzo(k)fluoranthene	81.76	µg/L	10	81.8	36.1	113	2.20	20	
Benzoic acid	60.06	µg/L	20	60.1	37.2	88.3	10.0	20	
Benzyl alcohol	68.34	µg/L	10	68.3	39.5	104	1.74	20	
Bis(2-chloroethoxy)methane	69.50	µg/L	10	69.5	48	95.7	1.91	20	
Bis(2-chloroethyl)ether	67.96	µg/L	10	68.0	42.4	102	5.30	20	
Bis(2-chloroisopropyl)ether	63.50	µg/L	10	63.5	40.9	103	2.39	20	
Bis(2-ethylhexyl)phthalate	79.76	µg/L	10	79.8	28.2	126	7.51	20	
4-Bromophenyl phenyl ether	70.54	µg/L	10	70.5	35.8	116	5.86	20	

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Semi-Annual GW 032 **Work Order:** 0905111

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8270C: Semivolatiles									
Sample ID: LCS-19078		*LCSD4*			Batch ID:	**19078**	Analysis Date:		5/15/2009
Butyl benzyl phthalate	77.70	µg/L	10	77.7	36	115	0.488	20	
Carbazole	77.08	µg/L	10	77.1	40.6	111	2.12	20	
4-Chloro-3-methylphenol	69.20	µg/L	10	69.2	46.5	99	1.69	20	
4-Chloroaniline	52.76	µg/L	10	52.8	43.1	93.7	4.85	20	
2-Chloronaphthalene	71.84	µg/L	10	71.8	39.5	102	1.52	20	
2-Chlorophenol	59.24	µg/L	10	59.2	38.8	102	4.84	20	
4-Chlorophenyl phenyl ether	70.54	µg/L	10	70.5	52.7	93.9	6.90	20	
Chrysene	84.38	µg/L	10	84.4	33.4	120	1.69	20	
Di-n-butyl phthalate	76.52	µg/L	10	76.5	43	113	2.46	20	
Di-n-octyl phthalate	80.18	µg/L	10	80.2	37.3	112	7.65	20	
Dibenz(a,h)anthracene	70.06	µg/L	10	70.1	42.9	112	0.486	20	
Dibenzofuran	70.20	µg/L	10	70.2	41.9	101	5.78	20	
1,2-Dichlorobenzene	58.76	µg/L	5.0	58.8	43.4	79.8	0	20	
1,3-Dichlorobenzene	53.10	µg/L	10	53.1	42.1	75.3	3.26	20	
1,4-Dichlorobenzene	55.56	µg/L	5.0	55.6	41.7	77	2.63	20	
3,3'-Dichlorobenzidine	79.92	µg/L	10	79.9	34.4	108	12.6	20	
Diethyl phthalate	74.96	µg/L	10	75.0	52.9	100	6.40	20	
Dimethyl phthalate	82.22	µg/L	10	82.2	44.1	106	2.92	20	
2,4-Dichlorophenol	69.62	µg/L	20	69.6	44.3	101	1.24	20	
2[illegible]methylphenol	65.60	µg/L	10	65.6	43.2	99.2	2.85	20	
4,[illegible]nitro-2-methylphenol	67.24	µg/L	20	67.2	56.8	90.4	1.01	20	
2,4-Dinitrophenol	58.82	µg/L	5.0	58.8	48.3	93.3	5.71	20	
2,4-Dinitrotoluene	75.32	µg/L	5.0	75.3	49.2	101	4.41	20	
2,6-Dinitrotoluene	83.32	µg/L	10	83.3	47.1	101	4.64	20	
Fluoranthene	76.00	µg/L	10	76.0	52.3	92.4	1.07	20	
Fluorene	78.44	µg/L	10	78.4	45.9	100	2.96	20	
Hexachlorobenzene	67.82	µg/L	5.0	67.8	39.2	109	5.39	20	
Hexachlorobutadiene	56.76	µg/L	10	56.8	40.8	78	0.212	20	
Hexachlorocyclopentadiene	56.16	µg/L	10	56.2	40.9	79.5	5.07	20	
Hexachloroethane	53.22	µg/L	5.0	53.2	38.4	73.6	0.113	20	
Indeno(1,2,3-cd)pyrene	73.48	µg/L	10	73.5	40.4	113	0.491	20	
Isophorone	82.10	µg/L	10	82.1	45.4	99.2	2.00	20	
2-Methylnaphthalene	70.46	µg/L	10	70.5	37.5	99.1	4.20	20	
2-Methylphenol	59.60	µg/L	5.0	59.6	37.7	102	5.17	20	
3+4-Methylphenol	54.98	µg/L	5.0	55.0	44.4	92.8	3.54	20	
N-Nitrosodi-n-propylamine	69.06	µg/L	10	69.1	34.8	114	7.69	20	
N-Nitrosodimethylamine	68.04	µg/L	10	68.0	41.4	89	0.560	20	
N-Nitrosodiphenylamine	60.84	µg/L	10	60.8	51.5	101	9.85	20	
Naphthalene	65.74	µg/L	10	65.7	42.7	90	2.29	20	
2-Nitroaniline	77.02	µg/L	10	77.0	44.1	107	0.939	20	
3-Nitroaniline	72.86	µg/L	10	72.9	50.4	96.9	3.77	20	
4-Nitroaniline	72.42	µg/L	10	72.4	52.8	93.2	3.87	20	
Nitrobenzene	71.38	µg/L	5.0	71.4	45.7	95.2	3.55	20	
2-Nitrophenol	70.04	µg/L	10	70.0	42.9	102	0.114	20	

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Semi-Annual GW 032 **Work Order:** 0905111

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8270C: Semivolatiles									
Sample ID: LCS-19078		*LCSD4*			Batch ID:	19078	Analysis Date:		5/15/2009
4-Nitrophenol	48.80	µg/L	10	48.8	38.8	79.2	4.18	20	
Pentachlorophenol	74.68	µg/L	5.0	74.7	45.3	108	0.508	20	
Phenanthrene	75.72	µg/L	10	75.7	37.2	113	1.23	20	
Phenol	40.00	µg/L	10	40.0	32.7	77.3	1.88	20	
Pyrene	93.22	µg/L	10	93.2	42	104	4.92	20	
Pyridine	42.68	µg/L	5.0	42.7	19.2	67.8	0.517	20	
1,2,4-Trichlorobenzene	60.66	µg/L	10	60.7	39.1	88.6	3.91	20	
2,4,5-Trichlorophenol	70.84	µg/L	10	70.8	51.6	93.1	0.908	20	
2,4,6-Trichlorophenol	69.68	µg/L	10	69.7	51.6	98	1.18	20	
Sample ID: lcs-19078		*LCS4*			Batch ID:	19078	Analysis Date:		5/15/2009
Acenaphthene	67.92	µg/L	10	67.9	40.8	101			
Acenaphthylene	73.72	µg/L	10	73.7	45.3	96.8			
Aniline	26.64	µg/L	10	26.6	24.9	94			
Anthracene	80.54	µg/L	10	80.5	39.8	115			
Azobenzene	74.56	µg/L	10	74.6	48.1	101			
Benz(a)anthracene	78.56	µg/L	10	78.6	34.8	114			
Benzo(a)pyrene	74.02	µg/L	10	74.0	42.6	107			
Benzo(b)fluoranthene	78.14	µg/L	10	78.1	42.7	107			
Benzo(g,h,i)perylene	67.00	µg/L	10	67.0	41	108			
B(k)fluoranthene	83.58	µg/L	10	83.6	36.1	113			
Benzoic acid	54.34	µg/L	20	54.3	37.2	88.3			
Benzyl alcohol	67.16	µg/L	10	67.2	39.5	104			
Bis(2-chloroethoxy)methane	70.84	µg/L	10	70.8	48	95.7			
Bis(2-chloroethyl)ether	71.66	µg/L	10	71.7	42.4	102			
Bis(2-chloroisopropyl)ether	62.00	µg/L	10	62.0	40.9	103			
Bis(2-ethylhexyl)phthalate	85.98	µg/L	10	86.0	28.2	126			
4-Bromophenyl phenyl ether	74.80	µg/L	10	74.8	35.8	116			
Butyl benzyl phthalate	78.08	µg/L	10	78.1	36	115			
Carbazole	75.46	µg/L	10	75.5	40.6	111			
4-Chloro-3-methylphenol	68.04	µg/L	10	68.0	46.5	99			
4-Chloroaniline	50.26	µg/L	10	50.3	43.1	93.7			
2-Chloronaphthalene	72.94	µg/L	10	72.9	39.5	102			
2-Chlorophenol	62.18	µg/L	10	62.2	38.8	102			
4-Chlorophenyl phenyl ether	75.58	µg/L	10	75.6	52.7	93.9			
Chrysene	85.82	µg/L	10	85.8	33.4	120			
Di-n-butyl phthalate	74.66	µg/L	10	74.7	43	113			
Di-n-octyl phthalate	86.56	µg/L	10	86.6	37.3	112			
Dibenz(a,h)anthracene	69.72	µg/L	10	69.7	42.9	112			
Dibenzofuran	74.38	µg/L	10	74.4	41.9	101			
1,2-Dichlorobenzene	58.76	µg/L	5.0	58.8	43.4	79.8			
1,3-Dichlorobenzene	54.86	µg/L	10	54.9	42.1	75.3			
1,4-Dichlorobenzene	57.04	µg/L	5.0	57.0	41.7	77			
3,3'-Dichlorobenzidine	70.48	µg/L	10	70.5	34.4	108			
Diethyl phthalate	79.92	µg/L	10	79.9	52.9	100			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Semi-Annual GW 032 **Work Order:** 0905111

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8270C: Semivolatiles									
Sample ID: lcs-19078		*LCS4*			Batch ID:	**19078**	Analysis Date:		5/15/2009
Dimethyl phthalate	84.66	µg/L	10	84.7	44.1	106			
2,4-Dichlorophenol	68.76	µg/L	20	68.8	44.3	101			
2,4-Dimethylphenol	67.50	µg/L	10	67.5	43.2	99.2			
4,6-Dinitro-2-methylphenol	67.92	µg/L	20	67.9	56.8	90.4			
2,4-Dinitrophenol	62.28	µg/L	5.0	62.3	48.3	93.3			
2,4-Dinitrotoluene	78.72	µg/L	5.0	78.7	49.2	101			
2,6-Dinitrotoluene	87.28	µg/L	10	87.3	47.1	101			
Fluoranthene	76.82	µg/L	10	76.8	52.3	92.4			
Fluorene	80.80	µg/L	10	80.8	45.9	100			
Hexachlorobenzene	71.58	µg/L	5.0	71.6	39.2	109			
Hexachlorobutadiene	56.64	µg/L	10	56.6	40.8	78			
Hexachlorocyclopentadiene	59.08	µg/L	10	59.1	40.9	79.5			
Hexachloroethane	53.28	µg/L	5.0	53.3	38.4	73.6			
Indeno(1,2,3-cd)pyrene	73.12	µg/L	10	73.1	40.4	113			
Isophorone	83.76	µg/L	10	83.8	45.4	99.2			
2-Methylnaphthalene	73.48	µg/L	10	73.5	37.5	99.1			
2-Methylphenol	62.76	µg/L	5.0	62.8	37.7	102			
3+4-Methylphenol	56.96	µg/L	5.0	57.0	44.4	92.8			
N-Nitrosodi-n-propylamine	74.58	µg/L	10	74.6	34.8	114			
N-Nitrosodimethylamine	67.66	µg/L	10	67.7	41.4	89			
N-Nitrosodiphenylamine	67.14	µg/L	10	67.1	51.5	101			
Naphthalene	67.26	µg/L	10	67.3	42.7	90			
2-Nitroaniline	76.30	µg/L	10	76.3	44.1	107			
3-Nitroaniline	75.66	µg/L	10	75.7	50.4	96.9			
4-Nitroaniline	75.28	µg/L	10	75.3	52.8	93.2			
Nitrobenzene	73.96	µg/L	5.0	74.0	45.7	95.2			
2-Nitrophenol	69.96	µg/L	10	70.0	42.9	102			
4-Nitrophenol	50.88	µg/L	10	50.9	38.8	79.2			
Pentachlorophenol	75.06	µg/L	5.0	75.1	45.3	108			
Phenanthrene	76.66	µg/L	10	76.7	37.2	113			
Phenol	40.76	µg/L	10	40.8	32.7	77.3			
Pyrene	88.74	µg/L	10	88.7	42	104			
Pyridine	42.46	µg/L	5.0	42.5	19.2	67.8			
1,2,4-Trichlorobenzene	63.08	µg/L	10	63.1	39.1	88.6			
2,4,5-Trichlorophenol	70.20	µg/L	10	70.2	51.6	93.1			
2,4,6-Trichlorophenol	68.86	µg/L	10	68.9	51.6	98			

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name WESTERN REFINING GALLU | Date Received: 5/7/2009

Work Order Number 0905111 | Received by: TLS

Sample ID labels checked by: _____ Initials

Checklist completed by: _____ Signature | Date

Matrix: | Carrier name: UPS

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

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

Chain-of-Custody Record

Client: Western Refining

Mailing Address: Rt 3 Box 7
Gallup, NM 87301

Phone #: 505 722 3833

email or Fax#: 505 722 0210

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

Turn-Around Time:
☒ Standard ☐ Rush _____

Project Name: 2009 Semi Annual GW-032

Project #:

Project Manager: G. Rajen

Sampler: Cheryl Johnson

On Ice: ☒ Yes ☐ No

Sample Temperature: 6

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. 0905111	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	GenChem	WQCC Metals			Air Bubbles (Y or N)
5-6-09	0820	H2O	BWI-EP2	1-500	None	1												X				
				1-125	H2SO4	1												X				
				1-500	HNO3	1												X				
	0835		EP1-In	1-500	None	2												X				
				1-125	H2SO4	2												X				
				1-500	HNO3	2												Y				
				3-VOA	HCl	2										X						
				3VOA	HCl	2			X													
				1-Amber	None	2											X					
				2-500	HNO3	2													X			

Date:	Time:	Relinquished by:	Received by:	Date	Time
5-6-09	0930			5/6/09	1005
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks: GenChem, Anions, Cations pH

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

HALL
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ANALYSIS
LABORATORY

COVER LETTER

Wednesday, June 03, 2009

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

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

RE: 2009 2nd QTR OW-Wells

Order No.: 0905242

Dear Gaurav Rajen:

Hall Environmental Analysis Laboratory, Inc. received 1 sample(s) on 5/14/2009 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

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

Hall Environmental Analysis Laboratory, Inc.

Date: *03-Jun-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	OW-14
Lab Order:	0905242	**Collection Date:**	5/12/2009 11:12:00 AM
Project:	2009 2nd QTR OW-Wells	**Date Received:**	5/14/2009
Lab ID:	0905242-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	10	10		µg/L	10	5/22/2009 4:38:11 PM
Toluene	2.9	1.0		µg/L	1	5/21/2009 11:37:59 PM
Ethylbenzene	4.9	1.0		µg/L	1	5/21/2009 11:37:59 PM
Xylenes, Total	ND	2.0		µg/L	1	5/21/2009 11:37:59 PM
1,2,4-Trimethylbenzene	1.6	1.0		µg/L	1	5/21/2009 11:37:59 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	5/21/2009 11:37:59 PM
Surr: 4-Bromofluorobenzene	97.3	65.9-130		%REC	1	5/21/2009 11:37:59 PM
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **HL**
Methyl tert-butyl ether (MTBE)	970	50		µg/L	50	5/26/2009 12:08:21 PM
Surr: 4-Bromofluorobenzene	117	80.4-119		%REC	50	5/26/2009 12:08:21 PM

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 2nd QTR OW-Wells **Work Order:** 0905242

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8021B: Volatiles									
Sample ID: 5ML RB		*MBLK*			Batch ID:	**R33777**	Analysis Date:		5/21/2009 9:22:24 AM
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
1,2,4-Trimethylbenzene	ND	µg/L	1.0						
1,3,5-Trimethylbenzene	ND	µg/L	1.0						
Sample ID: 5ML RB		*MBLK*			Batch ID:	**R33820**	Analysis Date:		5/22/2009 10:02:47 AM
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
1,2,4-Trimethylbenzene	ND	µg/L	1.0						
1,3,5-Trimethylbenzene	ND	µg/L	1.0						
Sample ID: 100NG BTEX LCS		*LCS*			Batch ID:	**R33777**	Analysis Date:		5/22/2009 6:13:09 AM
Benzene	21.86	µg/L	1.0	109	85.9	113			
Toluene	22.53	µg/L	1.0	113	86.4	113			
Ethylbenzene	21.99	µg/L	1.0	110	83.5	118			
Xylenes, Total	62.02	µg/L	2.0	103	83.4	122			
1,2,4-Trimethylbenzene	21.04	µg/L	1.0	104	83.5	115			
1,3,5-Trimethylbenzene	20.22	µg/L	1.0	100	85.2	113			
Sample ID: 100NG BTEX LCS		*LCS*			Batch ID:	**R33820**	Analysis Date:		5/22/2009 6:39:59 PM
Benzene	21.70	µg/L	1.0	108	85.9	113			
Toluene	22.22	µg/L	1.0	111	86.4	113			
Ethylbenzene	22.31	µg/L	1.0	112	83.5	118			
Xylenes, Total	64.10	µg/L	2.0	107	83.4	122			
1,2,4-Trimethylbenzene	23.13	µg/L	1.0	116	83.5	115			S
1,3,5-Trimethylbenzene	21.79	µg/L	1.0	109	85.2	113			
Sample ID: 100NG BTEX LCSD		*LCSD*			Batch ID:	**R33820**	Analysis Date:		5/22/2009 7:10:32 PM
Benzene	20.62	µg/L	1.0	103	85.9	113	5.07	27	
Toluene	20.79	µg/L	1.0	104	86.4	113	6.67	19	
Ethylbenzene	20.90	µg/L	1.0	104	83.5	118	6.56	10	
Xylenes, Total	59.42	µg/L	2.0	99.0	83.4	122	7.57	13	
1,2,4-Trimethylbenzene	21.06	µg/L	1.0	105	83.5	115	9.37	21	
1,3,5-Trimethylbenzene	20.20	µg/L	1.0	101	85.2	113	7.60	10	
Method: EPA Method 8260: Volatiles Short List									
Sample ID: 5ml rb		*MBLK*			Batch ID:	**R33844**	Analysis Date:		5/26/2009 8:43:52 AM
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0						

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name WESTERN REFINING GALLU | Date Received: 5/14/2009

Work Order Number 0905242 | Received by: ARS

Checklist completed by: _____ 5/14/09 | Sample ID labels checked by: _____

Signature | Date | Initials

Matrix: | Carrier name: UPS

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	N/A ☑	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☑	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☐	No ☐	N/A ☑	
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑	
Container/Temp Blank temperature?	2.0°	<6° C Acceptable If given sufficient time to cool.		

Number of preserved bottles checked for pH: _____

<2 >12 unless noted below.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

Chain-of-Custody Record

Client: Western Refining
Gallup - Refinery
Mailing Address: Rt 3 Box 7
Gallup NM 87301
Phone #: 505 722 3833
email or Fax#: 505 722 0210
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
☐ Other
☐ EDD (Type)

Turn-Around Time:
☐ Standard ☐ Rush

Project Name: 2009 2nd QTR OW-wells
Project #:
Project Manager: G. Rajen
Sampler: C Johnson
On Ice: ☒ Yes ☐ No
Sample Temperature: 2.0

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 0905142	BTEX + MTBE + TMB's (8021B)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
5/12/09	1112	H2O	OW-14	3-VOA	HCl	1	X											

Analysis Request

Date:	Time:	Relinquished by:	Received by:	Date	Time	Remarks:
5/13/09	10:00			5/14/09	10:00	
Date:	Time:	Relinquished by:	Received by:	Date	Time	

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

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Tuesday, July 14, 2009

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

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

RE: 2009 2nd Qtr Water Samples

Order No.: 0905522

Dear Gaurav Rajen:

Hall Environmental Analysis Laboratory, Inc. received 5 sample(s) on 5/28/2009 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

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

Hall Environmental Analysis Laboratory, Inc.

Date: *14-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL2 to EP-1
Lab Order:	0905522	**Collection Date:**	5/26/2009 9:55:00 AM
Project:	2009 2nd Qtr Water Samples	**Date Received:**	5/28/2009
Lab ID:	0905522-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **SCC**
Diesel Range Organics (DRO)	12	1.0		mg/L	1	6/2/2009
Motor Oil Range Organics (MRO)	5.2	5.0		mg/L	1	6/2/2009
Surr: DNOP	120	58-140		%REC	1	6/2/2009
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **DAM**
Gasoline Range Organics (GRO)	0.15	0.050		mg/L	1	6/5/2009 4:20:28 PM
Surr: BFB	124	59.9-122	S	%REC	1	6/5/2009 4:20:28 PM
EPA METHOD 7470: MERCURY						Analyst: **MMS**
Mercury	ND	0.00020		mg/L	1	6/3/2009 2:57:14 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **TES**
Arsenic	ND	0.020		mg/L	1	6/5/2009 2:53:57 PM
Barium	0.080	0.010		mg/L	1	6/5/2009 2:53:57 PM
Cadmium	ND	0.0020		mg/L	1	6/5/2009 2:53:57 PM
Chromium	ND	0.0060		mg/L	1	6/5/2009 2:53:57 PM
Copper	ND	0.0060		mg/L	1	6/5/2009 2:53:57 PM
Iron	5.7	0.50		mg/L	10	6/5/2009 4:40:36 PM
Lead	0.0073	0.0050		mg/L	1	6/5/2009 2:53:57 PM
Manganese	0.19	0.0020		mg/L	1	6/5/2009 2:53:57 PM
Selenium	ND	0.050		mg/L	1	6/5/2009 2:53:57 PM
Silver	ND	0.0050		mg/L	1	6/5/2009 2:53:57 PM
Zinc	0.59	0.020		mg/L	1	6/5/2009 2:53:57 PM
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
Benzene	ND	1.0		µg/L	1	6/1/2009 5:55:22 PM
Toluene	ND	1.0		µg/L	1	6/1/2009 5:55:22 PM
Ethylbenzene	ND	1.0		µg/L	1	6/1/2009 5:55:22 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/1/2009 5:55:22 PM
1,2,4-Trimethylbenzene	6.3	1.0		µg/L	1	6/1/2009 5:55:22 PM
1,3,5-Trimethylbenzene	2.5	1.0		µg/L	1	6/1/2009 5:55:22 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/1/2009 5:55:22 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/1/2009 5:55:22 PM
Naphthalene	2.3	2.0		µg/L	1	6/1/2009 5:55:22 PM
1-Methylnaphthalene	47	4.0		µg/L	1	6/1/2009 5:55:22 PM
2-Methylnaphthalene	41	4.0		µg/L	1	6/1/2009 5:55:22 PM
Acetone	1500	100		µg/L	10	5/29/2009 3:51:19 PM
Bromobenzene	ND	1.0		µg/L	1	6/1/2009 5:55:22 PM
Bromodichloromethane	ND	1.0		µg/L	1	6/1/2009 5:55:22 PM
Bromoform	ND	1.0		µg/L	1	6/1/2009 5:55:22 PM
Bromomethane	ND	1.0		µg/L	1	6/1/2009 5:55:22 PM
2-Butanone	81	10		µg/L	1	6/1/2009 5:55:22 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *14-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL2 to EP-1
Lab Order:	0905522	**Collection Date:**	5/26/2009 9:55:00 AM
Project:	2009 2nd Qtr Water Samples	**Date Received:**	5/28/2009
Lab ID:	0905522-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
Carbon disulfide	ND	10		µg/L	1	6/1/2009 5:55:22 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	6/1/2009 5:55:22 PM
Chlorobenzene	ND	1.0		µg/L	1	6/1/2009 5:55:22 PM
Chloroethane	ND	2.0		µg/L	1	6/1/2009 5:55:22 PM
Chloroform	ND	1.0		µg/L	1	6/1/2009 5:55:22 PM
Chloromethane	ND	1.0		µg/L	1	6/1/2009 5:55:22 PM
2-Chlorotoluene	ND	1.0		µg/L	1	6/1/2009 5:55:22 PM
4-Chlorotoluene	ND	1.0		µg/L	1	6/1/2009 5:55:22 PM
cis-1,2-DCE	ND	1.0		µg/L	1	6/1/2009 5:55:22 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/1/2009 5:55:22 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/1/2009 5:55:22 PM
Dibromochloromethane	ND	1.0		µg/L	1	6/1/2009 5:55:22 PM
Dibromomethane	ND	1.0		µg/L	1	6/1/2009 5:55:22 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/1/2009 5:55:22 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/1/2009 5:55:22 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/1/2009 5:55:22 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/1/2009 5:55:22 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	6/1/2009 5:55:22 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	6/1/2009 5:55:22 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	6/1/2009 5:55:22 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	6/1/2009 5:55:22 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	6/1/2009 5:55:22 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	6/1/2009 5:55:22 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	6/1/2009 5:55:22 PM
2-Hexanone	ND	10		µg/L	1	6/1/2009 5:55:22 PM
Isopropylbenzene	ND	1.0		µg/L	1	6/1/2009 5:55:22 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	6/1/2009 5:55:22 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/1/2009 5:55:22 PM
Methylene Chloride	ND	3.0		µg/L	1	6/1/2009 5:55:22 PM
n-Butylbenzene	1.2	1.0		µg/L	1	6/1/2009 5:55:22 PM
n-Propylbenzene	ND	1.0		µg/L	1	6/1/2009 5:55:22 PM
sec-Butylbenzene	ND	1.0		µg/L	1	6/1/2009 5:55:22 PM
Styrene	ND	1.0		µg/L	1	6/1/2009 5:55:22 PM
tert-Butylbenzene	ND	1.0		µg/L	1	6/1/2009 5:55:22 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/1/2009 5:55:22 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/1/2009 5:55:22 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/1/2009 5:55:22 PM
trans-1,2-DCE	ND	1.0		µg/L	1	6/1/2009 5:55:22 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/1/2009 5:55:22 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/1/2009 5:55:22 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/1/2009 5:55:22 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/1/2009 5:55:22 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *14-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL2 to EP-1
Lab Order:	0905522	**Collection Date:**	5/26/2009 9:55:00 AM
Project:	2009 2nd Qtr Water Samples	**Date Received:**	5/28/2009
Lab ID:	0905522-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/1/2009 5:55:22 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/1/2009 5:55:22 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	6/1/2009 5:55:22 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/1/2009 5:55:22 PM
Vinyl chloride	ND	1.0		µg/L	1	6/1/2009 5:55:22 PM
Xylenes, Total	7.3	1.5		µg/L	1	6/1/2009 5:55:22 PM
Surr: 1,2-Dichloroethane-d4	78.0	68.1-123		%REC	1	6/1/2009 5:55:22 PM
Surr: 4-Bromofluorobenzene	92.4	53.2-145		%REC	1	6/1/2009 5:55:22 PM
Surr: Dibromofluoromethane	91.9	68.5-119		%REC	1	6/1/2009 5:55:22 PM
Surr: Toluene-d8	91.2	64-131		%REC	1	6/1/2009 5:55:22 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *14-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	Pilot Eff
Lab Order:	0905522	**Collection Date:**	5/27/2009 8:25:00 AM
Project:	2009 2nd Qtr Water Samples	**Date Received:**	5/28/2009
Lab ID:	0905522-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **SCC**
Diesel Range Organics (DRO)	6.8	1.0		mg/L	1	6/2/2009
Motor Oil Range Organics (MRO)	7.3	5.0		mg/L	1	6/2/2009
Surr: DNOP	120	58-140		%REC	1	6/2/2009
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **DAM**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	6/5/2009 4:51:02 PM
Surr: BFB	99.6	59.9-122		%REC	1	6/5/2009 4:51:02 PM
EPA METHOD 7470: MERCURY						Analyst: **MMS**
Mercury	ND	0.00020		mg/L	1	6/3/2009 2:59:06 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **TES**
Arsenic	ND	0.020		mg/L	1	6/5/2009 2:58:06 PM
Barium	ND	0.010		mg/L	1	6/5/2009 2:58:06 PM
Cadmium	ND	0.0020		mg/L	1	6/5/2009 2:58:06 PM
Chromium	ND	0.0060		mg/L	1	6/5/2009 2:58:06 PM
Copper	0.034	0.0060		mg/L	1	6/5/2009 2:58:06 PM
Iron	0.33	0.050		mg/L	1	6/5/2009 2:58:06 PM
Lead	ND	0.0050		mg/L	1	6/5/2009 2:58:06 PM
Manganese	0.048	0.0020		mg/L	1	6/5/2009 2:58:06 PM
Selenium	ND	0.050		mg/L	1	6/5/2009 2:58:06 PM
Silver	ND	0.0050		mg/L	1	6/5/2009 2:58:06 PM
Zinc	0.046	0.020		mg/L	1	6/5/2009 2:58:06 PM
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
Benzene	ND	1.0		µg/L	1	5/29/2009 4:50:08 PM
Toluene	4.5	1.0		µg/L	1	5/29/2009 4:50:08 PM
Ethylbenzene	ND	1.0		µg/L	1	5/29/2009 4:50:08 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	5/29/2009 4:50:08 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	5/29/2009 4:50:08 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	5/29/2009 4:50:08 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	5/29/2009 4:50:08 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	5/29/2009 4:50:08 PM
Naphthalene	ND	2.0		µg/L	1	5/29/2009 4:50:08 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	5/29/2009 4:50:08 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	5/29/2009 4:50:08 PM
Acetone	170	10		µg/L	1	5/29/2009 4:50:08 PM
Bromobenzene	ND	1.0		µg/L	1	5/29/2009 4:50:08 PM
Bromodichloromethane	ND	1.0		µg/L	1	5/29/2009 4:50:08 PM
Bromoform	ND	1.0		µg/L	1	5/29/2009 4:50:08 PM
Bromomethane	ND	1.0		µg/L	1	5/29/2009 4:50:08 PM
2-Butanone	ND	10		µg/L	1	5/29/2009 4:50:08 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *14-Jul-09*

CLIENT: Western Refining Southwest, Gallup
Lab Order: 0905522
Project: 2009 2nd Qtr Water Samples
Lab ID: 0905522-02

Client Sample ID: Pilot Eff
Collection Date: 5/27/2009 8:25:00 AM
Date Received: 5/28/2009
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Carbon disulfide	ND	10		µg/L	1	5/29/2009 4:50:08 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	5/29/2009 4:50:08 PM
Chlorobenzene	ND	1.0		µg/L	1	5/29/2009 4:50:08 PM
Chloroethane	ND	2.0		µg/L	1	5/29/2009 4:50:08 PM
Chloroform	3.5	1.0		µg/L	1	5/29/2009 4:50:08 PM
Chloromethane	ND	1.0		µg/L	1	5/29/2009 4:50:08 PM
2-Chlorotoluene	ND	1.0		µg/L	1	5/29/2009 4:50:08 PM
4-Chlorotoluene	ND	1.0		µg/L	1	5/29/2009 4:50:08 PM
cis-1,2-DCE	ND	1.0		µg/L	1	5/29/2009 4:50:08 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	5/29/2009 4:50:08 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	5/29/2009 4:50:08 PM
Dibromochloromethane	ND	1.0		µg/L	1	5/29/2009 4:50:08 PM
Dibromomethane	ND	1.0		µg/L	1	5/29/2009 4:50:08 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	5/29/2009 4:50:08 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	5/29/2009 4:50:08 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	5/29/2009 4:50:08 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	5/29/2009 4:50:08 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	5/29/2009 4:50:08 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	5/29/2009 4:50:08 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	5/29/2009 4:50:08 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	5/29/2009 4:50:08 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	5/29/2009 4:50:08 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	5/29/2009 4:50:08 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	5/29/2009 4:50:08 PM
2-Hexanone	ND	10		µg/L	1	5/29/2009 4:50:08 PM
Isopropylbenzene	ND	1.0		µg/L	1	5/29/2009 4:50:08 PM
4-Isopropyltoluene	2.4	1.0		µg/L	1	5/29/2009 4:50:08 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	5/29/2009 4:50:08 PM
Methylene Chloride	ND	3.0		µg/L	1	5/29/2009 4:50:08 PM
n-Butylbenzene	ND	1.0		µg/L	1	5/29/2009 4:50:08 PM
n-Propylbenzene	ND	1.0		µg/L	1	5/29/2009 4:50:08 PM
sec-Butylbenzene	ND	1.0		µg/L	1	5/29/2009 4:50:08 PM
Styrene	ND	1.0		µg/L	1	5/29/2009 4:50:08 PM
tert-Butylbenzene	ND	1.0		µg/L	1	5/29/2009 4:50:08 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	5/29/2009 4:50:08 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	5/29/2009 4:50:08 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	5/29/2009 4:50:08 PM
trans-1,2-DCE	ND	1.0		µg/L	1	5/29/2009 4:50:08 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	5/29/2009 4:50:08 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	5/29/2009 4:50:08 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	5/29/2009 4:50:08 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	5/29/2009 4:50:08 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *14-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	Pilot Eff
Lab Order:	0905522	**Collection Date:**	5/27/2009 8:25:00 AM
Project:	2009 2nd Qtr Water Samples	**Date Received:**	5/28/2009
Lab ID:	0905522-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
1,1,2-Trichloroethane	ND	1.0		µg/L	1	5/29/2009 4:50:08 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	5/29/2009 4:50:08 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	5/29/2009 4:50:08 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	5/29/2009 4:50:08 PM
Vinyl chloride	ND	1.0		µg/L	1	5/29/2009 4:50:08 PM
Xylenes, Total	ND	1.5		µg/L	1	5/29/2009 4:50:08 PM
Surr: 1,2-Dichloroethane-d4	79.6	68.1-123		%REC	1	5/29/2009 4:50:08 PM
Surr: 4-Bromofluorobenzene	90.8	53.2-145		%REC	1	5/29/2009 4:50:08 PM
Surr: Dibromofluoromethane	89.0	68.5-119		%REC	1	5/29/2009 4:50:08 PM
Surr: Toluene-d8	95.7	64-131		%REC	1	5/29/2009 4:50:08 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *14-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	NAPIS EFF
Lab Order:	0905522	**Collection Date:**	5/26/2009 10:43:00 AM
Project:	2009 2nd Qtr Water Samples	**Date Received:**	5/28/2009
Lab ID:	0905522-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **SCC**
Diesel Range Organics (DRO)	110	10		mg/L	10	6/2/2009
Motor Oil Range Organics (MRO)	ND	50		mg/L	10	6/2/2009
Surr: DNOP	114	58-140		%REC	10	6/2/2009
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **DAM**
Gasoline Range Organics (GRO)	61	10		mg/L	200	6/4/2009 1:11:08 AM
Surr: BFB	89.7	59.9-122		%REC	200	6/4/2009 1:11:08 AM
EPA METHOD 300.0: ANIONS						Analyst: **RAGS**
Fluoride	73	5.0		mg/L	50	6/10/2009 1:55:30 AM
Chloride	120	2.0		mg/L	20	6/8/2009 6:55:28 PM
Nitrate (As N)+Nitrite (As N)	3.1	1.0		mg/L	5	6/8/2009 7:30:17 PM
Phosphorus, Orthophosphate (As P)	2.5	2.5		mg/L	5	6/8/2009 6:20:39 PM
Sulfate	620	10		mg/L	20	6/8/2009 6:55:28 PM
EPA METHOD 7470: MERCURY						Analyst: **MMS**
Mercury	0.0090	0.0010		mg/L	5	6/3/2009 3:40:34 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **TES**
Arsenic	ND	0.020		mg/L	1	6/5/2009 3:02:30 PM
Barium	0.090	0.010		mg/L	1	6/5/2009 3:02:30 PM
Cadmium	ND	0.0020		mg/L	1	6/5/2009 3:02:30 PM
Calcium	48	0.50		mg/L	1	6/5/2009 3:02:30 PM
Chromium	0.011	0.0060		mg/L	1	6/5/2009 3:02:30 PM
Copper	0.023	0.0060		mg/L	1	6/5/2009 3:02:30 PM
Iron	4.1	0.25		mg/L	5	6/5/2009 4:43:44 PM
Lead	0.0063	0.0050		mg/L	1	6/5/2009 3:02:30 PM
Magnesium	11	0.50		mg/L	1	6/5/2009 3:02:30 PM
Manganese	0.17	0.0020		mg/L	1	6/5/2009 3:02:30 PM
Potassium	77	1.0		mg/L	1	6/5/2009 3:02:30 PM
Selenium	ND	0.050		mg/L	1	6/5/2009 3:02:30 PM
Silver	ND	0.0050		mg/L	1	6/5/2009 3:02:30 PM
Sodium	390	2.5		mg/L	5	6/5/2009 4:43:44 PM
Zinc	0.34	0.020		mg/L	1	6/5/2009 3:02:30 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
4-Chloro-3-methylphenol	ND	50		µg/L	1	6/8/2009
2-Chlorophenol	ND	50		µg/L	1	6/8/2009
2,4-Dichlorophenol	ND	100		µg/L	1	6/8/2009
2,4-Dimethylphenol	200	50		µg/L	1	6/8/2009
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	6/8/2009
2,4-Dinitrophenol	ND	100		µg/L	1	6/8/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *14-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	NAPIS EFF
Lab Order:	0905522	**Collection Date:**	5/26/2009 10:43:00 AM
Project:	2009 2nd Qtr Water Samples	**Date Received:**	5/28/2009
Lab ID:	0905522-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2-Methylphenol	1600	250		µg/L	5	6/9/2009
3+4-Methylphenol	3900	250		µg/L	5	6/9/2009
2-Nitrophenol	ND	50		µg/L	1	6/8/2009
4-Nitrophenol	ND	50		µg/L	1	6/8/2009
Pentachlorophenol	ND	100		µg/L	1	6/8/2009
Phenol	7200	500		µg/L	10	6/9/2009
Surr: 2,4,6-Tribromophenol	11.1	16.6-150	S	%REC	1	6/8/2009
Surr: 2-Fluorobiphenyl	51.3	19.6-134		%REC	1	6/8/2009
Surr: 2-Fluorophenol	3.04	9.54-113	S	%REC	1	6/8/2009
Surr: 4-Terphenyl-d14	59.9	22.7-145		%REC	1	6/8/2009
Surr: Nitrobenzene-d5	104	14.6-134		%REC	1	6/8/2009
Surr: Phenol-d5	43.6	10.7-80.3		%REC	1	6/8/2009
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
Benzene	4100	200		µg/L	200	6/1/2009 4:00:41 PM
Toluene	14000	200		µg/L	200	6/1/2009 4:00:41 PM
Ethylbenzene	1600	200		µg/L	200	6/1/2009 4:00:41 PM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	5/29/2009 5:20:18 PM
1,2,4-Trimethylbenzene	3000	200		µg/L	200	6/1/2009 4:00:41 PM
1,3,5-Trimethylbenzene	370	10		µg/L	10	5/29/2009 5:20:18 PM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	5/29/2009 5:20:18 PM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	5/29/2009 5:20:18 PM
Naphthalene	490	20		µg/L	10	5/29/2009 5:20:18 PM
1-Methylnaphthalene	300	40		µg/L	10	5/29/2009 5:20:18 PM
2-Methylnaphthalene	500	40		µg/L	10	5/29/2009 5:20:18 PM
Acetone	8900	2000		µg/L	200	6/1/2009 4:00:41 PM
Bromobenzene	ND	10		µg/L	10	5/29/2009 5:20:18 PM
Bromodichloromethane	ND	10		µg/L	10	5/29/2009 5:20:18 PM
Bromoform	ND	10		µg/L	10	5/29/2009 5:20:18 PM
Bromomethane	ND	10		µg/L	10	5/29/2009 5:20:18 PM
2-Butanone	800	100		µg/L	10	5/29/2009 5:20:18 PM
Carbon disulfide	ND	100		µg/L	10	5/29/2009 5:20:18 PM
Carbon Tetrachloride	ND	10		µg/L	10	5/29/2009 5:20:18 PM
Chlorobenzene	ND	10		µg/L	10	5/29/2009 5:20:18 PM
Chloroethane	ND	20		µg/L	10	5/29/2009 5:20:18 PM
Chloroform	ND	10		µg/L	10	5/29/2009 5:20:18 PM
Chloromethane	ND	10		µg/L	10	5/29/2009 5:20:18 PM
2-Chlorotoluene	ND	10		µg/L	10	5/29/2009 5:20:18 PM
4-Chlorotoluene	ND	10		µg/L	10	5/29/2009 5:20:18 PM
cis-1,2-DCE	ND	10		µg/L	10	5/29/2009 5:20:18 PM
cis-1,3-Dichloropropene	ND	10		µg/L	10	5/29/2009 5:20:18 PM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	5/29/2009 5:20:18 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *14-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	NAPIS EFF
Lab Order:	0905522	**Collection Date:**	5/26/2009 10:43:00 AM
Project:	2009 2nd Qtr Water Samples	**Date Received:**	5/28/2009
Lab ID:	0905522-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Dibromochloromethane	ND	10		µg/L	10	5/29/2009 5:20:18 PM
Dibromomethane	ND	10		µg/L	10	5/29/2009 5:20:18 PM
1,2-Dichlorobenzene	ND	10		µg/L	10	5/29/2009 5:20:18 PM
1,3-Dichlorobenzene	ND	10		µg/L	10	5/29/2009 5:20:18 PM
1,4-Dichlorobenzene	ND	10		µg/L	10	5/29/2009 5:20:18 PM
Dichlorodifluoromethane	ND	10		µg/L	10	5/29/2009 5:20:18 PM
1,1-Dichloroethane	ND	10		µg/L	10	5/29/2009 5:20:18 PM
1,1-Dichloroethene	ND	10		µg/L	10	5/29/2009 5:20:18 PM
1,2-Dichloropropane	ND	10		µg/L	10	5/29/2009 5:20:18 PM
1,3-Dichloropropane	ND	10		µg/L	10	5/29/2009 5:20:18 PM
2,2-Dichloropropane	ND	20		µg/L	10	5/29/2009 5:20:18 PM
1,1-Dichloropropene	ND	10		µg/L	10	5/29/2009 5:20:18 PM
Hexachlorobutadiene	ND	10		µg/L	10	5/29/2009 5:20:18 PM
2-Hexanone	ND	100		µg/L	10	5/29/2009 5:20:18 PM
Isopropylbenzene	87	10		µg/L	10	5/29/2009 5:20:18 PM
4-Isopropyltoluene	30	10		µg/L	10	5/29/2009 5:20:18 PM
4-Methyl-2-pentanone	ND	100		µg/L	10	5/29/2009 5:20:18 PM
Methylene Chloride	ND	30		µg/L	10	5/29/2009 5:20:18 PM
n-Butylbenzene	110	10		µg/L	10	5/29/2009 5:20:18 PM
n-Propylbenzene	160	10		µg/L	10	5/29/2009 5:20:18 PM
sec-Butylbenzene	ND	10		µg/L	10	5/29/2009 5:20:18 PM
Styrene	ND	10		µg/L	10	5/29/2009 5:20:18 PM
tert-Butylbenzene	ND	10		µg/L	10	5/29/2009 5:20:18 PM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	5/29/2009 5:20:18 PM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	5/29/2009 5:20:18 PM
Tetrachloroethene (PCE)	ND	10		µg/L	10	5/29/2009 5:20:18 PM
trans-1,2-DCE	ND	10		µg/L	10	5/29/2009 5:20:18 PM
trans-1,3-Dichloropropene	ND	10		µg/L	10	5/29/2009 5:20:18 PM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	5/29/2009 5:20:18 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	5/29/2009 5:20:18 PM
1,1,1-Trichloroethane	ND	10		µg/L	10	5/29/2009 5:20:18 PM
1,1,2-Trichloroethane	ND	10		µg/L	10	5/29/2009 5:20:18 PM
Trichloroethene (TCE)	ND	10		µg/L	10	5/29/2009 5:20:18 PM
Trichlorofluoromethane	ND	10		µg/L	10	5/29/2009 5:20:18 PM
1,2,3-Trichloropropane	ND	20		µg/L	10	5/29/2009 5:20:18 PM
Vinyl chloride	ND	10		µg/L	10	5/29/2009 5:20:18 PM
Xylenes, Total	10000	300		µg/L	200	6/1/2009 4:00:41 PM
Surr: 1,2-Dichloroethane-d4	82.2	68.1-123		%REC	10	5/29/2009 5:20:18 PM
Surr: 4-Bromofluorobenzene	81.0	53.2-145		%REC	200	6/1/2009 4:00:41 PM
Surr: Dibromofluoromethane	88.3	68.5-119		%REC	200	6/1/2009 4:00:41 PM
Surr: Toluene-d8	116	64-131		%REC	10	5/29/2009 5:20:18 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *14-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	NAPIS EFF
Lab Order:	0905522	**Collection Date:**	5/26/2009 10:43:00 AM
Project:	2009 2nd Qtr Water Samples	**Date Received:**	5/28/2009
Lab ID:	0905522-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **BDH**
Specific Conductance	2600	0.010		µmhos/cm	1	5/29/2009
SM4500-H+B: PH						Analyst: **BDH**
pH	8.29	0.1		pH units	1	5/29/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *14-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	EP-1
Lab Order:	0905522	**Collection Date:**	5/27/2009 8:50:00 AM
Project:	2009 2nd Qtr Water Samples	**Date Received:**	5/28/2009
Lab ID:	0905522-04	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **SCC**
Diesel Range Organics (DRO)	9.1	1.0		mg/L	1	6/2/2009
Motor Oil Range Organics (MRO)	5.0	5.0		mg/L	1	6/2/2009
Surr: DNOP	117	58-140		%REC	1	6/2/2009
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **DAM**
Gasoline Range Organics (GRO)	3.0	0.50		mg/L	10	6/4/2009 1:41:28 AM
Surr: BFB	88.1	59.9-122		%REC	10	6/4/2009 1:41:28 AM
EPA METHOD 300.0: ANIONS						Analyst: **RAGS**
Fluoride	73	5.0		mg/L	50	6/10/2009 3:05:08 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
4-Chloro-3-methylphenol	ND	50		µg/L	1	6/8/2009
2-Chlorophenol	ND	50		µg/L	1	6/8/2009
2,4-Dichlorophenol	ND	100		µg/L	1	6/8/2009
2,4-Dimethylphenol	ND	50		µg/L	1	6/8/2009
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	6/8/2009
2,4-Dinitrophenol	ND	100		µg/L	1	6/8/2009
2-Methylphenol	470	50		µg/L	1	6/8/2009
3+4-Methylphenol	470	50		µg/L	1	6/8/2009
2-Nitrophenol	ND	50		µg/L	1	6/8/2009
4-Nitrophenol	ND	50		µg/L	1	6/8/2009
Pentachlorophenol	ND	100		µg/L	1	6/8/2009
Phenol	1300	100		µg/L	2	6/9/2009
Surr: 2,4,6-Tribromophenol	42.2	16.6-150		%REC	1	6/8/2009
Surr: 2-Fluorobiphenyl	48.4	19.6-134		%REC	1	6/8/2009
Surr: 2-Fluorophenol	36.9	9.54-113		%REC	1	6/8/2009
Surr: 4-Terphenyl-d14	56.7	22.7-145		%REC	1	6/8/2009
Surr: Nitrobenzene-d5	51.0	14.6-134		%REC	1	6/8/2009
Surr: Phenol-d5	31.0	10.7-80.3		%REC	1	6/8/2009
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
Benzene	ND	1.0		µg/L	1	6/1/2009 6:52:36 PM
Toluene	1.9	1.0		µg/L	1	6/1/2009 6:52:36 PM
Ethylbenzene	ND	1.0		µg/L	1	6/1/2009 6:52:36 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/1/2009 6:52:36 PM
1,2,4-Trimethylbenzene	7.3	1.0		µg/L	1	6/1/2009 6:52:36 PM
1,3,5-Trimethylbenzene	2.8	1.0		µg/L	1	6/1/2009 6:52:36 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/1/2009 6:52:36 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/1/2009 6:52:36 PM
Naphthalene	5.4	2.0		µg/L	1	6/1/2009 6:52:36 PM
1-Methylnaphthalene	39	4.0		µg/L	1	6/1/2009 6:52:36 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *14-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	EP-1
Lab Order:	0905522	**Collection Date:**	5/27/2009 8:50:00 AM
Project:	2009 2nd Qtr Water Samples	**Date Received:**	5/28/2009
Lab ID:	0905522-04	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
2-Methylnaphthalene	38	4.0		µg/L	1	6/1/2009 6:52:36 PM
Acetone	770	50		µg/L	5	5/29/2009 6:20:38 PM
Bromobenzene	ND	1.0		µg/L	1	6/1/2009 6:52:36 PM
Bromodichloromethane	ND	1.0		µg/L	1	6/1/2009 6:52:36 PM
Bromoform	ND	1.0		µg/L	1	6/1/2009 6:52:36 PM
Bromomethane	ND	1.0		µg/L	1	6/1/2009 6:52:36 PM
2-Butanone	64	10		µg/L	1	6/1/2009 6:52:36 PM
Carbon disulfide	ND	10		µg/L	1	6/1/2009 6:52:36 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	6/1/2009 6:52:36 PM
Chlorobenzene	ND	1.0		µg/L	1	6/1/2009 6:52:36 PM
Chloroethane	ND	2.0		µg/L	1	6/1/2009 6:52:36 PM
Chloroform	ND	1.0		µg/L	1	6/1/2009 6:52:36 PM
Chloromethane	ND	1.0		µg/L	1	6/1/2009 6:52:36 PM
2-Chlorotoluene	ND	1.0		µg/L	1	6/1/2009 6:52:36 PM
4-Chlorotoluene	ND	1.0		µg/L	1	6/1/2009 6:52:36 PM
cis-1,2-DCE	ND	1.0		µg/L	1	6/1/2009 6:52:36 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/1/2009 6:52:36 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/1/2009 6:52:36 PM
Dibromochloromethane	ND	1.0		µg/L	1	6/1/2009 6:52:36 PM
Dibromomethane	ND	1.0		µg/L	1	6/1/2009 6:52:36 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/1/2009 6:52:36 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/1/2009 6:52:36 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/1/2009 6:52:36 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/1/2009 6:52:36 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	6/1/2009 6:52:36 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	6/1/2009 6:52:36 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	6/1/2009 6:52:36 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	6/1/2009 6:52:36 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	6/1/2009 6:52:36 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	6/1/2009 6:52:36 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	6/1/2009 6:52:36 PM
2-Hexanone	ND	10		µg/L	1	6/1/2009 6:52:36 PM
Isopropylbenzene	ND	1.0		µg/L	1	6/1/2009 6:52:36 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	6/1/2009 6:52:36 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/1/2009 6:52:36 PM
Methylene Chloride	ND	3.0		µg/L	1	6/1/2009 6:52:36 PM
n-Butylbenzene	ND	1.0		µg/L	1	6/1/2009 6:52:36 PM
n-Propylbenzene	ND	1.0		µg/L	1	6/1/2009 6:52:36 PM
sec-Butylbenzene	ND	1.0		µg/L	1	6/1/2009 6:52:36 PM
Styrene	ND	1.0		µg/L	1	6/1/2009 6:52:36 PM
tert-Butylbenzene	ND	1.0		µg/L	1	6/1/2009 6:52:36 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/1/2009 6:52:36 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *14-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	EP-1
Lab Order:	0905522	**Collection Date:**	5/27/2009 8:50:00 AM
Project:	2009 2nd Qtr Water Samples	**Date Received:**	5/28/2009
Lab ID:	0905522-04	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/1/2009 6:52:36 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/1/2009 6:52:36 PM
trans-1,2-DCE	ND	1.0		µg/L	1	6/1/2009 6:52:36 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/1/2009 6:52:36 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/1/2009 6:52:36 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/1/2009 6:52:36 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/1/2009 6:52:36 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/1/2009 6:52:36 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/1/2009 6:52:36 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	6/1/2009 6:52:36 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/1/2009 6:52:36 PM
Vinyl chloride	ND	1.0		µg/L	1	6/1/2009 6:52:36 PM
Xylenes, Total	8.7	1.5		µg/L	1	6/1/2009 6:52:36 PM
Surr: 1,2-Dichloroethane-d4	76.4	68.1-123		%REC	1	6/1/2009 6:52:36 PM
Surr: 4-Bromofluorobenzene	87.7	53.2-145		%REC	1	6/1/2009 6:52:36 PM
Surr: Dibromofluoromethane	76.5	68.5-119		%REC	1	6/1/2009 6:52:36 PM
Surr: Toluene-d8	75.6	64-131		%REC	1	6/1/2009 6:52:36 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *14-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	Trip Blank
Lab Order:	0905522	**Collection Date:**	
Project:	2009 2nd Qtr Water Samples	**Date Received:**	5/28/2009
Lab ID:	0905522-05	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **DAM**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	6/4/2009 2:42:10 AM
Surr: BFB	84.2	59.9-122		%REC	1	6/4/2009 2:42:10 AM
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
Benzene	ND	1.0		µg/L	1	5/29/2009 7:17:50 PM
Toluene	ND	1.0		µg/L	1	5/29/2009 7:17:50 PM
Ethylbenzene	ND	1.0		µg/L	1	5/29/2009 7:17:50 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	5/29/2009 7:17:50 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	5/29/2009 7:17:50 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	5/29/2009 7:17:50 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	5/29/2009 7:17:50 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	5/29/2009 7:17:50 PM
Naphthalene	ND	2.0		µg/L	1	5/29/2009 7:17:50 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	5/29/2009 7:17:50 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	5/29/2009 7:17:50 PM
Acetone	ND	10		µg/L	1	5/29/2009 7:17:50 PM
Bromobenzene	ND	1.0		µg/L	1	5/29/2009 7:17:50 PM
Bromodichloromethane	ND	1.0		µg/L	1	5/29/2009 7:17:50 PM
Bromoform	ND	1.0		µg/L	1	5/29/2009 7:17:50 PM
Bromomethane	ND	1.0		µg/L	1	5/29/2009 7:17:50 PM
2-Butanone	ND	10		µg/L	1	5/29/2009 7:17:50 PM
Carbon disulfide	ND	10		µg/L	1	5/29/2009 7:17:50 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	5/29/2009 7:17:50 PM
Chlorobenzene	ND	1.0		µg/L	1	5/29/2009 7:17:50 PM
Chloroethane	ND	2.0		µg/L	1	5/29/2009 7:17:50 PM
Chloroform	ND	1.0		µg/L	1	5/29/2009 7:17:50 PM
Chloromethane	ND	1.0		µg/L	1	5/29/2009 7:17:50 PM
2-Chlorotoluene	ND	1.0		µg/L	1	5/29/2009 7:17:50 PM
4-Chlorotoluene	ND	1.0		µg/L	1	5/29/2009 7:17:50 PM
cis-1,2-DCE	ND	1.0		µg/L	1	5/29/2009 7:17:50 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	5/29/2009 7:17:50 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	5/29/2009 7:17:50 PM
Dibromochloromethane	ND	1.0		µg/L	1	5/29/2009 7:17:50 PM
Dibromomethane	ND	1.0		µg/L	1	5/29/2009 7:17:50 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	5/29/2009 7:17:50 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	5/29/2009 7:17:50 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	5/29/2009 7:17:50 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	5/29/2009 7:17:50 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	5/29/2009 7:17:50 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	5/29/2009 7:17:50 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	5/29/2009 7:17:50 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	5/29/2009 7:17:50 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *14-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	Trip Blank
Lab Order:	0905522	**Collection Date:**	
Project:	2009 2nd Qtr Water Samples	**Date Received:**	5/28/2009
Lab ID:	0905522-05	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
2,2-Dichloropropane	ND	2.0		µg/L	1	5/29/2009 7:17:50 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	5/29/2009 7:17:50 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	5/29/2009 7:17:50 PM
2-Hexanone	ND	10		µg/L	1	5/29/2009 7:17:50 PM
Isopropylbenzene	ND	1.0		µg/L	1	5/29/2009 7:17:50 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	5/29/2009 7:17:50 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	5/29/2009 7:17:50 PM
Methylene Chloride	ND	3.0		µg/L	1	5/29/2009 7:17:50 PM
n-Butylbenzene	ND	1.0		µg/L	1	5/29/2009 7:17:50 PM
n-Propylbenzene	ND	1.0		µg/L	1	5/29/2009 7:17:50 PM
sec-Butylbenzene	ND	1.0		µg/L	1	5/29/2009 7:17:50 PM
Styrene	ND	1.0		µg/L	1	5/29/2009 7:17:50 PM
tert-Butylbenzene	ND	1.0		µg/L	1	5/29/2009 7:17:50 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	5/29/2009 7:17:50 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	5/29/2009 7:17:50 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	5/29/2009 7:17:50 PM
trans-1,2-DCE	ND	1.0		µg/L	1	5/29/2009 7:17:50 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	5/29/2009 7:17:50 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	5/29/2009 7:17:50 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	5/29/2009 7:17:50 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	5/29/2009 7:17:50 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	5/29/2009 7:17:50 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	5/29/2009 7:17:50 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	5/29/2009 7:17:50 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	5/29/2009 7:17:50 PM
Vinyl chloride	ND	1.0		µg/L	1	5/29/2009 7:17:50 PM
Xylenes, Total	ND	1.5		µg/L	1	5/29/2009 7:17:50 PM
Surr: 1,2-Dichloroethane-d4	80.8	68.1-123		%REC	1	5/29/2009 7:17:50 PM
Surr: 4-Bromofluorobenzene	88.4	53.2-145		%REC	1	5/29/2009 7:17:50 PM
Surr: Dibromofluoromethane	89.2	68.5-119		%REC	1	5/29/2009 7:17:50 PM
Surr: Toluene-d8	94.3	64-131		%REC	1	5/29/2009 7:17:50 PM

Qualifiers:

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

ASSAIGAI ANALYTICAL LABORATORIES, INC. A WOMAN OWNED SMALL BUSINESS
4301 Masthead NE • Albuquerque, New Mexico 87109 • (505) 345-8964 • FAX (505) 345-7259

Explanation of codes	
B	Analyte Detected in Method Blank
E	Result is Estimated
H	Analyzed Out of Hold Time
N	Tentatively Identified Compound
S	Subcontracted
1-9	See Footnote

HALL ENVIRONMENTAL
attn: ANDY FREEMAN
4901 HAWKINS NE, SUITE D
ALBUQUERQUE NM 87109-4372

STANDARD

Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

All samples are reported on an "as received" basis, unless otherwise noted (i.e. - Dry Weight).

Client: HALL ENVIRONMENTAL
Project: 0905522
Order: 09050832 HAL03 Receipt: 05-28-09

William P. Biava: President of Assaigai Analytical Laboratories, Inc.

Sample: *0905522-02E PILOT EFF* Collected: *05-27-09 8:25:00* By:
Matrix: *AQUEOUS*

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09050832-001A		SM 5220C						By: ECC		
COD-09-023	WC.2009.1493.6	C-004	Chemical Oxygen Demand	442	mg/L	1	10		06-12-09	06-12-09

Sample: *0905522-02F PILOT EFF* Collected: *05-27-09 8:25:00* By:
Matrix: *AQUEOUS*

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09050832-002A		SM 5210B						By: ECC		
BOD090083	WC.2009.1403.4	10-26-4	Biochemical Oxygen Demand	431	mg/L	1	4	1	05-29-09	06-03-09

Sample: *0905522-04D EP-1* Collected: *05-27-09 8:50:00* By:
Matrix: *AQUEOUS*

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09050832-003A		SM 5220C						By: ECC		
COD-09-023	WC.2009.1493.7	C-004	Chemical Oxygen Demand	545	mg/L	1	10		06-12-09	06-12-09

Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

All samples are reported on an "as received" basis, unless otherwise noted (i.e. - Dry Weight).

lier: **HALL ENVIRONMENTAL**
roj: **0905522**
rder: **09050832** **HAL03** Receipt: **05-28-09**

ample: ***0905522-04E EP-1*** Collected: *05-27-09 8:50:00* By:
latrix: ***AQUEOUS***

IC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
9050832-004A		**SM 5210B**						By: ECC		
OD090063	WC.2009.1403.6	10-26-4	Biochemical Oxygen Demand	556	mg/L	1	4	1	05-29-09	06-03-09

Unless otherwise noted, all samples were received in acceptable condition and all sampling was performed by client or client representative. Sample result of ND indicates Not Detected, ie result is less than the sample specific Detection Limit. Sample specific Detection Limit is determined by multiplying the sample Dilution Factor by the listed Reporting Detection Limit. All results relate only to the items tested. Any miscellaneous workorder information or foonotes will appear below.

Analytical results are not corrected for method blank or field blank contamination.

1 The LCSD is out of QC criteria low. All other QC is within criteria. Results are valid as reported.

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800-735-4489 • 406-252-6325 • 406-252-6069 fax • eli@energylab.com

LABORATORY ANALYTICAL REPORT

Client:	Hall Environmental	**Report Date:**	06/08/09
Project:	0905522	**Collection Date:**	05/26/09 09:55
Lab ID:	B09060296-001	**DateReceived:**	06/02/09
Client Sample ID:	0905522-01D, AL2 to EP-1	**Matrix:**	Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
METALS, TOTAL							
Uranium	ND	mg/L		0.001		SW6020	06/07/09 06:03 / jjw

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client:	Hall Environmental	**Report Date:**	06/08/09
Project:	0905522	**Collection Date:**	05/27/09 08:25
Lab ID:	B09060296-002	**DateReceived:**	06/02/09
Client Sample ID:	0905522-02D, Pilot Eff	**Matrix:**	Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
METALS, TOTAL							
Uranium	ND	mg/L		0.001		SW6020	06/07/09 08:59 / jjw

Report Definitions:	RL - Analyte reporting limit.	MCL - Maximum contaminant level.
	QCL - Quality control limit.	ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client:	Hall Environmental	**Report Date:**	06/08/09
Project:	0905522	**Collection Date:**	05/26/09 10:43
Lab ID:	B09060296-003	**DateReceived:**	06/02/09
Client Sample ID:	0905622-03D, NAPIS EFF	**Matrix:**	Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
METALS, TOTAL							
Uranium	ND	mg/L		0.001		SW6020	06/07/09 07:13 / jjw

Report Definitions: RL - Analyte reporting limit. QCL - Quality control limit.
MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

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QA/QC Summary Report

Client: Hall Environmental
Project: 0905522

Report Date: 06/08/09
Work Order: B09060296

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6020									**Batch: 39299**
Sample ID: MB-39299	Method Blank				Run: ICPMS204-B_090606A				06/07/09 05:42
Uranium	1E-05	mg/L	2E-06						
Sample ID: LCS-39299	Laboratory Control Sample				Run: ICPMS204-B_090606A				06/07/09 05:49
Uranium	0.567	mg/L	0.0010	113	85	115			
Sample ID: B09060296-001AMS	Sample Matrix Spike				Run: ICPMS204-B_090606A				06/07/09 06:38
Uranium	2.77	mg/L	0.0010	111	75	125			
Sample ID: B09060296-001AMSD	Sample Matrix Spike Duplicate				Run: ICPMS204-B_090606A				06/07/09 06:45
Uranium	2.89	mg/L	0.0010	116	75	125	4.5	20	
Sample ID: B09060296-002ADIL	Serial Dilution				Run: ICPMS204-B_090606A				06/07/09 07:06
Uranium	0.000440	mg/L	0.0010		0	0		10	N
Method: SW6020									**Analytical Run: ICPMS204-B_090606A**
Sample ID: QCS-081021A,090401E,0	Initial Calibration Verification Standard								06/06/09 23:36
Uranium	0.0183	mg/L	0.00030	92	90	110			
Sample ID: ICSA-ME081125C	Interference Check Sample A								06/06/09 23:48
Uranium	1.70E-06	mg/L	0.00030						
Sample ID: ICSAB-ME081125C,0901	Interference Check Sample AB								06/06/09 23:55
Uranium	1.50E-06	mg/L	0.00030		0	0			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

N - The analyte concentration was not sufficiently high to calculate a RPD for the serial dilution test.

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 2nd Qtr Water Samples **Work Order:** 0905522

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 300.0: Anions									
Sample ID: MB		*MBLK*			Batch ID: **R34005**		Analysis Date:	6/8/2009 10:30:38 AM	
Fluoride	ND	mg/L	0.10						
Chloride	ND	mg/L	0.10						
Nitrate (As N)+Nitrite (As N)	ND	mg/L	0.20						
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50						
Sulfate	ND	mg/L	0.50						
Sample ID: MB		*MBLK*			Batch ID: **R34021**		Analysis Date:	6/9/2009 9:58:01 AM	
Fluoride	ND	mg/L	0.10						
Chloride	ND	mg/L	0.10						
Nitrate (As N)+Nitrite (As N)	ND	mg/L	0.20						
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50						
Sulfate	ND	mg/L	0.50						
Sample ID: LCS		*LCS*			Batch ID: **R34005**		Analysis Date:	6/8/2009 10:48:02 AM	
Fluoride	0.4967	mg/L	0.10	99.3	90	110			
Chloride	4.871	mg/L	0.10	97.4	90	110			
Nitrate (As N)+Nitrite (As N)	3.481	mg/L	0.20	99.5	90	110			
Phosphorus, Orthophosphate (As P)	4.637	mg/L	0.50	92.7	90	110			
Sulfate	9.738	mg/L	0.50	97.4	90	110			
Sample ID: LCS		*LCS*			Batch ID: **R34021**		Analysis Date:	6/9/2009 10:15:26 AM	
Fluoride	0.4765	mg/L	0.10	95.3	90	110			
Chloride	4.816	mg/L	0.10	96.3	90	110			
Nitrate (As N)+Nitrite (As N)	3.428	mg/L	0.20	97.9	90	110			
Phosphorus, Orthophosphate (As P)	4.682	mg/L	0.50	93.6	90	110			
Sulfate	9.763	mg/L	0.50	97.6	90	110			
Method: EPA Method 8015B: Diesel Range									
Sample ID: MB-19231		*MBLK*			Batch ID: **19231**		Analysis Date:	6/2/2009	
Diesel Range Organics (DRO)	ND	mg/L	1.0						
Motor Oil Range Organics (MRO)	ND	mg/L	5.0						
Sample ID: LCS-19231		*LCS*			Batch ID: **19231**		Analysis Date:	6/2/2009	
Diesel Range Organics (DRO)	6.666	mg/L	1.0	133	74	157			
Sample ID: LCSD-19231		*LCSD*			Batch ID: **19231**		Analysis Date:	6/2/2009	
Diesel Range Organics (DRO)	6.644	mg/L	1.0	133	74	157	0.335	23	

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 2nd Qtr Water Samples **Work Order:** 0905522

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8015B: Gasoline Range									
Sample ID: 5ML RB		*MBLK*			Batch ID:	**R33943**	Analysis Date:		6/3/2009 8:50:42 AM
Gasoline Range Organics (GRO)	ND	mg/L	0.050						
Sample ID: 5ML RB		*MBLK*			Batch ID:	**R33978**	Analysis Date:		6/5/2009 8:52:07 AM
Gasoline Range Organics (GRO)	ND	mg/L	0.050						
Sample ID: 2.5UG GRO LCS		*LCS*			Batch ID:	**R33943**	Analysis Date:		6/3/2009 5:33:42 PM
Gasoline Range Organics (GRO)	0.5806	mg/L	0.050	116	80	115			S
Sample ID: 2.5UG GRO LCS		*LCS*			Batch ID:	**R33978**	Analysis Date:		6/6/2009 12:38:53 PM
Gasoline Range Organics (GRO)	0.5664	mg/L	0.050	113	80	115			
Sample ID: 2.5UG GRO LCSD		*LCSD*			Batch ID:	**R33943**	Analysis Date:		6/3/2009 6:04:11 PM
Gasoline Range Organics (GRO)	0.5688	mg/L	0.050	114	80	115	2.05	8.39	
Sample ID: 2.5UG GRO LCSD		*LCSD*			Batch ID:	**R33978**	Analysis Date:		6/6/2009 1:09:14 PM
Gasoline Range Organics (GRO)	0.5490	mg/L	0.050	110	80	115	3.12	8.39	
Method: EPA Method 8270C: Semivolatiles									
Sample ID: mb-19240		*MBLK*			Batch ID:	**19240**	Analysis Date:		6/8/2009
4-Chloro-3-methylphenol	ND	µg/L	10						
2-Chlorophenol	ND	µg/L	10						
2,4-Dichlorophenol	ND	µg/L	20						
2,4-Dimethylphenol	ND	µg/L	10						
4,6-Dinitro-2-methylphenol	ND	µg/L	20						
2,4-Dinitrophenol	ND	µg/L	20						
2-Methylphenol	ND	µg/L	10						
3+4-Methylphenol	ND	µg/L	10						
2-Nitrophenol	ND	µg/L	10						
4-Nitrophenol	ND	µg/L	10						
Pentachlorophenol	ND	µg/L	20						
Phenol	ND	µg/L	10						
Sample ID: lcs-19240		*LCS*			Batch ID:	**19240**	Analysis Date:		6/8/2009
4-Chloro-3-methylphenol	93.98	µg/L	10	47.0	15.4	119			
2-Chlorophenol	85.20	µg/L	10	42.6	12.2	122			
4-Nitrophenol	50.96	µg/L	10	25.5	12.5	87.4			
Pentachlorophenol	100.2	µg/L	20	50.1	3.55	114			
Phenol	51.96	µg/L	10	26.0	7.53	73.1			
Sample ID: lcsd-19240		*LCSD*			Batch ID:	**19240**	Analysis Date:		6/8/2009
4-Chloro-3-methylphenol	107.7	µg/L	10	53.9	15.4	119	13.6	28.6	
2-Chlorophenol	84.82	µg/L	10	42.4	12.2	122	0.447	107	
4-Nitrophenol	70.08	µg/L	10	35.0	12.5	87.4	31.6	36.3	
Pentachlorophenol	114.6	µg/L	20	57.3	3.55	114	13.4	49	
Phenol	51.40	µg/L	10	25.7	7.53	73.1	1.08	52.4	

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 2nd Qtr Water Samples **Work Order:** 0905522

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 7470: Mercury									
Sample ID: MB-19251		*MBLK*			Batch ID:	**19251**	Analysis Date:		6/3/2009 2:48:07 PM
Mercury	ND	mg/L	0.00020						
Sample ID: LCS-19251		*LCS*			Batch ID:	**19251**	Analysis Date:		6/3/2009 2:49:56 PM
Mercury	0.004931	mg/L	0.00020	98.6	80	120			
Sample ID: LCS-19251		*LCSD*			Batch ID:	**19251**	Analysis Date:		6/3/2009 2:51:45 PM
Mercury	0.004947	mg/L	0.00020	98.9	80	120	0.335	0	
Method: EPA 6010B: Total Recoverable Metals									
Sample ID: MB-19242		*MBLK*			Batch ID:	**19242**	Analysis Date:		6/5/2009 2:43:07 PM
Arsenic	ND	mg/L	0.020						
Barium	ND	mg/L	0.010						
Cadmium	ND	mg/L	0.0020						
Calcium	ND	mg/L	0.50						
Chromium	ND	mg/L	0.0060						
Copper	ND	mg/L	0.0060						
Iron	ND	mg/L	0.050						
Lead	ND	mg/L	0.0050						
Magnesium	ND	mg/L	0.50						
Manganese	ND	mg/L	0.0020						
Potassium	ND	mg/L	1.0						
Selenium	ND	mg/L	0.050						
Silver	ND	mg/L	0.0050						
Sodium	ND	mg/L	0.50						
Zinc	ND	mg/L	0.020						
Sample ID: LCS-19242		*LCS*			Batch ID:	**19242**	Analysis Date:		6/5/2009 2:46:20 PM
Arsenic	0.4901	mg/L	0.020	98.0	80	120			
Barium	0.4583	mg/L	0.010	91.7	80	120			
Cadmium	0.4703	mg/L	0.0020	94.1	80	120			
Calcium	49.57	mg/L	0.50	99.1	80	120			
Chromium	0.4595	mg/L	0.0060	91.9	80	120			
Copper	0.4579	mg/L	0.0060	91.6	80	120			
Iron	0.4715	mg/L	0.050	93.0	80	120			
Lead	0.4750	mg/L	0.0050	95.0	80	120			
Magnesium	49.91	mg/L	0.50	99.8	80	120			
Manganese	0.4572	mg/L	0.0020	91.3	80	120			
Potassium	53.49	mg/L	1.0	107	80	120			
Selenium	0.4778	mg/L	0.050	95.6	80	120			
Silver	0.5023	mg/L	0.0050	100	80	120			
Sodium	53.05	mg/L	0.50	106	80	120			
Zinc	0.4520	mg/L	0.020	90.1	80	120			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 2nd Qtr Water Samples **Work Order:** 0905522

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: 5ml rb		*MBLK*			Batch ID: **R33886**		Analysis Date: 5/29/2009 10:07:20 AM		
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0						
1,2,4-Trimethylbenzene	ND	µg/L	1.0						
1,3,5-Trimethylbenzene	ND	µg/L	1.0						
1,2-Dichloroethane (EDC)	ND	µg/L	1.0						
1,2-Dibromoethane (EDB)	ND	µg/L	1.0						
Naphthalene	ND	µg/L	2.0						
1-Methylnaphthalene	ND	µg/L	4.0						
2-Methylnaphthalene	ND	µg/L	4.0						
Acetone	ND	µg/L	10						
Bromobenzene	ND	µg/L	1.0						
Bromodichloromethane	ND	µg/L	1.0						
Bromoform	ND	µg/L	1.0						
Bromomethane	ND	µg/L	1.0						
2-Butanone	ND	µg/L	10						
Carbon disulfide	ND	µg/L	10						
Carbon Tetrachloride	ND	µg/L	1.0						
Chlorobenzene	ND	µg/L	1.0						
Chloroethane	ND	µg/L	2.0						
Chloroform	ND	µg/L	1.0						
Chloromethane	ND	µg/L	1.0						
2-Chlorotoluene	ND	µg/L	1.0						
4-Chlorotoluene	ND	µg/L	1.0						
cis-1,2-DCE	ND	µg/L	1.0						
cis-1,3-Dichloropropene	ND	µg/L	1.0						
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0						
Dibromochloromethane	ND	µg/L	1.0						
Dibromomethane	ND	µg/L	1.0						
1,2-Dichlorobenzene	ND	µg/L	1.0						
1,3-Dichlorobenzene	ND	µg/L	1.0						
1,4-Dichlorobenzene	ND	µg/L	1.0						
Dichlorodifluoromethane	ND	µg/L	1.0						
1,1-Dichloroethane	ND	µg/L	1.0						
1,1-Dichloroethene	ND	µg/L	1.0						
1,2-Dichloropropane	ND	µg/L	1.0						
1,3-Dichloropropane	ND	µg/L	1.0						
2,2-Dichloropropane	ND	µg/L	2.0						
1,1-Dichloropropene	ND	µg/L	1.0						
Hexachlorobutadiene	ND	µg/L	1.0						
2-Hexanone	ND	µg/L	10						
Isopropylbenzene	ND	µg/L	1.0						
4-Isopropyltoluene	ND	µg/L	1.0						

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 2nd Qtr Water Samples **Work Order:** 0905522

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: 5ml rb		*MBLK*			Batch ID: **R33886**		Analysis Date:	5/29/2009 10:07:20 AM	
4-Methyl-2-pentanone	ND	µg/L	10						
Methylene Chloride	ND	µg/L	3.0						
n-Butylbenzene	ND	µg/L	1.0						
n-Propylbenzene	ND	µg/L	1.0						
sec-Butylbenzene	ND	µg/L	1.0						
Styrene	ND	µg/L	1.0						
tert-Butylbenzene	ND	µg/L	1.0						
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0						
1,1,2,2-Tetrachloroethane	ND	µg/L	2.0						
Tetrachloroethene (PCE)	ND	µg/L	1.0						
trans-1,2-DCE	ND	µg/L	1.0						
trans-1,3-Dichloropropene	ND	µg/L	1.0						
1,2,3-Trichlorobenzene	ND	µg/L	1.0						
1,2,4-Trichlorobenzene	ND	µg/L	1.0						
1,1,1-Trichloroethane	ND	µg/L	1.0						
1,1,2-Trichloroethane	ND	µg/L	1.0						
Trichloroethene (TCE)	ND	µg/L	1.0						
Trichlorofluoromethane	ND	µg/L	1.0						
1,2,3-Trichloropropane	ND	µg/L	2.0						
[illegible]chloride	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	1.5						
Sample ID: b5		*MBLK*			Batch ID: **R33886**		Analysis Date:	5/29/2009 10:37:15 PM	
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0						
1,2,4-Trimethylbenzene	ND	µg/L	1.0						
1,3,5-Trimethylbenzene	ND	µg/L	1.0						
1,2-Dichloroethane (EDC)	ND	µg/L	1.0						
1,2-Dibromoethane (EDB)	ND	µg/L	1.0						
Naphthalene	ND	µg/L	2.0						
1-Methylnaphthalene	ND	µg/L	4.0						
2-Methylnaphthalene	ND	µg/L	4.0						
Acetone	ND	µg/L	10						
Bromobenzene	ND	µg/L	1.0						
Bromodichloromethane	ND	µg/L	1.0						
Bromoform	ND	µg/L	1.0						
Bromomethane	ND	µg/L	1.0						
2-Butanone	ND	µg/L	10						
Carbon disulfide	ND	µg/L	10						
Carbon Tetrachloride	ND	µg/L	1.0						
Chlorobenzene	ND	µg/L	1.0						
Chloroethane	ND	µg/L	2.0						
Chloroform	ND	µg/L	1.0						

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 2nd Qtr Water Samples **Work Order:** 0905522

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: b5		*MBLK*			Batch ID: **R33886**		Analysis Date:	5/29/2009 10:37:15 PM	
Chloromethane	ND	µg/L	1.0						
2-Chlorotoluene	ND	µg/L	1.0						
4-Chlorotoluene	ND	µg/L	1.0						
cis-1,2-DCE	ND	µg/L	1.0						
cis-1,3-Dichloropropene	ND	µg/L	1.0						
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0						
Dibromochloromethane	ND	µg/L	1.0						
Dibromomethane	ND	µg/L	1.0						
1,2-Dichlorobenzene	ND	µg/L	1.0						
1,3-Dichlorobenzene	ND	µg/L	1.0						
1,4-Dichlorobenzene	ND	µg/L	1.0						
Dichlorodifluoromethane	ND	µg/L	1.0						
1,1-Dichloroethane	ND	µg/L	1.0						
1,1-Dichloroethene	ND	µg/L	1.0						
1,2-Dichloropropane	ND	µg/L	1.0						
1,3-Dichloropropane	ND	µg/L	1.0						
2,2-Dichloropropane	ND	µg/L	2.0						
1,1-Dichloropropene	ND	µg/L	1.0						
Hexachlorobutadiene	ND	µg/L	1.0						
[illegible]xanone	ND	µg/L	10						
Isopropylbenzene	ND	µg/L	1.0						
4-Isopropyltoluene	ND	µg/L	1.0						
4-Methyl-2-pentanone	ND	µg/L	10						
Methylene Chloride	ND	µg/L	3.0						
n-Butylbenzene	ND	µg/L	1.0						
n-Propylbenzene	ND	µg/L	1.0						
sec-Butylbenzene	ND	µg/L	1.0						
Styrene	ND	µg/L	1.0						
tert-Butylbenzene	ND	µg/L	1.0						
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0						
1,1,2,2-Tetrachloroethane	ND	µg/L	2.0						
Tetrachloroethene (PCE)	ND	µg/L	1.0						
trans-1,2-DCE	ND	µg/L	1.0						
trans-1,3-Dichloropropene	ND	µg/L	1.0						
1,2,3-Trichlorobenzene	ND	µg/L	1.0						
1,2,4-Trichlorobenzene	ND	µg/L	1.0						
1,1,1-Trichloroethane	ND	µg/L	1.0						
1,1,2-Trichloroethane	ND	µg/L	1.0						
Trichloroethene (TCE)	ND	µg/L	1.0						
Trichlorofluoromethane	ND	µg/L	1.0						
1,2,3-Trichloropropane	ND	µg/L	2.0						
Vinyl chloride	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	1.5						
Sample ID: 5ml rb		*MBLK*			Batch ID: **R33910**		Analysis Date:	6/1/2009 8:44:57 AM	

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 2nd Qtr Water Samples **Work Order:** 0905522

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: 5ml rb		*MBLK*			Batch ID: **R33910**		Analysis Date:	6/1/2009 8:44:57 AM	
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0						
1,2,4-Trimethylbenzene	ND	µg/L	1.0						
1,3,5-Trimethylbenzene	ND	µg/L	1.0						
1,2-Dichloroethane (EDC)	ND	µg/L	1.0						
1,2-Dibromoethane (EDB)	ND	µg/L	1.0						
Naphthalene	ND	µg/L	2.0						
1-Methylnaphthalene	ND	µg/L	4.0						
2-Methylnaphthalene	ND	µg/L	4.0						
Acetone	ND	µg/L	10						
Bromobenzene	ND	µg/L	1.0						
Bromodichloromethane	ND	µg/L	1.0						
Bromoform	ND	µg/L	1.0						
Bromomethane	ND	µg/L	1.0						
2-Butanone	ND	µg/L	10						
Carbon disulfide	ND	µg/L	10						
Carbon Tetrachloride	ND	µg/L	1.0						
[illegible]obenzene	ND	µg/L	1.0						
Chloroethane	ND	µg/L	2.0						
Chloroform	ND	µg/L	1.0						
Chloromethane	ND	µg/L	1.0						
2-Chlorotoluene	ND	µg/L	1.0						
4-Chlorotoluene	ND	µg/L	1.0						
cis-1,2-DCE	ND	µg/L	1.0						
cis-1,3-Dichloropropene	ND	µg/L	1.0						
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0						
Dibromochloromethane	ND	µg/L	1.0						
Dibromomethane	ND	µg/L	1.0						
1,2-Dichlorobenzene	ND	µg/L	1.0						
1,3-Dichlorobenzene	ND	µg/L	1.0						
1,4-Dichlorobenzene	ND	µg/L	1.0						
Dichlorodifluoromethane	ND	µg/L	1.0						
1,1-Dichloroethane	ND	µg/L	1.0						
1,1-Dichloroethene	ND	µg/L	1.0						
1,2-Dichloropropane	ND	µg/L	1.0						
1,3-Dichloropropane	ND	µg/L	1.0						
2,2-Dichloropropane	ND	µg/L	2.0						
1,1-Dichloropropene	ND	µg/L	1.0						
Hexachlorobutadiene	ND	µg/L	1.0						
2-Hexanone	ND	µg/L	10						
Isopropylbenzene	ND	µg/L	1.0						
4-Isopropyltoluene	ND	µg/L	1.0						

[illegible]ifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 2nd Qtr Water Samples **Work Order:** 0905522

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: 5ml rb		*MBLK*			Batch ID: **R33910**		Analysis Date:	6/1/2009 8:44:57 AM	
4-Methyl-2-pentanone	ND	µg/L	10						
Methylene Chloride	ND	µg/L	3.0						
n-Butylbenzene	ND	µg/L	1.0						
n-Propylbenzene	ND	µg/L	1.0						
sec-Butylbenzene	ND	µg/L	1.0						
Styrene	ND	µg/L	1.0						
tert-Butylbenzene	ND	µg/L	1.0						
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0						
1,1,2,2-Tetrachloroethane	ND	µg/L	2.0						
Tetrachloroethene (PCE)	ND	µg/L	1.0						
trans-1,2-DCE	ND	µg/L	1.0						
trans-1,3-Dichloropropene	ND	µg/L	1.0						
1,2,3-Trichlorobenzene	ND	µg/L	1.0						
1,2,4-Trichlorobenzene	ND	µg/L	1.0						
1,1,1-Trichloroethane	ND	µg/L	1.0						
1,1,2-Trichloroethane	ND	µg/L	1.0						
Trichloroethene (TCE)	ND	µg/L	1.0						
Trichlorofluoromethane	ND	µg/L	1.0						
1,2,3-Trichloropropane	ND	µg/L	2.0						
[redacted]chloride	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	1.5						
Sample ID: b5		*MBLK*			Batch ID: **R33910**		Analysis Date:	6/1/2009 9:18:46 PM	
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0						
1,2,4-Trimethylbenzene	ND	µg/L	1.0						
1,3,5-Trimethylbenzene	ND	µg/L	1.0						
1,2-Dichloroethane (EDC)	ND	µg/L	1.0						
1,2-Dibromoethane (EDB)	ND	µg/L	1.0						
Naphthalene	ND	µg/L	2.0						
1-Methylnaphthalene	ND	µg/L	4.0						
2-Methylnaphthalene	ND	µg/L	4.0						
Acetone	ND	µg/L	10						
Bromobenzene	ND	µg/L	1.0						
Bromodichloromethane	ND	µg/L	1.0						
Bromoform	ND	µg/L	1.0						
Bromomethane	ND	µg/L	1.0						
2-Butanone	ND	µg/L	10						
Carbon disulfide	ND	µg/L	10						
Carbon Tetrachloride	ND	µg/L	1.0						
Chlorobenzene	ND	µg/L	1.0						
Chloroethane	ND	µg/L	2.0						
Chloroform	ND	µg/L	1.0						

[redacted]ifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 2nd Qtr Water Samples **Work Order:** 0905522

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: b5		*MBLK*			Batch ID: **R33910**		Analysis Date:	6/1/2009 9:18:46 PM	
Chloromethane	ND	µg/L	1.0						
2-Chlorotoluene	ND	µg/L	1.0						
4-Chlorotoluene	ND	µg/L	1.0						
cis-1,2-DCE	ND	µg/L	1.0						
cis-1,3-Dichloropropene	ND	µg/L	1.0						
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0						
Dibromochloromethane	ND	µg/L	1.0						
Dibromomethane	ND	µg/L	1.0						
1,2-Dichlorobenzene	ND	µg/L	1.0						
1,3-Dichlorobenzene	ND	µg/L	1.0						
1,4-Dichlorobenzene	ND	µg/L	1.0						
Dichlorodifluoromethane	ND	µg/L	1.0						
1,1-Dichloroethane	ND	µg/L	1.0						
1,1-Dichloroethene	ND	µg/L	1.0						
1,2-Dichloropropane	ND	µg/L	1.0						
1,3-Dichloropropane	ND	µg/L	1.0						
2,2-Dichloropropane	ND	µg/L	2.0						
1,1-Dichloropropene	ND	µg/L	1.0						
Hexachlorobutadiene	ND	µg/L	1.0						
2-[illegible]none	ND	µg/L	10						
Isopropylbenzene	ND	µg/L	1.0						
4-Isopropyltoluene	ND	µg/L	1.0						
4-Methyl-2-pentanone	ND	µg/L	10						
Methylene Chloride	ND	µg/L	3.0						
n-Butylbenzene	ND	µg/L	1.0						
n-Propylbenzene	ND	µg/L	1.0						
sec-Butylbenzene	ND	µg/L	1.0						
Styrene	ND	µg/L	1.0						
tert-Butylbenzene	ND	µg/L	1.0						
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0						
1,1,2,2-Tetrachloroethane	ND	µg/L	2.0						
Tetrachloroethene (PCE)	ND	µg/L	1.0						
trans-1,2-DCE	ND	µg/L	1.0						
trans-1,3-Dichloropropene	ND	µg/L	1.0						
1,2,3-Trichlorobenzene	ND	µg/L	1.0						
1,2,4-Trichlorobenzene	ND	µg/L	1.0						
1,1,1-Trichloroethane	ND	µg/L	1.0						
1,1,2-Trichloroethane	ND	µg/L	1.0						
Trichloroethene (TCE)	ND	µg/L	1.0						
Trichlorofluoromethane	ND	µg/L	1.0						
1,2,3-Trichloropropane	ND	µg/L	2.0						
Vinyl chloride	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	1.5						
Sample ID: 100ng lcs		*LCS*			Batch ID: **R33886**		Analysis Date:	5/29/2009 11:05:19 AM	

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 2nd Qtr Water Samples **Work Order:** 0905522

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: 100ng lcs		*LCS*			Batch ID:	**R33886**	Analysis Date:	5/29/2009 11:05:19 AM	
Benzene	19.25	µg/L	1.0	96.2	76.7	114			
Toluene	20.23	µg/L	1.0	101	78.4	117			
Chlorobenzene	22.79	µg/L	1.0	114	80.7	127			
1,1-Dichloroethene	19.17	µg/L	1.0	95.8	80.2	128			
Trichloroethene (TCE)	17.95	µg/L	1.0	89.8	77.4	115			
Sample ID: 100ng lcs_b		*LCS*			Batch ID:	**R33886**	Analysis Date:	5/29/2009 11:34:17 PM	
Benzene	18.93	µg/L	1.0	94.6	76.7	114			
Toluene	19.30	µg/L	1.0	96.5	78.4	117			
Chlorobenzene	21.31	µg/L	1.0	107	80.7	127			
1,1-Dichloroethene	18.63	µg/L	1.0	93.1	80.2	128			
Trichloroethene (TCE)	17.47	µg/L	1.0	87.3	77.4	115			
Sample ID: 100ng lcs		*LCS*			Batch ID:	**R33910**	Analysis Date:	6/1/2009 9:42:00 AM	
Benzene	19.11	µg/L	1.0	95.6	76.7	114			
Toluene	19.27	µg/L	1.0	96.4	78.4	117			
Chlorobenzene	21.31	µg/L	1.0	107	80.7	127			
1,1-Dichloroethene	18.95	µg/L	1.0	94.7	80.2	128			
Trichloroethene (TCE)	17.67	µg/L	1.0	88.4	77.4	115			
Sample ID: 100ng lcs_b		*LCS*			Batch ID:	**R33910**	Analysis Date:	6/1/2009 10:15:47 PM	
Benzene	19.98	µg/L	1.0	99.9	76.7	114			
Toluene	19.50	µg/L	1.0	97.5	78.4	117			
Chlorobenzene	21.76	µg/L	1.0	109	80.7	127			
1,1-Dichloroethene	21.25	µg/L	1.0	106	80.2	128			
Trichloroethene (TCE)	17.88	µg/L	1.0	89.4	77.4	115			

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name WESTERN REFINING GALLU | Date Received: 5/28/2009

Work Order Number 0905522 | Received by: ARS

Checklist completed by: _____ 5/28/09 (Signature / Date) | Sample ID labels checked by: _____ (Initials)

Matrix: | Carrier name UPS

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐		
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐	Not Shipped ☐	
Custody seals intact on sample bottles?	Yes ☑	No ☐	N/A ☐		
Chain of custody present?	Yes ☑	No ☐			
Chain of custody signed when relinquished and received?	Yes ☑	No ☐			
Chain of custody agrees with sample labels?	Yes ☑	No ☐			
Samples in proper container/bottle?	Yes ☑	No ☐			
Sample containers intact?	Yes ☑	No ☐			
Sufficient sample volume for indicated test?	Yes ☑	No ☐			
All samples received within holding time?	Yes ☑	No ☐			
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☑	No ☐		
Water - Preservation labels on bottle and cap match?	Yes ☑	No ☐	N/A ☐		
Water - pH acceptable upon receipt?	Yes ☐	No ☑	N/A ☐		
Container/Temp Blank temperature?	1.0°	<6° C Acceptable If given sufficient time to cool.			

Number of preserved bottles checked for pH: 9

(~~<2~~ >12 unless noted below.)

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: Pilot EA added 2 x mls HNO3 to 2 HNO3 bottles for acceptable pH/ AT 5/28/09

Corrective Action _____

Chain-of-Custody Record

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Client: Western Refining
Gallup Refinery

Mailing Address: Rt 3 Box 7
Gallup, NM 87301

Phone #: 505 722 3833

email or Fax#: 505 722 0210

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
☐ Other ______
☐ EDD (Type) ______

Turn-Around Time: ☒ Standard ☐ Rush ______

Project Name: 2009 2nd QTR water Samples

Project #:

Project Manager: G. Rajen

Sampler: C Johnson

On Ice: ☒ Yes ☐ No

Sample Temperature: ~~[illegible]~~

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 0905322	BTEX + MTBE + TMB's (8021B)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F, Cl, NO3, NO2, PO4, SO4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA) phenols	6010 WQCC Metals	Total	BOD - COD	Gen Chem	Air Bubbles (Y or N)
5/26/09	0955	H2O	AL2 to EP-1			-1			X							X		X				
5/27/09	0825	/	Pilot EFF			-2			X							X		X		X		
5/26/09	1043	/	NAPIS EFF			-3			X							X	X	X			X	
5/27/09	0850	/	EP-1			-4	X		X					X		X	X			X		
			TRIP BLANK			-5			X					X NO		X	~~X~~ NO			~~X NO~~ 5/28/09		
						~~-6~~										X	~~X~~ [illegible]					

Date:	Time:	Relinquished by:	Received by:	Date	Time
5/27/09	0945	[signature]	[signature]	5/28/09	11:05
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks: pH, Spec. Cond. Anions, Cations

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

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Wednesday, June 17, 2009

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

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

RE: 2009 2nd Quarter NAPIS

Order No.: 0905544

Dear Gaurav Rajen:

Hall Environmental Analysis Laboratory, Inc. received 4 sample(s) on 5/29/2009 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

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

Hall Environmental Analysis Laboratory, Inc. **Date:** *17-Jun-09*

CLIENT: Western Refining Southwest, Gallup
Project: 2009 2nd Quarter NAPIS
Lab Order: 0905544

CASE NARRATIVE

Analytical Comments for METHOD 8021BTEX/ 8015GRO SAMPLE NAPIS-2: necessary dilution; due to surfactants present in sample.

Analytical Comments for METHOD 300_W, ALL SAMPLES: reporting NO3 and PO4 outside of EPA holdtime. Preserved values inconsistent with unpreserved values.

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Jun-09*

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-1
Lab Order: 0905544
Collection Date: 5/28/2009 8:05:00 AM
Project: 2009 2nd Quarter NAPIS
Date Received: 5/29/2009
Lab ID: 0905544-01
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **SCC**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/2/2009
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/2/2009
Surr: DNOP	114	58-140		%REC	1	6/2/2009
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **DAM**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	6/5/2009 11:27:27 PM
Surr: BFB	81.1	59.9-122		%REC	1	6/5/2009 11:27:27 PM
EPA METHOD 8021B: VOLATILES						Analyst: **DAM**
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	6/5/2009 11:27:27 PM
Benzene	ND	1.0		µg/L	1	6/5/2009 11:27:27 PM
Toluene	ND	1.0		µg/L	1	6/5/2009 11:27:27 PM
Ethylbenzene	ND	1.0		µg/L	1	6/5/2009 11:27:27 PM
Xylenes, Total	ND	2.0		µg/L	1	6/5/2009 11:27:27 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/5/2009 11:27:27 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/5/2009 11:27:27 PM
Surr: 4-Bromofluorobenzene	86.1	65.9-130		%REC	1	6/5/2009 11:27:27 PM
EPA METHOD 8310: PAHS						Analyst: **JMP**
Naphthalene	ND	2.0		µg/L	1	6/11/2009 10:23:13 PM
1-Methylnaphthalene	ND	2.0		µg/L	1	6/11/2009 10:23:13 PM
2-Methylnaphthalene	ND	2.0		µg/L	1	6/11/2009 10:23:13 PM
Acenaphthylene	ND	2.5		µg/L	1	6/11/2009 10:23:13 PM
Acenaphthene	ND	5.0		µg/L	1	6/11/2009 10:23:13 PM
Fluorene	ND	0.80		µg/L	1	6/11/2009 10:23:13 PM
Phenanthrene	ND	0.60		µg/L	1	6/11/2009 10:23:13 PM
Anthracene	ND	0.60		µg/L	1	6/11/2009 10:23:13 PM
Fluoranthene	ND	0.30		µg/L	1	6/11/2009 10:23:13 PM
Pyrene	ND	0.30		µg/L	1	6/11/2009 10:23:13 PM
Benz(a)anthracene	ND	0.070		µg/L	1	6/11/2009 10:23:13 PM
Chrysene	ND	0.20		µg/L	1	6/11/2009 10:23:13 PM
Benzo(b)fluoranthene	ND	0.10		µg/L	1	6/11/2009 10:23:13 PM
Benzo(k)fluoranthene	ND	0.070		µg/L	1	6/11/2009 10:23:13 PM
Benzo(a)pyrene	ND	0.070		µg/L	1	6/11/2009 10:23:13 PM
Dibenz(a,h)anthracene	ND	0.070		µg/L	1	6/11/2009 10:23:13 PM
Benzo(g,h,i)perylene	ND	0.080		µg/L	1	6/11/2009 10:23:13 PM
Indeno(1,2,3-cd)pyrene	ND	0.080		µg/L	1	6/11/2009 10:23:13 PM
Surr: Benzo(e)pyrene	55.4	44.8-104		%REC	1	6/11/2009 10:23:13 PM
EPA METHOD 300.0: ANIONS						Analyst: **TAF**
Fluoride	1.2	0.10		mg/L	1	6/9/2009 10:17:40 AM
Chloride	150	1.0		mg/L	10	6/9/2009 10:35:04 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Jun-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	NAPIS-1
Lab Order:	0905544	**Collection Date:**	5/28/2009 8:05:00 AM
Project:	2009 2nd Quarter NAPIS	**Date Received:**	5/29/2009
Lab ID:	0905544-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **TAF**
Nitrogen, Nitrate (As N)	0.31	0.10	H	mg/L	1	6/9/2009 10:17:40 AM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	6/9/2009 10:17:40 AM
Sulfate	71	5.0		mg/L	10	6/9/2009 10:35:04 AM
EPA METHOD 7470: MERCURY						Analyst: **MMS**
Mercury	ND	0.00020		mg/L	1	6/3/2009 3:15:12 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **TES**
Arsenic	ND	0.020		mg/L	1	6/5/2009 3:55:58 PM
Barium	0.091	0.020		mg/L	1	6/5/2009 3:55:58 PM
Cadmium	ND	0.0020		mg/L	1	6/5/2009 3:55:58 PM
Calcium	57	1.0		mg/L	1	6/5/2009 3:55:58 PM
Chromium	ND	0.0060		mg/L	1	6/5/2009 3:55:58 PM
Lead	ND	0.0050		mg/L	1	6/5/2009 3:55:58 PM
Magnesium	11	1.0		mg/L	1	6/5/2009 3:55:58 PM
Potassium	ND	1.0		mg/L	1	6/5/2009 3:55:58 PM
Selenium	ND	0.050		mg/L	1	6/5/2009 3:55:58 PM
Silver	ND	0.0050		mg/L	1	6/5/2009 3:55:58 PM
Sodium	390	5.0		mg/L	5	6/9/2009 2:02:56 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **BDH**
Specific Conductance	1900	0.010		µmhos/cm	1	6/1/2009
SM4500-H+B: PH						Analyst: **BDH**
pH	7.82	0.1		pH units	1	5/29/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Jun-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	NAPIS-2
Lab Order:	0905544	**Collection Date:**	5/28/2009 8:40:00 AM
Project:	2009 2nd Quarter NAPIS	**Date Received:**	5/29/2009
Lab ID:	0905544-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **SCC**
Diesel Range Organics (DRO)	3.4	1.0		mg/L	1	6/2/2009
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/2/2009
Surr: DNOP	113	58-140		%REC	1	6/2/2009
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **DAM**
Gasoline Range Organics (GRO)	0.53	0.25		mg/L	5	6/6/2009 8:44:44 PM
Surr: BFB	86.4	59.9-122		%REC	5	6/6/2009 8:44:44 PM
EPA METHOD 8021B: VOLATILES						Analyst: **DAM**
Methyl tert-butyl ether (MTBE)	130	25		µg/L	10	6/6/2009 12:28:39 AM
Benzene	28	5.0		µg/L	5	6/6/2009 8:44:44 PM
Toluene	ND	5.0		µg/L	5	6/6/2009 8:44:44 PM
Ethylbenzene	5.3	5.0		µg/L	5	6/6/2009 8:44:44 PM
Xylenes, Total	ND	10		µg/L	5	6/6/2009 8:44:44 PM
1,2,4-Trimethylbenzene	ND	5.0		µg/L	5	6/6/2009 8:44:44 PM
1,3,5-Trimethylbenzene	ND	5.0		µg/L	5	6/6/2009 8:44:44 PM
Surr: 4-Bromofluorobenzene	94.9	65.9-130		%REC	5	6/6/2009 8:44:44 PM
EPA METHOD 8310: PAHS						Analyst: **JMP**
Naphthalene	30	2.0		µg/L	1	6/11/2009 10:43:29 PM
1-Methylnaphthalene	4.2	2.0		µg/L	1	6/11/2009 10:43:29 PM
2-Methylnaphthalene	2.3	2.0		µg/L	1	6/11/2009 10:43:29 PM
Acenaphthylene	ND	2.5		µg/L	1	6/11/2009 10:43:29 PM
Acenaphthene	ND	5.0		µg/L	1	6/11/2009 10:43:29 PM
Fluorene	ND	0.80		µg/L	1	6/11/2009 10:43:29 PM
Phenanthrene	ND	0.60		µg/L	1	6/11/2009 10:43:29 PM
Anthracene	ND	0.60		µg/L	1	6/11/2009 10:43:29 PM
Fluoranthene	ND	0.30		µg/L	1	6/11/2009 10:43:29 PM
Pyrene	ND	0.30		µg/L	1	6/11/2009 10:43:29 PM
Benz(a)anthracene	ND	0.070		µg/L	1	6/11/2009 10:43:29 PM
Chrysene	ND	0.20		µg/L	1	6/11/2009 10:43:29 PM
Benzo(b)fluoranthene	ND	0.10		µg/L	1	6/11/2009 10:43:29 PM
Benzo(k)fluoranthene	ND	0.070		µg/L	1	6/11/2009 10:43:29 PM
Benzo(a)pyrene	ND	0.070		µg/L	1	6/11/2009 10:43:29 PM
Dibenz(a,h)anthracene	ND	0.070		µg/L	1	6/11/2009 10:43:29 PM
Benzo(g,h,i)perylene	ND	0.080		µg/L	1	6/11/2009 10:43:29 PM
Indeno(1,2,3-cd)pyrene	ND	0.080		µg/L	1	6/11/2009 10:43:29 PM
Surr: Benzo(e)pyrene	83.5	44.8-104		%REC	1	6/11/2009 10:43:29 PM
EPA METHOD 300.0: ANIONS						Analyst: **RAGS**
Fluoride	1.7	0.10		mg/L	1	6/9/2009 8:24:42 PM
Chloride	210	2.0		mg/L	20	6/9/2009 8:42:06 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Jun-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	NAPIS-2
Lab Order:	0905544	**Collection Date:**	5/28/2009 8:40:00 AM
Project:	2009 2nd Quarter NAPIS	**Date Received:**	5/29/2009
Lab ID:	0905544-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **RAGS**
Nitrogen, Nitrate (As N)	0.16	0.10	H	mg/L	1	6/9/2009 8:24:42 PM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	6/9/2009 8:24:42 PM
Sulfate	22	0.50		mg/L	1	6/9/2009 8:24:42 PM
EPA METHOD 7470: MERCURY						Analyst: **MMS**
Mercury	ND	0.00020		mg/L	1	6/3/2009 3:17:00 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **TES**
Arsenic	ND	0.020		mg/L	1	6/5/2009 4:00:15 PM
Barium	0.65	0.020		mg/L	1	6/5/2009 4:00:15 PM
Cadmium	ND	0.0020		mg/L	1	6/5/2009 4:00:15 PM
Calcium	51	1.0		mg/L	1	6/5/2009 4:00:15 PM
Chromium	ND	0.0060		mg/L	1	6/5/2009 4:00:15 PM
Lead	ND	0.0050		mg/L	1	6/5/2009 4:00:15 PM
Magnesium	9.9	1.0		mg/L	1	6/5/2009 4:00:15 PM
Potassium	ND	1.0		mg/L	1	6/5/2009 4:00:15 PM
Selenium	ND	0.050		mg/L	1	6/5/2009 4:00:15 PM
Silver	ND	0.0050		mg/L	1	6/5/2009 4:00:15 PM
Sodium	290	5.0		mg/L	5	6/9/2009 2:05:43 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **NSB**
Specific Conductance	1400	0.010		µmhos/cm	1	6/10/2009
SM4500-H+B: PH						Analyst: **NSB**
pH	7.51	0.1	H	pH units	1	6/10/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Jun-09* Corrected

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: ~~KA-3~~ NAPIS-3
Lab Order: 0905544
Collection Date: 5/28/2009 9:30:00 AM
Project: 2009 2nd Quarter NAPIS
Date Received: 5/29/2009
Lab ID: 0905544-03
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **SCC**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/2/2009
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/2/2009
Surr: DNOP	118	58-140		%REC	1	6/2/2009
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **DAM**
Gasoline Range Organics (GRO)	0.32	0.050		mg/L	1	6/6/2009 9:15:13 PM
Surr: BFB	95.3	59.9-122		%REC	1	6/6/2009 9:15:13 PM
EPA METHOD 8021B: VOLATILES						Analyst: **DAM**
Methyl tert-butyl ether (MTBE)	130	25		µg/L	10	6/6/2009 12:59:05 AM
Benzene	3.3	1.0		µg/L	1	6/6/2009 9:15:13 PM
Toluene	1.2	1.0		µg/L	1	6/6/2009 9:15:13 PM
Ethylbenzene	ND	1.0		µg/L	1	6/6/2009 9:15:13 PM
Xylenes, Total	ND	2.0		µg/L	1	6/6/2009 9:15:13 PM
1,2,4-Trimethylbenzene	1.1	1.0		µg/L	1	6/6/2009 9:15:13 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/6/2009 9:15:13 PM
Surr: 4-Bromofluorobenzene	97.4	65.9-130		%REC	1	6/6/2009 9:15:13 PM
EPA METHOD 8310: PAHS						Analyst: **JMP**
Naphthalene	47	2.0		µg/L	1	6/11/2009 11:03:43 PM
1-Methylnaphthalene	ND	2.0		µg/L	1	6/11/2009 11:03:43 PM
2-Methylnaphthalene	ND	2.0		µg/L	1	6/11/2009 11:03:43 PM
Acenaphthylene	ND	2.5		µg/L	1	6/11/2009 11:03:43 PM
Acenaphthene	ND	5.0		µg/L	1	6/11/2009 11:03:43 PM
Fluorene	ND	0.80		µg/L	1	6/11/2009 11:03:43 PM
Phenanthrene	ND	0.60		µg/L	1	6/11/2009 11:03:43 PM
Anthracene	ND	0.60		µg/L	1	6/11/2009 11:03:43 PM
Fluoranthene	ND	0.30		µg/L	1	6/11/2009 11:03:43 PM
Pyrene	ND	0.30		µg/L	1	6/11/2009 11:03:43 PM
Benz(a)anthracene	ND	0.070		µg/L	1	6/11/2009 11:03:43 PM
Chrysene	ND	0.20		µg/L	1	6/11/2009 11:03:43 PM
Benzo(b)fluoranthene	ND	0.10		µg/L	1	6/11/2009 11:03:43 PM
Benzo(k)fluoranthene	ND	0.070		µg/L	1	6/11/2009 11:03:43 PM
Benzo(a)pyrene	ND	0.070		µg/L	1	6/11/2009 11:03:43 PM
Dibenz(a,h)anthracene	ND	0.070		µg/L	1	6/11/2009 11:03:43 PM
Benzo(g,h,i)perylene	ND	0.080		µg/L	1	6/11/2009 11:03:43 PM
Indeno(1,2,3-cd)pyrene	ND	0.080		µg/L	1	6/11/2009 11:03:43 PM
Surr: Benzo(e)pyrene	64.6	44.8-104		%REC	1	6/11/2009 11:03:43 PM
EPA METHOD 300.0: ANIONS						Analyst: **RAGS**
Fluoride	1.6	0.10		mg/L	1	6/9/2009 9:16:55 PM
Chloride	260	2.0		mg/L	20	6/9/2009 9:34:21 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Jun-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	KA-3
Lab Order:	0905544	**Collection Date:**	5/28/2009 9:30:00 AM
Project:	2009 2nd Quarter NAPIS	**Date Received:**	5/29/2009
Lab ID:	0905544-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **RAGS**
Nitrogen, Nitrate (As N)	0.22	0.10	H	mg/L	1	6/9/2009 9:16:55 PM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	6/9/2009 9:16:55 PM
Sulfate	66	10		mg/L	20	6/9/2009 9:34:21 PM
EPA METHOD 7470: MERCURY						Analyst: **MMS**
Mercury	ND	0.00020		mg/L	1	6/3/2009 3:18:47 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **TES**
Arsenic	ND	0.020		mg/L	1	6/5/2009 4:04:12 PM
Barium	0.29	0.020		mg/L	1	6/5/2009 4:04:12 PM
Cadmium	ND	0.0020		mg/L	1	6/5/2009 4:04:12 PM
Calcium	71	1.0		mg/L	1	6/5/2009 4:04:12 PM
Chromium	ND	0.0060		mg/L	1	6/5/2009 4:04:12 PM
Lead	ND	0.0050		mg/L	1	6/5/2009 4:04:12 PM
Magnesium	11	1.0		mg/L	1	6/5/2009 4:04:12 PM
Potassium	ND	1.0		mg/L	1	6/5/2009 4:04:12 PM
Selenium	ND	0.050		mg/L	1	6/5/2009 4:04:12 PM
Silver	ND	0.0050		mg/L	1	6/5/2009 4:04:12 PM
Sodium	330	5.0		mg/L	5	6/9/2009 2:08:32 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **BDH**
Specific Conductance	1700	0.010		µmhos/cm	1	5/29/2009
SM4500-H+B: PH						Analyst: **BDH**
pH	7.71	0.1		pH units	1	5/29/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Jun-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	Trip Blank
Lab Order:	0905544	**Collection Date:**	
Project:	2009 2nd Quarter NAPIS	**Date Received:**	5/29/2009
Lab ID:	0905544-04	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **DAM**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	6/6/2009 1:29:39 AM
Surr: BFB	83.8	59.9-122		%REC	1	6/6/2009 1:29:39 AM
EPA METHOD 8021B: VOLATILES						Analyst: **DAM**
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	6/6/2009 1:29:39 AM
Benzene	ND	1.0		µg/L	1	6/6/2009 1:29:39 AM
Toluene	ND	1.0		µg/L	1	6/6/2009 1:29:39 AM
Ethylbenzene	ND	1.0		µg/L	1	6/6/2009 1:29:39 AM
Xylenes, Total	ND	2.0		µg/L	1	6/6/2009 1:29:39 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/6/2009 1:29:39 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/6/2009 1:29:39 AM
Surr: 4-Bromofluorobenzene	90.5	65.9-130		%REC	1	6/6/2009 1:29:39 AM

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 2nd Quarter NAPIS **Work Order:** 0905544

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 300.0: Anions									
Sample ID: 0905544-01DMSD		*MSD*			Batch ID:	**R34017**	Analysis Date:		6/9/2009 11:27:18 AM
Fluoride	1.692	mg/L	0.10	92.9	75.3	117	0.480	20	
Nitrogen, Nitrate (As N)	2.835	mg/L	0.10	101	82.4	109	4.49	20	
Phosphorus, Orthophosphate (As P)	4.989	mg/L	0.50	99.8	74.5	116	3.36	20	
Sample ID: MB		*MBLK*			Batch ID:	**R34017**	Analysis Date:		6/9/2009 9:08:02 AM
Fluoride	ND	mg/L	0.10						
Chloride	ND	mg/L	0.10						
Nitrogen, Nitrate (As N)	ND	mg/L	0.10						
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50						
Sulfate	ND	mg/L	0.50						
Sample ID: MB-2		*MBLK*			Batch ID:	**R34017**	Analysis Date:		6/9/2009 8:44:27 PM
Fluoride	ND	mg/L	0.10						
Chloride	ND	mg/L	0.10						
Nitrogen, Nitrate (As N)	ND	mg/L	0.10						
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50						
Sulfate	ND	mg/L	0.50						
Sample ID: MB		*MBLK*			Batch ID:	**R34021**	Analysis Date:		6/9/2009 9:58:01 AM
Fluoride	ND	mg/L	0.10						
Chloride	ND	mg/L	0.10						
Nitrogen, Nitrate (As N)	ND	mg/L	0.10						
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50						
Sulfate	ND	mg/L	0.50						
Sample ID: MB		*MBLK*			Batch ID:	**R34036**	Analysis Date:		6/10/2009 6:34:04 AM
Fluoride	ND	mg/L	0.10						
Chloride	ND	mg/L	0.10						
Nitrogen, Nitrate (As N)	ND	mg/L	0.10						
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50						
Sulfate	ND	mg/L	0.50						
Sample ID: LCS		*LCS*			Batch ID:	**R34017**	Analysis Date:		6/9/2009 9:25:26 AM
Fluoride	0.5035	mg/L	0.10	101	90	110			
Chloride	4.837	mg/L	0.10	96.7	90	110			
Nitrogen, Nitrate (As N)	2.445	mg/L	0.10	97.8	90	110			
Phosphorus, Orthophosphate (As P)	4.853	mg/L	0.50	97.1	90	110			
Sulfate	9.700	mg/L	0.50	97.0	90	110			
Sample ID: LCS-2		*LCS*			Batch ID:	**R34017**	Analysis Date:		6/9/2009 9:01:51 PM
Fluoride	0.5140	mg/L	0.10	103	90	110			
Chloride	4.830	mg/L	0.10	96.6	90	110			
Nitrogen, Nitrate (As N)	2.457	mg/L	0.10	98.3	90	110			
Phosphorus, Orthophosphate (As P)	4.849	mg/L	0.50	97.0	90	110			
Sulfate	9.785	mg/L	0.50	97.9	90	110			
Sample ID: LCS		*LCS*			Batch ID:	**R34021**	Analysis Date:		6/9/2009 10:15:26 AM
Fluoride	0.4765	mg/L	0.10	95.3	90	110			
Chloride	4.816	mg/L	0.10	96.3	90	110			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 2nd Quarter NAPIS **Work Order:** 0905544

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 300.0: Anions									
Sample ID: LCS		*LCS*			Batch ID: **R34021**		Analysis Date:		6/9/2009 10:15:26 AM
Nitrogen, Nitrate (As N)	2.496	mg/L	0.10	99.8	90	110			
Phosphorus, Orthophosphate (As P)	4.682	mg/L	0.50	93.6	90	110			
Sulfate	9.763	mg/L	0.50	97.6	90	110			
Sample ID: LCS		*LCS*			Batch ID: **R34036**		Analysis Date:		6/10/2009 6:51:28 AM
Fluoride	0.4943	mg/L	0.10	98.9	90	110			
Chloride	4.799	mg/L	0.10	96.0	90	110			
Nitrogen, Nitrate (As N)	2.507	mg/L	0.10	100	90	110			
Phosphorus, Orthophosphate (As P)	4.862	mg/L	0.50	97.2	90	110			
Sulfate	9.795	mg/L	0.50	97.9	90	110			
Sample ID: 0905544-01DMS		*MS*			Batch ID: **R34017**		Analysis Date:		6/9/2009 11:09:54 AM
Fluoride	1.684	mg/L	0.10	91.2	75.3	117			
Nitrogen, Nitrate (As N)	2.711	mg/L	0.10	96.2	82.4	109			
Phosphorus, Orthophosphate (As P)	4.824	mg/L	0.50	96.5	74.5	116			
Method: EPA Method 8015B: Diesel Range									
Sample ID: MB-19231		*MBLK*			Batch ID: **19231**		Analysis Date:		6/2/2009
Diesel Range Organics (DRO)	ND	mg/L	1.0						
Motor Oil Range Organics (MRO)	ND	mg/L	5.0						
Sample ID: LCS-19231		*LCS*			Batch ID: **19231**		Analysis Date:		6/2/2009
Diesel Range Organics (DRO)	6.666	mg/L	1.0	133	74	157			
Sample ID: LCSD-19231		*LCSD*			Batch ID: **19231**		Analysis Date:		6/2/2009
Diesel Range Organics (DRO)	6.644	mg/L	1.0	133	74	157	0.335	23	
Method: EPA Method 8015B: Gasoline Range									
Sample ID: 5ML RB		*MBLK*			Batch ID: **R33978**		Analysis Date:		6/5/2009 8:52:07 AM
Gasoline Range Organics (GRO)	ND	mg/L	0.050						
Sample ID: 2.5UG GRO LCS		*LCS*			Batch ID: **R33978**		Analysis Date:		6/6/2009 12:38:53 PM
Gasoline Range Organics (GRO)	0.5664	mg/L	0.050	113	80	115			
Sample ID: 2.5UG GRO LCSD		*LCSD*			Batch ID: **R33978**		Analysis Date:		6/6/2009 1:09:14 PM
Gasoline Range Organics (GRO)	0.5490	mg/L	0.050	110	80	115	3.12	8.39	

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 2nd Quarter NAPIS **Work Order:** 0905544

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8021B: Volatiles									
Sample ID: 5ML RB		*MBLK*			Batch ID:	**R33978**	Analysis Date:		6/5/2009 8:52:07 AM
Methyl tert-butyl ether (MTBE)	ND	µg/L	2.5						
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
1,2,4-Trimethylbenzene	ND	µg/L	1.0						
1,3,5-Trimethylbenzene	ND	µg/L	1.0						
Sample ID: 100NG BTEX LCS		*LCS*			Batch ID:	**R33978**	Analysis Date:		6/5/2009 7:23:20 PM
Methyl tert-butyl ether (MTBE)	18.36	µg/L	2.5	91.8	51.2	138			
Benzene	19.32	µg/L	1.0	96.6	85.9	113			
Toluene	19.52	µg/L	1.0	97.6	86.4	113			
Ethylbenzene	19.52	µg/L	1.0	97.6	83.5	118			
Xylenes, Total	59.44	µg/L	2.0	99.1	83.4	122			
1,2,4-Trimethylbenzene	20.87	µg/L	1.0	104	83.5	115			
1,3,5-Trimethylbenzene	19.57	µg/L	1.0	97.9	85.2	113			
Sample ID: 100NG BTEX LCSD		*LCSD*			Batch ID:	**R33978**	Analysis Date:		6/5/2009 7:53:53 PM
Methyl tert-butyl ether (MTBE)	19.06	µg/L	2.5	95.3	51.2	138	3.72	28	
Benzene	19.61	µg/L	1.0	98.0	85.9	113	1.49	27	
Toluene	19.70	µg/L	1.0	98.5	86.4	113	0.918	19	
Ethylbenzene	19.64	µg/L	1.0	98.2	83.5	118	0.613	10	
Xylenes, Total	59.29	µg/L	2.0	98.8	83.4	122	0.253	13	
1,2,4-Trimethylbenzene	20.32	µg/L	1.0	102	83.5	115	2.71	21	
1,3,5-Trimethylbenzene	19.46	µg/L	1.0	97.3	85.2	113	0.594	10	
Method: EPA Method 7470: Mercury									
Sample ID: MB-19251		*MBLK*			Batch ID:	**19251**	Analysis Date:		6/3/2009 2:48:07 PM
Mercury	ND	mg/L	0.00020						
Sample ID: LCS-19251		*LCS*			Batch ID:	**19251**	Analysis Date:		6/3/2009 2:49:56 PM
Mercury	0.004931	mg/L	0.00020	98.6	80	120			
Sample ID: LCS-19251		*LCSD*			Batch ID:	**19251**	Analysis Date:		6/3/2009 2:51:45 PM
Mercury	0.004947	mg/L	0.00020	98.9	80	120	0.335	0	

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 2nd Quarter NAPIS **Work Order:** 0905544

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA 6010B: Total Recoverable Metals									
Sample ID: MB-19242		*MBLK*			Batch ID:	**19242**	Analysis Date:	6/5/2009 2:43:07 PM	
Arsenic	ND	mg/L	0.020						
Barium	ND	mg/L	0.010						
Cadmium	ND	mg/L	0.0020						
Calcium	ND	mg/L	0.50						
Chromium	ND	mg/L	0.0060						
Lead	ND	mg/L	0.0050						
Magnesium	ND	mg/L	0.50						
Potassium	ND	mg/L	1.0						
Selenium	ND	mg/L	0.050						
Silver	ND	mg/L	0.0050						
Sodium	ND	mg/L	0.50						
Sample ID: LCS-19242		*LCS*			Batch ID:	**19242**	Analysis Date:	6/5/2009 2:46:20 PM	
Arsenic	0.4901	mg/L	0.020	98.0	80	120			
Barium	0.4583	mg/L	0.010	91.7	80	120			
Cadmium	0.4703	mg/L	0.0020	94.1	80	120			
Calcium	49.57	mg/L	0.50	99.1	80	120			
Chromium	0.4595	mg/L	0.0060	91.9	80	120			
Lead	0.4750	mg/L	0.0050	95.0	80	120			
Magnesium	49.91	mg/L	0.50	99.8	80	120			
Potassium	53.49	mg/L	1.0	107	80	120			
Selenium	0.4778	mg/L	0.050	95.6	80	120			
Silver	0.5023	mg/L	0.0050	100	80	120			
Sodium	53.05	mg/L	0.50	106	80	120			

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name WESTERN REFINING GALLU | Date Received: 5/29/2009

Work Order Number 0905544 | Received by: ARS

Sample ID labels checked by: _____ Initials

Checklist completed by: _____ Signature 5/29/09 Date

Matrix: | Carrier name UPS

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐		
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐	Not Shipped ☐	
Custody seals intact on sample bottles?	Yes ☑	No ☐	N/A ☐		
Chain of custody present?	Yes ☑	No ☐			
Chain of custody signed when relinquished and received?	Yes ☑	No ☐			
Chain of custody agrees with sample labels?	Yes ☑	No ☐			
Samples in proper container/bottle?	Yes ☑	No ☐			
Sample containers intact?	Yes ☑	No ☐			
Sufficient sample volume for indicated test?	Yes ☑	No ☐			
All samples received within holding time?	Yes ☑	No ☐		Number of preserved bottles checked for pH:	
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☑	No ☐		
Water - Preservation labels on bottle and cap match?	Yes ☑	No ☐	N/A ☐		
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐	<2 >12 unless noted below.	
Container/Temp Blank temperature?	1.5°	<6° C Acceptable If given sufficient time to cool.			

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

Chain-of-Custody Record

Client: Western Refining
Gallup Refinery
Mailing Address: PO Box 7
Gallup, NM 87301
Phone #: 505-722-3833
email or Fax#: 505-722-0210

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

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: 2009 2nd QTR NAPIS
Project #:
Project Manager: G. Rajen
Sampler: C. Johnson
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.5

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. 0905364	BTEX + MTBE + TMB's (8021B)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Gen Chem				Air Bubbles (Y or N)
5/28/09	0805	H_2O	NAPLS-1	3VOA	HCl	-1	X															
				3VOA	HCl	-1			X													
				1-500ml	HNO3	-1						\	X									
				1L-Amber	None	-1						X										
				1-500	None	-1												X				
				1-125	H_2SO_4	-1												X				
				1-500	HNO3	-1												X				
5/28/09	1840		NAPLS-2	3-VOA	HCl	-2	X															
				2 VOA	HCl	-2		X														
				1-500ml	HNO3	-2							X									
				1 L Amber	None	-2						X										
				1-500ml	None	-2												X				

Date:	Time:	Relinquished by:	Received by:	Date	Time
5/28/09	1020				
Date:	Time:	Relinquished by:	Received by:	Date	Time
				5/29/09	12:00

Remarks: GenChem - Cations, Anions, pH Cond. 8015B - GRO-DRO extended.

Chain-of-Custody Record

Client: Western Refining Gallup Refinery

Mailing Address: PO Box 7 Gallup, NM 87301

Phone #: 505 722 3833

email or Fax#: 505 722 0210

QA/QC Package:
- [x] Standard
- [ ] Level 4 (Full Validation)
- [ ] Other
- [ ] EDD (Type)

Turn-Around Time:
- [x] Standard
- [ ] Rush

Project Name: 2009 2nd QTR NAPIS

Project #:

Project Manager: G. Rajen

Sampler: C Johnson

On Ice: [x] Yes [ ] No

Sample Temperature: 1.3

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 0905529	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	GenChem				Air Bubbles (Y or N)
5/28/09	0840	H_2O	NAPIS-2	1-125mL	H_2SO_4	-2												X				
	11			1-500	HNO3	-2												X				
5/28/09	0930		KA-3	3-VOA	HCl	-3	X															
				3-VOA	HCl	-3			X													
				1-500	HNO3	-3							X									
				1-L Amb.	None	-3						X										
				1-500	None	-3												X				
				1-125	H_2SO_4	-3												X				
				1-500	HNO3	-3												X				
			TRIP BLANK			-4																

Date:	Time:	Relinquished by:	Received by:	Date	Time	Remarks:
5/28/09	1030			5/29/09	12:00	GenChem: Cations, Anions, pH Conductivity
Date:	Time:	Relinquished by:	Received by:	Date	Time	8015B: GRO/DRO extended.

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

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Monday, August 03, 2009

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

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

RE: AL-1, AL-2, EP-1

Order No.: 0906325

Dear Gaurav Rajen:

Hall Environmental Analysis Laboratory, Inc. received 3 sample(s) on 6/17/2009 for the analyses presented in the following report.

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

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

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

Sincerely,

for Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

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

Hall Environmental Analysis Laboratory, Inc.

Date: *03-Aug-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL-1 Inlet
Lab Order:	0906325	**Collection Date:**	6/15/2009 1:00:00 PM
Project:	AL-1, AL-2, EP-1	**Date Received:**	6/17/2009
Lab ID:	0906325-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
4-Chloro-3-methylphenol	ND	50		µg/L	1	6/23/2009
2-Chlorophenol	ND	50		µg/L	1	6/23/2009
2,4-Dichlorophenol	ND	100		µg/L	1	6/23/2009
2,4-Dimethylphenol	270	50		µg/L	1	6/23/2009
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	6/23/2009
2,4-Dinitrophenol	ND	100		µg/L	1	6/23/2009
2-Methylphenol	1600	500		µg/L	10	6/23/2009
3+4-Methylphenol	3400	500		µg/L	10	6/23/2009
2-Nitrophenol	ND	50		µg/L	1	6/23/2009
4-Nitrophenol	ND	50		µg/L	1	6/23/2009
Pentachlorophenol	ND	100		µg/L	1	6/23/2009
Phenol	6800	500		µg/L	10	6/23/2009
2,4,5-Trichlorophenol	ND	50		µg/L	1	6/23/2009
2,4,6-Trichlorophenol	ND	50		µg/L	1	6/23/2009
Surr: 2,4,6-Tribromophenol	33.4	16.6-150		%REC	1	6/23/2009
Surr: 2-Fluorobiphenyl	44.3	19.6-134		%REC	1	6/23/2009
Surr: 2-Fluorophenol	19.9	9.54-113		%REC	1	6/23/2009
Surr: 4-Terphenyl-d14	46.2	22.7-145		%REC	1	6/23/2009
Surr: Nitrobenzene-d5	41.0	14.6-134		%REC	1	6/23/2009
Surr: Phenol-d5	28.2	10.7-80.3		%REC	1	6/23/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *03-Aug-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL-2-Inlet
Lab Order:	0906325	**Collection Date:**	6/15/2009 1:20:00 PM
Project:	AL-1, AL-2, EP-1	**Date Received:**	6/17/2009
Lab ID:	0906325-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
4-Chloro-3-methylphenol	ND	50		µg/L	1	6/23/2009
2-Chlorophenol	ND	50		µg/L	1	6/23/2009
2,4-Dichlorophenol	ND	100		µg/L	1	6/23/2009
2,4-Dimethylphenol	110	50		µg/L	1	6/23/2009
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	6/23/2009
2,4-Dinitrophenol	ND	100		µg/L	1	6/23/2009
2-Methylphenol	1300	500		µg/L	10	6/23/2009
3+4-Methylphenol	2500	500		µg/L	10	6/23/2009
2-Nitrophenol	ND	50		µg/L	1	6/23/2009
4-Nitrophenol	ND	50		µg/L	1	6/23/2009
Pentachlorophenol	ND	100		µg/L	1	6/23/2009
Phenol	3600	500		µg/L	10	6/23/2009
2,4,5-Trichlorophenol	ND	50		µg/L	1	6/23/2009
2,4,6-Trichlorophenol	ND	50		µg/L	1	6/23/2009
Surr: 2,4,6-Tribromophenol	59.0	16.6-150		%REC	1	6/23/2009
Surr: 2-Fluorobiphenyl	52.8	19.6-134		%REC	1	6/23/2009
Surr: 2-Fluorophenol	37.7	9.54-113		%REC	1	6/23/2009
Surr: 4-Terphenyl-d14	56.5	22.7-145		%REC	1	6/23/2009
Surr: Nitrobenzene-d5	53.0	14.6-134		%REC	1	6/23/2009
Surr: Phenol-d5	32.2	10.7-80.3		%REC	1	6/23/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *03-Aug-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	EP-1 Inlet
Lab Order:	0906325	**Collection Date:**	6/15/2009 1:50:00 PM
Project:	AL-1, AL-2, EP-1	**Date Received:**	6/17/2009
Lab ID:	0906325-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
4-Chloro-3-methylphenol	ND	50		µg/L	1	6/23/2009
2-Chlorophenol	ND	50		µg/L	1	6/23/2009
2,4-Dichlorophenol	ND	100		µg/L	1	6/23/2009
2,4-Dimethylphenol	85	50		µg/L	1	6/23/2009
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	6/23/2009
2,4-Dinitrophenol	ND	100		µg/L	1	6/23/2009
2-Methylphenol	1000	50		µg/L	1	6/23/2009
3+4-Methylphenol	1700	500		µg/L	10	6/23/2009
2-Nitrophenol	ND	50		µg/L	1	6/23/2009
4-Nitrophenol	ND	50		µg/L	1	6/23/2009
Pentachlorophenol	ND	100		µg/L	1	6/23/2009
Phenol	3300	500		µg/L	10	6/23/2009
2,4,5-Trichlorophenol	ND	50		µg/L	1	6/23/2009
2,4,6-Trichlorophenol	ND	50		µg/L	1	6/23/2009
Surr: 2,4,6-Tribromophenol	61.7	16.6-150		%REC	1	6/23/2009
Surr: 2-Fluorobiphenyl	62.0	19.6-134		%REC	1	6/23/2009
Surr: 2-Fluorophenol	37.8	9.54-113		%REC	1	6/23/2009
Surr: 4-Terphenyl-d14	65.1	22.7-145		%REC	1	6/23/2009
Surr: Nitrobenzene-d5	58.5	14.6-134		%REC	1	6/23/2009
Surr: Phenol-d5	34.4	10.7-80.3		%REC	1	6/23/2009

Qualifiers:

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

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Thursday, July 02, 2009

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

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

RE: 2009 2nd QTR NAPIS

Order No.: 0906335

Dear Gaurav Rajen:

Hall Environmental Analysis Laboratory, Inc. received 1 sample(s) on 6/17/2009 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

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

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

Hall Environmental Analysis Laboratory, Inc.

Date: *02-Jul-09*

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-3 — KA-3 5

Lab Order: 0906335
Collection Date: 6/15/2009 10:15:00 AM

Project: 2009 2nd QTR NAPIS
Date Received: 6/17/2009

Lab ID: 0906335-01
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **SCC**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/22/2009
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/22/2009
Surr: DNOP	123	58-140		%REC	1	6/22/2009
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	6/20/2009 10:54:50 AM
Surr: BFB	77.5	59.9-122		%REC	1	6/20/2009 10:54:50 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	6/20/2009 10:54:50 AM
Benzene	ND	1.0		µg/L	1	6/20/2009 10:54:50 AM
Toluene	ND	1.0		µg/L	1	6/20/2009 10:54:50 AM
Ethylbenzene	ND	1.0		µg/L	1	6/20/2009 10:54:50 AM
Xylenes, Total	ND	2.0		µg/L	1	6/20/2009 10:54:50 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/20/2009 10:54:50 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/20/2009 10:54:50 AM
Surr: 4-Bromofluorobenzene	85.7	65.9-130		%REC	1	6/20/2009 10:54:50 AM
EPA METHOD 8310: PAHS						Analyst: **JMP**
Naphthalene	ND	2.0		µg/L	1	6/29/2009 6:45:47 PM
1-Methylnaphthalene	ND	2.0		µg/L	1	6/29/2009 6:45:47 PM
2-Methylnaphthalene	ND	2.0		µg/L	1	6/29/2009 6:45:47 PM
Acenaphthylene	ND	2.5		µg/L	1	6/29/2009 6:45:47 PM
Acenaphthene	ND	5.0		µg/L	1	6/29/2009 6:45:47 PM
Fluorene	ND	0.80		µg/L	1	6/29/2009 6:45:47 PM
Phenanthrene	ND	0.60		µg/L	1	6/29/2009 6:45:47 PM
Anthracene	ND	0.60		µg/L	1	6/29/2009 6:45:47 PM
Fluoranthene	ND	0.30		µg/L	1	6/29/2009 6:45:47 PM
Pyrene	ND	0.30		µg/L	1	6/29/2009 6:45:47 PM
Benz(a)anthracene	ND	0.070		µg/L	1	6/29/2009 6:45:47 PM
Chrysene	ND	0.20		µg/L	1	6/29/2009 6:45:47 PM
Benzo(b)fluoranthene	ND	0.10		µg/L	1	6/29/2009 6:45:47 PM
Benzo(k)fluoranthene	ND	0.070		µg/L	1	6/29/2009 6:45:47 PM
Benzo(a)pyrene	ND	0.070		µg/L	1	6/29/2009 6:45:47 PM
Dibenz(a,h)anthracene	ND	0.070		µg/L	1	6/29/2009 6:45:47 PM
Benzo(g,h,i)perylene	ND	0.080		µg/L	1	6/29/2009 6:45:47 PM
Indeno(1,2,3-cd)pyrene	ND	0.080		µg/L	1	6/29/2009 6:45:47 PM
Surr: Benzo(e)pyrene	45.4	28.3-111		%REC	1	6/29/2009 6:45:47 PM
EPA METHOD 300.0: ANIONS						Analyst: **RAGS**
Fluoride	0.46	0.10		mg/L	1	6/25/2009 11:24:38 PM
Chloride	1200	10		mg/L	100	6/26/2009 12:39:46 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *02-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	NAPIS-3
Lab Order:	0906335	**Collection Date:**	6/15/2009 10:15:00 AM
Project:	2009 2nd QTR NAPIS	**Date Received:**	6/17/2009
Lab ID:	0906335-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **RAGS**
Nitrate (As N)+Nitrite (As N)	18	4.0		mg/L	20	6/26/2009 12:57:11 PM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	6/25/2009 11:24:38 PM
Sulfate	330	10		mg/L	20	6/25/2009 11:42:03 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **DAM**
Specific Conductance	4200	0.010		µmhos/cm	1	6/19/2009
SM4500-H+B: PH						Analyst: **DAM**
pH	8.23	0.1		pH units	1	6/19/2009

Qualifiers:

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

ENVIRONMENTAL SCIENCE CORP.

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Est. 1970

REPORT OF ANALYSIS

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

June 26, 2009

ESC Sample # : L408295-01

Site ID :

Project # : 0906335

Date Received : June 18, 2009
Description :

Sample ID : NAPIS-3

Collected By :
Collection Date : 06/15/09 10:15

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Mercury	BDL	0.00020	mg/l	7470A	06/19/09	1
Arsenic	BDL	0.020	mg/l	6010B	06/25/09	1
Barium	0.14	0.0050	mg/l	6010B	06/25/09	1
Cadmium	BDL	0.0050	mg/l	6010B	06/25/09	1
Calcium	49.	0.50	mg/l	6010B	06/25/09	1
Chromium	BDL	0.010	mg/l	6010B	06/25/09	1
Lead	BDL	0.0050	mg/l	6010B	06/25/09	1
Magnesium	6.8	0.10	mg/l	6010B	06/25/09	1
Potassium	4.2	0.50	mg/l	6010B	06/25/09	1
Selenium	BDL	0.020	mg/l	6010B	06/25/09	1
Silver	BDL	0.010	mg/l	6010B	06/25/09	1
Sodium	840	0.50	mg/l	6010B	06/25/09	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.

Reported: 06/26/09 12:34 Printed: 06/26/09 12:34

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Hall Environmental Analysis Laboratory
Anne Thorne
4901 Hawkins NE

Albuquerque, NM 87109

Quality Assurance Report
Level II

L408295

June 26, 2009

Laboratory Blank

Analyte	Result	Units	% Rec	Limit	Batch	Date Analyzed
Mercury	< .0002	mg/l			WG427240	06/19/09 18:40
Arsenic	< .02	mg/l			WG427956	06/25/09 15:05
Barium	< .005	mg/l			WG427956	06/25/09 15:05
Cadmium	< .005	mg/l			WG427956	06/25/09 15:05
Calcium	< .5	mg/l			WG427956	06/25/09 15:05
Chromium	< .01	mg/l			WG427956	06/25/09 15:05
Lead	< .005	mg/l			WG427956	06/25/09 15:05
Magnesium	< .1	mg/l			WG427956	06/25/09 15:05
Potassium	< .5	mg/l			WG427956	06/25/09 15:05
Selenium	< .02	mg/l			WG427956	06/25/09 15:05
Silver	< .01	mg/l			WG427956	06/25/09 15:05
Sodium	< .5	mg/l			WG427956	06/25/09 15:05

Duplicate

Analyte	Units	Result	Duplicate	RPD	Limit	Ref Samp	Batch
Mercury	mg/l	0.00	0.00	0.00	20	L408257-16	WG427240
Arsenic	mg/l	0.00	0.00	0.00	20	L408277-06	WG427956
Barium	mg/l	0.00706	0.00700	0.855	20	L408277-06	WG427956
Cadmium	mg/l	0.00	0.00	0.00	20	L408277-06	WG427956
Calcium	mg/l	268.	268.	0.00	20	L408277-06	WG427956
Chromium	mg/l	0.00	0.00	0.00	20	L408277-06	WG427956
Lead	mg/l	0.00	0.00	0.00	20	L408277-06	WG427956
Magnesium	mg/l	112.	116.	3.51	20	L408277-06	WG427956
Potassium	mg/l	1.35	1.36	0.736	20	L408277-06	WG427956
Selenium	mg/l	0.00	0.00	0.00	20	L408277-06	WG427956
Silver	mg/l	0.00	0.00360	NA	20	L408277-06	WG427956
Sodium	mg/l	16.0	16.3	1.85	20	L408277-06	WG427956

Laboratory Control Sampling

Analyte	Units	Known Val	Result	% Rec	Limit	Batch
Mercury	mg/l	0.003	0.00298	99.3	80-115	WG427240
Arsenic	mg/l	1.13	1.02	90.3	85-115	WG427956
Barium	mg/l	1.13	1.07	94.7	85-115	WG427956
Cadmium	mg/l	1.13	1.08	95.6	85-115	WG427956
Calcium	mg/l	11.3	10.7	94.7	85-115	WG427956
Chromium	mg/l	1.13	1.03	91.2	85-115	WG427956
Lead	mg/l	1.13	1.07	94.7	85-115	WG427956
Magnesium	mg/l	11.3	10.5	92.9	85-115	WG427956
Potassium	mg/l	11.3	10.3	91.2	85-115	WG427956
Selenium	mg/l	1.13	1.01	89.4	85-115	WG427956
Silver	mg/l	1.13	0.992	87.8	85-115	WG427956
Sodium	mg/l	11.3	10.3	91.2	85-115	WG427956

Matrix Spike

Analyte	Units	MS Res	Ref Res	TV	% Rec	Limit	Ref Samp	Batch
Mercury	mg/l	0.00220	0.000	.003	73.0	70-130	L408257-16	WG427240
Arsenic	mg/l	1.01	0.00	1.13	89.4	75-125	L408277-06	WG427956
Barium	mg/l	1.01	0.00706	1.13	88.0	75-125	L408277-06	WG427956

* *Performance of this Analyte is outside of established criteria.*
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

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Hall Environmental Analysis Laboratory
Anne Thorne
4901 Hawkins NE

Albuquerque, NM 87109

Quality Assurance Report
Level II

L408295

June 26, 2009

Analyte	Units	MS Res	Ref Res	TV	% Rec	Limit	Ref Samp	Batch
Cadmium	mg/l	1.01	0.00026	1.13	89.1	75-125	L408277-06	WG427956
Calcium	mg/l	282.	268.	11.3	124.	75-125	L408277-06	WG427956
Chromium	mg/l	0.994	0.00	1.13	88.0	75-125	L408277-06	WG427956
Lead	mg/l	1.00	0.00200	1.13	88.6	75-125	L408277-06	WG427956
Magnesium	mg/l	123.	116.	11.3	61.9*	75-125	L408277-06	WG427956
Potassium	mg/l	11.6	1.36	11.3	90.6	75-125	L408277-06	WG427956
Selenium	mg/l	0.933	0.00	1.13	82.6	75-125	L408277-06	WG427956
Silver	mg/l	0.154	0.00360	1.13	13.3*	75-125	L408277-06	WG427956
Sodium	mg/l	27.2	16.3	11.3	96.5	75-125	L408277-06	WG427956

Analyte	Units	MSD	Ref	%Rec	Limit	RPD	Limit	Ref Samp	Batch
Mercury	mg/L	0.0022	0.00022	76.3	70-130	2.22	20	L408297-16	WG427240
Arsenic	mg/l	1.03	1.01	91.2	75-125	1.96	20	L408277-06	WG427956
Barium	mg/l	1.04	1.01	91.96	75-125	2.93	20	L408277-06	WG427956
Cadmium	mg/l	1.04	1.01	92.0	75-125	2.93	20	L408277-06	WG427956
Calcium	mg/l	284.	282.	141.593*	75-125	0.707	20	L408277-06	WG427956
Chromium	mg/l	1.02	0.994	90.3	75-125	2.58	20	L408277-06	WG427956
Lead	mg/l	1.03	1.00	91.2	75-125	2.96	20	L408277-06	WG427956
Magnesium	mg/l	126.	123.	88.5	75-125	2.41	20	L408277-06	WG427956
Potassium	mg/l	11.9	11.6	91.5	75-125	0.858	20	L408277-06	WG427956
Selenium	mg/l	0.955	0.933	84.5	75-125	2.33	20	L408277-06	WG427956
Silver	mg/l	0.135	0.154	11.628*	75-125	13.1	20	L408277-06	WG427956
Sodium	mg/l	27.7	27.2	99.3	75-125	0.536	20	L408277-06	WG427956

Batch number /Run number / Sample number cross reference

WG427240: R788395: L408295-01
WG427956: R794626: L408295-01

* * Calculations are performed prior to rounding of reported values .
* Performance of this Analyte is outside of established criteria.
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 2nd QTR NAPIS **Work Order:** 0906335

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 300.0: Anions									
Sample ID: MB		*MBLK*			Batch ID:	**R34247**	Analysis Date:	6/25/2009 6:52:14 AM	
Fluoride	ND	mg/L	0.10						
Chloride	ND	mg/L	0.10						
Nitrate (As N)+Nitrite (As N)	ND	mg/L	0.20						
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50						
Sulfate	ND	mg/L	0.50						
Sample ID: MB		*MBLK*			Batch ID:	**R34272**	Analysis Date:	6/26/2009 8:53:28 AM	
Fluoride	ND	mg/L	0.10						
Chloride	ND	mg/L	0.10						
Nitrate (As N)+Nitrite (As N)	ND	mg/L	0.20						
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50						
Sulfate	ND	mg/L	0.50						
Sample ID: MB2		*MBLK*			Batch ID:	**R34272**	Analysis Date:	6/27/2009 5:46:59 AM	
Fluoride	ND	mg/L	0.10						
Chloride	ND	mg/L	0.10						
Nitrate (As N)+Nitrite (As N)	ND	mg/L	0.20						
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50						
Sulfate	ND	mg/L	0.50						
Sample ID: LCS		*LCS*			Batch ID:	**R34247**	Analysis Date:	6/25/2009 7:09:38 AM	
Fluoride	0.5127	mg/L	0.10	103	90	110			
Chloride	4.953	mg/L	0.10	99.1	90	110			
Nitrate (As N)+Nitrite (As N)	3.496	mg/L	0.20	99.9	90	110			
Phosphorus, Orthophosphate (As P)	5.025	mg/L	0.50	101	90	110			
Sulfate	9.953	mg/L	0.50	99.5	90	110			
Sample ID: LCS		*LCS*			Batch ID:	**R34272**	Analysis Date:	6/26/2009 9:10:52 AM	
Fluoride	0.5035	mg/L	0.10	101	90	110			
Chloride	4.834	mg/L	0.10	96.7	90	110			
Nitrate (As N)+Nitrite (As N)	3.400	mg/L	0.20	97.1	90	110			
Phosphorus, Orthophosphate (As P)	4.824	mg/L	0.50	96.5	90	110			
Sulfate	9.754	mg/L	0.50	97.5	90	110			
Sample ID: LCS2		*LCS*			Batch ID:	**R34272**	Analysis Date:	6/27/2009 6:04:24 AM	
Fluoride	0.4872	mg/L	0.10	97.4	90	110			
Chloride	4.831	mg/L	0.10	96.6	90	110			
Nitrate (As N)+Nitrite (As N)	3.403	mg/L	0.20	97.2	90	110			
Phosphorus, Orthophosphate (As P)	4.852	mg/L	0.50	97.0	90	110			
Sulfate	9.656	mg/L	0.50	96.6	90	110			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 2nd QTR NAPIS **Work Order:** 0906335

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8015B: Diesel Range									
Sample ID: MB-19416		*MBLK*			Batch ID:	**19416**	Analysis Date:		6/22/2009
Diesel Range Organics (DRO)	ND	mg/L	1.0						
Motor Oil Range Organics (MRO)	ND	mg/L	5.0						
Sample ID: LCS-19416		*LCS*			Batch ID:	**19416**	Analysis Date:		6/22/2009
Diesel Range Organics (DRO)	5.286	mg/L	1.0	106	74	157			
Sample ID: LCSD-19416		*LCSD*			Batch ID:	**19416**	Analysis Date:		6/22/2009
Diesel Range Organics (DRO)	5.124	mg/L	1.0	102	74	157	3.12	23	
Method: EPA Method 8015B: Gasoline Range									
Sample ID: 5ML RB		*MBLK*			Batch ID:	**R34172**	Analysis Date:		6/19/2009 9:36:06 AM
Gasoline Range Organics (GRO)	ND	mg/L	0.050						
Sample ID: 2.5UG GRO LCS		*LCS*			Batch ID:	**R34172**	Analysis Date:		6/20/2009 5:19:49 AM
Gasoline Range Organics (GRO)	0.5442	mg/L	0.050	109	80	115			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 2nd QTR NAPIS **Work Order:** 0906335

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8021B: Volatiles									
Sample ID: 5ML RB		*MBLK*			Batch ID:	**R34172**	Analysis Date:	6/19/2009 9:36:06 AM	
Methyl tert-butyl ether (MTBE)	ND	µg/L	2.5						
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
1,2,4-Trimethylbenzene	ND	µg/L	1.0						
1,3,5-Trimethylbenzene	ND	µg/L	1.0						
Sample ID: B 41		*MBLK*			Batch ID:	**R34172**	Analysis Date:	6/20/2009 7:21:32 AM	
Methyl tert-butyl ether (MTBE)	ND	µg/L	2.5						
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
1,2,4-Trimethylbenzene	ND	µg/L	1.0						
1,3,5-Trimethylbenzene	ND	µg/L	1.0						
Sample ID: 100NG BTEX LCS		*LCS*			Batch ID:	**R34172**	Analysis Date:	6/19/2009 8:42:30 PM	
Methyl tert-butyl ether (MTBE)	23.37	µg/L	2.5	117	51.2	138			
Benzene	23.42	µg/L	1.0	117	85.9	113			S
Toluene	22.19	µg/L	1.0	111	86.4	113			
Ethylbenzene	21.26	µg/L	1.0	106	83.5	118			
Xylenes, Total	62.13	µg/L	2.0	104	83.4	122			
1,2,4-Trimethylbenzene	19.01	µg/L	1.0	95.0	83.5	115			
1,3,5-Trimethylbenzene	18.78	µg/L	1.0	93.9	85.2	113			
Sample ID: 100NG GRO LCS-II		*LCS*			Batch ID:	**R34172**	Analysis Date:	6/20/2009 6:51:05 AM	
Methyl tert-butyl ether (MTBE)	22.18	µg/L	2.5	55.0	51.2	138			
Benzene	23.07	µg/L	1.0	114	85.9	113			S
Toluene	22.40	µg/L	1.0	110	86.4	113			
Ethylbenzene	21.38	µg/L	1.0	106	83.5	118			
Xylenes, Total	62.50	µg/L	2.0	104	83.4	122			
1,2,4-Trimethylbenzene	19.21	µg/L	1.0	94.3	83.5	115			
1,3,5-Trimethylbenzene	19.01	µg/L	1.0	94.2	85.2	113			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 2nd QTR NAPIS **Work Order:** 0906335

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8310: PAHs									
Sample ID: MB-19407		*MBLK*			Batch ID: **19407**		Analysis Date:	6/29/2009 3:44:09 PM	
Naphthalene	ND	µg/L	2.0						
1-Methylnaphthalene	ND	µg/L	2.0						
2-Methylnaphthalene	ND	µg/L	2.0						
Acenaphthylene	ND	µg/L	2.5						
Acenaphthene	ND	µg/L	5.0						
Fluorene	ND	µg/L	0.80						
Phenanthrene	ND	µg/L	0.60						
Anthracene	ND	µg/L	0.60						
Fluoranthene	ND	µg/L	0.30						
Pyrene	ND	µg/L	0.30						
Benz(a)anthracene	ND	µg/L	0.070						
Chrysene	ND	µg/L	0.20						
Benzo(b)fluoranthene	ND	µg/L	0.10						
Benzo(k)fluoranthene	ND	µg/L	0.070						
Benzo(a)pyrene	ND	µg/L	0.070						
Dibenz(a,h)anthracene	ND	µg/L	0.070						
Benzo(g,h,i)perylene	ND	µg/L	0.080						
Indeno(1,2,3-cd)pyrene	ND	µg/L	0.080						
Sample ID: LCS-19407		*LCS*			Batch ID: **19407**		Analysis Date:	6/30/2009 6:07:49 PM	
Naphthalene	27.21	µg/L	2.0	34.0	20.5	109			
1-Methylnaphthalene	30.10	µg/L	2.0	37.5	23.1	116			
2-Methylnaphthalene	30.24	µg/L	2.0	37.8	19.5	112			
Acenaphthylene	37.81	µg/L	2.5	47.1	27.5	119			
Acenaphthene	37.59	µg/L	5.0	47.0	31	117			
Fluorene	2.960	µg/L	0.80	36.9	17.1	109			
Phenanthrene	1.900	µg/L	0.60	47.3	25.5	112			
Anthracene	2.110	µg/L	0.60	52.5	25.8	119			
Fluoranthene	4.290	µg/L	0.30	53.5	27.2	122			
Pyrene	3.350	µg/L	0.30	41.8	24.1	118			
Benz(a)anthracene	0.4200	µg/L	0.070	52.4	31.1	125			
Chrysene	2.120	µg/L	0.20	52.7	32.8	119			
Benzo(b)fluoranthene	0.6700	µg/L	0.10	66.9	24.4	117			
Benzo(k)fluoranthene	0.2800	µg/L	0.070	56.0	28.4	132			
Benzo(a)pyrene	0.2600	µg/L	0.070	51.8	32.4	119			
Dibenz(a,h)anthracene	0.5500	µg/L	0.070	54.9	33.9	120			
Benzo(g,h,i)perylene	0.5100	µg/L	0.080	51.0	35.2	113			
Indeno(1,2,3-cd)pyrene	1.240	µg/L	0.080	61.9	33.6	115			
Sample ID: LCSD-19407		*LCSD*			Batch ID: **19407**		Analysis Date:	6/29/2009 4:24:33 PM	
Naphthalene	27.75	µg/L	2.0	34.7	20.5	109	1.97	32.1	
1-Methylnaphthalene	30.78	µg/L	2.0	38.4	23.1	116	2.23	32.7	
2-Methylnaphthalene	30.92	µg/L	2.0	38.7	19.5	112	2.22	34	
Acenaphthylene	38.19	µg/L	2.5	47.6	27.5	119	1.00	38.8	
Acenaphthene	37.81	µg/L	5.0	47.3	31	117	0.584	38.6	
Fluorene	3.340	µg/L	0.80	41.6	17.1	109	12.1	29.3	

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 2nd QTR NAPIS **Work Order:** 0906335

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8310: PAHs									
Sample ID: LCSD-19407		*LCSD*			Batch ID:	**19407**	Analysis Date:	6/29/2009 4:24:33 PM	
Phenanthrene	2.020	µg/L	0.60	50.2	25.5	112	6.12	25	
Anthracene	2.140	µg/L	0.60	53.2	25.8	119	1.41	23.9	
Fluoranthene	4.410	µg/L	0.30	55.0	27.2	122	2.76	15.7	
Pyrene	3.390	µg/L	0.30	42.3	24.1	118	1.19	15.3	
Benz(a)anthracene	0.4100	µg/L	0.070	51.1	31.1	125	2.41	19	
Chrysene	2.010	µg/L	0.20	50.0	32.8	119	5.33	16.6	
Benzo(b)fluoranthene	0.5700	µg/L	0.10	56.9	24.4	117	16.1	21.7	
Benzo(k)fluoranthene	0.2900	µg/L	0.070	58.0	28.4	132	3.51	19.4	
Benzo(a)pyrene	0.2500	µg/L	0.070	49.8	32.4	119	3.92	16.7	
Dibenz(a,h)anthracene	0.5500	µg/L	0.070	54.9	33.9	120	0	17.3	
Benzo(g,h,i)perylene	0.5200	µg/L	0.080	52.0	35.2	113	1.94	18	
Indeno(1,2,3-cd)pyrene	1.260	µg/L	0.080	62.9	33.6	115	1.60	17.7	

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name WESTERN REFINING GALLU — Date Received: 6/17/2009

Work Order Number 0906335 — Received by: ARS

Checklist completed by: _____ (Signature) 6/17/09 (Date) — Sample ID labels checked by: TSB (Initials)

Matrix: — Carrier name: UPS

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	N/A ☑	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		Number of preserved bottles checked for pH:
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☑	No ☐	3 c-2
Water - Preservation labels on bottle and cap match?	Yes ☑	No ☐	N/A ☐	
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐	*<2 >12 unless noted below.*
Container/Temp Blank temperature?	**14.2°**	*<6° C Acceptable* If given sufficient time to cool.		

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

Chain-of-Custody Record

Client: Western Refining
Gallup Refinery
Mailing Address: Rt 3 Box 7
Gallup, NM 87301
Phone #: 505-722-3833
email or Fax#: 505-722-0210
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
☐ Other
☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: 2009 2nd QTR NAPIS
Project #: NAPIS-3
Project Manager: G. Rajen
Sampler: C Johnson
On Ice: ☒ Yes ☐ No
Sample Temperature: 4.2

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 0901p335	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Gen Chem				Air Bubbles (Y or N)
6/15/09	1105	H2O	NAPIS-3	3-VOA	HCl	1	X															
				3-VOA	HCl	1			X													
				1-500	HNO3	1							X									
				1-L	None	1						X										
				1-500	HNO3	1												X				
				1-500	None	1												X				
				1-125	H_2SO_4	1												X				

Date:	Time:	Relinquished by:	Received by:	Date	Time
6/15/09	1058				
Date:	Time:	Relinquished by:	Received by:	6/17/09	10:50

Remarks: Gen Chem: Cations, Anions pH, cond.
8015B - GRO/DRO extended

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

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Thursday, July 09, 2009

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

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

RE: 2009 Annual Pond Sampling

Order No.: 0906386

Dear Gaurav Rajen:

Hall Environmental Analysis Laboratory, Inc. received 1 sample(s) on 6/18/2009 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

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

ACCREDITED IN ACCORDANCE WITH nelac

Hall Environmental Analysis Laboratory, Inc. **Date:** *09-Jul-09*

CLIENT: Western Refining Southwest, Gallup
Project: 2009 Annual Pond Sampling
Lab Order: 0906386

CASE NARRATIVE

Analytical Comments for METHOD 8015GRO_W, SAMPLE 0906386-01A: Necessary dilution for foamy matrix.

Hall Environmental Analysis Laboratory, Inc.

Date: *09-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	EP2-IN
Lab Order:	0906386	**Collection Date:**	6/17/2009 9:15:00 AM
Project:	2009 Annual Pond Sampling	**Date Received:**	6/18/2009
Lab ID:	0906386-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **SCC**
Diesel Range Organics (DRO)	23	1.0		mg/L	1	6/22/2009
Motor Oil Range Organics (MRO)	6.1	5.0		mg/L	1	6/22/2009
Surr: DNOP	117	58-140		%REC	1	6/22/2009
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	2.0	0.50		mg/L	10	6/22/2009 4:10:51 PM
Surr: BFB	88.3	59.9-122		%REC	10	6/22/2009 4:10:51 PM
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
Benzene	3.9	1.0		µg/L	1	6/29/2009 9:54:13 AM
Toluene	20	1.0		µg/L	1	6/29/2009 9:54:13 AM
Ethylbenzene	4.2	1.0		µg/L	1	6/29/2009 9:54:13 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/29/2009 9:54:13 AM
1,2,4-Trimethylbenzene	25	1.0		µg/L	1	6/29/2009 9:54:13 AM
1,3,5-Trimethylbenzene	8.2	1.0		µg/L	1	6/29/2009 9:54:13 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/29/2009 9:54:13 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/29/2009 9:54:13 AM
Naphthalene	11	2.0		µg/L	1	6/29/2009 9:54:13 AM
1-Methylnaphthalene	57	4.0		µg/L	1	6/29/2009 9:54:13 AM
2-Methylnaphthalene	61	4.0		µg/L	1	6/29/2009 9:54:13 AM
Acetone	500	50		µg/L	5	6/29/2009 3:38:53 PM
Bromobenzene	ND	1.0		µg/L	1	6/29/2009 9:54:13 AM
Bromodichloromethane	ND	1.0		µg/L	1	6/29/2009 9:54:13 AM
Bromoform	ND	1.0		µg/L	1	6/29/2009 9:54:13 AM
Bromomethane	ND	1.0		µg/L	1	6/29/2009 9:54:13 AM
2-Butanone	46	10		µg/L	1	6/29/2009 9:54:13 AM
Carbon disulfide	11	10		µg/L	1	6/29/2009 9:54:13 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	6/29/2009 9:54:13 AM
Chlorobenzene	ND	1.0		µg/L	1	6/29/2009 9:54:13 AM
Chloroethane	ND	2.0		µg/L	1	6/29/2009 9:54:13 AM
Chloroform	ND	1.0		µg/L	1	6/29/2009 9:54:13 AM
Chloromethane	ND	1.0		µg/L	1	6/29/2009 9:54:13 AM
2-Chlorotoluene	ND	1.0		µg/L	1	6/29/2009 9:54:13 AM
4-Chlorotoluene	ND	1.0		µg/L	1	6/29/2009 9:54:13 AM
cis-1,2-DCE	ND	1.0		µg/L	1	6/29/2009 9:54:13 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/29/2009 9:54:13 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/29/2009 9:54:13 AM
Dibromochloromethane	ND	1.0		µg/L	1	6/29/2009 9:54:13 AM
Dibromomethane	ND	1.0		µg/L	1	6/29/2009 9:54:13 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/29/2009 9:54:13 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/29/2009 9:54:13 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/29/2009 9:54:13 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *09-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	EP2-IN
Lab Order:	0906386	**Collection Date:**	6/17/2009 9:15:00 AM
Project:	2009 Annual Pond Sampling	**Date Received:**	6/18/2009
Lab ID:	0906386-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/29/2009 9:54:13 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	6/29/2009 9:54:13 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	6/29/2009 9:54:13 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	6/29/2009 9:54:13 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	6/29/2009 9:54:13 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	6/29/2009 9:54:13 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	6/29/2009 9:54:13 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	6/29/2009 9:54:13 AM
2-Hexanone	ND	10		µg/L	1	6/29/2009 9:54:13 AM
Isopropylbenzene	ND	1.0		µg/L	1	6/29/2009 9:54:13 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	6/29/2009 9:54:13 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/29/2009 9:54:13 AM
Methylene Chloride	ND	3.0		µg/L	1	6/29/2009 9:54:13 AM
n-Butylbenzene	4.4	1.0		µg/L	1	6/29/2009 9:54:13 AM
n-Propylbenzene	1.8	1.0		µg/L	1	6/29/2009 9:54:13 AM
sec-Butylbenzene	ND	1.0		µg/L	1	6/29/2009 9:54:13 AM
Styrene	ND	1.0		µg/L	1	6/29/2009 9:54:13 AM
tert-Butylbenzene	ND	1.0		µg/L	1	6/29/2009 9:54:13 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/29/2009 9:54:13 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/29/2009 9:54:13 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/29/2009 9:54:13 AM
trans-1,2-DCE	ND	1.0		µg/L	1	6/29/2009 9:54:13 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/29/2009 9:54:13 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/29/2009 9:54:13 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/29/2009 9:54:13 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/29/2009 9:54:13 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/29/2009 9:54:13 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/29/2009 9:54:13 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	6/29/2009 9:54:13 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/29/2009 9:54:13 AM
Vinyl chloride	ND	1.0		µg/L	1	6/29/2009 9:54:13 AM
Xylenes, Total	37	1.5		µg/L	1	6/29/2009 9:54:13 AM
Surr: 1,2-Dichloroethane-d4	75.5	68.1-123		%REC	1	6/29/2009 9:54:13 AM
Surr: 4-Bromofluorobenzene	82.9	53.2-145		%REC	1	6/29/2009 9:54:13 AM
Surr: Dibromofluoromethane	85.6	68.5-119		%REC	1	6/29/2009 9:54:13 AM
Surr: Toluene-d8	79.5	64-131		%REC	1	6/29/2009 9:54:13 AM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KMS**
Total Dissolved Solids	2600	40		mg/L	1	6/22/2009

Qualifiers:

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

ARS ANALYTICAL, LLC

4301 Masthead NE | Albuquerque, New Mexico 87109 505.344.3777 | 505.345.8694

Explanation of codes	
B	Analyte Detected in Method Blank
E	Result is Estimated
H	Analyzed Out of Hold Time
N	Tentatively Identified Compound
S	Subcontracted
1-9	See Footnote

HALL ENVIRONMENTAL
attn: ANDY FREEMAN
4901 HAWKINS NE, SUITE D
ALBUQUERQUE NM 87109-4372

STANDARD

ARS Analytical, LLC

Certificate of Analysis

All samples are reported on an "as received" basis, unless otherwise noted (i.e. - Dry Weight).

Client: **HALL ENVIRONMENTAL**
Project: **0906386**
Order: **09060435 HAL03** Receipt: **06-18-09**

Elvin J. Chavez - President, ARS Analytical LLC

Sample: ***0906386-01C EP2-IN*** Collected: *06-17-09 9:15:00* By:
Matrix: ***AQUEOUS***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09060435-001A		SM 5220C						By: ECC		
COD-09-027	WC.2009.1683.11	C-004	Chemical Oxygen Demand	1149	mg/L	1	10		07-07-09	07-07-09

Sample: ***0906386-01D EP2-IN*** Collected: *06-17-09 9:15:00* By:
Matrix: ***AQUEOUS***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09060435-002A		SM 5210B						By: ECC		
BOD090073	WC.2009.1595.4	10-26-4	Biochemical Oxygen Demand	191	mg/L	1	4		06-19-09	06-24-09

Unless otherwise noted, all samples were received in acceptable condition and all sampling was performed by client or client representative. Sample result of ND indicates Not Detected, ie result is less than the sample specific Detection Limit. Sample specific Detection Limit is determined by multiplying the sample Dilution Factor by the listed Reporting Detection Limit. All results relate only to the items tested. Any miscellaneous workorder information or footnotes will appear below.

Analytical results are not corrected for method blank or field blank contamination.

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Annual Pond Sampling **Work Order:** 0906386

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8015B: Diesel Range									
Sample ID: MB-19416		*MBLK*			Batch ID: **19416**		Analysis Date:		6/22/2009
Diesel Range Organics (DRO)	ND	mg/L	1.0						
Motor Oil Range Organics (MRO)	ND	mg/L	5.0						
Sample ID: LCS-19416		*LCS*			Batch ID: **19416**		Analysis Date:		6/22/2009
Diesel Range Organics (DRO)	5.286	mg/L	1.0	106	74	157			
Sample ID: LCSD-19416		*LCSD*			Batch ID: **19416**		Analysis Date:		6/22/2009
Diesel Range Organics (DRO)	5.124	mg/L	1.0	102	74	157	3.12	23	
Method: EPA Method 8015B: Gasoline Range									
Sample ID: 5ML RB		*MBLK*			Batch ID: **R34172**		Analysis Date:		6/19/2009 9:36:06 AM
Gasoline Range Organics (GRO)	ND	mg/L	0.050						
Sample ID: 5ML RB		*MBLK*			Batch ID: **R34192**		Analysis Date:		6/22/2009 9:38:06 AM
Gasoline Range Organics (GRO)	ND	mg/L	0.050						
Sample ID: 2.5UG GRO LCS		*LCS*			Batch ID: **R34172**		Analysis Date:		6/20/2009 5:19:49 AM
Gasoline Range Organics (GRO)	0.5442	mg/L	0.050	109	80	115			
Sample ID: 2.5UG GRO LCS		*LCS*			Batch ID: **R34192**		Analysis Date:		6/23/2009 12:19:14 AM
Gasoline Range Organics (GRO)	0.4936	mg/L	0.050	98.7	80	115			
Method: SM2540C MOD: Total Dissolved Solids									
Sample ID: MB-19428		*MBLK*			Batch ID: **19428**		Analysis Date:		6/22/2009
Total Dissolved Solids	ND	mg/L	20						
Sample ID: LCS-19428		*LCS*			Batch ID: **19428**		Analysis Date:		6/22/2009
Total Dissolved Solids	1028	mg/L	20	103	80	120			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Annual Pond Sampling **Work Order:** 0906386

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: 5ml rb		*MBLK*			Batch ID: **R34278**		Analysis Date:	6/27/2009 3:38:10 PM	
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0						
1,2,4-Trimethylbenzene	ND	µg/L	1.0						
1,3,5-Trimethylbenzene	ND	µg/L	1.0						
1,2-Dichloroethane (EDC)	ND	µg/L	1.0						
1,2-Dibromoethane (EDB)	ND	µg/L	1.0						
Naphthalene	ND	µg/L	2.0						
1-Methylnaphthalene	ND	µg/L	4.0						
2-Methylnaphthalene	ND	µg/L	4.0						
Acetone	ND	µg/L	10						
Bromobenzene	ND	µg/L	1.0						
Bromodichloromethane	ND	µg/L	1.0						
Bromoform	ND	µg/L	1.0						
Bromomethane	ND	µg/L	1.0						
2-Butanone	ND	µg/L	10						
Carbon disulfide	ND	µg/L	10						
Carbon Tetrachloride	ND	µg/L	1.0						
Chlorobenzene	ND	µg/L	1.0						
Chloroethane	ND	µg/L	2.0						
Chloroform	ND	µg/L	1.0						
Chloromethane	ND	µg/L	1.0						
2-Chlorotoluene	ND	µg/L	1.0						
4-Chlorotoluene	ND	µg/L	1.0						
cis-1,2-DCE	ND	µg/L	1.0						
cis-1,3-Dichloropropene	ND	µg/L	1.0						
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0						
Dibromochloromethane	ND	µg/L	1.0						
Dibromomethane	ND	µg/L	1.0						
1,2-Dichlorobenzene	ND	µg/L	1.0						
1,3-Dichlorobenzene	ND	µg/L	1.0						
1,4-Dichlorobenzene	ND	µg/L	1.0						
Dichlorodifluoromethane	ND	µg/L	1.0						
1,1-Dichloroethane	ND	µg/L	1.0						
1,1-Dichloroethene	ND	µg/L	1.0						
1,2-Dichloropropane	ND	µg/L	1.0						
1,3-Dichloropropane	ND	µg/L	1.0						
2,2-Dichloropropane	ND	µg/L	2.0						
1,1-Dichloropropene	ND	µg/L	1.0						
Hexachlorobutadiene	ND	µg/L	1.0						
2-Hexanone	ND	µg/L	10						
Isopropylbenzene	ND	µg/L	1.0						
4-Isopropyltoluene	ND	µg/L	1.0						

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Annual Pond Sampling **Work Order:** 0906386

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: 5ml rb		*MBLK*			Batch ID: **R34278**		Analysis Date:	6/27/2009 3:38:10 PM	
4-Methyl-2-pentanone	ND	µg/L	10						
Methylene Chloride	ND	µg/L	3.0						
n-Butylbenzene	ND	µg/L	1.0						
n-Propylbenzene	ND	µg/L	1.0						
sec-Butylbenzene	ND	µg/L	1.0						
Styrene	ND	µg/L	1.0						
tert-Butylbenzene	ND	µg/L	1.0						
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0						
1,1,2,2-Tetrachloroethane	ND	µg/L	2.0						
Tetrachloroethene (PCE)	ND	µg/L	1.0						
trans-1,2-DCE	ND	µg/L	1.0						
trans-1,3-Dichloropropene	ND	µg/L	1.0						
1,2,3-Trichlorobenzene	ND	µg/L	1.0						
1,2,4-Trichlorobenzene	ND	µg/L	1.0						
1,1,1-Trichloroethane	ND	µg/L	1.0						
1,1,2-Trichloroethane	ND	µg/L	1.0						
Trichloroethene (TCE)	ND	µg/L	1.0						
Trichlorofluoromethane	ND	µg/L	1.0						
1,2,3-Trichloropropane	ND	µg/L	2.0						
[illegible]l chloride	ND	µg/L	1.0						
[illegible]nes, Total	ND	µg/L	1.5						
Sample ID: b4		*MBLK*			Batch ID: **R34278**		Analysis Date:	6/28/2009 5:07:26 AM	
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0						
1,2,4-Trimethylbenzene	ND	µg/L	1.0						
1,3,5-Trimethylbenzene	ND	µg/L	1.0						
1,2-Dichloroethane (EDC)	ND	µg/L	1.0						
1,2-Dibromoethane (EDB)	ND	µg/L	1.0						
Naphthalene	ND	µg/L	2.0						
1-Methylnaphthalene	ND	µg/L	4.0						
2-Methylnaphthalene	ND	µg/L	4.0						
Acetone	ND	µg/L	10						
Bromobenzene	ND	µg/L	1.0						
Bromodichloromethane	ND	µg/L	1.0						
Bromoform	ND	µg/L	1.0						
Bromomethane	ND	µg/L	1.0						
2-Butanone	ND	µg/L	10						
Carbon disulfide	ND	µg/L	10						
Carbon Tetrachloride	ND	µg/L	1.0						
Chlorobenzene	ND	µg/L	1.0						
Chloroethane	ND	µg/L	2.0						
Chloroform	ND	µg/L	1.0						

[illegible]lifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Annual Pond Sampling **Work Order:** 0906386

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: b4		*MBLK*			Batch ID: **R34278**		Analysis Date:	6/28/2009 5:07:26 AM	
Chloromethane	ND	µg/L	1.0						
2-Chlorotoluene	ND	µg/L	1.0						
4-Chlorotoluene	ND	µg/L	1.0						
cis-1,2-DCE	ND	µg/L	1.0						
cis-1,3-Dichloropropene	ND	µg/L	1.0						
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0						
Dibromochloromethane	ND	µg/L	1.0						
Dibromomethane	ND	µg/L	1.0						
1,2-Dichlorobenzene	ND	µg/L	1.0						
1,3-Dichlorobenzene	ND	µg/L	1.0						
1,4-Dichlorobenzene	ND	µg/L	1.0						
Dichlorodifluoromethane	ND	µg/L	1.0						
1,1-Dichloroethane	ND	µg/L	1.0						
1,1-Dichloroethene	ND	µg/L	1.0						
1,2-Dichloropropane	ND	µg/L	1.0						
1,3-Dichloropropane	ND	µg/L	1.0						
2,2-Dichloropropane	ND	µg/L	2.0						
1,1-Dichloropropene	ND	µg/L	1.0						
Hexachlorobutadiene	ND	µg/L	1.0						
2-Hexanone	ND	µg/L	10						
Isopropylbenzene	ND	µg/L	1.0						
4-Isopropyltoluene	ND	µg/L	1.0						
4-Methyl-2-pentanone	ND	µg/L	10						
Methylene Chloride	ND	µg/L	3.0						
n-Butylbenzene	ND	µg/L	1.0						
n-Propylbenzene	ND	µg/L	1.0						
sec-Butylbenzene	ND	µg/L	1.0						
Styrene	ND	µg/L	1.0						
tert-Butylbenzene	ND	µg/L	1.0						
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0						
1,1,2,2-Tetrachloroethane	ND	µg/L	2.0						
Tetrachloroethene (PCE)	ND	µg/L	1.0						
trans-1,2-DCE	ND	µg/L	1.0						
trans-1,3-Dichloropropene	ND	µg/L	1.0						
1,2,3-Trichlorobenzene	ND	µg/L	1.0						
1,2,4-Trichlorobenzene	ND	µg/L	1.0						
1,1,1-Trichloroethane	ND	µg/L	1.0						
1,1,2-Trichloroethane	ND	µg/L	1.0						
Trichloroethene (TCE)	ND	µg/L	1.0						
Trichlorofluoromethane	ND	µg/L	1.0						
1,2,3-Trichloropropane	ND	µg/L	2.0						
Vinyl chloride	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	1.5						
Sample ID: 5ml rb		*MBLK*			Batch ID: **R34296**		Analysis Date:	6/29/2009 7:59:43 AM	

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Annual Pond Sampling **Work Order:** 0906386

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: 5ml rb		*MBLK*			Batch ID: **R34296**		Analysis Date:	6/29/2009 7:59:43 AM	
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0						
1,2,4-Trimethylbenzene	ND	µg/L	1.0						
1,3,5-Trimethylbenzene	ND	µg/L	1.0						
1,2-Dichloroethane (EDC)	ND	µg/L	1.0						
1,2-Dibromoethane (EDB)	ND	µg/L	1.0						
Naphthalene	ND	µg/L	2.0						
1-Methylnaphthalene	ND	µg/L	4.0						
2-Methylnaphthalene	ND	µg/L	4.0						
Acetone	ND	µg/L	10						
Bromobenzene	ND	µg/L	1.0						
Bromodichloromethane	ND	µg/L	1.0						
Bromoform	ND	µg/L	1.0						
Bromomethane	ND	µg/L	1.0						
2-Butanone	ND	µg/L	10						
Carbon disulfide	ND	µg/L	10						
Carbon Tetrachloride	ND	µg/L	1.0						
Chlorobenzene	ND	µg/L	1.0						
Chloroethane	ND	µg/L	2.0						
Chloroform	ND	µg/L	1.0						
Chloromethane	ND	µg/L	1.0						
2-Chlorotoluene	ND	µg/L	1.0						
4-Chlorotoluene	ND	µg/L	1.0						
cis-1,2-DCE	ND	µg/L	1.0						
cis-1,3-Dichloropropene	ND	µg/L	1.0						
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0						
Dibromochloromethane	ND	µg/L	1.0						
Dibromomethane	ND	µg/L	1.0						
1,2-Dichlorobenzene	ND	µg/L	1.0						
1,3-Dichlorobenzene	ND	µg/L	1.0						
1,4-Dichlorobenzene	ND	µg/L	1.0						
Dichlorodifluoromethane	ND	µg/L	1.0						
1,1-Dichloroethane	ND	µg/L	1.0						
1,1-Dichloroethene	ND	µg/L	1.0						
1,2-Dichloropropane	ND	µg/L	1.0						
1,3-Dichloropropane	ND	µg/L	1.0						
2,2-Dichloropropane	ND	µg/L	2.0						
1,1-Dichloropropene	ND	µg/L	1.0						
Hexachlorobutadiene	ND	µg/L	1.0						
2-Hexanone	ND	µg/L	10						
Isopropylbenzene	ND	µg/L	1.0						
4-Isopropyltoluene	ND	µg/L	1.0						

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Annual Pond Sampling **Work Order:** 0906386

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: 5ml rb		*MBLK*			Batch ID: **R34296**		Analysis Date:	6/29/2009 7:59:43 AM	
4-Methyl-2-pentanone	ND	µg/L	10						
Methylene Chloride	ND	µg/L	3.0						
n-Butylbenzene	ND	µg/L	1.0						
n-Propylbenzene	ND	µg/L	1.0						
sec-Butylbenzene	ND	µg/L	1.0						
Styrene	ND	µg/L	1.0						
tert-Butylbenzene	ND	µg/L	1.0						
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0						
1,1,2,2-Tetrachloroethane	ND	µg/L	2.0						
Tetrachloroethene (PCE)	ND	µg/L	1.0						
trans-1,2-DCE	ND	µg/L	1.0						
trans-1,3-Dichloropropene	ND	µg/L	1.0						
1,2,3-Trichlorobenzene	ND	µg/L	1.0						
1,2,4-Trichlorobenzene	ND	µg/L	1.0						
1,1,1-Trichloroethane	ND	µg/L	1.0						
1,1,2-Trichloroethane	ND	µg/L	1.0						
Trichloroethene (TCE)	ND	µg/L	1.0						
Trichlorofluoromethane	ND	µg/L	1.0						
1,2,3-Trichloropropane	ND	µg/L	2.0						
[illegible]chloride	ND	µg/L	1.0						
[illegible]nes, Total	ND	µg/L	1.5						
Sample ID: b6		*MBLK*			Batch ID: **R34296**		Analysis Date:	6/29/2009 8:01:11 PM	
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0						
1,2,4-Trimethylbenzene	ND	µg/L	1.0						
1,3,5-Trimethylbenzene	ND	µg/L	1.0						
1,2-Dichloroethane (EDC)	ND	µg/L	1.0						
1,2-Dibromoethane (EDB)	ND	µg/L	1.0						
Naphthalene	ND	µg/L	2.0						
1-Methylnaphthalene	ND	µg/L	4.0						
2-Methylnaphthalene	ND	µg/L	4.0						
Acetone	ND	µg/L	10						
Bromobenzene	ND	µg/L	1.0						
Bromodichloromethane	ND	µg/L	1.0						
Bromoform	ND	µg/L	1.0						
Bromomethane	ND	µg/L	1.0						
2-Butanone	ND	µg/L	10						
Carbon disulfide	ND	µg/L	10						
Carbon Tetrachloride	ND	µg/L	1.0						
Chlorobenzene	ND	µg/L	1.0						
Chloroethane	ND	µg/L	2.0						
Chloroform	ND	µg/L	1.0						

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Annual Pond Sampling **Work Order:** 0906386

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: b6		*MBLK*			Batch ID: **R34296**		Analysis Date:	6/29/2009 8:01:11 PM	
Chloromethane	ND	µg/L	1.0						
2-Chlorotoluene	ND	µg/L	1.0						
4-Chlorotoluene	ND	µg/L	1.0						
cis-1,2-DCE	ND	µg/L	1.0						
cis-1,3-Dichloropropene	ND	µg/L	1.0						
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0						
Dibromochloromethane	ND	µg/L	1.0						
Dibromomethane	ND	µg/L	1.0						
1,2-Dichlorobenzene	ND	µg/L	1.0						
1,3-Dichlorobenzene	ND	µg/L	1.0						
1,4-Dichlorobenzene	ND	µg/L	1.0						
Dichlorodifluoromethane	ND	µg/L	1.0						
1,1-Dichloroethane	ND	µg/L	1.0						
1,1-Dichloroethene	ND	µg/L	1.0						
1,2-Dichloropropane	ND	µg/L	1.0						
1,3-Dichloropropane	ND	µg/L	1.0						
2,2-Dichloropropane	ND	µg/L	2.0						
1,1-Dichloropropene	ND	µg/L	1.0						
Hexachlorobutadiene	ND	µg/L	1.0						
Hexanone	ND	µg/L	10						
Isopropylbenzene	ND	µg/L	1.0						
4-Isopropyltoluene	ND	µg/L	1.0						
4-Methyl-2-pentanone	ND	µg/L	10						
Methylene Chloride	ND	µg/L	3.0						
n-Butylbenzene	ND	µg/L	1.0						
n-Propylbenzene	ND	µg/L	1.0						
sec-Butylbenzene	ND	µg/L	1.0						
Styrene	ND	µg/L	1.0						
tert-Butylbenzene	ND	µg/L	1.0						
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0						
1,1,2,2-Tetrachloroethane	ND	µg/L	2.0						
Tetrachloroethene (PCE)	ND	µg/L	1.0						
trans-1,2-DCE	ND	µg/L	1.0						
trans-1,3-Dichloropropene	ND	µg/L	1.0						
1,2,3-Trichlorobenzene	ND	µg/L	1.0						
1,2,4-Trichlorobenzene	ND	µg/L	1.0						
1,1,1-Trichloroethane	ND	µg/L	1.0						
1,1,2-Trichloroethane	ND	µg/L	1.0						
Trichloroethene (TCE)	ND	µg/L	1.0						
Trichlorofluoromethane	ND	µg/L	1.0						
1,2,3-Trichloropropane	ND	µg/L	2.0						
Vinyl chloride	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	1.5						
Sample ID: 100ng lcs_b		*LCS*			Batch ID: **R34278**		Analysis Date:	6/27/2009 5:37:16 PM	

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Annual Pond Sampling **Work Order:** 0906386

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: 100ng lcs_b		*LCS*			Batch ID:	**R34278**	Analysis Date:	6/27/2009 5:37:16 PM	
Benzene	20.08	µg/L	1.0	100	76.7	114			
Toluene	20.41	µg/L	1.0	101	78.4	117			
Chlorobenzene	23.52	µg/L	1.0	118	80.7	127			
1,1-Dichloroethene	20.71	µg/L	1.0	104	80.2	128			
Trichloroethene (TCE)	18.52	µg/L	1.0	92.6	77.4	115			
Sample ID: 100ng lcs_b		*LCS*			Batch ID:	**R34278**	Analysis Date:	6/28/2009 6:04:45 AM	
Benzene	19.90	µg/L	1.0	99.5	76.7	114			
Toluene	19.93	µg/L	1.0	99.6	78.4	117			
Chlorobenzene	23.09	µg/L	1.0	115	80.7	127			
1,1-Dichloroethene	20.73	µg/L	1.0	104	80.2	128			
Trichloroethene (TCE)	18.23	µg/L	1.0	91.2	77.4	115			
Sample ID: 100ng lcs		*LCS*			Batch ID:	**R34296**	Analysis Date:	6/29/2009 8:56:57 AM	
Benzene	19.79	µg/L	1.0	98.9	76.7	114			
Toluene	20.28	µg/L	1.0	101	78.4	117			
Chlorobenzene	22.91	µg/L	1.0	115	80.7	127			
1,1-Dichloroethene	21.82	µg/L	1.0	109	80.2	128			
Trichloroethene (TCE)	18.44	µg/L	1.0	92.2	77.4	115			
Sample ID: 100ng lcs_b		*LCS*			Batch ID:	**R34296**	Analysis Date:	6/29/2009 8:58:44 PM	
Benzene	19.64	µg/L	1.0	98.2	76.7	114			
Toluene	19.54	µg/L	1.0	97.7	78.4	117			
Chlorobenzene	22.11	µg/L	1.0	111	80.7	127			
1,1-Dichloroethene	21.70	µg/L	1.0	109	80.2	128			
Trichloroethene (TCE)	17.60	µg/L	1.0	88.0	77.4	115			

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name WESTERN REFINING GALLU Date Received: 6/18/2009

Work Order Number 0906386 Received by: AT

Checklist completed by: _____ 6/18/09 Sample ID labels checked by: AT

Signature Date Initials

Matrix: Carrier name Client drop-off

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☐	Not Shipped ☑
Custody seals intact on sample bottles?	Yes ☑	No ☐	N/A ☐	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☑	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☐	No ☐	N/A ☑	
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑	

Number of preserved bottles checked for pH: 1

(<2 >12 unless noted below.)

Container/Temp Blank temperature? 1.9° <6° C Acceptable If given sufficient time to cool.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

Chain-of-Custody Record

Client: Western Refining Gallup Refinery
Mailing Address: PT 3 Box 7 Gallup, NM 87301
Phone #: 505 722 3833
email or Fax#: 505 722 0210
QA/QC Package: X Standard ☐ Level 4 (Full Validation)
Accreditation ☐ NELAP ☐ Other
☐ EDD (Type)

Turn-Around Time: X Standard ☐ Rush
Project Name: 2009 Annual Pond Sampling
Project #: EP2-IN
Project Manager: G. Rajen
Sampler: Cheryl Johnson
On Ice: X Yes ☐ No
Sample Temperature: 1.6

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 0906586
6/17/09	0915	H2O	EP2-IN	40ml VOA	HCl	-1
"	"	"	"	40ml VOA	HCl	-1
"	"	"	"	~~500~~ HDP	None	-1
"	"	"	"	250ml	H_2SO_4	-1
"	"	"	"	250ml	None	-1

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA) + MTBE	8270 (Semi-VOA)	BOD	COD	TDS		Air Bubbles (Y or N)
									X						
		X													
											X				
												X			
													X		

Date	Time	Relinquished by:	Received by:	Date	Time
6/18/09	1200			6/18/09	1200
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

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

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Wednesday, July 15, 2009

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

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

RE: 2009 Annual Pond Sampling

Order No.: 0906388

Dear Gaurav Rajen:

Hall Environmental Analysis Laboratory, Inc. received 9 sample(s) on 6/18/2009 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

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

Hall Environmental Analysis Laboratory, Inc.

Date: *15-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	Pond 1
Lab Order:	0906388	**Collection Date:**	6/17/2009 9:00:00 AM
Project:	2009 Annual Pond Sampling	**Date Received:**	6/18/2009
Lab ID:	0906388-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: RAGS
Fluoride	86	5.0		mg/L	50	6/22/2009 12:24:45 PM
Chloride	820	10		mg/L	100	6/22/2009 1:34:23 PM
Nitrate (As N)+Nitrite (As N)	ND	2.0		mg/L	10	6/22/2009 1:51:48 PM
Phosphorus, Orthophosphate (As P)	ND	5.0		mg/L	10	6/19/2009 12:55:08 AM
Sulfate	580	25		mg/L	50	6/22/2009 12:24:45 PM
EPA METHOD 8260B: VOLATILES						Analyst: HL
Benzene	ND	5.0		µg/L	5	6/25/2009 4:10:28 AM
Toluene	24	5.0		µg/L	5	6/25/2009 4:10:28 AM
Ethylbenzene	5.2	5.0		µg/L	5	6/25/2009 4:10:28 AM
Methyl tert-butyl ether (MTBE)	ND	5.0		µg/L	5	6/25/2009 4:10:28 AM
1,2,4-Trimethylbenzene	23	5.0		µg/L	5	6/25/2009 4:10:28 AM
1,3,5-Trimethylbenzene	7.4	5.0		µg/L	5	6/25/2009 4:10:28 AM
1,2-Dichloroethane (EDC)	ND	5.0		µg/L	5	6/25/2009 4:10:28 AM
1,2-Dibromoethane (EDB)	ND	5.0		µg/L	5	6/25/2009 4:10:28 AM
Naphthalene	12	10		µg/L	5	6/25/2009 4:10:28 AM
1-Methylnaphthalene	54	20		µg/L	5	6/25/2009 4:10:28 AM
2-Methylnaphthalene	54	20		µg/L	5	6/25/2009 4:10:28 AM
Acetone	460	50		µg/L	5	6/25/2009 4:10:28 AM
Bromobenzene	ND	5.0		µg/L	5	6/25/2009 4:10:28 AM
Bromodichloromethane	ND	5.0		µg/L	5	6/25/2009 4:10:28 AM
Bromoform	ND	5.0		µg/L	5	6/25/2009 4:10:28 AM
Bromomethane	ND	5.0		µg/L	5	6/25/2009 4:10:28 AM
2-Butanone	ND	50		µg/L	5	6/25/2009 4:10:28 AM
Carbon disulfide	ND	50		µg/L	5	6/25/2009 4:10:28 AM
Carbon Tetrachloride	ND	5.0		µg/L	5	6/25/2009 4:10:28 AM
Chlorobenzene	ND	5.0		µg/L	5	6/25/2009 4:10:28 AM
Chloroethane	ND	10		µg/L	5	6/25/2009 4:10:28 AM
Chloroform	ND	5.0		µg/L	5	6/25/2009 4:10:28 AM
Chloromethane	ND	5.0		µg/L	5	6/25/2009 4:10:28 AM
2-Chlorotoluene	ND	5.0		µg/L	5	6/25/2009 4:10:28 AM
4-Chlorotoluene	ND	5.0		µg/L	5	6/25/2009 4:10:28 AM
cis-1,2-DCE	ND	5.0		µg/L	5	6/25/2009 4:10:28 AM
cis-1,3-Dichloropropene	ND	5.0		µg/L	5	6/25/2009 4:10:28 AM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	5	6/25/2009 4:10:28 AM
Dibromochloromethane	ND	5.0		µg/L	5	6/25/2009 4:10:28 AM
Dibromomethane	ND	5.0		µg/L	5	6/25/2009 4:10:28 AM
1,2-Dichlorobenzene	ND	5.0		µg/L	5	6/25/2009 4:10:28 AM
1,3-Dichlorobenzene	ND	5.0		µg/L	5	6/25/2009 4:10:28 AM
1,4-Dichlorobenzene	ND	5.0		µg/L	5	6/25/2009 4:10:28 AM
Dichlorodifluoromethane	ND	5.0		µg/L	5	6/25/2009 4:10:28 AM
1,1-Dichloroethane	ND	5.0		µg/L	5	6/25/2009 4:10:28 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *15-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	Pond 1
Lab Order:	0906388	**Collection Date:**	6/17/2009 9:00:00 AM
Project:	2009 Annual Pond Sampling	**Date Received:**	6/18/2009
Lab ID:	0906388-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
1,1-Dichloroethene	ND	5.0		µg/L	5	6/25/2009 4:10:28 AM
1,2-Dichloropropane	ND	5.0		µg/L	5	6/25/2009 4:10:28 AM
1,3-Dichloropropane	ND	5.0		µg/L	5	6/25/2009 4:10:28 AM
2,2-Dichloropropane	ND	10		µg/L	5	6/25/2009 4:10:28 AM
1,1-Dichloropropene	ND	5.0		µg/L	5	6/25/2009 4:10:28 AM
Hexachlorobutadiene	ND	5.0		µg/L	5	6/25/2009 4:10:28 AM
2-Hexanone	ND	50		µg/L	5	6/25/2009 4:10:28 AM
Isopropylbenzene	ND	5.0		µg/L	5	6/25/2009 4:10:28 AM
4-Isopropyltoluene	ND	5.0		µg/L	5	6/25/2009 4:10:28 AM
4-Methyl-2-pentanone	ND	50		µg/L	5	6/25/2009 4:10:28 AM
Methylene Chloride	ND	15		µg/L	5	6/25/2009 4:10:28 AM
n-Butylbenzene	ND	5.0		µg/L	5	6/25/2009 4:10:28 AM
n-Propylbenzene	ND	5.0		µg/L	5	6/25/2009 4:10:28 AM
sec-Butylbenzene	ND	5.0		µg/L	5	6/25/2009 4:10:28 AM
Styrene	ND	5.0		µg/L	5	6/25/2009 4:10:28 AM
tert-Butylbenzene	ND	5.0		µg/L	5	6/25/2009 4:10:28 AM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	5	6/25/2009 4:10:28 AM
1,1,2,2-Tetrachloroethane	ND	10		µg/L	5	6/25/2009 4:10:28 AM
Tetrachloroethene (PCE)	ND	5.0		µg/L	5	6/25/2009 4:10:28 AM
trans-1,2-DCE	ND	5.0		µg/L	5	6/25/2009 4:10:28 AM
trans-1,3-Dichloropropene	ND	5.0		µg/L	5	6/25/2009 4:10:28 AM
1,2,3-Trichlorobenzene	ND	5.0		µg/L	5	6/25/2009 4:10:28 AM
1,2,4-Trichlorobenzene	ND	5.0		µg/L	5	6/25/2009 4:10:28 AM
1,1,1-Trichloroethane	ND	5.0		µg/L	5	6/25/2009 4:10:28 AM
1,1,2-Trichloroethane	ND	5.0		µg/L	5	6/25/2009 4:10:28 AM
Trichloroethene (TCE)	ND	5.0		µg/L	5	6/25/2009 4:10:28 AM
Trichlorofluoromethane	ND	5.0		µg/L	5	6/25/2009 4:10:28 AM
1,2,3-Trichloropropane	ND	10		µg/L	5	6/25/2009 4:10:28 AM
Vinyl chloride	ND	5.0		µg/L	5	6/25/2009 4:10:28 AM
Xylenes, Total	44	7.5		µg/L	5	6/25/2009 4:10:28 AM
Surr: 1,2-Dichloroethane-d4	78.1	68.1-123		%REC	5	6/25/2009 4:10:28 AM
Surr: 4-Bromofluorobenzene	84.0	53.2-145		%REC	5	6/25/2009 4:10:28 AM
Surr: Dibromofluoromethane	100	68.5-119		%REC	5	6/25/2009 4:10:28 AM
Surr: Toluene-d8	90.4	64-131		%REC	5	6/25/2009 4:10:28 AM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **DAM**
Specific Conductance	4400	0.010		µmhos/cm	1	6/22/2009
SM4500-H+B: PH						Analyst: **DAM**
pH	7.73	0.1		pH units	1	6/22/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *15-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	Pond 2
Lab Order:	0906388	**Collection Date:**	6/17/2009 9:30:00 AM
Project:	2009 Annual Pond Sampling	**Date Received:**	6/18/2009
Lab ID:	0906388-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **RAGS**
Fluoride	52	2.0		mg/L	20	6/19/2009 2:04:47 AM
Chloride	3500	50		mg/L	500	6/22/2009 2:26:36 PM
Nitrate (As N)+Nitrite (As N)	ND	10		mg/L	50	6/22/2009 2:44:00 PM
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	6/19/2009 1:47:22 AM
Sulfate	1000	25		mg/L	50	6/22/2009 2:09:12 PM
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
Benzene	ND	5.0		µg/L	5	6/25/2009 4:39:02 AM
Toluene	15	5.0		µg/L	5	6/25/2009 4:39:02 AM
Ethylbenzene	ND	5.0		µg/L	5	6/25/2009 4:39:02 AM
Methyl tert-butyl ether (MTBE)	ND	5.0		µg/L	5	6/25/2009 4:39:02 AM
1,2,4-Trimethylbenzene	26	5.0		µg/L	5	6/25/2009 4:39:02 AM
1,3,5-Trimethylbenzene	8.5	5.0		µg/L	5	6/25/2009 4:39:02 AM
1,2-Dichloroethane (EDC)	ND	5.0		µg/L	5	6/25/2009 4:39:02 AM
1,2-Dibromoethane (EDB)	ND	5.0		µg/L	5	6/25/2009 4:39:02 AM
Naphthalene	12	10		µg/L	5	6/25/2009 4:39:02 AM
1-Methylnaphthalene	78	20		µg/L	5	6/25/2009 4:39:02 AM
2-Methylnaphthalene	78	20		µg/L	5	6/25/2009 4:39:02 AM
Acetone	560	50		µg/L	5	6/25/2009 4:39:02 AM
Bromobenzene	ND	5.0		µg/L	5	6/25/2009 4:39:02 AM
Bromodichloromethane	ND	5.0		µg/L	5	6/25/2009 4:39:02 AM
Bromoform	ND	5.0		µg/L	5	6/25/2009 4:39:02 AM
Bromomethane	ND	5.0		µg/L	5	6/25/2009 4:39:02 AM
2-Butanone	50	50		µg/L	5	6/25/2009 4:39:02 AM
Carbon disulfide	57	50		µg/L	5	6/25/2009 4:39:02 AM
Carbon Tetrachloride	ND	5.0		µg/L	5	6/25/2009 4:39:02 AM
Chlorobenzene	ND	5.0		µg/L	5	6/25/2009 4:39:02 AM
Chloroethane	ND	10		µg/L	5	6/25/2009 4:39:02 AM
Chloroform	ND	5.0		µg/L	5	6/25/2009 4:39:02 AM
Chloromethane	ND	5.0		µg/L	5	6/25/2009 4:39:02 AM
2-Chlorotoluene	ND	5.0		µg/L	5	6/25/2009 4:39:02 AM
4-Chlorotoluene	ND	5.0		µg/L	5	6/25/2009 4:39:02 AM
cis-1,2-DCE	ND	5.0		µg/L	5	6/25/2009 4:39:02 AM
cis-1,3-Dichloropropene	ND	5.0		µg/L	5	6/25/2009 4:39:02 AM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	5	6/25/2009 4:39:02 AM
Dibromochloromethane	ND	5.0		µg/L	5	6/25/2009 4:39:02 AM
Dibromomethane	ND	5.0		µg/L	5	6/25/2009 4:39:02 AM
1,2-Dichlorobenzene	ND	5.0		µg/L	5	6/25/2009 4:39:02 AM
1,3-Dichlorobenzene	ND	5.0		µg/L	5	6/25/2009 4:39:02 AM
1,4-Dichlorobenzene	ND	5.0		µg/L	5	6/25/2009 4:39:02 AM
Dichlorodifluoromethane	ND	5.0		µg/L	5	6/25/2009 4:39:02 AM
1,1-Dichloroethane	ND	5.0		µg/L	5	6/25/2009 4:39:02 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *15-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	Pond 2
Lab Order:	0906388	**Collection Date:**	6/17/2009 9:30:00 AM
Project:	2009 Annual Pond Sampling	**Date Received:**	6/18/2009
Lab ID:	0906388-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
1,1-Dichloroethene	ND	5.0		µg/L	5	6/25/2009 4:39:02 AM
1,2-Dichloropropane	ND	5.0		µg/L	5	6/25/2009 4:39:02 AM
1,3-Dichloropropane	ND	5.0		µg/L	5	6/25/2009 4:39:02 AM
2,2-Dichloropropane	ND	10		µg/L	5	6/25/2009 4:39:02 AM
1,1-Dichloropropene	ND	5.0		µg/L	5	6/25/2009 4:39:02 AM
Hexachlorobutadiene	ND	5.0		µg/L	5	6/25/2009 4:39:02 AM
2-Hexanone	ND	50		µg/L	5	6/25/2009 4:39:02 AM
Isopropylbenzene	ND	5.0		µg/L	5	6/25/2009 4:39:02 AM
4-Isopropyltoluene	ND	5.0		µg/L	5	6/25/2009 4:39:02 AM
4-Methyl-2-pentanone	ND	50		µg/L	5	6/25/2009 4:39:02 AM
Methylene Chloride	ND	15		µg/L	5	6/25/2009 4:39:02 AM
n-Butylbenzene	5.4	5.0		µg/L	5	6/25/2009 4:39:02 AM
n-Propylbenzene	ND	5.0		µg/L	5	6/25/2009 4:39:02 AM
sec-Butylbenzene	ND	5.0		µg/L	5	6/25/2009 4:39:02 AM
Styrene	ND	5.0		µg/L	5	6/25/2009 4:39:02 AM
tert-Butylbenzene	ND	5.0		µg/L	5	6/25/2009 4:39:02 AM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	5	6/25/2009 4:39:02 AM
1,1,2,2-Tetrachloroethane	ND	10		µg/L	5	6/25/2009 4:39:02 AM
Tetrachloroethene (PCE)	ND	5.0		µg/L	5	6/25/2009 4:39:02 AM
trans-1,2-DCE	ND	5.0		µg/L	5	6/25/2009 4:39:02 AM
trans-1,3-Dichloropropene	ND	5.0		µg/L	5	6/25/2009 4:39:02 AM
1,2,3-Trichlorobenzene	ND	5.0		µg/L	5	6/25/2009 4:39:02 AM
1,2,4-Trichlorobenzene	ND	5.0		µg/L	5	6/25/2009 4:39:02 AM
1,1,1-Trichloroethane	ND	5.0		µg/L	5	6/25/2009 4:39:02 AM
1,1,2-Trichloroethane	ND	5.0		µg/L	5	6/25/2009 4:39:02 AM
Trichloroethene (TCE)	ND	5.0		µg/L	5	6/25/2009 4:39:02 AM
Trichlorofluoromethane	ND	5.0		µg/L	5	6/25/2009 4:39:02 AM
1,2,3-Trichloropropane	ND	10		µg/L	5	6/25/2009 4:39:02 AM
Vinyl chloride	ND	5.0		µg/L	5	6/25/2009 4:39:02 AM
Xylenes, Total	37	7.5		µg/L	5	6/25/2009 4:39:02 AM
Surr: 1,2-Dichloroethane-d4	79.1	68.1-123		%REC	5	6/25/2009 4:39:02 AM
Surr: 4-Bromofluorobenzene	85.1	53.2-145		%REC	5	6/25/2009 4:39:02 AM
Surr: Dibromofluoromethane	102	68.5-119		%REC	5	6/25/2009 4:39:02 AM
Surr: Toluene-d8	95.9	64-131		%REC	5	6/25/2009 4:39:02 AM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **DAM**
Specific Conductance	13000	0.050		µmhos/cm	5	6/23/2009
SM4500-H+B: PH						Analyst: **DAM**
pH	8.13	0.1		pH units	1	6/22/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *15-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	Pond 3
Lab Order:	0906388	**Collection Date:**	6/17/2009 9:45:00 AM
Project:	2009 Annual Pond Sampling	**Date Received:**	6/18/2009
Lab ID:	0906388-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **RAGS**
Fluoride	48	2.0		mg/L	20	6/19/2009 3:31:50 AM
Chloride	3600	50		mg/L	500	6/22/2009 3:18:50 PM
Nitrate (As N)+Nitrite (As N)	ND	10		mg/L	50	6/22/2009 3:36:15 PM
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	6/19/2009 2:22:11 AM
Sulfate	1100	25		mg/L	50	6/22/2009 3:01:25 PM
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
Benzene	ND	1.0		µg/L	1	6/25/2009 8:10:12 PM
Toluene	ND	1.0		µg/L	1	6/25/2009 8:10:12 PM
Ethylbenzene	ND	1.0		µg/L	1	6/25/2009 8:10:12 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/25/2009 8:10:12 PM
1,2,4-Trimethylbenzene	1.8	1.0		µg/L	1	6/25/2009 8:10:12 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/25/2009 8:10:12 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/25/2009 8:10:12 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/25/2009 8:10:12 PM
Naphthalene	ND	2.0		µg/L	1	6/25/2009 8:10:12 PM
1-Methylnaphthalene	6.3	4.0		µg/L	1	6/25/2009 8:10:12 PM
2-Methylnaphthalene	6.1	4.0		µg/L	1	6/25/2009 8:10:12 PM
Acetone	47	10		µg/L	1	6/25/2009 8:10:12 PM
Bromobenzene	ND	1.0		µg/L	1	6/25/2009 8:10:12 PM
Bromodichloromethane	ND	1.0		µg/L	1	6/25/2009 8:10:12 PM
Bromoform	ND	1.0		µg/L	1	6/25/2009 8:10:12 PM
Bromomethane	ND	1.0		µg/L	1	6/25/2009 8:10:12 PM
2-Butanone	ND	10		µg/L	1	6/25/2009 8:10:12 PM
Carbon disulfide	ND	10		µg/L	1	6/25/2009 8:10:12 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	6/25/2009 8:10:12 PM
Chlorobenzene	ND	1.0		µg/L	1	6/25/2009 8:10:12 PM
Chloroethane	ND	2.0		µg/L	1	6/25/2009 8:10:12 PM
Chloroform	ND	1.0		µg/L	1	6/25/2009 8:10:12 PM
Chloromethane	ND	1.0		µg/L	1	6/25/2009 8:10:12 PM
2-Chlorotoluene	ND	1.0		µg/L	1	6/25/2009 8:10:12 PM
4-Chlorotoluene	ND	1.0		µg/L	1	6/25/2009 8:10:12 PM
cis-1,2-DCE	ND	1.0		µg/L	1	6/25/2009 8:10:12 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/25/2009 8:10:12 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/25/2009 8:10:12 PM
Dibromochloromethane	ND	1.0		µg/L	1	6/25/2009 8:10:12 PM
Dibromomethane	ND	1.0		µg/L	1	6/25/2009 8:10:12 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/25/2009 8:10:12 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/25/2009 8:10:12 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/25/2009 8:10:12 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/25/2009 8:10:12 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	6/25/2009 8:10:12 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *15-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	Pond 3
Lab Order:	0906388	**Collection Date:**	6/17/2009 9:45:00 AM
Project:	2009 Annual Pond Sampling	**Date Received:**	6/18/2009
Lab ID:	0906388-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
1,1-Dichloroethene	ND	1.0		µg/L	1	6/25/2009 8:10:12 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	6/25/2009 8:10:12 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	6/25/2009 8:10:12 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	6/25/2009 8:10:12 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	6/25/2009 8:10:12 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	6/25/2009 8:10:12 PM
2-Hexanone	ND	10		µg/L	1	6/25/2009 8:10:12 PM
Isopropylbenzene	ND	1.0		µg/L	1	6/25/2009 8:10:12 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	6/25/2009 8:10:12 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/25/2009 8:10:12 PM
Methylene Chloride	ND	3.0		µg/L	1	6/25/2009 8:10:12 PM
n-Butylbenzene	ND	1.0		µg/L	1	6/25/2009 8:10:12 PM
n-Propylbenzene	ND	1.0		µg/L	1	6/25/2009 8:10:12 PM
sec-Butylbenzene	ND	1.0		µg/L	1	6/25/2009 8:10:12 PM
Styrene	ND	1.0		µg/L	1	6/25/2009 8:10:12 PM
tert-Butylbenzene	ND	1.0		µg/L	1	6/25/2009 8:10:12 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/25/2009 8:10:12 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/25/2009 8:10:12 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/25/2009 8:10:12 PM
trans-1,2-DCE	ND	1.0		µg/L	1	6/25/2009 8:10:12 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/25/2009 8:10:12 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/25/2009 8:10:12 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/25/2009 8:10:12 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/25/2009 8:10:12 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/25/2009 8:10:12 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/25/2009 8:10:12 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	6/25/2009 8:10:12 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/25/2009 8:10:12 PM
Vinyl chloride	ND	1.0		µg/L	1	6/25/2009 8:10:12 PM
Xylenes, Total	1.7	1.5		µg/L	1	6/25/2009 8:10:12 PM
Surr: 1,2-Dichloroethane-d4	78.6	68.1-123		%REC	1	6/25/2009 8:10:12 PM
Surr: 4-Bromofluorobenzene	84.4	53.2-145		%REC	1	6/25/2009 8:10:12 PM
Surr: Dibromofluoromethane	95.4	68.5-119		%REC	1	6/25/2009 8:10:12 PM
Surr: Toluene-d8	96.5	64-131		%REC	1	6/25/2009 8:10:12 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **DAM**
Specific Conductance	14000	0.050		µmhos/cm	5	6/23/2009
SM4500-H+B: PH						Analyst: **DAM**
pH	8.13	0.1		pH units	1	6/22/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *15-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	Pond 4
Lab Order:	0906388	**Collection Date:**	6/17/2009 10:00:00 AM
Project:	2009 Annual Pond Sampling	**Date Received:**	6/18/2009
Lab ID:	0906388-04	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **RAGS**
Fluoride	46	2.0		mg/L	20	6/19/2009 4:06:40 AM
Chloride	3400	50		mg/L	500	6/22/2009 5:03:18 PM
Nitrate (As N)+Nitrite (As N)	ND	10		mg/L	50	6/22/2009 5:20:43 PM
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	6/19/2009 3:49:15 AM
Sulfate	1200	25		mg/L	50	6/22/2009 3:53:40 PM
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
Benzene	ND	1.0		µg/L	1	6/25/2009 8:38:52 PM
Toluene	ND	1.0		µg/L	1	6/25/2009 8:38:52 PM
Ethylbenzene	ND	1.0		µg/L	1	6/25/2009 8:38:52 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/25/2009 8:38:52 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/25/2009 8:38:52 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/25/2009 8:38:52 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/25/2009 8:38:52 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/25/2009 8:38:52 PM
Naphthalene	ND	2.0		µg/L	1	6/25/2009 8:38:52 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	6/25/2009 8:38:52 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	6/25/2009 8:38:52 PM
Acetone	40	10		µg/L	1	6/25/2009 8:38:52 PM
Bromobenzene	ND	1.0		µg/L	1	6/25/2009 8:38:52 PM
Bromodichloromethane	ND	1.0		µg/L	1	6/25/2009 8:38:52 PM
Bromoform	ND	1.0		µg/L	1	6/25/2009 8:38:52 PM
Bromomethane	ND	1.0		µg/L	1	6/25/2009 8:38:52 PM
2-Butanone	ND	10		µg/L	1	6/25/2009 8:38:52 PM
Carbon disulfide	ND	10		µg/L	1	6/25/2009 8:38:52 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	6/25/2009 8:38:52 PM
Chlorobenzene	ND	1.0		µg/L	1	6/25/2009 8:38:52 PM
Chloroethane	ND	2.0		µg/L	1	6/25/2009 8:38:52 PM
Chloroform	ND	1.0		µg/L	1	6/25/2009 8:38:52 PM
Chloromethane	ND	1.0		µg/L	1	6/25/2009 8:38:52 PM
2-Chlorotoluene	ND	1.0		µg/L	1	6/25/2009 8:38:52 PM
4-Chlorotoluene	ND	1.0		µg/L	1	6/25/2009 8:38:52 PM
cis-1,2-DCE	ND	1.0		µg/L	1	6/25/2009 8:38:52 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/25/2009 8:38:52 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/25/2009 8:38:52 PM
Dibromochloromethane	ND	1.0		µg/L	1	6/25/2009 8:38:52 PM
Dibromomethane	ND	1.0		µg/L	1	6/25/2009 8:38:52 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/25/2009 8:38:52 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/25/2009 8:38:52 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/25/2009 8:38:52 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/25/2009 8:38:52 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	6/25/2009 8:38:52 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *15-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	Pond 4
Lab Order:	0906388	**Collection Date:**	6/17/2009 10:00:00 AM
Project:	2009 Annual Pond Sampling	**Date Received:**	6/18/2009
Lab ID:	0906388-04	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
1,1-Dichloroethene	ND	1.0		µg/L	1	6/25/2009 8:38:52 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	6/25/2009 8:38:52 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	6/25/2009 8:38:52 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	6/25/2009 8:38:52 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	6/25/2009 8:38:52 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	6/25/2009 8:38:52 PM
2-Hexanone	ND	10		µg/L	1	6/25/2009 8:38:52 PM
Isopropylbenzene	ND	1.0		µg/L	1	6/25/2009 8:38:52 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	6/25/2009 8:38:52 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/25/2009 8:38:52 PM
Methylene Chloride	ND	3.0		µg/L	1	6/25/2009 8:38:52 PM
n-Butylbenzene	ND	1.0		µg/L	1	6/25/2009 8:38:52 PM
n-Propylbenzene	ND	1.0		µg/L	1	6/25/2009 8:38:52 PM
sec-Butylbenzene	ND	1.0		µg/L	1	6/25/2009 8:38:52 PM
Styrene	ND	1.0		µg/L	1	6/25/2009 8:38:52 PM
tert-Butylbenzene	ND	1.0		µg/L	1	6/25/2009 8:38:52 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/25/2009 8:38:52 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/25/2009 8:38:52 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/25/2009 8:38:52 PM
trans-1,2-DCE	ND	1.0		µg/L	1	6/25/2009 8:38:52 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/25/2009 8:38:52 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/25/2009 8:38:52 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/25/2009 8:38:52 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/25/2009 8:38:52 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/25/2009 8:38:52 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/25/2009 8:38:52 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	6/25/2009 8:38:52 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/25/2009 8:38:52 PM
Vinyl chloride	ND	1.0		µg/L	1	6/25/2009 8:38:52 PM
Xylenes, Total	ND	1.5		µg/L	1	6/25/2009 8:38:52 PM
Surr: 1,2-Dichloroethane-d4	79.2	68.1-123		%REC	1	6/25/2009 8:38:52 PM
Surr: 4-Bromofluorobenzene	90.1	53.2-145		%REC	1	6/25/2009 8:38:52 PM
Surr: Dibromofluoromethane	93.7	68.5-119		%REC	1	6/25/2009 8:38:52 PM
Surr: Toluene-d8	97.8	64-131		%REC	1	6/25/2009 8:38:52 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: DAM
Specific Conductance	13000	0.050		µmhos/cm	5	6/23/2009
SM4500-H+B: PH						Analyst: DAM
pH	8.12	0.1		pH units	1	6/22/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *15-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	Pond 5
Lab Order:	0906388	**Collection Date:**	6/17/2009 10:15:00 AM
Project:	2009 Annual Pond Sampling	**Date Received:**	6/18/2009
Lab ID:	0906388-05	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **RAGS**
Fluoride	32	2.0		mg/L	20	6/19/2009 4:41:28 AM
Chloride	4400	50		mg/L	500	6/22/2009 5:55:31 PM
Nitrate (As N)+Nitrite (As N)	ND	20		mg/L	100	6/22/2009 6:12:56 PM
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	6/19/2009 4:24:04 AM
Sulfate	1400	25		mg/L	50	6/22/2009 5:38:07 PM
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
Benzene	ND	1.0		µg/L	1	6/25/2009 9:07:34 PM
Toluene	ND	1.0		µg/L	1	6/25/2009 9:07:34 PM
Ethylbenzene	ND	1.0		µg/L	1	6/25/2009 9:07:34 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/25/2009 9:07:34 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/25/2009 9:07:34 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/25/2009 9:07:34 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/25/2009 9:07:34 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/25/2009 9:07:34 PM
Naphthalene	ND	2.0		µg/L	1	6/25/2009 9:07:34 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	6/25/2009 9:07:34 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	6/25/2009 9:07:34 PM
Acetone	31	10		µg/L	1	6/25/2009 9:07:34 PM
Bromobenzene	ND	1.0		µg/L	1	6/25/2009 9:07:34 PM
Bromodichloromethane	ND	1.0		µg/L	1	6/25/2009 9:07:34 PM
Bromoform	ND	1.0		µg/L	1	6/25/2009 9:07:34 PM
Bromomethane	ND	1.0		µg/L	1	6/25/2009 9:07:34 PM
2-Butanone	ND	10		µg/L	1	6/25/2009 9:07:34 PM
Carbon disulfide	ND	10		µg/L	1	6/25/2009 9:07:34 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	6/25/2009 9:07:34 PM
Chlorobenzene	ND	1.0		µg/L	1	6/25/2009 9:07:34 PM
Chloroethane	ND	2.0		µg/L	1	6/25/2009 9:07:34 PM
Chloroform	ND	1.0		µg/L	1	6/25/2009 9:07:34 PM
Chloromethane	ND	1.0		µg/L	1	6/25/2009 9:07:34 PM
2-Chlorotoluene	ND	1.0		µg/L	1	6/25/2009 9:07:34 PM
4-Chlorotoluene	ND	1.0		µg/L	1	6/25/2009 9:07:34 PM
cis-1,2-DCE	ND	1.0		µg/L	1	6/25/2009 9:07:34 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/25/2009 9:07:34 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/25/2009 9:07:34 PM
Dibromochloromethane	ND	1.0		µg/L	1	6/25/2009 9:07:34 PM
Dibromomethane	ND	1.0		µg/L	1	6/25/2009 9:07:34 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/25/2009 9:07:34 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/25/2009 9:07:34 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/25/2009 9:07:34 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/25/2009 9:07:34 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	6/25/2009 9:07:34 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *15-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	Pond 5
Lab Order:	0906388	**Collection Date:**	6/17/2009 10:15:00 AM
Project:	2009 Annual Pond Sampling	**Date Received:**	6/18/2009
Lab ID:	0906388-05	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
1,1-Dichloroethene	ND	1.0		µg/L	1	6/25/2009 9:07:34 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	6/25/2009 9:07:34 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	6/25/2009 9:07:34 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	6/25/2009 9:07:34 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	6/25/2009 9:07:34 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	6/25/2009 9:07:34 PM
2-Hexanone	ND	10		µg/L	1	6/25/2009 9:07:34 PM
Isopropylbenzene	ND	1.0		µg/L	1	6/25/2009 9:07:34 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	6/25/2009 9:07:34 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/25/2009 9:07:34 PM
Methylene Chloride	ND	3.0		µg/L	1	6/25/2009 9:07:34 PM
n-Butylbenzene	ND	1.0		µg/L	1	6/25/2009 9:07:34 PM
n-Propylbenzene	ND	1.0		µg/L	1	6/25/2009 9:07:34 PM
sec-Butylbenzene	ND	1.0		µg/L	1	6/25/2009 9:07:34 PM
Styrene	ND	1.0		µg/L	1	6/25/2009 9:07:34 PM
tert-Butylbenzene	ND	1.0		µg/L	1	6/25/2009 9:07:34 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/25/2009 9:07:34 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/25/2009 9:07:34 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/25/2009 9:07:34 PM
trans-1,2-DCE	ND	1.0		µg/L	1	6/25/2009 9:07:34 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/25/2009 9:07:34 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/25/2009 9:07:34 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/25/2009 9:07:34 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/25/2009 9:07:34 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/25/2009 9:07:34 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/25/2009 9:07:34 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	6/25/2009 9:07:34 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/25/2009 9:07:34 PM
Vinyl chloride	ND	1.0		µg/L	1	6/25/2009 9:07:34 PM
Xylenes, Total	ND	1.5		µg/L	1	6/25/2009 9:07:34 PM
Surr: 1,2-Dichloroethane-d4	79.5	68.1-123		%REC	1	6/25/2009 9:07:34 PM
Surr: 4-Bromofluorobenzene	87.0	53.2-145		%REC	1	6/25/2009 9:07:34 PM
Surr: Dibromofluoromethane	94.7	68.5-119		%REC	1	6/25/2009 9:07:34 PM
Surr: Toluene-d8	100	64-131		%REC	1	6/25/2009 9:07:34 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: DAM
Specific Conductance	17000	0.050		µmhos/cm	5	6/23/2009
SM4500-H+B: PH						Analyst: DAM
pH	8.07	0.1		pH units	1	6/22/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *15-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	Pond 6
Lab Order:	0906388	**Collection Date:**	6/17/2009 10:30:00 AM
Project:	2009 Annual Pond Sampling	**Date Received:**	6/18/2009
Lab ID:	0906388-06	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **RAGS**
Fluoride	18	0.50		mg/L	5	6/19/2009 5:51:07 AM
Chloride	5100	50		mg/L	500	6/22/2009 6:47:45 PM
Nitrate (As N)+Nitrite (As N)	ND	20		mg/L	100	6/22/2009 7:05:09 PM
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	6/19/2009 5:51:07 AM
Sulfate	1800	25		mg/L	50	6/22/2009 6:30:20 PM
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
Benzene	ND	1.0		µg/L	1	6/25/2009 9:36:14 PM
Toluene	ND	1.0		µg/L	1	6/25/2009 9:36:14 PM
Ethylbenzene	ND	1.0		µg/L	1	6/25/2009 9:36:14 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/25/2009 9:36:14 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/25/2009 9:36:14 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/25/2009 9:36:14 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/25/2009 9:36:14 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/25/2009 9:36:14 PM
Naphthalene	ND	2.0		µg/L	1	6/25/2009 9:36:14 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	6/25/2009 9:36:14 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	6/25/2009 9:36:14 PM
Acetone	ND	10		µg/L	1	6/25/2009 9:36:14 PM
Bromobenzene	ND	1.0		µg/L	1	6/25/2009 9:36:14 PM
Bromodichloromethane	ND	1.0		µg/L	1	6/25/2009 9:36:14 PM
Bromoform	ND	1.0		µg/L	1	6/25/2009 9:36:14 PM
Bromomethane	ND	1.0		µg/L	1	6/25/2009 9:36:14 PM
2-Butanone	ND	10		µg/L	1	6/25/2009 9:36:14 PM
Carbon disulfide	ND	10		µg/L	1	6/25/2009 9:36:14 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	6/25/2009 9:36:14 PM
Chlorobenzene	ND	1.0		µg/L	1	6/25/2009 9:36:14 PM
Chloroethane	ND	2.0		µg/L	1	6/25/2009 9:36:14 PM
Chloroform	ND	1.0		µg/L	1	6/25/2009 9:36:14 PM
Chloromethane	ND	1.0		µg/L	1	6/25/2009 9:36:14 PM
2-Chlorotoluene	ND	1.0		µg/L	1	6/25/2009 9:36:14 PM
4-Chlorotoluene	ND	1.0		µg/L	1	6/25/2009 9:36:14 PM
cis-1,2-DCE	ND	1.0		µg/L	1	6/25/2009 9:36:14 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/25/2009 9:36:14 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/25/2009 9:36:14 PM
Dibromochloromethane	ND	1.0		µg/L	1	6/25/2009 9:36:14 PM
Dibromomethane	ND	1.0		µg/L	1	6/25/2009 9:36:14 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/25/2009 9:36:14 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/25/2009 9:36:14 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/25/2009 9:36:14 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/25/2009 9:36:14 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	6/25/2009 9:36:14 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *15-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	Pond 6
Lab Order:	0906388	**Collection Date:**	6/17/2009 10:30:00 AM
Project:	2009 Annual Pond Sampling	**Date Received:**	6/18/2009
Lab ID:	*0906388-06*	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
1,1-Dichloroethene	ND	1.0		µg/L	1	6/25/2009 9:36:14 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	6/25/2009 9:36:14 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	6/25/2009 9:36:14 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	6/25/2009 9:36:14 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	6/25/2009 9:36:14 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	6/25/2009 9:36:14 PM
2-Hexanone	ND	10		µg/L	1	6/25/2009 9:36:14 PM
Isopropylbenzene	ND	1.0		µg/L	1	6/25/2009 9:36:14 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	6/25/2009 9:36:14 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/25/2009 9:36:14 PM
Methylene Chloride	ND	3.0		µg/L	1	6/25/2009 9:36:14 PM
n-Butylbenzene	ND	1.0		µg/L	1	6/25/2009 9:36:14 PM
n-Propylbenzene	ND	1.0		µg/L	1	6/25/2009 9:36:14 PM
sec-Butylbenzene	ND	1.0		µg/L	1	6/25/2009 9:36:14 PM
Styrene	ND	1.0		µg/L	1	6/25/2009 9:36:14 PM
tert-Butylbenzene	ND	1.0		µg/L	1	6/25/2009 9:36:14 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/25/2009 9:36:14 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/25/2009 9:36:14 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/25/2009 9:36:14 PM
trans-1,2-DCE	ND	1.0		µg/L	1	6/25/2009 9:36:14 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/25/2009 9:36:14 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/25/2009 9:36:14 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/25/2009 9:36:14 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/25/2009 9:36:14 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/25/2009 9:36:14 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/25/2009 9:36:14 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	6/25/2009 9:36:14 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/25/2009 9:36:14 PM
Vinyl chloride	ND	1.0		µg/L	1	6/25/2009 9:36:14 PM
Xylenes, Total	ND	1.5		µg/L	1	6/25/2009 9:36:14 PM
Surr: 1,2-Dichloroethane-d4	79.4	68.1-123		%REC	1	6/25/2009 9:36:14 PM
Surr: 4-Bromofluorobenzene	87.3	53.2-145		%REC	1	6/25/2009 9:36:14 PM
Surr: Dibromofluoromethane	96.2	68.5-119		%REC	1	6/25/2009 9:36:14 PM
Surr: Toluene-d8	95.0	64-131		%REC	1	6/25/2009 9:36:14 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **DAM**
Specific Conductance	16000	0.050		µmhos/cm	5	6/23/2009
SM4500-H+B: PH						Analyst: **DAM**
pH	8.07	0.1		pH units	1	6/22/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *15-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	Pond 7
Lab Order:	0906388	**Collection Date:**	6/17/2009 10:45:00 AM
Project:	2009 Annual Pond Sampling	**Date Received:**	6/18/2009
Lab ID:	0906388-07	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: RAGS
Fluoride	20	2.0		mg/L	20	6/19/2009 7:18:11 AM
Chloride	39000	500		mg/L	5000	6/22/2009 7:39:59 PM
Nitrate (As N)+Nitrite (As N)	ND	100		mg/L	500	6/22/2009 8:32:12 PM
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	6/19/2009 7:00:46 AM
Sulfate	10000	250		mg/L	500	6/22/2009 7:22:34 PM
EPA METHOD 8260B: VOLATILES						Analyst: HL
Benzene	ND	1.0		µg/L	1	6/25/2009 10:04:53 PM
Toluene	ND	1.0		µg/L	1	6/25/2009 10:04:53 PM
Ethylbenzene	ND	1.0		µg/L	1	6/25/2009 10:04:53 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/25/2009 10:04:53 PM
1,2,4-Trimethylbenzene	1.1	1.0		µg/L	1	6/25/2009 10:04:53 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/25/2009 10:04:53 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/25/2009 10:04:53 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/25/2009 10:04:53 PM
Naphthalene	ND	2.0		µg/L	1	6/25/2009 10:04:53 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	6/25/2009 10:04:53 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	6/25/2009 10:04:53 PM
Acetone	34	10		µg/L	1	6/25/2009 10:04:53 PM
Bromobenzene	ND	1.0		µg/L	1	6/25/2009 10:04:53 PM
Bromodichloromethane	ND	1.0		µg/L	1	6/25/2009 10:04:53 PM
Bromoform	ND	1.0		µg/L	1	6/25/2009 10:04:53 PM
Bromomethane	ND	1.0		µg/L	1	6/25/2009 10:04:53 PM
2-Butanone	ND	10		µg/L	1	6/25/2009 10:04:53 PM
Carbon disulfide	ND	10		µg/L	1	6/25/2009 10:04:53 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	6/25/2009 10:04:53 PM
Chlorobenzene	ND	1.0		µg/L	1	6/25/2009 10:04:53 PM
Chloroethane	ND	2.0		µg/L	1	6/25/2009 10:04:53 PM
Chloroform	ND	1.0		µg/L	1	6/25/2009 10:04:53 PM
Chloromethane	ND	1.0		µg/L	1	6/25/2009 10:04:53 PM
2-Chlorotoluene	ND	1.0		µg/L	1	6/25/2009 10:04:53 PM
4-Chlorotoluene	ND	1.0		µg/L	1	6/25/2009 10:04:53 PM
cis-1,2-DCE	ND	1.0		µg/L	1	6/25/2009 10:04:53 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/25/2009 10:04:53 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/25/2009 10:04:53 PM
Dibromochloromethane	ND	1.0		µg/L	1	6/25/2009 10:04:53 PM
Dibromomethane	ND	1.0		µg/L	1	6/25/2009 10:04:53 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/25/2009 10:04:53 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/25/2009 10:04:53 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/25/2009 10:04:53 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/25/2009 10:04:53 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	6/25/2009 10:04:53 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *15-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	Pond 7
Lab Order:	0906388	**Collection Date:**	6/17/2009 10:45:00 AM
Project:	2009 Annual Pond Sampling	**Date Received:**	6/18/2009
Lab ID:	0906388-07	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
1,1-Dichloroethene	ND	1.0		µg/L	1	6/25/2009 10:04:53 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	6/25/2009 10:04:53 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	6/25/2009 10:04:53 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	6/25/2009 10:04:53 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	6/25/2009 10:04:53 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	6/25/2009 10:04:53 PM
2-Hexanone	ND	10		µg/L	1	6/25/2009 10:04:53 PM
Isopropylbenzene	ND	1.0		µg/L	1	6/25/2009 10:04:53 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	6/25/2009 10:04:53 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/25/2009 10:04:53 PM
Methylene Chloride	ND	3.0		µg/L	1	6/25/2009 10:04:53 PM
n-Butylbenzene	ND	1.0		µg/L	1	6/25/2009 10:04:53 PM
n-Propylbenzene	ND	1.0		µg/L	1	6/25/2009 10:04:53 PM
sec-Butylbenzene	ND	1.0		µg/L	1	6/25/2009 10:04:53 PM
Styrene	ND	1.0		µg/L	1	6/25/2009 10:04:53 PM
tert-Butylbenzene	ND	1.0		µg/L	1	6/25/2009 10:04:53 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/25/2009 10:04:53 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/25/2009 10:04:53 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/25/2009 10:04:53 PM
trans-1,2-DCE	ND	1.0		µg/L	1	6/25/2009 10:04:53 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/25/2009 10:04:53 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/25/2009 10:04:53 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/25/2009 10:04:53 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/25/2009 10:04:53 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/25/2009 10:04:53 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/25/2009 10:04:53 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	6/25/2009 10:04:53 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/25/2009 10:04:53 PM
Vinyl chloride	ND	1.0		µg/L	1	6/25/2009 10:04:53 PM
Xylenes, Total	ND	1.5		µg/L	1	6/25/2009 10:04:53 PM
Surr: 1,2-Dichloroethane-d4	81.3	68.1-123		%REC	1	6/25/2009 10:04:53 PM
Surr: 4-Bromofluorobenzene	85.4	53.2-145		%REC	1	6/25/2009 10:04:53 PM
Surr: Dibromofluoromethane	95.1	68.5-119		%REC	1	6/25/2009 10:04:53 PM
Surr: Toluene-d8	95.3	64-131		%REC	1	6/25/2009 10:04:53 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **DAM**
Specific Conductance	130000	0.50		µmhos/cm	50	6/23/2009
SM4500-H+B: PH						Analyst: **DAM**
pH	7.59	0.1		pH units	1	6/22/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *15-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	Pond 8
Lab Order:	0906388	**Collection Date:**	6/17/2009 11:00:00 AM
Project:	2009 Annual Pond Sampling	**Date Received:**	6/18/2009
Lab ID:	0906388-08	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **RAGS**
Fluoride	57	5.0		mg/L	50	6/22/2009 8:49:36 PM
Chloride	180000	1000		mg/L	10000	6/23/2009 10:45:15 AM
Nitrate (As N)+Nitrite (As N)	ND	400		mg/L	2000	6/23/2009 11:02:40 AM
Phosphorus, Orthophosphate (As P)	ND	10		mg/L	20	6/19/2009 7:52:59 AM
Sulfate	23000	2500		mg/L	5000	6/22/2009 9:07:00 PM
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
Benzene	ND	1.0		µg/L	1	6/25/2009 10:33:29 PM
Toluene	ND	1.0		µg/L	1	6/25/2009 10:33:29 PM
Ethylbenzene	ND	1.0		µg/L	1	6/25/2009 10:33:29 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/25/2009 10:33:29 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/25/2009 10:33:29 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/25/2009 10:33:29 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/25/2009 10:33:29 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/25/2009 10:33:29 PM
Naphthalene	ND	2.0		µg/L	1	6/25/2009 10:33:29 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	6/25/2009 10:33:29 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	6/25/2009 10:33:29 PM
Acetone	99	10		µg/L	1	6/25/2009 10:33:29 PM
Bromobenzene	ND	1.0		µg/L	1	6/25/2009 10:33:29 PM
Bromodichloromethane	ND	1.0		µg/L	1	6/25/2009 10:33:29 PM
Bromoform	ND	1.0		µg/L	1	6/25/2009 10:33:29 PM
Bromomethane	ND	1.0		µg/L	1	6/25/2009 10:33:29 PM
2-Butanone	ND	10		µg/L	1	6/25/2009 10:33:29 PM
Carbon disulfide	ND	10		µg/L	1	6/25/2009 10:33:29 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	6/25/2009 10:33:29 PM
Chlorobenzene	ND	1.0		µg/L	1	6/25/2009 10:33:29 PM
Chloroethane	ND	2.0		µg/L	1	6/25/2009 10:33:29 PM
Chloroform	ND	1.0		µg/L	1	6/25/2009 10:33:29 PM
Chloromethane	1.4	1.0		µg/L	1	6/25/2009 10:33:29 PM
2-Chlorotoluene	ND	1.0		µg/L	1	6/25/2009 10:33:29 PM
4-Chlorotoluene	ND	1.0		µg/L	1	6/25/2009 10:33:29 PM
cis-1,2-DCE	ND	1.0		µg/L	1	6/25/2009 10:33:29 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/25/2009 10:33:29 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/25/2009 10:33:29 PM
Dibromochloromethane	ND	1.0		µg/L	1	6/25/2009 10:33:29 PM
Dibromomethane	ND	1.0		µg/L	1	6/25/2009 10:33:29 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/25/2009 10:33:29 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/25/2009 10:33:29 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/25/2009 10:33:29 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/25/2009 10:33:29 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	6/25/2009 10:33:29 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *15-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	Pond 8
Lab Order:	0906388	**Collection Date:**	6/17/2009 11:00:00 AM
Project:	2009 Annual Pond Sampling	**Date Received:**	6/18/2009
Lab ID:	0906388-08	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
1,1-Dichloroethene	ND	1.0		µg/L	1	6/25/2009 10:33:29 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	6/25/2009 10:33:29 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	6/25/2009 10:33:29 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	6/25/2009 10:33:29 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	6/25/2009 10:33:29 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	6/25/2009 10:33:29 PM
2-Hexanone	ND	10		µg/L	1	6/25/2009 10:33:29 PM
Isopropylbenzene	ND	1.0		µg/L	1	6/25/2009 10:33:29 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	6/25/2009 10:33:29 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/25/2009 10:33:29 PM
Methylene Chloride	ND	3.0		µg/L	1	6/25/2009 10:33:29 PM
n-Butylbenzene	ND	1.0		µg/L	1	6/25/2009 10:33:29 PM
n-Propylbenzene	ND	1.0		µg/L	1	6/25/2009 10:33:29 PM
sec-Butylbenzene	ND	1.0		µg/L	1	6/25/2009 10:33:29 PM
Styrene	ND	1.0		µg/L	1	6/25/2009 10:33:29 PM
tert-Butylbenzene	ND	1.0		µg/L	1	6/25/2009 10:33:29 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/25/2009 10:33:29 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/25/2009 10:33:29 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/25/2009 10:33:29 PM
trans-1,2-DCE	ND	1.0		µg/L	1	6/25/2009 10:33:29 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/25/2009 10:33:29 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/25/2009 10:33:29 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/25/2009 10:33:29 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/25/2009 10:33:29 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/25/2009 10:33:29 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/25/2009 10:33:29 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	6/25/2009 10:33:29 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/25/2009 10:33:29 PM
Vinyl chloride	ND	1.0		µg/L	1	6/25/2009 10:33:29 PM
Xylenes, Total	ND	1.5		µg/L	1	6/25/2009 10:33:29 PM
Surr: 1,2-Dichloroethane-d4	83.9	68.1-123		%REC	1	6/25/2009 10:33:29 PM
Surr: 4-Bromofluorobenzene	84.0	53.2-145		%REC	1	6/25/2009 10:33:29 PM
Surr: Dibromofluoromethane	95.0	68.5-119		%REC	1	6/25/2009 10:33:29 PM
Surr: Toluene-d8	97.5	64-131		%REC	1	6/25/2009 10:33:29 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **DAM**
Specific Conductance	310000	0.50		µmhos/cm	50	6/23/2009
SM4500-H+B: PH						Analyst: **DAM**
pH	6.73	0.1		pH units	1	6/22/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *15-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	Trip Blank
Lab Order:	0906388	**Collection Date:**	
Project:	2009 Annual Pond Sampling	**Date Received:**	6/18/2009
Lab ID:	0906388-09	**Matrix:**	TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Benzene	ND	1.0		µg/L	1	6/26/2009 12:56:31 AM
Toluene	ND	1.0		µg/L	1	6/26/2009 12:56:31 AM
Ethylbenzene	ND	1.0		µg/L	1	6/26/2009 12:56:31 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/26/2009 12:56:31 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/26/2009 12:56:31 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/26/2009 12:56:31 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/26/2009 12:56:31 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/26/2009 12:56:31 AM
Naphthalene	ND	2.0		µg/L	1	6/26/2009 12:56:31 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	6/26/2009 12:56:31 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	6/26/2009 12:56:31 AM
Acetone	ND	10		µg/L	1	6/26/2009 12:56:31 AM
Bromobenzene	ND	1.0		µg/L	1	6/26/2009 12:56:31 AM
Bromodichloromethane	ND	1.0		µg/L	1	6/26/2009 12:56:31 AM
Bromoform	ND	1.0		µg/L	1	6/26/2009 12:56:31 AM
Bromomethane	ND	1.0		µg/L	1	6/26/2009 12:56:31 AM
2-Butanone	ND	10		µg/L	1	6/26/2009 12:56:31 AM
Carbon disulfide	ND	10		µg/L	1	6/26/2009 12:56:31 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	6/26/2009 12:56:31 AM
Chlorobenzene	ND	1.0		µg/L	1	6/26/2009 12:56:31 AM
Chloroethane	ND	2.0		µg/L	1	6/26/2009 12:56:31 AM
Chloroform	ND	1.0		µg/L	1	6/26/2009 12:56:31 AM
Chloromethane	ND	1.0		µg/L	1	6/26/2009 12:56:31 AM
2-Chlorotoluene	ND	1.0		µg/L	1	6/26/2009 12:56:31 AM
4-Chlorotoluene	ND	1.0		µg/L	1	6/26/2009 12:56:31 AM
cis-1,2-DCE	ND	1.0		µg/L	1	6/26/2009 12:56:31 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/26/2009 12:56:31 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/26/2009 12:56:31 AM
Dibromochloromethane	ND	1.0		µg/L	1	6/26/2009 12:56:31 AM
Dibromomethane	ND	1.0		µg/L	1	6/26/2009 12:56:31 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/26/2009 12:56:31 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/26/2009 12:56:31 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/26/2009 12:56:31 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/26/2009 12:56:31 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	6/26/2009 12:56:31 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	6/26/2009 12:56:31 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	6/26/2009 12:56:31 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	6/26/2009 12:56:31 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	6/26/2009 12:56:31 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	6/26/2009 12:56:31 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	6/26/2009 12:56:31 AM
2-Hexanone	ND	10		µg/L	1	6/26/2009 12:56:31 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *15-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	Trip Blank
Lab Order:	0906388	**Collection Date:**	
Project:	2009 Annual Pond Sampling	**Date Received:**	6/18/2009
Lab ID:	0906388-09	**Matrix:**	TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Isopropylbenzene	ND	1.0		µg/L	1	6/26/2009 12:56:31 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	6/26/2009 12:56:31 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/26/2009 12:56:31 AM
Methylene Chloride	ND	3.0		µg/L	1	6/26/2009 12:56:31 AM
n-Butylbenzene	ND	1.0		µg/L	1	6/26/2009 12:56:31 AM
n-Propylbenzene	ND	1.0		µg/L	1	6/26/2009 12:56:31 AM
sec-Butylbenzene	ND	1.0		µg/L	1	6/26/2009 12:56:31 AM
Styrene	ND	1.0		µg/L	1	6/26/2009 12:56:31 AM
tert-Butylbenzene	ND	1.0		µg/L	1	6/26/2009 12:56:31 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/26/2009 12:56:31 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/26/2009 12:56:31 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/26/2009 12:56:31 AM
trans-1,2-DCE	ND	1.0		µg/L	1	6/26/2009 12:56:31 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/26/2009 12:56:31 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/26/2009 12:56:31 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/26/2009 12:56:31 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/26/2009 12:56:31 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/26/2009 12:56:31 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/26/2009 12:56:31 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	6/26/2009 12:56:31 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/26/2009 12:56:31 AM
Vinyl chloride	ND	1.0		µg/L	1	6/26/2009 12:56:31 AM
Xylenes, Total	ND	1.5		µg/L	1	6/26/2009 12:56:31 AM
Surr: 1,2-Dichloroethane-d4	78.7	68.1-123		%REC	1	6/26/2009 12:56:31 AM
Surr: 4-Bromofluorobenzene	81.6	53.2-145		%REC	1	6/26/2009 12:56:31 AM
Surr: Dibromofluoromethane	95.8	68.5-119		%REC	1	6/26/2009 12:56:31 AM
Surr: Toluene-d8	97.1	64-131		%REC	1	6/26/2009 12:56:31 AM

Qualifiers:

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

ARS ANALYTICAL, LLC
4301 Masthead NE | Albuquerque, New Mexico 87109 505.344.3777 | 505.345.8964

Explanation of codes	
B	Analyte Detected in Method Blank
E	Result is Estimated
H	Analyzed Out of Hold Time
N	Tentatively Identified Compound
S	Subcontracted
1-9	See Footnote

HALL ENVIRONMENTAL
attn: ANDY FREEMAN
4901 HAWKINS NE, SUITE D
ALBUQUERQUE NM 87109-4372

STANDARD

ARS Analytical, LLC

Certificate of Analysis

All samples are reported on an "as received" basis, unless otherwise noted (i.e. - Dry Weight).

Client: **HALL ENVIRONMENTAL**
Project: **0906388**
Order: **09060441 HAL03** Receipt: **06-18-09**

Elvia J. Chavez - President, ARS Analytical LLC

Sample: ***0906388-01E POND 1*** Collected: *06-17-09 9:00:00* By:
Matrix: ***AQUEOUS***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09060441-001A		SM 5210B						By: ECC		
BOD090073	WC.2009.1595.11	10-26-4	Biochemical Oxygen Demand	179	mg/L	1	4		06-19-09	06-24-09

Sample: ***0906388-02E POND 2*** Collected: *06-17-09 9:30:00* By:
Matrix: ***AQUEOUS***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09060441-002A		SM 5210B						By: ECC		
BOD090073	WC.2009.1595.12	10-26-4	Biochemical Oxygen Demand	83.6	mg/L	1	4		06-19-09	06-24-09

Sample: ***0906388-03E POND 3*** Collected: *06-17-09 9:45:00* By:
Matrix: ***AQUEOUS***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09060441-003A		SM 5210B						By: ECC		
BOD090073	WC.2009.1585.13	10-26-4	Biochemical Oxygen Demand	69.2	mg/L	1	4		06-19-09	06-24-09

ARS Analytical, LLC

Certificate of Analysis

All samples are reported on an "as received" basis, unless otherwise noted (i.e. - Dry Weight).

Client: **HALL ENVIRONMENTAL**
Project: **0906388**
Order: **09060441** **HAL03** Receipt: **06-18-09**

Sample: ***0906388-04E POND 4*** Collected: *06-17-09 10:00:00* By:
Matrix: ***AQUEOUS***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09060441-004A		SM 5210B						By: ECC		
BOD090073	WC.2009.1595.14	10-26-4	Biochemical Oxygen Demand	71.1	mg/L	1	4		06-19-09	06-24-09

Sample: ***0906388-05E POND 5*** Collected: *06-17-09 10:15:00* By:
Matrix: ***AQUEOUS***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09060441-005A		SM 5210B						By: ECC		
BOD090073	WC.2009.1595.15	10-26-4	Biochemical Oxygen Demand	41.9	mg/L	1	4		06-19-09	06-24-09

Sample: ***0906388-06E POND 6*** Collected: *06-17-09 10:30:00* By:
Matrix: ***AQUEOUS***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09060441-006A		SM 5210B						By: ECC		
BOD090073	WC.2009.1595.16	10-26-4	Biochemical Oxygen Demand	Less than 60.0	mg/L	1	4		06-19-09	06-24-09

Sample: ***0906388-07E POND 7*** Collected: *06-17-09 10:45:00* By:
Matrix: ***AQUEOUS***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09060441-007A		SM 5210B						By: ECC		
BOD090073	WC.2009.1595.17	10-26-4	Biochemical Oxygen Demand	Less than 60.0	mg/L	1	4		06-19-09	06-24-09

Sample: ***0906388-08E POND 8*** Collected: *06-17-09 11:00:00* By:
Matrix: ***AQUEOUS***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09060441-008A		SM 5210B						By: ECC		
BOD090073	WC.2009.1595.18	10-26-4	Biochemical Oxygen Demand	Less than 60.0	mg/L	1	4		06-19-09	06-24-09

Unless otherwise noted, all samples were received in acceptable condition and all sampling was performed by client or client representative. Sample result of ND indicates Not Detected, ie result is less than the sample specific Detection Limit. Sample specific Detection Limit is determined by multiplying the sample Dilution Factor by the listed Reporting Detection Limit. All results relate only to the items tested. Any miscellaneous workorder information or foonotes will appear below.

All results are not corrected for method blank or field blank contamination.

ENERGY LABORATORIES, INC. • 2393 Salt Creek Highway (82601) • P.O. Box 3258 • Casper, WY 82602
Toll Free 888.235.0515 • 307.235.0515 • Fax 307.234.1639 • casper@energylab.com • www.energylab.com

LABORATORY ANALYTICAL REPORT

Client: Hall Environmental
Project: 0906388
Lab ID: C09060831-001
Client Sample ID: Pond 1

Report Date: 07/11/09
Collection Date: 06/17/09 09:00
DateReceived: 06/19/09
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Calcium	43.5	mg/L		0.5		SW6010B	07/02/09 00:17 / cp
Magnesium	12.5	mg/L		0.5		SW6010B	07/02/09 00:17 / cp
Potassium	56.8	mg/L		0.5		SW6010B	07/02/09 00:17 / cp
Sodium	830	mg/L	D	2		SW6010B	07/02/09 00:17 / cp
PHYSICAL PROPERTIES							
Oxygen Demand, Chemical (COD)	344	mg/L	D	2		E410.4	06/24/09 09:15 / eli-b
METALS - TOTAL							
Arsenic	0.008	mg/L	D	0.002		SW6020	06/26/09 00:37 / ts
Barium	0.1	mg/L		0.1		SW6020	06/26/09 00:37 / ts
Cadmium	ND	mg/L		0.01		SW6020	06/26/09 00:37 / ts
Chromium	ND	mg/L		0.05		SW6020	06/26/09 00:37 / ts
Copper	ND	mg/L		0.01		SW6020	06/26/09 00:37 / ts
Iron	5.60	mg/L		0.03		SW6010B	07/02/09 00:17 / cp
Lead	ND	mg/L		0.05		SW6020	06/26/09 00:37 / ts
Manganese	0.20	mg/L		0.01		SW6020	06/26/09 00:37 / ts
Mercury	ND	mg/L		0.001		SW7470A	07/02/09 13:05 / jp
Selenium	0.015	mg/L		0.001		SW6020	06/26/09 00:37 / ts
Silver	ND	mg/L		0.01		SW6020	06/26/09 00:37 / ts
Uranium	ND	mg/L		0.001		SW6020	06/26/09 00:37 / ts
Zinc	0.28	mg/L		0.01		SW6020	06/26/09 00:37 / ts

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix interference.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Hall Environmental
Project: 0906388
Lab ID: C09060831-002
Client Sample ID: Pond 2

Report Date: 07/11/09
Collection Date: 06/17/09 09:30
DateReceived: 06/19/09
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Calcium	336	mg/L		0.5		SW6010B	07/02/09 00:25 / cp
Magnesium	75.3	mg/L		0.5		SW6010B	07/02/09 00:25 / cp
Potassium	63.2	mg/L		0.5		SW6010B	07/02/09 00:25 / cp
Sodium	2300	mg/L	D	10		SW6010B	07/06/09 20:06 / cp
PHYSICAL PROPERTIES							
Oxygen Demand, Chemical (COD)	192	mg/L	D	3		E410.4	06/24/09 09:15 / eli-b
METALS - TOTAL							
Arsenic	0.011	mg/L	D	0.002		SW6020	06/26/09 00:51 / ts
Barium	ND	mg/L		0.1		SW6020	06/26/09 00:51 / ts
Cadmium	ND	mg/L		0.01		SW6020	06/26/09 00:51 / ts
Chromium	ND	mg/L		0.05		SW6020	06/26/09 00:51 / ts
Copper	ND	mg/L		0.01		SW6020	06/26/09 00:51 / ts
Iron	2.33	mg/L		0.03		SW6010B	07/02/09 00:25 / cp
Lead	ND	mg/L		0.05		SW6020	06/26/09 00:51 / ts
Manganese	0.17	mg/L		0.01		SW6020	06/26/09 00:51 / ts
Mercury	ND	mg/L		0.001		SW7470A	07/02/09 13:14 / jp
Selenium	0.011	mg/L		0.001		SW6020	06/26/09 00:51 / ts
Silver	ND	mg/L		0.01		SW6020	06/26/09 00:51 / ts
Uranium	0.002	mg/L		0.001		SW6020	06/26/09 00:51 / ts
Zinc	0.08	mg/L		0.01		SW6020	07/09/09 06:40 / sml

Report Definitions:
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QCL - Quality control limit.
D - RL increased due to sample matrix interference.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Hall Environmental
Project: 0906388
Lab ID: C09060831-003
Client Sample ID: Pond 3

Report Date: 07/11/09
Collection Date: 06/17/09 09:45
DateReceived: 06/19/09
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Calcium	377	mg/L		0.5		SW6010B	07/02/09 00:30 / cp
Magnesium	89.5	mg/L		0.5		SW6010B	07/02/09 00:30 / cp
Potassium	79.9	mg/L		0.5		SW6010B	07/02/09 00:30 / cp
Sodium	2600	mg/L	D	10		SW6010B	07/06/09 20:14 / cp
PHYSICAL PROPERTIES							
Oxygen Demand, Chemical (COD)	204	mg/L	D	3		E410.4	06/24/09 09:15 / ell-b
METALS - TOTAL							
Arsenic	0.013	mg/L	D	0.002		SW6020	06/26/09 00:58 / ts
Barium	ND	mg/L		0.1		SW6020	06/26/09 00:58 / ts
Cadmium	ND	mg/L		0.01		SW6020	06/26/09 00:58 / ts
Chromium	ND	mg/L		0.05		SW6020	06/26/09 00:58 / ts
Copper	ND	mg/L		0.01		SW6020	06/26/09 00:58 / ts
Iron	1.75	mg/L		0.03		SW6010B	07/02/09 00:30 / cp
Lead	ND	mg/L		0.05		SW6020	06/26/09 00:58 / ts
Manganese	0.22	mg/L		0.01		SW6020	06/26/09 00:58 / ts
Mercury	ND	mg/L		0.001		SW7470A	07/02/09 13:16 / jp
Selenium	0.013	mg/L		0.001		SW6020	06/26/09 00:58 / ts
Silver	ND	mg/L		0.01		SW6020	06/26/09 00:58 / ts
Uranium	0.003	mg/L		0.001		SW6020	06/26/09 00:58 / ts
Zinc	0.07	mg/L		0.01		SW6010B	07/02/09 00:30 / cp

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix interference.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Hall Environmental
Project: 0906388
Lab ID: C09060831-004
Client Sample ID: Pond 4

Report Date: 07/11/09
Collection Date: 06/17/09 10:00
DateReceived: 06/19/09
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Calcium	357	mg/L		0.5		SW6010B	07/02/09 00:34 / cp
Magnesium	85.2	mg/L		0.5		SW6010B	07/02/09 00:34 / cp
Potassium	82.5	mg/L		0.5		SW6010B	07/02/09 00:34 / cp
Sodium	2440	mg/L	D	10		SW6010B	07/06/09 20:18 / cp
PHYSICAL PROPERTIES							
Oxygen Demand, Chemical (COD)	222	mg/L	D	3		E410.4	06/24/09 09:15 / eli-b
METALS - TOTAL							
Arsenic	0.012	mg/L	D	0.002		SW6020	06/26/09 01:04 / ts
Barium	ND	mg/L		0.1		SW6020	06/26/09 01:04 / ts
Cadmium	ND	mg/L		0.01		SW6020	06/26/09 01:04 / ts
Chromium	ND	mg/L		0.05		SW6020	06/26/09 01:04 / ts
Copper	ND	mg/L		0.01		SW6020	06/26/09 01:04 / ts
Iron	1.35	mg/L		0.03		SW6010B	07/02/09 00:34 / cp
Lead	ND	mg/L		0.05		SW6020	06/26/09 01:04 / ts
Manganese	0.22	mg/L		0.01		SW6020	06/26/09 01:04 / ts
Mercury	ND	mg/L		0.001		SW7470A	07/02/09 13:19 / jp
Selenium	0.013	mg/L		0.001		SW6020	06/26/09 01:04 / ts
Silver	ND	mg/L		0.01		SW6020	06/26/09 01:04 / ts
Uranium	0.002	mg/L		0.001		SW6020	06/26/09 01:04 / ts
Zinc	0.08	mg/L	D	0.03		SW6020	07/09/09 06:53 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix interference.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client:	Hall Environmental	**Report Date:**	07/11/09
Project:	0906388	**Collection Date:**	06/17/09 10:15
Lab ID:	C09060831-005	**DateReceived:**	06/19/09
Client Sample ID:	Pond 5	**Matrix:**	Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Calcium	460	mg/L		0.5		SW6010B	07/02/09 00:38 / cp
Magnesium	116	mg/L		0.5		SW6010B	07/02/09 00:38 / cp
Potassium	92.9	mg/L		0.5		SW6010B	07/02/09 00:38 / cp
Sodium	2990	mg/L	D	10		SW6010B	07/06/09 20:22 / cp
PHYSICAL PROPERTIES							
Oxygen Demand, Chemical (COD)	210	mg/L	D	6		E410.4	06/24/09 09:15 / eli-b
METALS - TOTAL							
Arsenic	0.013	mg/L	D	0.002		SW6020	06/26/09 01:11 / ts
Barium	ND	mg/L		0.1		SW6020	06/26/09 01:11 / ts
Cadmium	ND	mg/L		0.01		SW6020	06/26/09 01:11 / ts
Chromium	ND	mg/L		0.05		SW6020	06/26/09 01:11 / ts
Copper	ND	mg/L		0.01		SW6020	06/26/09 01:11 / ts
Iron	0.50	mg/L		0.03		SW6020	07/09/09 07:00 / sml
Lead	ND	mg/L		0.05		SW6020	06/26/09 01:11 / ts
Manganese	0.27	mg/L		0.01		SW6020	06/26/09 01:11 / ts
Mercury	ND	mg/L		0.001		SW7470A	07/02/09 13:21 / jp
Selenium	0.009	mg/L		0.001		SW6020	06/26/09 01:11 / ts
Silver	ND	mg/L		0.01		SW6020	06/26/09 01:11 / ts
Uranium	0.002	mg/L		0.001		SW6020	06/26/09 01:11 / ts
Zinc	0.02	mg/L		0.01		SW6020	07/09/09 07:00 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix interference.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Hall Environmental
Project: 0906388
Lab ID: C09060831-006
Client Sample ID: Pond 6

Report Date: 07/11/09
Collection Date: 06/17/09 10:30
DateReceived: 06/19/09
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Calcium	450	mg/L		0.5		SW6010B	07/02/09 00:42 / cp
Magnesium	131	mg/L		0.5		SW6010B	07/02/09 00:42 / cp
Potassium	94.3	mg/L		0.5		SW6010B	07/02/09 00:42 / cp
Sodium	3380	mg/L	D	10		SW6010B	07/06/09 20:39 / cp
PHYSICAL PROPERTIES							
Oxygen Demand, Chemical (COD)	126	mg/L	D	6		E410.4	06/24/09 09:15 / ell-b
METALS - TOTAL							
Arsenic	0.015	mg/L	D	0.002		SW6020	06/26/09 01:18 / ts
Barium	ND	mg/L		0.1		SW6020	06/26/09 01:18 / ts
Cadmium	ND	mg/L		0.01		SW6020	06/26/09 01:18 / ts
Chromium	ND	mg/L		0.05		SW6020	06/26/09 01:18 / ts
Copper	ND	mg/L		0.01		SW6020	06/26/09 01:18 / ts
Iron	0.2	mg/L	D	0.2		SW6010B	07/06/09 20:39 / cp
Lead	ND	mg/L		0.05		SW6020	06/26/09 01:18 / ts
Manganese	0.31	mg/L		0.01		SW6020	06/26/09 01:18 / ts
Mercury	ND	mg/L		0.001		SW7470A	07/02/09 13:28 / jp
Selenium	0.005	mg/L		0.001		SW6020	06/26/09 01:18 / ts
Silver	ND	mg/L		0.01		SW6020	06/26/09 01:18 / ts
Uranium	0.002	mg/L		0.001		SW6020	06/26/09 01:18 / ts
Zinc	ND	mg/L		0.01		SW6020	06/26/09 01:18 / ts

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix interference.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Hall Environmental
Project: 0906388
Lab ID: C09060831-007
Client Sample ID: Pond 7

Report Date: 07/11/09
Collection Date: 06/17/09 11:00
DateReceived: 06/19/09
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Calcium	1300	mg/L		0.5		SW6010B	07/02/09 00:46 / cp
Magnesium	944	mg/L		0.5		SW6010B	07/02/09 00:46 / cp
Potassium	401	mg/L		0.5		SW6010B	07/02/09 00:46 / cp
Sodium	27300	mg/L	D	100		SW6010B	07/08/09 02:52 / cp
PHYSICAL PROPERTIES							
Oxygen Demand, Chemical (COD)	720	mg/L	D	40		E410.4	06/24/09 09:15 / eli-b
METALS - TOTAL							
Arsenic	0.055	mg/L	D	0.003		SW6020	07/09/09 07:07 / sml
Barium	0.1	mg/L		0.1		SW6010B	07/02/09 00:46 / cp
Cadmium	ND	mg/L		0.01		SW6010B	07/02/09 00:46 / cp
Chromium	ND	mg/L		0.05		SW6010B	07/02/09 00:46 / cp
Copper	0.03	mg/L		0.01		SW6020	07/09/09 07:07 / sml
Iron	0.14	mg/L	D	0.05		SW6020	07/09/09 07:07 / sml
Lead	0.08	mg/L		0.05		SW6010B	07/02/09 00:46 / cp
Manganese	4.44	mg/L		0.01		SW6010B	07/02/09 00:46 / cp
Mercury	ND	mg/L		0.001		SW7470A	07/02/09 13:30 / jp
Selenium	0.033	mg/L		0.001		SW6020	07/09/09 07:07 / sml
Silver	ND	mg/L		0.01		SW6020	07/09/09 07:07 / sml
Uranium	0.003	mg/L		0.001		SW6020	07/09/09 07:07 / sml
Zinc	0.01	mg/L		0.01		SW6010B	07/02/09 00:46 / cp

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix interference.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Hall Environmental
Project: 0906388
Lab ID: C09060831-008
Client Sample ID: Pond 8

Report Date: 07/11/09
Collection Date: 06/17/09 11:00
DateReceived: 06/19/09
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Calcium	1120	mg/L		0.5		SW6010B	07/02/09 01:02 / cp
Magnesium	4050	mg/L	D	1		SW6010B	07/06/09 20:47 / cp
Potassium	2130	mg/L	D	1		SW6010B	07/06/09 20:47 / cp
Sodium	67500	mg/L	D	100		SW6010B	07/08/09 02:56 / cp
PHYSICAL PROPERTIES							
Oxygen Demand, Chemical (COD)	2160	mg/L	D	80		E410.4	06/24/09 09:15 / eli-b
METALS - TOTAL							
Arsenic	0.384	mg/L	D	0.007		SW6020	07/09/09 11:54 / sml
Barium	0.2	mg/L		0.1		SW6010B	07/02/09 01:02 / cp
Cadmium	ND	mg/L		0.01		SW6010B	07/02/09 01:02 / cp
Chromium	ND	mg/L		0.05		SW6010B	07/02/09 01:02 / cp
Copper	0.27	mg/L		0.01		SW6020	07/09/09 11:54 / sml
Iron	0.3	mg/L	D	0.1		SW6020	07/09/09 11:54 / sml
Lead	ND	mg/L		0.05		SW6020	07/09/09 11:54 / sml
Manganese	28.0	mg/L		0.01		SW6010B	07/02/09 01:02 / cp
Mercury	ND	mg/L		0.001		SW7470A	07/02/09 13:33 / jp
Selenium	0.224	mg/L		0.001		SW6020	07/09/09 11:54 / sml
Silver	ND	mg/L		0.01		SW6020	07/09/09 11:54 / sml
Uranium	0.004	mg/L		0.001		SW6020	07/09/09 11:54 / sml
Zinc	0.13	mg/L	D	0.06		SW6020	07/09/09 11:54 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix interference.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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QA/QC Summary Report

Client: Hall Environmental
Project: 0906388

Report Date: 07/11/09
Work Order: C09060831

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E410.4										Batch: B_R131747
Sample ID: MB-R131747	Method Blank					Run: SUB-B131747				06/24/09 09:15
Oxygen Demand, Chemical (COD)		ND	mg/L	1						
Sample ID: B09061840-013CMS	Sample Matrix Spike					Run: SUB-B131747				06/24/09 09:15
Oxygen Demand, Chemical (COD)		23.7	mg/L	1.0	97	90	110			
Sample ID: B09061840-013CMSD	Sample Matrix Spike Duplicate					Run: SUB-B131747				06/24/09 09:15
Oxygen Demand, Chemical (COD)		24.8	mg/L	1.0	102	90	110	4.5	10	
Sample ID: C09060831-001B	Sample Matrix Spike					Run: SUB-B131747				06/24/09 09:15
Oxygen Demand, Chemical (COD)		386	mg/L	2.0	86	90	110			S
Sample ID: C09060831-001B	Sample Matrix Spike Duplicate					Run: SUB-B131747				06/24/09 09:15
Oxygen Demand, Chemical (COD)		388	mg/L	2.0	90	90	110	0.5	10	
Sample ID: LFB	Laboratory Fortified Blank					Run: SUB-B131747				06/24/09 09:15
Oxygen Demand, Chemical (COD)		25.1	mg/L	1.0	103	90	110			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.

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QA/QC Summary Report

Client: Hall Environmental
Project: 0906388

Report Date: 07/11/09
Work Order: C09060831

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6010B										Batch: 22791
Sample ID: MB-22791	11	Method Blank				Run: ICP2-C_090701A				07/02/09 00:09
Barium		ND	mg/L	0.005						
Cadmium		ND	mg/L	0.002						
Calcium		ND	mg/L	0.2						
Chromium		ND	mg/L	0.006						
Iron		0.06	mg/L	0.02						
Lead		ND	mg/L	0.02						
Magnesium		ND	mg/L	0.10						
Manganese		ND	mg/L	0.0007						
Potassium		ND	mg/L	0.10						
Sodium		ND	mg/L	1.0						
Zinc		ND	mg/L	0.005						
Sample ID: LCS3-22791	11	Laboratory Control Sample				Run: ICP2-C_090701A				07/02/09 00:13
Barium		0.513	mg/L	0.10	103	85	115			
Cadmium		0.263	mg/L	0.010	105	85	115			
Calcium		26.6	mg/L	0.50	106	85	115			
Chromium		0.523	mg/L	0.050	105	85	115			
Iron		2.57	mg/L	0.030	100	85	115			
Lead		0.502	mg/L	0.050	100	85	115			
Magnesium		25.7	mg/L	0.50	103	85	115			
Manganese		2.54	mg/L	0.010	102	85	115			
Potassium		25.3	mg/L	0.50	101	85	115			
Sodium		25.2	mg/L	0.96	101	85	115			
Zinc		0.569	mg/L	0.010	114	85	115			
Sample ID: C09060838-009BMS3	11	Sample Matrix Spike				Run: ICP2-C_090701A				07/02/09 01:26
Barium		0.471	mg/L	0.10	94	75	125			
Cadmium		0.257	mg/L	0.010	103	75	125			
Calcium		42.5	mg/L	0.50	101	75	125			
Chromium		0.506	mg/L	0.050	101	75	125			
Iron		3.64	mg/L	0.034	98	75	125			
Lead		0.472	mg/L	0.050	94	75	125			
Magnesium		89.8	mg/L	0.50	98	75	125			
Manganese		2.46	mg/L	0.010	98	75	125			
Potassium		118	mg/L	0.50		75	125			A
Sodium		3710	mg/L	1.9		75	125			A
Zinc		0.496	mg/L	0.011	99	75	125			
Sample ID: C09060838-009BMSD	11	Sample Matrix Spike Duplicate				Run: ICP2-C_090701A				07/02/09 01:30
Barium		0.479	mg/L	0.10	96	75	125	1.7	20	
Cadmium		0.259	mg/L	0.010	104	75	125	1	20	
Calcium		43.4	mg/L	0.50	104	75	125	2.1	20	
Chromium		0.519	mg/L	0.050	104	75	125	2.5	20	
Iron		3.78	mg/L	0.034	104	75	125	3.8	20	

Qualifiers:

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ND - Not detected at the reporting limit.

A - The analyte level was greater than four times the spike level. In accordance with the method % recovery is not calculated.

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QA/QC Summary Report

Client: Hall Environmental
Project: 0906388

Report Date: 07/11/09
Work Order: C09060831

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6010B									Batch: 22791	
Sample ID: C09060838-009BMSD	11	Sample Matrix Spike Duplicate				Run: ICP2-C_090701A			07/02/09 01:30	
Lead		0.511	mg/L	0.050	102	75	125	7.9	20	
Magnesium		93.1	mg/L	0.50	112	75	125	3.7	20	
Manganese		2.52	mg/L	0.010	100	75	125	2.2	20	
Potassium		123	mg/L	0.50		75	125	4	20	A
Sodium		3810	mg/L	1.9		75	125	2.8	20	A
Zinc		0.542	mg/L	0.011	108	75	125	8.9	20	
Sample ID: MB-22791	3	Method Blank				Run: ICP2-C_090706A			07/06/09 19:54	
Magnesium		ND	mg/L	0.10						
Potassium		ND	mg/L	0.10						
Sodium		ND	mg/L	1.0						
Sample ID: LCS3-22791	3	Laboratory Control Sample				Run: ICP2-C_090706A			07/06/09 19:58	
Magnesium		25.0	mg/L	0.50	100	85	115			
Potassium		24.9	mg/L	0.50	100	85	115			
Sodium		25.3	mg/L	0.96	101	85	115			
Sample ID: C09060838-009BMS3	3	Sample Matrix Spike				Run: ICP2-C_090706A			07/06/09 20:59	
Magnesium		90.0	mg/L	0.99	100	75	125			
Potassium		153	mg/L	0.99		75	125			A
Sodium		4750	mg/L	9.6		75	125			A
Sample ID: C09060838-009BMSD	3	Sample Matrix Spike Duplicate				Run: ICP2-C_090706A			07/06/09 21:03	
Magnesium		94.2	mg/L	0.99	117	75	125	4.6	20	
Potassium		161	mg/L	0.99		75	125	4.8	20	A
Sodium		4860	mg/L	9.6		75	125	2.2	20	A

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QA/QC Summary Report

Client: Hall Environmental
Project: 0906388

Report Date: 07/11/09
Work Order: C09060831

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6020										Batch: 22791
Sample ID: MB-22791	11	Method Blank				Run: ICPMS2-C_090625A				06/26/09 00:24
Arsenic		ND	mg/L	0.002						
Barium		ND	mg/L	0.0005						
Cadmium		ND	mg/L	8E-05						
Chromium		0.006	mg/L	0.0007						
Copper		ND	mg/L	0.0010						
Lead		ND	mg/L	0.0002						
Manganese		0.0008	mg/L	0.0002						
Selenium		ND	mg/L	0.001						
Silver		7E-05	mg/L	4E-05						
Uranium		ND	mg/L	5E-05						
Zinc		0.004	mg/L	0.004						
Sample ID: LCS3-22791	11	Laboratory Control Sample				Run: ICPMS2-C_090625A				06/26/09 00:31
Arsenic		0.490	mg/L	0.0018	98	85	115			
Barium		0.559	mg/L	0.10	112	85	115			
Cadmium		0.251	mg/L	0.010	100	85	115			
Chromium		0.512	mg/L	0.050	101	85	115			
Copper		0.504	mg/L	0.010	101	85	115			
Lead		0.534	mg/L	0.050	107	85	115			
Manganese		2.55	mg/L	0.010	102	85	115			
Selenium		0.445	mg/L	0.0011	89	85	115			
Silver		0.0484	mg/L	0.010	97	85	115			
Uranium		0.548	mg/L	0.00030	109	85	115			
Zinc		0.511	mg/L	0.010	101	85	115			
Sample ID: C09060838-009BMS3	11	Sample Matrix Spike				Run: ICPMS2-C_090625A				06/26/09 02:25
Arsenic		0.617	mg/L	0.0018	92	75	125			
Barium		0.519	mg/L	0.10	104	75	125			
Cadmium		0.221	mg/L	0.010	89	75	125			
Chromium		0.456	mg/L	0.050	90	75	125			
Copper		0.432	mg/L	0.010	85	75	125			
Lead		0.525	mg/L	0.050	105	75	125			
Manganese		2.26	mg/L	0.010	90	75	125			
Selenium		0.335	mg/L	0.0011	67	75	125			S
Silver		0.0416	mg/L	0.010	83	75	125			
Uranium		0.560	mg/L	0.00030	112	75	125			
Zinc		0.395	mg/L	0.010	77	75	125			
Sample ID: C09060838-009BMSD	11	Sample Matrix Spike Duplicate				Run: ICPMS2-C_090625A				06/26/09 02:32
Arsenic		0.637	mg/L	0.0018	96	75	125	3.2	20	
Barium		0.534	mg/L	0.10	107	75	125	2.8	20	
Cadmium		0.227	mg/L	0.010	91	75	125	2.5	20	
Chromium		0.473	mg/L	0.050	94	75	125	3.7	20	
Copper		0.448	mg/L	0.010	89	75	125	3.6	20	

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QA/QC Summary Report

Client: Hall Environmental
Project: 0906388

Report Date: 07/11/09
Work Order: C09060831

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6020										Batch: 22791
Sample ID: C09060838-009BMSD	11	Sample Matrix Spike Duplicate				Run: ICPMS2-C_090625A				06/26/09 02:32
Lead		0.539	mg/L	0.050	108	75	125	2.5	20	
Manganese		2.35	mg/L	0.010	94	75	125	4.1	20	
Selenium		0.354	mg/L	0.0011	71	75	125	5.7	20	S
Silver		0.0428	mg/L	0.010	86	75	125	2.8	20	
Uranium		0.563	mg/L	0.00030	112	75	125	0.6	20	
Zinc		0.406	mg/L	0.010	79	75	125	2.9	20	
Sample ID: MB-22791	8	Method Blank				Run: ICPMS4-C_090708A				07/09/09 06:12
Arsenic		0.002	mg/L	0.0007						
Copper		0.006	mg/L	0.0009						
Iron		0.04	mg/L	0.01						
Lead		ND	mg/L	0.0002						
Selenium		0.0003	mg/L	4E-05						
Silver		ND	mg/L	0.001						
Uranium		5E-05	mg/L	5E-05						
Zinc		ND	mg/L	0.006						
Sample ID: C09060838-009BMS3	8	Sample Matrix Spike				Run: ICPMS4-C_090708A				07/09/09 07:34
Arsenic		0.605	mg/L	0.0010	90	75	125			
Copper		0.503	mg/L	0.010	99	75	125			
Iron		3.60	mg/L	0.030	95	75	125			
Lead		0.564	mg/L	0.050	113	75	125			
Selenium		0.484	mg/L	0.0010	89	75	125			
Silver		0.0399	mg/L	0.010	80	75	125			
Uranium		0.587	mg/L	0.00030	117	75	125			
Zinc		0.404	mg/L	0.010	81	75	125			
Sample ID: C09060838-009BMSD	8	Sample Matrix Spike Duplicate				Run: ICPMS4-C_090708A				07/09/09 08:01
Arsenic		0.634	mg/L	0.0010	96	75	125	4.6	20	
Copper		0.514	mg/L	0.010	101	75	125	2.1	20	
Iron		3.70	mg/L	0.030	100	75	125	3	20	
Lead		0.573	mg/L	0.050	116	75	125	1.7	20	
Selenium		0.490	mg/L	0.0010	90	75	125	1.3	20	
Silver		0.0415	mg/L	0.010	83	75	125	3.9	20	
Uranium		0.587	mg/L	0.00030	117	75	125	0.1	20	
Zinc		0.423	mg/L	0.010	85	75	125	4.8	20	
Sample ID: LCS3-22791	8	Laboratory Control Sample				Run: ICPMS4-C_090708A				07/09/09 08:07
Arsenic		0.481	mg/L	0.0010	96	85	115			
Copper		0.557	mg/L	0.010	110	85	115			
Iron		2.57	mg/L	0.030	101	85	115			
Lead		0.560	mg/L	0.050	112	85	115			
Selenium		0.466	mg/L	0.0010	93	85	115			
Silver		0.0484	mg/L	0.010	97	85	115			
Uranium		0.534	mg/L	0.00030	107	85	115			

Qualifiers:

RL - Analyte reporting limit.
ND - Not detected at the reporting limit.
S - Spike recovery outside of advisory limits.

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QA/QC Summary Report

Client: Hall Environmental
Project: 0906388

Report Date: 07/11/09
Work Order: C09060831

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6020										Batch: 22791
Sample ID: LCS3-22791	8	Laboratory Control Sample				Run: ICPMS4-C_090708A				07/09/09 08:07
Zinc		0.528	mg/L	0.010	106	85	115			
Method: SW7470A										Batch: HG3112-7470-090702A
Sample ID: MBLK		Method Blank				Run: CVAA-C201_090702B				07/02/09 12:49
Mercury		ND	mg/L	3E-06						
Sample ID: Hg 0.1ppm-Q 070109		Laboratory Control Sample				Run: CVAA-C201_090702B				07/02/09 12:58
Mercury		0.00522	mg/L	0.00010	104	90	110			
Sample ID: C09060831-001AMS		Sample Matrix Spike				Run: CVAA-C201_090702B				07/02/09 13:09
Mercury		0.00556	mg/L	0.0010	111	85	115			
Sample ID: C09060831-001AMSD		Sample Matrix Spike Duplicate				Run: CVAA-C201_090702B				07/02/09 13:12
Mercury		0.00521	mg/L	0.0010	104	85	115	6.6	10	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Annual Pond Sampling **Work Order:** 0906388

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 300.0: Anions									
Sample ID: MB		*MBLK*			Batch ID: **R34164**		Analysis Date:	6/18/2009 9:34:14 AM	
Fluoride	ND	mg/L	0.10						
Chloride	ND	mg/L	0.10						
Nitrate (As N)+Nitrite (As N)	ND	mg/L	0.20						
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50						
Sulfate	ND	mg/L	0.50						
Sample ID: MB-2		*MBLK*			Batch ID: **R34164**		Analysis Date:	6/19/2009 5:16:18 AM	
Fluoride	ND	mg/L	0.10						
Chloride	ND	mg/L	0.10						
Nitrate (As N)+Nitrite (As N)	ND	mg/L	0.20						
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50						
Sulfate	ND	mg/L	0.50						
Sample ID: MB		*MBLK*			Batch ID: **R34191**		Analysis Date:	6/22/2009 10:05:29 AM	
Fluoride	ND	mg/L	0.10						
Chloride	ND	mg/L	0.10						
Nitrate (As N)+Nitrite (As N)	ND	mg/L	0.20						
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50						
Sulfate	ND	mg/L	0.50						
Sample ID: MB		*MBLK*			Batch ID: **R34216**		Analysis Date:	6/23/2009 10:10:26 AM	
Fluoride	ND	mg/L	0.10						
Chloride	ND	mg/L	0.10						
Nitrate (As N)+Nitrite (As N)	ND	mg/L	0.20						
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50						
Sulfate	ND	mg/L	0.50						
Sample ID: LCS-b		*LCS*			Batch ID: **R34164**		Analysis Date:	6/18/2009 11:34:18 AM	
Fluoride	0.5264	mg/L	0.10	105	90	110			
Chloride	4.769	mg/L	0.10	95.4	90	110			
Nitrate (As N)+Nitrite (As N)	3.415	mg/L	0.20	97.6	90	110			
Phosphorus, Orthophosphate (As P)	4.980	mg/L	0.50	99.6	90	110			
Sulfate	9.920	mg/L	0.50	99.2	90	110			
Sample ID: LCS-2		*LCS*			Batch ID: **R34164**		Analysis Date:	6/19/2009 5:33:42 AM	
Fluoride	0.5209	mg/L	0.10	104	90	110			
Chloride	4.710	mg/L	0.10	94.2	90	110			
Nitrate (As N)+Nitrite (As N)	3.375	mg/L	0.20	96.4	90	110			
Phosphorus, Orthophosphate (As P)	4.923	mg/L	0.50	98.5	90	110			
Sulfate	9.821	mg/L	0.50	98.2	90	110			
Sample ID: LCS		*LCS*			Batch ID: **R34191**		Analysis Date:	6/22/2009 10:22:53 AM	
Fluoride	0.4881	mg/L	0.10	97.6	90	110			
Chloride	4.899	mg/L	0.10	98.0	90	110			
Nitrate (As N)+Nitrite (As N)	3.422	mg/L	0.20	97.8	90	110			
Phosphorus, Orthophosphate (As P)	4.761	mg/L	0.50	95.2	90	110			
Sulfate	9.910	mg/L	0.50	99.1	90	110			
Sample ID: LCS		*LCS*			Batch ID: **R34216**		Analysis Date:	6/23/2009 10:27:51 AM	

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Annual Pond Sampling **Work Order:** 0906388

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 300.0: Anions									
Sample ID: LCS		*LCS*			Batch ID:	**R34216**	Analysis Date:	6/23/2009 10:27:51 AM	
Fluoride	0.5215	mg/L	0.10	104	90	110			
Chloride	4.902	mg/L	0.10	98.0	90	110			
Nitrate (As N)+Nitrite (As N)	3.446	mg/L	0.20	98.4	90	110			
Phosphorus, Orthophosphate (As P)	4.934	mg/L	0.50	98.7	90	110			
Sulfate	9.770	mg/L	0.50	97.7	90	110			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Annual Pond Sampling **Work Order:** 0906388

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: 5ml rb		*MBLK*			Batch ID: **R34235**		Analysis Date:	6/24/2009 8:52:29 AM	
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0						
1,2,4-Trimethylbenzene	ND	µg/L	1.0						
1,3,5-Trimethylbenzene	ND	µg/L	1.0						
1,2-Dichloroethane (EDC)	ND	µg/L	1.0						
1,2-Dibromoethane (EDB)	ND	µg/L	1.0						
Naphthalene	ND	µg/L	2.0						
1-Methylnaphthalene	ND	µg/L	4.0						
2-Methylnaphthalene	ND	µg/L	4.0						
Acetone	ND	µg/L	10						
Bromobenzene	ND	µg/L	1.0						
Bromodichloromethane	ND	µg/L	1.0						
Bromoform	ND	µg/L	1.0						
Bromomethane	ND	µg/L	1.0						
2-Butanone	ND	µg/L	10						
Carbon disulfide	ND	µg/L	10						
Carbon Tetrachloride	ND	µg/L	1.0						
Chlorobenzene	ND	µg/L	1.0						
Chloroethane	ND	µg/L	2.0						
Chloroform	ND	µg/L	1.0						
Chloromethane	ND	µg/L	1.0						
2-Chlorotoluene	ND	µg/L	1.0						
4-Chlorotoluene	ND	µg/L	1.0						
cis-1,2-DCE	ND	µg/L	1.0						
cis-1,3-Dichloropropene	ND	µg/L	1.0						
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0						
Dibromochloromethane	ND	µg/L	1.0						
Dibromomethane	ND	µg/L	1.0						
1,2-Dichlorobenzene	ND	µg/L	1.0						
1,3-Dichlorobenzene	ND	µg/L	1.0						
1,4-Dichlorobenzene	ND	µg/L	1.0						
Dichlorodifluoromethane	ND	µg/L	1.0						
1,1-Dichloroethane	ND	µg/L	1.0						
1,1-Dichloroethene	ND	µg/L	1.0						
1,2-Dichloropropane	ND	µg/L	1.0						
1,3-Dichloropropane	ND	µg/L	1.0						
2,2-Dichloropropane	ND	µg/L	2.0						
1,1-Dichloropropene	ND	µg/L	1.0						
Hexachlorobutadiene	ND	µg/L	1.0						
2-Hexanone	ND	µg/L	10						
Isopropylbenzene	ND	µg/L	1.0						
4-Isopropyltoluene	ND	µg/L	1.0						

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Annual Pond Sampling **Work Order:** 0906388

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: 5ml rb		*MBLK*			Batch ID: **R34235**		Analysis Date:	6/24/2009 8:52:29 AM	
4-Methyl-2-pentanone	ND	µg/L	10						
Methylene Chloride	ND	µg/L	3.0						
n-Butylbenzene	ND	µg/L	1.0						
n-Propylbenzene	ND	µg/L	1.0						
sec-Butylbenzene	ND	µg/L	1.0						
Styrene	ND	µg/L	1.0						
tert-Butylbenzene	ND	µg/L	1.0						
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0						
1,1,2,2-Tetrachloroethane	ND	µg/L	2.0						
Tetrachloroethene (PCE)	ND	µg/L	1.0						
trans-1,2-DCE	ND	µg/L	1.0						
trans-1,3-Dichloropropene	ND	µg/L	1.0						
1,2,3-Trichlorobenzene	ND	µg/L	1.0						
1,2,4-Trichlorobenzene	ND	µg/L	1.0						
1,1,1-Trichloroethane	ND	µg/L	1.0						
1,1,2-Trichloroethane	ND	µg/L	1.0						
Trichloroethene (TCE)	ND	µg/L	1.0						
Trichlorofluoromethane	ND	µg/L	1.0						
1,2,3-Trichloropropane	ND	µg/L	2.0						
[illegible] chloride	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	1.5						
Sample ID: b3		*MBLK*			Batch ID: **R34235**		Analysis Date:	6/24/2009 9:26:25 PM	
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0						
1,2,4-Trimethylbenzene	ND	µg/L	1.0						
1,3,5-Trimethylbenzene	ND	µg/L	1.0						
1,2-Dichloroethane (EDC)	ND	µg/L	1.0						
1,2-Dibromoethane (EDB)	ND	µg/L	1.0						
Naphthalene	ND	µg/L	2.0						
1-Methylnaphthalene	ND	µg/L	4.0						
2-Methylnaphthalene	ND	µg/L	4.0						
Acetone	ND	µg/L	10						
Bromobenzene	ND	µg/L	1.0						
Bromodichloromethane	ND	µg/L	1.0						
Bromoform	ND	µg/L	1.0						
Bromomethane	ND	µg/L	1.0						
2-Butanone	ND	µg/L	10						
Carbon disulfide	ND	µg/L	10						
Carbon Tetrachloride	ND	µg/L	1.0						
Chlorobenzene	ND	µg/L	1.0						
Chloroethane	ND	µg/L	2.0						
Chloroform	ND	µg/L	1.0						

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Annual Pond Sampling **Work Order:** 0906388

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: b3		*MBLK*			Batch ID: **R34235**		Analysis Date:	6/24/2009 9:26:25 PM	
Chloromethane	ND	µg/L	1.0						
2-Chlorotoluene	ND	µg/L	1.0						
4-Chlorotoluene	ND	µg/L	1.0						
cis-1,2-DCE	ND	µg/L	1.0						
cis-1,3-Dichloropropene	ND	µg/L	1.0						
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0						
Dibromochloromethane	ND	µg/L	1.0						
Dibromomethane	ND	µg/L	1.0						
1,2-Dichlorobenzene	ND	µg/L	1.0						
1,3-Dichlorobenzene	ND	µg/L	1.0						
1,4-Dichlorobenzene	ND	µg/L	1.0						
Dichlorodifluoromethane	ND	µg/L	1.0						
1,1-Dichloroethane	ND	µg/L	1.0						
1,1-Dichloroethene	ND	µg/L	1.0						
1,2-Dichloropropane	ND	µg/L	1.0						
1,3-Dichloropropane	ND	µg/L	1.0						
2,2-Dichloropropane	ND	µg/L	2.0						
1,1-Dichloropropene	ND	µg/L	1.0						
Hexachlorobutadiene	ND	µg/L	1.0						
2-Hexanone	ND	µg/L	10						
Isopropylbenzene	ND	µg/L	1.0						
4-Isopropyltoluene	ND	µg/L	1.0						
4-Methyl-2-pentanone	ND	µg/L	10						
Methylene Chloride	ND	µg/L	3.0						
n-Butylbenzene	ND	µg/L	1.0						
n-Propylbenzene	ND	µg/L	1.0						
sec-Butylbenzene	ND	µg/L	1.0						
Styrene	ND	µg/L	1.0						
tert-Butylbenzene	ND	µg/L	1.0						
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0						
1,1,2,2-Tetrachloroethane	ND	µg/L	2.0						
Tetrachloroethene (PCE)	ND	µg/L	1.0						
trans-1,2-DCE	ND	µg/L	1.0						
trans-1,3-Dichloropropene	ND	µg/L	1.0						
1,2,3-Trichlorobenzene	ND	µg/L	1.0						
1,2,4-Trichlorobenzene	ND	µg/L	1.0						
1,1,1-Trichloroethane	ND	µg/L	1.0						
1,1,2-Trichloroethane	ND	µg/L	1.0						
Trichloroethene (TCE)	ND	µg/L	1.0						
Trichlorofluoromethane	ND	µg/L	1.0						
1,2,3-Trichloropropane	ND	µg/L	2.0						
Vinyl chloride	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	1.5						
Sample ID: 5ml rb		*MBLK*			Batch ID: **R34248**		Analysis Date:	6/25/2009 10:16:10 AM	

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Annual Pond Sampling **Work Order:** 0906388

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: 5ml rb		*MBLK*			Batch ID: **R34248**		Analysis Date: 6/25/2009 10:16:10 AM		
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0						
1,2,4-Trimethylbenzene	ND	µg/L	1.0						
1,3,5-Trimethylbenzene	ND	µg/L	1.0						
1,2-Dichloroethane (EDC)	ND	µg/L	1.0						
1,2-Dibromoethane (EDB)	ND	µg/L	1.0						
Naphthalene	ND	µg/L	2.0						
1-Methylnaphthalene	ND	µg/L	4.0						
2-Methylnaphthalene	ND	µg/L	4.0						
Acetone	ND	µg/L	10						
Bromobenzene	ND	µg/L	1.0						
Bromodichloromethane	ND	µg/L	1.0						
Bromoform	ND	µg/L	1.0						
Bromomethane	ND	µg/L	1.0						
2-Butanone	ND	µg/L	10						
Carbon disulfide	ND	µg/L	10						
Carbon Tetrachloride	ND	µg/L	1.0						
Chlorobenzene	ND	µg/L	1.0						
Chloroethane	ND	µg/L	2.0						
Chloroform	ND	µg/L	1.0						
Chloromethane	ND	µg/L	1.0						
2-Chlorotoluene	ND	µg/L	1.0						
4-Chlorotoluene	ND	µg/L	1.0						
cis-1,2-DCE	ND	µg/L	1.0						
cis-1,3-Dichloropropene	ND	µg/L	1.0						
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0						
Dibromochloromethane	ND	µg/L	1.0						
Dibromomethane	ND	µg/L	1.0						
1,2-Dichlorobenzene	ND	µg/L	1.0						
1,3-Dichlorobenzene	ND	µg/L	1.0						
1,4-Dichlorobenzene	ND	µg/L	1.0						
Dichlorodifluoromethane	ND	µg/L	1.0						
1,1-Dichloroethane	ND	µg/L	1.0						
1,1-Dichloroethene	ND	µg/L	1.0						
1,2-Dichloropropane	ND	µg/L	1.0						
1,3-Dichloropropane	ND	µg/L	1.0						
2,2-Dichloropropane	ND	µg/L	2.0						
1,1-Dichloropropene	ND	µg/L	1.0						
Hexachlorobutadiene	ND	µg/L	1.0						
2-Hexanone	ND	µg/L	10						
Isopropylbenzene	ND	µg/L	1.0						
4-Isopropyltoluene	ND	µg/L	1.0						

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Annual Pond Sampling Work Order: 0906388

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: 5ml rb		*MBLK*			Batch ID: **R34248**		Analysis Date:	6/25/2009 10:16:10 AM	
4-Methyl-2-pentanone	ND	µg/L	10						
Methylene Chloride	ND	µg/L	3.0						
n-Butylbenzene	ND	µg/L	1.0						
n-Propylbenzene	ND	µg/L	1.0						
sec-Butylbenzene	ND	µg/L	1.0						
Styrene	ND	µg/L	1.0						
tert-Butylbenzene	ND	µg/L	1.0						
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0						
1,1,2,2-Tetrachloroethane	ND	µg/L	2.0						
Tetrachloroethene (PCE)	ND	µg/L	1.0						
trans-1,2-DCE	ND	µg/L	1.0						
trans-1,3-Dichloropropene	ND	µg/L	1.0						
1,2,3-Trichlorobenzene	ND	µg/L	1.0						
1,2,4-Trichlorobenzene	ND	µg/L	1.0						
1,1,1-Trichloroethane	ND	µg/L	1.0						
1,1,2-Trichloroethane	ND	µg/L	1.0						
Trichloroethene (TCE)	ND	µg/L	1.0						
Trichlorofluoromethane	ND	µg/L	1.0						
1,2,3-Trichloropropane	ND	µg/L	2.0						
[illegible] chloride	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	1.5						
Sample ID: b5		*MBLK*			Batch ID: **R34248**		Analysis Date:	6/26/2009 12:27:56 AM	
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0						
1,2,4-Trimethylbenzene	ND	µg/L	1.0						
1,3,5-Trimethylbenzene	ND	µg/L	1.0						
1,2-Dichloroethane (EDC)	ND	µg/L	1.0						
1,2-Dibromoethane (EDB)	ND	µg/L	1.0						
Naphthalene	ND	µg/L	2.0						
1-Methylnaphthalene	ND	µg/L	4.0						
2-Methylnaphthalene	ND	µg/L	4.0						
Acetone	ND	µg/L	10						
Bromobenzene	ND	µg/L	1.0						
Bromodichloromethane	ND	µg/L	1.0						
Bromoform	ND	µg/L	1.0						
Bromomethane	ND	µg/L	1.0						
2-Butanone	ND	µg/L	10						
Carbon disulfide	ND	µg/L	10						
Carbon Tetrachloride	ND	µg/L	1.0						
Chlorobenzene	ND	µg/L	1.0						
Chloroethane	ND	µg/L	2.0						
Chloroform	ND	µg/L	1.0						

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Annual Pond Sampling **Work Order:** 0906388

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: b5		*MBLK*			Batch ID: **R34248**		Analysis Date:	6/26/2009 12:27:56 AM	
Chloromethane	ND	µg/L	1.0						
2-Chlorotoluene	ND	µg/L	1.0						
4-Chlorotoluene	ND	µg/L	1.0						
cis-1,2-DCE	ND	µg/L	1.0						
cis-1,3-Dichloropropene	ND	µg/L	1.0						
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0						
Dibromochloromethane	ND	µg/L	1.0						
Dibromomethane	ND	µg/L	1.0						
1,2-Dichlorobenzene	ND	µg/L	1.0						
1,3-Dichlorobenzene	ND	µg/L	1.0						
1,4-Dichlorobenzene	ND	µg/L	1.0						
Dichlorodifluoromethane	ND	µg/L	1.0						
1,1-Dichloroethane	ND	µg/L	1.0						
1,1-Dichloroethene	ND	µg/L	1.0						
1,2-Dichloropropane	ND	µg/L	1.0						
1,3-Dichloropropane	ND	µg/L	1.0						
2,2-Dichloropropane	ND	µg/L	2.0						
1,1-Dichloropropene	ND	µg/L	1.0						
Hexachlorobutadiene	ND	µg/L	1.0						
[illegible]xanone	ND	µg/L	10						
Isopropylbenzene	ND	µg/L	1.0						
4-Isopropyltoluene	ND	µg/L	1.0						
4-Methyl-2-pentanone	ND	µg/L	10						
Methylene Chloride	ND	µg/L	3.0						
n-Butylbenzene	ND	µg/L	1.0						
n-Propylbenzene	ND	µg/L	1.0						
sec-Butylbenzene	ND	µg/L	1.0						
Styrene	ND	µg/L	1.0						
tert-Butylbenzene	ND	µg/L	1.0						
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0						
1,1,2,2-Tetrachloroethane	ND	µg/L	2.0						
Tetrachloroethene (PCE)	ND	µg/L	1.0						
trans-1,2-DCE	ND	µg/L	1.0						
trans-1,3-Dichloropropene	ND	µg/L	1.0						
1,2,3-Trichlorobenzene	ND	µg/L	1.0						
1,2,4-Trichlorobenzene	ND	µg/L	1.0						
1,1,1-Trichloroethane	ND	µg/L	1.0						
1,1,2-Trichloroethane	ND	µg/L	1.0						
Trichloroethene (TCE)	ND	µg/L	1.0						
Trichlorofluoromethane	ND	µg/L	1.0						
1,2,3-Trichloropropane	ND	µg/L	2.0						
Vinyl chloride	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	1.5						
Sample ID: 100ng lcs		*LCS*			Batch ID: **R34235**		Analysis Date:	6/24/2009 9:49:42 AM	

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Annual Pond Sampling **Work Order:** 0906388

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: 100ng lcs		*LCS*			Batch ID:	**R34235**	Analysis Date:	6/24/2009 9:49:42 AM	
Benzene	20.18	µg/L	1.0	101	76.7	114			
Toluene	20.66	µg/L	1.0	103	78.4	117			
Chlorobenzene	22.91	µg/L	1.0	115	80.7	127			
1,1-Dichloroethene	21.66	µg/L	1.0	108	80.2	128			
Trichloroethene (TCE)	18.53	µg/L	1.0	92.6	77.4	115			
Sample ID: 100ng lcs_b		*LCS*			Batch ID:	**R34235**	Analysis Date:	6/24/2009 10:23:48 PM	
Benzene	19.44	µg/L	1.0	97.2	76.7	114			
Toluene	20.03	µg/L	1.0	100	78.4	117			
Chlorobenzene	22.70	µg/L	1.0	113	80.7	127			
1,1-Dichloroethene	20.57	µg/L	1.0	103	80.2	128			
Trichloroethene (TCE)	17.64	µg/L	1.0	88.2	77.4	115			
Sample ID: 100ng lcs		*LCS*			Batch ID:	**R34248**	Analysis Date:	6/25/2009 11:24:01 AM	
Benzene	19.12	µg/L	1.0	95.6	76.7	114			
Toluene	19.67	µg/L	1.0	98.4	78.4	117			
Chlorobenzene	22.36	µg/L	1.0	112	80.7	127			
1,1-Dichloroethene	19.78	µg/L	1.0	98.9	80.2	128			
Trichloroethene (TCE)	16.97	µg/L	1.0	84.8	77.4	115			
Sample ID: 100ng lcs_b		*LCS*			Batch ID:	**R34248**	Analysis Date:	6/25/2009 11:59:20 PM	
Benzene	19.28	µg/L	1.0	96.4	76.7	114			
Toluene	19.99	µg/L	1.0	100	78.4	117			
Chlorobenzene	22.77	µg/L	1.0	114	80.7	127			
1,1-Dichloroethene	20.37	µg/L	1.0	102	80.2	128			
Trichloroethene (TCE)	16.92	µg/L	1.0	84.6	77.4	115			

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name WESTERN REFINING GALLU | Date Received: 6/18/2009

Work Order Number 0906388 | Received by: AT

Checklist completed by: _____ 6/18/09 | Sample ID labels checked by: AT 1AS

Signature | Date | Initials

Matrix: | Carrier name Client drop-off

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☐	Not Shipped ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	N/A ☑	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Water - VOA vials have zero headspace? No VOA vials submitted ☐		Yes ☑	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☑	No ☐	N/A ☐	
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐	

Number of preserved bottles checked for pH: 12

(<2 or >12 unless noted below.)

Container/Temp Blank temperature? **1.9°** <6° C *Acceptable* If given sufficient time to cool.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

Chain-of-Custody Record

Client: Western Refining Gallup Refinery

Mailing Address: PO Box 7 Gallup NM 87301

Phone #: 505 722 3833

email or Fax#: 505 722 0210

QA/QC Package:
- [x] Standard
- [ ] Level 4 (Full Validation)

Accreditation
- [ ] NELAP
- [ ] Other

- [ ] EDD (Type)

Turn-Around Time:
- [x] Standard
- [ ] Rush

Project Name: 2009 Annual Pond Sampling

Project #: Ponds 1-8

Project Manager: G. Rajen

Sampler: Cheryl Johnson

On Ice: [x] Yes [ ] No

Sample Temperature: 1.9

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. 0906388	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Gen Chem	BOD	COD	WQCC Metals Total	Air Bubbles (Y or N)
6/17/09	0900	H2O	POND 1	3-VOA	HCl	-1										X						
				2-L HDP	None	-1													X			
				250 ml	H_2SO_4	-1														X		
				500 ml	None	-1												X				
				125 ml	H_2SO_4	-1												X				
				500 ml	HNO_3	-1												X				
				500 ml	HNO_3	-1															X	
	0930		POND 2	40 ml (VOA)	HCl	-2										X			X			
				2L	None	-2														X		
				250 ml	H_2SO_4	-2												X				
				500 ml	None	-2												X				
				125 ml	H_2SO_4	-2												X				

Date:	Time:	Relinquished by:	Received by:	Date	Time
6/18/09	1200			6/18/09	1200
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks: Gen Chem - Cations, Anions pH, Conductivity

Chain-of-Custody Record

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

Client: Western Refining Gallup Refinery
Mailing Address: Rt 3 Box 7 Gallup NM 87301
Phone #:
email or Fax#:
QA/QC Package: ☒ Standard ☐ Level 4 (Full Validation)
Accreditation: ☐ NELAP ☐ Other ____
☐ EDD (Type) ____

Turn-Around Time: ☒ Standard ☐ Rush ____
Project Name: 2009 Annual Pond Sampling
Project #: Ponds 1-8
Project Manager: G. Rajen
Sampler: Cheryl Johnson
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.7°C

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 0906328	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	GenChem	BOD	COD	WQCC Metals Total	Air Bubbles (Y or N)
6/17/09	0930	H2O	POND 2	500ml	HNO3	-2												X				
				500ml	HNO3																X	
	0945		POND 3	40ml VOA	HCl	-3										X						
				2L HDP	None	-3													X			
				250ml	H2SO4	-3														X		
				500ml	None	-3												X				
				125ml	H2SO4	-3												X				
				500ml	HNO3	-3												X				
				500ml	HNO3	-3															X	
	1000		POND 4	40ml VOA	HCl	-4										X						
				2L HDP	None	-4													X			
				250ml	H2SO4	-4														X		

Date	Time	Relinquished by:	Received by:	Date	Time
6/18/09	1200			6/18/09	1200

Remarks:

Chain-of-Custody Record

Client: Western Refining

Mailing Address:

Phone #:

email or Fax#:

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

Accreditation
☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush

Project Name: 2009 Annual Pond Sampling

Project #: Ponds 1-8

Project Manager: G. Rajen

Sampler: Cheryl Johnson

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.9 °C

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. 0910588	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO3,NO2,PO4,SO4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Gen Chem	BOD	COD	WQCC Metals Total	Air Bubbles (Y or N)
6/17/09	1000	H2O	POND 4	500ml	None	-4												X				
				125ml	H2SO4	-4												X				
				500ml	HNO3	-4												X				
				500ml	HNO3	-4															X	
	1015		POND 5	40ml VOA	HCl	-5										X						
				2L HDP	None	-5													X			
				250ml	H2SO4	-5														X		
				500ml	None	-5												X				
				125ml	H2SO4	-5												X				
				500ml	HNO3	-5												X				
				500ml	HNO3	-5															X	

Date	Time	Relinquished by:	Received by:	Date	Time
6/18/09	1200			6/18/09	1200
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

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

Chain-of-Custody Record

Client: Western Refining

Mailing Address:

Phone #:

email or Fax#:

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

Accreditation
☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush

Project Name: 2009 Annual Pond Sampling

Project #: Ponds 1-8

Project Manager: G. Rasen.

Sampler: Chenk 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. 0906383	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO3,NO2,PO4,SO4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Gen Chem	BOD	COD	VOC Metals Total	Air Bubbles (Y or N)
6/17/09	1030	H2O	POND 6	40ml VOA	HCl	-6										X						
				2L HDP	None	-6													X			
				250ml	H2SO4	-6														X		
				500ml	NONE	-6												X				
				125ml	H2SO4	-6												X				
				500ml	HNO3	-6												X				
				500ml	HNO3	-6															X	
	1045		POND 7	40ml VOA	HCl	-7										X						
				2L HDP	None	-7													X			
				250ml	H2SO4	-7														X		
				500ml	NONE	-7												X				
				125ml	H2SO4	-7												X				

Date:	Time:	Relinquished by:	Received by:	Date	Time
6/18/09	1200				
Date:	Time:	Relinquished by:	Received by:	Date	Time
				6/18/09	1200

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.

Chain-of-Custody Record

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

Client: Western Refining

Mailing Address:

Phone #:

email or Fax#:

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

Accreditation ☐ NELAP ☐ Other ______

☐ EDD (Type) ______

Turn-Around Time: ☒ Standard ☐ Rush

Project Name: 2009 Annual Pond Sampling

Project #: Ponds 1-8

Project Manager: G. Rajen

Sampler: Cheryl Johnson

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.9°

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 0906383	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Gen Chem	BOD	COD	WQCC Metals Total	Air Bubbles (Y or N)
6/17/09	1045	H2O	Pond 7	500ml	HNO3	-7												X				
				500ml	HNO3																X	
	1100		Pond 8	40ml VOA	HCl	-8										X						
				2L HDP	None	-8													X			
				250 ml	H2SO4	-8														X		
				500ml	None	-8												X				
				125ml	H2SO4	-8												X				
				500ml	HNO3	-8												X				
				500ml	HNO3	-8															X	
			AK 6/18/09 Trip Blank			-9																

Date	Time	Relinquished by	Received by	Date	Time
6/18/09	1200	[signature]	[signature]	6/18/09	1200

Remarks:

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Wednesday, June 24, 2009

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

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

RE: 2009 Annual Pond Sampling

Order No.: 0906385

Dear Gaurav Rajen:

Hall Environmental Analysis Laboratory, Inc. received 8 sample(s) on 6/18/2009 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

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

ASSAIGAI ANALYTICAL LABORATORIES, INC.
4301 Masthead NE • Albuquerque, New Mexico 87109 • (505) 345-8964 • FAX (505) 345-7259

Explanation of codes	
B	*Analyte Detected in Method Blank*
E	*Result Is Estimated*
H	*Analyzed Out of Hold Time*
N	*Tentatively Identified Compound*
S	*Subcontracted*
1-9	*See Footnote*

HALL ENVIRONMENTAL
attn: **ANDY FREEMAN**
4901 HAWKINS NE, SUITE D
ALBUQUERQUE NM 87109-4372

STANDARD

ARS Analytical, LLC

Certificate of Analysis

All samples are reported on an "as received" basis, unless otherwise noted (i.e. - Dry Weight).

Client: **HALL ENVIRONMENTAL**
Project: **0906385**
Order: **09060457 HAL03** Receipt: **06-18-09**

for Elvin J. Chavez - President, ARS Analytical LLC

Sample: ***0906385-01A POND 1*** Collected: *06-18-09 8:00:00* By:
Matrix: ***AQUEOUS*** *SR5000*

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09060457-001A		SM-9223B						By: FAS		
BT09210	BT.2009.333.3		E. coli, MMO/MUG	Present	N/A	1	0		06-18-09	06-19-09
BT09210	BT.2009.333.3		Total Coliform, MMO/MUG	Present	N/A	1	0		06-18-09	06-19-09

Sample: ***0906385-02A POND 2*** Collected: *06-18-09 8:05:00* By:
Matrix: ***AQUEOUS*** *SR5001*

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09060457-002A		SM-9223B						By: FAS		
BT09210	BT.2009.333.4		E. coli, MMO/MUG	Present	N/A	1	0		06-18-09	06-19-09
BT09210	BT.2009.333.4		Total Coliform, MMO/MUG	Present	N/A	1	0		06-18-09	06-19-09

Sample: ***0906385-03A POND 3*** Collected: *06-18-09 8:10:00* By:
Matrix: ***AQUEOUS*** *SR5002*

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09060457-003A		SM-9223B						By: FAS		
BT09210	BT.2009.333.5		E. coli, MMO/MUG	Present	N/A	1	0		06-18-09	06-19-09
BT09210	BT.2009.333.5		Total Coliform, MMO/MUG	Present	N/A	1	0		06-18-09	06-19-09

Report Date: 6/23/2009 5:13:51 PM

ARS Analytical, LLC

Certificate of Analysis

All samples are reported on an "as received" basis, unless otherwise noted (i.e. - Dry Weight).

Client: **HALL ENVIRONMENTAL**
Project: **0906385**
Order: **09060457 HAL03** Receipt: **06-18-09**

Sample: ***0906385-04A POND 4*** Collected: *06-18-09 8:15:00* By:
Matrix: ***AQUEOUS*** *SR5003*

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09060457-004A		SM-9223B						By: FAS		
BT09210	BT.2009.333.6		E. coli, MMO/MUG	Present	N/A	1	0		06-18-09	06-19-09
BT09210	BT.2009.333.6		Total Coliform, MMO/MUG	Present	N/A	1	0		06-18-09	06-19-09

Sample: ***0906385-05A POND 5*** Collected: *06-18-09 8:20:00* By:
Matrix: ***AQUEOUS*** *SR5004*

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09060457-005A		SM-9223B						By: FAS		
BT09210	BT.2009.333.7		E. coli, MMO/MUG	Absent	N/A	1	0		06-18-09	06-19-09
BT09210	BT.2009.333.7		Total Coliform, MMO/MUG	Present	N/A	1	0		06-18-09	06-19-09

Sample: ***0906385-06A POND 6*** Collected: *06-18-09 8:25:00* By:
Matrix: ***AQUEOUS*** *SR5005*

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09060457-006A		SM-9223B						By: FAS		
BT09210	BT.2009.333.8		E. coli, MMO/MUG	Absent	N/A	1	0		06-18-09	06-19-09
BT09210	BT.2009.333.8		Total Coliform, MMO/MUG	Present	N/A	1	0		06-18-09	06-19-09

Sample: ***0906385-07A POND 7*** Collected: *06-18-09 8:30:00* By:
Matrix: ***AQUEOUS*** *SR5006*

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09060457-007A		SM-9223B						By: FAS		
BT09210	BT.2009.333.9		E. coli, MMO/MUG	Absent	N/A	1	0		06-18-09	06-19-09
BT09210	BT.2009.333.9		Total Coliform, MMO/MUG	Present	N/A	1	0		06-18-09	06-19-09

Sample: ***0906385-08A POND 8*** Collected: *06-18-09 8:35:00* By:
Matrix: ***AQUEOUS*** *SR5007*

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09060457-008A		SM-9223B						By: FAS		
BT09210	BT.2009.333.10		E. coli, MMO/MUG	Absent	N/A	1	0		06-18-09	06-19-09
BT09210	BT.2009.333.10		Total Coliform, MMO/MUG	Present	N/A	1	0		06-18-09	06-19-09

ARS Analytical, LLC

Certificate of Analysis

All samples are reported on an "as received" basis, unless otherwise noted (i.e. - Dry Weight).

Client: **HALL ENVIRONMENTAL**

Project: **0906385**

Order: **09060457** **HAL03** Receipt: **06-18-09**

Unless otherwise noted, all samples were received in acceptable condition and all sampling was performed by client or client representative. Sample result of ND indicates Not Detected, ie result is less than the sample specific Detection Limit. Sample specific Detection Limit is determined by multiplying the sample Dilution Factor by the listed Reporting Detection Limit. All results relate only to the items tested. Any miscellaneous workorder information or foonotes will appear below.

Analytical results are not corrected for method blank or field blank contamination.

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name WESTERN REFINING GALLU | Date Received: 6/18/2009

Work Order Number 0906385 | Received by: AT

Sample ID labels checked by: AT | AS (Initials)

Checklist completed by: _____ (Signature) 6/18/09 (Date)

Matrix: | Carrier name: Client drop-off

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐				
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☐	Not Shipped ☑			
Custody seals intact on sample bottles?	Yes ☑	No ☐	N/A ☐				
Chain of custody present?	Yes ☑	No ☐					
Chain of custody signed when relinquished and received?	Yes ☑	No ☐					
Chain of custody agrees with sample labels?	Yes ☑	No ☐					
Samples in proper container/bottle?	Yes ☑	No ☐					
Sample containers intact?	Yes ☑	No ☐					
Sufficient sample volume for indicated test?	Yes ☑	No ☐					
All samples received within holding time?	Yes ☑	No ☐					
Water - VOA vials have zero headspace? No VOA vials submitted ☑		Yes ☐	No ☐				
Water - Preservation labels on bottle and cap match?	Yes ☐	No ☐	N/A ☑				
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑				
Container/Temp Blank temperature?	**1.9°**	*<6° C Acceptable* If given sufficient time to cool.					

Number of preserved bottles checked for pH: _____

<2 >12 unless noted below.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

Chain-of-Custody Record

Client: Western Refining
Gallup Refinery
Mailing Address: Rt 3 Box 7
Gallup NM 87301
Phone #:
email or Fax#:
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: 2009 Annual Pond Sampling
Project #: Ponds 1-8
Project Manager: G. Rajen
Sampler: Cheryl Johnson
On Ice: ☒ Yes ☐ No
Sample Temperature: 17°

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. 0906385	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	E-Coli Bacteria	Air Bubbles (Y or N)
9/18/09	0800	H2O	Pond 1	120ml	None	-1												X	
	0805		Pond 2			-2													
	0810		Pond 3			-3													
	0815		Pond 4			-4													
	0820		Pond 5			-5													
	0825		Pond 6			-6													
	0830		Pond 7			-7													
	0835		Pond 8			-8													

Date:	Time:	Relinquished by:	Received by:	Date	Time
9/18/09	1200			9/18/09	1200
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

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

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Tuesday, July 28, 2009

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

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

RE: 2009 Annual BW Sampling

Order No.: 0907192

Dear Gaurav Rajen:

Hall Environmental Analysis Laboratory, Inc. received 7 sample(s) on 7/10/2009 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

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

CLIENT: Western Refining Southwest, Gallup
Project: 2009 Annual BW Sampling
Lab Order: 0907192

CASE NARRATIVE

Analytical Comments for METHOD 8260_W, SAMPLE 0907192-04a: pH=5.0

Hall Environmental Analysis Laboratory, Inc.

Date: *28-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	BW-1C
Lab Order:	0907192	**Collection Date:**	7/6/2009 11:45:00 AM
Project:	2009 Annual BW Sampling	**Date Received:**	7/10/2009
Lab ID:	0907192-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 7470: MERCURY						Analyst: **MMS**
Mercury	ND	0.00020		mg/L	1	7/17/2009 5:14:05 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **SNV**
Arsenic	ND	0.020		mg/L	1	7/19/2009 9:17:11 PM
Barium	ND	0.020		mg/L	1	7/19/2009 9:17:11 PM
Cadmium	ND	0.0020		mg/L	1	7/19/2009 9:17:11 PM
Chromium	ND	0.0060		mg/L	1	7/19/2009 9:17:11 PM
Copper	ND	0.0060		mg/L	1	7/19/2009 9:17:11 PM
Iron	ND	0.050		mg/L	1	7/19/2009 9:17:11 PM
Lead	ND	0.0050		mg/L	1	7/19/2009 9:17:11 PM
Magnesium	ND	1.0		mg/L	1	7/19/2009 9:17:11 PM
Manganese	0.0027	0.0020		mg/L	1	7/19/2009 9:17:11 PM
Potassium	ND	1.0		mg/L	1	7/19/2009 9:17:11 PM
Selenium	ND	0.050		mg/L	1	7/19/2009 9:17:11 PM
Silver	ND	0.0050		mg/L	1	7/19/2009 9:17:11 PM
Zinc	ND	0.050		mg/L	1	7/19/2009 9:17:11 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	7/15/2009
Acenaphthylene	ND	10		µg/L	1	7/15/2009
Aniline	ND	10		µg/L	1	7/15/2009
Anthracene	ND	10		µg/L	1	7/15/2009
Azobenzene	ND	10		µg/L	1	7/15/2009
Benz(a)anthracene	ND	10		µg/L	1	7/15/2009
Benzo(a)pyrene	ND	10		µg/L	1	7/15/2009
Benzo(b)fluoranthene	ND	10		µg/L	1	7/15/2009
Benzo(g,h,i)perylene	ND	10		µg/L	1	7/15/2009
Benzo(k)fluoranthene	ND	10		µg/L	1	7/15/2009
Benzoic acid	ND	20		µg/L	1	7/15/2009
Benzyl alcohol	ND	10		µg/L	1	7/15/2009
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	7/15/2009
Bis(2-chloroethyl)ether	ND	10		µg/L	1	7/15/2009
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	7/15/2009
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	7/15/2009
4-Bromophenyl phenyl ether	ND	10		µg/L	1	7/15/2009
Butyl benzyl phthalate	ND	10		µg/L	1	7/15/2009
Carbazole	ND	10		µg/L	1	7/15/2009
4-Chloro-3-methylphenol	ND	10		µg/L	1	7/15/2009
4-Chloroaniline	ND	10		µg/L	1	7/15/2009
2-Chloronaphthalene	ND	10		µg/L	1	7/15/2009
2-Chlorophenol	ND	10		µg/L	1	7/15/2009
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	7/15/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *28-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	BW-1C
Lab Order:	0907192	**Collection Date:**	7/6/2009 11:45:00 AM
Project:	2009 Annual BW Sampling	**Date Received:**	7/10/2009
Lab ID:	0907192-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Chrysene	ND	10		µg/L	1	7/15/2009
Di-n-butyl phthalate	ND	10		µg/L	1	7/15/2009
Di-n-octyl phthalate	ND	10		µg/L	1	7/15/2009
Dibenz(a,h)anthracene	ND	10		µg/L	1	7/15/2009
Dibenzofuran	ND	10		µg/L	1	7/15/2009
1,2-Dichlorobenzene	ND	10		µg/L	1	7/15/2009
1,3-Dichlorobenzene	ND	10		µg/L	1	7/15/2009
1,4-Dichlorobenzene	ND	10		µg/L	1	7/15/2009
3,3'-Dichlorobenzidine	ND	10		µg/L	1	7/15/2009
Diethyl phthalate	ND	10		µg/L	1	7/15/2009
Dimethyl phthalate	ND	10		µg/L	1	7/15/2009
2,4-Dichlorophenol	ND	20		µg/L	1	7/15/2009
2,4-Dimethylphenol	ND	10		µg/L	1	7/15/2009
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	7/15/2009
2,4-Dinitrophenol	ND	20		µg/L	1	7/15/2009
2,4-Dinitrotoluene	ND	10		µg/L	1	7/15/2009
2,6-Dinitrotoluene	ND	10		µg/L	1	7/15/2009
Fluoranthene	ND	10		µg/L	1	7/15/2009
Fluorene	ND	10		µg/L	1	7/15/2009
Hexachlorobenzene	ND	10		µg/L	1	7/15/2009
Hexachlorobutadiene	ND	10		µg/L	1	7/15/2009
Hexachlorocyclopentadiene	ND	10		µg/L	1	7/15/2009
Hexachloroethane	ND	10		µg/L	1	7/15/2009
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	7/15/2009
Isophorone	ND	10		µg/L	1	7/15/2009
2-Methylnaphthalene	ND	10		µg/L	1	7/15/2009
2-Methylphenol	ND	10		µg/L	1	7/15/2009
3+4-Methylphenol	ND	10		µg/L	1	7/15/2009
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	7/15/2009
N-Nitrosodimethylamine	ND	10		µg/L	1	7/15/2009
N-Nitrosodiphenylamine	ND	10		µg/L	1	7/15/2009
Naphthalene	ND	10		µg/L	1	7/15/2009
2-Nitroaniline	ND	10		µg/L	1	7/15/2009
3-Nitroaniline	ND	10		µg/L	1	7/15/2009
4-Nitroaniline	ND	10		µg/L	1	7/15/2009
Nitrobenzene	ND	10		µg/L	1	7/15/2009
2-Nitrophenol	ND	10		µg/L	1	7/15/2009
4-Nitrophenol	ND	10		µg/L	1	7/15/2009
Pentachlorophenol	ND	20		µg/L	1	7/15/2009
Phenanthrene	ND	10		µg/L	1	7/15/2009
Phenol	ND	10		µg/L	1	7/15/2009
Pyrene	ND	10		µg/L	1	7/15/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *28-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	BW-1C
Lab Order:	0907192	**Collection Date:**	7/6/2009 11:45:00 AM
Project:	2009 Annual BW Sampling	**Date Received:**	7/10/2009
Lab ID:	0907192-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Pyridine	ND	10		µg/L	1	7/15/2009
1,2,4-Trichlorobenzene	ND	10		µg/L	1	7/15/2009
2,4,5-Trichlorophenol	ND	10		µg/L	1	7/15/2009
2,4,6-Trichlorophenol	ND	10		µg/L	1	7/15/2009
Surr: 2,4,6-Tribromophenol	76.5	16.6-150		%REC	1	7/15/2009
Surr: 2-Fluorobiphenyl	67.6	19.6-134		%REC	1	7/15/2009
Surr: 2-Fluorophenol	55.0	9.54-113		%REC	1	7/15/2009
Surr: 4-Terphenyl-d14	75.9	22.7-145		%REC	1	7/15/2009
Surr: Nitrobenzene-d5	75.2	14.6-134		%REC	1	7/15/2009
Surr: Phenol-d5	39.2	10.7-80.3		%REC	1	7/15/2009
EPA METHOD 8260B: VOLATILES						Analyst: HL
Benzene	ND	1.0		µg/L	1	7/13/2009 11:07:19 PM
Toluene	ND	1.0		µg/L	1	7/13/2009 11:07:19 PM
Ethylbenzene	ND	1.0		µg/L	1	7/13/2009 11:07:19 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	7/13/2009 11:07:19 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	7/13/2009 11:07:19 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	7/13/2009 11:07:19 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	7/13/2009 11:07:19 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/13/2009 11:07:19 PM
Naphthalene	ND	2.0		µg/L	1	7/13/2009 11:07:19 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	7/13/2009 11:07:19 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	7/13/2009 11:07:19 PM
Acetone	ND	10		µg/L	1	7/13/2009 11:07:19 PM
Bromobenzene	ND	1.0		µg/L	1	7/13/2009 11:07:19 PM
Bromodichloromethane	ND	1.0		µg/L	1	7/13/2009 11:07:19 PM
Bromoform	ND	1.0		µg/L	1	7/13/2009 11:07:19 PM
Bromomethane	ND	1.0		µg/L	1	7/13/2009 11:07:19 PM
2-Butanone	ND	10		µg/L	1	7/13/2009 11:07:19 PM
Carbon disulfide	ND	10		µg/L	1	7/13/2009 11:07:19 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	7/13/2009 11:07:19 PM
Chlorobenzene	ND	1.0		µg/L	1	7/13/2009 11:07:19 PM
Chloroethane	ND	2.0		µg/L	1	7/13/2009 11:07:19 PM
Chloroform	ND	1.0		µg/L	1	7/13/2009 11:07:19 PM
Chloromethane	ND	1.0		µg/L	1	7/13/2009 11:07:19 PM
2-Chlorotoluene	ND	1.0		µg/L	1	7/13/2009 11:07:19 PM
4-Chlorotoluene	ND	1.0		µg/L	1	7/13/2009 11:07:19 PM
cis-1,2-DCE	ND	1.0		µg/L	1	7/13/2009 11:07:19 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/13/2009 11:07:19 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/13/2009 11:07:19 PM
Dibromochloromethane	ND	1.0		µg/L	1	7/13/2009 11:07:19 PM
Dibromomethane	ND	1.0		µg/L	1	7/13/2009 11:07:19 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *28-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	BW-1C
Lab Order:	0907192	**Collection Date:**	7/6/2009 11:45:00 AM
Project:	2009 Annual BW Sampling	**Date Received:**	7/10/2009
Lab ID:	0907192-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
1,2-Dichlorobenzene	ND	1.0		µg/L	1	7/13/2009 11:07:19 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	7/13/2009 11:07:19 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/13/2009 11:07:19 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/13/2009 11:07:19 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	7/13/2009 11:07:19 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	7/13/2009 11:07:19 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	7/13/2009 11:07:19 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	7/13/2009 11:07:19 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	7/13/2009 11:07:19 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	7/13/2009 11:07:19 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	7/13/2009 11:07:19 PM
2-Hexanone	ND	10		µg/L	1	7/13/2009 11:07:19 PM
Isopropylbenzene	ND	1.0		µg/L	1	7/13/2009 11:07:19 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	7/13/2009 11:07:19 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/13/2009 11:07:19 PM
Methylene Chloride	ND	3.0		µg/L	1	7/13/2009 11:07:19 PM
n-Butylbenzene	ND	1.0		µg/L	1	7/13/2009 11:07:19 PM
n-Propylbenzene	ND	1.0		µg/L	1	7/13/2009 11:07:19 PM
sec-Butylbenzene	ND	1.0		µg/L	1	7/13/2009 11:07:19 PM
Styrene	ND	1.0		µg/L	1	7/13/2009 11:07:19 PM
tert-Butylbenzene	ND	1.0		µg/L	1	7/13/2009 11:07:19 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	7/13/2009 11:07:19 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	7/13/2009 11:07:19 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	7/13/2009 11:07:19 PM
trans-1,2-DCE	ND	1.0		µg/L	1	7/13/2009 11:07:19 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/13/2009 11:07:19 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/13/2009 11:07:19 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/13/2009 11:07:19 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/13/2009 11:07:19 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/13/2009 11:07:19 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	7/13/2009 11:07:19 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	7/13/2009 11:07:19 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/13/2009 11:07:19 PM
Vinyl chloride	ND	1.0		µg/L	1	7/13/2009 11:07:19 PM
Xylenes, Total	ND	1.5		µg/L	1	7/13/2009 11:07:19 PM
Surr: 1,2-Dichloroethane-d4	108	68.1-123		%REC	1	7/13/2009 11:07:19 PM
Surr: 4-Bromofluorobenzene	105	53.2-145		%REC	1	7/13/2009 11:07:19 PM
Surr: Dibromofluoromethane	118	68.5-119		%REC	1	7/13/2009 11:07:19 PM
Surr: Toluene-d8	114	64-131		%REC	1	7/13/2009 11:07:19 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *28-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	BW-2B
Lab Order:	0907192	**Collection Date:**	7/6/2009 1:42:00 PM
Project:	2009 Annual BW Sampling	**Date Received:**	7/10/2009
Lab ID:	0907192-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 7470: MERCURY						Analyst: **MMS**
Mercury	ND	0.00020		mg/L	1	7/17/2009 5:15:56 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **SNV**
Arsenic	ND	0.020		mg/L	1	7/19/2009 9:34:13 PM
Barium	0.099	0.020		mg/L	1	7/19/2009 9:34:13 PM
Cadmium	ND	0.0020		mg/L	1	7/19/2009 9:34:13 PM
Chromium	ND	0.0060		mg/L	1	7/19/2009 9:34:13 PM
Copper	ND	0.0060		mg/L	1	7/19/2009 9:34:13 PM
Iron	1.8	0.25		mg/L	5	7/19/2009 10:27:24 PM
Lead	ND	0.0050		mg/L	1	7/19/2009 9:34:13 PM
Magnesium	4.1	1.0		mg/L	1	7/19/2009 9:34:13 PM
Manganese	0.47	0.0020		mg/L	1	7/19/2009 9:34:13 PM
Potassium	1.8	1.0		mg/L	1	7/19/2009 9:34:13 PM
Selenium	ND	0.050		mg/L	1	7/19/2009 9:34:13 PM
Silver	ND	0.0050		mg/L	1	7/19/2009 9:34:13 PM
Zinc	ND	0.050		mg/L	1	7/19/2009 9:34:13 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	7/15/2009
Acenaphthylene	ND	10		µg/L	1	7/15/2009
Aniline	ND	10		µg/L	1	7/15/2009
Anthracene	ND	10		µg/L	1	7/15/2009
Azobenzene	ND	10		µg/L	1	7/15/2009
Benz(a)anthracene	ND	10		µg/L	1	7/15/2009
Benzo(a)pyrene	ND	10		µg/L	1	7/15/2009
Benzo(b)fluoranthene	ND	10		µg/L	1	7/15/2009
Benzo(g,h,i)perylene	ND	10		µg/L	1	7/15/2009
Benzo(k)fluoranthene	ND	10		µg/L	1	7/15/2009
Benzoic acid	ND	20		µg/L	1	7/15/2009
Benzyl alcohol	ND	10		µg/L	1	7/15/2009
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	7/15/2009
Bis(2-chloroethyl)ether	ND	10		µg/L	1	7/15/2009
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	7/15/2009
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	7/15/2009
4-Bromophenyl phenyl ether	ND	10		µg/L	1	7/15/2009
Butyl benzyl phthalate	ND	10		µg/L	1	7/15/2009
Carbazole	ND	10		µg/L	1	7/15/2009
4-Chloro-3-methylphenol	ND	10		µg/L	1	7/15/2009
4-Chloroaniline	ND	10		µg/L	1	7/15/2009
2-Chloronaphthalene	ND	10		µg/L	1	7/15/2009
2-Chlorophenol	ND	10		µg/L	1	7/15/2009
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	7/15/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *28-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	BW-2B
Lab Order:	0907192	**Collection Date:**	7/6/2009 1:42:00 PM
Project:	2009 Annual BW Sampling	**Date Received:**	7/10/2009
Lab ID:	0907192-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Chrysene	ND	10		µg/L	1	7/15/2009
Di-n-butyl phthalate	ND	10		µg/L	1	7/15/2009
Di-n-octyl phthalate	ND	10		µg/L	1	7/15/2009
Dibenz(a,h)anthracene	ND	10		µg/L	1	7/15/2009
Dibenzofuran	ND	10		µg/L	1	7/15/2009
1,2-Dichlorobenzene	ND	10		µg/L	1	7/15/2009
1,3-Dichlorobenzene	ND	10		µg/L	1	7/15/2009
1,4-Dichlorobenzene	ND	10		µg/L	1	7/15/2009
3,3'-Dichlorobenzidine	ND	10		µg/L	1	7/15/2009
Diethyl phthalate	ND	10		µg/L	1	7/15/2009
Dimethyl phthalate	ND	10		µg/L	1	7/15/2009
2,4-Dichlorophenol	ND	20		µg/L	1	7/15/2009
2,4-Dimethylphenol	ND	10		µg/L	1	7/15/2009
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	7/15/2009
2,4-Dinitrophenol	ND	20		µg/L	1	7/15/2009
2,4-Dinitrotoluene	ND	10		µg/L	1	7/15/2009
2,6-Dinitrotoluene	ND	10		µg/L	1	7/15/2009
Fluoranthene	ND	10		µg/L	1	7/15/2009
Fluorene	ND	10		µg/L	1	7/15/2009
Hexachlorobenzene	ND	10		µg/L	1	7/15/2009
Hexachlorobutadiene	ND	10		µg/L	1	7/15/2009
Hexachlorocyclopentadiene	ND	10		µg/L	1	7/15/2009
Hexachloroethane	ND	10		µg/L	1	7/15/2009
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	7/15/2009
Isophorone	ND	10		µg/L	1	7/15/2009
2-Methylnaphthalene	ND	10		µg/L	1	7/15/2009
2-Methylphenol	ND	10		µg/L	1	7/15/2009
3+4-Methylphenol	ND	10		µg/L	1	7/15/2009
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	7/15/2009
N-Nitrosodimethylamine	ND	10		µg/L	1	7/15/2009
N-Nitrosodiphenylamine	ND	10		µg/L	1	7/15/2009
Naphthalene	ND	10		µg/L	1	7/15/2009
2-Nitroaniline	ND	10		µg/L	1	7/15/2009
3-Nitroaniline	ND	10		µg/L	1	7/15/2009
4-Nitroaniline	ND	10		µg/L	1	7/15/2009
Nitrobenzene	ND	10		µg/L	1	7/15/2009
2-Nitrophenol	ND	10		µg/L	1	7/15/2009
4-Nitrophenol	ND	10		µg/L	1	7/15/2009
Pentachlorophenol	ND	20		µg/L	1	7/15/2009
Phenanthrene	ND	10		µg/L	1	7/15/2009
Phenol	ND	10		µg/L	1	7/15/2009
Pyrene	ND	10		µg/L	1	7/15/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *28-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	BW-2B
Lab Order:	0907192	**Collection Date:**	7/6/2009 1:42:00 PM
Project:	2009 Annual BW Sampling	**Date Received:**	7/10/2009
Lab ID:	0907192-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Pyridine	ND	10		µg/L	1	7/15/2009
1,2,4-Trichlorobenzene	ND	10		µg/L	1	7/15/2009
2,4,5-Trichlorophenol	ND	10		µg/L	1	7/15/2009
2,4,6-Trichlorophenol	ND	10		µg/L	1	7/15/2009
Surr: 2,4,6-Tribromophenol	81.6	16.6-150		%REC	1	7/15/2009
Surr: 2-Fluorobiphenyl	77.3	19.6-134		%REC	1	7/15/2009
Surr: 2-Fluorophenol	52.2	9.54-113		%REC	1	7/15/2009
Surr: 4-Terphenyl-d14	76.9	22.7-145		%REC	1	7/15/2009
Surr: Nitrobenzene-d5	80.7	14.6-134		%REC	1	7/15/2009
Surr: Phenol-d5	35.8	10.7-80.3		%REC	1	7/15/2009
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
Benzene	ND	1.0		µg/L	1	7/13/2009 11:36:27 PM
Toluene	ND	1.0		µg/L	1	7/13/2009 11:36:27 PM
Ethylbenzene	ND	1.0		µg/L	1	7/13/2009 11:36:27 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	7/13/2009 11:36:27 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	7/13/2009 11:36:27 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	7/13/2009 11:36:27 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	7/13/2009 11:36:27 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/13/2009 11:36:27 PM
Naphthalene	ND	2.0		µg/L	1	7/13/2009 11:36:27 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	7/13/2009 11:36:27 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	7/13/2009 11:36:27 PM
Acetone	ND	10		µg/L	1	7/13/2009 11:36:27 PM
Bromobenzene	ND	1.0		µg/L	1	7/13/2009 11:36:27 PM
Bromodichloromethane	ND	1.0		µg/L	1	7/13/2009 11:36:27 PM
Bromoform	ND	1.0		µg/L	1	7/13/2009 11:36:27 PM
Bromomethane	ND	1.0		µg/L	1	7/13/2009 11:36:27 PM
2-Butanone	ND	10		µg/L	1	7/13/2009 11:36:27 PM
Carbon disulfide	ND	10		µg/L	1	7/13/2009 11:36:27 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	7/13/2009 11:36:27 PM
Chlorobenzene	ND	1.0		µg/L	1	7/13/2009 11:36:27 PM
Chloroethane	ND	2.0		µg/L	1	7/13/2009 11:36:27 PM
Chloroform	ND	1.0		µg/L	1	7/13/2009 11:36:27 PM
Chloromethane	ND	1.0		µg/L	1	7/13/2009 11:36:27 PM
2-Chlorotoluene	ND	1.0		µg/L	1	7/13/2009 11:36:27 PM
4-Chlorotoluene	ND	1.0		µg/L	1	7/13/2009 11:36:27 PM
cis-1,2-DCE	ND	1.0		µg/L	1	7/13/2009 11:36:27 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/13/2009 11:36:27 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/13/2009 11:36:27 PM
Dibromochloromethane	ND	1.0		µg/L	1	7/13/2009 11:36:27 PM
Dibromomethane	ND	1.0		µg/L	1	7/13/2009 11:36:27 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *28-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	BW-2B
Lab Order:	0907192	**Collection Date:**	7/6/2009 1:42:00 PM
Project:	2009 Annual BW Sampling	**Date Received:**	7/10/2009
Lab ID:	0907192-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
1,2-Dichlorobenzene	ND	1.0		µg/L	1	7/13/2009 11:36:27 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	7/13/2009 11:36:27 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/13/2009 11:36:27 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/13/2009 11:36:27 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	7/13/2009 11:36:27 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	7/13/2009 11:36:27 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	7/13/2009 11:36:27 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	7/13/2009 11:36:27 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	7/13/2009 11:36:27 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	7/13/2009 11:36:27 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	7/13/2009 11:36:27 PM
2-Hexanone	ND	10		µg/L	1	7/13/2009 11:36:27 PM
Isopropylbenzene	ND	1.0		µg/L	1	7/13/2009 11:36:27 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	7/13/2009 11:36:27 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/13/2009 11:36:27 PM
Methylene Chloride	ND	3.0		µg/L	1	7/13/2009 11:36:27 PM
n-Butylbenzene	ND	1.0		µg/L	1	7/13/2009 11:36:27 PM
n-Propylbenzene	ND	1.0		µg/L	1	7/13/2009 11:36:27 PM
sec-Butylbenzene	ND	1.0		µg/L	1	7/13/2009 11:36:27 PM
Styrene	ND	1.0		µg/L	1	7/13/2009 11:36:27 PM
tert-Butylbenzene	ND	1.0		µg/L	1	7/13/2009 11:36:27 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	7/13/2009 11:36:27 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	7/13/2009 11:36:27 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	7/13/2009 11:36:27 PM
trans-1,2-DCE	ND	1.0		µg/L	1	7/13/2009 11:36:27 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/13/2009 11:36:27 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/13/2009 11:36:27 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/13/2009 11:36:27 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/13/2009 11:36:27 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/13/2009 11:36:27 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	7/13/2009 11:36:27 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	7/13/2009 11:36:27 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/13/2009 11:36:27 PM
Vinyl chloride	ND	1.0		µg/L	1	7/13/2009 11:36:27 PM
Xylenes, Total	ND	1.5		µg/L	1	7/13/2009 11:36:27 PM
Surr: 1,2-Dichloroethane-d4	110	68.1-123		%REC	1	7/13/2009 11:36:27 PM
Surr: 4-Bromofluorobenzene	107	53.2-145		%REC	1	7/13/2009 11:36:27 PM
Surr: Dibromofluoromethane	112	68.5-119		%REC	1	7/13/2009 11:36:27 PM
Surr: Toluene-d8	104	64-131		%REC	1	7/13/2009 11:36:27 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *28-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	BW-2A
Lab Order:	0907192	**Collection Date:**	7/6/2009 3:01:00 PM
Project:	2009 Annual BW Sampling	**Date Received:**	7/10/2009
Lab ID:	0907192-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 7470: MERCURY						Analyst: **MMS**
Mercury	ND	0.00020		mg/L	1	7/17/2009 5:21:30 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **SNV**
Arsenic	ND	0.020		mg/L	1	7/19/2009 9:38:11 PM
Barium	0.15	0.020		mg/L	1	7/19/2009 9:38:11 PM
Cadmium	ND	0.0020		mg/L	1	7/19/2009 9:38:11 PM
Chromium	ND	0.0060		mg/L	1	7/19/2009 9:38:11 PM
Copper	ND	0.0060		mg/L	1	7/19/2009 9:38:11 PM
Iron	0.50	0.050		mg/L	1	7/19/2009 9:38:11 PM
Lead	ND	0.0050		mg/L	1	7/19/2009 9:38:11 PM
Magnesium	3.4	1.0		mg/L	1	7/19/2009 9:38:11 PM
Manganese	0.15	0.0020		mg/L	1	7/19/2009 9:38:11 PM
Potassium	ND	1.0		mg/L	1	7/19/2009 9:38:11 PM
Selenium	ND	0.050		mg/L	1	7/19/2009 9:38:11 PM
Silver	ND	0.0050		mg/L	1	7/19/2009 9:38:11 PM
Zinc	ND	0.050		mg/L	1	7/19/2009 9:38:11 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	7/15/2009
Acenaphthylene	ND	10		µg/L	1	7/15/2009
Aniline	ND	10		µg/L	1	7/15/2009
Anthracene	ND	10		µg/L	1	7/15/2009
Azobenzene	ND	10		µg/L	1	7/15/2009
Benz(a)anthracene	ND	10		µg/L	1	7/15/2009
Benzo(a)pyrene	ND	10		µg/L	1	7/15/2009
Benzo(b)fluoranthene	ND	10		µg/L	1	7/15/2009
Benzo(g,h,i)perylene	ND	10		µg/L	1	7/15/2009
Benzo(k)fluoranthene	ND	10		µg/L	1	7/15/2009
Benzoic acid	ND	20		µg/L	1	7/15/2009
Benzyl alcohol	ND	10		µg/L	1	7/15/2009
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	7/15/2009
Bis(2-chloroethyl)ether	ND	10		µg/L	1	7/15/2009
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	7/15/2009
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	7/15/2009
4-Bromophenyl phenyl ether	ND	10		µg/L	1	7/15/2009
Butyl benzyl phthalate	ND	10		µg/L	1	7/15/2009
Carbazole	ND	10		µg/L	1	7/15/2009
4-Chloro-3-methylphenol	ND	10		µg/L	1	7/15/2009
4-Chloroaniline	ND	10		µg/L	1	7/15/2009
2-Chloronaphthalene	ND	10		µg/L	1	7/15/2009
2-Chlorophenol	ND	10		µg/L	1	7/15/2009
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	7/15/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *28-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	BW-2A
Lab Order:	0907192	**Collection Date:**	7/6/2009 3:01:00 PM
Project:	2009 Annual BW Sampling	**Date Received:**	7/10/2009
Lab ID:	0907192-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Chrysene	ND	10		µg/L	1	7/15/2009
Di-n-butyl phthalate	ND	10		µg/L	1	7/15/2009
Di-n-octyl phthalate	ND	10		µg/L	1	7/15/2009
Dibenz(a,h)anthracene	ND	10		µg/L	1	7/15/2009
Dibenzofuran	ND	10		µg/L	1	7/15/2009
1,2-Dichlorobenzene	ND	10		µg/L	1	7/15/2009
1,3-Dichlorobenzene	ND	10		µg/L	1	7/15/2009
1,4-Dichlorobenzene	ND	10		µg/L	1	7/15/2009
3,3'-Dichlorobenzidine	ND	10		µg/L	1	7/15/2009
Diethyl phthalate	ND	10		µg/L	1	7/15/2009
Dimethyl phthalate	ND	10		µg/L	1	7/15/2009
2,4-Dichlorophenol	ND	20		µg/L	1	7/15/2009
2,4-Dimethylphenol	ND	10		µg/L	1	7/15/2009
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	7/15/2009
2,4-Dinitrophenol	ND	20		µg/L	1	7/15/2009
2,4-Dinitrotoluene	ND	10		µg/L	1	7/15/2009
2,6-Dinitrotoluene	ND	10		µg/L	1	7/15/2009
Fluoranthene	ND	10		µg/L	1	7/15/2009
Fluorene	ND	10		µg/L	1	7/15/2009
Hexachlorobenzene	ND	10		µg/L	1	7/15/2009
Hexachlorobutadiene	ND	10		µg/L	1	7/15/2009
Hexachlorocyclopentadiene	ND	10		µg/L	1	7/15/2009
Hexachloroethane	ND	10		µg/L	1	7/15/2009
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	7/15/2009
Isophorone	ND	10		µg/L	1	7/15/2009
2-Methylnaphthalene	ND	10		µg/L	1	7/15/2009
2-Methylphenol	ND	10		µg/L	1	7/15/2009
3+4-Methylphenol	ND	10		µg/L	1	7/15/2009
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	7/15/2009
N-Nitrosodimethylamine	ND	10		µg/L	1	7/15/2009
N-Nitrosodiphenylamine	ND	10		µg/L	1	7/15/2009
Naphthalene	ND	10		µg/L	1	7/15/2009
2-Nitroaniline	ND	10		µg/L	1	7/15/2009
3-Nitroaniline	ND	10		µg/L	1	7/15/2009
4-Nitroaniline	ND	10		µg/L	1	7/15/2009
Nitrobenzene	ND	10		µg/L	1	7/15/2009
2-Nitrophenol	ND	10		µg/L	1	7/15/2009
4-Nitrophenol	ND	10		µg/L	1	7/15/2009
Pentachlorophenol	ND	20		µg/L	1	7/15/2009
Phenanthrene	ND	10		µg/L	1	7/15/2009
Phenol	ND	10		µg/L	1	7/15/2009
Pyrene	ND	10		µg/L	1	7/15/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *28-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	BW-2A
Lab Order:	0907192	**Collection Date:**	7/6/2009 3:01:00 PM
Project:	2009 Annual BW Sampling	**Date Received:**	7/10/2009
Lab ID:	0907192-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Pyridine	ND	10		µg/L	1	7/15/2009
1,2,4-Trichlorobenzene	ND	10		µg/L	1	7/15/2009
2,4,5-Trichlorophenol	ND	10		µg/L	1	7/15/2009
2,4,6-Trichlorophenol	ND	10		µg/L	1	7/15/2009
Surr: 2,4,6-Tribromophenol	58.1	16.6-150		%REC	1	7/15/2009
Surr: 2-Fluorobiphenyl	41.1	19.6-134		%REC	1	7/15/2009
Surr: 2-Fluorophenol	27.5	9.54-113		%REC	1	7/15/2009
Surr: 4-Terphenyl-d14	54.0	22.7-145		%REC	1	7/15/2009
Surr: Nitrobenzene-d5	41.1	14.6-134		%REC	1	7/15/2009
Surr: Phenol-d5	18.9	10.7-80.3		%REC	1	7/15/2009
EPA METHOD 8260B: VOLATILES						Analyst: HL
Benzene	ND	1.0		µg/L	1	7/14/2009 12:05:24 AM
Toluene	ND	1.0		µg/L	1	7/14/2009 12:05:24 AM
Ethylbenzene	ND	1.0		µg/L	1	7/14/2009 12:05:24 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	7/14/2009 12:05:24 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	7/14/2009 12:05:24 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	7/14/2009 12:05:24 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	7/14/2009 12:05:24 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/14/2009 12:05:24 AM
Naphthalene	ND	2.0		µg/L	1	7/14/2009 12:05:24 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	7/14/2009 12:05:24 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	7/14/2009 12:05:24 AM
Acetone	ND	10		µg/L	1	7/14/2009 12:05:24 AM
Bromobenzene	ND	1.0		µg/L	1	7/14/2009 12:05:24 AM
Bromodichloromethane	ND	1.0		µg/L	1	7/14/2009 12:05:24 AM
Bromoform	ND	1.0		µg/L	1	7/14/2009 12:05:24 AM
Bromomethane	ND	1.0		µg/L	1	7/14/2009 12:05:24 AM
2-Butanone	ND	10		µg/L	1	7/14/2009 12:05:24 AM
Carbon disulfide	ND	10		µg/L	1	7/14/2009 12:05:24 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	7/14/2009 12:05:24 AM
Chlorobenzene	ND	1.0		µg/L	1	7/14/2009 12:05:24 AM
Chloroethane	ND	2.0		µg/L	1	7/14/2009 12:05:24 AM
Chloroform	ND	1.0		µg/L	1	7/14/2009 12:05:24 AM
Chloromethane	ND	1.0		µg/L	1	7/14/2009 12:05:24 AM
2-Chlorotoluene	ND	1.0		µg/L	1	7/14/2009 12:05:24 AM
4-Chlorotoluene	ND	1.0		µg/L	1	7/14/2009 12:05:24 AM
cis-1,2-DCE	ND	1.0		µg/L	1	7/14/2009 12:05:24 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/14/2009 12:05:24 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/14/2009 12:05:24 AM
Dibromochloromethane	ND	1.0		µg/L	1	7/14/2009 12:05:24 AM
Dibromomethane	ND	1.0		µg/L	1	7/14/2009 12:05:24 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *28-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	BW-2A
Lab Order:	0907192	**Collection Date:**	7/6/2009 3:01:00 PM
Project:	2009 Annual BW Sampling	**Date Received:**	7/10/2009
Lab ID:	0907192-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
1,2-Dichlorobenzene	ND	1.0		µg/L	1	7/14/2009 12:05:24 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	7/14/2009 12:05:24 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/14/2009 12:05:24 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/14/2009 12:05:24 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	7/14/2009 12:05:24 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	7/14/2009 12:05:24 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	7/14/2009 12:05:24 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	7/14/2009 12:05:24 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	7/14/2009 12:05:24 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	7/14/2009 12:05:24 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	7/14/2009 12:05:24 AM
2-Hexanone	ND	10		µg/L	1	7/14/2009 12:05:24 AM
Isopropylbenzene	ND	1.0		µg/L	1	7/14/2009 12:05:24 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	7/14/2009 12:05:24 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/14/2009 12:05:24 AM
Methylene Chloride	ND	3.0		µg/L	1	7/14/2009 12:05:24 AM
n-Butylbenzene	ND	1.0		µg/L	1	7/14/2009 12:05:24 AM
n-Propylbenzene	ND	1.0		µg/L	1	7/14/2009 12:05:24 AM
sec-Butylbenzene	ND	1.0		µg/L	1	7/14/2009 12:05:24 AM
Styrene	ND	1.0		µg/L	1	7/14/2009 12:05:24 AM
tert-Butylbenzene	ND	1.0		µg/L	1	7/14/2009 12:05:24 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	7/14/2009 12:05:24 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	7/14/2009 12:05:24 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	7/14/2009 12:05:24 AM
trans-1,2-DCE	ND	1.0		µg/L	1	7/14/2009 12:05:24 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/14/2009 12:05:24 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/14/2009 12:05:24 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/14/2009 12:05:24 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/14/2009 12:05:24 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/14/2009 12:05:24 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	7/14/2009 12:05:24 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	7/14/2009 12:05:24 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/14/2009 12:05:24 AM
Vinyl chloride	ND	1.0		µg/L	1	7/14/2009 12:05:24 AM
Xylenes, Total	ND	1.5		µg/L	1	7/14/2009 12:05:24 AM
Surr: 1,2-Dichloroethane-d4	110	68.1-123		%REC	1	7/14/2009 12:05:24 AM
Surr: 4-Bromofluorobenzene	105	53.2-145		%REC	1	7/14/2009 12:05:24 AM
Surr: Dibromofluoromethane	109	68.5-119		%REC	1	7/14/2009 12:05:24 AM
Surr: Toluene-d8	106	64-131		%REC	1	7/14/2009 12:05:24 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *28-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	Field Blank
Lab Order:	0907192	**Collection Date:**	7/6/2009 12:20:00 PM
Project:	2009 Annual BW Sampling	**Date Received:**	7/10/2009
Lab ID:	0907192-04	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Benzene	ND	1.0		µg/L	1	7/14/2009 12:34:29 AM
Toluene	ND	1.0		µg/L	1	7/14/2009 12:34:29 AM
Ethylbenzene	ND	1.0		µg/L	1	7/14/2009 12:34:29 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	7/14/2009 12:34:29 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	7/14/2009 12:34:29 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	7/14/2009 12:34:29 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	7/14/2009 12:34:29 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/14/2009 12:34:29 AM
Naphthalene	ND	2.0		µg/L	1	7/14/2009 12:34:29 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	7/14/2009 12:34:29 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	7/14/2009 12:34:29 AM
Acetone	ND	10		µg/L	1	7/14/2009 12:34:29 AM
Bromobenzene	ND	1.0		µg/L	1	7/14/2009 12:34:29 AM
Bromodichloromethane	ND	1.0		µg/L	1	7/14/2009 12:34:29 AM
Bromoform	ND	1.0		µg/L	1	7/14/2009 12:34:29 AM
Bromomethane	ND	1.0		µg/L	1	7/14/2009 12:34:29 AM
2-Butanone	ND	10		µg/L	1	7/14/2009 12:34:29 AM
Carbon disulfide	ND	10		µg/L	1	7/14/2009 12:34:29 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	7/14/2009 12:34:29 AM
Chlorobenzene	ND	1.0		µg/L	1	7/14/2009 12:34:29 AM
Chloroethane	ND	2.0		µg/L	1	7/14/2009 12:34:29 AM
Chloroform	ND	1.0		µg/L	1	7/14/2009 12:34:29 AM
Chloromethane	ND	1.0		µg/L	1	7/14/2009 12:34:29 AM
2-Chlorotoluene	ND	1.0		µg/L	1	7/14/2009 12:34:29 AM
4-Chlorotoluene	ND	1.0		µg/L	1	7/14/2009 12:34:29 AM
cis-1,2-DCE	ND	1.0		µg/L	1	7/14/2009 12:34:29 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/14/2009 12:34:29 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/14/2009 12:34:29 AM
Dibromochloromethane	ND	1.0		µg/L	1	7/14/2009 12:34:29 AM
Dibromomethane	ND	1.0		µg/L	1	7/14/2009 12:34:29 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	7/14/2009 12:34:29 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	7/14/2009 12:34:29 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/14/2009 12:34:29 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/14/2009 12:34:29 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	7/14/2009 12:34:29 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	7/14/2009 12:34:29 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	7/14/2009 12:34:29 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	7/14/2009 12:34:29 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	7/14/2009 12:34:29 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	7/14/2009 12:34:29 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	7/14/2009 12:34:29 AM
2-Hexanone	ND	10		µg/L	1	7/14/2009 12:34:29 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *28-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	Field Blank
Lab Order:	0907192	**Collection Date:**	7/6/2009 12:20:00 PM
Project:	2009 Annual BW Sampling	**Date Received:**	7/10/2009
Lab ID:	0907192-04	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Isopropylbenzene	ND	1.0		µg/L	1	7/14/2009 12:34:29 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	7/14/2009 12:34:29 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/14/2009 12:34:29 AM
Methylene Chloride	ND	3.0		µg/L	1	7/14/2009 12:34:29 AM
n-Butylbenzene	ND	1.0		µg/L	1	7/14/2009 12:34:29 AM
n-Propylbenzene	ND	1.0		µg/L	1	7/14/2009 12:34:29 AM
sec-Butylbenzene	ND	1.0		µg/L	1	7/14/2009 12:34:29 AM
Styrene	ND	1.0		µg/L	1	7/14/2009 12:34:29 AM
tert-Butylbenzene	ND	1.0		µg/L	1	7/14/2009 12:34:29 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	7/14/2009 12:34:29 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	7/14/2009 12:34:29 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	7/14/2009 12:34:29 AM
trans-1,2-DCE	ND	1.0		µg/L	1	7/14/2009 12:34:29 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/14/2009 12:34:29 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/14/2009 12:34:29 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/14/2009 12:34:29 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/14/2009 12:34:29 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/14/2009 12:34:29 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	7/14/2009 12:34:29 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	7/14/2009 12:34:29 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/14/2009 12:34:29 AM
Vinyl chloride	ND	1.0		µg/L	1	7/14/2009 12:34:29 AM
Xylenes, Total	ND	1.5		µg/L	1	7/14/2009 12:34:29 AM
Surr: 1,2-Dichloroethane-d4	112	68.1-123		%REC	1	7/14/2009 12:34:29 AM
Surr: 4-Bromofluorobenzene	107	53.2-145		%REC	1	7/14/2009 12:34:29 AM
Surr: Dibromofluoromethane	106	68.5-119		%REC	1	7/14/2009 12:34:29 AM
Surr: Toluene-d8	107	64-131		%REC	1	7/14/2009 12:34:29 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *28-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	BW-2C
Lab Order:	0907192	**Collection Date:**	7/6/2009 12:31:00 PM
Project:	2009 Annual BW Sampling	**Date Received:**	7/10/2009
Lab ID:	0907192-05	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 7470: MERCURY						Analyst: **MMS**
Mercury	ND	0.00020		mg/L	1	7/17/2009 5:23:20 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **SNV**
Arsenic	ND	0.020		mg/L	1	7/19/2009 9:42:20 PM
Barium	0.078	0.020		mg/L	1	7/19/2009 9:42:20 PM
Cadmium	ND	0.0020		mg/L	1	7/19/2009 9:42:20 PM
Chromium	ND	0.0060		mg/L	1	7/19/2009 9:42:20 PM
Copper	ND	0.0060		mg/L	1	7/19/2009 9:42:20 PM
Iron	0.85	0.050		mg/L	1	7/19/2009 9:42:20 PM
Lead	ND	0.0050		mg/L	1	7/19/2009 9:42:20 PM
Magnesium	1.5	1.0		mg/L	1	7/19/2009 9:42:20 PM
Manganese	0.20	0.0020		mg/L	1	7/19/2009 9:42:20 PM
Potassium	1.1	1.0		mg/L	1	7/19/2009 9:42:20 PM
Selenium	ND	0.050		mg/L	1	7/19/2009 9:42:20 PM
Silver	ND	0.0050		mg/L	1	7/19/2009 9:42:20 PM
Zinc	ND	0.050		mg/L	1	7/19/2009 9:42:20 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	7/15/2009
Acenaphthylene	ND	10		µg/L	1	7/15/2009
Aniline	ND	10		µg/L	1	7/15/2009
Anthracene	ND	10		µg/L	1	7/15/2009
Azobenzene	ND	10		µg/L	1	7/15/2009
Benz(a)anthracene	ND	10		µg/L	1	7/15/2009
Benzo(a)pyrene	ND	10		µg/L	1	7/15/2009
Benzo(b)fluoranthene	ND	10		µg/L	1	7/15/2009
Benzo(g,h,i)perylene	ND	10		µg/L	1	7/15/2009
Benzo(k)fluoranthene	ND	10		µg/L	1	7/15/2009
Benzoic acid	ND	20		µg/L	1	7/15/2009
Benzyl alcohol	ND	10		µg/L	1	7/15/2009
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	7/15/2009
Bis(2-chloroethyl)ether	ND	10		µg/L	1	7/15/2009
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	7/15/2009
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	7/15/2009
4-Bromophenyl phenyl ether	ND	10		µg/L	1	7/15/2009
Butyl benzyl phthalate	ND	10		µg/L	1	7/15/2009
Carbazole	ND	10		µg/L	1	7/15/2009
4-Chloro-3-methylphenol	ND	10		µg/L	1	7/15/2009
4-Chloroaniline	ND	10		µg/L	1	7/15/2009
2-Chloronaphthalene	ND	10		µg/L	1	7/15/2009
2-Chlorophenol	ND	10		µg/L	1	7/15/2009
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	7/15/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *28-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	BW-2C
Lab Order:	0907192	**Collection Date:**	7/6/2009 12:31:00 PM
Project:	2009 Annual BW Sampling	**Date Received:**	7/10/2009
Lab ID:	0907192-05	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Chrysene	ND	10		µg/L	1	7/15/2009
Di-n-butyl phthalate	ND	10		µg/L	1	7/15/2009
Di-n-octyl phthalate	ND	10		µg/L	1	7/15/2009
Dibenz(a,h)anthracene	ND	10		µg/L	1	7/15/2009
Dibenzofuran	ND	10		µg/L	1	7/15/2009
1,2-Dichlorobenzene	ND	10		µg/L	1	7/15/2009
1,3-Dichlorobenzene	ND	10		µg/L	1	7/15/2009
1,4-Dichlorobenzene	ND	10		µg/L	1	7/15/2009
3,3'-Dichlorobenzidine	ND	10		µg/L	1	7/15/2009
Diethyl phthalate	ND	10		µg/L	1	7/15/2009
Dimethyl phthalate	ND	10		µg/L	1	7/15/2009
2,4-Dichlorophenol	ND	20		µg/L	1	7/15/2009
2,4-Dimethylphenol	ND	10		µg/L	1	7/15/2009
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	7/15/2009
2,4-Dinitrophenol	ND	20		µg/L	1	7/15/2009
2,4-Dinitrotoluene	ND	10		µg/L	1	7/15/2009
2,6-Dinitrotoluene	ND	10		µg/L	1	7/15/2009
Fluoranthene	ND	10		µg/L	1	7/15/2009
Fluorene	ND	10		µg/L	1	7/15/2009
Hexachlorobenzene	ND	10		µg/L	1	7/15/2009
Hexachlorobutadiene	ND	10		µg/L	1	7/15/2009
Hexachlorocyclopentadiene	ND	10		µg/L	1	7/15/2009
Hexachloroethane	ND	10		µg/L	1	7/15/2009
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	7/15/2009
Isophorone	ND	10		µg/L	1	7/15/2009
2-Methylnaphthalene	ND	10		µg/L	1	7/15/2009
2-Methylphenol	ND	10		µg/L	1	7/15/2009
3+4-Methylphenol	ND	10		µg/L	1	7/15/2009
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	7/15/2009
N-Nitrosodimethylamine	ND	10		µg/L	1	7/15/2009
N-Nitrosodiphenylamine	ND	10		µg/L	1	7/15/2009
Naphthalene	ND	10		µg/L	1	7/15/2009
2-Nitroaniline	ND	10		µg/L	1	7/15/2009
3-Nitroaniline	ND	10		µg/L	1	7/15/2009
4-Nitroaniline	ND	10		µg/L	1	7/15/2009
Nitrobenzene	ND	10		µg/L	1	7/15/2009
2-Nitrophenol	ND	10		µg/L	1	7/15/2009
4-Nitrophenol	ND	10		µg/L	1	7/15/2009
Pentachlorophenol	ND	20		µg/L	1	7/15/2009
Phenanthrene	ND	10		µg/L	1	7/15/2009
Phenol	ND	10		µg/L	1	7/15/2009
Pyrene	ND	10		µg/L	1	7/15/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *28-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	BW-2C
Lab Order:	0907192	**Collection Date:**	7/6/2009 12:31:00 PM
Project:	2009 Annual BW Sampling	**Date Received:**	7/10/2009
Lab ID:	0907192-05	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Pyridine	ND	10		µg/L	1	7/15/2009
1,2,4-Trichlorobenzene	ND	10		µg/L	1	7/15/2009
2,4,5-Trichlorophenol	ND	10		µg/L	1	7/15/2009
2,4,6-Trichlorophenol	ND	10		µg/L	1	7/15/2009
Surr: 2,4,6-Tribromophenol	58.1	16.6-150		%REC	1	7/15/2009
Surr: 2-Fluorobiphenyl	52.6	19.6-134		%REC	1	7/15/2009
Surr: 2-Fluorophenol	35.2	9.54-113		%REC	1	7/15/2009
Surr: 4-Terphenyl-d14	52.0	22.7-145		%REC	1	7/15/2009
Surr: Nitrobenzene-d5	51.1	14.6-134		%REC	1	7/15/2009
Surr: Phenol-d5	26.2	10.7-80.3		%REC	1	7/15/2009
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
Benzene	ND	1.0		µg/L	1	7/14/2009 1:03:47 AM
Toluene	ND	1.0		µg/L	1	7/14/2009 1:03:47 AM
Ethylbenzene	ND	1.0		µg/L	1	7/14/2009 1:03:47 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	7/14/2009 1:03:47 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	7/14/2009 1:03:47 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	7/14/2009 1:03:47 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	7/14/2009 1:03:47 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/14/2009 1:03:47 AM
Naphthalene	ND	2.0		µg/L	1	7/14/2009 1:03:47 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	7/14/2009 1:03:47 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	7/14/2009 1:03:47 AM
Acetone	ND	10		µg/L	1	7/14/2009 1:03:47 AM
Bromobenzene	ND	1.0		µg/L	1	7/14/2009 1:03:47 AM
Bromodichloromethane	ND	1.0		µg/L	1	7/14/2009 1:03:47 AM
Bromoform	ND	1.0		µg/L	1	7/14/2009 1:03:47 AM
Bromomethane	ND	1.0		µg/L	1	7/14/2009 1:03:47 AM
2-Butanone	ND	10		µg/L	1	7/14/2009 1:03:47 AM
Carbon disulfide	ND	10		µg/L	1	7/14/2009 1:03:47 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	7/14/2009 1:03:47 AM
Chlorobenzene	ND	1.0		µg/L	1	7/14/2009 1:03:47 AM
Chloroethane	ND	2.0		µg/L	1	7/14/2009 1:03:47 AM
Chloroform	ND	1.0		µg/L	1	7/14/2009 1:03:47 AM
Chloromethane	ND	1.0		µg/L	1	7/14/2009 1:03:47 AM
2-Chlorotoluene	ND	1.0		µg/L	1	7/14/2009 1:03:47 AM
4-Chlorotoluene	ND	1.0		µg/L	1	7/14/2009 1:03:47 AM
cis-1,2-DCE	ND	1.0		µg/L	1	7/14/2009 1:03:47 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/14/2009 1:03:47 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/14/2009 1:03:47 AM
Dibromochloromethane	ND	1.0		µg/L	1	7/14/2009 1:03:47 AM
Dibromomethane	ND	1.0		µg/L	1	7/14/2009 1:03:47 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *28-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	BW-2C
Lab Order:	0907192	**Collection Date:**	7/6/2009 12:31:00 PM
Project:	2009 Annual BW Sampling	**Date Received:**	7/10/2009
Lab ID:	0907192-05	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
1,2-Dichlorobenzene	ND	1.0		µg/L	1	7/14/2009 1:03:47 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	7/14/2009 1:03:47 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/14/2009 1:03:47 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/14/2009 1:03:47 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	7/14/2009 1:03:47 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	7/14/2009 1:03:47 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	7/14/2009 1:03:47 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	7/14/2009 1:03:47 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	7/14/2009 1:03:47 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	7/14/2009 1:03:47 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	7/14/2009 1:03:47 AM
2-Hexanone	ND	10		µg/L	1	7/14/2009 1:03:47 AM
Isopropylbenzene	ND	1.0		µg/L	1	7/14/2009 1:03:47 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	7/14/2009 1:03:47 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/14/2009 1:03:47 AM
Methylene Chloride	ND	3.0		µg/L	1	7/14/2009 1:03:47 AM
n-Butylbenzene	ND	1.0		µg/L	1	7/14/2009 1:03:47 AM
n-Propylbenzene	ND	1.0		µg/L	1	7/14/2009 1:03:47 AM
sec-Butylbenzene	ND	1.0		µg/L	1	7/14/2009 1:03:47 AM
Styrene	ND	1.0		µg/L	1	7/14/2009 1:03:47 AM
tert-Butylbenzene	ND	1.0		µg/L	1	7/14/2009 1:03:47 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	7/14/2009 1:03:47 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	7/14/2009 1:03:47 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	7/14/2009 1:03:47 AM
trans-1,2-DCE	ND	1.0		µg/L	1	7/14/2009 1:03:47 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/14/2009 1:03:47 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/14/2009 1:03:47 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/14/2009 1:03:47 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/14/2009 1:03:47 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/14/2009 1:03:47 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	7/14/2009 1:03:47 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	7/14/2009 1:03:47 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/14/2009 1:03:47 AM
Vinyl chloride	ND	1.0		µg/L	1	7/14/2009 1:03:47 AM
Xylenes, Total	ND	1.5		µg/L	1	7/14/2009 1:03:47 AM
Surr: 1,2-Dichloroethane-d4	113	68.1-123		%REC	1	7/14/2009 1:03:47 AM
Surr: 4-Bromofluorobenzene	105	53.2-145		%REC	1	7/14/2009 1:03:47 AM
Surr: Dibromofluoromethane	122	68.5-119	S	%REC	1	7/14/2009 1:03:47 AM
Surr: Toluene-d8	104	64-131		%REC	1	7/14/2009 1:03:47 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *28-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	BW-3B
Lab Order:	0907192	**Collection Date:**	7/6/2009 2:21:00 PM
Project:	2009 Annual BW Sampling	**Date Received:**	7/10/2009
Lab ID:	0907192-06	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 7470: MERCURY						Analyst: **MMS**
Mercury	ND	0.00020		mg/L	1	7/17/2009 5:25:04 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **SNV**
Arsenic	ND	0.020		mg/L	1	7/19/2009 9:46:27 PM
Barium	0.098	0.020		mg/L	1	7/19/2009 9:46:27 PM
Cadmium	ND	0.0020		mg/L	1	7/19/2009 9:46:27 PM
Chromium	ND	0.0060		mg/L	1	7/19/2009 9:46:27 PM
Copper	ND	0.0060		mg/L	1	7/19/2009 9:46:27 PM
Iron	0.62	0.050		mg/L	1	7/19/2009 9:46:27 PM
Lead	ND	0.0050		mg/L	1	7/19/2009 9:46:27 PM
Magnesium	2.6	1.0		mg/L	1	7/19/2009 9:46:27 PM
Manganese	0.11	0.0020		mg/L	1	7/19/2009 9:46:27 PM
Potassium	ND	1.0		mg/L	1	7/19/2009 9:46:27 PM
Selenium	ND	0.050		mg/L	1	7/19/2009 9:46:27 PM
Silver	ND	0.0050		mg/L	1	7/19/2009 9:46:27 PM
Zinc	ND	0.050		mg/L	1	7/19/2009 9:46:27 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	7/15/2009
Acenaphthylene	ND	10		µg/L	1	7/15/2009
Aniline	ND	10		µg/L	1	7/15/2009
Anthracene	ND	10		µg/L	1	7/15/2009
Azobenzene	ND	10		µg/L	1	7/15/2009
Benz(a)anthracene	ND	10		µg/L	1	7/15/2009
Benzo(a)pyrene	ND	10		µg/L	1	7/15/2009
Benzo(b)fluoranthene	ND	10		µg/L	1	7/15/2009
Benzo(g,h,i)perylene	ND	10		µg/L	1	7/15/2009
Benzo(k)fluoranthene	ND	10		µg/L	1	7/15/2009
Benzoic acid	ND	20		µg/L	1	7/15/2009
Benzyl alcohol	ND	10		µg/L	1	7/15/2009
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	7/15/2009
Bis(2-chloroethyl)ether	ND	10		µg/L	1	7/15/2009
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	7/15/2009
Bis(2-ethylhexyl)phthalate	10	10		µg/L	1	7/15/2009
4-Bromophenyl phenyl ether	ND	10		µg/L	1	7/15/2009
Butyl benzyl phthalate	ND	10		µg/L	1	7/15/2009
Carbazole	ND	10		µg/L	1	7/15/2009
4-Chloro-3-methylphenol	ND	10		µg/L	1	7/15/2009
4-Chloroaniline	ND	10		µg/L	1	7/15/2009
2-Chloronaphthalene	ND	10		µg/L	1	7/15/2009
2-Chlorophenol	ND	10		µg/L	1	7/15/2009
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	7/15/2009

Qualifiers:

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

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	BW-3B
Lab Order:	0907192	**Collection Date:**	7/6/2009 2:21:00 PM
Project:	2009 Annual BW Sampling	**Date Received:**	7/10/2009
Lab ID:	0907192-06	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Chrysene	ND	10		µg/L	1	7/15/2009
Di-n-butyl phthalate	ND	10		µg/L	1	7/15/2009
Di-n-octyl phthalate	ND	10		µg/L	1	7/15/2009
Dibenz(a,h)anthracene	ND	10		µg/L	1	7/15/2009
Dibenzofuran	ND	10		µg/L	1	7/15/2009
1,2-Dichlorobenzene	ND	10		µg/L	1	7/15/2009
1,3-Dichlorobenzene	ND	10		µg/L	1	7/15/2009
1,4-Dichlorobenzene	ND	10		µg/L	1	7/15/2009
3,3'-Dichlorobenzidine	ND	10		µg/L	1	7/15/2009
Diethyl phthalate	ND	10		µg/L	1	7/15/2009
Dimethyl phthalate	ND	10		µg/L	1	7/15/2009
2,4-Dichlorophenol	ND	20		µg/L	1	7/15/2009
2,4-Dimethylphenol	ND	10		µg/L	1	7/15/2009
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	7/15/2009
2,4-Dinitrophenol	ND	20		µg/L	1	7/15/2009
2,4-Dinitrotoluene	ND	10		µg/L	1	7/15/2009
2,6-Dinitrotoluene	ND	10		µg/L	1	7/15/2009
Fluoranthene	ND	10		µg/L	1	7/15/2009
Fluorene	ND	10		µg/L	1	7/15/2009
Hexachlorobenzene	ND	10		µg/L	1	7/15/2009
Hexachlorobutadiene	ND	10		µg/L	1	7/15/2009
Hexachlorocyclopentadiene	ND	10		µg/L	1	7/15/2009
Hexachloroethane	ND	10		µg/L	1	7/15/2009
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	7/15/2009
Isophorone	ND	10		µg/L	1	7/15/2009
2-Methylnaphthalene	ND	10		µg/L	1	7/15/2009
2-Methylphenol	ND	10		µg/L	1	7/15/2009
3+4-Methylphenol	ND	10		µg/L	1	7/15/2009
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	7/15/2009
N-Nitrosodimethylamine	ND	10		µg/L	1	7/15/2009
N-Nitrosodiphenylamine	ND	10		µg/L	1	7/15/2009
Naphthalene	ND	10		µg/L	1	7/15/2009
2-Nitroaniline	ND	10		µg/L	1	7/15/2009
3-Nitroaniline	ND	10		µg/L	1	7/15/2009
4-Nitroaniline	ND	10		µg/L	1	7/15/2009
Nitrobenzene	ND	10		µg/L	1	7/15/2009
2-Nitrophenol	ND	10		µg/L	1	7/15/2009
4-Nitrophenol	ND	10		µg/L	1	7/15/2009
Pentachlorophenol	ND	20		µg/L	1	7/15/2009
Phenanthrene	ND	10		µg/L	1	7/15/2009
Phenol	ND	10		µg/L	1	7/15/2009
Pyrene	ND	10		µg/L	1	7/15/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *28-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	BW-3B
Lab Order:	0907192	**Collection Date:**	7/6/2009 2:21:00 PM
Project:	2009 Annual BW Sampling	**Date Received:**	7/10/2009
Lab ID:	0907192-06	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Pyridine	ND	10		µg/L	1	7/15/2009
1,2,4-Trichlorobenzene	ND	10		µg/L	1	7/15/2009
2,4,5-Trichlorophenol	ND	10		µg/L	1	7/15/2009
2,4,6-Trichlorophenol	ND	10		µg/L	1	7/15/2009
Surr: 2,4,6-Tribromophenol	61.9	16.6-150		%REC	1	7/15/2009
Surr: 2-Fluorobiphenyl	46.1	19.6-134		%REC	1	7/15/2009
Surr: 2-Fluorophenol	23.2	9.54-113		%REC	1	7/15/2009
Surr: 4-Terphenyl-d14	56.4	22.7-145		%REC	1	7/15/2009
Surr: Nitrobenzene-d5	36.3	14.6-134		%REC	1	7/15/2009
Surr: Phenol-d5	18.0	10.7-80.3		%REC	1	7/15/2009
EPA METHOD 8260B: VOLATILES						Analyst: HL
Benzene	ND	1.0		µg/L	1	7/14/2009 1:32:43 AM
Toluene	ND	1.0		µg/L	1	7/14/2009 1:32:43 AM
Ethylbenzene	ND	1.0		µg/L	1	7/14/2009 1:32:43 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	7/14/2009 1:32:43 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	7/14/2009 1:32:43 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	7/14/2009 1:32:43 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	7/14/2009 1:32:43 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/14/2009 1:32:43 AM
Naphthalene	ND	2.0		µg/L	1	7/14/2009 1:32:43 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	7/14/2009 1:32:43 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	7/14/2009 1:32:43 AM
Acetone	ND	10		µg/L	1	7/14/2009 1:32:43 AM
Bromobenzene	ND	1.0		µg/L	1	7/14/2009 1:32:43 AM
Bromodichloromethane	ND	1.0		µg/L	1	7/14/2009 1:32:43 AM
Bromoform	ND	1.0		µg/L	1	7/14/2009 1:32:43 AM
Bromomethane	ND	1.0		µg/L	1	7/14/2009 1:32:43 AM
2-Butanone	ND	10		µg/L	1	7/14/2009 1:32:43 AM
Carbon disulfide	ND	10		µg/L	1	7/14/2009 1:32:43 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	7/14/2009 1:32:43 AM
Chlorobenzene	ND	1.0		µg/L	1	7/14/2009 1:32:43 AM
Chloroethane	ND	2.0		µg/L	1	7/14/2009 1:32:43 AM
Chloroform	ND	1.0		µg/L	1	7/14/2009 1:32:43 AM
Chloromethane	ND	1.0		µg/L	1	7/14/2009 1:32:43 AM
2-Chlorotoluene	ND	1.0		µg/L	1	7/14/2009 1:32:43 AM
4-Chlorotoluene	ND	1.0		µg/L	1	7/14/2009 1:32:43 AM
cis-1,2-DCE	ND	1.0		µg/L	1	7/14/2009 1:32:43 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/14/2009 1:32:43 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/14/2009 1:32:43 AM
Dibromochloromethane	ND	1.0		µg/L	1	7/14/2009 1:32:43 AM
Dibromomethane	ND	1.0		µg/L	1	7/14/2009 1:32:43 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *28-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	BW-3B
Lab Order:	0907192	**Collection Date:**	7/6/2009 2:21:00 PM
Project:	2009 Annual BW Sampling	**Date Received:**	7/10/2009
Lab ID:	0907192-06	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
1,2-Dichlorobenzene	ND	1.0		µg/L	1	7/14/2009 1:32:43 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	7/14/2009 1:32:43 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/14/2009 1:32:43 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/14/2009 1:32:43 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	7/14/2009 1:32:43 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	7/14/2009 1:32:43 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	7/14/2009 1:32:43 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	7/14/2009 1:32:43 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	7/14/2009 1:32:43 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	7/14/2009 1:32:43 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	7/14/2009 1:32:43 AM
2-Hexanone	ND	10		µg/L	1	7/14/2009 1:32:43 AM
Isopropylbenzene	ND	1.0		µg/L	1	7/14/2009 1:32:43 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	7/14/2009 1:32:43 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/14/2009 1:32:43 AM
Methylene Chloride	ND	3.0		µg/L	1	7/14/2009 1:32:43 AM
n-Butylbenzene	ND	1.0		µg/L	1	7/14/2009 1:32:43 AM
n-Propylbenzene	ND	1.0		µg/L	1	7/14/2009 1:32:43 AM
sec-Butylbenzene	ND	1.0		µg/L	1	7/14/2009 1:32:43 AM
Styrene	ND	1.0		µg/L	1	7/14/2009 1:32:43 AM
tert-Butylbenzene	ND	1.0		µg/L	1	7/14/2009 1:32:43 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	7/14/2009 1:32:43 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	7/14/2009 1:32:43 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	7/14/2009 1:32:43 AM
trans-1,2-DCE	ND	1.0		µg/L	1	7/14/2009 1:32:43 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/14/2009 1:32:43 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/14/2009 1:32:43 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/14/2009 1:32:43 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/14/2009 1:32:43 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/14/2009 1:32:43 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	7/14/2009 1:32:43 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	7/14/2009 1:32:43 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/14/2009 1:32:43 AM
Vinyl chloride	ND	1.0		µg/L	1	7/14/2009 1:32:43 AM
Xylenes, Total	ND	1.5		µg/L	1	7/14/2009 1:32:43 AM
Surr: 1,2-Dichloroethane-d4	111	68.1-123		%REC	1	7/14/2009 1:32:43 AM
Surr: 4-Bromofluorobenzene	101	53.2-145		%REC	1	7/14/2009 1:32:43 AM
Surr: Dibromofluoromethane	116	68.5-119		%REC	1	7/14/2009 1:32:43 AM
Surr: Toluene-d8	101	64-131		%REC	1	7/14/2009 1:32:43 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *28-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	BW-3C
Lab Order:	0907192	**Collection Date:**	7/6/2009 3:40:00 PM
Project:	2009 Annual BW Sampling	**Date Received:**	7/10/2009
Lab ID:	0907192-07	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 7470: MERCURY						Analyst: **MMS**
Mercury	ND	0.00020		mg/L	1	7/17/2009 5:26:48 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **SNV**
Arsenic	ND	0.020		mg/L	1	7/19/2009 9:50:49 PM
Barium	0.054	0.020		mg/L	1	7/19/2009 9:50:49 PM
Cadmium	ND	0.0020		mg/L	1	7/19/2009 9:50:49 PM
Chromium	ND	0.0060		mg/L	1	7/19/2009 9:50:49 PM
Copper	ND	0.0060		mg/L	1	7/19/2009 9:50:49 PM
Iron	0.19	0.050		mg/L	1	7/19/2009 9:50:49 PM
Lead	ND	0.0050		mg/L	1	7/19/2009 9:50:49 PM
Magnesium	ND	1.0		mg/L	1	7/19/2009 9:50:49 PM
Manganese	0.020	0.0020		mg/L	1	7/19/2009 9:50:49 PM
Potassium	ND	1.0		mg/L	1	7/19/2009 9:50:49 PM
Selenium	ND	0.050		mg/L	1	7/19/2009 9:50:49 PM
Silver	ND	0.0050		mg/L	1	7/19/2009 9:50:49 PM
Zinc	ND	0.050		mg/L	1	7/19/2009 9:50:49 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	7/15/2009
Acenaphthylene	ND	10		µg/L	1	7/15/2009
Aniline	ND	10		µg/L	1	7/15/2009
Anthracene	ND	10		µg/L	1	7/15/2009
Azobenzene	ND	10		µg/L	1	7/15/2009
Benz(a)anthracene	ND	10		µg/L	1	7/15/2009
Benzo(a)pyrene	ND	10		µg/L	1	7/15/2009
Benzo(b)fluoranthene	ND	10		µg/L	1	7/15/2009
Benzo(g,h,i)perylene	ND	10		µg/L	1	7/15/2009
Benzo(k)fluoranthene	ND	10		µg/L	1	7/15/2009
Benzoic acid	ND	20		µg/L	1	7/15/2009
Benzyl alcohol	ND	10		µg/L	1	7/15/2009
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	7/15/2009
Bis(2-chloroethyl)ether	ND	10		µg/L	1	7/15/2009
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	7/15/2009
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	7/15/2009
4-Bromophenyl phenyl ether	ND	10		µg/L	1	7/15/2009
Butyl benzyl phthalate	ND	10		µg/L	1	7/15/2009
Carbazole	ND	10		µg/L	1	7/15/2009
4-Chloro-3-methylphenol	ND	10		µg/L	1	7/15/2009
4-Chloroaniline	ND	10		µg/L	1	7/15/2009
2-Chloronaphthalene	ND	10		µg/L	1	7/15/2009
2-Chlorophenol	ND	10		µg/L	1	7/15/2009
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	7/15/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *28-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	BW-3C
Lab Order:	0907192	**Collection Date:**	7/6/2009 3:40:00 PM
Project:	2009 Annual BW Sampling	**Date Received:**	7/10/2009
Lab ID:	0907192-07	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Chrysene	ND	10		µg/L	1	7/15/2009
Di-n-butyl phthalate	ND	10		µg/L	1	7/15/2009
Di-n-octyl phthalate	ND	10		µg/L	1	7/15/2009
Dibenz(a,h)anthracene	ND	10		µg/L	1	7/15/2009
Dibenzofuran	ND	10		µg/L	1	7/15/2009
1,2-Dichlorobenzene	ND	10		µg/L	1	7/15/2009
1,3-Dichlorobenzene	ND	10		µg/L	1	7/15/2009
1,4-Dichlorobenzene	ND	10		µg/L	1	7/15/2009
3,3'-Dichlorobenzidine	ND	10		µg/L	1	7/15/2009
Diethyl phthalate	ND	10		µg/L	1	7/15/2009
Dimethyl phthalate	ND	10		µg/L	1	7/15/2009
2,4-Dichlorophenol	ND	20		µg/L	1	7/15/2009
2,4-Dimethylphenol	ND	10		µg/L	1	7/15/2009
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	7/15/2009
2,4-Dinitrophenol	ND	20		µg/L	1	7/15/2009
2,4-Dinitrotoluene	ND	10		µg/L	1	7/15/2009
2,6-Dinitrotoluene	ND	10		µg/L	1	7/15/2009
Fluoranthene	ND	10		µg/L	1	7/15/2009
Fluorene	ND	10		µg/L	1	7/15/2009
Hexachlorobenzene	ND	10		µg/L	1	7/15/2009
Hexachlorobutadiene	ND	10		µg/L	1	7/15/2009
Hexachlorocyclopentadiene	ND	10		µg/L	1	7/15/2009
Hexachloroethane	ND	10		µg/L	1	7/15/2009
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	7/15/2009
Isophorone	ND	10		µg/L	1	7/15/2009
2-Methylnaphthalene	ND	10		µg/L	1	7/15/2009
2-Methylphenol	ND	10		µg/L	1	7/15/2009
3+4-Methylphenol	ND	10		µg/L	1	7/15/2009
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	7/15/2009
N-Nitrosodimethylamine	ND	10		µg/L	1	7/15/2009
N-Nitrosodiphenylamine	ND	10		µg/L	1	7/15/2009
Naphthalene	ND	10		µg/L	1	7/15/2009
2-Nitroaniline	ND	10		µg/L	1	7/15/2009
3-Nitroaniline	ND	10		µg/L	1	7/15/2009
4-Nitroaniline	ND	10		µg/L	1	7/15/2009
Nitrobenzene	ND	10		µg/L	1	7/15/2009
2-Nitrophenol	ND	10		µg/L	1	7/15/2009
4-Nitrophenol	ND	10		µg/L	1	7/15/2009
Pentachlorophenol	ND	20		µg/L	1	7/15/2009
Phenanthrene	ND	10		µg/L	1	7/15/2009
Phenol	ND	10		µg/L	1	7/15/2009
Pyrene	ND	10		µg/L	1	7/15/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *28-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	BW-3C
Lab Order:	0907192	**Collection Date:**	7/6/2009 3:40:00 PM
Project:	2009 Annual BW Sampling	**Date Received:**	7/10/2009
Lab ID:	0907192-07	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Pyridine	ND	10		µg/L	1	7/15/2009
1,2,4-Trichlorobenzene	ND	10		µg/L	1	7/15/2009
2,4,5-Trichlorophenol	ND	10		µg/L	1	7/15/2009
2,4,6-Trichlorophenol	ND	10		µg/L	1	7/15/2009
Surr: 2,4,6-Tribromophenol	79.6	16.6-150		%REC	1	7/15/2009
Surr: 2-Fluorobiphenyl	66.8	19.6-134		%REC	1	7/15/2009
Surr: 2-Fluorophenol	45.9	9.54-113		%REC	1	7/15/2009
Surr: 4-Terphenyl-d14	65.6	22.7-145		%REC	1	7/15/2009
Surr: Nitrobenzene-d5	67.1	14.6-134		%REC	1	7/15/2009
Surr: Phenol-d5	33.5	10.7-80.3		%REC	1	7/15/2009
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
Benzene	ND	1.0		µg/L	1	7/14/2009 2:02:11 AM
Toluene	ND	1.0		µg/L	1	7/14/2009 2:02:11 AM
Ethylbenzene	ND	1.0		µg/L	1	7/14/2009 2:02:11 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	7/14/2009 2:02:11 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	7/14/2009 2:02:11 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	7/14/2009 2:02:11 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	7/14/2009 2:02:11 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/14/2009 2:02:11 AM
Naphthalene	ND	2.0		µg/L	1	7/14/2009 2:02:11 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	7/14/2009 2:02:11 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	7/14/2009 2:02:11 AM
Acetone	ND	10		µg/L	1	7/14/2009 2:02:11 AM
Bromobenzene	ND	1.0		µg/L	1	7/14/2009 2:02:11 AM
Bromodichloromethane	ND	1.0		µg/L	1	7/14/2009 2:02:11 AM
Bromoform	ND	1.0		µg/L	1	7/14/2009 2:02:11 AM
Bromomethane	ND	1.0		µg/L	1	7/14/2009 2:02:11 AM
2-Butanone	ND	10		µg/L	1	7/14/2009 2:02:11 AM
Carbon disulfide	ND	10		µg/L	1	7/14/2009 2:02:11 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	7/14/2009 2:02:11 AM
Chlorobenzene	ND	1.0		µg/L	1	7/14/2009 2:02:11 AM
Chloroethane	ND	2.0		µg/L	1	7/14/2009 2:02:11 AM
Chloroform	ND	1.0		µg/L	1	7/14/2009 2:02:11 AM
Chloromethane	ND	1.0		µg/L	1	7/14/2009 2:02:11 AM
2-Chlorotoluene	ND	1.0		µg/L	1	7/14/2009 2:02:11 AM
4-Chlorotoluene	ND	1.0		µg/L	1	7/14/2009 2:02:11 AM
cis-1,2-DCE	ND	1.0		µg/L	1	7/14/2009 2:02:11 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/14/2009 2:02:11 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/14/2009 2:02:11 AM
Dibromochloromethane	ND	1.0		µg/L	1	7/14/2009 2:02:11 AM
Dibromomethane	ND	1.0		µg/L	1	7/14/2009 2:02:11 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *28-Jul-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	BW-3C
Lab Order:	0907192	**Collection Date:**	7/6/2009 3:40:00 PM
Project:	2009 Annual BW Sampling	**Date Received:**	7/10/2009
Lab ID:	0907192-07	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
1,2-Dichlorobenzene	ND	1.0		µg/L	1	7/14/2009 2:02:11 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	7/14/2009 2:02:11 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/14/2009 2:02:11 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/14/2009 2:02:11 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	7/14/2009 2:02:11 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	7/14/2009 2:02:11 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	7/14/2009 2:02:11 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	7/14/2009 2:02:11 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	7/14/2009 2:02:11 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	7/14/2009 2:02:11 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	7/14/2009 2:02:11 AM
2-Hexanone	ND	10		µg/L	1	7/14/2009 2:02:11 AM
Isopropylbenzene	ND	1.0		µg/L	1	7/14/2009 2:02:11 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	7/14/2009 2:02:11 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/14/2009 2:02:11 AM
Methylene Chloride	ND	3.0		µg/L	1	7/14/2009 2:02:11 AM
n-Butylbenzene	ND	1.0		µg/L	1	7/14/2009 2:02:11 AM
n-Propylbenzene	ND	1.0		µg/L	1	7/14/2009 2:02:11 AM
sec-Butylbenzene	ND	1.0		µg/L	1	7/14/2009 2:02:11 AM
Styrene	ND	1.0		µg/L	1	7/14/2009 2:02:11 AM
tert-Butylbenzene	ND	1.0		µg/L	1	7/14/2009 2:02:11 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	7/14/2009 2:02:11 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	7/14/2009 2:02:11 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	7/14/2009 2:02:11 AM
trans-1,2-DCE	ND	1.0		µg/L	1	7/14/2009 2:02:11 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/14/2009 2:02:11 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/14/2009 2:02:11 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/14/2009 2:02:11 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/14/2009 2:02:11 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/14/2009 2:02:11 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	7/14/2009 2:02:11 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	7/14/2009 2:02:11 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/14/2009 2:02:11 AM
Vinyl chloride	ND	1.0		µg/L	1	7/14/2009 2:02:11 AM
Xylenes, Total	ND	1.5		µg/L	1	7/14/2009 2:02:11 AM
Surr: 1,2-Dichloroethane-d4	113	68.1-123		%REC	1	7/14/2009 2:02:11 AM
Surr: 4-Bromofluorobenzene	106	53.2-145		%REC	1	7/14/2009 2:02:11 AM
Surr: Dibromofluoromethane	116	68.5-119		%REC	1	7/14/2009 2:02:11 AM
Surr: Toluene-d8	110	64-131		%REC	1	7/14/2009 2:02:11 AM

Qualifiers:

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

ENERGY LABORATORIES, INC. • 2393 Salt Creek Highway (82601) • P.O. Box 3258 • Casper, WY 82602
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LABORATORY ANALYTICAL REPORT

Client: Hall Environmental
Site Name: 0907192
Report Date: 07/24/09

Lab ID: C09070529-001
Client Sample ID: BW-1C
Matrix: Aqueous
Collection Date: 07/06/09 11:45
DateReceived: 07/14/09

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
METALS - TOTAL							
Uranium	0.002	mg/L		0.001		SW6020	07/22/09 23:36 / sml

Lab ID: C09070529-002
Client Sample ID: BW-2B
Matrix: Aqueous
Collection Date: 07/06/09 13:42
DateReceived: 07/14/09

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
METALS - TOTAL							
Uranium	0.013	mg/L		0.001		SW6020	07/22/09 23:46 / sml

Lab ID: C09070529-003
Client Sample ID: BW-2A
Matrix: Aqueous
Collection Date: 07/06/09 15:01
DateReceived: 07/14/09

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
METALS - TOTAL							
Uranium	ND	mg/L		0.001		SW6020	07/22/09 23:51 / sml

Lab ID: C09070529-004
Client Sample ID: BW-2C
Matrix: Aqueous
Collection Date: 07/06/09 12:31
DateReceived: 07/14/09

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
METALS - TOTAL							
Uranium	0.005	mg/L		0.001		SW6020	07/22/09 23:56 / sml

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level.
QCL - Quality control limit. ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client: Hall Environmental
Site Name: 0907192
Report Date: 07/24/09

Lab ID: C09070529-005
Client Sample ID: BW-3B
Matrix: Aqueous
Collection Date: 07/06/09 14:21
DateReceived: 07/14/09

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
METALS - TOTAL							
Uranium	ND	mg/L		0.001		SW6020	07/23/09 00:21 / sml

Lab ID: C09070529-006
Client Sample ID: BW-3C
Matrix: Aqueous
Collection Date: 07/06/09 15:40
DateReceived: 07/14/09

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
METALS - TOTAL							
Uranium	0.001	mg/L		0.001		SW6020	07/23/09 00:26 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

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QA/QC Summary Report

Client: Hall Environmental
Project: 0907192

Report Date: 07/24/09
Work Order: C09070529

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6020									Batch: 23079
Sample ID: MB-23079	Method Blank				Run: ICPMS4-C_090722B				07/22/09 23:22
Uranium	ND	mg/L	5E-05						
Sample ID: LCS3-23079	Laboratory Control Sample				Run: ICPMS4-C_090722B				07/22/09 23:27
Uranium	0.508	mg/L	0.00030	102	85	115			
Sample ID: C09070577-003CMS3	Sample Matrix Spike				Run: ICPMS4-C_090722B				07/23/09 01:44
Uranium	0.557	mg/L	0.00030	109	75	125			
Sample ID: C09070577-003CMSD3	Sample Matrix Spike Duplicate				Run: ICPMS4-C_090722B				07/23/09 01:49
Uranium	0.567	mg/L	0.00030	111	75	125	1.7	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Annual BW Sampling **Work Order:** 0907192

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8270C: Semivolatiles									
Sample ID: mb-19589		*MBLK*			Batch ID: **19589**		Analysis Date:		7/15/2009
Acenaphthene	ND	µg/L	10						
Acenaphthylene	ND	µg/L	10						
Aniline	ND	µg/L	10						
Anthracene	ND	µg/L	10						
Azobenzene	ND	µg/L	10						
Benz(a)anthracene	ND	µg/L	10						
Benzo(a)pyrene	ND	µg/L	10						
Benzo(b)fluoranthene	ND	µg/L	10						
Benzo(g,h,i)perylene	ND	µg/L	10						
Benzo(k)fluoranthene	ND	µg/L	10						
Benzoic acid	ND	µg/L	20						
Benzyl alcohol	ND	µg/L	10						
Bis(2-chloroethoxy)methane	ND	µg/L	10						
Bis(2-chloroethyl)ether	ND	µg/L	10						
Bis(2-chloroisopropyl)ether	ND	µg/L	10						
Bis(2-ethylhexyl)phthalate	ND	µg/L	10						
4-Bromophenyl phenyl ether	ND	µg/L	10						
Butyl benzyl phthalate	ND	µg/L	10						
Carbazole	ND	µg/L	10						
4-[illegible]o-3-methylphenol	ND	µg/L	10						
4-Chloroaniline	ND	µg/L	10						
2-Chloronaphthalene	ND	µg/L	10						
2-Chlorophenol	ND	µg/L	10						
4-Chlorophenyl phenyl ether	ND	µg/L	10						
Chrysene	ND	µg/L	10						
Di-n-butyl phthalate	ND	µg/L	10						
Di-n-octyl phthalate	ND	µg/L	10						
Dibenz(a,h)anthracene	ND	µg/L	10						
Dibenzofuran	ND	µg/L	10						
1,2-Dichlorobenzene	ND	µg/L	10						
1,3-Dichlorobenzene	ND	µg/L	10						
1,4-Dichlorobenzene	ND	µg/L	10						
3,3'-Dichlorobenzidine	ND	µg/L	10						
Diethyl phthalate	ND	µg/L	10						
Dimethyl phthalate	ND	µg/L	10						
2,4-Dichlorophenol	ND	µg/L	20						
2,4-Dimethylphenol	ND	µg/L	10						
4,6-Dinitro-2-methylphenol	ND	µg/L	20						
2,4-Dinitrophenol	ND	µg/L	20						
2,4-Dinitrotoluene	ND	µg/L	10						
2,6-Dinitrotoluene	ND	µg/L	10						
Fluoranthene	ND	µg/L	10						
Fluorene	ND	µg/L	10						
Hexachlorobenzene	ND	µg/L	10						

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Annual BW Sampling **Work Order:** 0907192

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8270C: Semivolatiles									
Sample ID: mb-19589		*MBLK*			Batch ID:	**19589**	Analysis Date:		7/15/2009
Hexachlorobutadiene	ND	µg/L	10						
Hexachlorocyclopentadiene	ND	µg/L	10						
Hexachloroethane	ND	µg/L	10						
Indeno(1,2,3-cd)pyrene	ND	µg/L	10						
Isophorone	ND	µg/L	10						
2-Methylnaphthalene	ND	µg/L	10						
2-Methylphenol	ND	µg/L	10						
3+4-Methylphenol	ND	µg/L	10						
N-Nitrosodi-n-propylamine	ND	µg/L	10						
N-Nitrosodimethylamine	ND	µg/L	10						
N-Nitrosodiphenylamine	ND	µg/L	10						
Naphthalene	ND	µg/L	10						
2-Nitroaniline	ND	µg/L	10						
3-Nitroaniline	ND	µg/L	10						
4-Nitroaniline	ND	µg/L	10						
Nitrobenzene	ND	µg/L	10						
2-Nitrophenol	ND	µg/L	10						
4-Nitrophenol	ND	µg/L	10						
Pentachlorophenol	ND	µg/L	20						
[illegible]anthrene	ND	µg/L	10						
Phenol	ND	µg/L	10						
Pyrene	ND	µg/L	10						
Pyridine	ND	µg/L	10						
1,2,4-Trichlorobenzene	ND	µg/L	10						
2,4,5-Trichlorophenol	ND	µg/L	10						
2,4,6-Trichlorophenol	ND	µg/L	10						
Sample ID: lcs-19589		*LCS*			Batch ID:	**19589**	Analysis Date:		7/15/2009
Acenaphthene	53.54	µg/L	10	53.5	33.2	88.1			
4-Chloro-3-methylphenol	109.0	µg/L	10	54.5	26.5	101			
2-Chlorophenol	92.30	µg/L	10	46.2	27.5	88.7			
1,4-Dichlorobenzene	43.48	µg/L	10	43.5	27.2	74.1			
2,4-Dinitrotoluene	58.54	µg/L	10	58.5	32.6	107			
N-Nitrosodi-n-propylamine	56.04	µg/L	10	56.0	27.1	96.3			
4-Nitrophenol	54.76	µg/L	10	27.4	6.78	74.7			
Pentachlorophenol	101.1	µg/L	20	50.5	14.8	113			
Phenol	55.80	µg/L	10	27.9	17	53.4			
Pyrene	59.02	µg/L	10	59.0	27	96.3			
1,2,4-Trichlorobenzene	50.20	µg/L	10	50.2	30	77.9			
Sample ID: lcsd-19589		*LCSD*			Batch ID:	**19589**	Analysis Date:		7/15/2009
Acenaphthene	61.14	µg/L	10	61.1	33.2	88.1	13.3	30.5	
4-Chloro-3-methylphenol	121.4	µg/L	10	60.7	26.5	101	10.8	28.6	
2-Chlorophenol	115.3	µg/L	10	57.7	27.5	88.7	22.2	107	
1,4-Dichlorobenzene	56.88	µg/L	10	56.9	27.2	74.1	26.7	62.1	
2,4-Dinitrotoluene	67.02	µg/L	10	67.0	32.6	107	13.5	14.7	

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Annual BW Sampling **Work Order:** 0907192

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8270C: Semivolatiles									
Sample ID: lcsd-19589		*LCSD*			Batch ID:	**19589**	Analysis Date:		7/15/2009
N-Nitrosodi-n-propylamine	67.18	µg/L	10	67.2	27.1	96.3	18.1	30.3	
4-Nitrophenol	45.28	µg/L	10	22.6	6.78	74.7	19.0	36.3	
Pentachlorophenol	107.8	µg/L	20	53.9	14.8	113	6.45	49	
Phenol	69.14	µg/L	10	34.6	17	53.4	21.4	52.4	
Pyrene	66.28	µg/L	10	66.3	27	96.3	11.6	16.3	
1,2,4-Trichlorobenzene	61.66	µg/L	10	61.7	30	77.9	20.5	36.4	
Method: EPA Method 7470: Mercury									
Sample ID: MBLK-19626		*MBLK*			Batch ID:	**19626**	Analysis Date:		7/17/2009 5:01:24 PM
Mercury	ND	mg/L	0.00020						
Sample ID: LCS1-19626		*LCS*			Batch ID:	**19626**	Analysis Date:		7/17/2009 5:03:12 PM
Mercury	0.005110	mg/L	0.00020	102	80	120			
Sample ID: LCS1-19626		*LCS*			Batch ID:	**19626**	Analysis Date:		7/17/2009 5:44:44 PM
Mercury	0.004754	mg/L	0.00020	94.6	80	120			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Annual BW Sampling **Work Order:** 0907192

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA 6010B: Total Recoverable Metals									
Sample ID: MB-19607		*MBLK*			Batch ID:	**19607**	Analysis Date:		7/19/2009 8:45:14 PM
Arsenic	0.02216	mg/L	0.020						
Barium	ND	mg/L	0.010						
Cadmium	ND	mg/L	0.0020						
Chromium	ND	mg/L	0.0060						
Copper	ND	mg/L	0.0060						
Iron	ND	mg/L	0.050						
Lead	ND	mg/L	0.0050						
Magnesium	ND	mg/L	0.50						
Manganese	ND	mg/L	0.0020						
Potassium	ND	mg/L	1.0						
Selenium	ND	mg/L	0.050						
Silver	ND	mg/L	0.0050						
Zinc	ND	mg/L	0.020						
Sample ID: LCS-19607		*LCS*			Batch ID:	**19607**	Analysis Date:		7/19/2009 8:48:20 PM
Arsenic	0.5052	mg/L	0.020	96.6	80	120			B
Barium	0.4950	mg/L	0.010	99.0	80	120			
Cadmium	0.4931	mg/L	0.0020	98.6	80	120			
Chromium	0.4985	mg/L	0.0060	99.7	80	120			
Copper	0.5151	mg/L	0.0060	103	80	120			
[illegible]	0.5426	mg/L	0.050	109	80	120			
Lead	0.4878	mg/L	0.0050	97.6	80	120			
Magnesium	49.42	mg/L	0.50	98.8	80	120			
Manganese	0.4953	mg/L	0.0020	99.1	80	120			
Potassium	52.83	mg/L	1.0	106	80	120			
Selenium	0.4429	mg/L	0.050	88.6	80	120			
Silver	0.4992	mg/L	0.0050	99.7	80	120			
Zinc	0.4824	mg/L	0.020	96.0	80	120			
Sample ID: LCS-19607		*LCS*			Batch ID:	**19607**	Analysis Date:		7/19/2009 8:51:39 PM
Arsenic	0.4913	mg/L	0.020	93.8	80	120	2.79	0	B
Barium	0.4917	mg/L	0.010	98.3	80	120	0.669	0	
Cadmium	0.4914	mg/L	0.0020	98.3	80	120	0.346	0	
Chromium	0.4971	mg/L	0.0060	99.4	80	120	0.298	0	
Copper	0.5123	mg/L	0.0060	102	80	120	0.542	0	
Iron	0.5375	mg/L	0.050	107	80	120	0.948	0	
Lead	0.4779	mg/L	0.0050	95.6	80	120	2.05	0	
Magnesium	49.39	mg/L	0.50	98.7	80	120	0.0517	0	
Manganese	0.4912	mg/L	0.0020	98.2	80	120	0.825	0	
Potassium	52.75	mg/L	1.0	105	80	120	0.154	0	
Selenium	0.4716	mg/L	0.050	94.3	80	120	6.29	0	
Silver	0.4943	mg/L	0.0050	98.7	80	120	0.986	0	
Zinc	0.4783	mg/L	0.020	95.1	80	120	0.847	0	

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Annual BW Sampling **Work Order:** 0907192

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: 5ml rb		*MBLK*			Batch ID: **R34506**		Analysis Date:	7/13/2009 8:57:08 AM	
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0						
1,2,4-Trimethylbenzene	ND	µg/L	1.0						
1,3,5-Trimethylbenzene	ND	µg/L	1.0						
1,2-Dichloroethane (EDC)	ND	µg/L	1.0						
1,2-Dibromoethane (EDB)	ND	µg/L	1.0						
Naphthalene	ND	µg/L	2.0						
1-Methylnaphthalene	ND	µg/L	4.0						
2-Methylnaphthalene	ND	µg/L	4.0						
Acetone	ND	µg/L	10						
Bromobenzene	ND	µg/L	1.0						
Bromodichloromethane	ND	µg/L	1.0						
Bromoform	ND	µg/L	1.0						
Bromomethane	ND	µg/L	1.0						
2-Butanone	ND	µg/L	10						
Carbon disulfide	ND	µg/L	10						
Carbon Tetrachloride	ND	µg/L	1.0						
[illegible]robenzene	ND	µg/L	1.0						
[illegible]roethane	ND	µg/L	2.0						
Chloroform	ND	µg/L	1.0						
Chloromethane	ND	µg/L	1.0						
2-Chlorotoluene	ND	µg/L	1.0						
4-Chlorotoluene	ND	µg/L	1.0						
cis-1,2-DCE	ND	µg/L	1.0						
cis-1,3-Dichloropropene	ND	µg/L	1.0						
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0						
Dibromochloromethane	ND	µg/L	1.0						
Dibromomethane	ND	µg/L	1.0						
1,2-Dichlorobenzene	ND	µg/L	1.0						
1,3-Dichlorobenzene	ND	µg/L	1.0						
1,4-Dichlorobenzene	ND	µg/L	1.0						
Dichlorodifluoromethane	ND	µg/L	1.0						
1,1-Dichloroethane	ND	µg/L	1.0						
1,1-Dichloroethene	ND	µg/L	1.0						
1,2-Dichloropropane	ND	µg/L	1.0						
1,3-Dichloropropane	ND	µg/L	1.0						
2,2-Dichloropropane	ND	µg/L	2.0						
1,1-Dichloropropene	ND	µg/L	1.0						
Hexachlorobutadiene	ND	µg/L	1.0						
2-Hexanone	ND	µg/L	10						
Isopropylbenzene	ND	µg/L	1.0						
4-Isopropyltoluene	ND	µg/L	1.0						

[illegible]lifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Annual BW Sampling **Work Order:** 0907192

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: 5ml rb		*MBLK*			Batch ID: **R34506**		Analysis Date:	7/13/2009 8:57:08 AM	
4-Methyl-2-pentanone	ND	µg/L	10						
Methylene Chloride	ND	µg/L	3.0						
n-Butylbenzene	ND	µg/L	1.0						
n-Propylbenzene	ND	µg/L	1.0						
sec-Butylbenzene	ND	µg/L	1.0						
Styrene	ND	µg/L	1.0						
tert-Butylbenzene	ND	µg/L	1.0						
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0						
1,1,2,2-Tetrachloroethane	ND	µg/L	2.0						
Tetrachloroethene (PCE)	ND	µg/L	1.0						
trans-1,2-DCE	ND	µg/L	1.0						
trans-1,3-Dichloropropene	ND	µg/L	1.0						
1,2,3-Trichlorobenzene	ND	µg/L	1.0						
1,2,4-Trichlorobenzene	ND	µg/L	1.0						
1,1,1-Trichloroethane	ND	µg/L	1.0						
1,1,2-Trichloroethane	ND	µg/L	1.0						
Trichloroethene (TCE)	ND	µg/L	1.0						
Trichlorofluoromethane	ND	µg/L	1.0						
1,2,3-Trichloropropane	ND	µg/L	2.0						
Vinyl chloride	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	1.5						
Sample ID: b5		*MBLK*			Batch ID: **R34506**		Analysis Date:	7/13/2009 10:38:20 PM	
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0						
1,2,4-Trimethylbenzene	ND	µg/L	1.0						
1,3,5-Trimethylbenzene	ND	µg/L	1.0						
1,2-Dichloroethane (EDC)	ND	µg/L	1.0						
1,2-Dibromoethane (EDB)	ND	µg/L	1.0						
Naphthalene	ND	µg/L	2.0						
1-Methylnaphthalene	ND	µg/L	4.0						
2-Methylnaphthalene	ND	µg/L	4.0						
Acetone	ND	µg/L	10						
Bromobenzene	ND	µg/L	1.0						
Bromodichloromethane	ND	µg/L	1.0						
Bromoform	ND	µg/L	1.0						
Bromomethane	ND	µg/L	1.0						
2-Butanone	ND	µg/L	10						
Carbon disulfide	ND	µg/L	10						
Carbon Tetrachloride	ND	µg/L	1.0						
Chlorobenzene	ND	µg/L	1.0						
Chloroethane	ND	µg/L	2.0						
Chloroform	ND	µg/L	1.0						

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Annual BW Sampling **Work Order:** 0907192

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: b5		*MBLK*			Batch ID: **R34506**		Analysis Date: 7/13/2009 10:38:20 PM		
Chloromethane	ND	µg/L	1.0						
2-Chlorotoluene	ND	µg/L	1.0						
4-Chlorotoluene	ND	µg/L	1.0						
cis-1,2-DCE	ND	µg/L	1.0						
cis-1,3-Dichloropropene	ND	µg/L	1.0						
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0						
Dibromochloromethane	ND	µg/L	1.0						
Dibromomethane	ND	µg/L	1.0						
1,2-Dichlorobenzene	ND	µg/L	1.0						
1,3-Dichlorobenzene	ND	µg/L	1.0						
1,4-Dichlorobenzene	ND	µg/L	1.0						
Dichlorodifluoromethane	ND	µg/L	1.0						
1,1-Dichloroethane	ND	µg/L	1.0						
1,1-Dichloroethene	ND	µg/L	1.0						
1,2-Dichloropropane	ND	µg/L	1.0						
1,3-Dichloropropane	ND	µg/L	1.0						
2,2-Dichloropropane	ND	µg/L	2.0						
1,1-Dichloropropene	ND	µg/L	1.0						
Hexachlorobutadiene	ND	µg/L	1.0						
2-Butanone	ND	µg/L	10						
Isopropylbenzene	ND	µg/L	1.0						
4-Isopropyltoluene	ND	µg/L	1.0						
4-Methyl-2-pentanone	ND	µg/L	10						
Methylene Chloride	ND	µg/L	3.0						
n-Butylbenzene	ND	µg/L	1.0						
n-Propylbenzene	ND	µg/L	1.0						
sec-Butylbenzene	ND	µg/L	1.0						
Styrene	ND	µg/L	1.0						
tert-Butylbenzene	ND	µg/L	1.0						
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0						
1,1,2,2-Tetrachloroethane	ND	µg/L	2.0						
Tetrachloroethene (PCE)	ND	µg/L	1.0						
trans-1,2-DCE	ND	µg/L	1.0						
trans-1,3-Dichloropropene	ND	µg/L	1.0						
1,2,3-Trichlorobenzene	ND	µg/L	1.0						
1,2,4-Trichlorobenzene	ND	µg/L	1.0						
1,1,1-Trichloroethane	ND	µg/L	1.0						
1,1,2-Trichloroethane	ND	µg/L	1.0						
Trichloroethene (TCE)	ND	µg/L	1.0						
Trichlorofluoromethane	ND	µg/L	1.0						
1,2,3-Trichloropropane	ND	µg/L	2.0						
Vinyl chloride	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	1.5						
Sample ID: 100ng lcs		*LCS*			Batch ID: **R34506**		Analysis Date: 7/13/2009 9:55:08 AM		

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Annual BW Sampling **Work Order:** 0907192

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: 100ng lcs		*LCS*			Batch ID: **R34506**		Analysis Date:	7/13/2009 9:55:08 AM	
Benzene	19.87	µg/L	1.0	99.3	76.7	114			
Toluene	20.12	µg/L	1.0	101	78.4	117			
Chlorobenzene	18.87	µg/L	1.0	94.4	80.7	127			
1,1-Dichloroethene	23.44	µg/L	1.0	117	80.2	128			
Trichloroethene (TCE)	20.86	µg/L	1.0	104	77.4	115			
Sample ID: 100ng lcs_b		*LCS*			Batch ID: **R34506**		Analysis Date:	7/13/2009 10:09:18 PM	
Benzene	20.49	µg/L	1.0	102	76.7	114			
Toluene	19.19	µg/L	1.0	96.0	78.4	117			
Chlorobenzene	18.79	µg/L	1.0	94.0	80.7	127			
1,1-Dichloroethene	23.18	µg/L	1.0	116	80.2	128			
Trichloroethene (TCE)	20.60	µg/L	1.0	103	77.4	115			

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name WESTERN REFINING GALLU Date Received: 7/10/2009

Work Order Number 0907192 Received by: TLS

Checklist completed by: Signature 7/10/09 Date Sample ID labels checked by: Initials

Matrix: Carrier name UPS

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	N/A ☑	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Water - VOA vials have zero headspace? No VOA vials submitted ☐		Yes ☑	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☑	No ☐	N/A ☐	
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐	
Container/Temp Blank temperature?	2.1°	<6° C Acceptable If given sufficient time to cool.		

Number of preserved bottles checked for pH: 12

<2 >12 unless noted below.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

Chain-of-Custody Record

Client: Western Refining Gallup Refinery
Mailing Address: Rt 3 Box 7 Gallup, NM 87301
Phone #: 505 722 3833
email or Fax#: 505 722 0210
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
☐ Other
☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: 2009 Annual BW Sampling
Project #: BW Wells
Project Manager: G. Rajen
Sampler: Chenik Johnson
On Ice: ☒ Yes ☐ No
Sample Temperature: 2.1

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 0906192	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	WQCC Metals				Air Bubbles (Y or N)
7/6/09	1145	H2O	BW-1C	3-40ml	HCl	-1										X						
				1L Amb.	None	-1											X					
				2-500ml	HNO3	-1												X				
7/6/09	1342		BW-2B	3-40ml	HCl	-2										X						
				1L Amb	None	-2											X					
				2-500ml	HNO3	-2												X				
7/6/09	1501		BW-2A	3-40ml	HCl	-3										X						
				1L Amb	None	-3											X					
				2-500ml	HNO3	-3												X				
7/13/09																						
7/6/09	1220		Field Blank			-4																

Date:	Time:	Relinquished by:	Received by:	Date	Time
7/9/09	1000			7/10/09	1125
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

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

Chain-of-Custody Record

Client: Western Refining Gallup Refinery
Mailing Address: Rt 3 Box 7 Gallup NM 87301
Phone #: 505 722 3833
email or Fax#: 505 722 0210
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
☐ Other
☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: 2009 Annual BW Sampling
Project #: BW wells
Project Manager: G. Rajen
Sampler: Chenae Johnson
On Ice: ☒ Yes ☐ No
Sample Temperature: 2

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No 0907592
7/7/09	1231	H2O	BW-2C	3-40ml	HCl	-5
	/			1L Amb	None	-5
				2-500ml	HNO3	-5
7/7/09	1421		BW-3B	3-40ml	HCl	-6
	/			1L Amb	None	-6
				2-500ml	HNO3	-6
7/7/09	1540		BW-3C	3-40ml	HCl	-7
	/			1L Amb	None	-7
				2-500ml	HNO3	-7

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO3,NO2,PO4,SO4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	10 RCC Metals				Air Bubbles (Y or N)
									X						
										X					
											X				
									X						
										X					
											X				
									X						
										X					
											X				

Date: 7/9/09 Time: 1000 Relinquished by:
Date: Time: Relinquished by:

Received by: Date 7/10/09 Time 1135
Received by: Date Time

Remarks:

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

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Monday, August 03, 2009

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

TEL: (505) 722-0227
FAX (505) 722-0210

RE: 2009 Annual MW-4 Sampling

Order No.: 0907206

Dear Gaurav Rajen:

Hall Environmental Analysis Laboratory, Inc. received 2 sample(s) on 7/10/2009 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman, Business Manager
for Nancy McDuffie, Laboratory Manager

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

Hall Environmental Analysis Laboratory, Inc.

Date: *03-Aug-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	MW-4
Lab Order:	0907206	**Collection Date:**	7/8/2009 3:57:00 PM
Project:	2009 Annual MW-4 Sampling	**Date Received:**	7/10/2009
Lab ID:	0907206-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **SCC**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	7/16/2009
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	7/16/2009
Surr: DNOP	121	58-140		%REC	1	7/16/2009
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	7/14/2009 5:39:57 AM
Surr: BFB	89.5	59.9-122		%REC	1	7/14/2009 5:39:57 AM
EPA METHOD 300.0: ANIONS						Analyst: **RAGS**
Fluoride	0.37	0.10		mg/L	1	7/13/2009 11:51:41 AM
Chloride	16	0.10		mg/L	1	7/13/2009 11:51:41 AM
Nitrate (As N)+Nitrite (As N)	ND	1.0		mg/L	5	7/13/2009 1:18:42 PM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	7/13/2009 11:51:41 AM
Sulfate	160	10		mg/L	20	7/13/2009 12:09:05 PM
EPA METHOD 7470: MERCURY						Analyst: **MMS**
Mercury	ND	0.00020		mg/L	1	7/17/2009 5:42:55 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **SNV**
Barium	0.022	0.010		mg/L	1	7/19/2009 8:56:37 PM
Beryllium	ND	0.0030		mg/L	1	7/19/2009 8:56:37 PM
Cadmium	ND	0.0020		mg/L	1	7/19/2009 8:56:37 PM
Calcium	1.7	0.50		mg/L	1	7/19/2009 8:56:37 PM
Chromium	ND	0.0060		mg/L	1	7/19/2009 8:56:37 PM
Cobalt	ND	0.0060		mg/L	1	7/19/2009 8:56:37 PM
Lead	ND	0.0050		mg/L	1	7/19/2009 8:56:37 PM
Magnesium	ND	0.50		mg/L	1	7/19/2009 8:56:37 PM
Nickel	ND	0.010		mg/L	1	7/19/2009 8:56:37 PM
Potassium	ND	1.0		mg/L	1	7/19/2009 8:56:37 PM
Silver	ND	0.0050		mg/L	1	7/19/2009 8:56:37 PM
Sodium	280	2.5		mg/L	5	7/21/2009 10:41:32 AM
Vanadium	ND	0.050		mg/L	1	7/19/2009 8:56:37 PM
Zinc	ND	0.020		mg/L	1	7/19/2009 8:56:37 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **NSB**
Specific Conductance	1200	0.010		µmhos/cm	1	7/13/2009
SM4500-H+B: PH						Analyst: **NSB**
pH	8.74	0.1		pH units	1	7/13/2009

Qualifiers:

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

Anatek Labs, Inc.

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

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

Batch #: 090714019
Project Name: 0907206

Analytical Results Report

Sample Number	090714019-003	**Sampling Date**	7/8/2009	**Date/Time Received**	7/14/2009	11:25 AM
Client Sample ID	0907206-01E / MW-4	**Sampling Time**	3:57 PM	**Extraction Date**	7/21/2009	
Matrix	Water	**Sample Location**				
Comments						

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Antimony	ND	mg/L	0.001	7/22/2009	ETL	EPA 6020A	
Arsenic	ND	mg/L	0.001	7/22/2009	ETL	EPA 6020A	
Selenium	ND	mg/L	0.001	7/22/2009	ETL	EPA 6020A	

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

Batch #: 090714019
Project Name: 0907206

Analytical Results Report

Sample Number	090714019-004	**Sampling Date**	7/8/2009	**Date/Time Received**	7/14/2009	11:25 AM	
Client Sample ID	0907206-01F / MW-4	**Sampling Time**	3:57 PM	**Extraction Date**			
Matrix	Water	**Sample Location**					
Comments							

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/L	0.01	7/15/2009	JTT	EPA 335.4	

Authorized Signature

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

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Client: HALL ENVIRONMENTAL ANALYSIS LAB
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ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Batch #: 090714019
Project Name: 0907206

Analytical Results Report

Sample Number	090714019-002	**Sampling Date**	7/8/2009	**Date/Time Received**	7/14/2009 11:25 AM
Client Sample ID	0907206-01C / MW-4	**Sampling Time**	3:57 PM		
Matrix	Water	**Sample Location**			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
1,1,1-Trichloroethane	ND	ug/L	0.5	7/22/2009	CAS	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	ug/L	0.5	7/22/2009	CAS	EPA 8260B	
1,1-Dichloroethane	ND	ug/L	0.5	7/22/2009	CAS	EPA 8260B	
1,1-Dichloroethene	ND	ug/L	0.5	7/22/2009	CAS	EPA 8260B	
1,2-Dibromoethane	ND	ug/L	0.1	7/22/2009	CAS	EPA 8260B	
1,2-Dichloroethane	ND	ug/L	0.5	7/22/2009	CAS	EPA 8260B	
Acetone	ND	ug/L	2.5	7/22/2009	CAS	EPA 8260B	
Benzene	ND	ug/L	0.5	7/22/2009	CAS	EPA 8260B	
Carbon disulfide	ND	ug/L	0.5	7/22/2009	CAS	EPA 8260B	
Chlorobenzene	ND	ug/L	0.5	7/22/2009	CAS	EPA 8260B	
Chloroform	ND	ug/L	0.1	7/22/2009	CAS	EPA 8260B	
Chloromethane	ND	ug/L	0.5	7/22/2009	CAS	EPA 8260B	
Ethylbenzene	ND	ug/L	0.5	7/22/2009	CAS	EPA 8260B	
m+p-Xylene	ND	ug/L	0.5	7/22/2009	CAS	EPA 8260B	
Methyl ethyl ketone (MEK)	ND	ug/L	2.5	7/22/2009	CAS	EPA 8260B	
Methylene chloride	ND	ug/L	2.5	7/22/2009	CAS	EPA 8260B	
o-Xylene	ND	ug/L	0.5	7/22/2009	CAS	EPA 8260B	
Styrene	ND	ug/L	0.5	7/22/2009	CAS	EPA 8260B	
Tetrachloroethene	ND	ug/L	0.5	7/22/2009	CAS	EPA 8260B	
Toluene	ND	ug/L	0.5	7/22/2009	CAS	EPA 8260B	
trans-1,2-Dichloroethene	ND	ug/L	0.5	7/22/2009	CAS	EPA 8260B	
Trichloroethene	ND	ug/L	0.5	7/22/2009	CAS	EPA 8260B	

Surrogate Data

Sample Number 090714019-002

Surrogate Standard	Method	Percent Recovery	Control Limits
1,2-Dichlorobenzene-d4	EPA 8260B	86.4	70-130
4-Bromofluorobenzene	EPA 8260B	104.0	70-130
Toluene-d8	EPA 8260B	100.4	70-130

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

Batch #: 090714019
Project Name: 0907206

Analytical Results Report

Sample Number	090714019-005	**Sampling Date**	7/8/2009	**Date/Time Received**	7/14/2009 11:25 AM
Client Sample ID	0907206-02A / FIELD BLANK	**Sampling Time**			
Matrix	Water	**Sample Location**			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
1,1,1-Trichloroethane	ND	ug/L	0.5	7/22/2009	CAS	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	ug/L	0.5	7/22/2009	CAS	EPA 8260B	
1,1-Dichloroethane	ND	ug/L	0.5	7/22/2009	CAS	EPA 8260B	
1,1-Dichloroethene	ND	ug/L	0.5	7/22/2009	CAS	EPA 8260B	
1,2-Dibromoethane	ND	ug/L	0.1	7/22/2009	CAS	EPA 8260B	
1,2-Dichloroethane	ND	ug/L	0.5	7/22/2009	CAS	EPA 8260B	
Acetone	ND	ug/L	2.5	7/22/2009	CAS	EPA 8260B	
Benzene	ND	ug/L	0.5	7/22/2009	CAS	EPA 8260B	
Carbon disulfide	ND	ug/L	0.5	7/22/2009	CAS	EPA 8260B	
Chlorobenzene	ND	ug/L	0.5	7/22/2009	CAS	EPA 8260B	
Chloroform	ND	ug/L	0.1	7/22/2009	CAS	EPA 8260B	
Chloromethane	ND	ug/L	0.5	7/22/2009	CAS	EPA 8260B	
Ethylbenzene	ND	ug/L	0.5	7/22/2009	CAS	EPA 8260B	
m+p-Xylene	ND	ug/L	0.5	7/22/2009	CAS	EPA 8260B	
Methyl ethyl ketone (MEK)	ND	ug/L	2.5	7/22/2009	CAS	EPA 8260B	
Methylene chloride	ND	ug/L	2.5	7/22/2009	CAS	EPA 8260B	
o-Xylene	0.59	ug/L	0.5	7/22/2009	CAS	EPA 8260B	
Styrene	ND	ug/L	0.5	7/22/2009	CAS	EPA 8260B	
Tetrachloroethene	ND	ug/L	0.5	7/22/2009	CAS	EPA 8260B	
Toluene	0.80	ug/L	0.5	7/22/2009	CAS	EPA 8260B	
trans-1,2-Dichloroethene	ND	ug/L	0.5	7/22/2009	CAS	EPA 8260B	
Trichloroethene	ND	ug/L	0.5	7/22/2009	CAS	EPA 8260B	

Surrogate Data

Sample Number 090714019-005

Surrogate Standard	Method	Percent Recovery	Control Limits
1,2-Dichlorobenzene-d4	EPA 8260B	86.8	70-130
4-Bromofluorobenzene	EPA 8260B	103.2	70-130
Toluene-d8	EPA 8260B	100.8	70-130

Authorized Signature John W. Cobb

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

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

Batch #: 090714019
Project Name: 0907206

Analytical Results Report

Sample Number	090714019-001	**Sampling Date**	7/8/2009	**Date/Time Received**	7/14/2009	11:25 AM
Client Sample ID	0907206-01B / MW-4	**Sampling Time**	3:57 PM	**Extraction Date**	7/15/2009	
Matrix	Water	**Sample Location**				
Comments						

Parameter	Result	Units	MDL	PQL	Analysis Date	Analyst	Method	Qualifier
1,2,4,5-Tetrachlorobenzene	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
1,2,4-Trichlorobenzene	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
1,2-Dichlorobenzene	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
1,2-Diphenyl hydrazine	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
1,3,5-TNB	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
1,3-Dichlorobenzene	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
1,3-DNB	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
1,4-Dichlorobenzene	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
1,4-Naphthoquinone	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
1-Methylnaphthalene	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
1-Naphthylamine	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
2,2-Oxybis(1-chloropropane)	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
2,3,4,6-Tetrachlorophenol	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
2,3,5,6-Tetrachlorophenol	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
2,4,5-Trichlorophenol	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
2,4,6-Trichlorophenol	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
2,4-Dichlorophenol	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
2,4-Dimethylphenol	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
2,4-Dinitrophenol	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
2,4-Dinitrotoluene	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
2,6-Dichlorophenol	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
2,6-Dinitrotoluene	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
2-Acetylaminofluorene	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
2-Chloronaphthalene	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
2-Chlorophenol	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
2-Methylnaphthalene	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
2-Methylphenol	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
2-Naphthylamine	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
2-Nitroaniline	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
2-Nitrophenol	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
2-Picoline	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	

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

Batch #: 090714019
Project Name: 0907206

Analytical Results Report

Sample Number	090714019-001	**Sampling Date**	7/8/2009	**Date/Time Received**	7/14/2009	11:25 AM
Client Sample ID	0907206-01B / MW-4	**Sampling Time**	3:57 PM	**Extraction Date**	7/15/2009	
Matrix	Water	**Sample Location**				
Comments						

Parameter	Result	Units	MDL	PQL	Analysis Date	Analyst	Method	Qualifier
3,3'-Dichlorobenzidine	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
3,3-Dimethylbenzidine	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
3+4-Methylphenol	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
3-Methylcholanthrene	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
3-Nitroaniline	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
4,6-Dinitro-2-methylphenol	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
4-Aminobiphenyl	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
4-Bromophenyl-phenylether	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
4-Chloro-3-methylphenol	ND	ug/L	1	5	7/17/2009	EMP	EPA 8270C	
4-Chloroaniline	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
4-Chlorophenyl-phenylether	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
4-Nitroaniline	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
4-Nitrophenol	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
4-Nitroquinoline-1-oxide	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
5-Nitro-o-toluidine	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
7,12-Dimethylbenz(a)anthracene	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
a,a-Dimethylphenethylamine	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
Acenaphthene	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
Acenaphthylene	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
Acetonphenone	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
Aniline	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
Anthracene	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
Aramite	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
Benzidine	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
Benzo(ghi)perylene	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
Benzo[a]anthracene	ND	ug/L	0.05	0.1	7/17/2009	EMP	EPA 8270C	
Benzo[a]pyrene	ND	ug/L	0.05	0.1	7/17/2009	EMP	EPA 8270C	
Benzo[b]fluoranthene	ND	ug/L	0.05	0.1	7/17/2009	EMP	EPA 8270C	
Benzo[k]fluoranthene	ND	ug/L	0.05	0.1	7/17/2009	EMP	EPA 8270C	
Benzyl alcohol	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
bis(2-Chloroethoxy)methane	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
bis(2-Chloroethyl)ether	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	

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Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	090714019
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	0907206
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	090714019-001	**Sampling Date**	7/8/2009	**Date/Time Received**	7/14/2009 11:25 AM
Client Sample ID	0907206-01B / MW-4	**Sampling Time**	3:57 PM	**Extraction Date**	7/15/2009
Matrix	Water	**Sample Location**			
Comments					

Parameter	Result	Units	MDL	PQL	Analysis Date	Analyst	Method	Qualifier
bis(2-chloroisopropyl)ether	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
bis(2-Ethylhexyl)phthalate	ND	ug/L	1	5	7/17/2009	EMP	EPA 8270C	
Butylbenzylphthalate	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
Carbazole	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
Chlorobenzilate	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
Chrysene	ND	ug/L	0.05	0.1	7/17/2009	EMP	EPA 8270C	
Diallate	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
Dibenz[a,h]anthracene	ND	ug/L	0.05	0.1	7/17/2009	EMP	EPA 8270C	
Dibenzofuran	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
Diethylphthalate	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
Dimethoate	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
Dimethylphthalate	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
Di-n-butylphthalate	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
Di-n-octylphthalate	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
diphenylamine	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
Disulfoton	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
Ethyl methanesulfonate	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
Ethyl parathion	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
Fluoranthene	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
Fluorene	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
Hexachlorobenzene	ND	ug/L	0.1	1	7/17/2009	EMP	EPA 8270C	
Hexachlorobutadiene	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
Hexachlorocyclopentadiene	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
Hexachloroethane	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
Hexachloropropene	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
Hexachlorophene	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
Indeno[1,2,3-cd]pyrene	ND	ug/L	0.05	0.1	7/17/2009	EMP	EPA 8270C	
Isodrin	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
Isophorone	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
Isosafrole	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
Methapyrilene	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
Methyl methanesulfonate	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	

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Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	090714019
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	0907206
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	090714019-001	**Sampling Date**	7/8/2009	**Date/Time Received**	7/14/2009	11:25 AM
Client Sample ID	0907206-01B / MW-4	**Sampling Time**	3:57 PM	**Extraction Date**	7/15/2009	
Matrix	Water	**Sample Location**				
Comments						

Parameter	Result	Units	MDL	PQL	Analysis Date	Analyst	Method	Qualifier
Methyl parathion	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
Naphthalene	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
Nitrobenzene	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
Nitrosodimethylamine	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
n-nitrosodibutylamine	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
n-Nitrosodiethylamine	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
n-Nitroso-di-n-propylamine	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
n-Nitrosodiphenylamine	ND	ug/L	1	2	7/17/2009	EMP	EPA 8270C	
n-Nitrosomethylethylamine	ND	ug/L	1	2	7/17/2009	EMP	EPA 8270C	
n-Nitrosomorpholine	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
n-Nitrosopiperadine	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
n-Nitrosopyrrolidine	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
o,o,o-Triethyl phosphorothioate	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
o-Toluidine	ND	ug/L	1	2	7/17/2009	EMP	EPA 8270C	
p-(Dimethylamino)azobenzene	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
Pentachlorobenzene	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
Pentachloroethane	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
Pentachloronitrobenzene	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
Pentachlorophenol	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
Phenacetin	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
Phenanthrene	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
Phenol	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
Phorate	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
p-Phenylenediamine	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
Pronamide	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
Pyrene	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
Pyridine	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
Safrole	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
Sulfotep	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
Thionazin	ND	ug/L	1	10	7/17/2009	EMP	EPA 8270C	
1,4-Dioxane	ND	ug/L	1	5	7/24/2009	EMP	EPA 8270CMOD	
5-Methylchrysene	ND	ug/L	0.1	0.5	7/24/2009	EMP	EPA 8270CMOD	

Anatek Labs, Inc.

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

Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	090714019
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	0907206
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	090714019-001	**Sampling Date**	7/8/2009	**Date/Time Received**	7/14/2009	11:25 AM
Client Sample ID	0907206-01B / MW-4	**Sampling Time**	3:57 PM	**Extraction Date**	7/15/2009	
Matrix	Water	***Sample Location***				
Comments						

Parameter	Result	Units	MDL	PQL	Analysis Date	Analyst	Method	Qualifier
6-Methylchrysene	ND	ug/L	0.1	0.5	7/24/2009	EMP	EPA 8270CMOD	
Benzenethiole	ND	ug/L	0.1	0.5	7/24/2009	EMP	EPA 8270CMOD	
Dibenz[a,j]acridine	ND	ug/L	0.1	0.5	7/24/2009	EMP	EPA 8270CMOD	
Quinoline	ND	ug/L	0.1	0.5	7/24/2009	EMP	EPA 8270CMOD	

Surrogate Data

Sample Number 090714019-001

Surrogate Standard	Method	Percent Recovery	Control Limits
2,4,6-Tribromophenol	EPA 8270C	83.3	10-123
2-Fluorobiphenyl	EPA 8270C	83.0	19-130
2-Fluorophenol	EPA 8270C	80.6	21-110
Nitrobenzene-d5	EPA 8270C	97.9	25-130
Phenol-d5	EPA 8270C	85.1	10-125
Terphenyl-d14	EPA 8270C	88.5	33-141

Authorized Signature John W. Cobb

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Annual MW-4 Sampling **Work Order:** 0907206

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 300.0: Anions									
Sample ID: 0907206-01GMSD		*MSD*			Batch ID: **R34505**		Analysis Date:		7/13/2009 1:53:31 PM
Fluoride	0.8284	mg/L	0.10	91.8	75.3	117	0.533	20	
Chloride	20.77	mg/L	0.10	88.2	51.8	117	0.0684	20	E
Phosphorus, Orthophosphate (As P)	4.564	mg/L	0.50	91.3	74.5	116	3.15	20	H
Sample ID: MB		*MBLK*			Batch ID: **R34505**		Analysis Date:		7/13/2009 9:32:25 AM
Fluoride	ND	mg/L	0.10						
Chloride	ND	mg/L	0.10						
Nitrate (As N)+Nitrite (As N)	ND	mg/L	0.20						
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50						
Sulfate	ND	mg/L	0.50						
Sample ID: LCS		*LCS*			Batch ID: **R34505**		Analysis Date:		7/13/2009 9:49:50 AM
Fluoride	0.4976	mg/L	0.10	99.5	90	110			
Chloride	4.851	mg/L	0.10	97.0	90	110			
Nitrate (As N)+Nitrite (As N)	3.487	mg/L	0.20	99.6	90	110			
Phosphorus, Orthophosphate (As P)	4.894	mg/L	0.50	97.9	90	110			
Sulfate	9.759	mg/L	0.50	97.6	90	110			
Sample ID: 0907206-01GMS		*MS*			Batch ID: **R34505**		Analysis Date:		7/13/2009 1:36:07 PM
Fluoride	0.8240	mg/L	0.10	90.9	75.3	117			
Chloride	20.75	mg/L	0.10	87.9	51.8	117			E
Phosphorus, Orthophosphate (As P)	4.422	mg/L	0.50	88.4	74.5	116			H
Method: EPA Method 8015B: Diesel Range									
Sample ID: MB-19617		*MBLK*			Batch ID: **19617**		Analysis Date:		7/16/2009
Diesel Range Organics (DRO)	ND	mg/L	1.0						
Motor Oil Range Organics (MRO)	ND	mg/L	5.0						
Sample ID: LCS-19617		*LCS*			Batch ID: **19617**		Analysis Date:		7/16/2009
Diesel Range Organics (DRO)	5.972	mg/L	1.0	119	74	157			
Sample ID: LCSD-19617		*LCSD*			Batch ID: **19617**		Analysis Date:		7/16/2009
Diesel Range Organics (DRO)	6.098	mg/L	1.0	122	74	157	2.09	23	
Method: EPA Method 8015B: Gasoline Range									
Sample ID: 5ML RB		*MBLK*			Batch ID: **R34504**		Analysis Date:		7/13/2009 9:16:57 AM
Gasoline Range Organics (GRO)	ND	mg/L	0.050						
Sample ID: 2.5UG GRO LCS		*LCS*			Batch ID: **R34504**		Analysis Date:		7/13/2009 8:26:07 PM
Gasoline Range Organics (GRO)	0.4978	mg/L	0.050	99.6	80	115			
Sample ID: 2.5UG GRO LCSD		*LCSD*			Batch ID: **R34504**		Analysis Date:		7/13/2009 8:56:43 PM
Gasoline Range Organics (GRO)	0.4760	mg/L	0.050	95.2	80	115	4.48	8.39	

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Annual MW-4 Sampling **Work Order:** 0907206

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 7470: Mercury									
Sample ID: MBLK-19626		*MBLK*			Batch ID:	**19626**	Analysis Date:	7/17/2009 5:01:24 PM	
Mercury	ND	mg/L	0.00020						
Sample ID: LCS1-19626		*LCS*			Batch ID:	**19626**	Analysis Date:	7/17/2009 5:03:12 PM	
Mercury	0.005110	mg/L	0.00020	102	80	120			
Sample ID: LCS1-19626		*LCS*			Batch ID:	**19626**	Analysis Date:	7/17/2009 5:44:44 PM	
Mercury	0.004754	mg/L	0.00020	94.6	80	120			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Annual MW-4 Sampling **Work Order:** 0907206

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA 6010B: Total Recoverable Metals									
Sample ID: MB-19607		*MBLK*			Batch ID:	**19607**	Analysis Date:		7/19/2009 8:45:14 PM
Barium	ND	mg/L	0.010						
Beryllium	ND	mg/L	0.0030						
Cadmium	ND	mg/L	0.0020						
Calcium	ND	mg/L	0.50						
Chromium	ND	mg/L	0.0060						
Cobalt	ND	mg/L	0.0060						
Lead	ND	mg/L	0.0050						
Magnesium	ND	mg/L	0.50						
Nickel	ND	mg/L	0.010						
Potassium	ND	mg/L	1.0						
Silver	ND	mg/L	0.0050						
Sodium	ND	mg/L	0.50						
Vanadium	ND	mg/L	0.050						
Zinc	ND	mg/L	0.020						
Sample ID: LCS-19607		*LCS*			Batch ID:	**19607**	Analysis Date:		7/19/2009 8:48:20 PM
Barium	0.4950	mg/L	0.010	99.0	80	120			
Beryllium	0.5007	mg/L	0.0030	100	80	120			
Cadmium	0.4931	mg/L	0.0020	98.6	80	120			
Calcium	49.00	mg/L	0.50	97.9	80	120			
Chromium	0.4985	mg/L	0.0060	99.7	80	120			
Cobalt	0.5244	mg/L	0.0060	105	80	120			
Lead	0.4878	mg/L	0.0050	97.6	80	120			
Magnesium	49.42	mg/L	0.50	98.8	80	120			
Nickel	0.4705	mg/L	0.010	94.0	80	120			
Potassium	52.83	mg/L	1.0	106	80	120			
Silver	0.4992	mg/L	0.0050	99.7	80	120			
Sodium	52.89	mg/L	0.50	106	80	120			
Vanadium	0.5152	mg/L	0.050	103	80	120			
Zinc	0.4824	mg/L	0.020	96.0	80	120			
Sample ID: LCS-19607		*LCS*			Batch ID:	**19607**	Analysis Date:		7/19/2009 8:51:39 PM
Barium	0.4917	mg/L	0.010	98.3	80	120	0.669	0	
Beryllium	0.5004	mg/L	0.0030	100	80	120	0.0568	0	
Cadmium	0.4914	mg/L	0.0020	98.3	80	120	0.346	0	
Calcium	48.89	mg/L	0.50	97.7	80	120	0.222	0	
Chromium	0.4971	mg/L	0.0060	99.4	80	120	0.298	0	
Cobalt	0.5264	mg/L	0.0060	105	80	120	0.177	0	
Lead	0.4779	mg/L	0.0050	95.6	80	120	2.05	0	
Magnesium	49.39	mg/L	0.50	98.7	80	120	0.0517	0	
Nickel	0.4662	mg/L	0.010	93.1	80	120	0.936	0	
Potassium	52.75	mg/L	1.0	105	80	120	0.154	0	
Silver	0.4943	mg/L	0.0050	98.7	80	120	0.986	0	
Sodium	52.93	mg/L	0.50	106	80	120	0.0916	0	
Vanadium	0.5088	mg/L	0.050	102	80	120	1.25	0	
Zinc	0.4783	mg/L	0.020	95.1	80	120	0.847	0	

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name WESTERN REFINING GALLU | Date Received: 7/10/2009

Work Order Number 0907206 | Received by: TLS

Checklist completed by: _____ 7/10/09 | Sample ID labels checked by: _____ Initials

Signature | Date

Matrix: | Carrier name UPS

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☑	No ☐	N/A ☐	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Water - VOA vials have zero headspace? No VOA vials submitted ☐		Yes ☑	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☑	No ☐	N/A ☐	
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐	
Container/Temp Blank temperature?	2.1°	<6° C Acceptable If given sufficient time to cool.		

Number of preserved bottles checked for pH: 3

<2 >12 unless noted below.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

Chain-of-Custody Record

Client: Western Refining Gallup Refinery
Mailing Address: Rt 3 Box 7 Gallup, NM 87301
Phone #: 505 722 3833
email or Fax#: 505 722 0210
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
☐ Other
☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: 2009 Annual MW-4 Sampling
Project #: MW-4
Project Manager: G. Rayon
Sampler: Cheryl Johnson
On Ice: ☒ Yes ☐ No
Sample Temperature: 2.1

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 0907206
7/8/09	1557	H2O	MW-4	1L Amber	None	-1
				1-125ml	NaOH	-1
				1-500ml	HNO3	-1
				6-40ml	HCl	-1
				1-125ml	H2SO4	-1
				1-250ml	None	-1
			Field Blanks	3 40ml		-2

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Skinner lists	Gen Chem			Air Bubbles (Y or N)
									X		X	X			

Date	Time	Relinquished by:	Received by:	Date	Time
7/9/09	1000			7/10/09	1135
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks: Testing requirements per attached skinner lists, Table 2A, 2B, 2C & 2D. GenChem - Anions, pH Cations, Conduct.

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Monday, August 17, 2009

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

TEL: (505) 722-0227
FAX (505) 722-0210

RE: 2009 Annual MW Sampling

Order No.: 0907346

Dear Gaurav Rajen:

Hall Environmental Analysis Laboratory, Inc. received 4 sample(s) on 7/17/2009 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

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

Hall Environmental Analysis Laboratory, Inc. **Date:** *17-Aug-09*

CLIENT: Western Refining Southwest, Gallup
Project: 2009 Annual MW Sampling
Lab Order: 0907346

CASE NARRATIVE

Analytical Comments for METHOD 8015DRO_W, SAMPLE 0907346-03A: High surrogate recovery. Sample is clean so high recovery does not adversely affect sample result.

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Aug-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	MW-5
Lab Order:	0907346	**Collection Date:**	7/15/2009 3:31:00 PM
Project:	2009 Annual MW Sampling	**Date Received:**	7/17/2009
Lab ID:	0907346-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **SCC**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	7/21/2009
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	7/21/2009
Surr: DNOP	102	58-140		%REC	1	7/21/2009
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	7/24/2009 11:22:54 PM
Surr: BFB	74.8	59.9-122		%REC	1	7/24/2009 11:22:54 PM
EPA METHOD 300.0: ANIONS						Analyst: **RAGS**
Fluoride	0.76	0.10		mg/L	1	7/28/2009 10:08:07 AM
Chloride	66	2.0		mg/L	20	7/28/2009 10:25:32 AM
Nitrate (As N)+Nitrite (As N)	ND	1.0		mg/L	5	7/28/2009 10:42:56 AM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	7/28/2009 10:08:07 AM
Sulfate	180	10		mg/L	20	7/28/2009 10:25:32 AM
EPA METHOD 7470: MERCURY						Analyst: **SNV**
Mercury	ND	0.00020		mg/L	1	7/24/2009 4:01:37 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **SNV**
Barium	0.017	0.010		mg/L	1	7/22/2009 1:24:17 PM
Beryllium	ND	0.0030		mg/L	1	7/22/2009 1:24:17 PM
Cadmium	ND	0.0020		mg/L	1	7/22/2009 1:24:17 PM
Calcium	1.5	0.50		mg/L	1	7/22/2009 1:24:17 PM
Chromium	ND	0.0060		mg/L	1	7/22/2009 1:24:17 PM
Cobalt	ND	0.0060		mg/L	1	7/23/2009 4:54:21 PM
Lead	ND	0.0050		mg/L	1	7/22/2009 1:24:17 PM
Magnesium	ND	0.50		mg/L	1	7/22/2009 1:24:17 PM
Nickel	ND	0.010		mg/L	1	7/22/2009 1:24:17 PM
Potassium	ND	1.0		mg/L	1	7/22/2009 1:24:17 PM
Silver	ND	0.0050		mg/L	1	7/22/2009 1:24:17 PM
Sodium	260	2.5		mg/L	5	7/22/2009 2:59:12 PM
Vanadium	ND	0.050		mg/L	1	7/22/2009 1:24:17 PM
Zinc	ND	0.020		mg/L	1	7/22/2009 1:24:17 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **DAM**
Specific Conductance	1100	0.010		µmhos/cm	1	7/21/2009
SM4500-H+B: PH						Analyst: **DAM**
pH	8.96	0.1		pH units	1	7/21/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Aug-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	MW-1
Lab Order:	0907346	**Collection Date:**	7/16/2009 11:06:00 AM
Project:	2009 Annual MW Sampling	**Date Received:**	7/17/2009
Lab ID:	0907346-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **SCC**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	7/21/2009
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	7/21/2009
Surr: DNOP	103	58-140		%REC	1	7/21/2009
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	7/24/2009 11:53:24 PM
Surr: BFB	78.2	59.9-122		%REC	1	7/24/2009 11:53:24 PM
EPA METHOD 300.0: ANIONS						Analyst: **RAGS**
Fluoride	0.76	0.10		mg/L	1	7/28/2009 11:00:21 AM
Chloride	53	2.0		mg/L	20	7/28/2009 11:17:46 AM
Nitrate (As N)+Nitrite (As N)	ND	1.0		mg/L	5	7/28/2009 11:35:10 AM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	7/28/2009 11:00:21 AM
Sulfate	160	10		mg/L	20	7/28/2009 11:17:46 AM
EPA METHOD 7470: MERCURY						Analyst: **SNV**
Mercury	ND	0.00020		mg/L	1	7/24/2009 4:03:21 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **SNV**
Barium	0.015	0.010		mg/L	1	7/22/2009 1:28:38 PM
Beryllium	ND	0.0030		mg/L	1	7/22/2009 1:28:38 PM
Cadmium	ND	0.0020		mg/L	1	7/22/2009 1:28:38 PM
Calcium	2.1	0.50		mg/L	1	7/22/2009 1:28:38 PM
Chromium	ND	0.0060		mg/L	1	7/22/2009 1:28:38 PM
Cobalt	ND	0.0060		mg/L	1	7/23/2009 4:59:59 PM
Lead	ND	0.0050		mg/L	1	7/22/2009 1:28:38 PM
Magnesium	ND	0.50		mg/L	1	7/22/2009 1:28:38 PM
Nickel	ND	0.010		mg/L	1	7/22/2009 1:28:38 PM
Potassium	ND	1.0		mg/L	1	7/22/2009 1:28:38 PM
Silver	ND	0.0050		mg/L	1	7/22/2009 1:28:38 PM
Sodium	250	2.5		mg/L	5	7/22/2009 3:02:24 PM
Vanadium	ND	0.050		mg/L	1	7/22/2009 1:28:38 PM
Zinc	ND	0.020		mg/L	1	7/22/2009 1:28:38 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **DAM**
Specific Conductance	1100	0.010		µmhos/cm	1	7/21/2009
SM4500-H+B: PH						Analyst: **DAM**
pH	9.02	0.1		pH units	1	7/21/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Aug-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	MW-2
Lab Order:	0907346	**Collection Date:**	7/16/2009 2:21:00 PM
Project:	2009 Annual MW Sampling	**Date Received:**	7/17/2009
Lab ID:	0907346-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **SCC**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	7/21/2009
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	7/21/2009
Surr: DNOP	142	58-140	S	%REC	1	7/21/2009
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	7/25/2009 12:23:46 AM
Surr: BFB	71.7	59.9-122		%REC	1	7/25/2009 12:23:46 AM
EPA METHOD 300.0: ANIONS						Analyst: **RAGS**
Fluoride	0.82	0.10		mg/L	1	7/28/2009 11:52:35 AM
Chloride	60	2.0		mg/L	20	7/28/2009 12:10:00 PM
Nitrate (As N)+Nitrite (As N)	ND	1.0		mg/L	5	7/28/2009 1:02:14 PM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	7/28/2009 11:52:35 AM
Sulfate	170	10		mg/L	20	7/28/2009 12:10:00 PM
EPA METHOD 7470: MERCURY						Analyst: **MMS**
Mercury	ND	0.00020		mg/L	1	7/31/2009 4:36:50 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **SNV**
Barium	0.019	0.010		mg/L	1	7/22/2009 1:32:54 PM
Beryllium	ND	0.0030		mg/L	1	7/22/2009 1:32:54 PM
Cadmium	ND	0.0020		mg/L	1	7/22/2009 1:32:54 PM
Calcium	1.6	0.50		mg/L	1	7/22/2009 1:32:54 PM
Chromium	ND	0.0060		mg/L	1	7/22/2009 1:32:54 PM
Cobalt	ND	0.0060		mg/L	1	7/23/2009 5:04:05 PM
Lead	ND	0.0050		mg/L	1	7/22/2009 1:32:54 PM
Magnesium	ND	0.50		mg/L	1	7/22/2009 1:32:54 PM
Nickel	ND	0.010		mg/L	1	7/22/2009 1:32:54 PM
Potassium	ND	1.0		mg/L	1	7/22/2009 1:32:54 PM
Silver	ND	0.0050		mg/L	1	7/22/2009 1:32:54 PM
Sodium	250	2.5		mg/L	5	7/22/2009 3:05:36 PM
Vanadium	ND	0.050		mg/L	1	7/22/2009 1:32:54 PM
Zinc	ND	0.020		mg/L	1	7/22/2009 1:32:54 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **NSB**
Specific Conductance	1100	0.010		µmhos/cm	1	7/30/2009
SM4500-H+B: PH						Analyst: **NSB**
pH	9.00	0.1		pH units	1	7/30/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Aug-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	Trip Blank
Lab Order:	0907346	**Collection Date:**	
Project:	2009 Annual MW Sampling	**Date Received:**	7/17/2009
Lab ID:	0907346-04	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	7/25/2009 12:54:05 AM
Surr: BFB	75.4	59.9-122		%REC	1	7/25/2009 12:54:05 AM

Qualifiers:

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

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

Batch #: 090721026
Project Name: 0907346

Analytical Results Report

Sample Number	090721026-003	**Sampling Date**	7/15/2009	**Date/Time Received**	7/21/2009 2:22 PM
Client Sample ID	0907346-01E / MW-5	**Sampling Time**	3:31 PM		
Matrix	Water				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Antimony	ND	mg/L	0.001	8/10/2009	ETL	EPA 6020A	
Arsenic	ND	mg/L	0.001	8/10/2009	ETL	EPA 6020A	
Selenium	ND	mg/L	0.001	8/10/2009	ETL	EPA 6020A	

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Batch #: 090721026
Project Name: 0907346

Analytical Results Report

Sample Number	090721026-004	**Sampling Date**	7/15/2009	**Date/Time Received**	7/21/2009 2:22 PM
Client Sample ID	0907346-01F / MW-5	**Sampling Time**	3:31 PM		
Matrix	Water				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/L	0.01	7/27/2009	JTT	EPA 335.4	

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ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Batch #: 090721026
Project Name: 0907346

Analytical Results Report

Sample Number	090721026-007	**Sampling Date**	7/16/2009	**Date/Time Received**	7/21/2009 2:22 PM
Client Sample ID	0907346-02E / MW-1	**Sampling Time**	11:06 AM		
Matrix	Water				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Antimony	ND	mg/L	0.001	8/10/2009	ETL	EPA 6020A	
Arsenic	0.00124	mg/L	0.001	8/10/2009	ETL	EPA 6020A	
Selenium	ND	mg/L	0.001	8/10/2009	ETL	EPA 6020A	

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Address: 4901 HAWKINS NE SUITE D
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Attn: ANDY FREEMAN

Batch #: 090721026
Project Name: 0907346

Analytical Results Report

Sample Number	090721026-008	**Sampling Date**	7/16/2009	**Date/Time Received**	7/21/2009 2:22 PM
Client Sample ID	0907346-02F / MW-1	**Sampling Time**	11:06 AM		
Matrix	Water				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/L	0.01	7/29/2009	JTT	EPA 335.4	

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Address: 4901 HAWKINS NE SUITE D
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Attn: ANDY FREEMAN

Batch #: 090721026
Project Name: 0907346

Analytical Results Report

Sample Number	090721026-011	**Sampling Date**	7/16/2009	**Date/Time Received**	7/21/2009 2:22 PM
Client Sample ID	0907346-03E / MW-2	**Sampling Time**	2:21 PM		
Matrix	Water				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Antimony	ND	mg/L	0.001	8/10/2009	ETL	EPA 6020A	
Arsenic	0.00104	mg/L	0.001	8/10/2009	ETL	EPA 6020A	
Selenium	ND	mg/L	0.001	8/10/2009	ETL	EPA 6020A	

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Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Batch #: 090721026
Project Name: 0907346

Analytical Results Report

Sample Number	090721026-012	**Sampling Date**	7/16/2009	**Date/Time Received**	7/21/2009	2:22 PM
Client Sample ID	0907346-03F / MW-2	**Sampling Time**	2:21 PM			
Matrix	Water					
Comments						

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/L	0.01	7/29/2009	JTT	EPA 335.4	

Authorized Signature

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

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Attn: ANDY FREEMAN

Batch #: 090721026
Project Name: 0907346

Analytical Results Report

Sample Number	090721026-002	**Sampling Date**	7/15/2009	**Date/Time Received**	7/21/2009 2:22 PM
Client Sample ID	0907346-01C / MW-5	**Sampling Time**	3:31 PM		
Matrix	Water				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
1,1,1-Trichloroethane	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
1,1-Dichloroethane	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
1,1-Dichloroethene	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
1,2-Dibromoethane	ND	ug/L	0.1	7/27/2009	CAS	EPA 8260B	
1,2-Dichloroethane	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
1,4-Dichlorobenzene	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
Acetone	4.92	ug/L	2.5	7/27/2009	CAS	EPA 8260B	
Benzene	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
Carbon disulfide	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
Chlorobenzene	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
Chloroform	ND	ug/L	0.1	7/27/2009	CAS	EPA 8260B	
Chloromethane	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
Ethylbenzene	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
m+p-Xylene	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
Methyl ethyl ketone (MEK)	ND	ug/L	2.5	7/27/2009	CAS	EPA 8260B	
Methylene chloride	ND	ug/L	2.5	7/27/2009	CAS	EPA 8260B	
o-Xylene	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
Styrene	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
Tetrachloroethene	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
Toluene	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
trans-1,2-Dichloroethene	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
Trichloroethene	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	

Surrogate Data

Sample Number 090721026-002

Surrogate Standard	Method	Percent Recovery	Control Limits
1,2-Dichlorobenzene-d4	EPA 8260B	82.8	70-130
4-Bromofluorobenzene	EPA 8260B	102.8	70-130
Toluene-d8	EPA 8260B	96.8	70-130

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Batch #: 090721026
Project Name: 0907346

Analytical Results Report

Sample Number	090721026-006	**Sampling Date**	7/16/2009	**Date/Time Received**	7/21/2009 2:22 PM
Client Sample ID	0907346-02C / MW-1	**Sampling Time**	11:06 AM		
Matrix	Water				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
1,1,1-Trichloroethane	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
1,1-Dichloroethane	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
1,1-Dichloroethene	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
1,2-Dibromoethane	ND	ug/L	0.1	7/27/2009	CAS	EPA 8260B	
1,2-Dichloroethane	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
1,4-Dichlorobenzene	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
Acetone	ND	ug/L	2.5	7/27/2009	CAS	EPA 8260B	
Benzene	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
Carbon disulfide	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
Chlorobenzene	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
Chloroform	ND	ug/L	0.1	7/27/2009	CAS	EPA 8260B	
Chloromethane	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
Ethylbenzene	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
m+p-Xylene	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
Methyl ethyl ketone (MEK)	ND	ug/L	2.5	7/27/2009	CAS	EPA 8260B	
Methylene chloride	ND	ug/L	2.5	7/27/2009	CAS	EPA 8260B	
o-Xylene	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
Styrene	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
Tetrachloroethene	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
Toluene	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
trans-1,2-Dichloroethene	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
Trichloroethene	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	

Surrogate Data

Sample Number 090721026-006

Surrogate Standard	Method	Percent Recovery	Control Limits
1,2-Dichlorobenzene-d4	EPA 8260B	81.2	70-130
4-Bromofluorobenzene	EPA 8260B	101.6	70-130
Toluene-d8	EPA 8260B	97.6	70-130

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Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Batch #: 090721026
Project Name: 0907346

Analytical Results Report

Sample Number 090721026-010 **Sampling Date** 7/16/2009 **Date/Time Received** 7/21/2009 2:22 PM
Client Sample ID 0907346-03C / MW-2 **Sampling Time** 2:21 PM
Matrix Water
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
1,1,1-Trichloroethane	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
1,1-Dichloroethane	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
1,1-Dichloroethene	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
1,2-Dibromoethane	ND	ug/L	0.1	7/27/2009	CAS	EPA 8260B	
1,2-Dichloroethane	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
1,4-Dichlorobenzene	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
Acetone	ND	ug/L	2.5	7/27/2009	CAS	EPA 8260B	
Benzene	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
Carbon disulfide	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
Chlorobenzene	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
Chloroform	ND	ug/L	0.1	7/27/2009	CAS	EPA 8260B	
Chloromethane	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
Ethylbenzene	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
m+p-Xylene	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
Methyl ethyl ketone (MEK)	ND	ug/L	2.5	7/27/2009	CAS	EPA 8260B	
Methylene chloride	ND	ug/L	2.5	7/27/2009	CAS	EPA 8260B	
o-Xylene	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
Styrene	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
Tetrachloroethene	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
Toluene	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
trans-1,2-Dichloroethene	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
Trichloroethene	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	

Surrogate Data

Sample Number 090721026-010

Surrogate Standard	Method	Percent Recovery	Control Limits
1,2-Dichlorobenzene-d4	EPA 8260B	81.2	70-130
4-Bromofluorobenzene	EPA 8260B	101.2	70-130
Toluene-d8	EPA 8260B	98.4	70-130

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ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Batch #: 090721026
Project Name: 0907346

Analytical Results Report

Sample Number 090721026-013 **Sampling Date** 7/15/2009 **Date/Time Received** 7/21/2009 2:22 PM
Client Sample ID 0907346-04C / TRIP BLANK **Sampling Time**
Matrix Water
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
1,1,1-Trichloroethane	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
1,1-Dichloroethane	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
1,1-Dichloroethene	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
1,2-Dibromoethane	ND	ug/L	0.1	7/27/2009	CAS	EPA 8260B	
1,2-Dichloroethane	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
1,4-Dichlorobenzene	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
Acetone	9.66	ug/L	2.5	7/27/2009	CAS	EPA 8260B	
Benzene	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
Carbon disulfide	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
Chlorobenzene	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
Chloroform	ND	ug/L	0.1	7/27/2009	CAS	EPA 8260B	
Chloromethane	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
Ethylbenzene	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
m+p-Xylene	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
Methyl ethyl ketone (MEK)	3.04	ug/L	2.5	7/27/2009	CAS	EPA 8260B	
Methylene chloride	ND	ug/L	2.5	7/27/2009	CAS	EPA 8260B	
o-Xylene	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
Styrene	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
Tetrachloroethene	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
Toluene	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
trans-1,2-Dichloroethene	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	
Trichloroethene	ND	ug/L	0.5	7/27/2009	CAS	EPA 8260B	

Surrogate Data

Sample Number 090721026-013

Surrogate Standard	Method	Percent Recovery	Control Limits
1,2-Dichlorobenzene-d4	EPA 8260B	81.2	70-130
4-Bromofluorobenzene	EPA 8260B	104.0	70-130
Toluene-d8	EPA 8260B	98.8	70-130

Authorized Signature John W. Caddell

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

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Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	090721026
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	0907346
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	090721026-001	**Sampling Date**	7/15/2009	**Date/Time Received**	7/21/2009	11:40 AM
Client Sample ID	0907346-01B / MW-5	**Sampling Time**	3:31 PM	**Extraction Date**	7/21/2009	
Matrix	Water	**Sample Location**				
Comments						

Parameter	Result	Units	MDL	PQL	Analysis Date	Analyst	Method	Qualifier
1,2,4,5-Tetrachlorobenzene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
1,2,4-Trichlorobenzene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
1,2-Dichlorobenzene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
1,2-Diphenyl hydrazine	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
1,3,5-TNB	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
1,3-Dichlorobenzene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
1,3-DNB	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
1,4-Dichlorobenzene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
1,4-Naphthoquinone	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
1-Methylnaphthalene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
1-Naphthylamine	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
2,2-Oxybis(1-chloropropane)	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
2,3,4,6-Tetrachlorophenol	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
2,3,5,6-Tetrachlorophenol	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
2,4,5-Trichlorophenol	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
2,4,6-Trichlorophenol	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
2,4-Dichlorophenol	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
2,4-Dimethylphenol	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
2,4-Dinitrophenol	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
2,4-Dinitrotoluene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
2,6-Dichlorophenol	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
2,6-Dinitrotoluene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
2-Acetylaminofluorene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
2-Chloronaphthalene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
2-Chlorophenol	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
2-Methylnaphthalene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
2-Methylphenol	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
2-Naphthylamine	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
2-Nitroaniline	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	

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

Batch #: 090721026
Project Name: 0907346

Analytical Results Report

Sample Number	090721026-001	**Sampling Date**	7/15/2009	**Date/Time Received**	7/21/2009	11:40 AM
Client Sample ID	0907346-01B / MW-5	**Sampling Time**	3:31 PM	**Extraction Date**	7/21/2009	
Matrix	Water	**Sample Location**				
Comments						

Parameter	Result	Units	MDL	PQL	Analysis Date	Analyst	Method	Qualifier
2-Nitrophenol	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
2-Picoline	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
3,3'-Dichlorobenzidine	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
3,3-Dimethylbenzidine	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
3+4-Methylphenol	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
3-Methylcholanthrene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
3-Nitroaniline	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
4,6-Dinitro-2-methylphenol	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
4-Aminobiphenyl	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
4-Bromophenyl-phenylether	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
4-Chloro-3-methylphenol	ND	ug/L	1	5	7/24/2009	EMP	EPA 8270C	
4-Chloroaniline	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
4-Chlorophenyl-phenylether	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
4-Nitroaniline	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
4-Nitrophenol	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
4-Nitroquinoline-1-oxide	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
5-Nitro-o-toluidine	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
7,12-Dimethylbenz(a)anthracene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
a,a-Dimethylphenethylamine	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Acenaphthene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Acenaphthylene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Acetonphenone	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Aniline	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Anthracene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Aramite	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Benzidine	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Benzo(ghi)perylene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Benzo[a]anthracene	ND	ug/L	0.05	0.1	7/24/2009	EMP	EPA 8270C	
Benzo[a]pyrene	ND	ug/L	0.05	0.1	7/24/2009	EMP	EPA 8270C	
Benzo[b]fluoranthene	ND	ug/L	0.05	0.1	7/24/2009	EMP	EPA 8270C	
Benzo[k]fluoranthene	ND	ug/L	0.05	0.1	7/24/2009	EMP	EPA 8270C	

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

Batch #: 090721026
Project Name: 0907346

Analytical Results Report

Sample Number	090721026-001	**Sampling Date**	7/15/2009	**Date/Time Received**	7/21/2009 11:40 AM
Client Sample ID	0907346-01B / MW-5	**Sampling Time**	3:31 PM	**Extraction Date**	7/21/2009
Matrix	Water	**Sample Location**			
Comments					

Parameter	Result	Units	MDL	PQL	Analysis Date	Analyst	Method	Qualifier
Benzyl alcohol	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
bis(2-Chloroethoxy)methane	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
bis(2-Chloroethyl)ether	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
bis(2-chloroisopropyl)ether	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
bis(2-Ethylhexyl)phthalate	ND	ug/L	1	5	7/24/2009	EMP	EPA 8270C	
Butylbenzylphthalate	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Carbazole	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Chlorobenzilate	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Chrysene	ND	ug/L	0.05	0.1	7/24/2009	EMP	EPA 8270C	
Diallate	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Dibenz[a,h]anthracene	ND	ug/L	0.05	0.1	7/24/2009	EMP	EPA 8270C	
Dibenzofuran	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Diethylphthalate	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Dimethoate	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Dimethylphthalate	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Di-n-butylphthalate	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Di-n-octylphthalate	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
diphenylamine	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Disulfoton	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Ethyl methanesulfonate	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Ethyl parathion	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Fluoranthene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Fluorene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Hexachlorobenzene	ND	ug/L	0.1	1	7/24/2009	EMP	EPA 8270C	
Hexachlorobutadiene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Hexachlorocyclopentadiene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Hexachloroethane	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Hexachloropropene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Hexachorophene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Indeno[1,2,3-cd]pyrene	ND	ug/L	0.05	0.1	7/24/2009	EMP	EPA 8270C	
Isodrin	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	

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Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	090721026
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	0907346
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	090721026-001	**Sampling Date**	7/15/2009	**Date/Time Received**	7/21/2009	11:40 AM
Client Sample ID	0907346-01B / MW-5	**Sampling Time**	3:31 PM	**Extraction Date**	7/21/2009	
Matrix	Water	**Sample Location**				
Comments						

Parameter	Result	Units	MDL	PQL	Analysis Date	Analyst	Method	Qualifier
Isophorone	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Isosafrole	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Methapyrilene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Methyl methanesulfonate	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Methyl parathion	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Naphthalene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Nitrobenzene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Nitrosodimethylamine	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
n-nitrosodibutylamine	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
n-Nitrosodiethylamine	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
n-Nitroso-di-n-propylamine	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
n-Nitrosodiphenylamine	ND	ug/L	1	2	7/24/2009	EMP	EPA 8270C	
n-Nitrosomethylethylamine	ND	ug/L	1	2	7/24/2009	EMP	EPA 8270C	
n-Nitrosomorpholine	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
n-Nitrosopiperadine	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
n-Nitrosopyrrolidine	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
o,o,o-Triethyl phosphorothioate	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
o-Toluidine	ND	ug/L	1	2	7/24/2009	EMP	EPA 8270C	
p-(Dimethylamino)azobenzene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Pentachlorobenzene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Pentachloroethane	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Pentachloronitrobenzene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Pentachlorophenol	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Phenacetin	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Phenanthrene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Phenol	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Phorate	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
p-Phenylenediamine	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Pronamide	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Pyrene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Pyridine	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	

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Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	090721026
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	0907346
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	090721026-001	**Sampling Date**	7/15/2009	**Date/Time Received**	7/21/2009 11:40 AM
Client Sample ID	0907346-01B / MW-5	**Sampling Time**	3:31 PM	**Extraction Date**	7/21/2009
Matrix	Water	**Sample Location**			
Comments					

Parameter	Result	Units	MDL	PQL	Analysis Date	Analyst	Method	Qualifier
Safrole	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Sulfotep	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Thionazin	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
1,4-Dioxane	ND	ug/L	1	5	7/24/2009	EMP	EPA 8270C	
5-Methylchrysene	ND	ug/L	0.1	1	7/24/2009	EMP	EPA 8270C	
6-Methylchrysene	ND	ug/L	0.1	1	7/24/2009	EMP	EPA 8270C	
Benzenethiole	ND	ug/L	0.5	5	7/24/2009	EMP	EPA 8270C	
Dibenz(a,j)acridine	ND	ug/L	0.1	1	7/24/2009	EMP	EPA 8270C	
Quinoline	ND	ug/L	0.5	5	7/24/2009	EMP	EPA 8270C	

Surrogate Data

Sample Number 090721026-001

Surrogate Standard	Method	Percent Recovery	Control Limits
2,4,6-Tribromophenol	EPA 8270C	83.0	10-123
2-Fluorobiphenyl	EPA 8270C	32.8	19-130
2-Fluorophenol	EPA 8270C	82.2	21-110
Nitrobenzene-d5	EPA 8270C	90.6	25-130
Phenol-d5	EPA 8270C	87.4	10-125
Terphenyl-d14	EPA 8270C	101.6	33-141

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Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	090721026
Address:	4901 HAWKINS NE SUITE D	**Project Name:**	0907346
	ALBUQUERQUE, NM 87109		
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	090721026-005	**Sampling Date**	7/16/2009	**Date/Time Received**	7/21/2009	11:40 AM
Client Sample ID	0907346-02B / MW-1	**Sampling Time**	11:06 AM	**Extraction Date**	7/21/2009	
Matrix	Water	**Sample Location**				
Comments						

Parameter	Result	Units	MDL	PQL	Analysis Date	Analyst	Method	Qualifier
1,2,4,5-Tetrachlorobenzene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
1,2,4-Trichlorobenzene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
1,2-Dichlorobenzene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
1,2-Diphenyl hydrazine	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
1,3,5-TNB	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
1,3-Dichlorobenzene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
1,3-DNB	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
1,4-Dichlorobenzene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
1,4-Naphthoquinone	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
1-Methylnaphthalene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
1-Naphthylamine	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
2,2-Oxybis(1-chloropropane)	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
2,3,4,6-Tetrachlorophenol	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
2,3,5,6-Tetrachlorophenol	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
2,4,5-Trichlorophenol	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
2,4,6-Trichlorophenol	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
2,4-Dichlorophenol	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
2,4-Dimethylphenol	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
2,4-Dinitrophenol	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
2,4-Dinitrotoluene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
2,6-Dichlorophenol	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
2,6-Dinitrotoluene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
2-Acetylaminofluorene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
2-Chloronaphthalene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
2-Chlorophenol	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
2-Methylnaphthalene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
2-Methylphenol	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
2-Naphthylamine	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
2-Nitroaniline	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
2-Nitrophenol	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
2-Picoline	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	

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

Batch #: 090721026
Project Name: 0907346

Analytical Results Report

Sample Number	090721026-005	**Sampling Date**	7/16/2009	**Date/Time Received**	7/21/2009	11:40 AM
Client Sample ID	0907346-02B / MW-1	**Sampling Time**	11:06 AM	**Extraction Date**	7/21/2009	
Matrix	Water	**Sample Location**				
Comments						

Parameter	Result	Units	MDL	PQL	Analysis Date	Analyst	Method	Qualifier
3,3'-Dichlorobenzidine	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
3,3-Dimethylbenzidine	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
3+4-Methylphenol	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
3-Methylcholanthrene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
3-Nitroaniline	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
4,6-Dinitro-2-methylphenol	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
4-Aminobiphenyl	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
4-Bromophenyl-phenylether	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
4-Chloro-3-methylphenol	ND	ug/L	1	5	7/24/2009	EMP	EPA 8270C	
4-Chloroaniline	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
4-Chlorophenyl-phenylether	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
4-Nitroaniline	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
4-Nitrophenol	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
4-Nitroquinoline-1-oxide	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
5-Nitro-o-toluidine	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
7,12-Dimethylbenz(a)anthracene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
a,a-Dimethylphenethylamine	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Acenaphthene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Acenaphthylene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Acetonphenone	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Aniline	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Anthracene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Aramite	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Benzidine	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Benzo(ghi)perylene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Benzo[a]anthracene	ND	ug/L	0.05	0.1	7/24/2009	EMP	EPA 8270C	
Benzo[a]pyrene	ND	ug/L	0.05	0.1	7/24/2009	EMP	EPA 8270C	
Benzo[b]fluoranthene	ND	ug/L	0.05	0.1	7/24/2009	EMP	EPA 8270C	
Benzo[k]fluoranthene	ND	ug/L	0.05	0.1	7/24/2009	EMP	EPA 8270C	
Benzyl alcohol	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
bis(2-Chloroethoxy)methane	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	

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Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	090721026
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	0907346
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	090721026-005	**Sampling Date**	7/16/2009	**Date/Time Received**	7/21/2009	11:40 AM
Client Sample ID	0907346-02B / MW-1	**Sampling Time**	11:06 AM	**Extraction Date**	7/21/2009	
Matrix	Water	**Sample Location**				
Comments						

Parameter	Result	Units	MDL	PQL	Analysis Date	Analyst	Method	Qualifier
bis(2-Chloroethyl)ether	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
bis(2-chloroisopropyl)ether	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
bis(2-Ethylhexyl)phthalate	ND	ug/L	1	5	7/24/2009	EMP	EPA 8270C	
Butylbenzylphthalate	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Carbazole	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Chlorobenzilate	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Chrysene	ND	ug/L	0.05	0.1	7/24/2009	EMP	EPA 8270C	
Diallate	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Dibenz[a,h]anthracene	ND	ug/L	0.05	0.1	7/24/2009	EMP	EPA 8270C	
Dibenzofuran	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Diethylphthalate	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Dimethoate	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Dimethylphthalate	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Di-n-butylphthalate	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Di-n-octylphthalate	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
diphenylamine	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Disulfoton	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Ethyl methanesulfonate	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Ethyl parathion	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Fluoranthene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Fluorene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Hexachlorobenzene	ND	ug/L	0.1	1	7/24/2009	EMP	EPA 8270C	
Hexachlorobutadiene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Hexachlorocyclopentadiene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Hexachloroethane	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Hexachloropropene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Hexachorophene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Indeno[1,2,3-cd]pyrene	ND	ug/L	0.05	0.1	7/24/2009	EMP	EPA 8270C	
Isodrin	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Isophorone	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Isosafrole	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	

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

Batch #: 090721026
Project Name: 0907346

Analytical Results Report

Sample Number	090721026-005	**Sampling Date**	7/16/2009	**Date/Time Received**	7/21/2009	11:40 AM
Client Sample ID	0907346-02B / MW-1	**Sampling Time**	11:06 AM	**Extraction Date**	7/21/2009	
Matrix	Water	**Sample Location**				
Comments						

Parameter	Result	Units	MDL	PQL	Analysis Date	Analyst	Method	Qualifier
Methapyrilene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Methyl methanesulfonate	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Methyl parathion	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Naphthalene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Nitrobenzene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Nitrosodimethylamine	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
n-nitrosodibutylamine	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
n-Nitrosodiethylamine	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
n-Nitroso-di-n-propylamine	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
n-Nitrosodiphenylamine	ND	ug/L	1	2	7/24/2009	EMP	EPA 8270C	
n-Nitrosomethylethylamine	ND	ug/L	1	2	7/24/2009	EMP	EPA 8270C	
n-Nitrosomorpholine	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
n-Nitrosopiperadine	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
n-Nitrosopyrrolidine	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
o,o,o-Triethyl phosphorothioate	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
o-Toluidine	ND	ug/L	1	2	7/24/2009	EMP	EPA 8270C	
p-(Dimethylamino)azobenzene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Pentachlorobenzene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Pentachloroethane	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Pentachloronitrobenzene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Pentachlorophenol	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Phenacetin	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Phenanthrene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Phenol	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Phorate	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
p-Phenylenediamine	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Pronamide	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Pyrene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Pyridine	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Safrole	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Sulfotep	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	

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

Batch #: 090721026
Project Name: 0907346

Analytical Results Report

Sample Number	090721026-005	**Sampling Date**	7/16/2009	**Date/Time Received**	7/21/2009	11:40 AM
Client Sample ID	0907346-02B / MW-1	**Sampling Time**	11:06 AM	**Extraction Date**	7/21/2009	
Matrix	Water	**Sample Location**				
Comments						

Parameter	Result	Units	MDL	PQL	Analysis Date	Analyst	Method	Qualifier
Thionazin	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
1,4-Dioxane	ND	ug/L	1	5	7/24/2009	EMP	EPA 8270C	
5-Methylchrysene	ND	ug/L	0.1	1	7/24/2009	EMP	EPA 8270C	
6-Methylchrysene	ND	ug/L	0.1	1	7/24/2009	EMP	EPA 8270C	
Benzenethiole	ND	ug/L	0.5	5	7/24/2009	EMP	EPA 8270C	
Dibenz(a,j)acridine	ND	ug/L	0.1	1	7/24/2009	EMP	EPA 8270C	
Quinoline	ND	ug/L	0.5	5	7/24/2009	EMP	EPA 8270C	

Surrogate Data

Sample Number 090721026-005

Surrogate Standard	Method	Percent Recovery	Control Limits
2,4,6-Tribromophenol	EPA 8270C	83.1	10-123
2-Fluorobiphenyl	EPA 8270C	43.4	19-130
2-Fluorophenol	EPA 8270C	85.0	21-110
Nitrobenzene-d5	EPA 8270C	94.1	25-130
Phenol-d5	EPA 8270C	88.8	10-125
Terphenyl-d14	EPA 8270C	97.9	33-141

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Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Batch #: 090721026
Project Name: 0907346

Analytical Results Report

Sample Number	090721026-009	**Sampling Date**	7/16/2009	**Date/Time Received**	7/21/2009	11:40 AM
Client Sample ID	0907346-03B / MW-2	**Sampling Time**	2:21 PM	**Extraction Date**	7/21/2009	
Matrix	Water	**Sample Location**				
Comments						

Parameter	Result	Units	MDL	PQL	Analysis Date	Analyst	Method	Qualifier
1,2,4,5-Tetrachlorobenzene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
1,2,4-Trichlorobenzene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
1,2-Dichlorobenzene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
1,2-Diphenyl hydrazine	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
1,3,5-TNB	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
1,3-Dichlorobenzene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
1,3-DNB	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
1,4-Dichlorobenzene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
1,4-Naphthoquinone	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
1-Methylnaphthalene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
1-Naphthylamine	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
2,2-Oxybis(1-chloropropane)	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
2,3,4,6-Tetrachlorophenol	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
2,3,5,6-Tetrachlorophenol	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
2,4,5-Trichlorophenol	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
2,4,6-Trichlorophenol	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
2,4-Dichlorophenol	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
2,4-Dimethylphenol	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
2,4-Dinitrophenol	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
2,4-Dinitrotoluene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
2,6-Dichlorophenol	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
2,6-Dinitrotoluene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
2-Acetylaminofluorene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
2-Chloronaphthalene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
2-Chlorophenol	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
2-Methylnaphthalene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
2-Methylphenol	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
2-Naphthylamine	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
2-Nitroaniline	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
2-Nitrophenol	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
2-Picoline	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	

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Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	090721026
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	0907346
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	090721026-009	**Sampling Date**	7/16/2009	**Date/Time Received**	7/21/2009	11:40 AM
Client Sample ID	0907346-03B / MW-2	**Sampling Time**	2:21 PM	**Extraction Date**	7/21/2009	
Matrix	Water	**Sample Location**				
Comments						

Parameter	Result	Units	MDL	PQL	Analysis Date	Analyst	Method	Qualifier
3,3'-Dichlorobenzidine	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
3,3-Dimethylbenzidine	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
3+4-Methylphenol	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
3-Methylcholanthrene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
3-Nitroaniline	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
4,6-Dinitro-2-methylphenol	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
4-Aminobiphenyl	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
4-Bromophenyl-phenylether	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
4-Chloro-3-methylphenol	ND	ug/L	1	5	7/24/2009	EMP	EPA 8270C	
4-Chloroaniline	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
4-Chlorophenyl-phenylether	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
4-Nitroaniline	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
4-Nitrophenol	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
4-Nitroquinoline-1-oxide	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
5-Nitro-o-toluidine	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
7,12-Dimethylbenz(a)anthracene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
a,a-Dimethylphenethylamine	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Acenaphthene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Acenaphthylene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Acetonphenone	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Aniline	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Anthracene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Aramite	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Benzidine	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Benzo(ghi)perylene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Benzo[a]anthracene	ND	ug/L	0.05	0.1	7/24/2009	EMP	EPA 8270C	
Benzo[a]pyrene	ND	ug/L	0.05	0.1	7/24/2009	EMP	EPA 8270C	
Benzo[b]fluoranthene	ND	ug/L	0.05	0.1	7/24/2009	EMP	EPA 8270C	
Benzo[k]fluoranthene	ND	ug/L	0.05	0.1	7/24/2009	EMP	EPA 8270C	
Benzyl alcohol	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
bis(2-Chloroethoxy)methane	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	

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

Batch #: 090721026
Project Name: 0907346

Analytical Results Report

Sample Number	090721026-009	**Sampling Date**	7/16/2009	**Date/Time Received**	7/21/2009	11:40 AM
Client Sample ID	0907346-03B / MW-2	**Sampling Time**	2:21 PM	**Extraction Date**	7/21/2009	
Matrix	Water	**Sample Location**				
Comments						

Parameter	Result	Units	MDL	PQL	Analysis Date	Analyst	Method	Qualifier
bis(2-Chloroethyl)ether	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
bis(2-chloroisopropyl)ether	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
bis(2-Ethylhexyl)phthalate	ND	ug/L	1	5	7/24/2009	EMP	EPA 8270C	
Butylbenzylphthalate	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Carbazole	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Chlorobenzilate	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Chrysene	ND	ug/L	0.05	0.1	7/24/2009	EMP	EPA 8270C	
Diallate	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Dibenz[a,h]anthracene	ND	ug/L	0.05	0.1	7/24/2009	EMP	EPA 8270C	
Dibenzofuran	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Diethylphthalate	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Dimethoate	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Dimethylphthalate	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Di-n-butylphthalate	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Di-n-octylphthalate	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
diphenylamine	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Disulfoton	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Ethyl methanesulfonate	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Ethyl parathion	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Fluoranthene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Fluorene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Hexachlorobenzene	ND	ug/L	0.1	1	7/24/2009	EMP	EPA 8270C	
Hexachlorobutadiene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Hexachlorocyclopentadiene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Hexachloroethane	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Hexachloropropene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Hexachorophene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Indeno[1,2,3-cd]pyrene	ND	ug/L	0.05	0.1	7/24/2009	EMP	EPA 8270C	
Isodrin	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Isophorone	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Isosafrole	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	

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 #:**	090721026
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	0907346
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	090721026-009	**Sampling Date**	7/16/2009	**Date/Time Received**	7/21/2009	11:40 AM	
Client Sample ID	0907346-03B / MW-2	**Sampling Time**	2:21 PM	**Extraction Date**	7/21/2009		
Matrix	Water	**Sample Location**					
Comments							

Parameter	Result	Units	MDL	PQL	Analysis Date	Analyst	Method	Qualifier
Methapyrilene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Methyl methanesulfonate	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Methyl parathion	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Naphthalene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Nitrobenzene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Nitrosodimethylamine	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
n-nitrosodibutylamine	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
n-Nitrosodiethylamine	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
n-Nitroso-di-n-propylamine	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
n-Nitrosodiphenylamine	ND	ug/L	1	2	7/24/2009	EMP	EPA 8270C	
n-Nitrosomethylethylamine	ND	ug/L	1	2	7/24/2009	EMP	EPA 8270C	
n-Nitrosomorpholine	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
n-Nitrosopiperadine	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
n-Nitrosopyrrolidine	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
o,o,o-Triethyl phosphorothioate	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
o-Toluidine	ND	ug/L	1	2	7/24/2009	EMP	EPA 8270C	
p-(Dimethylamino)azobenzene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Pentachlorobenzene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Pentachloroethane	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Pentachloronitrobenzene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Pentachlorophenol	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Phenacetin	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Phenanthrene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Phenol	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Phorate	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
p-Phenylenediamine	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Pronamide	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Pyrene	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Pyridine	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Safrole	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
Sulfotep	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	

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Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	090721026
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	0907346
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	090721026-009	**Sampling Date**	7/16/2009	**Date/Time Received**	7/21/2009 11:40 AM
Client Sample ID	0907346-03B / MW-2	**Sampling Time**	2:21 PM	**Extraction Date**	7/21/2009
Matrix	Water	**Sample Location**			
Comments					

Parameter	Result	Units	MDL	PQL	Analysis Date	Analyst	Method	Qualifier
Thionazin	ND	ug/L	1	10	7/24/2009	EMP	EPA 8270C	
1,4-Dioxane	ND	ug/L	1	5	7/24/2009	EMP	EPA 8270C	
5-Methylchrysene	ND	ug/L	0.1	1	7/24/2009	EMP	EPA 8270C	
6-Methylchrysene	ND	ug/L	0.1	1	7/24/2009	EMP	EPA 8270C	
Benzenethiole	ND	ug/L	0.5	5	7/24/2009	EMP	EPA 8270C	
Dibenz(a,j)acridine	ND	ug/L	0.1	1	7/24/2009	EMP	EPA 8270C	
Quinoline	ND	ug/L	0.5	5	7/24/2009	EMP	EPA 8270C	

Surrogate Data

Sample Number 090721026-009

Surrogate Standard	Method	Percent Recovery	Control Limits
2,4,6-Tribromophenol	EPA 8270C	84.9	10-123
2-Fluorobiphenyl	EPA 8270C	48.6	19-130
2-Fluorophenol	EPA 8270C	84.8	21-110
Nitrobenzene-d5	EPA 8270C	91.9	25-130
Phenol-d5	EPA 8270C	88.2	10-125
Terphenyl-d14	EPA 8270C	95.2	33-141

Authorized Signature John W. Cobb

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Annual MW Sampling **Work Order:** 0907346

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 300.0: Anions											
Sample ID: 0907346-03GMSD		*MSD*				Batch ID:	**R34697**	Analysis Date:		7/29/2009 12:38:34 AM	
Fluoride	1.249	mg/L	0.10	0.5	0.8153	86.8	75.3	117	0.885	20	
Phosphorus, Orthophosphate (As P)	4.781	mg/L	0.50	5	0	95.6	74.5	116	0.480	20	
Sample ID: MB		*MBLK*				Batch ID:	**R34697**	Analysis Date:		7/28/2009 9:33:18 AM	
Fluoride	ND	mg/L	0.10								
Chloride	ND	mg/L	0.10								
Nitrate (As N)+Nitrite (As N)	ND	mg/L	0.20								
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50								
Sulfate	ND	mg/L	0.50								
Sample ID: LCS		*LCS*				Batch ID:	**R34697**	Analysis Date:		7/28/2009 9:50:43 AM	
Fluoride	0.4929	mg/L	0.10	0.5	0	98.6	90	110			
Chloride	4.891	mg/L	0.10	5	0	97.8	90	110			
Nitrate (As N)+Nitrite (As N)	3.456	mg/L	0.20	3.5	0	98.7	90	110			
Phosphorus, Orthophosphate (As P)	4.860	mg/L	0.50	5	0	97.2	90	110			
Sulfate	9.946	mg/L	0.50	10	0	99.5	90	110			
Sample ID: 0907346-03GMS		*MS*				Batch ID:	**R34697**	Analysis Date:		7/29/2009 12:21:08 AM	
Fluoride	1.260	mg/L	0.10	0.5	0.8153	89.0	75.3	117			
Phosphorus, Orthophosphate (As P)	4.804	mg/L	0.50	5	0	96.1	74.5	116			
Method: EPA Method 8015B: Diesel Range											
Sample ID: MB-19657		*MBLK*				Batch ID:	**19657**	Analysis Date:		7/21/2009	
Diesel Range Organics (DRO)	ND	mg/L	1.0								
Motor Oil Range Organics (MRO)	ND	mg/L	5.0								
Sample ID: LCS-19657		*LCS*				Batch ID:	**19657**	Analysis Date:		7/21/2009	
Diesel Range Organics (DRO)	4.780	mg/L	1.0	5	0	95.6	74	157			
Sample ID: LCSD-19657		*LCSD*				Batch ID:	**19657**	Analysis Date:		7/21/2009	
Diesel Range Organics (DRO)	4.718	mg/L	1.0	5	0	94.4	74	157	1.30	23	
Method: EPA Method 8015B: Gasoline Range											
Sample ID: 5ML RB		*MBLK*				Batch ID:	**R34654**	Analysis Date:		7/24/2009 9:40:31 AM	
Gasoline Range Organics (GRO)	ND	mg/L	0.050								
Sample ID: b 45		*MBLK*				Batch ID:	**R34654**	Analysis Date:		7/25/2009 7:59:20 AM	
Gasoline Range Organics (GRO)	ND	mg/L	0.050								
Sample ID: 2.5UG GRO LCS		*LCS*				Batch ID:	**R34654**	Analysis Date:		7/25/2009 1:24:33 AM	
Gasoline Range Organics (GRO)	0.4900	mg/L	0.050	0.5	0	98.0	80	115			
Sample ID: 2.5UG GRO LCS-II		*LCS*				Batch ID:	**R34654**	Analysis Date:		7/25/2009 11:01:36 AM	
Gasoline Range Organics (GRO)	0.5372	mg/L	0.050	0.5	0	107	80	115			
Sample ID: 2.5UG GRO LCSD		*LCSD*				Batch ID:	**R34654**	Analysis Date:		7/25/2009 1:54:41 AM	
Gasoline Range Organics (GRO)	0.5032	mg/L	0.050	0.5	0	101	80	115	2.66	8.39	

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Annual MW Sampling **Work Order:** 0907346

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 7470: Mercury											
Sample ID: MB-19695		*MBLK*				Batch ID:	**19695**	Analysis Date:	7/24/2009 3:31:00 PM		
Mercury	ND	mg/L	0.00020								
Sample ID: MB-19749		*MBLK*				Batch ID:	**19749**	Analysis Date:	7/31/2009 3:40:15 PM		
Mercury	ND	mg/L	0.00020								
Sample ID: LCS-19695		*LCS*				Batch ID:	**19695**	Analysis Date:	7/24/2009 3:32:44 PM		
Mercury	0.005138	mg/L	0.00020	0.005	0	103	80	120			
Sample ID: LCS-19749		*LCS*				Batch ID:	**19749**	Analysis Date:	7/31/2009 3:42:01 PM		
Mercury	0.004987	mg/L	0.00020	0.005	3E-05	99.1	80	120			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Annual MW Sampling **Work Order:** 0907346

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA 6010B: Total Recoverable Metals											
Sample ID: MB-19655		*MBLK*				Batch ID:	**19655**	Analysis Date:	7/22/2009 11:16:54 AM		
Barium	ND	mg/L	0.010								
Beryllium	ND	mg/L	0.0030								
Cadmium	ND	mg/L	0.0020								
Calcium	ND	mg/L	0.50								
Chromium	ND	mg/L	0.0060								
Lead	ND	mg/L	0.0050								
Magnesium	ND	mg/L	0.50								
Nickel	ND	mg/L	0.010								
Potassium	ND	mg/L	1.0								
Silver	ND	mg/L	0.0050								
Sodium	ND	mg/L	0.50								
Vanadium	ND	mg/L	0.050								
Zinc	ND	mg/L	0.020								
Sample ID: MB-19655		*MBLK*				Batch ID:	**19655**	Analysis Date:	7/23/2009 3:54:16 PM		
Cobalt	ND	mg/L	0.0060								
Sample ID: MB-19761		*MBLK*				Batch ID:	**19761**	Analysis Date:	8/4/2009 2:09:20 PM		
Barium	ND	mg/L	0.010								
Cadmium	ND	mg/L	0.0020								
Chromium	ND	mg/L	0.0060								
[illegible]	ND	mg/L	0.0050								
Silver	ND	mg/L	0.0050								
Sample ID: MB-19761		*MBLK*				Batch ID:	**19761**	Analysis Date:	8/7/2009 4:10:43 PM		
Barium	ND	mg/L	0.010								
Cadmium	ND	mg/L	0.0020								
Calcium	ND	mg/L	0.50								
Chromium	ND	mg/L	0.0060								
Magnesium	ND	mg/L	0.50								
Potassium	ND	mg/L	1.0								
Silver	ND	mg/L	0.0050								
Sodium	ND	mg/L	0.50								
Zinc	ND	mg/L	0.020								
Sample ID: MB-19761		*MBLK*				Batch ID:	**19761**	Analysis Date:	8/9/2009 2:08:36 PM		
Lead	ND	mg/L	0.0050								
Sample ID: LCS-19655		*LCS*				Batch ID:	**19655**	Analysis Date:	7/22/2009 11:20:05 AM		
Barium	0.4882	mg/L	0.010	0.5	0	97.6	80	120			
Beryllium	0.5239	mg/L	0.0030	0.5	0	105	80	120			
Cadmium	0.4906	mg/L	0.0020	0.5	0	98.1	80	120			
Calcium	49.32	mg/L	0.50	50	0	98.6	80	120			
Chromium	0.4925	mg/L	0.0060	0.5	0	98.5	80	120			
Lead	0.4893	mg/L	0.0050	0.5	0	97.9	80	120			
Magnesium	49.79	mg/L	0.50	50	0.0195	99.5	80	120			
Nickel	0.4757	mg/L	0.010	0.5	0	95.1	80	120			
Potassium	52.84	mg/L	1.0	50	0.0858	106	80	120			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Annual MW Sampling **Work Order:** 0907346

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA 6010B: Total Recoverable Metals											
Sample ID: LCS-19655		*LCS*				Batch ID:	**19655**	Analysis Date:		7/22/2009 11:20:05 AM	
Silver	0.4942	mg/L	0.0050	0.5	0	98.8	80	120			
Sodium	53.25	mg/L	0.50	50	0	106	80	120			
Vanadium	0.5109	mg/L	0.050	0.5	0	102	80	120			
Zinc	0.4846	mg/L	0.020	0.5	0.0029	96.3	80	120			
Sample ID: LCS-19761		*LCS*				Batch ID:	**19761**	Analysis Date:		8/4/2009 2:11:53 PM	
Barium	0.4887	mg/L	0.010	0.5	0	97.7	80	120			
Cadmium	0.4905	mg/L	0.0020	0.5	0	98.1	80	120			
Chromium	0.4904	mg/L	0.0060	0.5	0	98.1	80	120			
Lead	0.4843	mg/L	0.0050	0.5	0	96.9	80	120			
Silver	0.4946	mg/L	0.0050	0.5	0	98.9	80	120			
Sample ID: LCS-19761		*LCS*				Batch ID:	**19761**	Analysis Date:		8/4/2009 2:14:28 PM	
Barium	0.4936	mg/L	0.010	0.5	0	98.7	80	120	0.992	0	
Cadmium	0.5011	mg/L	0.0020	0.5	0	100	80	120	2.15	0	
Chromium	0.5009	mg/L	0.0060	0.5	0	100	80	120	2.12	0	
Lead	0.4951	mg/L	0.0050	0.5	0	99.0	80	120	2.20	0	
Silver	0.5012	mg/L	0.0050	0.5	0	100	80	120	1.33	0	
Sample ID: LCS-19761		*LCS*				Batch ID:	**19761**	Analysis Date:		8/7/2009 4:15:31 PM	
Barium	0.5171	mg/L	0.010	0.5	0.0007	103	80	120			
Cadmium	0.5132	mg/L	0.0020	0.5	0.0012	102	80	120			
[illegible]um	51.90	mg/L	0.50	50	0	104	80	120			
Chromium	0.5231	mg/L	0.0060	0.5	0	105	80	120			
Magnesium	50.83	mg/L	0.50	50	0	102	80	120			
Potassium	53.94	mg/L	1.0	50	0	108	80	120			
Silver	0.5074	mg/L	0.0050	0.5	0.0015	101	80	120			
Sodium	54.00	mg/L	0.50	50	0	108	80	120			
Zinc	0.5358	mg/L	0.020	0.5	0	107	80	120			
Sample ID: LCS-19761		*LCS*				Batch ID:	**19761**	Analysis Date:		8/9/2009 2:11:42 PM	
Lead	0.5136	mg/L	0.0050	0.5	0	103	80	120			

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name WESTERN REFINING GALLU | Date Received: 7/17/2009

Work Order Number 0907346 | Received by: AMF

Sample ID labels checked by: _____ Initials

Checklist completed by: _____ Signature | 7/17/09 Date

Matrix: | Carrier name Client drop-off

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☐	Not Shipped ☑
Custody seals intact on sample bottles?	Yes ☑	No ☐	N/A ☐	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☑	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☑	No ☐	N/A ☐	
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐	

Number of preserved bottles checked for pH: 6 3

<2 >12 unless noted below.

Container/Temp Blank temperature? **1.2°** *<6° C Acceptable* If given sufficient time to cool.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: per CV collection time for MW-2 is 1421 / AT 7/20/09

Corrective Action _____

Chain-of-Custody Record

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

Client: Western Refining Gallup Refinery
Mailing Address: Rt 3. Box 7 Gallup, NM 87301
Phone #: 505 722 3833
email or Fax#: 505 722 0210
QA/QC Package: ☒ Standard ☐ Level 4 (Full Validation)
☐ Other ☐ EDD (Type)

Turn-Around Time: ☒ Standard ☐ Rush
Project Name: 2009 Annual MW Sampling
Project #: MW-5, 1, 2
Project Manager: G. Rajen
Sampler: C Johnson
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.2 °C

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 0907346
7/15/09	1531	H_2O	MW-5	1/ Amber	None	-1
				1-125ml	NaOH	-1
				1-500ml	HNO_3	-1
				6-40ml	HCl	-1
				1-125ml	H_2SO_4	-1
				1-250ml	None	-1
7/16/09	1106		MW-1	1L Amber	None	-2
				1-125ml	NaOH	-2
				1-500ml	HNO_3	-2
				6-40ml	HCl	-2
				1-125ml	H_2SO_4	-2
				1-250ml	None	-2

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Skinner Lists	Gen Chem			Air Bubbles (Y or N)
											X	X			

Date	Time	Relinquished by:	Received by:	Date	Time
7/17/09	1140			7/17/09	11:40
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks: Testing requirements per attached Skinner lists, Table 2A 2B, 2C+2D. Gen Chem - Anions, pH Cations, Conduct.

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.

Chain-of-Custody Record

Client: Western Refining Gallup Refinery
Mailing Address: Rt 3 Box 7 Gallup, NM 87301
Phone #: 505 722 03833
email or Fax#: 505 722 0210
QA/QC Package: ☒ Standard ☐ Level 4 (Full Validation)
Accreditation: ☐ NELAP ☐ Other
☐ EDD (Type)

Turn-Around Time: ☒ Standard ☐ Rush
Project Name: 2009 Annual MW sampling
Project #: MW-5, 1, 2
Project Manager: G. Rajen
Sampler: C. Johnson
On Ice: ☒ Yes ☐ No
Sample Temperature: 1/2°C

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 0907346	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO3,NO2,PO4,SO4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA) Skinner Lists	GenChem			Air Bubbles (Y or N)
7/16/09	1421	H2O	MW-2	1L Amber	None	-3															
				1-125 ml	NaOH	-3															
				1-500ml	HNO3	-3															
				6-40ml	HCl	-3															
				1-125ml	H2SO4	-3															
				1-250ml	None	-3															
			TRIP Blank			-4															

Date	Time	Relinquished by:	Received by:	Date	Time
7/17/09	1140			7/17/09	1140
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks: Testing Requirements per attached Skinner Lists, Table 2A 2B, 2C, 2D. GenChem, Cations, anions pH, Cond.

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Thursday, August 13, 2009

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

TEL: (505) 722-0227
FAX (505) 722-0210

RE: 2009 Annual Well Samples

Order No.: 0907533

Dear Gaurav Rajen:

Hall Environmental Analysis Laboratory, Inc. received 3 sample(s) on 7/29/2009 for the analyses presented in the following report.

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

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

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

Sincerely,

for Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

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

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

Hall Environmental Analysis Laboratory, Inc.

Date: *13-Aug-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	OW-11
Lab Order:	0907533	**Collection Date:**	7/27/2009 2:34:00 PM
Project:	2009 Annual Well Samples	**Date Received:**	7/29/2009
Lab ID:	0907533-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **RAGS**
Fluoride	2.0	0.10		mg/L	1	8/6/2009 9:33:33 PM
Chloride	97	2.0		mg/L	20	8/6/2009 9:50:58 PM
Nitrate (As N)+Nitrite (As N)	1.2	1.0		mg/L	5	8/6/2009 10:08:22 PM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	8/6/2009 9:33:33 PM
Sulfate	950	10		mg/L	20	8/6/2009 9:50:58 PM
EPA METHOD 7470: MERCURY						Analyst: **MMS**
Mercury	ND	0.00020		mg/L	1	7/31/2009 4:40:23 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **SNV**
Barium	ND	0.010		mg/L	1	8/7/2009 4:59:01 PM
Cadmium	ND	0.0020		mg/L	1	8/7/2009 4:59:01 PM
Calcium	11	0.50		mg/L	1	8/7/2009 4:59:01 PM
Chromium	ND	0.0060		mg/L	1	8/7/2009 4:59:01 PM
Copper	ND	0.0060		mg/L	1	8/7/2009 4:59:01 PM
Iron	ND	0.050		mg/L	1	8/7/2009 4:59:01 PM
Lead	ND	0.0050		mg/L	1	8/9/2009 2:30:06 PM
Magnesium	1.2	0.50		mg/L	1	8/7/2009 4:59:01 PM
Manganese	0.016	0.0020		mg/L	1	8/7/2009 4:59:01 PM
Potassium	1.8	1.0		mg/L	1	8/7/2009 4:59:01 PM
Silver	ND	0.0050		mg/L	1	8/7/2009 4:59:01 PM
Sodium	640	5.0		mg/L	10	8/9/2009 2:34:19 PM
Zinc	ND	0.020		mg/L	1	8/9/2009 2:30:06 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	7/30/2009
Acenaphthylene	ND	10		µg/L	1	7/30/2009
Aniline	ND	10		µg/L	1	7/30/2009
Anthracene	ND	10		µg/L	1	7/30/2009
Azobenzene	ND	10		µg/L	1	7/30/2009
Benz(a)anthracene	ND	10		µg/L	1	7/30/2009
Benzo(a)pyrene	ND	10		µg/L	1	7/30/2009
Benzo(b)fluoranthene	ND	10		µg/L	1	7/30/2009
Benzo(g,h,i)perylene	ND	10		µg/L	1	7/30/2009
Benzo(k)fluoranthene	ND	10		µg/L	1	7/30/2009
Benzoic acid	ND	20		µg/L	1	7/30/2009
Benzyl alcohol	ND	10		µg/L	1	7/30/2009
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	7/30/2009
Bis(2-chloroethyl)ether	ND	10		µg/L	1	7/30/2009
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	7/30/2009
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	7/30/2009
4-Bromophenyl phenyl ether	ND	10		µg/L	1	7/30/2009

Qualifiers:

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

CLIENT: Western Refining Southwest, Gallup
Lab Order: 0907533
Project: 2009 Annual Well Samples
Lab ID: 0907533-01

Client Sample ID: OW-11
Collection Date: 7/27/2009 2:34:00 PM
Date Received: 7/29/2009
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Butyl benzyl phthalate	ND	10		µg/L	1	7/30/2009
Carbazole	ND	10		µg/L	1	7/30/2009
4-Chloro-3-methylphenol	ND	10		µg/L	1	7/30/2009
4-Chloroaniline	ND	10		µg/L	1	7/30/2009
2-Chloronaphthalene	ND	10		µg/L	1	7/30/2009
2-Chlorophenol	ND	10		µg/L	1	7/30/2009
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	7/30/2009
Chrysene	ND	10		µg/L	1	7/30/2009
Di-n-butyl phthalate	ND	10		µg/L	1	7/30/2009
Di-n-octyl phthalate	ND	10		µg/L	1	7/30/2009
Dibenz(a,h)anthracene	ND	10		µg/L	1	7/30/2009
Dibenzofuran	ND	10		µg/L	1	7/30/2009
1,2-Dichlorobenzene	ND	10		µg/L	1	7/30/2009
1,3-Dichlorobenzene	ND	10		µg/L	1	7/30/2009
1,4-Dichlorobenzene	ND	10		µg/L	1	7/30/2009
3,3'-Dichlorobenzidine	ND	10		µg/L	1	7/30/2009
Diethyl phthalate	ND	10		µg/L	1	7/30/2009
Dimethyl phthalate	ND	10		µg/L	1	7/30/2009
2,4-Dichlorophenol	ND	20		µg/L	1	7/30/2009
2,4-Dimethylphenol	ND	10		µg/L	1	7/30/2009
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	7/30/2009
2,4-Dinitrophenol	ND	20		µg/L	1	7/30/2009
2,4-Dinitrotoluene	ND	10		µg/L	1	7/30/2009
2,6-Dinitrotoluene	ND	10		µg/L	1	7/30/2009
Fluoranthene	ND	10		µg/L	1	7/30/2009
Fluorene	ND	10		µg/L	1	7/30/2009
Hexachlorobenzene	ND	10		µg/L	1	7/30/2009
Hexachlorobutadiene	ND	10		µg/L	1	7/30/2009
Hexachlorocyclopentadiene	ND	10		µg/L	1	7/30/2009
Hexachloroethane	ND	10		µg/L	1	7/30/2009
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	7/30/2009
Isophorone	ND	10		µg/L	1	7/30/2009
2-Methylnaphthalene	ND	10		µg/L	1	7/30/2009
2-Methylphenol	ND	10		µg/L	1	7/30/2009
3+4-Methylphenol	ND	10		µg/L	1	7/30/2009
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	7/30/2009
N-Nitrosodimethylamine	ND	10		µg/L	1	7/30/2009
N-Nitrosodiphenylamine	ND	10		µg/L	1	7/30/2009
Naphthalene	ND	10		µg/L	1	7/30/2009
2-Nitroaniline	ND	10		µg/L	1	7/30/2009
3-Nitroaniline	ND	10		µg/L	1	7/30/2009
4-Nitroaniline	ND	10		µg/L	1	7/30/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *13-Aug-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	OW-11
Lab Order:	0907533	**Collection Date:**	7/27/2009 2:34:00 PM
Project:	2009 Annual Well Samples	**Date Received:**	7/29/2009
Lab ID:	0907533-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Nitrobenzene	ND	10		µg/L	1	7/30/2009
2-Nitrophenol	ND	10		µg/L	1	7/30/2009
4-Nitrophenol	ND	10		µg/L	1	7/30/2009
Pentachlorophenol	ND	20		µg/L	1	7/30/2009
Phenanthrene	ND	10		µg/L	1	7/30/2009
Phenol	ND	10		µg/L	1	7/30/2009
Pyrene	ND	10		µg/L	1	7/30/2009
Pyridine	ND	10		µg/L	1	7/30/2009
1,2,4-Trichlorobenzene	ND	10		µg/L	1	7/30/2009
2,4,5-Trichlorophenol	ND	10		µg/L	1	7/30/2009
2,4,6-Trichlorophenol	ND	10		µg/L	1	7/30/2009
Surr: 2,4,6-Tribromophenol	86.8	16.6-150		%REC	1	7/30/2009
Surr: 2-Fluorobiphenyl	86.4	19.6-134		%REC	1	7/30/2009
Surr: 2-Fluorophenol	54.9	9.54-113		%REC	1	7/30/2009
Surr: 4-Terphenyl-d14	70.2	22.7-145		%REC	1	7/30/2009
Surr: Nitrobenzene-d5	75.0	14.6-134		%REC	1	7/30/2009
Surr: Phenol-d5	39.8	10.7-80.3		%REC	1	7/30/2009
EPA METHOD 8260B: VOLATILES						Analyst: HL
Benzene	ND	1.0		µg/L	1	7/30/2009 2:56:14 PM
Toluene	ND	1.0		µg/L	1	7/30/2009 2:56:14 PM
Ethylbenzene	ND	1.0		µg/L	1	7/30/2009 2:56:14 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	7/30/2009 2:56:14 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	7/30/2009 2:56:14 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	7/30/2009 2:56:14 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	7/30/2009 2:56:14 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/30/2009 2:56:14 PM
Naphthalene	ND	2.0		µg/L	1	7/30/2009 2:56:14 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	7/30/2009 2:56:14 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	7/30/2009 2:56:14 PM
Acetone	ND	10		µg/L	1	7/30/2009 2:56:14 PM
Bromobenzene	ND	1.0		µg/L	1	7/30/2009 2:56:14 PM
Bromodichloromethane	ND	1.0		µg/L	1	7/30/2009 2:56:14 PM
Bromoform	ND	1.0		µg/L	1	7/30/2009 2:56:14 PM
Bromomethane	ND	1.0		µg/L	1	7/30/2009 2:56:14 PM
2-Butanone	ND	10		µg/L	1	7/30/2009 2:56:14 PM
Carbon disulfide	ND	10		µg/L	1	7/30/2009 2:56:14 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	7/30/2009 2:56:14 PM
Chlorobenzene	ND	1.0		µg/L	1	7/30/2009 2:56:14 PM
Chloroethane	ND	2.0		µg/L	1	7/30/2009 2:56:14 PM
Chloroform	ND	1.0		µg/L	1	7/30/2009 2:56:14 PM
Chloromethane	ND	1.0		µg/L	1	7/30/2009 2:56:14 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *13-Aug-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	OW-11
Lab Order:	0907533	**Collection Date:**	7/27/2009 2:34:00 PM
Project:	2009 Annual Well Samples	**Date Received:**	7/29/2009
Lab ID:	0907533-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
2-Chlorotoluene	ND	1.0		µg/L	1	7/30/2009 2:56:14 PM
4-Chlorotoluene	ND	1.0		µg/L	1	7/30/2009 2:56:14 PM
cis-1,2-DCE	ND	1.0		µg/L	1	7/30/2009 2:56:14 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/30/2009 2:56:14 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/30/2009 2:56:14 PM
Dibromochloromethane	ND	1.0		µg/L	1	7/30/2009 2:56:14 PM
Dibromomethane	ND	1.0		µg/L	1	7/30/2009 2:56:14 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	7/30/2009 2:56:14 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	7/30/2009 2:56:14 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/30/2009 2:56:14 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/30/2009 2:56:14 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	7/30/2009 2:56:14 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	7/30/2009 2:56:14 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	7/30/2009 2:56:14 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	7/30/2009 2:56:14 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	7/30/2009 2:56:14 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	7/30/2009 2:56:14 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	7/30/2009 2:56:14 PM
2-Hexanone	ND	10		µg/L	1	7/30/2009 2:56:14 PM
Isopropylbenzene	ND	1.0		µg/L	1	7/30/2009 2:56:14 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	7/30/2009 2:56:14 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/30/2009 2:56:14 PM
Methylene Chloride	ND	3.0		µg/L	1	7/30/2009 2:56:14 PM
n-Butylbenzene	ND	1.0		µg/L	1	7/30/2009 2:56:14 PM
n-Propylbenzene	ND	1.0		µg/L	1	7/30/2009 2:56:14 PM
sec-Butylbenzene	ND	1.0		µg/L	1	7/30/2009 2:56:14 PM
Styrene	ND	1.0		µg/L	1	7/30/2009 2:56:14 PM
tert-Butylbenzene	ND	1.0		µg/L	1	7/30/2009 2:56:14 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	7/30/2009 2:56:14 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	7/30/2009 2:56:14 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	7/30/2009 2:56:14 PM
trans-1,2-DCE	ND	1.0		µg/L	1	7/30/2009 2:56:14 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/30/2009 2:56:14 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/30/2009 2:56:14 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/30/2009 2:56:14 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/30/2009 2:56:14 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/30/2009 2:56:14 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	7/30/2009 2:56:14 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	7/30/2009 2:56:14 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/30/2009 2:56:14 PM
Vinyl chloride	ND	1.0		µg/L	1	7/30/2009 2:56:14 PM
Xylenes, Total	ND	1.5		µg/L	1	7/30/2009 2:56:14 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *13-Aug-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	OW-11
Lab Order:	0907533	**Collection Date:**	7/27/2009 2:34:00 PM
Project:	2009 Annual Well Samples	**Date Received:**	7/29/2009
Lab ID:	0907533-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
Surr: 1,2-Dichloroethane-d4	108	68.1-123		%REC	1	7/30/2009 2:56:14 PM
Surr: 4-Bromofluorobenzene	105	53.2-145		%REC	1	7/30/2009 2:56:14 PM
Surr: Dibromofluoromethane	108	68.5-119		%REC	1	7/30/2009 2:56:14 PM
Surr: Toluene-d8	109	64-131		%REC	1	7/30/2009 2:56:14 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **DAM**
Specific Conductance	2500	0.010		µmhos/cm	1	7/31/2009
SM4500-H+B: PH						Analyst: **DAM**
pH	8.41	0.1		pH units	1	7/31/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *13-Aug-09*

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: GWM-1
Lab Order: 0907533
Collection Date: 7/27/2009 3:45:00 PM
Project: 2009 Annual Well Samples
Date Received: 7/29/2009
Lab ID: 0907533-02
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **RAGS**
Fluoride	2.1	0.10		mg/L	1	8/6/2009 10:25:46 PM
Chloride	1600	20		mg/L	200	8/7/2009 10:56:09 PM
Nitrate (As N)+Nitrite (As N)	ND	4.0		mg/L	20	8/7/2009 11:13:33 PM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	8/6/2009 10:25:46 PM
Sulfate	73	10		mg/L	20	8/6/2009 11:35:26 PM
EPA METHOD 7470: MERCURY						Analyst: **MMS**
Mercury	ND	0.00020		mg/L	1	7/31/2009 4:45:52 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **SNV**
Barium	0.53	0.010		mg/L	1	8/7/2009 5:03:13 PM
Cadmium	ND	0.0020		mg/L	1	8/7/2009 5:03:13 PM
Calcium	310	2.5		mg/L	5	8/9/2009 2:59:01 PM
Chromium	ND	0.0060		mg/L	1	8/7/2009 5:03:13 PM
Copper	ND	0.0060		mg/L	1	8/7/2009 5:03:13 PM
Iron	14	1.0		mg/L	20	8/9/2009 3:02:56 PM
Lead	0.0072	0.0050		mg/L	1	8/9/2009 2:37:24 PM
Magnesium	78	0.50		mg/L	1	8/7/2009 5:03:13 PM
Manganese	3.2	0.010		mg/L	5	8/9/2009 2:59:01 PM
Potassium	3.0	1.0		mg/L	1	8/7/2009 5:03:13 PM
Silver	ND	0.0050		mg/L	1	8/7/2009 5:03:13 PM
Sodium	1300	10		mg/L	20	8/9/2009 3:02:56 PM
Zinc	0.025	0.020		mg/L	1	8/9/2009 2:37:24 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	7/30/2009
Acenaphthylene	ND	10		µg/L	1	7/30/2009
Aniline	ND	10		µg/L	1	7/30/2009
Anthracene	ND	10		µg/L	1	7/30/2009
Azobenzene	ND	10		µg/L	1	7/30/2009
Benz(a)anthracene	ND	10		µg/L	1	7/30/2009
Benzo(a)pyrene	ND	10		µg/L	1	7/30/2009
Benzo(b)fluoranthene	ND	10		µg/L	1	7/30/2009
Benzo(g,h,i)perylene	ND	10		µg/L	1	7/30/2009
Benzo(k)fluoranthene	ND	10		µg/L	1	7/30/2009
Benzoic acid	ND	20		µg/L	1	7/30/2009
Benzyl alcohol	ND	10		µg/L	1	7/30/2009
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	7/30/2009
Bis(2-chloroethyl)ether	ND	10		µg/L	1	7/30/2009
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	7/30/2009
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	7/30/2009
4-Bromophenyl phenyl ether	ND	10		µg/L	1	7/30/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *13-Aug-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	GWM-1
Lab Order:	0907533	**Collection Date:**	7/27/2009 3:45:00 PM
Project:	2009 Annual Well Samples	**Date Received:**	7/29/2009
Lab ID:	0907533-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Butyl benzyl phthalate	ND	10		µg/L	1	7/30/2009
Carbazole	ND	10		µg/L	1	7/30/2009
4-Chloro-3-methylphenol	ND	10		µg/L	1	7/30/2009
4-Chloroaniline	ND	10		µg/L	1	7/30/2009
2-Chloronaphthalene	ND	10		µg/L	1	7/30/2009
2-Chlorophenol	ND	10		µg/L	1	7/30/2009
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	7/30/2009
Chrysene	ND	10		µg/L	1	7/30/2009
Di-n-butyl phthalate	ND	10		µg/L	1	7/30/2009
Di-n-octyl phthalate	ND	10		µg/L	1	7/30/2009
Dibenz(a,h)anthracene	ND	10		µg/L	1	7/30/2009
Dibenzofuran	ND	10		µg/L	1	7/30/2009
1,2-Dichlorobenzene	ND	10		µg/L	1	7/30/2009
1,3-Dichlorobenzene	ND	10		µg/L	1	7/30/2009
1,4-Dichlorobenzene	ND	10		µg/L	1	7/30/2009
3,3'-Dichlorobenzidine	ND	10		µg/L	1	7/30/2009
Diethyl phthalate	ND	10		µg/L	1	7/30/2009
Dimethyl phthalate	ND	10		µg/L	1	7/30/2009
2,4-Dichlorophenol	ND	20		µg/L	1	7/30/2009
2,4-Dimethylphenol	64	10		µg/L	1	7/30/2009
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	7/30/2009
2,4-Dinitrophenol	ND	20		µg/L	1	7/30/2009
2,4-Dinitrotoluene	ND	10		µg/L	1	7/30/2009
2,6-Dinitrotoluene	ND	10		µg/L	1	7/30/2009
Fluoranthene	ND	10		µg/L	1	7/30/2009
Fluorene	ND	10		µg/L	1	7/30/2009
Hexachlorobenzene	ND	10		µg/L	1	7/30/2009
Hexachlorobutadiene	ND	10		µg/L	1	7/30/2009
Hexachlorocyclopentadiene	ND	10		µg/L	1	7/30/2009
Hexachloroethane	ND	10		µg/L	1	7/30/2009
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	7/30/2009
Isophorone	ND	10		µg/L	1	7/30/2009
2-Methylnaphthalene	ND	10		µg/L	1	7/30/2009
2-Methylphenol	ND	10		µg/L	1	7/30/2009
3+4-Methylphenol	ND	10		µg/L	1	7/30/2009
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	7/30/2009
N-Nitrosodimethylamine	ND	10		µg/L	1	7/30/2009
N-Nitrosodiphenylamine	ND	10		µg/L	1	7/30/2009
Naphthalene	ND	10		µg/L	1	7/30/2009
2-Nitroaniline	ND	10		µg/L	1	7/30/2009
3-Nitroaniline	ND	10		µg/L	1	7/30/2009
4-Nitroaniline	ND	10		µg/L	1	7/30/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *13-Aug-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	GWM-1
Lab Order:	0907533	**Collection Date:**	7/27/2009 3:45:00 PM
Project:	2009 Annual Well Samples	**Date Received:**	7/29/2009
Lab ID:	0907533-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Nitrobenzene	ND	10		µg/L	1	7/30/2009
2-Nitrophenol	ND	10		µg/L	1	7/30/2009
4-Nitrophenol	ND	10		µg/L	1	7/30/2009
Pentachlorophenol	ND	20		µg/L	1	7/30/2009
Phenanthrene	ND	10		µg/L	1	7/30/2009
Phenol	ND	10		µg/L	1	7/30/2009
Pyrene	ND	10		µg/L	1	7/30/2009
Pyridine	ND	10		µg/L	1	7/30/2009
1,2,4-Trichlorobenzene	ND	10		µg/L	1	7/30/2009
2,4,5-Trichlorophenol	ND	10		µg/L	1	7/30/2009
2,4,6-Trichlorophenol	ND	10		µg/L	1	7/30/2009
Surr: 2,4,6-Tribromophenol	46.3	16.6-150		%REC	1	7/30/2009
Surr: 2-Fluorobiphenyl	59.9	19.6-134		%REC	1	7/30/2009
Surr: 2-Fluorophenol	42.5	9.54-113		%REC	1	7/30/2009
Surr: 4-Terphenyl-d14	52.3	22.7-145		%REC	1	7/30/2009
Surr: Nitrobenzene-d5	55.8	14.6-134		%REC	1	7/30/2009
Surr: Phenol-d5	36.3	10.7-80.3		%REC	1	7/30/2009
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
Benzene	8.9	1.0		µg/L	1	7/30/2009 3:25:07 PM
Toluene	2.0	1.0		µg/L	1	7/30/2009 3:25:07 PM
Ethylbenzene	7.4	1.0		µg/L	1	7/30/2009 3:25:07 PM
Methyl tert-butyl ether (MTBE)	85	1.0		µg/L	1	7/30/2009 3:25:07 PM
1,2,4-Trimethylbenzene	6.4	1.0		µg/L	1	7/30/2009 3:25:07 PM
1,3,5-Trimethylbenzene	1.1	1.0		µg/L	1	7/30/2009 3:25:07 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	7/30/2009 3:25:07 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/30/2009 3:25:07 PM
Naphthalene	2.4	2.0		µg/L	1	7/30/2009 3:25:07 PM
1-Methylnaphthalene	9.7	4.0		µg/L	1	7/30/2009 3:25:07 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	7/30/2009 3:25:07 PM
Acetone	ND	10		µg/L	1	7/30/2009 3:25:07 PM
Bromobenzene	ND	1.0		µg/L	1	7/30/2009 3:25:07 PM
Bromodichloromethane	ND	1.0		µg/L	1	7/30/2009 3:25:07 PM
Bromoform	ND	1.0		µg/L	1	7/30/2009 3:25:07 PM
Bromomethane	ND	1.0		µg/L	1	7/30/2009 3:25:07 PM
2-Butanone	ND	10		µg/L	1	7/30/2009 3:25:07 PM
Carbon disulfide	ND	10		µg/L	1	7/30/2009 3:25:07 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	7/30/2009 3:25:07 PM
Chlorobenzene	ND	1.0		µg/L	1	7/30/2009 3:25:07 PM
Chloroethane	ND	2.0		µg/L	1	7/30/2009 3:25:07 PM
Chloroform	ND	1.0		µg/L	1	7/30/2009 3:25:07 PM
Chloromethane	ND	1.0		µg/L	1	7/30/2009 3:25:07 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *13-Aug-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	GWM-1
Lab Order:	0907533	**Collection Date:**	7/27/2009 3:45:00 PM
Project:	2009 Annual Well Samples	**Date Received:**	7/29/2009
Lab ID:	0907533-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
2-Chlorotoluene	ND	1.0		µg/L	1	7/30/2009 3:25:07 PM
4-Chlorotoluene	ND	1.0		µg/L	1	7/30/2009 3:25:07 PM
cis-1,2-DCE	ND	1.0		µg/L	1	7/30/2009 3:25:07 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/30/2009 3:25:07 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/30/2009 3:25:07 PM
Dibromochloromethane	ND	1.0		µg/L	1	7/30/2009 3:25:07 PM
Dibromomethane	ND	1.0		µg/L	1	7/30/2009 3:25:07 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	7/30/2009 3:25:07 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	7/30/2009 3:25:07 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/30/2009 3:25:07 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/30/2009 3:25:07 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	7/30/2009 3:25:07 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	7/30/2009 3:25:07 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	7/30/2009 3:25:07 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	7/30/2009 3:25:07 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	7/30/2009 3:25:07 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	7/30/2009 3:25:07 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	7/30/2009 3:25:07 PM
2-Hexanone	ND	10		µg/L	1	7/30/2009 3:25:07 PM
Isopropylbenzene	2.6	1.0		µg/L	1	7/30/2009 3:25:07 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	7/30/2009 3:25:07 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/30/2009 3:25:07 PM
Methylene Chloride	ND	3.0		µg/L	1	7/30/2009 3:25:07 PM
n-Butylbenzene	ND	1.0		µg/L	1	7/30/2009 3:25:07 PM
n-Propylbenzene	2.0	1.0		µg/L	1	7/30/2009 3:25:07 PM
sec-Butylbenzene	ND	1.0		µg/L	1	7/30/2009 3:25:07 PM
Styrene	ND	1.0		µg/L	1	7/30/2009 3:25:07 PM
tert-Butylbenzene	ND	1.0		µg/L	1	7/30/2009 3:25:07 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	7/30/2009 3:25:07 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	7/30/2009 3:25:07 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	7/30/2009 3:25:07 PM
trans-1,2-DCE	ND	1.0		µg/L	1	7/30/2009 3:25:07 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/30/2009 3:25:07 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/30/2009 3:25:07 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/30/2009 3:25:07 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/30/2009 3:25:07 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/30/2009 3:25:07 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	7/30/2009 3:25:07 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	7/30/2009 3:25:07 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/30/2009 3:25:07 PM
Vinyl chloride	ND	1.0		µg/L	1	7/30/2009 3:25:07 PM
Xylenes, Total	34	1.5		µg/L	1	7/30/2009 3:25:07 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *13-Aug-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	GWM-1
Lab Order:	0907533	**Collection Date:**	7/27/2009 3:45:00 PM
Project:	2009 Annual Well Samples	**Date Received:**	7/29/2009
Lab ID:	0907533-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
Surr: 1,2-Dichloroethane-d4	106	68.1-123		%REC	1	7/30/2009 3:25:07 PM
Surr: 4-Bromofluorobenzene	99.5	53.2-145		%REC	1	7/30/2009 3:25:07 PM
Surr: Dibromofluoromethane	111	68.5-119		%REC	1	7/30/2009 3:25:07 PM
Surr: Toluene-d8	107	64-131		%REC	1	7/30/2009 3:25:07 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **NSB**
Specific Conductance	6200	0.010		µmhos/cm	1	7/30/2009
SM4500-H+B: PH						Analyst: **NSB**
pH	7.03	0.1		pH units	1	7/30/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *13-Aug-09*

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Trip Blank
Lab Order: 0907533
Collection Date:
Project: 2009 Annual Well Samples
Date Received: 7/29/2009
Lab ID: 0907533-04
Matrix: TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Benzene	ND	1.0		µg/L	1	7/30/2009 3:53:58 PM
Toluene	ND	1.0		µg/L	1	7/30/2009 3:53:58 PM
Ethylbenzene	ND	1.0		µg/L	1	7/30/2009 3:53:58 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	7/30/2009 3:53:58 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	7/30/2009 3:53:58 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	7/30/2009 3:53:58 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	7/30/2009 3:53:58 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/30/2009 3:53:58 PM
Naphthalene	ND	2.0		µg/L	1	7/30/2009 3:53:58 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	7/30/2009 3:53:58 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	7/30/2009 3:53:58 PM
Acetone	ND	10		µg/L	1	7/30/2009 3:53:58 PM
Bromobenzene	ND	1.0		µg/L	1	7/30/2009 3:53:58 PM
Bromodichloromethane	ND	1.0		µg/L	1	7/30/2009 3:53:58 PM
Bromoform	ND	1.0		µg/L	1	7/30/2009 3:53:58 PM
Bromomethane	ND	1.0		µg/L	1	7/30/2009 3:53:58 PM
2-Butanone	ND	10		µg/L	1	7/30/2009 3:53:58 PM
Carbon disulfide	ND	10		µg/L	1	7/30/2009 3:53:58 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	7/30/2009 3:53:58 PM
Chlorobenzene	ND	1.0		µg/L	1	7/30/2009 3:53:58 PM
Chloroethane	ND	2.0		µg/L	1	7/30/2009 3:53:58 PM
Chloroform	ND	1.0		µg/L	1	7/30/2009 3:53:58 PM
Chloromethane	ND	1.0		µg/L	1	7/30/2009 3:53:58 PM
2-Chlorotoluene	ND	1.0		µg/L	1	7/30/2009 3:53:58 PM
4-Chlorotoluene	ND	1.0		µg/L	1	7/30/2009 3:53:58 PM
cis-1,2-DCE	ND	1.0		µg/L	1	7/30/2009 3:53:58 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/30/2009 3:53:58 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/30/2009 3:53:58 PM
Dibromochloromethane	ND	1.0		µg/L	1	7/30/2009 3:53:58 PM
Dibromomethane	ND	1.0		µg/L	1	7/30/2009 3:53:58 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	7/30/2009 3:53:58 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	7/30/2009 3:53:58 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/30/2009 3:53:58 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/30/2009 3:53:58 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	7/30/2009 3:53:58 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	7/30/2009 3:53:58 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	7/30/2009 3:53:58 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	7/30/2009 3:53:58 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	7/30/2009 3:53:58 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	7/30/2009 3:53:58 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	7/30/2009 3:53:58 PM
2-Hexanone	ND	10		µg/L	1	7/30/2009 3:53:58 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *13-Aug-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	Trip Blank
Lab Order:	0907533	**Collection Date:**	
Project:	2009 Annual Well Samples	**Date Received:**	7/29/2009
Lab ID:	0907533-04	**Matrix:**	TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Isopropylbenzene	ND	1.0		µg/L	1	7/30/2009 3:53:58 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	7/30/2009 3:53:58 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/30/2009 3:53:58 PM
Methylene Chloride	ND	3.0		µg/L	1	7/30/2009 3:53:58 PM
n-Butylbenzene	ND	1.0		µg/L	1	7/30/2009 3:53:58 PM
n-Propylbenzene	ND	1.0		µg/L	1	7/30/2009 3:53:58 PM
sec-Butylbenzene	ND	1.0		µg/L	1	7/30/2009 3:53:58 PM
Styrene	ND	1.0		µg/L	1	7/30/2009 3:53:58 PM
tert-Butylbenzene	ND	1.0		µg/L	1	7/30/2009 3:53:58 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	7/30/2009 3:53:58 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	7/30/2009 3:53:58 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	7/30/2009 3:53:58 PM
trans-1,2-DCE	ND	1.0		µg/L	1	7/30/2009 3:53:58 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/30/2009 3:53:58 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/30/2009 3:53:58 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/30/2009 3:53:58 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/30/2009 3:53:58 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/30/2009 3:53:58 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	7/30/2009 3:53:58 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	7/30/2009 3:53:58 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/30/2009 3:53:58 PM
Vinyl chloride	ND	1.0		µg/L	1	7/30/2009 3:53:58 PM
Xylenes, Total	ND	1.5		µg/L	1	7/30/2009 3:53:58 PM
Surr: 1,2-Dichloroethane-d4	108	68.1-123		%REC	1	7/30/2009 3:53:58 PM
Surr: 4-Bromofluorobenzene	108	53.2-145		%REC	1	7/30/2009 3:53:58 PM
Surr: Dibromofluoromethane	102	68.5-119		%REC	1	7/30/2009 3:53:58 PM
Surr: Toluene-d8	109	64-131		%REC	1	7/30/2009 3:53:58 PM

Qualifiers:

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

Anatek Labs, Inc.

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

Batch #: 090731034
Project Name: 0907533

Analytical Results Report

Sample Number	090731034-001	**Sampling Date**	7/27/2009	**Date/Time Received**	7/31/2009 12:35 PM
Client Sample ID	0907533-01D / OW-11	**Sampling Time**	2:34 PM		
Matrix	Water				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Arsenic	0.00202	mg/L	0.001	8/12/2009	ETL	EPA 6020A	
Selenium	0.00506	mg/L	0.001	8/12/2009	ETL	EPA 6020A	
Uranium	0.216	mg/L	0.001	8/12/2009	ETL	EPA 6020A	

Sample Number	090731034-002	**Sampling Date**	7/27/2009	**Date/Time Received**	7/31/2009 12:35 PM
Client Sample ID	0907533-02E / GWM-1	**Sampling Time**	3:45 PM		
Matrix	Water				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Arsenic	0.114	mg/L	0.001	8/12/2009	ETL	EPA 6020A	
Selenium	ND	mg/L	0.001	8/12/2009	ETL	EPA 6020A	
Uranium	0.0159	mg/L	0.001	8/12/2009	ETL	EPA 6020A	

Authorized Signature John W. Cobb

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

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; IN:C-ID-01; KY:90142; MT:CERT0026; NM: ID00013; OR:ID200001-002; WA:C1320
Certifications held by Anatek Labs WA: EPA:WA00169; CA:Cert2632; ID:WA00169; WA:C1287

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Annual Well Samples **Work Order:** 0907533

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 300.0: Anions											
Sample ID: MB		*MBLK*				Batch ID:	**R34823**	Analysis Date:		8/6/2009 9:39:47 AM	
Fluoride	ND	mg/L	0.10								
Chloride	ND	mg/L	0.10								
Nitrate (As N)+Nitrite (As N)	ND	mg/L	0.20								
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50								
Sulfate	ND	mg/L	0.50								
Sample ID: MB		*MBLK*				Batch ID:	**R34837**	Analysis Date:		8/7/2009 9:35:15 AM	
Fluoride	ND	mg/L	0.10								
Chloride	ND	mg/L	0.10								
Nitrate (As N)+Nitrite (As N)	ND	mg/L	0.20								
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50								
Sulfate	ND	mg/L	0.50								
Sample ID: LCS		*LCS*				Batch ID:	**R34823**	Analysis Date:		8/6/2009 9:57:11 AM	
Fluoride	0.5277	mg/L	0.10	0.5	0	106	90	110			
Chloride	4.924	mg/L	0.10	5	0	98.5	90	110			
Nitrate (As N)+Nitrite (As N)	3.452	mg/L	0.20	3.5	0	98.6	90	110			
Phosphorus, Orthophosphate (As P)	4.990	mg/L	0.50	5	0	99.8	90	110			
Sulfate	9.884	mg/L	0.50	10	0	98.8	90	110			
Sample ID: LCS		*LCS*				Batch ID:	**R34837**	Analysis Date:		8/7/2009 9:52:40 AM	
Fluoride	0.5270	mg/L	0.10	0.5	0	105	90	110			
Chloride	4.941	mg/L	0.10	5	0	98.8	90	110			
Nitrate (As N)+Nitrite (As N)	3.467	mg/L	0.20	3.5	0	99.0	90	110			
Phosphorus, Orthophosphate (As P)	5.028	mg/L	0.50	5	0	101	90	110			
Sulfate	9.925	mg/L	0.50	10	0	99.2	90	110			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Annual Well Samples **Work Order:** 0907533

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES											
Sample ID: 0907533-01a MSD		*MSD*				Batch ID: **R34729**		Analysis Date:		7/31/2009 3:51:16 PM	
Benzene	19.58	µg/L	1.0	20	0	97.9	84.9	122	2.36	15	
Toluene	18.10	µg/L	1.0	20	0	90.5	80.3	114	1.47	15	
Chlorobenzene	17.95	µg/L	1.0	20	0	89.8	71.9	134	1.54	15	
1,1-Dichloroethene	19.58	µg/L	1.0	20	0	97.9	88	144	4.72	17.8	
Trichloroethene (TCE)	17.36	µg/L	1.0	20	0	86.8	87.1	114	7.14	19.8	S
Sample ID: 5ml rb		*MBLK*				Batch ID: **R34729**		Analysis Date:		7/30/2009 9:09:14 AM	
Benzene	ND	µg/L	1.0								
Toluene	ND	µg/L	1.0								
Ethylbenzene	ND	µg/L	1.0								
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0								
1,2,4-Trimethylbenzene	ND	µg/L	1.0								
1,3,5-Trimethylbenzene	ND	µg/L	1.0								
1,2-Dichloroethane (EDC)	ND	µg/L	1.0								
1,2-Dibromoethane (EDB)	ND	µg/L	1.0								
Naphthalene	ND	µg/L	2.0								
1-Methylnaphthalene	ND	µg/L	4.0								
2-Methylnaphthalene	ND	µg/L	4.0								
Acetone	ND	µg/L	10								
Bromobenzene	ND	µg/L	1.0								
Bromodichloromethane	ND	µg/L	1.0								
Bromoform	ND	µg/L	1.0								
Bromomethane	ND	µg/L	1.0								
2-Butanone	ND	µg/L	10								
Carbon disulfide	ND	µg/L	10								
Carbon Tetrachloride	ND	µg/L	1.0								
Chlorobenzene	ND	µg/L	1.0								
Chloroethane	ND	µg/L	2.0								
Chloroform	ND	µg/L	1.0								
Chloromethane	ND	µg/L	1.0								
2-Chlorotoluene	ND	µg/L	1.0								
4-Chlorotoluene	ND	µg/L	1.0								
cis-1,2-DCE	ND	µg/L	1.0								
cis-1,3-Dichloropropene	ND	µg/L	1.0								
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0								
Dibromochloromethane	ND	µg/L	1.0								
Dibromomethane	ND	µg/L	1.0								
1,2-Dichlorobenzene	ND	µg/L	1.0								
1,3-Dichlorobenzene	ND	µg/L	1.0								
1,4-Dichlorobenzene	ND	µg/L	1.0								
Dichlorodifluoromethane	ND	µg/L	1.0								
1,1-Dichloroethane	ND	µg/L	1.0								
1,1-Dichloroethene	ND	µg/L	1.0								
1,2-Dichloropropane	ND	µg/L	1.0								
1,3-Dichloropropane	ND	µg/L	1.0								

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Annual Well Samples **Work Order:** 0907533

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES											
Sample ID: 5ml rb		*MBLK*				Batch ID: **R34729**		Analysis Date: 7/30/2009 9:09:14 AM			
2,2-Dichloropropane	ND	µg/L	2.0								
1,1-Dichloropropene	ND	µg/L	1.0								
Hexachlorobutadiene	ND	µg/L	1.0								
2-Hexanone	ND	µg/L	10								
Isopropylbenzene	ND	µg/L	1.0								
4-Isopropyltoluene	ND	µg/L	1.0								
4-Methyl-2-pentanone	ND	µg/L	10								
Methylene Chloride	ND	µg/L	3.0								
n-Butylbenzene	ND	µg/L	1.0								
n-Propylbenzene	ND	µg/L	1.0								
sec-Butylbenzene	ND	µg/L	1.0								
Styrene	ND	µg/L	1.0								
tert-Butylbenzene	ND	µg/L	1.0								
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0								
1,1,2,2-Tetrachloroethane	ND	µg/L	2.0								
Tetrachloroethene (PCE)	ND	µg/L	1.0								
trans-1,2-DCE	ND	µg/L	1.0								
trans-1,3-Dichloropropene	ND	µg/L	1.0								
1,2,3-Trichlorobenzene	ND	µg/L	1.0								
1,2,4-Trichlorobenzene	ND	µg/L	1.0								
1,1,1-Trichloroethane	ND	µg/L	1.0								
1,1,2-Trichloroethane	ND	µg/L	1.0								
Trichloroethene (TCE)	ND	µg/L	1.0								
Trichlorofluoromethane	ND	µg/L	1.0								
1,2,3-Trichloropropane	ND	µg/L	2.0								
Vinyl chloride	ND	µg/L	1.0								
Xylenes, Total	ND	µg/L	1.5								
Sample ID: b7		*MBLK*				Batch ID: **R34729**		Analysis Date: 7/30/2009 11:34:48 PM			
Benzene	ND	µg/L	1.0								
Toluene	ND	µg/L	1.0								
Ethylbenzene	ND	µg/L	1.0								
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0								
1,2,4-Trimethylbenzene	ND	µg/L	1.0								
1,3,5-Trimethylbenzene	ND	µg/L	1.0								
1,2-Dichloroethane (EDC)	ND	µg/L	1.0								
1,2-Dibromoethane (EDB)	ND	µg/L	1.0								
Naphthalene	ND	µg/L	2.0								
1-Methylnaphthalene	ND	µg/L	4.0								
2-Methylnaphthalene	ND	µg/L	4.0								
Acetone	ND	µg/L	10								
Bromobenzene	ND	µg/L	1.0								
Bromodichloromethane	ND	µg/L	1.0								
Bromoform	ND	µg/L	1.0								
Bromomethane	ND	µg/L	1.0								

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Annual Well Samples **Work Order:** 0907533

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES											
Sample ID: b7		*MBLK*							Batch ID: **R34729**	Analysis Date:	7/30/2009 11:34:48 PM
2-Butanone	ND	µg/L	10								
Carbon disulfide	ND	µg/L	10								
Carbon Tetrachloride	ND	µg/L	1.0								
Chlorobenzene	ND	µg/L	1.0								
Chloroethane	ND	µg/L	2.0								
Chloroform	ND	µg/L	1.0								
Chloromethane	ND	µg/L	1.0								
2-Chlorotoluene	ND	µg/L	1.0								
4-Chlorotoluene	ND	µg/L	1.0								
cis-1,2-DCE	ND	µg/L	1.0								
cis-1,3-Dichloropropene	ND	µg/L	1.0								
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0								
Dibromochloromethane	ND	µg/L	1.0								
Dibromomethane	ND	µg/L	1.0								
1,2-Dichlorobenzene	ND	µg/L	1.0								
1,3-Dichlorobenzene	ND	µg/L	1.0								
1,4-Dichlorobenzene	ND	µg/L	1.0								
Dichlorodifluoromethane	ND	µg/L	1.0								
1,1-Dichloroethane	ND	µg/L	1.0								
1,1-Dichloroethene	ND	µg/L	1.0								
1,2-Dichloropropane	ND	µg/L	1.0								
1,3-Dichloropropane	ND	µg/L	1.0								
2,2-Dichloropropane	ND	µg/L	2.0								
1,1-Dichloropropene	ND	µg/L	1.0								
Hexachlorobutadiene	ND	µg/L	1.0								
2-Hexanone	ND	µg/L	10								
Isopropylbenzene	ND	µg/L	1.0								
4-Isopropyltoluene	ND	µg/L	1.0								
4-Methyl-2-pentanone	ND	µg/L	10								
Methylene Chloride	ND	µg/L	3.0								
n-Butylbenzene	ND	µg/L	1.0								
n-Propylbenzene	ND	µg/L	1.0								
sec-Butylbenzene	ND	µg/L	1.0								
Styrene	ND	µg/L	1.0								
tert-Butylbenzene	ND	µg/L	1.0								
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0								
1,1,2,2-Tetrachloroethane	ND	µg/L	2.0								
Tetrachloroethene (PCE)	ND	µg/L	1.0								
trans-1,2-DCE	ND	µg/L	1.0								
trans-1,3-Dichloropropene	ND	µg/L	1.0								
1,2,3-Trichlorobenzene	ND	µg/L	1.0								
1,2,4-Trichlorobenzene	ND	µg/L	1.0								
1,1,1-Trichloroethane	ND	µg/L	1.0								
1,1,2-Trichloroethane	ND	µg/L	1.0								

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Annual Well Samples **Work Order:** 0907533

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES											
Sample ID: b7		*MBLK*				Batch ID:	**R34729**	Analysis Date:	7/30/2009 11:34:48 PM		
Trichloroethene (TCE)	ND	µg/L	1.0								
Trichlorofluoromethane	ND	µg/L	1.0								
1,2,3-Trichloropropane	ND	µg/L	2.0								
Vinyl chloride	ND	µg/L	1.0								
Xylenes, Total	ND	µg/L	1.5								
Sample ID: 100ng lcs		*LCS*				Batch ID:	**R34729**	Analysis Date:	7/30/2009 10:06:58 AM		
Benzene	20.49	µg/L	1.0	20	0	102	76.7	114			
Toluene	19.55	µg/L	1.0	20	0	97.7	78.4	117			
Chlorobenzene	19.01	µg/L	1.0	20	0	95.1	80.7	127			
1,1-Dichloroethene	21.75	µg/L	1.0	20	0	109	80.2	128			
Trichloroethene (TCE)	19.22	µg/L	1.0	20	0	96.1	77.4	115			
Sample ID: 100ng lcs_b		*LCS*				Batch ID:	**R34729**	Analysis Date:	7/30/2009 11:06:02 PM		
Benzene	20.04	µg/L	1.0	20	0	100	76.7	114			
Toluene	18.41	µg/L	1.0	20	0.194	91.1	78.4	117			
Chlorobenzene	18.49	µg/L	1.0	20	0	92.4	80.7	127			
1,1-Dichloroethene	22.22	µg/L	1.0	20	0	111	80.2	128			
Trichloroethene (TCE)	19.20	µg/L	1.0	20	0	96.0	77.4	115			
Sample ID: 0907533-01a MS		*MS*				Batch ID:	**R34729**	Analysis Date:	7/30/2009 4:22:45 PM		
Benzene	19.12	µg/L	1.0	20	0	95.6	84.9	122			
Toluene	18.37	µg/L	1.0	20	0	91.8	80.3	114			
Chlorobenzene	18.23	µg/L	1.0	20	0	91.1	71.9	134			
1,1-Dichloroethene	20.53	µg/L	1.0	20	0	103	88	144			
Trichloroethene (TCE)	18.64	µg/L	1.0	20	0	93.2	87.1	114			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Annual Well Samples **Work Order:** 0907533

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8270C: Semivolatiles											
Sample ID: mb-19751		*MBLK*				Batch ID:	19751	Analysis Date:		7/30/2009	
Acenaphthene	ND	µg/L	10								
Acenaphthylene	ND	µg/L	10								
Aniline	ND	µg/L	10								
Anthracene	ND	µg/L	10								
Azobenzene	ND	µg/L	10								
Benz(a)anthracene	ND	µg/L	10								
Benzo(a)pyrene	ND	µg/L	10								
Benzo(b)fluoranthene	ND	µg/L	10								
Benzo(g,h,i)perylene	ND	µg/L	10								
Benzo(k)fluoranthene	ND	µg/L	10								
Benzoic acid	ND	µg/L	20								
Benzyl alcohol	ND	µg/L	10								
Bis(2-chloroethoxy)methane	ND	µg/L	10								
Bis(2-chloroethyl)ether	ND	µg/L	10								
Bis(2-chloroisopropyl)ether	ND	µg/L	10								
Bis(2-ethylhexyl)phthalate	ND	µg/L	10								
4-Bromophenyl phenyl ether	ND	µg/L	10								
Butyl benzyl phthalate	ND	µg/L	10								
Carbazole	ND	µg/L	10								
4-Chloro-3-methylphenol	ND	µg/L	10								
4-Chloroaniline	ND	µg/L	10								
2-Chloronaphthalene	ND	µg/L	10								
2-Chlorophenol	ND	µg/L	10								
4-Chlorophenyl phenyl ether	ND	µg/L	10								
Chrysene	ND	µg/L	10								
Di-n-butyl phthalate	ND	µg/L	10								
Di-n-octyl phthalate	ND	µg/L	10								
Dibenz(a,h)anthracene	ND	µg/L	10								
Dibenzofuran	ND	µg/L	10								
1,2-Dichlorobenzene	ND	µg/L	10								
1,3-Dichlorobenzene	ND	µg/L	10								
1,4-Dichlorobenzene	ND	µg/L	10								
3,3'-Dichlorobenzidine	ND	µg/L	10								
Diethyl phthalate	ND	µg/L	10								
Dimethyl phthalate	ND	µg/L	10								
2,4-Dichlorophenol	ND	µg/L	20								
2,4-Dimethylphenol	ND	µg/L	10								
4,6-Dinitro-2-methylphenol	ND	µg/L	20								
2,4-Dinitrophenol	ND	µg/L	20								
2,4-Dinitrotoluene	ND	µg/L	10								
2,6-Dinitrotoluene	ND	µg/L	10								
Fluoranthene	ND	µg/L	10								
Fluorene	ND	µg/L	10								
Hexachlorobenzene	ND	µg/L	10								

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Annual Well Samples **Work Order:** 0907533

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8270C: Semivolatiles											
Sample ID: mb-19751		*MBLK*				Batch ID:	**19751**	Analysis Date:			7/30/2009
Hexachlorobutadiene	ND	µg/L	10								
Hexachlorocyclopentadiene	ND	µg/L	10								
Hexachloroethane	ND	µg/L	10								
Indeno(1,2,3-cd)pyrene	ND	µg/L	10								
Isophorone	ND	µg/L	10								
2-Methylnaphthalene	ND	µg/L	10								
2-Methylphenol	ND	µg/L	10								
3+4-Methylphenol	ND	µg/L	10								
N-Nitrosodi-n-propylamine	ND	µg/L	10								
N-Nitrosodimethylamine	ND	µg/L	10								
N-Nitrosodiphenylamine	ND	µg/L	10								
Naphthalene	ND	µg/L	10								
2-Nitroaniline	ND	µg/L	10								
3-Nitroaniline	ND	µg/L	10								
4-Nitroaniline	ND	µg/L	10								
Nitrobenzene	ND	µg/L	10								
2-Nitrophenol	ND	µg/L	10								
4-Nitrophenol	ND	µg/L	10								
Pentachlorophenol	ND	µg/L	20								
Phenanthrene	ND	µg/L	10								
Phenol	ND	µg/L	10								
Pyrene	ND	µg/L	10								
Pyridine	ND	µg/L	10								
1,2,4-Trichlorobenzene	ND	µg/L	10								
2,4,5-Trichlorophenol	ND	µg/L	10								
2,4,6-Trichlorophenol	ND	µg/L	10								
Sample ID: lcs-19751		*LCS*				Batch ID:	**19751**	Analysis Date:			7/30/2009
Acenaphthene	55.56	µg/L	10	100	0	55.6	33.2	88.1			
4-Chloro-3-methylphenol	111.3	µg/L	10	200	0	55.6	26.5	101			
2-Chlorophenol	91.16	µg/L	10	200	0	45.6	27.5	88.7			
1,4-Dichlorobenzene	51.06	µg/L	10	100	0	51.1	27.2	74.1			
2,4-Dinitrotoluene	55.88	µg/L	10	100	0	55.9	32.6	107			
N-Nitrosodi-n-propylamine	55.48	µg/L	10	100	0	55.5	27.1	96.3			
4-Nitrophenol	42.12	µg/L	10	200	0	21.1	6.78	74.7			
Pentachlorophenol	88.98	µg/L	20	200	0	44.5	14.8	113			
Phenol	58.82	µg/L	10	200	0	29.4	17	53.4			
Pyrene	61.70	µg/L	10	100	0	61.7	27	96.3			
1,2,4-Trichlorobenzene	53.38	µg/L	10	100	0	53.4	30	77.9			
Sample ID: lcsd-19751		*LCSD*				Batch ID:	**19751**	Analysis Date:			7/30/2009
Acenaphthene	59.06	µg/L	10	100	0	59.1	33.2	88.1	6.11	30.5	
4-Chloro-3-methylphenol	122.1	µg/L	10	200	0	61.1	26.5	101	9.31	28.6	
2-Chlorophenol	108.9	µg/L	10	200	0	54.4	27.5	88.7	17.7	107	
1,4-Dichlorobenzene	57.74	µg/L	10	100	0	57.7	27.2	74.1	12.3	62.1	
2,4-Dinitrotoluene	56.86	µg/L	10	100	0	56.9	32.6	107	1.74	14.7	

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Annual Well Samples **Work Order:** 0907533

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8270C: Semivolatiles											
Sample ID: lcsd-19751		*LCSD*				Batch ID:	**19751**	Analysis Date:			7/30/2009
N-Nitrosodi-n-propylamine	63.20	µg/L	10	100	0	63.2	27.1	96.3	13.0	30.3	
4-Nitrophenol	47.28	µg/L	10	200	0	23.6	6.78	74.7	11.5	36.3	
Pentachlorophenol	113.2	µg/L	20	200	0	56.6	14.8	113	24.0	49	
Phenol	67.52	µg/L	10	200	0	33.8	17	53.4	13.8	52.4	
Pyrene	66.02	µg/L	10	100	0	66.0	27	96.3	6.76	16.3	
1,2,4-Trichlorobenzene	60.46	µg/L	10	100	0	60.5	30	77.9	12.4	36.4	
Method: EPA Method 7470: Mercury											
Sample ID: MB-19749		*MBLK*				Batch ID:	**19749**	Analysis Date:			7/31/2009 3:40:15 PM
Mercury	ND	mg/L	0.00020								
Sample ID: LCS-19749		*LCS*				Batch ID:	**19749**	Analysis Date:			7/31/2009 3:42:01 PM
Mercury	0.004987	mg/L	0.00020	0.005	3E-05	99.1	80	120			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Annual Well Samples **Work Order:** 0907533

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA 6010B: Total Recoverable Metals											
Sample ID: MB-19761		*MBLK*				Batch ID:	**19761**	Analysis Date:		8/4/2009 2:09:20 PM	
Barium	ND	mg/L	0.010								
Cadmium	ND	mg/L	0.0020								
Chromium	ND	mg/L	0.0060								
Lead	ND	mg/L	0.0050								
Silver	ND	mg/L	0.0050								
Sample ID: MB-19761		*MBLK*				Batch ID:	**19761**	Analysis Date:		8/7/2009 4:10:43 PM	
Barium	ND	mg/L	0.010								
Cadmium	ND	mg/L	0.0020								
Calcium	ND	mg/L	0.50								
Chromium	ND	mg/L	0.0060								
Copper	ND	mg/L	0.0060								
Iron	ND	mg/L	0.050								
Magnesium	ND	mg/L	0.50								
Manganese	ND	mg/L	0.0020								
Potassium	ND	mg/L	1.0								
Silver	ND	mg/L	0.0050								
Sodium	ND	mg/L	0.50								
Zinc	ND	mg/L	0.020								
Sample ID: MB-19761		*MBLK*				Batch ID:	**19761**	Analysis Date:		8/9/2009 2:08:36 PM	
[illegible]	ND	mg/L	0.0050								
Sample ID: LCS-19761		*LCS*				Batch ID:	**19761**	Analysis Date:		8/4/2009 2:11:53 PM	
Barium	0.4887	mg/L	0.010	0.5	0	97.7	80	120			
Cadmium	0.4905	mg/L	0.0020	0.5	0	98.1	80	120			
Chromium	0.4904	mg/L	0.0060	0.5	0	98.1	80	120			
Lead	0.4843	mg/L	0.0050	0.5	0	96.9	80	120			
Silver	0.4946	mg/L	0.0050	0.5	0	98.9	80	120			
Sample ID: LCS-19761		*LCS*				Batch ID:	**19761**	Analysis Date:		8/4/2009 2:14:28 PM	
Barium	0.4936	mg/L	0.010	0.5	0	98.7	80	120	0.992	0	
Cadmium	0.5011	mg/L	0.0020	0.5	0	100	80	120	2.15	0	
Chromium	0.5009	mg/L	0.0060	0.5	0	100	80	120	2.12	0	
Lead	0.4951	mg/L	0.0050	0.5	0	99.0	80	120	2.20	0	
Silver	0.5012	mg/L	0.0050	0.5	0	100	80	120	1.33	0	
Sample ID: LCS-19761		*LCS*				Batch ID:	**19761**	Analysis Date:		8/7/2009 4:15:31 PM	
Barium	0.5171	mg/L	0.010	0.5	0.0007	103	80	120			
Cadmium	0.5132	mg/L	0.0020	0.5	0.0012	102	80	120			
Calcium	51.90	mg/L	0.50	50	0	104	80	120			
Chromium	0.5231	mg/L	0.0060	0.5	0	105	80	120			
Copper	0.4940	mg/L	0.0060	0.5	0	98.8	80	120			
Iron	0.5147	mg/L	0.050	0.5	0	103	80	120			
Magnesium	50.83	mg/L	0.50	50	0	102	80	120			
Manganese	0.5062	mg/L	0.0020	0.5	0.0015	101	80	120			
Potassium	53.94	mg/L	1.0	50	0	108	80	120			
Silver	0.5074	mg/L	0.0050	0.5	0.0015	101	80	120			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Annual Well Samples **Work Order:** 0907533

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA 6010B: Total Recoverable Metals											
Sample ID: LCS-19761		*LCS*				Batch ID:	**19761**	Analysis Date:	8/7/2009 4:15:31 PM		
Sodium	54.00	mg/L	0.50	50	0	108	80	120			
Zinc	0.5358	mg/L	0.020	0.5	0	107	80	120			
Sample ID: LCS-19761		*LCS*				Batch ID:	**19761**	Analysis Date:	8/9/2009 2:11:42 PM		
Lead	0.5136	mg/L	0.0050	0.5	0	103	80	120			

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name **WESTERN REFINING GALLU** Date Received: **7/29/2009**

Work Order Number **0907533** Received by: **TLS**

Checklist completed by: _____ 7/29/09 Sample ID labels checked by: _____
Signature Date Initials

Matrix: Carrier name: UPS

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☑	No ☐	N/A ☐	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☐	No ☑		Number of preserved bottles checked for pH:
Water - VOA vials have zero headspace? No VOA vials submitted ☐		Yes ☑	No ☐	3
Water - Preservation labels on bottle and cap match?	Yes ☑	No ☐	N/A ☐	
Water - pH acceptable upon receipt?	Yes ☑ AS	No ☑	N/A ☐	(<2) >12 unless noted below.
Container/Temp Blank temperature?	0.9°	<6° C Acceptable If given sufficient time to cool.		

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: Added 1ml HNO_3 to sample 0907533-02D and 2 ml HNO_3 to -02E for acceptable ph. AS 7/29
Field Blank not received. Removed from C.O.C as per C.J.'s Request. AS 7/30
per CJ add gen chem to CW-11 7/31/09 MT

Corrective Action poured off CW-11 sample (1x1Hr Amber) & preserved 1x125HNO3 for Anions & gen chem

Chain-of-Custody Record

Client: Western Refining Gallup Refinery
Mailing Address: Pt 3 Box 7 Gallup, NM 87301
Phone #: 505 722 3833
email or Fax#: 505 722 0210
QA/QC Package: ☒ Standard ☐ Level 4 (Full Validation)
Accreditation: ☐ NELAP ☐ Other
☐ EDD (Type)

Turn-Around Time: ☒ Standard ☐ Rush
Project Name: 2009 Annual Well Samples
Project #:
Project Manager: G Rayen
Sampler: Cheryl Johnson
On Ice: ☒ Yes ☐ No
Sample Temperature: 0.9

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 0906533
7/27/09	1434	H2O	OW-11	1L Amber	None	1
				3-40ml	HCl	1
				2-500ml	HNO3	1
7/27/09	1545		GWM-1	1L Amber	None	2
				3-40ml	HCl	2
				2-500ml	HNO3	2
				1-125ml	H2SO4	2
				1-250ml	None	2
7/27/09			Field Blank 0830 7/30			3
7/27/09			TRIP BLANK			4

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA) 9 MtBE	8270 Semi-VOA	WQCC Metals	Gen Chem			Air Bubbles (Y or N)
										X					
									X						
											X				
												X 7/31/09			
										X					
									X						
											X				
											X				
												X			

Date:	Time:	Relinquished by:	Received by:	Date	Time
7/28/09	0900			7/29/09	1350
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks: Gen Chem: Cations, Anions, pH Cond.

TAB 7 to 10

SMA-1

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Tuesday, August 18, 2009

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

TEL: (505) 722-0227
FAX (505) 722-0210

RE: 2009 Annual MW Sampling

Order No.: 0907526

Dear Gaurav Rajen:

Hall Environmental Analysis Laboratory, Inc. received 3 sample(s) on 7/29/2009 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

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

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

Hall Environmental Analysis Laboratory, Inc.

Date: *18-Aug-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	SMW-2
Lab Order:	0907526	**Collection Date:**	7/27/2009 8:54:00 AM
Project:	2009 Annual MW Sampling	**Date Received:**	7/29/2009
Lab ID:	0907526-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **SCC**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/4/2009
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/4/2009
Surr: DNOP	114	58-140		%REC	1	8/4/2009
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **DAM**
Gasoline Range Organics (GRO)	0.73	0.25		mg/L	5	8/3/2009 6:43:00 PM
Surr: BFB	84.1	59.9-122		%REC	5	8/3/2009 6:43:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **RAGS**
Fluoride	0.32	0.10		mg/L	1	8/7/2009 8:19:28 PM
Chloride	2300	20		mg/L	200	8/12/2009 12:21:32 AM
Nitrate (As N)+Nitrite (As N)	ND	10		mg/L	50	8/12/2009 1:13:45 AM
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	8/11/2009 11:46:42 PM
Sulfate	1700	100		mg/L	200	8/12/2009 12:21:32 AM
EPA METHOD 7470: MERCURY						Analyst: **MMS**
Mercury	ND	0.00020		mg/L	1	7/31/2009 3:18:38 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **SNV**
Barium	0.016	0.010		mg/L	1	8/7/2009 4:54:46 PM
Beryllium	ND	0.0030		mg/L	1	8/7/2009 4:54:46 PM
Cadmium	ND	0.0020		mg/L	1	8/7/2009 4:54:46 PM
Calcium	220	2.5		mg/L	5	8/9/2009 2:22:52 PM
Chromium	ND	0.0060		mg/L	1	8/7/2009 4:54:46 PM
Cobalt	ND	0.0060		mg/L	1	8/7/2009 4:54:46 PM
Lead	0.0063	0.0050		mg/L	1	8/9/2009 2:16:44 PM
Magnesium	68	0.50		mg/L	1	8/7/2009 4:54:46 PM
Nickel	ND	0.010		mg/L	1	8/7/2009 4:54:46 PM
Potassium	1.1	1.0		mg/L	1	8/7/2009 4:54:46 PM
Silver	ND	0.0050		mg/L	1	8/7/2009 4:54:46 PM
Sodium	2000	25		mg/L	50	8/9/2009 2:27:03 PM
Vanadium	ND	0.050		mg/L	1	8/7/2009 4:54:46 PM
Zinc	ND	0.020		mg/L	1	8/9/2009 2:16:44 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **NSB**
Specific Conductance	7700	0.010		µmhos/cm	1	7/30/2009
SM4500-H+B: PH						Analyst: **NSB**
pH	7.61	0.1		pH units	1	7/30/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *18-Aug-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	SMW-4
Lab Order:	0907526	**Collection Date:**	7/27/2009 11:14:00 AM
Project:	2009 Annual MW Sampling	**Date Received:**	7/29/2009
Lab ID:	0907526-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **SCC**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/4/2009
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/4/2009
Surr: DNOP	111	58-140		%REC	1	8/4/2009
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **DAM**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/1/2009 1:58:07 AM
Surr: BFB	84.8	59.9-122		%REC	1	8/1/2009 1:58:07 AM
EPA METHOD 300.0: ANIONS						Analyst: **RAGS**
Fluoride	1.2	0.10		mg/L	1	8/7/2009 9:11:42 PM
Chloride	58	2.0		mg/L	20	8/7/2009 9:29:06 PM
Nitrate (As N)+Nitrite (As N)	ND	1.0		mg/L	5	8/7/2009 9:46:31 PM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	8/7/2009 9:11:42 PM
Sulfate	170	10		mg/L	20	8/7/2009 9:29:06 PM
EPA METHOD 7470: MERCURY						Analyst: **MMS**
Mercury	ND	0.00020		mg/L	1	7/31/2009 3:20:27 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **SNV**
Barium	0.028	0.010		mg/L	1	8/9/2009 3:53:23 PM
Beryllium	ND	0.0030		mg/L	1	8/9/2009 3:53:23 PM
Cadmium	ND	0.0020		mg/L	1	8/9/2009 3:53:23 PM
Calcium	4.4	0.50		mg/L	1	8/9/2009 3:53:23 PM
Chromium	0.0075	0.0060		mg/L	1	8/9/2009 3:53:23 PM
Cobalt	0.010	0.0060		mg/L	1	8/9/2009 7:16:35 PM
Lead	ND	0.0050		mg/L	1	8/9/2009 3:53:23 PM
Magnesium	1.4	0.50		mg/L	1	8/9/2009 3:53:23 PM
Nickel	ND	0.010		mg/L	1	8/9/2009 3:53:23 PM
Potassium	ND	1.0		mg/L	1	8/9/2009 3:53:23 PM
Silver	ND	0.0050		mg/L	1	8/9/2009 3:53:23 PM
Sodium	310	2.5		mg/L	5	8/11/2009 11:02:14 AM
Vanadium	ND	0.050		mg/L	1	8/11/2009 10:55:43 AM
Zinc	ND	0.020		mg/L	1	8/9/2009 3:53:23 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **NSB**
Specific Conductance	1300	0.010		µmhos/cm	1	7/30/2009
SM4500-H+B: PH						Analyst: **NSB**
pH	8.53	0.1		pH units	1	7/30/2009

Qualifiers:

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

Anatek Labs, Inc.

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

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

Batch #: 090730019
Project Name: 0907526

Analytical Results Report

Sample Number	090730019-004	**Sampling Date**	7/27/2009	**Date/Time Received**	7/30/2009 11:00 AM
Client Sample ID	0907526-01F / SMW-2	**Sampling Time**	8:54 AM		
Matrix	Water				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	0.0662	mg/L	0.01	8/3/2009	JTT	EPA 335.4	

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

Batch #: 090730019
Project Name: 0907526

Analytical Results Report

Sample Number	090730019-008	**Sampling Date**	7/27/2009	**Date/Time Received**	7/30/2009	11:00 AM
Client Sample ID	0907526-02F / SMW-4	**Sampling Time**	11:14 AM			
Matrix	Water					
Comments						

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/L	0.01	8/3/2009	JTT	EPA 335.4	

Authorized Signature

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

Anatek Labs, Inc.

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

Batch #: 090730019
Project Name: 0907526

Analytical Results Report

Sample Number	090730019-003	**Sampling Date**	7/27/2009	**Date/Time Received**	7/30/2009	11:00 AM
Client Sample ID	0907526-01E / SMW-2	**Sampling Time**	8:54 AM			
Matrix	Water					
Comments						

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Antimony	ND	mg/L	0.001	8/10/2009	ETL	EPA 6020A	
Arsenic	0.00384	mg/L	0.001	8/10/2009	ETL	EPA 6020A	
Selenium	0.00474	mg/L	0.001	8/10/2009	ETL	EPA 6020A	

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 #: 090730019
Project Name: 0907526

Analytical Results Report

Sample Number	090730019-007	**Sampling Date**	7/27/2009	**Date/Time Received**	7/30/2009	11:00 AM
Client Sample ID	0907526-02E / SMW-4	**Sampling Time**	11:14 AM			
Matrix	Water					
Comments						

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Antimony	ND	mg/L	0.003	8/10/2009	ETL	EPA 6020A	
Arsenic	0.00297	mg/L	0.001	8/10/2009	ETL	EPA 6020A	
Selenium	ND	mg/L	0.001	8/10/2009	ETL	EPA 6020A	

Authorized Signature

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

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

Batch #: 090730019
Project Name: 0907526

Analytical Results Report

Sample Number	090730019-002	**Sampling Date**	7/27/2009	**Date/Time Received**	7/30/2009 11:00 AM
Client Sample ID	0907526-01C / SMW-2	**Sampling Time**	8:54 AM	**Extraction Date**	
Matrix	Water	**Sample Location**			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
1,1,1-Trichloroethane	ND	ug/L	0.5	8/3/2009	CAS	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	ug/L	0.5	8/3/2009	CAS	EPA 8260B	
1,1-Dichloroethane	ND	ug/L	0.5	8/3/2009	CAS	EPA 8260B	
1,1-Dichloroethene	ND	ug/L	0.5	8/3/2009	CAS	EPA 8260B	
1,2-Dibromoethane	ND	ug/L	0.1	8/3/2009	CAS	EPA 8260B	
1,2-Dichloroethane	ND	ug/L	0.5	8/3/2009	CAS	EPA 8260B	
Acetone	6.25	ug/L	2.5	8/3/2009	CAS	EPA 8260B	
Benzene	ND	ug/L	0.5	8/3/2009	CAS	EPA 8260B	
Carbon disulfide	ND	ug/L	0.5	8/3/2009	CAS	EPA 8260B	
Chlorobenzene	ND	ug/L	0.5	8/3/2009	CAS	EPA 8260B	
Chloroform	ND	ug/L	0.1	8/3/2009	CAS	EPA 8260B	
Chloromethane	ND	ug/L	0.5	8/3/2009	CAS	EPA 8260B	
Ethylbenzene	ND	ug/L	0.5	8/3/2009	CAS	EPA 8260B	
m+p-Xylene	ND	ug/L	0.5	8/3/2009	CAS	EPA 8260B	
Methyl ethyl ketone (MEK)	ND	ug/L	2.5	8/3/2009	CAS	EPA 8260B	
Methylene chloride	ND	ug/L	2.5	8/3/2009	CAS	EPA 8260B	
o-Xylene	ND	ug/L	0.5	8/3/2009	CAS	EPA 8260B	
Styrene	ND	ug/L	0.5	8/3/2009	CAS	EPA 8260B	
Tetrachloroethene	ND	ug/L	0.5	8/3/2009	CAS	EPA 8260B	
Toluene	ND	ug/L	0.5	8/3/2009	CAS	EPA 8260B	
trans-1,2-Dichloroethene	ND	ug/L	0.5	8/3/2009	CAS	EPA 8260B	
Trichloroethene	ND	ug/L	0.5	8/3/2009	CAS	EPA 8260B	

Surrogate Data

Sample Number 090730019-002

Surrogate Standard	Method	Percent Recovery	Control Limits
1,2-Dichlorobenzene-d4	EPA 8260B	97.6	70-130
4-Bromofluorobenzene	EPA 8260B	102.8	70-130
Toluene-d8	EPA 8260B	100.0	70-130

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Client: HALL ENVIRONMENTAL ANALYSIS LAB
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ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Batch #: 090730019
Project Name: 0907526

Analytical Results Report

Sample Number	090730019-006	**Sampling Date**	7/27/2009	**Date/Time Received**	7/30/2009	11:00 AM	
Client Sample ID	0907526-02C / SMW-4	**Sampling Time**	11:14 AM	**Extraction Date**			
Matrix	Water	**Sample Location**					
Comments							

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
1,1,1-Trichloroethane	ND	ug/L	0.5	8/3/2009	CAS	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	ug/L	0.5	8/3/2009	CAS	EPA 8260B	
1,1-Dichloroethane	ND	ug/L	0.5	8/3/2009	CAS	EPA 8260B	
1,1-Dichloroethene	ND	ug/L	0.5	8/3/2009	CAS	EPA 8260B	
1,2-Dibromoethane	ND	ug/L	0.1	8/3/2009	CAS	EPA 8260B	
1,2-Dichloroethane	ND	ug/L	0.5	8/3/2009	CAS	EPA 8260B	
Acetone	ND	ug/L	2.5	8/3/2009	CAS	EPA 8260B	
Benzene	ND	ug/L	0.5	8/3/2009	CAS	EPA 8260B	
Carbon disulfide	ND	ug/L	0.5	8/3/2009	CAS	EPA 8260B	
Chlorobenzene	ND	ug/L	0.5	8/3/2009	CAS	EPA 8260B	
Chloroform	ND	ug/L	0.1	8/3/2009	CAS	EPA 8260B	
Chloromethane	ND	ug/L	0.5	8/3/2009	CAS	EPA 8260B	
Ethylbenzene	ND	ug/L	0.5	8/3/2009	CAS	EPA 8260B	
m+p-Xylene	ND	ug/L	0.5	8/3/2009	CAS	EPA 8260B	
Methyl ethyl ketone (MEK)	ND	ug/L	2.5	8/3/2009	CAS	EPA 8260B	
Methylene chloride	ND	ug/L	2.5	8/3/2009	CAS	EPA 8260B	
o-Xylene	ND	ug/L	0.5	8/3/2009	CAS	EPA 8260B	
Styrene	ND	ug/L	0.5	8/3/2009	CAS	EPA 8260B	
Tetrachloroethene	ND	ug/L	0.5	8/3/2009	CAS	EPA 8260B	
Toluene	ND	ug/L	0.5	8/3/2009	CAS	EPA 8260B	
trans-1,2-Dichloroethene	ND	ug/L	0.5	8/3/2009	CAS	EPA 8260B	
Trichloroethene	ND	ug/L	0.5	8/3/2009	CAS	EPA 8260B	

Surrogate Data

Sample Number 090730019-006

Surrogate Standard	Method	Percent Recovery	Control Limits
1,2-Dichlorobenzene-d4	EPA 8260B	91.6	70-130
4-Bromofluorobenzene	EPA 8260B	97.2	70-130
Toluene-d8	EPA 8260B	101.2	70-130

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Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Batch #: 090730019
Project Name: 0907526

Analytical Results Report

Sample Number	090730019-009	**Sampling Date**	7/27/2009	**Date/Time Received**	7/30/2009	11:00 AM	
Client Sample ID	0907526-03A / FIELD BLANK	**Sampling Time**	8:00 AM	**Extraction Date**			
Matrix	Water	**Sample Location**					
Comments							

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
1,1,1-Trichloroethane	ND	ug/L	0.5	8/3/2009	CAS	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	ug/L	0.5	8/3/2009	CAS	EPA 8260B	
1,1-Dichloroethane	ND	ug/L	0.5	8/3/2009	CAS	EPA 8260B	
1,1-Dichloroethene	ND	ug/L	0.5	8/3/2009	CAS	EPA 8260B	
1,2-Dibromoethane	ND	ug/L	0.1	8/3/2009	CAS	EPA 8260B	
1,2-Dichloroethane	ND	ug/L	0.5	8/3/2009	CAS	EPA 8260B	
Acetone	2.71	ug/L	2.5	8/3/2009	CAS	EPA 8260B	
Benzene	ND	ug/L	0.5	8/3/2009	CAS	EPA 8260B	
Carbon disulfide	ND	ug/L	0.5	8/3/2009	CAS	EPA 8260B	
Chlorobenzene	ND	ug/L	0.5	8/3/2009	CAS	EPA 8260B	
Chloroform	ND	ug/L	0.1	8/3/2009	CAS	EPA 8260B	
Chloromethane	ND	ug/L	0.5	8/3/2009	CAS	EPA 8260B	
Ethylbenzene	ND	ug/L	0.5	8/3/2009	CAS	EPA 8260B	
m+p-Xylene	ND	ug/L	0.5	8/3/2009	CAS	EPA 8260B	
Methyl ethyl ketone (MEK)	ND	ug/L	2.5	8/3/2009	CAS	EPA 8260B	
Methylene chloride	ND	ug/L	2.5	8/3/2009	CAS	EPA 8260B	
o-Xylene	ND	ug/L	0.5	8/3/2009	CAS	EPA 8260B	
Styrene	ND	ug/L	0.5	8/3/2009	CAS	EPA 8260B	
Tetrachloroethene	ND	ug/L	0.5	8/3/2009	CAS	EPA 8260B	
Toluene	ND	ug/L	0.5	8/3/2009	CAS	EPA 8260B	
trans-1,2-Dichloroethene	ND	ug/L	0.5	8/3/2009	CAS	EPA 8260B	
Trichloroethene	ND	ug/L	0.5	8/3/2009	CAS	EPA 8260B	

Surrogate Data

Sample Number 090730019-009

Surrogate Standard	Method	Percent Recovery	Control Limits
1,2-Dichlorobenzene-d4	EPA 8260B	93.2	70-130
4-Bromofluorobenzene	EPA 8260B	98.8	70-130
Toluene-d8	EPA 8260B	101.2	70-130

Authorized Signature John W. Caddell

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

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Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	090730019
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	0907526
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	090730019-001	**Sampling Date**	7/27/2009	**Date/Time Received**	7/30/2009 11:00 AM
Client Sample ID	0907526-01B / SMW-2	**Sampling Time**	8:54 AM	**Extraction Date**	8/3/2009
Matrix	Water	**Sample Location**			
Comments					

Parameter	Result	Units	MDL	PQL	Analysis Date	Analyst	Method	Qualifier
1,2,4,5-Tetrachlorobenzene	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
1,2,4-Trichlorobenzene	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
1,2-Dichlorobenzene	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
1,2-Diphenyl hydrazine	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
1,3,5-TNB	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
1,3-Dichlorobenzene	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
1,3-DNB	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
1,4-Dichlorobenzene	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
1,4-Naphthoquinone	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
1-Methylnaphthalene	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
1-Naphthylamine	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
2,2-Oxybis(1-chloropropane)	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
2,3,4,6-Tetrachlorophenol	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
2,3,5,6-Tetrachlorophenol	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
2,4,5-Trichlorophenol	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
2,4,6-Trichlorophenol	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
2,4-Dichlorophenol	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
2,4-Dimethylphenol	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
2,4-Dinitrophenol	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
2,4-Dinitrotoluene	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
2,6-Dichlorophenol	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
2,6-Dinitrotoluene	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
2-Acetylaminofluorene	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
2-Chloronaphthalene	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
2-Chlorophenol	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
2-Methylnaphthalene	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
2-Methylphenol	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
2-Naphthylamine	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
2-Nitroaniline	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	

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

Batch #: 090730019
Project Name: 0907526

Analytical Results Report

Sample Number	090730019-001	**Sampling Date**	7/27/2009	**Date/Time Received**	7/30/2009	11:00 AM
Client Sample ID	0907526-01B / SMW-2	**Sampling Time**	8:54 AM	**Extraction Date**	8/3/2009	
Matrix	Water	**Sample Location**				
Comments						

Parameter	Result	Units	MDL	PQL	Analysis Date	Analyst	Method	Qualifier
2-Nitrophenol	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
2-Picoline	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
3,3'-Dichlorobenzidine	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
3,3-Dimethylbenzidine	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
3+4-Methylphenol	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
3-Methylcholanthrene	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
3-Nitroaniline	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
4,6-Dinitro-2-methylphenol	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
4-Aminobiphenyl	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
4-Bromophenyl-phenylether	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
4-Chloro-3-methylphenol	ND	ug/L	1	5	8/5/2009	EMP	EPA 8270C	
4-Chloroaniline	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
4-Chlorophenyl-phenylether	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
4-Nitroaniline	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
4-Nitrophenol	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
4-Nitroquinoline-1-oxide	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
5-Nitro-o-toluidine	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
7,12-Dimethylbenz(a)anthracene	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
a,a-Dimethylphenethylamine	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Acenaphthene	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Acenaphthylene	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Acetonphenone	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Aniline	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Anthracene	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Aramite	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Benzidine	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Benzo(ghi)perylene	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Benzo[a]anthracene	ND	ug/L	0.05	0.1	8/5/2009	EMP	EPA 8270C	
Benzo[a]pyrene	ND	ug/L	0.05	0.1	8/5/2009	EMP	EPA 8270C	
Benzo[b]fluoranthene	ND	ug/L	0.05	0.1	8/5/2009	EMP	EPA 8270C	
Benzo[k]fluoranthene	ND	ug/L	0.05	0.1	8/5/2009	EMP	EPA 8270C	

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

Batch #: 090730019
Project Name: 0907526

Analytical Results Report

Sample Number	090730019-001	**Sampling Date**	7/27/2009	**Date/Time Received**	7/30/2009	11:00 AM
Client Sample ID	0907526-01B / SMW-2	**Sampling Time**	8:54 AM	**Extraction Date**	8/3/2009	
Matrix	Water	**Sample Location**				
Comments						

Parameter	Result	Units	MDL	PQL	Analysis Date	Analyst	Method	Qualifier
Benzyl alcohol	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
bis(2-Chloroethoxy)methane	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
bis(2-Chloroethyl)ether	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
bis(2-chloroisopropyl)ether	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
bis(2-Ethylhexyl)phthalate	ND	ug/L	1	5	8/5/2009	EMP	EPA 8270C	
Butylbenzylphthalate	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Carbazole	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Chlorobenzilate	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Chrysene	ND	ug/L	0.05	0.1	8/5/2009	EMP	EPA 8270C	
Diallate	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Dibenz[a,h]anthracene	ND	ug/L	0.05	0.1	8/5/2009	EMP	EPA 8270C	
Dibenzofuran	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Diethylphthalate	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Dimethoate	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Dimethylphthalate	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Di-n-butylphthalate	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Di-n-octylphthalate	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
diphenylamine	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Disulfoton	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Ethyl methanesulfonate	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Ethyl parathion	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Fluoranthene	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Fluorene	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Hexachlorobenzene	ND	ug/L	0.1	1	8/5/2009	EMP	EPA 8270C	
Hexachlorobutadiene	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Hexachlorocyclopentadiene	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Hexachloroethane	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Hexachloropropene	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Hexachorophene	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Indeno[1,2,3-cd]pyrene	ND	ug/L	0.05	0.1	8/5/2009	EMP	EPA 8270C	
Isodrin	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	

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Address: 4901 HAWKINS NE SUITE D
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Attn: ANDY FREEMAN

Batch #: 090730019
Project Name: 0907526

Analytical Results Report

Sample Number	090730019-001	**Sampling Date**	7/27/2009	**Date/Time Received**	7/30/2009	11:00 AM
Client Sample ID	0907526-01B / SMW-2	**Sampling Time**	8:54 AM	**Extraction Date**	8/3/2009	
Matrix	Water	**Sample Location**				
Comments						

Parameter	Result	Units	MDL	PQL	Analysis Date	Analyst	Method	Qualifier
Isophorone	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Isosafrole	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Methapyrilene	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Methyl methanesulfonate	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Methyl parathion	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Naphthalene	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Nitrobenzene	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Nitrosodimethylamine	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
n-nitrosodibutylamine	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
n-Nitrosodiethylamine	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
n-Nitroso-di-n-propylamine	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
n-Nitrosodiphenylamine	ND	ug/L	1	2	8/5/2009	EMP	EPA 8270C	
n-Nitrosomethylethylamine	ND	ug/L	1	2	8/5/2009	EMP	EPA 8270C	
n-Nitrosomorpholine	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
n-Nitrosopiperadine	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
n-Nitrosopyrrolidine	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
o,o,o-Triethyl phosphorothioate	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
o-Toluidine	ND	ug/L	1	2	8/5/2009	EMP	EPA 8270C	
p-(Dimethylamino)azobenzene	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Pentachlorobenzene	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Pentachloroethane	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Pentachloronitrobenzene	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Pentachlorophenol	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Phenacetin	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Phenanthrene	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Phenol	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Phorate	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
p-Phenylenediamine	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Pronamide	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Pyrene	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Pyridine	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	

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Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	090730019
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	0907526
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	090730019-001	**Sampling Date**	7/27/2009	**Date/Time Received**	7/30/2009 11:00 AM
Client Sample ID	0907526-01B / SMW-2	**Sampling Time**	8:54 AM	**Extraction Date**	8/3/2009
Matrix	Water	**Sample Location**			
Comments					

Parameter	Result	Units	MDL	PQL	Analysis Date	Analyst	Method	Qualifier
Safrole	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Sulfotep	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Thionazin	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
1,4-Dioxane	ND	ug/L	1	5	8/5/2009	EMP	EPA 8270C	
5-Methylchrysene	ND	ug/L	0.1	1	8/5/2009	EMP	EPA 8270C	
6-Methylchrysene	ND	ug/L	0.1	1	8/5/2009	EMP	EPA 8270C	
Benzenethiole	ND	ug/L	0.5	5	8/5/2009	EMP	EPA 8270C	
Dibenz(a,j)acridine	ND	ug/L	0.1	1	8/5/2009	EMP	EPA 8270C	
Quinoline	ND	ug/L	0.5	5	8/5/2009	EMP	EPA 8270C	

Surrogate Data

Sample Number 090730019-001

Surrogate Standard	Method	Percent Recovery	Control Limits
2,4,6-Tribromophenol	EPA 8270C	88.6	10-123
2-Fluorobiphenyl	EPA 8270C	23.8	19-130
2-Fluorophenol	EPA 8270C	86.4	21-110
Nitrobenzene-d5	EPA 8270C	87.9	25-130
Phenol-d5	EPA 8270C	88.9	10-125
Terphenyl-d14	EPA 8270C	100.3	33-141

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Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	090730019
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	0907526
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	090730019-005	**Sampling Date**	7/27/2009	**Date/Time Received**	7/30/2009	11:00 AM
Client Sample ID	0907526-02B / SMW-4	**Sampling Time**	11:14 AM	**Extraction Date**	8/3/2009	
Matrix	Water	**Sample Location**				
Comments						

Parameter	Result	Units	MDL	PQL	Analysis Date	Analyst	Method	Qualifier
1,2,4,5-Tetrachlorobenzene	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
1,2,4-Trichlorobenzene	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
1,2-Dichlorobenzene	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
1,2-Diphenyl hydrazine	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
1,3,5-TNB	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
1,3-Dichlorobenzene	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
1,3-DNB	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
1,4-Dichlorobenzene	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
1,4-Naphthoquinone	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
1-Methylnaphthalene	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
1-Naphthylamine	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
2,2-Oxybis(1-chloropropane)	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
2,3,4,6-Tetrachlorophenol	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
2,3,5,6-Tetrachlorophenol	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
2,4,5-Trichlorophenol	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
2,4,6-Trichlorophenol	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
2,4-Dichlorophenol	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
2,4-Dimethylphenol	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
2,4-Dinitrophenol	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
2,4-Dinitrotoluene	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
2,6-Dichlorophenol	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
2,6-Dinitrotoluene	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
2-Acetylaminofluorene	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
2-Chloronaphthalene	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
2-Chlorophenol	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
2-Methylnaphthalene	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
2-Methylphenol	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
2-Naphthylamine	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
2-Nitroaniline	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
2-Nitrophenol	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
2-Picoline	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	

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Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	090730019
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	0907526
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	090730019-005	**Sampling Date**	7/27/2009	**Date/Time Received**	7/30/2009	11:00 AM	
Client Sample ID	0907526-02B / SMW-4	**Sampling Time**	11:14 AM	**Extraction Date**	8/3/2009		
Matrix	Water	**Sample Location**					
Comments							

Parameter	Result	Units	MDL	PQL	Analysis Date	Analyst	Method	Qualifier
3,3'-Dichlorobenzidine	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
3,3-Dimethylbenzidine	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
3+4-Methylphenol	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
3-Methylcholanthrene	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
3-Nitroaniline	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
4,6-Dinitro-2-methylphenol	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
4-Aminobiphenyl	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
4-Bromophenyl-phenylether	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
4-Chloro-3-methylphenol	ND	ug/L	1	5	8/5/2009	EMP	EPA 8270C	
4-Chloroaniline	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
4-Chlorophenyl-phenylether	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
4-Nitroaniline	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
4-Nitrophenol	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
4-Nitroquinoline-1-oxide	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
5-Nitro-o-toluidine	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
7,12-Dimethylbenz(a)anthracene	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
a,a-Dimethylphenethylamine	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Acenaphthene	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Acenaphthylene	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Acetonphenone	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Aniline	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Anthracene	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Aramite	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Benzidine	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Benzo(ghi)perylene	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Benzo[a]anthracene	ND	ug/L	0.05	0.1	8/5/2009	EMP	EPA 8270C	
Benzo[a]pyrene	ND	ug/L	0.05	0.1	8/5/2009	EMP	EPA 8270C	
Benzo[b]fluoranthene	ND	ug/L	0.05	0.1	8/5/2009	EMP	EPA 8270C	
Benzo[k]fluoranthene	ND	ug/L	0.05	0.1	8/5/2009	EMP	EPA 8270C	
Benzyl alcohol	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
bis(2-Chloroethoxy)methane	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	

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Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	090730019
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	0907526
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	090730019-005	**Sampling Date**	7/27/2009	**Date/Time Received**	7/30/2009	11:00 AM
Client Sample ID	0907526-02B / SMW-4	**Sampling Time**	11:14 AM	**Extraction Date**	8/3/2009	
Matrix	Water	**Sample Location**				
Comments						

Parameter	Result	Units	MDL	PQL	Analysis Date	Analyst	Method	Qualifier
bis(2-Chloroethyl)ether	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
bis(2-chloroisopropyl)ether	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
bis(2-Ethylhexyl)phthalate	1.05	ug/L	1	5	8/5/2009	EMP	EPA 8270C	J
Butylbenzylphthalate	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Carbazole	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Chlorobenzilate	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Chrysene	ND	ug/L	0.05	0.1	8/5/2009	EMP	EPA 8270C	
Diallate	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Dibenz[a,h]anthracene	ND	ug/L	0.05	0.1	8/5/2009	EMP	EPA 8270C	
Dibenzofuran	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Diethylphthalate	1.48	ug/L	1	10	8/5/2009	EMP	EPA 8270C	J
Dimethoate	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Dimethylphthalate	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Di-n-butylphthalate	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Di-n-octylphthalate	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
diphenylamine	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Disulfoton	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Ethyl methanesulfonate	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Ethyl parathion	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Fluoranthene	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Fluorene	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Hexachlorobenzene	ND	ug/L	0.1	1	8/5/2009	EMP	EPA 8270C	
Hexachlorobutadiene	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Hexachlorocyclopentadiene	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Hexachloroethane	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Hexachloropropene	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Hexachorophene	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Indeno[1,2,3-cd]pyrene	ND	ug/L	0.05	0.1	8/5/2009	EMP	EPA 8270C	
Isodrin	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Isophorone	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Isosafrole	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	

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Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	090730019
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	0907526
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	090730019-005	**Sampling Date**	7/27/2009	**Date/Time Received**	7/30/2009	11:00 AM
Client Sample ID	0907526-02B / SMW-4	**Sampling Time**	11:14 AM	**Extraction Date**	8/3/2009	
Matrix	Water	**Sample Location**				
Comments						

Parameter	Result	Units	MDL	PQL	Analysis Date	Analyst	Method	Qualifier
Methapyrilene	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Methyl methanesulfonate	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Methyl parathion	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Naphthalene	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Nitrobenzene	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Nitrosodimethylamine	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
n-nitrosodibutylamine	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
n-Nitrosodiethylamine	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
n-Nitroso-di-n-propylamine	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
n-Nitrosodiphenylamine	ND	ug/L	1	2	8/5/2009	EMP	EPA 8270C	
n-Nitrosomethylethylamine	ND	ug/L	1	2	8/5/2009	EMP	EPA 8270C	
n-Nitrosomorpholine	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
n-Nitrosopiperadine	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
n-Nitrosopyrrolidine	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
o,o,o-Triethyl phosphorothioate	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
o-Toluidine	ND	ug/L	1	2	8/5/2009	EMP	EPA 8270C	
p-(Dimethylamino)azobenzene	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Pentachlorobenzene	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Pentachloroethane	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Pentachloronitrobenzene	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Pentachlorophenol	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Phenacetin	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Phenanthrene	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Phenol	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Phorate	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
p-Phenylenediamine	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Pronamide	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Pyrene	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Pyridine	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Safrole	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
Sulfotep	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	

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

Batch #: 090730019
Project Name: 0907526

Analytical Results Report

Sample Number	090730019-005	**Sampling Date**	7/27/2009	**Date/Time Received**	7/30/2009 11:00 AM
Client Sample ID	0907526-02B / SMW-4	**Sampling Time**	11:14 AM	**Extraction Date**	8/3/2009
Matrix	Water	**Sample Location**			
Comments					

Parameter	Result	Units	MDL	PQL	Analysis Date	Analyst	Method	Qualifier
Thionazin	ND	ug/L	1	10	8/5/2009	EMP	EPA 8270C	
1,4-Dioxane	ND	ug/L	1	5	8/5/2009	EMP	EPA 8270C	
5-Methylchrysene	ND	ug/L	0.1	1	8/5/2009	EMP	EPA 8270C	
6-Methylchrysene	ND	ug/L	0.1	1	8/5/2009	EMP	EPA 8270C	
Benzenethiole	ND	ug/L	0.5	5	8/5/2009	EMP	EPA 8270C	
Dibenz(a,j)acridine	ND	ug/L	0.1	1	8/5/2009	EMP	EPA 8270C	
Quinoline	ND	ug/L	0.5	5	8/5/2009	EMP	EPA 8270C	

Surrogate Data

Sample Number 090730019-005

Surrogate Standard	Method	Percent Recovery	Control Limits
2,4,6-Tribromophenol	EPA 8270C	85.8	10-123
2-Fluorobiphenyl	EPA 8270C	46.6	19-130
2-Fluorophenol	EPA 8270C	83.9	21-110
Nitrobenzene-d5	EPA 8270C	93.4	25-130
Phenol-d5	EPA 8270C	85.1	10-125
Terphenyl-d14	EPA 8270C	99.2	33-141

Authorized Signature

J The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit
MCL EPA's Maximum Contaminant Level
ND Not Detected
PQL Practical Quantitation Limit

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Annual MW Sampling **Work Order:** 0907526

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 300.0: Anions											
Sample ID: MB		*MBLK*				Batch ID:	**R34837**	Analysis Date:		8/7/2009 9:35:15 AM	
Fluoride	ND	mg/L	0.10								
Chloride	ND	mg/L	0.10								
Nitrate (As N)+Nitrite (As N)	ND	mg/L	0.20								
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50								
Sulfate	ND	mg/L	0.50								
Sample ID: MB		*MBLK*				Batch ID:	**R34884**	Analysis Date:		8/11/2009 8:41:27 AM	
Fluoride	ND	mg/L	0.10								
Chloride	ND	mg/L	0.10								
Nitrate (As N)+Nitrite (As N)	ND	mg/L	0.20								
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50								
Sulfate	ND	mg/L	0.50								
Sample ID: LCS		*LCS*				Batch ID:	**R34837**	Analysis Date:		8/7/2009 9:52:40 AM	
Fluoride	0.5270	mg/L	0.10	0.5	0	105	90	110			
Chloride	4.941	mg/L	0.10	5	0	98.8	90	110			
Nitrate (As N)+Nitrite (As N)	3.467	mg/L	0.20	3.5	0	99.0	90	110			
Phosphorus, Orthophosphate (As P)	5.028	mg/L	0.50	5	0	101	90	110			
Sulfate	9.925	mg/L	0.50	10	0	99.2	90	110			
Sample ID: LCS		*LCS*				Batch ID:	**R34884**	Analysis Date:		8/11/2009 8:58:51 AM	
Fluoride	0.5375	mg/L	0.10	0.5	0	108	90	110			
Chloride	5.087	mg/L	0.10	5	0	102	90	110			
Nitrate (As N)+Nitrite (As N)	3.580	mg/L	0.20	3.5	0	102	90	110			
Phosphorus, Orthophosphate (As P)	5.095	mg/L	0.50	5	0	102	90	110			
Sulfate	10.21	mg/L	0.50	10	0	102	90	110			
Method: EPA Method 8015B: Diesel Range											
Sample ID: MB-19771		*MBLK*				Batch ID:	**19771**	Analysis Date:		8/4/2009	
Diesel Range Organics (DRO)	ND	mg/L	1.0								
Motor Oil Range Organics (MRO)	ND	mg/L	5.0								
Sample ID: LCS-19771		*LCS*				Batch ID:	**19771**	Analysis Date:		8/4/2009	
Diesel Range Organics (DRO)	4.377	mg/L	1.0	5	0	87.5	74	157			
Sample ID: LCSD-19771		*LCSD*				Batch ID:	**19771**	Analysis Date:		8/4/2009	
Diesel Range Organics (DRO)	4.881	mg/L	1.0	5	0	97.6	74	157	10.9	23	
Method: EPA Method 8015B: Gasoline Range											
Sample ID: b 5		*MBLK*				Batch ID:	**R34747**	Analysis Date:		7/31/2009 11:11:50 AM	
Gasoline Range Organics (GRO)	ND	mg/L	0.050								
Sample ID: 2.5UG GRO LCS		*LCS*				Batch ID:	**R34747**	Analysis Date:		7/31/2009 7:22:29 PM	
Gasoline Range Organics (GRO)	0.4924	mg/L	0.050	0.5	0	98.5	80	115			
Sample ID: 2.5UG GRO LCSD		*LCSD*				Batch ID:	**R34747**	Analysis Date:		7/31/2009 7:52:53 PM	
Gasoline Range Organics (GRO)	0.5102	mg/L	0.050	0.5	0	102	80	115	3.55	8.39	

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Annual MW Sampling **Work Order:** 0907526

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 7470: Mercury											
Sample ID: MB-19750		*MBLK*				Batch ID:	**19750**	Analysis Date:	7/31/2009 2:57:14 PM		
Mercury	ND	mg/L	0.00020								
Sample ID: LCS-19750		*LCS*				Batch ID:	**19750**	Analysis Date:	7/31/2009 2:58:59 PM		
Mercury	0.004917	mg/L	0.00020	0.005	3E-05	97.8	80	120			
Sample ID: LCS-19750		*LCS*				Batch ID:	**19750**	Analysis Date:	7/31/2009 3:00:44 PM		
Mercury	0.004925	mg/L	0.00020	0.005	3E-05	97.9	80	120			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Annual MW Sampling **Work Order:** 0907526

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: **EPA 6010B: Total Recoverable Metals**											
Sample ID: **MB-19761**		*MBLK*				Batch ID:	**19761**	Analysis Date:	8/4/2009 2:09:20 PM		
Barium	ND	mg/L	0.010								
Cadmium	ND	mg/L	0.0020								
Chromium	ND	mg/L	0.0060								
Lead	ND	mg/L	0.0050								
Silver	ND	mg/L	0.0050								
Sample ID: **MB-19761**		*MBLK*				Batch ID:	**19761**	Analysis Date:	8/7/2009 4:10:43 PM		
Barium	ND	mg/L	0.010								
Cadmium	ND	mg/L	0.0020								
Calcium	ND	mg/L	0.50								
Chromium	ND	mg/L	0.0060								
Magnesium	ND	mg/L	0.50								
Potassium	ND	mg/L	1.0								
Silver	ND	mg/L	0.0050								
Sodium	ND	mg/L	0.50								
Zinc	ND	mg/L	0.020								
Sample ID: **MB-19807**		*MBLK*				Batch ID:	**19807**	Analysis Date:	8/9/2009 2:00:17 PM		
Barium	ND	mg/L	0.010								
Beryllium	ND	mg/L	0.0030								
Cadmium	ND	mg/L	0.0020								
Calcium	ND	mg/L	0.50								
Chromium	ND	mg/L	0.0060								
Lead	ND	mg/L	0.0050								
Magnesium	ND	mg/L	0.50								
Nickel	ND	mg/L	0.010								
Potassium	ND	mg/L	1.0								
Silver	ND	mg/L	0.0050								
Sodium	ND	mg/L	0.50								
Zinc	ND	mg/L	0.020								
Sample ID: **MB-19761**		*MBLK*				Batch ID:	**19761**	Analysis Date:	8/9/2009 2:08:36 PM		
Lead	ND	mg/L	0.0050								
Sample ID: **MB-19807**		*MBLK*				Batch ID:	**19807**	Analysis Date:	8/9/2009 7:11:37 PM		
Cobalt	ND	mg/L	0.0060								
Sample ID: **LCS-19761**		*LCS*				Batch ID:	**19761**	Analysis Date:	8/4/2009 2:11:53 PM		
Barium	0.4887	mg/L	0.010	0.5	0	97.7	80	120			
Cadmium	0.4905	mg/L	0.0020	0.5	0	98.1	80	120			
Chromium	0.4904	mg/L	0.0060	0.5	0	98.1	80	120			
Lead	0.4843	mg/L	0.0050	0.5	0	96.9	80	120			
Silver	0.4946	mg/L	0.0050	0.5	0	98.9	80	120			
Sample ID: **LCS-19761**		*LCS*				Batch ID:	**19761**	Analysis Date:	8/4/2009 2:14:28 PM		
Barium	0.4936	mg/L	0.010	0.5	0	98.7	80	120	0.992	0	
Cadmium	0.5011	mg/L	0.0020	0.5	0	100	80	120	2.15	0	
Chromium	0.5009	mg/L	0.0060	0.5	0	100	80	120	2.12	0	
Lead	0.4951	mg/L	0.0050	0.5	0	99.0	80	120	2.20	0	

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Annual MW Sampling **Work Order:** 0907526

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA 6010B: Total Recoverable Metals											
Sample ID: LCS-19761		*LCS*				Batch ID:	**19761**	Analysis Date:		8/4/2009 2:14:28 PM	
Silver	0.5012	mg/L	0.0050	0.5	0	100	80	120	1.33	0	
Sample ID: LCS-19761		*LCS*				Batch ID:	**19761**	Analysis Date:		8/7/2009 4:15:31 PM	
Barium	0.5171	mg/L	0.010	0.5	0.0007	103	80	120			
Cadmium	0.5132	mg/L	0.0020	0.5	0.0012	102	80	120			
Calcium	51.90	mg/L	0.50	50	0	104	80	120			
Chromium	0.5231	mg/L	0.0060	0.5	0	105	80	120			
Magnesium	50.83	mg/L	0.50	50	0	102	80	120			
Potassium	53.94	mg/L	1.0	50	0	108	80	120			
Silver	0.5074	mg/L	0.0050	0.5	0.0015	101	80	120			
Sodium	54.00	mg/L	0.50	50	0	108	80	120			
Zinc	0.5358	mg/L	0.020	0.5	0	107	80	120			
Sample ID: LCS-19807		*LCS*				Batch ID:	**19807**	Analysis Date:		8/9/2009 2:03:23 PM	
Barium	0.5020	mg/L	0.010	0.5	0	100	80	120			
Beryllium	0.5299	mg/L	0.0030	0.5	0	106	80	120			
Cadmium	0.5058	mg/L	0.0020	0.5	0	101	80	120			
Calcium	49.91	mg/L	0.50	50	0.0333	99.8	80	120			
Chromium	0.4981	mg/L	0.0060	0.5	0	99.6	80	120			
Lead	0.5209	mg/L	0.0050	0.5	0	104	80	120			
Magnesium	49.89	mg/L	0.50	50	0.0294	99.7	80	120			
Nickel	0.5052	mg/L	0.010	0.5	0	101	80	120			
Potassium	53.29	mg/L	1.0	50	0	107	80	120			
Silver	0.5337	mg/L	0.0050	0.5	0.0011	107	80	120			
Sodium	53.25	mg/L	0.50	50	0.0676	106	80	120			
Zinc	0.5063	mg/L	0.020	0.5	0	101	80	120			
Sample ID: LCS-19761		*LCS*				Batch ID:	**19761**	Analysis Date:		8/9/2009 2:11:42 PM	
Lead	0.5136	mg/L	0.0050	0.5	0	103	80	120			
Sample ID: LCS-19807		*LCS*				Batch ID:	**19807**	Analysis Date:		8/9/2009 7:14:13 PM	
Cobalt	0.5001	mg/L	0.0060	0.5	0	100	80	120			

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

nt Name WESTERN REFINING GALLU | Date Received: 7/29/2009

Work Order Number 0907526 | Received by: TLS

Sample ID labels checked by: [initials] (Initials)

Checklist completed by: [signature] (Signature) 7/29/09 (Date)

Matrix: | Carrier name UPS

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☑	No ☐	N/A ☐	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		Number of preserved bottles checked for pH:
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☑	No ☐	
ter - Preservation labels on bottle and cap match?	Yes ☑	No ☐	N/A ☐	4 2
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐	<2 >12 unless noted below.
Container/Temp Blank temperature?	0.9°	<6° C Acceptable If given sufficient time to cool.		

COMMENTS:

Client contacted ________ Date contacted: ________ Person contacted ________

Contacted by: ________ Regarding: ________

Comments: ________

orrective Action ________

Chain-of-Custody Record

Client: Western Refining Gallup Refinery
Mailing Address: PO BOX 159 Gallup NM 87301
Phone #: 505 722 3833
email or Fax#: 505 722 0210
QA/QC Package: ☒ Standard ☐ Level 4 (Full Validation)
Accreditation: ☐ NELAP ☐ Other
☐ EDD (Type)

Turn-Around Time: ☒ Standard ☐ Rush
Project Name: 2009 Annual Well Sampling
Project #:
Project Manager: G. Rajen
Sampler: Cheryl Johnson
On Ice: ☒ Yes ☐ No
Sample Temperature: 0.9

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 0907516	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO3,NO2,PO4,SO4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Skinner Lists	Gen Chem			Air Bubbles (Y or N)
7/27/09	0854	H2O	SMW-2	1L Amber	None	-1												X	X			
				1-125ml	NaOH	-1																
				1-500ml	HNO3	-1																
				6-40ml	HCl	-1																
				1-125ml	H2SO4	-1																
				1-250ml	None	-1																
7/27/09	1114		SMW-4	1L Amber	None	-2																
				1-125ml	NaOH	-2																
				1-500ml	HNO3	-2																
				6-40ml	HCl	-2																
				1-125ml	H2SO4	-2																
				1-250ml	None	-2																

Date: 7/28/09 Time: 0900 Relinquished by:
Date: Time: Relinquished by:

Received by: Date: 7/29/09 Time: 1330
Received by: Date: Time:

Remarks: Per attached Skinner Lists Table, 2A, 2B, 2C, 2D. Gen Chem: Cations, Anions, pH Cond 7/27/09 0800 Field Blank -3 AT 7/29/09

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

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Tuesday, August 04, 2009

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

TEL: (505) 722-0227
FAX (505) 722-0210

RE: 2009 Annual Well Samples

Order No.: 0907576

Dear Gaurav Rajen:

Hall Environmental Analysis Laboratory, Inc. received 6 sample(s) on 7/31/2009 for the analyses presented in the following report.

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

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

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

Sincerely,

for Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

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

Hall Environmental Analysis Laboratory, Inc.

Date: *04-Aug-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	OW-13
Lab Order:	0907576	**Collection Date:**	7/28/2009 12:15:00 PM
Project:	2009 Annual Well Samples	**Date Received:**	7/31/2009
Lab ID:	0907576-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Benzene	ND	1.0		µg/L	1	7/31/2009 5:47:23 PM
Toluene	ND	1.0		µg/L	1	7/31/2009 5:47:23 PM
Ethylbenzene	ND	1.0		µg/L	1	7/31/2009 5:47:23 PM
Methyl tert-butyl ether (MTBE)	2.3	1.0		µg/L	1	7/31/2009 5:47:23 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	7/31/2009 5:47:23 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	7/31/2009 5:47:23 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	7/31/2009 5:47:23 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/31/2009 5:47:23 PM
Naphthalene	ND	2.0		µg/L	1	7/31/2009 5:47:23 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	7/31/2009 5:47:23 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	7/31/2009 5:47:23 PM
Acetone	ND	10		µg/L	1	7/31/2009 5:47:23 PM
Bromobenzene	ND	1.0		µg/L	1	7/31/2009 5:47:23 PM
Bromodichloromethane	ND	1.0		µg/L	1	7/31/2009 5:47:23 PM
Bromoform	ND	1.0		µg/L	1	7/31/2009 5:47:23 PM
Bromomethane	ND	1.0		µg/L	1	7/31/2009 5:47:23 PM
2-Butanone	ND	10		µg/L	1	7/31/2009 5:47:23 PM
Carbon disulfide	ND	10		µg/L	1	7/31/2009 5:47:23 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	7/31/2009 5:47:23 PM
Chlorobenzene	ND	1.0		µg/L	1	7/31/2009 5:47:23 PM
Chloroethane	ND	2.0		µg/L	1	7/31/2009 5:47:23 PM
Chloroform	ND	1.0		µg/L	1	7/31/2009 5:47:23 PM
Chloromethane	ND	1.0		µg/L	1	7/31/2009 5:47:23 PM
2-Chlorotoluene	ND	1.0		µg/L	1	7/31/2009 5:47:23 PM
4-Chlorotoluene	ND	1.0		µg/L	1	7/31/2009 5:47:23 PM
cis-1,2-DCE	ND	1.0		µg/L	1	7/31/2009 5:47:23 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/31/2009 5:47:23 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/31/2009 5:47:23 PM
Dibromochloromethane	ND	1.0		µg/L	1	7/31/2009 5:47:23 PM
Dibromomethane	ND	1.0		µg/L	1	7/31/2009 5:47:23 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	7/31/2009 5:47:23 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	7/31/2009 5:47:23 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/31/2009 5:47:23 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/31/2009 5:47:23 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	7/31/2009 5:47:23 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	7/31/2009 5:47:23 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	7/31/2009 5:47:23 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	7/31/2009 5:47:23 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	7/31/2009 5:47:23 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	7/31/2009 5:47:23 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	7/31/2009 5:47:23 PM
2-Hexanone	ND	10		µg/L	1	7/31/2009 5:47:23 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *04-Aug-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	OW-13
Lab Order:	0907576	**Collection Date:**	7/28/2009 12:15:00 PM
Project:	2009 Annual Well Samples	**Date Received:**	7/31/2009
Lab ID:	0907576-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Isopropylbenzene	ND	1.0		µg/L	1	7/31/2009 5:47:23 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	7/31/2009 5:47:23 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/31/2009 5:47:23 PM
Methylene Chloride	ND	3.0		µg/L	1	7/31/2009 5:47:23 PM
n-Butylbenzene	ND	1.0		µg/L	1	7/31/2009 5:47:23 PM
n-Propylbenzene	ND	1.0		µg/L	1	7/31/2009 5:47:23 PM
sec-Butylbenzene	ND	1.0		µg/L	1	7/31/2009 5:47:23 PM
Styrene	ND	1.0		µg/L	1	7/31/2009 5:47:23 PM
tert-Butylbenzene	ND	1.0		µg/L	1	7/31/2009 5:47:23 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	7/31/2009 5:47:23 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	7/31/2009 5:47:23 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	7/31/2009 5:47:23 PM
trans-1,2-DCE	ND	1.0		µg/L	1	7/31/2009 5:47:23 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/31/2009 5:47:23 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/31/2009 5:47:23 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/31/2009 5:47:23 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/31/2009 5:47:23 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/31/2009 5:47:23 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	7/31/2009 5:47:23 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	7/31/2009 5:47:23 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/31/2009 5:47:23 PM
Vinyl chloride	ND	1.0		µg/L	1	7/31/2009 5:47:23 PM
Xylenes, Total	ND	1.5		µg/L	1	7/31/2009 5:47:23 PM
Surr: 1,2-Dichloroethane-d4	110	68.1-123		%REC	1	7/31/2009 5:47:23 PM
Surr: 4-Bromofluorobenzene	97.7	53.2-145		%REC	1	7/31/2009 5:47:23 PM
Surr: Dibromofluoromethane	108	68.5-119		%REC	1	7/31/2009 5:47:23 PM
Surr: Toluene-d8	110	64-131		%REC	1	7/31/2009 5:47:23 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *04-Aug-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	OW-12
Lab Order:	0907576	**Collection Date:**	7/29/2009 9:45:00 AM
Project:	2009 Annual Well Samples	**Date Received:**	7/31/2009
Lab ID:	0907576-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
Benzene	ND	1.0		µg/L	1	7/31/2009 7:14:07 PM
Toluene	ND	1.0		µg/L	1	7/31/2009 7:14:07 PM
Ethylbenzene	ND	1.0		µg/L	1	7/31/2009 7:14:07 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	7/31/2009 7:14:07 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	7/31/2009 7:14:07 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	7/31/2009 7:14:07 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	7/31/2009 7:14:07 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/31/2009 7:14:07 PM
Naphthalene	ND	2.0		µg/L	1	7/31/2009 7:14:07 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	7/31/2009 7:14:07 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	7/31/2009 7:14:07 PM
Acetone	ND	10		µg/L	1	7/31/2009 7:14:07 PM
Bromobenzene	ND	1.0		µg/L	1	7/31/2009 7:14:07 PM
Bromodichloromethane	ND	1.0		µg/L	1	7/31/2009 7:14:07 PM
Bromoform	ND	1.0		µg/L	1	7/31/2009 7:14:07 PM
Bromomethane	ND	1.0		µg/L	1	7/31/2009 7:14:07 PM
2-Butanone	ND	10		µg/L	1	7/31/2009 7:14:07 PM
Carbon disulfide	ND	10		µg/L	1	7/31/2009 7:14:07 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	7/31/2009 7:14:07 PM
Chlorobenzene	ND	1.0		µg/L	1	7/31/2009 7:14:07 PM
Chloroethane	ND	2.0		µg/L	1	7/31/2009 7:14:07 PM
Chloroform	ND	1.0		µg/L	1	7/31/2009 7:14:07 PM
Chloromethane	ND	1.0		µg/L	1	7/31/2009 7:14:07 PM
2-Chlorotoluene	ND	1.0		µg/L	1	7/31/2009 7:14:07 PM
4-Chlorotoluene	ND	1.0		µg/L	1	7/31/2009 7:14:07 PM
cis-1,2-DCE	ND	1.0		µg/L	1	7/31/2009 7:14:07 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/31/2009 7:14:07 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/31/2009 7:14:07 PM
Dibromochloromethane	ND	1.0		µg/L	1	7/31/2009 7:14:07 PM
Dibromomethane	ND	1.0		µg/L	1	7/31/2009 7:14:07 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	7/31/2009 7:14:07 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	7/31/2009 7:14:07 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/31/2009 7:14:07 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/31/2009 7:14:07 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	7/31/2009 7:14:07 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	7/31/2009 7:14:07 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	7/31/2009 7:14:07 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	7/31/2009 7:14:07 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	7/31/2009 7:14:07 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	7/31/2009 7:14:07 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	7/31/2009 7:14:07 PM
2-Hexanone	ND	10		µg/L	1	7/31/2009 7:14:07 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *04-Aug-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	OW-12
Lab Order:	0907576	**Collection Date:**	7/29/2009 9:45:00 AM
Project:	2009 Annual Well Samples	**Date Received:**	7/31/2009
Lab ID:	0907576-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
Isopropylbenzene	ND	1.0		µg/L	1	7/31/2009 7:14:07 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	7/31/2009 7:14:07 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/31/2009 7:14:07 PM
Methylene Chloride	ND	3.0		µg/L	1	7/31/2009 7:14:07 PM
n-Butylbenzene	ND	1.0		µg/L	1	7/31/2009 7:14:07 PM
n-Propylbenzene	ND	1.0		µg/L	1	7/31/2009 7:14:07 PM
sec-Butylbenzene	ND	1.0		µg/L	1	7/31/2009 7:14:07 PM
Styrene	ND	1.0		µg/L	1	7/31/2009 7:14:07 PM
tert-Butylbenzene	ND	1.0		µg/L	1	7/31/2009 7:14:07 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	7/31/2009 7:14:07 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	7/31/2009 7:14:07 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	7/31/2009 7:14:07 PM
trans-1,2-DCE	ND	1.0		µg/L	1	7/31/2009 7:14:07 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/31/2009 7:14:07 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/31/2009 7:14:07 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/31/2009 7:14:07 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/31/2009 7:14:07 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/31/2009 7:14:07 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	7/31/2009 7:14:07 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	7/31/2009 7:14:07 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/31/2009 7:14:07 PM
Vinyl chloride	ND	1.0		µg/L	1	7/31/2009 7:14:07 PM
Xylenes, Total	ND	1.5		µg/L	1	7/31/2009 7:14:07 PM
Surr: 1,2-Dichloroethane-d4	109	68.1-123		%REC	1	7/31/2009 7:14:07 PM
Surr: 4-Bromofluorobenzene	99.2	53.2-145		%REC	1	7/31/2009 7:14:07 PM
Surr: Dibromofluoromethane	108	68.5-119		%REC	1	7/31/2009 7:14:07 PM
Surr: Toluene-d8	115	64-131		%REC	1	7/31/2009 7:14:07 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *04-Aug-09*

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-29
Lab Order: 0907576
Collection Date: 7/29/2009 2:44:00 PM
Project: 2009 Annual Well Samples
Date Received: 7/31/2009
Lab ID: 0907576-03
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Benzene	ND	1.0		µg/L	1	7/31/2009 7:42:58 PM
Toluene	ND	1.0		µg/L	1	7/31/2009 7:42:58 PM
Ethylbenzene	ND	1.0		µg/L	1	7/31/2009 7:42:58 PM
Methyl tert-butyl ether (MTBE)	49	1.0		µg/L	1	7/31/2009 7:42:58 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	7/31/2009 7:42:58 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	7/31/2009 7:42:58 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	7/31/2009 7:42:58 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/31/2009 7:42:58 PM
Naphthalene	ND	2.0		µg/L	1	7/31/2009 7:42:58 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	7/31/2009 7:42:58 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	7/31/2009 7:42:58 PM
Acetone	ND	10		µg/L	1	7/31/2009 7:42:58 PM
Bromobenzene	ND	1.0		µg/L	1	7/31/2009 7:42:58 PM
Bromodichloromethane	ND	1.0		µg/L	1	7/31/2009 7:42:58 PM
Bromoform	ND	1.0		µg/L	1	7/31/2009 7:42:58 PM
Bromomethane	ND	1.0		µg/L	1	7/31/2009 7:42:58 PM
2-Butanone	ND	10		µg/L	1	7/31/2009 7:42:58 PM
Carbon disulfide	ND	10		µg/L	1	7/31/2009 7:42:58 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	7/31/2009 7:42:58 PM
Chlorobenzene	ND	1.0		µg/L	1	7/31/2009 7:42:58 PM
Chloroethane	ND	2.0		µg/L	1	7/31/2009 7:42:58 PM
Chloroform	ND	1.0		µg/L	1	7/31/2009 7:42:58 PM
Chloromethane	ND	1.0		µg/L	1	7/31/2009 7:42:58 PM
2-Chlorotoluene	ND	1.0		µg/L	1	7/31/2009 7:42:58 PM
4-Chlorotoluene	ND	1.0		µg/L	1	7/31/2009 7:42:58 PM
cis-1,2-DCE	ND	1.0		µg/L	1	7/31/2009 7:42:58 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/31/2009 7:42:58 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/31/2009 7:42:58 PM
Dibromochloromethane	ND	1.0		µg/L	1	7/31/2009 7:42:58 PM
Dibromomethane	ND	1.0		µg/L	1	7/31/2009 7:42:58 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	7/31/2009 7:42:58 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	7/31/2009 7:42:58 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/31/2009 7:42:58 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/31/2009 7:42:58 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	7/31/2009 7:42:58 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	7/31/2009 7:42:58 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	7/31/2009 7:42:58 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	7/31/2009 7:42:58 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	7/31/2009 7:42:58 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	7/31/2009 7:42:58 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	7/31/2009 7:42:58 PM
2-Hexanone	ND	10		µg/L	1	7/31/2009 7:42:58 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *04-Aug-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	OW-29
Lab Order:	0907576	**Collection Date:**	7/29/2009 2:44:00 PM
Project:	2009 Annual Well Samples	**Date Received:**	7/31/2009
Lab ID:	0907576-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
Isopropylbenzene	ND	1.0		µg/L	1	7/31/2009 7:42:58 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	7/31/2009 7:42:58 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/31/2009 7:42:58 PM
Methylene Chloride	ND	3.0		µg/L	1	7/31/2009 7:42:58 PM
n-Butylbenzene	ND	1.0		µg/L	1	7/31/2009 7:42:58 PM
n-Propylbenzene	ND	1.0		µg/L	1	7/31/2009 7:42:58 PM
sec-Butylbenzene	ND	1.0		µg/L	1	7/31/2009 7:42:58 PM
Styrene	ND	1.0		µg/L	1	7/31/2009 7:42:58 PM
tert-Butylbenzene	ND	1.0		µg/L	1	7/31/2009 7:42:58 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	7/31/2009 7:42:58 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	7/31/2009 7:42:58 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	7/31/2009 7:42:58 PM
trans-1,2-DCE	ND	1.0		µg/L	1	7/31/2009 7:42:58 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/31/2009 7:42:58 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/31/2009 7:42:58 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/31/2009 7:42:58 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/31/2009 7:42:58 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/31/2009 7:42:58 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	7/31/2009 7:42:58 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	7/31/2009 7:42:58 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/31/2009 7:42:58 PM
Vinyl chloride	ND	1.0		µg/L	1	7/31/2009 7:42:58 PM
Xylenes, Total	ND	1.5		µg/L	1	7/31/2009 7:42:58 PM
Surr: 1,2-Dichloroethane-d4	107	68.1-123		%REC	1	7/31/2009 7:42:58 PM
Surr: 4-Bromofluorobenzene	100	53.2-145		%REC	1	7/31/2009 7:42:58 PM
Surr: Dibromofluoromethane	108	68.6-119		%REC	1	7/31/2009 7:42:58 PM
Surr: Toluene-d8	118	64-131		%REC	1	7/31/2009 7:42:58 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *04-Aug-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	OW-30
Lab Order:	0907576	**Collection Date:**	7/30/2009 9:28:00 AM
Project:	2009 Annual Well Samples	**Date Received:**	7/31/2009
Lab ID:	0907576-04	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
Benzene	ND	1.0		µg/L	1	7/31/2009 8:42:18 PM
Toluene	ND	1.0		µg/L	1	7/31/2009 8:42:18 PM
Ethylbenzene	ND	1.0		µg/L	1	7/31/2009 8:42:18 PM
Methyl tert-butyl ether (MTBE)	1100	10		µg/L	10	7/31/2009 8:13:20 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	7/31/2009 8:42:18 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	7/31/2009 8:42:18 PM
1,2-Dichloroethane (EDC)	1.3	1.0		µg/L	1	7/31/2009 8:42:18 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/31/2009 8:42:18 PM
Naphthalene	ND	2.0		µg/L	1	7/31/2009 8:42:18 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	7/31/2009 8:42:18 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	7/31/2009 8:42:18 PM
Acetone	ND	10		µg/L	1	7/31/2009 8:42:18 PM
Bromobenzene	ND	1.0		µg/L	1	7/31/2009 8:42:18 PM
Bromodichloromethane	ND	1.0		µg/L	1	7/31/2009 8:42:18 PM
Bromoform	ND	1.0		µg/L	1	7/31/2009 8:42:18 PM
Bromomethane	ND	1.0		µg/L	1	7/31/2009 8:42:18 PM
2-Butanone	ND	10		µg/L	1	7/31/2009 8:42:18 PM
Carbon disulfide	ND	10		µg/L	1	7/31/2009 8:42:18 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	7/31/2009 8:42:18 PM
Chlorobenzene	ND	1.0		µg/L	1	7/31/2009 8:42:18 PM
Chloroethane	ND	2.0		µg/L	1	7/31/2009 8:42:18 PM
Chloroform	ND	1.0		µg/L	1	7/31/2009 8:42:18 PM
Chloromethane	ND	1.0		µg/L	1	7/31/2009 8:42:18 PM
2-Chlorotoluene	ND	1.0		µg/L	1	7/31/2009 8:42:18 PM
4-Chlorotoluene	ND	1.0		µg/L	1	7/31/2009 8:42:18 PM
cis-1,2-DCE	ND	1.0		µg/L	1	7/31/2009 8:42:18 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/31/2009 8:42:18 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/31/2009 8:42:18 PM
Dibromochloromethane	ND	1.0		µg/L	1	7/31/2009 8:42:18 PM
Dibromomethane	ND	1.0		µg/L	1	7/31/2009 8:42:18 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	7/31/2009 8:42:18 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	7/31/2009 8:42:18 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/31/2009 8:42:18 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/31/2009 8:42:18 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	7/31/2009 8:42:18 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	7/31/2009 8:42:18 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	7/31/2009 8:42:18 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	7/31/2009 8:42:18 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	7/31/2009 8:42:18 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	7/31/2009 8:42:18 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	7/31/2009 8:42:18 PM
2-Hexanone	ND	10		µg/L	1	7/31/2009 8:42:18 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *04-Aug-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	OW-30
Lab Order:	0907576	**Collection Date:**	7/30/2009 9:28:00 AM
Project:	2009 Annual Well Samples	**Date Received:**	7/31/2009
Lab ID:	0907576-04	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Isopropylbenzene	ND	1.0		µg/L	1	7/31/2009 8:42:18 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	7/31/2009 8:42:18 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/31/2009 8:42:18 PM
Methylene Chloride	ND	3.0		µg/L	1	7/31/2009 8:42:18 PM
n-Butylbenzene	ND	1.0		µg/L	1	7/31/2009 8:42:18 PM
n-Propylbenzene	ND	1.0		µg/L	1	7/31/2009 8:42:18 PM
sec-Butylbenzene	ND	1.0		µg/L	1	7/31/2009 8:42:18 PM
Styrene	ND	1.0		µg/L	1	7/31/2009 8:42:18 PM
tert-Butylbenzene	ND	1.0		µg/L	1	7/31/2009 8:42:18 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	7/31/2009 8:42:18 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	7/31/2009 8:42:18 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	7/31/2009 8:42:18 PM
trans-1,2-DCE	ND	1.0		µg/L	1	7/31/2009 8:42:18 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/31/2009 8:42:18 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/31/2009 8:42:18 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/31/2009 8:42:18 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/31/2009 8:42:18 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/31/2009 8:42:18 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	7/31/2009 8:42:18 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	7/31/2009 8:42:18 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/31/2009 8:42:18 PM
Vinyl chloride	ND	1.0		µg/L	1	7/31/2009 8:42:18 PM
Xylenes, Total	ND	1.5		µg/L	1	7/31/2009 8:42:18 PM
Surr: 1,2-Dichloroethane-d4	108	68.1-123		%REC	1	7/31/2009 8:42:18 PM
Surr: 4-Bromofluorobenzene	93.5	53.2-145		%REC	1	7/31/2009 8:42:18 PM
Surr: Dibromofluoromethane	107	68.5-119		%REC	1	7/31/2009 8:42:18 PM
Surr: Toluene-d8	106	64-131		%REC	1	7/31/2009 8:42:18 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *04-Aug-09*

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-14
Lab Order: 0907576
Collection Date: 7/30/2009 11:01:00 AM
Project: 2009 Annual Well Samples
Date Received: 7/31/2009
Lab ID: 0907576-05
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Benzene	74	1.0		µg/L	1	7/31/2009 9:41:32 PM
Toluene	3.3	1.0		µg/L	1	7/31/2009 9:41:32 PM
Ethylbenzene	ND	1.0		µg/L	1	7/31/2009 9:41:32 PM
Methyl tert-butyl ether (MTBE)	1300	10		µg/L	10	7/31/2009 9:12:37 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	7/31/2009 9:41:32 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	7/31/2009 9:41:32 PM
1,2-Dichloroethane (EDC)	1.7	1.0		µg/L	1	7/31/2009 9:41:32 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/31/2009 9:41:32 PM
Naphthalene	ND	2.0		µg/L	1	7/31/2009 9:41:32 PM
1-Methylnaphthalene	21	4.0		µg/L	1	7/31/2009 9:41:32 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	7/31/2009 9:41:32 PM
Acetone	ND	10		µg/L	1	7/31/2009 9:41:32 PM
Bromobenzene	ND	1.0		µg/L	1	7/31/2009 9:41:32 PM
Bromodichloromethane	ND	1.0		µg/L	1	7/31/2009 9:41:32 PM
Bromoform	ND	1.0		µg/L	1	7/31/2009 9:41:32 PM
Bromomethane	ND	1.0		µg/L	1	7/31/2009 9:41:32 PM
2-Butanone	ND	10		µg/L	1	7/31/2009 9:41:32 PM
Carbon disulfide	ND	10		µg/L	1	7/31/2009 9:41:32 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	7/31/2009 9:41:32 PM
Chlorobenzene	ND	1.0		µg/L	1	7/31/2009 9:41:32 PM
Chloroethane	ND	2.0		µg/L	1	7/31/2009 9:41:32 PM
Chloroform	ND	1.0		µg/L	1	7/31/2009 9:41:32 PM
Chloromethane	ND	1.0		µg/L	1	7/31/2009 9:41:32 PM
2-Chlorotoluene	ND	1.0		µg/L	1	7/31/2009 9:41:32 PM
4-Chlorotoluene	ND	1.0		µg/L	1	7/31/2009 9:41:32 PM
cis-1,2-DCE	ND	1.0		µg/L	1	7/31/2009 9:41:32 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/31/2009 9:41:32 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/31/2009 9:41:32 PM
Dibromochloromethane	ND	1.0		µg/L	1	7/31/2009 9:41:32 PM
Dibromomethane	ND	1.0		µg/L	1	7/31/2009 9:41:32 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	7/31/2009 9:41:32 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	7/31/2009 9:41:32 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/31/2009 9:41:32 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/31/2009 9:41:32 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	7/31/2009 9:41:32 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	7/31/2009 9:41:32 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	7/31/2009 9:41:32 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	7/31/2009 9:41:32 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	7/31/2009 9:41:32 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	7/31/2009 9:41:32 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	7/31/2009 9:41:32 PM
2-Hexanone	ND	10		µg/L	1	7/31/2009 9:41:32 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *04-Aug-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	OW-14
Lab Order:	0907576	**Collection Date:**	7/30/2009 11:01:00 AM
Project:	2009 Annual Well Samples	**Date Received:**	7/31/2009
Lab ID:	0907576-05	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
Isopropylbenzene	3.3	1.0		µg/L	1	7/31/2009 9:41:32 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	7/31/2009 9:41:32 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/31/2009 9:41:32 PM
Methylene Chloride	ND	3.0		µg/L	1	7/31/2009 9:41:32 PM
n-Butylbenzene	1.1	1.0		µg/L	1	7/31/2009 9:41:32 PM
n-Propylbenzene	ND	1.0		µg/L	1	7/31/2009 9:41:32 PM
sec-Butylbenzene	2.6	1.0		µg/L	1	7/31/2009 9:41:32 PM
Styrene	ND	1.0		µg/L	1	7/31/2009 9:41:32 PM
tert-Butylbenzene	ND	1.0		µg/L	1	7/31/2009 9:41:32 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	7/31/2009 9:41:32 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	7/31/2009 9:41:32 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	7/31/2009 9:41:32 PM
trans-1,2-DCE	ND	1.0		µg/L	1	7/31/2009 9:41:32 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/31/2009 9:41:32 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/31/2009 9:41:32 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/31/2009 9:41:32 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/31/2009 9:41:32 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/31/2009 9:41:32 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	7/31/2009 9:41:32 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	7/31/2009 9:41:32 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/31/2009 9:41:32 PM
Vinyl chloride	ND	1.0		µg/L	1	7/31/2009 9:41:32 PM
Xylenes, Total	ND	1.5		µg/L	1	7/31/2009 9:41:32 PM
Surr: 1,2-Dichloroethane-d4	114	68.1-123		%REC	1	7/31/2009 9:41:32 PM
Surr: 4-Bromofluorobenzene	116	53.2-145		%REC	1	7/31/2009 9:41:32 PM
Surr: Dibromofluoromethane	115	68.5-119		%REC	1	7/31/2009 9:41:32 PM
Surr: Toluene-d8	113	64-131		%REC	1	7/31/2009 9:41:32 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *04-Aug-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	Trip Blank
Lab Order:	0907576	**Collection Date:**	
Project:	2009 Annual Well Samples	**Date Received:**	7/31/2009
Lab ID:	0907576-06	**Matrix:**	TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
Benzene	ND	1.0		µg/L	1	7/31/2009 10:10:33 PM
Toluene	ND	1.0		µg/L	1	7/31/2009 10:10:33 PM
Ethylbenzene	ND	1.0		µg/L	1	7/31/2009 10:10:33 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	7/31/2009 10:10:33 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	7/31/2009 10:10:33 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	7/31/2009 10:10:33 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	7/31/2009 10:10:33 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/31/2009 10:10:33 PM
Naphthalene	ND	2.0		µg/L	1	7/31/2009 10:10:33 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	7/31/2009 10:10:33 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	7/31/2009 10:10:33 PM
Acetone	ND	10		µg/L	1	7/31/2009 10:10:33 PM
Bromobenzene	ND	1.0		µg/L	1	7/31/2009 10:10:33 PM
Bromodichloromethane	ND	1.0		µg/L	1	7/31/2009 10:10:33 PM
Bromoform	ND	1.0		µg/L	1	7/31/2009 10:10:33 PM
Bromomethane	ND	1.0		µg/L	1	7/31/2009 10:10:33 PM
2-Butanone	ND	10		µg/L	1	7/31/2009 10:10:33 PM
Carbon disulfide	ND	10		µg/L	1	7/31/2009 10:10:33 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	7/31/2009 10:10:33 PM
Chlorobenzene	ND	1.0		µg/L	1	7/31/2009 10:10:33 PM
Chloroethane	ND	2.0		µg/L	1	7/31/2009 10:10:33 PM
Chloroform	ND	1.0		µg/L	1	7/31/2009 10:10:33 PM
Chloromethane	ND	1.0		µg/L	1	7/31/2009 10:10:33 PM
2-Chlorotoluene	ND	1.0		µg/L	1	7/31/2009 10:10:33 PM
4-Chlorotoluene	ND	1.0		µg/L	1	7/31/2009 10:10:33 PM
cis-1,2-DCE	ND	1.0		µg/L	1	7/31/2009 10:10:33 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/31/2009 10:10:33 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/31/2009 10:10:33 PM
Dibromochloromethane	ND	1.0		µg/L	1	7/31/2009 10:10:33 PM
Dibromomethane	ND	1.0		µg/L	1	7/31/2009 10:10:33 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	7/31/2009 10:10:33 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	7/31/2009 10:10:33 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/31/2009 10:10:33 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/31/2009 10:10:33 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	7/31/2009 10:10:33 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	7/31/2009 10:10:33 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	7/31/2009 10:10:33 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	7/31/2009 10:10:33 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	7/31/2009 10:10:33 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	7/31/2009 10:10:33 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	7/31/2009 10:10:33 PM
2-Hexanone	ND	10		µg/L	1	7/31/2009 10:10:33 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *04-Aug-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	Trip Blank
Lab Order:	0907576	**Collection Date:**	
Project:	2009 Annual Well Samples	**Date Received:**	7/31/2009
Lab ID:	0907576-06	**Matrix:**	TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Isopropylbenzene	ND	1.0		µg/L	1	7/31/2009 10:10:33 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	7/31/2009 10:10:33 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/31/2009 10:10:33 PM
Methylene Chloride	ND	3.0		µg/L	1	7/31/2009 10:10:33 PM
n-Butylbenzene	ND	1.0		µg/L	1	7/31/2009 10:10:33 PM
n-Propylbenzene	ND	1.0		µg/L	1	7/31/2009 10:10:33 PM
sec-Butylbenzene	ND	1.0		µg/L	1	7/31/2009 10:10:33 PM
Styrene	ND	1.0		µg/L	1	7/31/2009 10:10:33 PM
tert-Butylbenzene	ND	1.0		µg/L	1	7/31/2009 10:10:33 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	7/31/2009 10:10:33 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	7/31/2009 10:10:33 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	7/31/2009 10:10:33 PM
trans-1,2-DCE	ND	1.0		µg/L	1	7/31/2009 10:10:33 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/31/2009 10:10:33 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/31/2009 10:10:33 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/31/2009 10:10:33 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/31/2009 10:10:33 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/31/2009 10:10:33 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	7/31/2009 10:10:33 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	7/31/2009 10:10:33 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/31/2009 10:10:33 PM
Vinyl chloride	ND	1.0		µg/L	1	7/31/2009 10:10:33 PM
Xylenes, Total	ND	1.5		µg/L	1	7/31/2009 10:10:33 PM
Surr: 1,2-Dichloroethane-d4	111	68.1-123		%REC	1	7/31/2009 10:10:33 PM
Surr: 4-Bromofluorobenzene	98.0	53.2-145		%REC	1	7/31/2009 10:10:33 PM
Surr: Dibromofluoromethane	108	68.5-119		%REC	1	7/31/2009 10:10:33 PM
Surr: Toluene-d8	113	64-131		%REC	1	7/31/2009 10:10:33 PM

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Annual Well Samples **Work Order:** 0907576

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: 0907576-01a MSD		*MSD*			Batch ID:	**R34748**	Analysis Date:		7/31/2009 6:45:10 PM
Benzene	19.92	µg/L	1.0	99.6	84.9	122	4.01	15	
Toluene	19.00	µg/L	1.0	95.0	80.3	114	1.07	15	
Chlorobenzene	18.17	µg/L	1.0	90.8	71.9	134	2.33	15	
1,1-Dichloroethene	21.08	µg/L	1.0	105	88	144	2.91	17.8	
Trichloroethene (TCE)	18.80	µg/L	1.0	94.0	87.1	114	0.330	19.8	
Sample ID: 5ml rb		*MBLK*			Batch ID:	**R34748**	Analysis Date:		7/31/2009 10:52:41 AM
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0						
1,2,4-Trimethylbenzene	ND	µg/L	1.0						
1,3,5-Trimethylbenzene	ND	µg/L	1.0						
1,2-Dichloroethane (EDC)	ND	µg/L	1.0						
1,2-Dibromoethane (EDB)	ND	µg/L	1.0						
Naphthalene	ND	µg/L	2.0						
1-Methylnaphthalene	ND	µg/L	4.0						
2-Methylnaphthalene	ND	µg/L	4.0						
Acetone	ND	µg/L	10						
Bromobenzene	ND	µg/L	1.0						
Bromodichloromethane	ND	µg/L	1.0						
Bromoform	ND	µg/L	1.0						
Bromomethane	ND	µg/L	1.0						
2-Butanone	ND	µg/L	10						
Carbon disulfide	ND	µg/L	10						
Carbon Tetrachloride	ND	µg/L	1.0						
Chlorobenzene	ND	µg/L	1.0						
Chloroethane	ND	µg/L	2.0						
Chloroform	ND	µg/L	1.0						
Chloromethane	ND	µg/L	1.0						
2-Chlorotoluene	ND	µg/L	1.0						
4-Chlorotoluene	ND	µg/L	1.0						
cis-1,2-DCE	ND	µg/L	1.0						
cis-1,3-Dichloropropene	ND	µg/L	1.0						
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0						
Dibromochloromethane	ND	µg/L	1.0						
Dibromomethane	ND	µg/L	1.0						
1,2-Dichlorobenzene	ND	µg/L	1.0						
1,3-Dichlorobenzene	ND	µg/L	1.0						
1,4-Dichlorobenzene	ND	µg/L	1.0						
Dichlorodifluoromethane	ND	µg/L	1.0						
1,1-Dichloroethane	ND	µg/L	1.0						
1,1-Dichloroethene	ND	µg/L	1.0						
1,2-Dichloropropane	ND	µg/L	1.0						
1,3-Dichloropropane	ND	µg/L	1.0						

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Annual Well Samples **Work Order:** 0907576

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: 5ml rb		*MBLK*			Batch ID: **R34748**		Analysis Date:	7/31/2009 10:52:41 AM	
2,2-Dichloropropane	ND	µg/L	2.0						
1,1-Dichloropropene	ND	µg/L	1.0						
Hexachlorobutadiene	ND	µg/L	1.0						
2-Hexanone	ND	µg/L	10						
Isopropylbenzene	ND	µg/L	1.0						
4-Isopropyltoluene	ND	µg/L	1.0						
4-Methyl-2-pentanone	ND	µg/L	10						
Methylene Chloride	ND	µg/L	3.0						
n-Butylbenzene	ND	µg/L	1.0						
n-Propylbenzene	ND	µg/L	1.0						
sec-Butylbenzene	ND	µg/L	1.0						
Styrene	ND	µg/L	1.0						
tert-Butylbenzene	ND	µg/L	1.0						
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0						
1,1,2,2-Tetrachloroethane	ND	µg/L	2.0						
Tetrachloroethene (PCE)	ND	µg/L	1.0						
trans-1,2-DCE	ND	µg/L	1.0						
trans-1,3-Dichloropropene	ND	µg/L	1.0						
1,2,3-Trichlorobenzene	ND	µg/L	1.0						
1,2,4-Trichlorobenzene	ND	µg/L	1.0						
1,1,1-Trichloroethane	ND	µg/L	1.0						
1,1,2-Trichloroethane	ND	µg/L	1.0						
Trichloroethene (TCE)	ND	µg/L	1.0						
Trichlorofluoromethane	ND	µg/L	1.0						
1,2,3-Trichloropropane	ND	µg/L	2.0						
Vinyl chloride	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	1.5						
Sample ID: b5		*MBLK*			Batch ID: **R34748**		Analysis Date:	8/1/2009 12:36:25 AM	
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0						
1,2,4-Trimethylbenzene	ND	µg/L	1.0						
1,3,5-Trimethylbenzene	ND	µg/L	1.0						
1,2-Dichloroethane (EDC)	ND	µg/L	1.0						
1,2-Dibromoethane (EDB)	ND	µg/L	1.0						
Naphthalene	ND	µg/L	2.0						
1-Methylnaphthalene	ND	µg/L	4.0						
2-Methylnaphthalene	ND	µg/L	4.0						
Acetone	ND	µg/L	10						
Bromobenzene	ND	µg/L	1.0						
Bromodichloromethane	ND	µg/L	1.0						
Bromoform	ND	µg/L	1.0						
Bromomethane	ND	µg/L	1.0						

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Annual Well Samples **Work Order:** 0907576

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: b5		*MBLK*			Batch ID: **R34748**		Analysis Date:	8/1/2009 12:36:25 AM	
2-Butanone	ND	µg/L	10						
Carbon disulfide	ND	µg/L	10						
Carbon Tetrachloride	ND	µg/L	1.0						
Chlorobenzene	ND	µg/L	1.0						
Chloroethane	ND	µg/L	2.0						
Chloroform	ND	µg/L	1.0						
Chloromethane	ND	µg/L	1.0						
2-Chlorotoluene	ND	µg/L	1.0						
4-Chlorotoluene	ND	µg/L	1.0						
cis-1,2-DCE	ND	µg/L	1.0						
cis-1,3-Dichloropropene	ND	µg/L	1.0						
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0						
Dibromochloromethane	ND	µg/L	1.0						
Dibromomethane	ND	µg/L	1.0						
1,2-Dichlorobenzene	ND	µg/L	1.0						
1,3-Dichlorobenzene	ND	µg/L	1.0						
1,4-Dichlorobenzene	ND	µg/L	1.0						
Dichlorodifluoromethane	ND	µg/L	1.0						
1,1-Dichloroethane	ND	µg/L	1.0						
1,1-Dichloroethene	ND	µg/L	1.0						
1,2-Dichloropropane	ND	µg/L	1.0						
1,3-Dichloropropane	ND	µg/L	1.0						
2,2-Dichloropropane	ND	µg/L	2.0						
1,1-Dichloropropene	ND	µg/L	1.0						
Hexachlorobutadiene	ND	µg/L	1.0						
2-Hexanone	ND	µg/L	10						
Isopropylbenzene	ND	µg/L	1.0						
4-Isopropyltoluene	ND	µg/L	1.0						
4-Methyl-2-pentanone	ND	µg/L	10						
Methylene Chloride	ND	µg/L	3.0						
n-Butylbenzene	ND	µg/L	1.0						
n-Propylbenzene	ND	µg/L	1.0						
sec-Butylbenzene	ND	µg/L	1.0						
Styrene	ND	µg/L	1.0						
tert-Butylbenzene	ND	µg/L	1.0						
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0						
1,1,2,2-Tetrachloroethane	ND	µg/L	2.0						
Tetrachloroethene (PCE)	ND	µg/L	1.0						
trans-1,2-DCE	ND	µg/L	1.0						
trans-1,3-Dichloropropene	ND	µg/L	1.0						
1,2,3-Trichlorobenzene	ND	µg/L	1.0						
1,2,4-Trichlorobenzene	ND	µg/L	1.0						
1,1,1-Trichloroethane	ND	µg/L	1.0						
1,1,2-Trichloroethane	ND	µg/L	1.0						

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Annual Well Samples **Work Order:** 0907576

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: b5		*MBLK*			Batch ID:	**R34748**	Analysis Date:	8/1/2009 12:36:25 AM	
Trichloroethene (TCE)	ND	µg/L	1.0						
Trichlorofluoromethane	ND	µg/L	1.0						
1,2,3-Trichloropropane	ND	µg/L	2.0						
Vinyl chloride	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	1.5						
Sample ID: b9		*MBLK*			Batch ID:	**R34748**	Analysis Date:	8/1/2009 1:36:54 PM	
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0						
1,2,4-Trimethylbenzene	ND	µg/L	1.0						
1,3,5-Trimethylbenzene	ND	µg/L	1.0						
1,2-Dichloroethane (EDC)	ND	µg/L	1.0						
1,2-Dibromoethane (EDB)	ND	µg/L	1.0						
Naphthalene	ND	µg/L	2.0						
1-Methylnaphthalene	ND	µg/L	4.0						
2-Methylnaphthalene	ND	µg/L	4.0						
Acetone	ND	µg/L	10						
Bromobenzene	ND	µg/L	1.0						
Bromodichloromethane	ND	µg/L	1.0						
Bromoform	ND	µg/L	1.0						
Bromomethane	ND	µg/L	1.0						
2-Butanone	ND	µg/L	10						
Carbon disulfide	ND	µg/L	10						
Carbon Tetrachloride	ND	µg/L	1.0						
Chlorobenzene	ND	µg/L	1.0						
Chloroethane	ND	µg/L	2.0						
Chloroform	ND	µg/L	1.0						
Chloromethane	ND	µg/L	1.0						
2-Chlorotoluene	ND	µg/L	1.0						
4-Chlorotoluene	ND	µg/L	1.0						
cis-1,2-DCE	ND	µg/L	1.0						
cis-1,3-Dichloropropene	ND	µg/L	1.0						
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0						
Dibromochloromethane	ND	µg/L	1.0						
Dibromomethane	ND	µg/L	1.0						
1,2-Dichlorobenzene	ND	µg/L	1.0						
1,3-Dichlorobenzene	ND	µg/L	1.0						
1,4-Dichlorobenzene	ND	µg/L	1.0						
Dichlorodifluoromethane	ND	µg/L	1.0						
1,1-Dichloroethane	ND	µg/L	1.0						
1,1-Dichloroethene	ND	µg/L	1.0						
1,2-Dichloropropane	ND	µg/L	1.0						
1,3-Dichloropropane	ND	µg/L	1.0						

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Annual Well Samples **Work Order:** 0907576

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: b9		*MBLK*			Batch ID: **R34748**		Analysis Date:		8/1/2009 1:36:54 PM
2,2-Dichloropropane	ND	µg/L	2.0						
1,1-Dichloropropene	ND	µg/L	1.0						
Hexachlorobutadiene	ND	µg/L	1.0						
2-Hexanone	ND	µg/L	10						
Isopropylbenzene	ND	µg/L	1.0						
4-Isopropyltoluene	ND	µg/L	1.0						
4-Methyl-2-pentanone	ND	µg/L	10						
Methylene Chloride	ND	µg/L	3.0						
n-Butylbenzene	ND	µg/L	1.0						
n-Propylbenzene	ND	µg/L	1.0						
sec-Butylbenzene	ND	µg/L	1.0						
Styrene	ND	µg/L	1.0						
tert-Butylbenzene	ND	µg/L	1.0						
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0						
1,1,2,2-Tetrachloroethane	ND	µg/L	2.0						
Tetrachloroethene (PCE)	ND	µg/L	1.0						
trans-1,2-DCE	ND	µg/L	1.0						
trans-1,3-Dichloropropene	ND	µg/L	1.0						
1,2,3-Trichlorobenzene	ND	µg/L	1.0						
1,2,4-Trichlorobenzene	ND	µg/L	1.0						
1,1,1-Trichloroethane	ND	µg/L	1.0						
1,1,2-Trichloroethane	ND	µg/L	1.0						
Trichloroethene (TCE)	ND	µg/L	1.0						
Trichlorofluoromethane	ND	µg/L	1.0						
1,2,3-Trichloropropane	ND	µg/L	2.0						
Vinyl chloride	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	1.5						
Sample ID: 100ng lcs_b		*LCS*			Batch ID: **R34748**		Analysis Date:		7/31/2009 1:26:36 PM
Benzene	19.44	µg/L	1.0	97.2	76.7	114			
Toluene	18.75	µg/L	1.0	93.8	78.4	117			
Chlorobenzene	18.33	µg/L	1.0	91.7	80.7	127			
1,1-Dichloroethene	20.96	µg/L	1.0	105	80.2	128			
Trichloroethene (TCE)	18.65	µg/L	1.0	93.3	77.4	115			
Sample ID: 100ng lcs_c		*LCS*			Batch ID: **R34748**		Analysis Date:		8/1/2009 2:31:47 AM
Benzene	20.55	µg/L	1.0	103	76.7	114			
Toluene	18.44	µg/L	1.0	91.4	78.4	117			
Chlorobenzene	18.29	µg/L	1.0	91.5	80.7	127			
1,1-Dichloroethene	22.54	µg/L	1.0	113	80.2	128			
Trichloroethene (TCE)	18.65	µg/L	1.0	93.3	77.4	115			
Sample ID: 0907576-01a MS		*MS*			Batch ID: **R34748**		Analysis Date:		7/31/2009 6:16:17 PM
Benzene	20.74	µg/L	1.0	104	84.9	122			
Toluene	18.80	µg/L	1.0	94.0	80.3	114			
Chlorobenzene	18.60	µg/L	1.0	93.0	71.9	134			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Annual Well Samples **Work Order:** 0907576

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: 0907576-01a MS		*MS*			Batch ID: **R34748**		Analysis Date:	7/31/2009 6:16:17 PM	
1,1-Dichloroethene	21.70	µg/L	1.0	109	88	144			
Trichloroethene (TCE)	18.74	µg/L	1.0	93.7	87.1	114			

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name **WESTERN REFINING GALLU** Date Received: **7/31/2009**

Work Order Number **0907576** Received by: TLS

Checklist completed by: _____ 7/31/09 Sample ID labels checked by: TS
Signature Date Initials

Matrix: Carrier name: UPS

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☑	No ☐	N/A ☐	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		Number of preserved bottles checked for pH:
Water - VOA vials have zero headspace? No VOA vials submitted ☐		Yes ☑	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☐	No ☐	N/A ☑	
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑	_____ *<2 >12 unless noted below.*
Container/Temp Blank temperature?	**1.1°**	*<6° C Acceptable* If given sufficient time to cool.		

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

_____

_____

_____

_____

Corrective Action _____

_____

_____

Chain-of-Custody Record

Client: Western Refining Gallup Refinery
Mailing Address: Rt 3 Box 7 Gallup, NM 87301
Phone #: 505 722 3833
email or Fax#: 505 722 0210
QA/QC Package: ☒ Standard ☐ Level 4 (Full Validation)
Accreditation: ☐ NELAP ☐ Other
☐ EDD (Type)

Turn-Around Time: ☒ Standard ☐ Rush
Project Name: 2009 Annual Well Samples
Project #: 2009 OW Sampling
Project Manager: G. Rajen
Sampler: Cheryl Johnson
On Ice: ☒ Yes ☐ No
Sample Temperature: 1/1

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 0907516
7/28/09	1215	H2O	OW-13	3 40ml	HCl	1
7/29/09	0945	"	OW-12	3 40ml	HCl	2
7/29/09	1444	"	OW-29	3 40ml	HCl	3
7/30/09	0928	"	OW-30	3 40ml	HCl	4
7/30/09	1101	"	OW-14	3 40ml	HCl	5
			TRIP Blank			6

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
									X		
									X		
									X		
									X		
									X		

Date:	Time:	Relinquished by:	Received by:	Date	Time
7/30/09	1159			7/31/09	1123
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

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

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Friday, August 21, 2009

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

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

RE: AL-1, AL-2, EP-1

Order No.: 0908081

Dear Gaurav Rajen:

Hall Environmental Analysis Laboratory, Inc. received 3 sample(s) on 8/6/2009 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman, Laboratory Manager

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

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

Hall Environmental Analysis Laboratory, Inc.

Date: *21-Aug-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL-1 Inlet
Lab Order:	0908081	**Collection Date:**	8/4/2009 10:45:00 AM
Project:	AL-1, AL-2, EP-1	**Date Received:**	8/6/2009
Lab ID:	0908081-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
4-Chloro-3-methylphenol	ND	50		µg/L	1	8/11/2009
2-Chlorophenol	ND	50		µg/L	1	8/11/2009
2,4-Dichlorophenol	ND	100		µg/L	1	8/11/2009
2,4-Dimethylphenol	240	50		µg/L	1	8/11/2009
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	8/11/2009
2,4-Dinitrophenol	ND	100		µg/L	1	8/11/2009
2-Methylphenol	1700	500		µg/L	10	8/11/2009
3+4-Methylphenol	3200	500		µg/L	10	8/11/2009
2-Nitrophenol	ND	50		µg/L	1	8/11/2009
4-Nitrophenol	ND	50		µg/L	1	8/11/2009
Pentachlorophenol	ND	100		µg/L	1	8/11/2009
Phenol	7400	500		µg/L	10	8/11/2009
2,4,5-Trichlorophenol	ND	50		µg/L	1	8/11/2009
2,4,6-Trichlorophenol	ND	50		µg/L	1	8/11/2009
Surr: 2,4,6-Tribromophenol	61.2	16.6-150		%REC	1	8/11/2009
Surr: 2-Fluorobiphenyl	81.2	19.6-134		%REC	1	8/11/2009
Surr: 2-Fluorophenol	62.7	9.54-113		%REC	1	8/11/2009
Surr: 4-Terphenyl-d14	68.2	22.7-145		%REC	1	8/11/2009
Surr: Nitrobenzene-d5	78.6	14.6-134		%REC	1	8/11/2009
Surr: Phenol-d5	66.1	10.7-80.3		%REC	1	8/11/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *21-Aug-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL-2-Inlet
Lab Order:	0908081	**Collection Date:**	8/4/2009 11:10:00 AM
Project:	AL-1, AL-2, EP-1	**Date Received:**	8/6/2009
Lab ID:	0908081-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
4-Chloro-3-methylphenol	ND	50		µg/L	1	8/11/2009
2-Chlorophenol	ND	50		µg/L	1	8/11/2009
2,4-Dichlorophenol	ND	100		µg/L	1	8/11/2009
2,4-Dimethylphenol	ND	50		µg/L	1	8/11/2009
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	8/11/2009
2,4-Dinitrophenol	ND	100		µg/L	1	8/11/2009
2-Methylphenol	ND	50		µg/L	1	8/11/2009
3+4-Methylphenol	ND	50		µg/L	1	8/11/2009
2-Nitrophenol	ND	50		µg/L	1	8/11/2009
4-Nitrophenol	ND	50		µg/L	1	8/11/2009
Pentachlorophenol	ND	100		µg/L	1	8/11/2009
Phenol	ND	50		µg/L	1	8/11/2009
2,4,5-Trichlorophenol	ND	50		µg/L	1	8/11/2009
2,4,6-Trichlorophenol	ND	50		µg/L	1	8/11/2009
Surr: 2,4,6-Tribromophenol	51.8	16.6-150		%REC	1	8/11/2009
Surr: 2-Fluorobiphenyl	59.2	19.6-134		%REC	1	8/11/2009
Surr: 2-Fluorophenol	48.8	9.54-113		%REC	1	8/11/2009
Surr: 4-Terphenyl-d14	56.3	22.7-145		%REC	1	8/11/2009
Surr: Nitrobenzene-d5	56.0	14.6-134		%REC	1	8/11/2009
Surr: Phenol-d5	44.3	10.7-80.3		%REC	1	8/11/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *21-Aug-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	EP-1 Inlet
Lab Order:	0908081	**Collection Date:**	8/4/2009 11:30:00 AM
Project:	AL-1, AL-2, EP-1	**Date Received:**	8/6/2009
Lab ID:	0908081-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
4-Chloro-3-methylphenol	ND	50		µg/L	1	8/11/2009
2-Chlorophenol	ND	50		µg/L	1	8/11/2009
2,4-Dichlorophenol	ND	100		µg/L	1	8/11/2009
2,4-Dimethylphenol	ND	50		µg/L	1	8/11/2009
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	8/11/2009
2,4-Dinitrophenol	ND	100		µg/L	1	8/11/2009
2-Methylphenol	ND	50		µg/L	1	8/11/2009
3+4-Methylphenol	ND	50		µg/L	1	8/11/2009
2-Nitrophenol	ND	50		µg/L	1	8/11/2009
4-Nitrophenol	ND	50		µg/L	1	8/11/2009
Pentachlorophenol	ND	100		µg/L	1	8/11/2009
Phenol	ND	50		µg/L	1	8/11/2009
2,4,5-Trichlorophenol	ND	50		µg/L	1	8/11/2009
2,4,6-Trichlorophenol	ND	50		µg/L	1	8/11/2009
Surr: 2,4,6-Tribromophenol	61.8	16.6-150		%REC	1	8/11/2009
Surr: 2-Fluorobiphenyl	75.8	19.6-134		%REC	1	8/11/2009
Surr: 2-Fluorophenol	65.5	9.54-113		%REC	1	8/11/2009
Surr: 4-Terphenyl-d14	67.3	22.7-145		%REC	1	8/11/2009
Surr: Nitrobenzene-d5	69.3	14.6-134		%REC	1	8/11/2009
Surr: Phenol-d5	58.2	10.7-80.3		%REC	1	8/11/2009

Qualifiers:

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

ARS ANALYTICAL, LLC

4301 Masthead NE | Albuquerque, New Mexico 87109 505.344.3777 | 505.345.8964

Explanation of codes	
B	Analyte Detected in Method Blank
E	Result Is Estimated
H	Analyzed Out of Hold Time
N	Tentatively Identified Compound
S	Subcontracted
1-9	See Footnote

HALL ENVIRONMENTAL
attn ANDY FREEMAN
4901 HAWKINS NE, SUITE D
ALBUQUERQUE NM 87109-4372

STANDARD

ARS Analytical, LLC

Certificate of Analysis

All samples are reported on an "as received" basis, unless otherwise noted (i.e. - Dry Weight).

Client: **HALL ENVIRONMENTAL**
Project: **0908081**
Order: **09080172 HAL03** Receipt: **08-06-09**

for Elvin J. Chavez: President of ARS Analytical, LLC

Sample: ***0908081-01B AL-1 INLET*** Collected: *08-04-09 10:45:00* By:
Matrix: ***AQUEOUS***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09080172-001A		SM 5220C						By: ECC		
COD-09-033	WC.2009.2068.7	C-004	Chemical Oxygen Demand	424	mg/L	1	10		08-18-09	08-18-09

Sample: ***0908081-01C AL-1 INLET*** Collected: *08-04-09 10:45:00* By:
Matrix: ***AQUEOUS***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09080172-002A		SM 5210B						By: ECC		
BOD090095	WC.2009.2003.21	10-26-4	Biochemical Oxygen Demand	242	mg/L	1	4		08-06-09	08-11-09

Sample: ***0908081-02B AL-2 INLET*** Collected: *08-04-09 11:10:00* By:
Matrix: ***AQUEOUS***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09080172-003A		SM 5220C						By: ECC		
COD-09-033	WC.2009.2068.8	C-004	Chemical Oxygen Demand	848	mg/L	1	10		08-18-09	08-18-09

ARS Analytical, LLC

Certificate of Analysis

All samples are reported on an "as received" basis, unless otherwise noted (i.e. - Dry Weight).

Client: **HALL ENVIRONMENTAL**
Project: **0908081**
Order: **09080172 HAL03** Receipt: **08-06-09**

Sample: ***0908081-02C AL-2 INLET*** Collected: *08-04-09 11:10:00* By:
Matrix: ***AQUEOUS***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09080172-004A		**SM 5210B**						By: ECC		
BOD090095	WC.2009.2003.22	10-26-4	Biochemical Oxygen Demand	254	mg/L	1	4		08-06-09	08-11-09

Sample: ***0908081-03B EP-1 INLET*** Collected: *08-04-09 11:30:00* By:
Matrix: ***AQUEOUS***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09080172-005A		**SM 5220C**						By: ECC		
COD-09-033	WC.2009.2068.9	C-004	Chemical Oxygen Demand	747	mg/L	1	10		08-18-09	08-18-09

Sample: ***0908081-03C EP-1 INLET*** Collected: *08-04-09 11:30:00* By:
Matrix: ***AQUEOUS***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09080172-006A		**SM 5210B**						By: ECC		
BOD090095	WC.2009.2003.23	10-26-4	Biochemical Oxygen Demand	247	mg/L	1	4		08-06-09	08-11-09

Unless otherwise noted, all samples were received in acceptable condition and all sampling was performed by client or client representative. Sample result of ND indicates Not Detected, le result is less than the sample specific Detection Limit. Sample specific Detection Limit is determined by multiplying the sample Dilution Factor by the listed Reporting Detection Limit. All results relate only to the items tested. Any miscellaneous workorder information or footnotes will appear below.

Analytical results are not corrected for method blank or field blank contamination.

Report Date: *8/18/2009 6:09:30 PM*

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: AL-1, AL-2, EP-1 **Work Order:** 0908081

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8270C: Semivolatiles											
Sample ID: mb-19822		*MBLK*				Batch ID:	**19822**	Analysis Date:			8/11/2009
4-Chloro-3-methylphenol	ND	µg/L	10								
2-Chlorophenol	ND	µg/L	10								
2,4-Dichlorophenol	ND	µg/L	20								
2,4-Dimethylphenol	ND	µg/L	10								
4,6-Dinitro-2-methylphenol	ND	µg/L	20								
2,4-Dinitrophenol	ND	µg/L	20								
2-Methylphenol	ND	µg/L	10								
3+4-Methylphenol	ND	µg/L	10								
2-Nitrophenol	ND	µg/L	10								
4-Nitrophenol	ND	µg/L	10								
Pentachlorophenol	ND	µg/L	20								
Phenol	ND	µg/L	10								
2,4,5-Trichlorophenol	ND	µg/L	10								
2,4,6-Trichlorophenol	ND	µg/L	10								
Sample ID: lcs-19822		*LCS*				Batch ID:	**19822**	Analysis Date:			8/11/2009
4-Chloro-3-methylphenol	117.7	µg/L	10	200	0	58.8	26.5	101			
2-Chlorophenol	103.9	µg/L	10	200	0	52.0	27.5	88.7			
4-Nitrophenol	72.08	µg/L	10	200	0	36.0	6.78	74.7			
Pentachlorophenol	118.2	µg/L	20	200	0	59.1	14.8	113			
Phenol	77.12	µg/L	10	200	0	38.6	17	53.4			
Sample ID: lcsd-19822		*LCSD*				Batch ID:	**19822**	Analysis Date:			8/11/2009
4-Chloro-3-methylphenol	103.2	µg/L	10	200	0	51.6	26.5	101	13.1	28.6	
2-Chlorophenol	88.42	µg/L	10	200	0	44.2	27.5	88.7	16.1	107	
4-Nitrophenol	60.86	µg/L	10	200	0	30.4	6.78	74.7	16.9	36.3	
Pentachlorophenol	107.7	µg/L	20	200	0	53.9	14.8	113	9.28	49	
Phenol	65.18	µg/L	10	200	0	32.6	17	53.4	16.8	52.4	

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name **WESTERN REFINING GALLU** Date Received: **8/6/2009**

Work Order Number **0908081** Received by: ARS

Checklist completed by: _____ 8/6/09 Sample ID labels checked by: _____
Signature Date Initials

Matrix: Carrier name: UPS

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☑	No ☐	N/A ☐	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐ NA		
All samples received within holding time?	Yes ☑	No ☑		Number of preserved bottles checked for pH:
Water - VOA vials have zero headspace?	No VOA vials submitted ☑	Yes ☐	No ☐	3
Water - Preservation labels on bottle and cap match?	Yes ☑	No ☐	N/A ☐	
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐	(<2) >12 unless noted below.
Container/Temp Blank temperature?	5.7°	<6° C Acceptable If given sufficient time to cool.		

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

Chain-of-Custody Record

Client: WESTERN - REFINING
GALLUP REFINERY
Mailing Address: RT 3 Box 9
GALLUP NM 87301
Phone #: 505 722 3227
email or Fax#: 505 722 0210

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

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: AL-1, AL-2, EP-1
Project #:

Project Manager: GAURAV, RAJEN
Sampler: ALVIN DORSEY
On Ice: ☒ Yes ☐ No
Sample Temperature: 3.1

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 090881	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	BOD	COD	8270 PHENOL		Air Bubbles (Y or N)
08-04-09	1045		AL-1 Inlet			1												X				
08-04-09	1045		AL-1 Inlet			1													X			
08-04-09	1045		AL-1 Inlet			1														X		
08-04-09	1110		AL-2 Inlet			2												X				
08-04-09	1110		AL-2 Inlet			2													X			
08-04-09	1110		AL-2 Inlet			2														X		
08-04-09	1130		EP-1 Inlet			3												X				
08-04-09	1130		EP-1 Inlet			3													X			
08-04-09	1130		EP-1 Inlet			3														X		

Date	Time	Relinquished by:	Received by:	Date	Time
08-05-09	1200			8/6/09	12:10
Date	Time	Relinquished by:	Received by:	Date	Time

Remarks:

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

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Wednesday, August 12, 2009

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

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

RE: 2009 Annual BW Samples

Order No.: 0908020

Dear Gaurav Rajen:

Hall Environmental Analysis Laboratory, Inc. received 6 sample(s) on 8/4/2009 for the analyses presented in the following report.

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

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

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

Sincerely,

for Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

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

Hall Environmental Analysis Laboratory, Inc.

Date: *12-Aug-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	BW-1C
Lab Order:	0908020	**Collection Date:**	8/3/2009 8:56:00 AM
Project:	2009 Annual BW Samples	**Date Received:**	8/4/2009
Lab ID:	0908020-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **LJB**
Fluoride	2.5	0.10		mg/L	1	8/4/2009 6:54:09 PM
Chloride	42	2.0		mg/L	20	8/4/2009 7:11:33 PM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	8/4/2009 6:54:09 PM
Bromide	0.12	0.10		mg/L	1	8/4/2009 6:54:09 PM
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	8/4/2009 6:54:09 PM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	8/4/2009 6:54:09 PM
Sulfate	280	10		mg/L	20	8/4/2009 7:11:33 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **SNV**
Calcium	3.0	1.0		mg/L	1	8/9/2009 4:53:56 PM
Magnesium	ND	1.0		mg/L	1	8/9/2009 4:53:56 PM
Potassium	ND	1.0		mg/L	1	8/9/2009 4:53:56 PM
Sodium	330	5.0		mg/L	5	8/9/2009 5:58:35 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **DAM**
Specific Conductance	1300	0.010		µmhos/cm	1	8/6/2009
SM4500-H+B: PH						Analyst: **DAM**
pH	8.65	0.1		pH units	1	8/6/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *12-Aug-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	BW-2B
Lab Order:	0908020	**Collection Date:**	8/3/2009 9:35:00 AM
Project:	2009 Annual BW Samples	**Date Received:**	8/4/2009
Lab ID:	0908020-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **LJB**
Fluoride	1.7	0.10		mg/L	1	8/4/2009 7:28:57 PM
Chloride	36	2.0		mg/L	20	8/4/2009 7:46:22 PM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	8/4/2009 7:28:57 PM
Bromide	0.86	0.10		mg/L	1	8/4/2009 7:28:57 PM
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	8/4/2009 7:28:57 PM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	8/4/2009 7:28:57 PM
Sulfate	160	10		mg/L	20	8/4/2009 7:46:22 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **SNV**
Calcium	13	1.0		mg/L	1	8/9/2009 4:58:07 PM
Magnesium	3.1	1.0		mg/L	1	8/9/2009 4:58:07 PM
Potassium	1.3	1.0		mg/L	1	8/9/2009 4:58:07 PM
Sodium	590	10		mg/L	10	8/9/2009 6:01:38 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **DAM**
Specific Conductance	2200	0.010		µmhos/cm	1	8/6/2009
SM4500-H+B: PH						Analyst: **DAM**
pH	8.07	0.1		pH units	1	8/6/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *12-Aug-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	BW-2A
Lab Order:	0908020	**Collection Date:**	8/3/2009 9:50:00 AM
Project:	2009 Annual BW Samples	**Date Received:**	8/4/2009
Lab ID:	0908020-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **LJB**
Fluoride	1.2	0.10		mg/L	1	8/4/2009 8:38:35 PM
Chloride	45	2.0		mg/L	20	8/4/2009 8:56:00 PM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	8/4/2009 8:38:35 PM
Bromide	0.42	0.10		mg/L	1	8/4/2009 8:38:35 PM
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	8/4/2009 8:38:35 PM
Phosphorus, Orthophosphate (As P)	1.0	0.50		mg/L	1	8/4/2009 8:38:35 PM
Sulfate	7.2	0.50		mg/L	1	8/4/2009 8:38:35 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **SNV**
Calcium	9.4	1.0		mg/L	1	8/9/2009 5:02:26 PM
Magnesium	3.5	1.0		mg/L	1	8/9/2009 5:02:26 PM
Potassium	ND	1.0		mg/L	1	8/9/2009 5:02:26 PM
Sodium	340	5.0		mg/L	5	8/9/2009 6:04:43 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **DAM**
Specific Conductance	1300	0.010		µmhos/cm	1	8/6/2009
SM4500-H+B: PH						Analyst: **DAM**
pH	8.13	0.1		pH units	1	8/6/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *12-Aug-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	BW-3B
Lab Order:	0908020	**Collection Date:**	8/3/2009 10:08:00 AM
Project:	2009 Annual BW Samples	**Date Received:**	8/4/2009
Lab ID:	0908020-04	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **LJB**
Fluoride	1.5	0.10		mg/L	1	8/4/2009 9:13:24 PM
Chloride	41	2.0		mg/L	20	8/4/2009 9:30:48 PM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	8/4/2009 9:13:24 PM
Bromide	0.45	0.10		mg/L	1	8/4/2009 9:13:24 PM
Nitrogen, Nitrate (As N)	0.27	0.10		mg/L	1	8/4/2009 9:13:24 PM
Phosphorus, Orthophosphate (As P)	1.4	0.50		mg/L	1	8/4/2009 9:13:24 PM
Sulfate	69	10		mg/L	20	8/4/2009 9:30:48 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **SNV**
Calcium	8.7	1.0		mg/L	1	8/9/2009 5:08:06 PM
Magnesium	2.8	1.0		mg/L	1	8/9/2009 5:08:06 PM
Potassium	ND	1.0		mg/L	1	8/9/2009 5:08:06 PM
Sodium	390	5.0		mg/L	5	8/9/2009 6:20:48 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **DAM**
Specific Conductance	1500	0.010		µmhos/cm	1	8/6/2009
SM4500-H+B: PH						Analyst: **DAM**
pH	8.23	0.1		pH units	1	8/6/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *12-Aug-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	BW-3C
Lab Order:	0908020	**Collection Date:**	8/3/2009 11:05:00 AM
Project:	2009 Annual BW Samples	**Date Received:**	8/4/2009
Lab ID:	0908020-05	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **LJB**
Fluoride	1.4	0.10		mg/L	1	8/4/2009 9:48:12 PM
Chloride	43	2.0		mg/L	20	8/4/2009 10:05:37 PM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	8/4/2009 9:48:12 PM
Bromide	0.14	0.10		mg/L	1	8/4/2009 9:48:12 PM
Nitrogen, Nitrate (As N)	0.21	0.10		mg/L	1	8/4/2009 9:48:12 PM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	8/4/2009 9:48:12 PM
Sulfate	320	10		mg/L	20	8/4/2009 10:05:37 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **SNV**
Calcium	4.1	1.0		mg/L	1	8/9/2009 5:12:03 PM
Magnesium	ND	1.0		mg/L	1	8/9/2009 5:12:03 PM
Potassium	1.1	1.0		mg/L	1	8/9/2009 5:12:03 PM
Sodium	370	5.0		mg/L	5	8/9/2009 6:23:54 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **DAM**
Specific Conductance	1500	0.010		µmhos/cm	1	8/6/2009
SM4500-H+B: PH						Analyst: **DAM**
pH	8.65	0.1		pH units	1	8/6/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *12-Aug-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	BW-2C
Lab Order:	0908020	**Collection Date:**	8/3/2009 11:20:00 AM
Project:	2009 Annual BW Samples	**Date Received:**	8/4/2009
Lab ID:	0908020-06	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **LJB**
Fluoride	1.9	0.10		mg/L	1	8/4/2009 10:23:01 PM
Chloride	52	2.0		mg/L	20	8/4/2009 10:40:26 PM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	8/4/2009 10:23:01 PM
Bromide	0.14	0.10		mg/L	1	8/4/2009 10:23:01 PM
Nitrogen, Nitrate (As N)	0.13	0.10		mg/L	1	8/4/2009 10:23:01 PM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	8/4/2009 10:23:01 PM
Sulfate	280	10		mg/L	20	8/4/2009 10:40:26 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **SNV**
Calcium	3.2	1.0		mg/L	1	8/9/2009 5:27:42 PM
Magnesium	ND	1.0		mg/L	1	8/9/2009 5:27:42 PM
Potassium	ND	1.0		mg/L	1	8/9/2009 5:27:42 PM
Sodium	320	5.0		mg/L	5	8/9/2009 6:27:40 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **DAM**
Specific Conductance	1300	0.010		µmhos/cm	1	8/6/2009
SM4500-H+B: PH						Analyst: **DAM**
pH	8.88	0.1		pH units	1	8/6/2009

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Annual BW Samples **Work Order:** 0908020

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 300.0: Anions									
Sample ID: MB		*MBLK*			Batch ID:	**R34788**	Analysis Date:	8/4/2009 5:09:41 PM	
Fluoride	ND	mg/L	0.10						
Chloride	ND	mg/L	0.10						
Nitrogen, Nitrite (As N)	ND	mg/L	0.10						
Bromide	ND	mg/L	0.10						
Nitrogen, Nitrate (As N)	ND	mg/L	0.10						
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50						
Sulfate	ND	mg/L	0.50						
Sample ID: LCS		*LCS*			Batch ID:	**R34788**	Analysis Date:	8/4/2009 5:27:06 PM	
Fluoride	0.5413	mg/L	0.10	108	90	110			
Chloride	4.944	mg/L	0.10	98.9	90	110			
Nitrogen, Nitrite (As N)	1.087	mg/L	0.10	109	90	110			
Bromide	2.520	mg/L	0.10	101	90	110			
Nitrogen, Nitrate (As N)	2.429	mg/L	0.10	97.2	90	110			
Phosphorus, Orthophosphate (As P)	4.986	mg/L	0.50	99.7	90	110			
Sulfate	9.988	mg/L	0.50	99.9	90	110			
Method: EPA 6010B: Total Recoverable Metals									
Sample ID: MB-19807		*MBLK*			Batch ID:	**19807**	Analysis Date:	8/9/2009 2:00:17 PM	
Calcium	ND	mg/L	0.50						
Magnesium	ND	mg/L	0.50						
Potassium	ND	mg/L	1.0						
Sodium	ND	mg/L	0.50						
Sample ID: LCS-19807		*LCS*			Batch ID:	**19807**	Analysis Date:	8/9/2009 2:03:23 PM	
Calcium	49.91	mg/L	0.50	99.8	80	120			
Magnesium	49.89	mg/L	0.50	99.7	80	120			
Potassium	53.29	mg/L	1.0	107	80	120			
Sodium	53.25	mg/L	0.50	106	80	120			

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Name **WESTERN REFINING GALLU** Date Received: **8/4/2009**

Work Order Number **0908020** Received by: ARS

Checklist completed by: Signature 8/4/09 Date Sample ID labels checked by: Initials

Matrix: Carrier name: UPS

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☑	No ☐	N/A ☐	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Water - VOA vials have zero headspace?	No VOA vials submitted ☑	Yes ☐	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☑	No ☐	N/A ☐	
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐	
Container/Temp Blank temperature?	**0.3°**	*<6° C Acceptable* if given sufficient time to cool.		

Number of preserved bottles checked for pH: 10

(2) *12 unless noted below.*

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

Chain-of-Custody Record

Client: Western Refining Gallup Refinery

Mailing Address: Rt 3 Box 7 Gallup, NM 87301

Phone #: 505 722 3833

email or Fax#: 505 722 0210

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

Accreditation
☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:
☒ Standard ☐ Rush _____

Project Name: 2009 Annual BW Samples

Project #:

Project Manager: G. Rajen

Sampler: Cheryl Johnson

On Ice: ☒ Yes ☐ No

Sample Temperature: 0.5

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. 0908670	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	GenChem				Air Bubbles (Y or N)
8/3/09	0856	H2O	BW-1C			1												X				
"	0935	"	BW-2B			2												"				
"	0950	"	BW-2A			3												"				
"	1008	"	BW-3B			4												"				
"	1105	"	BW-3C			5												"				
"	1120	"	BW-2C			6												"				

Date:	Time:	Relinquished by:	Received by:	Date	Time
8/3/09	1156			8/4/09	10:10
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks: GenChem - Cations, Anions pH, Conductivity

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

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Thursday, August 27, 2009

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

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

RE: 3rd Quarter NAPIS Samples

Order No.: 0908181

Dear Gaurav Rajen:

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

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

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

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

Sincerely,

Andy Freeman, Laboratory Manager

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

Hall Environmental Analysis Laboratory, Inc.

Date: *27-Aug-09*

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

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **SCC**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/13/2009
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/13/2009
Surr: DNOP	119	58-140		%REC	1	8/13/2009
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/22/2009 5:43:43 PM
Surr: BFB	78.2	55.2-107		%REC	1	8/22/2009 5:43:43 PM
EPA METHOD 8310: PAHS						Analyst: **JMP**
Naphthalene	ND	2.0		µg/L	1	8/20/2009 3:43:41 PM
1-Methylnaphthalene	ND	2.0		µg/L	1	8/20/2009 3:43:41 PM
2-Methylnaphthalene	ND	2.0		µg/L	1	8/20/2009 3:43:41 PM
Acenaphthylene	ND	2.5		µg/L	1	8/20/2009 3:43:41 PM
Acenaphthene	ND	5.0		µg/L	1	8/20/2009 3:43:41 PM
Fluorene	ND	0.80		µg/L	1	8/20/2009 3:43:41 PM
Phenanthrene	ND	0.60		µg/L	1	8/20/2009 3:43:41 PM
Anthracene	ND	0.60		µg/L	1	8/20/2009 3:43:41 PM
Fluoranthene	ND	0.30		µg/L	1	8/20/2009 3:43:41 PM
Pyrene	ND	0.30		µg/L	1	8/20/2009 3:43:41 PM
Benz(a)anthracene	ND	0.070		µg/L	1	8/20/2009 3:43:41 PM
Chrysene	ND	0.20		µg/L	1	8/20/2009 3:43:41 PM
Benzo(b)fluoranthene	ND	0.10		µg/L	1	8/20/2009 3:43:41 PM
Benzo(k)fluoranthene	ND	0.070		µg/L	1	8/20/2009 3:43:41 PM
Benzo(a)pyrene	ND	0.070		µg/L	1	8/20/2009 3:43:41 PM
Dibenz(a,h)anthracene	ND	0.070		µg/L	1	8/20/2009 3:43:41 PM
Benzo(g,h,i)perylene	ND	0.080		µg/L	1	8/20/2009 3:43:41 PM
Indeno(1,2,3-cd)pyrene	ND	0.080		µg/L	1	8/20/2009 3:43:41 PM
Surr: Benzo(e)pyrene	73.8	28.3-111		%REC	1	8/20/2009 3:43:41 PM
EPA METHOD 300.0: ANIONS						Analyst: **LJB**
Fluoride	1.2	0.10		mg/L	1	8/12/2009 5:46:49 PM
Chloride	160	2.0		mg/L	20	8/12/2009 6:04:13 PM
Nitrogen, Nitrate (As N)	0.54	0.10		mg/L	1	8/12/2009 5:46:49 PM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	8/12/2009 5:46:49 PM
Sulfate	93	10		mg/L	20	8/12/2009 6:04:13 PM
EPA METHOD 7470: MERCURY						Analyst: **MMS**
Mercury	ND	0.00020		mg/L	1	8/13/2009 4:11:17 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **TES**
Arsenic	ND	0.020		mg/L	1	8/24/2009 6:10:32 PM
Barium	0.11	0.020		mg/L	1	8/24/2009 6:10:32 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *27-Aug-09*

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

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

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

Hall Environmental Analysis Laboratory, Inc.

Date: *27-Aug-09*

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

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *27-Aug-09*

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

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

Qualifiers:

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

QA/QC SUMMARY REPORT

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

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

Qualifiers:

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

QA/QC SUMMARY REPORT

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

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

Qualifiers:

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

QA/QC SUMMARY REPORT

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

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

Qualifiers:

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

QA/QC SUMMARY REPORT

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

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

Qualifiers:

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

QA/QC SUMMARY REPORT

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

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

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

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

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

Matrix: Carrier name: UPS

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

Number of preserved bottles checked for pH: 4

(<2) >12 unless noted below.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: Added 1ml HNO_3 to sample 0908181-01C (2 bottles) for acceptable ph. AS 8/12

Corrective Action _____

Chain-of-Custody Record

Client: Western Refining Gallup Refinery
Mailing Address: RT 3 BOX 7 Gallup, NM 87301
Phone #: 505 722 3833
email or Fax#: 505 722 0210
QA/QC Package: ☒ Standard ☐ Level 4 (Full Validation)
Accreditation: ☐ NELAP ☐ Other
☐ EDD (Type)

Turn-Around Time: ☒ Standard ☐ Rush
Project Name: 3rd QTR Napis Samples
Project #:
Project Manager: G. Rajen
Sampler: Cheryl Johnson
On Ice: ☒ Yes ☐ No
Sample Temperature: 4.8

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. 0903181	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals Total	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Gen Chem				Air Bubbles (Y or N)
8/11/09	0948	H20	NAPIS-1			1	X	X	X			X	X					X				
8/11/09	1019	H20	NAPIS-2			2	X		X			X	X					X				

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

Remarks: Gen Chem: Cations, Anions, pH Cond.

3rd qtr

HALL ENVIRONMENTAL ANALYSIS LABORATORY

COVER LETTER

Thursday, September 24, 2009

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

TEL: (505) 722-0227
FAX (505) 722-0210

RE: 3RD Qtr Samples

Order No.: 0908358

Dear Gaurav Rajen:

Hall Environmental Analysis Laboratory, Inc. received 5 sample(s) on 8/21/2009 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman, Laboratory Manager

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

CLIENT: Western Refining Southwest, Gallup
Project: 3RD Qtr Samples
Lab Order: 0908358

CASE NARRATIVE

Analytical Comments for METHOD 8015GRO_W, SAMPLE 0908358-02A: Necessary dilution for foamy matrix.

Hall Environmental Analysis Laboratory, Inc.

Date: *24-Sep-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	NAPIS EFF
Lab Order:	0908358	**Collection Date:**	8/19/2009 10:01:00 AM
Project:	3RD Qtr Samples	**Date Received:**	8/21/2009
Lab ID:	0908358-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **SCC**
Diesel Range Organics (DRO)	31	1.0		mg/L	1	8/25/2009 6:34:17 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/25/2009 6:34:17 PM
Surr: DNOP	139	58-140		%REC	1	8/25/2009 6:34:17 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	37	5.0		mg/L	100	8/27/2009 4:25:30 AM
Surr: BFB	87.6	55.2-107		%REC	100	8/27/2009 4:25:30 AM
EPA METHOD 300.0: ANIONS						Analyst: **TAF**
Fluoride	31	2.0		mg/L	20	8/22/2009 1:49:46 AM
Chloride	170	2.0		mg/L	20	8/22/2009 1:49:46 AM
Bromide	ND	2.0		mg/L	20	8/22/2009 1:49:46 AM
Nitrate (As N)+Nitrite (As N)	13	1.0		mg/L	5	8/24/2009 2:02:51 PM
Phosphorus, Orthophosphate (As P)	ND	10		mg/L	20	8/22/2009 1:49:46 AM
Sulfate	1100	50		mg/L	100	8/22/2009 2:24:35 AM
EPA METHOD 7470: MERCURY						Analyst: **MMS**
Mercury	ND	0.00020		mg/L	1	9/2/2009 5:18:57 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **TES**
Arsenic	ND	0.10		mg/L	5	8/26/2009 9:53:42 PM
Barium	ND	0.050		mg/L	5	8/26/2009 9:53:42 PM
Cadmium	ND	0.010		mg/L	5	8/26/2009 9:53:42 PM
Calcium	40	2.5		mg/L	5	8/26/2009 9:53:42 PM
Chromium	ND	0.030		mg/L	5	8/26/2009 9:53:42 PM
Copper	ND	0.030		mg/L	5	8/26/2009 9:53:42 PM
Iron	13	2.5		mg/L	50	8/27/2009 7:26:41 PM
Lead	ND	0.025		mg/L	5	8/26/2009 9:53:42 PM
Magnesium	9.4	2.5		mg/L	5	8/26/2009 9:53:42 PM
Manganese	0.060	0.010		mg/L	5	8/26/2009 9:53:42 PM
Potassium	9.5	5.0		mg/L	5	8/26/2009 9:53:42 PM
Selenium	ND	0.25		mg/L	5	8/26/2009 9:53:42 PM
Silver	ND	0.025		mg/L	5	8/26/2009 9:53:42 PM
Sodium	880	25		mg/L	50	8/27/2009 7:26:41 PM
Zinc	0.16	0.10		mg/L	5	8/26/2009 9:53:42 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	100		µg/L	1	8/28/2009
Acenaphthylene	ND	100		µg/L	1	8/28/2009
Aniline	320	100		µg/L	1	8/28/2009
Anthracene	ND	100		µg/L	1	8/28/2009
Azobenzene	ND	100		µg/L	1	8/28/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *24-Sep-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	NAPIS EFF
Lab Order:	0908358	**Collection Date:**	8/19/2009 10:01:00 AM
Project:	3RD Qtr Samples	**Date Received:**	8/21/2009
Lab ID:	0908358-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Benz(a)anthracene	ND	100		µg/L	1	8/28/2009
Benzo(a)pyrene	ND	100		µg/L	1	8/28/2009
Benzo(b)fluoranthene	ND	100		µg/L	1	8/28/2009
Benzo(g,h,i)perylene	ND	100		µg/L	1	8/28/2009
Benzo(k)fluoranthene	ND	100		µg/L	1	8/28/2009
Benzoic acid	ND	200		µg/L	1	8/28/2009
Benzyl alcohol	ND	100		µg/L	1	8/28/2009
Bis(2-chloroethoxy)methane	ND	100		µg/L	1	8/28/2009
Bis(2-chloroethyl)ether	ND	100		µg/L	1	8/28/2009
Bis(2-chloroisopropyl)ether	ND	100		µg/L	1	8/28/2009
Bis(2-ethylhexyl)phthalate	ND	100		µg/L	1	8/28/2009
4-Bromophenyl phenyl ether	ND	100		µg/L	1	8/28/2009
Butyl benzyl phthalate	ND	100		µg/L	1	8/28/2009
Carbazole	ND	100		µg/L	1	8/28/2009
4-Chloro-3-methylphenol	ND	100		µg/L	1	8/28/2009
4-Chloroaniline	ND	100		µg/L	1	8/28/2009
2-Chloronaphthalene	ND	100		µg/L	1	8/28/2009
2-Chlorophenol	ND	100		µg/L	1	8/28/2009
4-Chlorophenyl phenyl ether	ND	100		µg/L	1	8/28/2009
Chrysene	ND	100		µg/L	1	8/28/2009
Di-n-butyl phthalate	ND	100		µg/L	1	8/28/2009
Di-n-octyl phthalate	ND	100		µg/L	1	8/28/2009
Dibenz(a,h)anthracene	ND	100		µg/L	1	8/28/2009
Dibenzofuran	ND	100		µg/L	1	8/28/2009
1,2-Dichlorobenzene	ND	100		µg/L	1	8/28/2009
1,3-Dichlorobenzene	ND	100		µg/L	1	8/28/2009
1,4-Dichlorobenzene	ND	100		µg/L	1	8/28/2009
3,3'-Dichlorobenzidine	ND	100		µg/L	1	8/28/2009
Diethyl phthalate	ND	100		µg/L	1	8/28/2009
Dimethyl phthalate	ND	100		µg/L	1	8/28/2009
2,4-Dichlorophenol	ND	200		µg/L	1	8/28/2009
2,4-Dimethylphenol	340	100		µg/L	1	8/28/2009
4,6-Dinitro-2-methylphenol	ND	200		µg/L	1	8/28/2009
2,4-Dinitrophenol	ND	200		µg/L	1	8/28/2009
2,4-Dinitrotoluene	ND	100		µg/L	1	8/28/2009
2,6-Dinitrotoluene	ND	100		µg/L	1	8/28/2009
Fluoranthene	ND	100		µg/L	1	8/28/2009
Fluorene	210	100		µg/L	1	8/28/2009
Hexachlorobenzene	ND	100		µg/L	1	8/28/2009
Hexachlorobutadiene	ND	100		µg/L	1	8/28/2009
Hexachlorocyclopentadiene	ND	100		µg/L	1	8/28/2009
Hexachloroethane	ND	100		µg/L	1	8/28/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *24-Sep-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	NAPIS EFF
Lab Order:	0908358	**Collection Date:**	8/19/2009 10:01:00 AM
Project:	3RD Qtr Samples	**Date Received:**	8/21/2009
Lab ID:	0908358-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Indeno(1,2,3-cd)pyrene	ND	100		µg/L	1	8/28/2009
Isophorone	ND	100		µg/L	1	8/28/2009
2-Methylnaphthalene	5600	1000		µg/L	10	8/28/2009
2-Methylphenol	1300	100		µg/L	1	8/28/2009
3+4-Methylphenol	2200	1000		µg/L	10	8/28/2009
N-Nitrosodi-n-propylamine	ND	100		µg/L	1	8/28/2009
N-Nitrosodimethylamine	ND	100		µg/L	1	8/28/2009
N-Nitrosodiphenylamine	ND	100		µg/L	1	8/28/2009
Naphthalene	3200	1000		µg/L	10	8/28/2009
2-Nitroaniline	ND	100		µg/L	1	8/28/2009
3-Nitroaniline	ND	100		µg/L	1	8/28/2009
4-Nitroaniline	ND	100		µg/L	1	8/28/2009
Nitrobenzene	ND	100		µg/L	1	8/28/2009
2-Nitrophenol	ND	100		µg/L	1	8/28/2009
4-Nitrophenol	ND	100		µg/L	1	8/28/2009
Pentachlorophenol	ND	200		µg/L	1	8/28/2009
Phenanthrene	1000	100		µg/L	1	8/28/2009
Phenol	4400	1000		µg/L	10	8/28/2009
Pyrene	160	100		µg/L	1	8/28/2009
Pyridine	ND	100		µg/L	1	8/28/2009
1,2,4-Trichlorobenzene	ND	100		µg/L	1	8/28/2009
2,4,5-Trichlorophenol	ND	100		µg/L	1	8/28/2009
2,4,6-Trichlorophenol	ND	100		µg/L	1	8/28/2009
Surr: 2,4,6-Tribromophenol	44.6	16.6-150		%REC	1	8/28/2009
Surr: 2-Fluorobiphenyl	88.2	19.6-134		%REC	1	8/28/2009
Surr: 2-Fluorophenol	46.7	9.54-113		%REC	1	8/28/2009
Surr: 4-Terphenyl-d14	74.9	22.7-145		%REC	1	8/28/2009
Surr: Nitrobenzene-d5	85.4	14.6-134		%REC	1	8/28/2009
Surr: Phenol-d5	45.7	10.7-80.3		%REC	1	8/28/2009
EPA METHOD 8260B: VOLATILES						Analyst: HL
Benzene	2600	50		µg/L	50	9/1/2009 3:18:00 PM
Toluene	7100	200		µg/L	200	9/1/2009 2:50:11 PM
Ethylbenzene	710	50		µg/L	50	9/1/2009 3:18:00 PM
Methyl tert-butyl ether (MTBE)	ND	50		µg/L	50	9/1/2009 3:18:00 PM
1,2,4-Trimethylbenzene	690	50		µg/L	50	9/1/2009 3:18:00 PM
1,3,5-Trimethylbenzene	200	50		µg/L	50	9/1/2009 3:18:00 PM
1,2-Dichloroethane (EDC)	ND	50		µg/L	50	9/1/2009 3:18:00 PM
1,2-Dibromoethane (EDB)	ND	50		µg/L	50	9/1/2009 3:18:00 PM
Naphthalene	590	100		µg/L	50	9/1/2009 3:18:00 PM
1-Methylnaphthalene	240	200		µg/L	50	9/1/2009 3:18:00 PM
2-Methylnaphthalene	420	200		µg/L	50	9/1/2009 3:18:00 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *24-Sep-09*

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS EFF
Lab Order: 0908358
Collection Date: 8/19/2009 10:01:00 AM
Project: 3RD Qtr Samples
Date Received: 8/21/2009
Lab ID: 0908358-01
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Acetone	7200	500		µg/L	50	9/1/2009 3:18:00 PM
Bromobenzene	ND	50		µg/L	50	9/1/2009 3:18:00 PM
Bromodichloromethane	ND	50		µg/L	50	9/1/2009 3:18:00 PM
Bromoform	ND	50		µg/L	50	9/1/2009 3:18:00 PM
Bromomethane	ND	50		µg/L	50	9/1/2009 3:18:00 PM
2-Butanone	ND	500		µg/L	50	9/1/2009 3:18:00 PM
Carbon disulfide	ND	500		µg/L	50	9/1/2009 3:18:00 PM
Carbon Tetrachloride	ND	50		µg/L	50	9/1/2009 3:18:00 PM
Chlorobenzene	ND	50		µg/L	50	9/1/2009 3:18:00 PM
Chloroethane	ND	100		µg/L	50	9/1/2009 3:18:00 PM
Chloroform	ND	50		µg/L	50	9/1/2009 3:18:00 PM
Chloromethane	ND	50		µg/L	50	9/1/2009 3:18:00 PM
2-Chlorotoluene	ND	50		µg/L	50	9/1/2009 3:18:00 PM
4-Chlorotoluene	ND	50		µg/L	50	9/1/2009 3:18:00 PM
cis-1,2-DCE	ND	50		µg/L	50	9/1/2009 3:18:00 PM
cis-1,3-Dichloropropene	ND	50		µg/L	50	9/1/2009 3:18:00 PM
1,2-Dibromo-3-chloropropane	ND	100		µg/L	50	9/1/2009 3:18:00 PM
Dibromochloromethane	ND	50		µg/L	50	9/1/2009 3:18:00 PM
Dibromomethane	ND	50		µg/L	50	9/1/2009 3:18:00 PM
1,2-Dichlorobenzene	ND	50		µg/L	50	9/1/2009 3:18:00 PM
1,3-Dichlorobenzene	ND	50		µg/L	50	9/1/2009 3:18:00 PM
1,4-Dichlorobenzene	ND	50		µg/L	50	9/1/2009 3:18:00 PM
Dichlorodifluoromethane	ND	50		µg/L	50	9/1/2009 3:18:00 PM
1,1-Dichloroethane	ND	50		µg/L	50	9/1/2009 3:18:00 PM
1,1-Dichloroethene	ND	50		µg/L	50	9/1/2009 3:18:00 PM
1,2-Dichloropropane	ND	50		µg/L	50	9/1/2009 3:18:00 PM
1,3-Dichloropropane	ND	50		µg/L	50	9/1/2009 3:18:00 PM
2,2-Dichloropropane	ND	100		µg/L	50	9/1/2009 3:18:00 PM
1,1-Dichloropropene	ND	50		µg/L	50	9/1/2009 3:18:00 PM
Hexachlorobutadiene	ND	50		µg/L	50	9/1/2009 3:18:00 PM
2-Hexanone	ND	500		µg/L	50	9/1/2009 3:18:00 PM
Isopropylbenzene	ND	50		µg/L	50	9/1/2009 3:18:00 PM
4-Isopropyltoluene	ND	50		µg/L	50	9/1/2009 3:18:00 PM
4-Methyl-2-pentanone	ND	500		µg/L	50	9/1/2009 3:18:00 PM
Methylene Chloride	ND	150		µg/L	50	9/1/2009 3:18:00 PM
n-Butylbenzene	ND	50		µg/L	50	9/1/2009 3:18:00 PM
n-Propylbenzene	82	50		µg/L	50	9/1/2009 3:18:00 PM
sec-Butylbenzene	ND	50		µg/L	50	9/1/2009 3:18:00 PM
Styrene	ND	50		µg/L	50	9/1/2009 3:18:00 PM
tert-Butylbenzene	ND	50		µg/L	50	9/1/2009 3:18:00 PM
1,1,1,2-Tetrachloroethane	ND	50		µg/L	50	9/1/2009 3:18:00 PM
1,1,2,2-Tetrachloroethane	ND	100		µg/L	50	9/1/2009 3:18:00 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *24-Sep-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	NAPIS EFF
Lab Order:	0908358	**Collection Date:**	8/19/2009 10:01:00 AM
Project:	3RD Qtr Samples	**Date Received:**	8/21/2009
Lab ID:	0908358-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
Tetrachloroethene (PCE)	ND	50		µg/L	50	9/1/2009 3:18:00 PM
trans-1,2-DCE	ND	50		µg/L	50	9/1/2009 3:18:00 PM
trans-1,3-Dichloropropene	ND	50		µg/L	50	9/1/2009 3:18:00 PM
1,2,3-Trichlorobenzene	ND	50		µg/L	50	9/1/2009 3:18:00 PM
1,2,4-Trichlorobenzene	ND	50		µg/L	50	9/1/2009 3:18:00 PM
1,1,1-Trichloroethane	ND	50		µg/L	50	9/1/2009 3:18:00 PM
1,1,2-Trichloroethane	ND	50		µg/L	50	9/1/2009 3:18:00 PM
Trichloroethene (TCE)	ND	50		µg/L	50	9/1/2009 3:18:00 PM
Trichlorofluoromethane	ND	50		µg/L	50	9/1/2009 3:18:00 PM
1,2,3-Trichloropropane	ND	100		µg/L	50	9/1/2009 3:18:00 PM
Vinyl chloride	ND	50		µg/L	50	9/1/2009 3:18:00 PM
Xylenes, Total	4200	75		µg/L	50	9/1/2009 3:18:00 PM
Surr: 1,2-Dichloroethane-d4	96.1	54.6-141		%REC	50	9/1/2009 3:18:00 PM
Surr: 4-Bromofluorobenzene	118	60.1-133		%REC	50	9/1/2009 3:18:00 PM
Surr: Dibromofluoromethane	99.6	78.5-130		%REC	50	9/1/2009 3:18:00 PM
Surr: Toluene-d8	93.2	79.5-126		%REC	50	9/1/2009 3:18:00 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **DAM**
Specific Conductance	4000	0.010		µmhos/cm	1	8/25/2009 2:29:38 PM
SM4500-H+B: PH						Analyst: **DAM**
pH	9.21	0.1	H	pH units	1	8/25/2009 2:29:38 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *24-Sep-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	PILOT EFF
Lab Order:	0908358	**Collection Date:**	8/19/2009 10:14:00 AM
Project:	3RD Qtr Samples	**Date Received:**	8/21/2009
Lab ID:	0908358-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **SCC**
Diesel Range Organics (DRO)	10	1.0		mg/L	1	8/25/2009 7:45:12 PM
Motor Oil Range Organics (MRO)	6.4	5.0		mg/L	1	8/25/2009 7:45:12 PM
Surr: DNOP	120	58-140		%REC	1	8/25/2009 7:45:12 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.50		mg/L	10	8/27/2009 4:56:04 AM
Surr: BFB	82.5	55.2-107		%REC	10	8/27/2009 4:56:04 AM
EPA METHOD 7470: MERCURY						Analyst: **MMS**
Mercury	ND	0.00020		mg/L	1	9/2/2009 5:20:48 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **TES**
Arsenic	ND	0.10		mg/L	5	8/26/2009 9:56:55 PM
Barium	ND	0.050		mg/L	5	8/26/2009 9:56:55 PM
Cadmium	ND	0.010		mg/L	5	8/26/2009 9:56:55 PM
Calcium	170	2.5		mg/L	5	8/26/2009 9:56:55 PM
Chromium	ND	0.030		mg/L	5	8/26/2009 9:56:55 PM
Copper	0.063	0.030		mg/L	5	8/26/2009 9:56:55 PM
Iron	0.44	0.25		mg/L	5	8/26/2009 9:56:55 PM
Lead	ND	0.025		mg/L	5	8/26/2009 9:56:55 PM
Magnesium	42	2.5		mg/L	5	8/26/2009 9:56:55 PM
Manganese	0.079	0.010		mg/L	5	8/26/2009 9:56:55 PM
Potassium	20	5.0		mg/L	5	8/26/2009 9:56:55 PM
Selenium	ND	0.25		mg/L	5	8/26/2009 9:56:55 PM
Silver	ND	0.025		mg/L	5	8/26/2009 9:56:55 PM
Sodium	190	2.5		mg/L	5	8/26/2009 9:56:55 PM
Zinc	0.15	0.10		mg/L	5	8/26/2009 9:56:55 PM
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
Benzene	ND	1.0		µg/L	1	9/1/2009 6:05:32 PM
Toluene	3.8	1.0		µg/L	1	9/1/2009 6:05:32 PM
Ethylbenzene	ND	1.0		µg/L	1	9/1/2009 6:05:32 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/1/2009 6:05:32 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/1/2009 6:05:32 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/1/2009 6:05:32 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/1/2009 6:05:32 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/1/2009 6:05:32 PM
Naphthalene	ND	2.0		µg/L	1	9/1/2009 6:05:32 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	9/1/2009 6:05:32 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	9/1/2009 6:05:32 PM
Acetone	290	100		µg/L	10	9/1/2009 4:13:49 PM
Bromobenzene	ND	1.0		µg/L	1	9/1/2009 6:05:32 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *24-Sep-09*

CLIENT: Western Refining Southwest, Gallup
Lab Order: 0908358
Project: 3RD Qtr Samples
Lab ID: 0908358-02

Client Sample ID: PILOT EFF
Collection Date: 8/19/2009 10:14:00 AM
Date Received: 8/21/2009
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Bromodichloromethane	ND	1.0		µg/L	1	9/1/2009 6:05:32 PM
Bromoform	ND	1.0		µg/L	1	9/1/2009 6:05:32 PM
Bromomethane	ND	1.0		µg/L	1	9/1/2009 6:05:32 PM
2-Butanone	14	10		µg/L	1	9/1/2009 6:05:32 PM
Carbon disulfide	ND	10		µg/L	1	9/1/2009 6:05:32 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	9/1/2009 6:05:32 PM
Chlorobenzene	ND	1.0		µg/L	1	9/1/2009 6:05:32 PM
Chloroethane	ND	2.0		µg/L	1	9/1/2009 6:05:32 PM
Chloroform	6.5	1.0		µg/L	1	9/1/2009 6:05:32 PM
Chloromethane	ND	1.0		µg/L	1	9/1/2009 6:05:32 PM
2-Chlorotoluene	ND	1.0		µg/L	1	9/1/2009 6:05:32 PM
4-Chlorotoluene	ND	1.0		µg/L	1	9/1/2009 6:05:32 PM
cis-1,2-DCE	ND	1.0		µg/L	1	9/1/2009 6:05:32 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/1/2009 6:05:32 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/1/2009 6:05:32 PM
Dibromochloromethane	ND	1.0		µg/L	1	9/1/2009 6:05:32 PM
Dibromomethane	ND	1.0		µg/L	1	9/1/2009 6:05:32 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/1/2009 6:05:32 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/1/2009 6:05:32 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/1/2009 6:05:32 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/1/2009 6:05:32 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	9/1/2009 6:05:32 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	9/1/2009 6:05:32 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	9/1/2009 6:05:32 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	9/1/2009 6:05:32 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	9/1/2009 6:05:32 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	9/1/2009 6:05:32 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	9/1/2009 6:05:32 PM
2-Hexanone	ND	10		µg/L	1	9/1/2009 6:05:32 PM
Isopropylbenzene	ND	1.0		µg/L	1	9/1/2009 6:05:32 PM
4-Isopropyltoluene	1.9	1.0		µg/L	1	9/1/2009 6:05:32 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	9/1/2009 6:05:32 PM
Methylene Chloride	ND	3.0		µg/L	1	9/1/2009 6:05:32 PM
n-Butylbenzene	ND	1.0		µg/L	1	9/1/2009 6:05:32 PM
n-Propylbenzene	ND	1.0		µg/L	1	9/1/2009 6:05:32 PM
sec-Butylbenzene	ND	1.0		µg/L	1	9/1/2009 6:05:32 PM
Styrene	ND	1.0		µg/L	1	9/1/2009 6:05:32 PM
tert-Butylbenzene	ND	1.0		µg/L	1	9/1/2009 6:05:32 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/1/2009 6:05:32 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/1/2009 6:05:32 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/1/2009 6:05:32 PM
trans-1,2-DCE	ND	1.0		µg/L	1	9/1/2009 6:05:32 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *24-Sep-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	PILOT EFF
Lab Order:	0908358	**Collection Date:**	8/19/2009 10:14:00 AM
Project:	3RD Qtr Samples	**Date Received:**	8/21/2009
Lab ID:	0908358-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/1/2009 6:05:32 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/1/2009 6:05:32 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/1/2009 6:05:32 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/1/2009 6:05:32 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/1/2009 6:05:32 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/1/2009 6:05:32 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	9/1/2009 6:05:32 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/1/2009 6:05:32 PM
Vinyl chloride	ND	1.0		µg/L	1	9/1/2009 6:05:32 PM
Xylenes, Total	ND	1.5		µg/L	1	9/1/2009 6:05:32 PM
Surr: 1,2-Dichloroethane-d4	98.1	54.6-141		%REC	1	9/1/2009 6:05:32 PM
Surr: 4-Bromofluorobenzene	141	60.1-133	S	%REC	1	9/1/2009 6:05:32 PM
Surr: Dibromofluoromethane	102	78.5-130		%REC	1	9/1/2009 6:05:32 PM
Surr: Toluene-d8	93.4	79.5-126		%REC	1	9/1/2009 6:05:32 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *24-Sep-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL2-EP1
Lab Order:	0908358	**Collection Date:**	8/19/2009 10:38:00 AM
Project:	3RD Qtr Samples	**Date Received:**	8/21/2009
Lab ID:	0908358-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **SCC**
Diesel Range Organics (DRO)	41	3.0		mg/L	1	8/25/2009 8:20:53 PM
Motor Oil Range Organics (MRO)	15	15		mg/L	1	8/25/2009 8:20:53 PM
Surr: DNOP	114	58-140		%REC	1	8/25/2009 8:20:53 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	2.5		mg/L	50	8/26/2009 2:39:38 AM
Surr: BFB	86.3	55.2-107		%REC	50	8/26/2009 2:39:38 AM
EPA METHOD 7470: MERCURY						Analyst: **MMS**
Mercury	0.00049	0.00020		mg/L	1	9/2/2009 5:22:30 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **TES**
Arsenic	ND	0.10		mg/L	5	8/26/2009 10:00:18 PM
Barium	0.055	0.050		mg/L	5	8/26/2009 10:00:18 PM
Cadmium	ND	0.010		mg/L	5	8/26/2009 10:00:18 PM
Calcium	46	2.5		mg/L	5	8/26/2009 10:00:18 PM
Chromium	ND	0.030		mg/L	5	8/26/2009 10:00:18 PM
Copper	ND	0.030		mg/L	5	8/26/2009 10:00:18 PM
Iron	10	2.5		mg/L	50	8/27/2009 7:29:58 PM
Lead	ND	0.025		mg/L	5	8/26/2009 10:00:18 PM
Magnesium	12	2.5		mg/L	5	8/26/2009 10:00:18 PM
Manganese	0.093	0.010		mg/L	5	8/26/2009 10:00:18 PM
Potassium	25	5.0		mg/L	5	8/26/2009 10:00:18 PM
Selenium	ND	0.25		mg/L	5	8/26/2009 10:00:18 PM
Silver	ND	0.025		mg/L	5	8/26/2009 10:00:18 PM
Sodium	1100	25		mg/L	50	8/27/2009 7:29:58 PM
Zinc	0.30	0.10		mg/L	5	8/26/2009 10:00:18 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	50		µg/L	1	8/28/2009
Acenaphthylene	ND	50		µg/L	1	8/28/2009
Aniline	100	50		µg/L	1	8/28/2009
Anthracene	ND	50		µg/L	1	8/28/2009
Azobenzene	ND	50		µg/L	1	8/28/2009
Benz(a)anthracene	ND	50		µg/L	1	8/28/2009
Benzo(a)pyrene	ND	50		µg/L	1	8/28/2009
Benzo(b)fluoranthene	ND	50		µg/L	1	8/28/2009
Benzo(g,h,i)perylene	ND	50		µg/L	1	8/28/2009
Benzo(k)fluoranthene	ND	50		µg/L	1	8/28/2009
Benzoic acid	ND	100		µg/L	1	8/28/2009
Benzyl alcohol	ND	50		µg/L	1	8/28/2009
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	8/28/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *24-Sep-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL2-EP1
Lab Order:	0908358	**Collection Date:**	8/19/2009 10:38:00 AM
Project:	3RD Qtr Samples	**Date Received:**	8/21/2009
Lab ID:	0908358-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Bis(2-chloroethyl)ether	ND	50		µg/L	1	8/28/2009
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	8/28/2009
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	8/28/2009
4-Bromophenyl phenyl ether	ND	50		µg/L	1	8/28/2009
Butyl benzyl phthalate	ND	50		µg/L	1	8/28/2009
Carbazole	ND	50		µg/L	1	8/28/2009
4-Chloro-3-methylphenol	ND	50		µg/L	1	8/28/2009
4-Chloroaniline	ND	50		µg/L	1	8/28/2009
2-Chloronaphthalene	ND	50		µg/L	1	8/28/2009
2-Chlorophenol	ND	50		µg/L	1	8/28/2009
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	8/28/2009
Chrysene	ND	50		µg/L	1	8/28/2009
Di-n-butyl phthalate	ND	50		µg/L	1	8/28/2009
Di-n-octyl phthalate	ND	50		µg/L	1	8/28/2009
Dibenz(a,h)anthracene	ND	50		µg/L	1	8/28/2009
Dibenzofuran	ND	50		µg/L	1	8/28/2009
1,2-Dichlorobenzene	ND	50		µg/L	1	8/28/2009
1,3-Dichlorobenzene	ND	50		µg/L	1	8/28/2009
1,4-Dichlorobenzene	ND	50		µg/L	1	8/28/2009
3,3'-Dichlorobenzidine	ND	50		µg/L	1	8/28/2009
Diethyl phthalate	ND	50		µg/L	1	8/28/2009
Dimethyl phthalate	ND	50		µg/L	1	8/28/2009
2,4-Dichlorophenol	ND	100		µg/L	1	8/28/2009
2,4-Dimethylphenol	180	50		µg/L	1	8/28/2009
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	8/28/2009
2,4-Dinitrophenol	ND	100		µg/L	1	8/28/2009
2,4-Dinitrotoluene	ND	50		µg/L	1	8/28/2009
2,6-Dinitrotoluene	ND	50		µg/L	1	8/28/2009
Fluoranthene	ND	50		µg/L	1	8/28/2009
Fluorene	52	50		µg/L	1	8/28/2009
Hexachlorobenzene	ND	50		µg/L	1	8/28/2009
Hexachlorobutadiene	ND	50		µg/L	1	8/28/2009
Hexachlorocyclopentadiene	ND	50		µg/L	1	8/28/2009
Hexachloroethane	ND	50		µg/L	1	8/28/2009
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	8/28/2009
Isophorone	ND	50		µg/L	1	8/28/2009
2-Methylnaphthalene	180	50		µg/L	1	8/28/2009
2-Methylphenol	840	50		µg/L	1	8/28/2009
3+4-Methylphenol	950	50		µg/L	1	8/28/2009
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	8/28/2009
N-Nitrosodimethylamine	ND	50		µg/L	1	8/28/2009
N-Nitrosodiphenylamine	ND	50		µg/L	1	8/28/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *24-Sep-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL2-EP1
Lab Order:	0908358	**Collection Date:**	8/19/2009 10:38:00 AM
Project:	3RD Qtr Samples	**Date Received:**	8/21/2009
Lab ID:	0908358-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Naphthalene	ND	50		µg/L	1	8/28/2009
2-Nitroaniline	ND	50		µg/L	1	8/28/2009
3-Nitroaniline	ND	50		µg/L	1	8/28/2009
4-Nitroaniline	ND	50		µg/L	1	8/28/2009
Nitrobenzene	ND	50		µg/L	1	8/28/2009
2-Nitrophenol	ND	50		µg/L	1	8/28/2009
4-Nitrophenol	ND	50		µg/L	1	8/28/2009
Pentachlorophenol	ND	100		µg/L	1	8/28/2009
Phenanthrene	260	50		µg/L	1	8/28/2009
Phenol	2600	500		µg/L	10	8/28/2009
Pyrene	63	50		µg/L	1	8/28/2009
Pyridine	ND	50		µg/L	1	8/28/2009
1,2,4-Trichlorobenzene	ND	50		µg/L	1	8/28/2009
2,4,5-Trichlorophenol	ND	50		µg/L	1	8/28/2009
2,4,6-Trichlorophenol	ND	50		µg/L	1	8/28/2009
Surr: 2,4,6-Tribromophenol	52.6	16.6-150		%REC	1	8/28/2009
Surr: 2-Fluorobiphenyl	75.6	19.6-134		%REC	1	8/28/2009
Surr: 2-Fluorophenol	47.1	9.54-113		%REC	1	8/28/2009
Surr: 4-Terphenyl-d14	67.7	22.7-145		%REC	1	8/28/2009
Surr: Nitrobenzene-d5	66.8	14.6-134		%REC	1	8/28/2009
Surr: Phenol-d5	43.8	10.7-80.3		%REC	1	8/28/2009
EPA METHOD 8260B: VOLATILES						Analyst: HL
Benzene	ND	1.0		µg/L	1	9/1/2009 6:33:21 PM
Toluene	4.4	1.0		µg/L	1	9/1/2009 6:33:21 PM
Ethylbenzene	1.4	1.0		µg/L	1	9/1/2009 6:33:21 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/1/2009 6:33:21 PM
1,2,4-Trimethylbenzene	12	1.0		µg/L	1	9/1/2009 6:33:21 PM
1,3,5-Trimethylbenzene	4.0	1.0		µg/L	1	9/1/2009 6:33:21 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/1/2009 6:33:21 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/1/2009 6:33:21 PM
Naphthalene	23	2.0		µg/L	1	9/1/2009 6:33:21 PM
1-Methylnaphthalene	52	4.0		µg/L	1	9/1/2009 6:33:21 PM
2-Methylnaphthalene	84	4.0		µg/L	1	9/1/2009 6:33:21 PM
Acetone	1200	100		µg/L	10	9/1/2009 4:41:43 PM
Bromobenzene	ND	1.0		µg/L	1	9/1/2009 6:33:21 PM
Bromodichloromethane	ND	1.0		µg/L	1	9/1/2009 6:33:21 PM
Bromoform	ND	1.0		µg/L	1	9/1/2009 6:33:21 PM
Bromomethane	ND	1.0		µg/L	1	9/1/2009 6:33:21 PM
2-Butanone	ND	10		µg/L	1	9/1/2009 6:33:21 PM
Carbon disulfide	ND	10		µg/L	1	9/1/2009 6:33:21 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	9/1/2009 6:33:21 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *24-Sep-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL2-EP1
Lab Order:	0908358	**Collection Date:**	8/19/2009 10:38:00 AM
Project:	3RD Qtr Samples	**Date Received:**	8/21/2009
Lab ID:	0908358-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Chlorobenzene	ND	1.0		µg/L	1	9/1/2009 6:33:21 PM
Chloroethane	ND	2.0		µg/L	1	9/1/2009 6:33:21 PM
Chloroform	ND	1.0		µg/L	1	9/1/2009 6:33:21 PM
Chloromethane	ND	1.0		µg/L	1	9/1/2009 6:33:21 PM
2-Chlorotoluene	ND	1.0		µg/L	1	9/1/2009 6:33:21 PM
4-Chlorotoluene	ND	1.0		µg/L	1	9/1/2009 6:33:21 PM
cis-1,2-DCE	ND	1.0		µg/L	1	9/1/2009 6:33:21 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/1/2009 6:33:21 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/1/2009 6:33:21 PM
Dibromochloromethane	ND	1.0		µg/L	1	9/1/2009 6:33:21 PM
Dibromomethane	ND	1.0		µg/L	1	9/1/2009 6:33:21 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/1/2009 6:33:21 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/1/2009 6:33:21 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/1/2009 6:33:21 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/1/2009 6:33:21 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	9/1/2009 6:33:21 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	9/1/2009 6:33:21 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	9/1/2009 6:33:21 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	9/1/2009 6:33:21 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	9/1/2009 6:33:21 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	9/1/2009 6:33:21 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	9/1/2009 6:33:21 PM
2-Hexanone	ND	10		µg/L	1	9/1/2009 6:33:21 PM
Isopropylbenzene	ND	1.0		µg/L	1	9/1/2009 6:33:21 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	9/1/2009 6:33:21 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	9/1/2009 6:33:21 PM
Methylene Chloride	ND	3.0		µg/L	1	9/1/2009 6:33:21 PM
n-Butylbenzene	4.4	1.0		µg/L	1	9/1/2009 6:33:21 PM
n-Propylbenzene	1.5	1.0		µg/L	1	9/1/2009 6:33:21 PM
sec-Butylbenzene	ND	1.0		µg/L	1	9/1/2009 6:33:21 PM
Styrene	ND	1.0		µg/L	1	9/1/2009 6:33:21 PM
tert-Butylbenzene	ND	1.0		µg/L	1	9/1/2009 6:33:21 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/1/2009 6:33:21 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/1/2009 6:33:21 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/1/2009 6:33:21 PM
trans-1,2-DCE	ND	1.0		µg/L	1	9/1/2009 6:33:21 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/1/2009 6:33:21 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/1/2009 6:33:21 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/1/2009 6:33:21 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/1/2009 6:33:21 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/1/2009 6:33:21 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/1/2009 6:33:21 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *24-Sep-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL2-EP1
Lab Order:	0908358	**Collection Date:**	8/19/2009 10:38:00 AM
Project:	3RD Qtr Samples	**Date Received:**	8/21/2009
Lab ID:	0908358-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Trichlorofluoromethane	ND	1.0		µg/L	1	9/1/2009 6:33:21 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/1/2009 6:33:21 PM
Vinyl chloride	ND	1.0		µg/L	1	9/1/2009 6:33:21 PM
Xylenes, Total	11	1.5		µg/L	1	9/1/2009 6:33:21 PM
Surr: 1,2-Dichloroethane-d4	97.8	54.6-141		%REC	1	9/1/2009 6:33:21 PM
Surr: 4-Bromofluorobenzene	143	60.1-133	S	%REC	10	9/1/2009 4:41:43 PM
Surr: Dibromofluoromethane	105	78.5-130		%REC	1	9/1/2009 6:33:21 PM
Surr: Toluene-d8	93.8	79.5-126		%REC	1	9/1/2009 6:33:21 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *24-Sep-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	EP-1
Lab Order:	0908358	**Collection Date:**	8/19/2009 11:02:00 AM
Project:	3RD Qtr Samples	**Date Received:**	8/21/2009
Lab ID:	0908358-04	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **SCC**
Diesel Range Organics (DRO)	23	3.0		mg/L	1	8/25/2009 8:56:35 PM
Motor Oil Range Organics (MRO)	16	15		mg/L	1	8/25/2009 8:56:35 PM
Surr: DNOP	139	58-140		%REC	1	8/25/2009 8:56:35 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	4.7	1.0		mg/L	20	8/27/2009 5:26:25 AM
Surr: BFB	90.4	55.2-107		%REC	20	8/27/2009 5:26:25 AM
EPA METHOD 300.0: ANIONS						Analyst: **TAF**
Fluoride	200	10		mg/L	100	8/22/2009 3:16:50 AM
Chloride	350	2.0		mg/L	20	8/22/2009 2:42:00 AM
Bromide	ND	2.0		mg/L	20	8/22/2009 2:42:00 AM
Nitrate (As N)+Nitrite (As N)	ND	1.0		mg/L	5	8/28/2009 9:09:57 PM
Phosphorus, Orthophosphate (As P)	ND	10		mg/L	20	8/22/2009 2:42:00 AM
Sulfate	1100	50		mg/L	100	8/22/2009 3:16:50 AM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **RAGS**
Calcium	24	0.50		mg/L	1	9/18/2009 1:48:20 PM
Magnesium	11	0.50		mg/L	1	9/18/2009 1:48:20 PM
Potassium	39	1.0		mg/L	1	9/18/2009 1:48:20 PM
Sodium	970	10		mg/L	20	9/18/2009 1:52:27 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	50		µg/L	1	8/28/2009
Acenaphthylene	ND	50		µg/L	1	8/28/2009
Aniline	320	50		µg/L	1	8/28/2009
Anthracene	ND	50		µg/L	1	8/28/2009
Azobenzene	ND	50		µg/L	1	8/28/2009
Benz(a)anthracene	ND	50		µg/L	1	8/28/2009
Benzo(a)pyrene	ND	50		µg/L	1	8/28/2009
Benzo(b)fluoranthene	ND	50		µg/L	1	8/28/2009
Benzo(g,h,i)perylene	ND	50		µg/L	1	8/28/2009
Benzo(k)fluoranthene	ND	50		µg/L	1	8/28/2009
Benzoic acid	ND	100		µg/L	1	8/28/2009
Benzyl alcohol	ND	50		µg/L	1	8/28/2009
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	8/28/2009
Bis(2-chloroethyl)ether	ND	50		µg/L	1	8/28/2009
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	8/28/2009
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	8/28/2009
4-Bromophenyl phenyl ether	ND	50		µg/L	1	8/28/2009
Butyl benzyl phthalate	ND	50		µg/L	1	8/28/2009
Carbazole	ND	50		µg/L	1	8/28/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *24-Sep-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	EP-1
Lab Order:	0908358	**Collection Date:**	8/19/2009 11:02:00 AM
Project:	3RD Qtr Samples	**Date Received:**	8/21/2009
Lab ID:	0908358-04	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
4-Chloro-3-methylphenol	ND	50		µg/L	1	8/28/2009
4-Chloroaniline	ND	50		µg/L	1	8/28/2009
2-Chloronaphthalene	ND	50		µg/L	1	8/28/2009
2-Chlorophenol	ND	50		µg/L	1	8/28/2009
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	8/28/2009
Chrysene	ND	50		µg/L	1	8/28/2009
Di-n-butyl phthalate	ND	50		µg/L	1	8/28/2009
Di-n-octyl phthalate	ND	50		µg/L	1	8/28/2009
Dibenz(a,h)anthracene	ND	50		µg/L	1	8/28/2009
Dibenzofuran	ND	50		µg/L	1	8/28/2009
1,2-Dichlorobenzene	ND	50		µg/L	1	8/28/2009
1,3-Dichlorobenzene	ND	50		µg/L	1	8/28/2009
1,4-Dichlorobenzene	ND	50		µg/L	1	8/28/2009
3,3'-Dichlorobenzidine	ND	50		µg/L	1	8/28/2009
Diethyl phthalate	ND	50		µg/L	1	8/28/2009
Dimethyl phthalate	ND	50		µg/L	1	8/28/2009
2,4-Dichlorophenol	ND	100		µg/L	1	8/28/2009
2,4-Dimethylphenol	93	50		µg/L	1	8/28/2009
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	8/28/2009
2,4-Dinitrophenol	ND	100		µg/L	1	8/28/2009
2,4-Dinitrotoluene	ND	50		µg/L	1	8/28/2009
2,6-Dinitrotoluene	ND	50		µg/L	1	8/28/2009
Fluoranthene	ND	50		µg/L	1	8/28/2009
Fluorene	ND	50		µg/L	1	8/28/2009
Hexachlorobenzene	ND	50		µg/L	1	8/28/2009
Hexachlorobutadiene	ND	50		µg/L	1	8/28/2009
Hexachlorocyclopentadiene	ND	50		µg/L	1	8/28/2009
Hexachloroethane	ND	50		µg/L	1	8/28/2009
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	8/28/2009
Isophorone	ND	50		µg/L	1	8/28/2009
2-Methylnaphthalene	90	50		µg/L	1	8/28/2009
2-Methylphenol	420	50		µg/L	1	8/28/2009
3+4-Methylphenol	610	50		µg/L	1	8/28/2009
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	8/28/2009
N-Nitrosodimethylamine	ND	50		µg/L	1	8/28/2009
N-Nitrosodiphenylamine	ND	50		µg/L	1	8/28/2009
Naphthalene	ND	50		µg/L	1	8/28/2009
2-Nitroaniline	ND	50		µg/L	1	8/28/2009
3-Nitroaniline	ND	50		µg/L	1	8/28/2009
4-Nitroaniline	ND	50		µg/L	1	8/28/2009
Nitrobenzene	ND	50		µg/L	1	8/28/2009
2-Nitrophenol	ND	50		µg/L	1	8/28/2009

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *24-Sep-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	EP-1
Lab Order:	0908358	**Collection Date:**	8/19/2009 11:02:00 AM
Project:	3RD Qtr Samples	**Date Received:**	8/21/2009
Lab ID:	0908358-04	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
4-Nitrophenol	ND	50		µg/L	1	8/28/2009
Pentachlorophenol	ND	100		µg/L	1	8/28/2009
Phenanthrene	130	50		µg/L	1	8/28/2009
Phenol	1200	50		µg/L	1	8/28/2009
Pyrene	ND	50		µg/L	1	8/28/2009
Pyridine	ND	50		µg/L	1	8/28/2009
1,2,4-Trichlorobenzene	ND	50		µg/L	1	8/28/2009
2,4,5-Trichlorophenol	ND	50		µg/L	1	8/28/2009
2,4,6-Trichlorophenol	ND	50		µg/L	1	8/28/2009
Surr: 2,4,6-Tribromophenol	60.4	16.6-150		%REC	1	8/28/2009
Surr: 2-Fluorobiphenyl	83.4	19.6-134		%REC	1	8/28/2009
Surr: 2-Fluorophenol	53.6	9.54-113		%REC	1	8/28/2009
Surr: 4-Terphenyl-d14	67.2	22.7-145		%REC	1	8/28/2009
Surr: Nitrobenzene-d5	76.3	14.6-134		%REC	1	8/28/2009
Surr: Phenol-d5	48.5	10.7-80.3		%REC	1	8/28/2009
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
Benzene	2.1	1.0		µg/L	1	9/1/2009 7:01:12 PM
Toluene	3.5	1.0		µg/L	1	9/1/2009 7:01:12 PM
Ethylbenzene	ND	1.0		µg/L	1	9/1/2009 7:01:12 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/1/2009 7:01:12 PM
1,2,4-Trimethylbenzene	7.0	1.0		µg/L	1	9/1/2009 7:01:12 PM
1,3,5-Trimethylbenzene	2.2	1.0		µg/L	1	9/1/2009 7:01:12 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/1/2009 7:01:12 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/1/2009 7:01:12 PM
Naphthalene	11	2.0		µg/L	1	9/1/2009 7:01:12 PM
1-Methylnaphthalene	26	4.0		µg/L	1	9/1/2009 7:01:12 PM
2-Methylnaphthalene	37	4.0		µg/L	1	9/1/2009 7:01:12 PM
Acetone	1100	200		µg/L	20	9/1/2009 5:09:40 PM
Bromobenzene	ND	1.0		µg/L	1	9/1/2009 7:01:12 PM
Bromodichloromethane	ND	1.0		µg/L	1	9/1/2009 7:01:12 PM
Bromoform	ND	1.0		µg/L	1	9/1/2009 7:01:12 PM
Bromomethane	ND	1.0		µg/L	1	9/1/2009 7:01:12 PM
2-Butanone	ND	10		µg/L	1	9/1/2009 7:01:12 PM
Carbon disulfide	11	10		µg/L	1	9/1/2009 7:01:12 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	9/1/2009 7:01:12 PM
Chlorobenzene	ND	1.0		µg/L	1	9/1/2009 7:01:12 PM
Chloroethane	ND	2.0		µg/L	1	9/1/2009 7:01:12 PM
Chloroform	ND	1.0		µg/L	1	9/1/2009 7:01:12 PM
Chloromethane	ND	1.0		µg/L	1	9/1/2009 7:01:12 PM
2-Chlorotoluene	ND	1.0		µg/L	1	9/1/2009 7:01:12 PM
4-Chlorotoluene	ND	1.0		µg/L	1	9/1/2009 7:01:12 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *24-Sep-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	EP-1
Lab Order:	0908358	**Collection Date:**	8/19/2009 11:02:00 AM
Project:	3RD Qtr Samples	**Date Received:**	8/21/2009
Lab ID:	0908358-04	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
cis-1,2-DCE	ND	1.0		µg/L	1	9/1/2009 7:01:12 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/1/2009 7:01:12 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/1/2009 7:01:12 PM
Dibromochloromethane	ND	1.0		µg/L	1	9/1/2009 7:01:12 PM
Dibromomethane	ND	1.0		µg/L	1	9/1/2009 7:01:12 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/1/2009 7:01:12 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/1/2009 7:01:12 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/1/2009 7:01:12 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/1/2009 7:01:12 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	9/1/2009 7:01:12 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	9/1/2009 7:01:12 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	9/1/2009 7:01:12 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	9/1/2009 7:01:12 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	9/1/2009 7:01:12 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	9/1/2009 7:01:12 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	9/1/2009 7:01:12 PM
2-Hexanone	ND	10		µg/L	1	9/1/2009 7:01:12 PM
Isopropylbenzene	ND	1.0		µg/L	1	9/1/2009 7:01:12 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	9/1/2009 7:01:12 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	9/1/2009 7:01:12 PM
Methylene Chloride	ND	3.0		µg/L	1	9/1/2009 7:01:12 PM
n-Butylbenzene	ND	1.0		µg/L	1	9/1/2009 7:01:12 PM
n-Propylbenzene	ND	1.0		µg/L	1	9/1/2009 7:01:12 PM
sec-Butylbenzene	ND	1.0		µg/L	1	9/1/2009 7:01:12 PM
Styrene	ND	1.0		µg/L	1	9/1/2009 7:01:12 PM
tert-Butylbenzene	ND	1.0		µg/L	1	9/1/2009 7:01:12 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/1/2009 7:01:12 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/1/2009 7:01:12 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/1/2009 7:01:12 PM
trans-1,2-DCE	ND	1.0		µg/L	1	9/1/2009 7:01:12 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/1/2009 7:01:12 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/1/2009 7:01:12 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/1/2009 7:01:12 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/1/2009 7:01:12 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/1/2009 7:01:12 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/1/2009 7:01:12 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	9/1/2009 7:01:12 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/1/2009 7:01:12 PM
Vinyl chloride	ND	1.0		µg/L	1	9/1/2009 7:01:12 PM
Xylenes, Total	8.2	1.5		µg/L	1	9/1/2009 7:01:12 PM
Surr: 1,2-Dichloroethane-d4	99.1	54.6-141		%REC	1	9/1/2009 7:01:12 PM
Surr: 4-Bromofluorobenzene	140	60.1-133	S	%REC	1	9/1/2009 7:01:12 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *24-Sep-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	EP-1
Lab Order:	0908358	**Collection Date:**	8/19/2009 11:02:00 AM
Project:	3RD Qtr Samples	**Date Received:**	8/21/2009
Lab ID:	0908358-04	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
Surr: Dibromofluoromethane	101	78.5-130		%REC	1	9/1/2009 7:01:12 PM
Surr: Toluene-d8	89.6	79.5-126		%REC	1	9/1/2009 7:01:12 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **DAM**
Specific Conductance	5100	0.010		µmhos/cm	1	8/25/2009 2:38:23 PM
SM4500-H+B: PH						Analyst: **DAM**
pH	7.49	0.1	H	pH units	1	8/25/2009 2:38:23 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *24-Sep-09*

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Trip Blank
Lab Order: 0908358
Collection Date:
Project: 3RD Qtr Samples
Date Received: 8/21/2009
Lab ID: 0908358-05
Matrix: TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/26/2009 3:40:27 AM
Surr: BFB	81.5	55.2-107		%REC	1	8/26/2009 3:40:27 AM
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
Benzene	ND	1.0		µg/L	1	9/1/2009 5:37:35 PM
Toluene	ND	1.0		µg/L	1	9/1/2009 5:37:35 PM
Ethylbenzene	ND	1.0		µg/L	1	9/1/2009 5:37:35 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/1/2009 5:37:35 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/1/2009 5:37:35 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/1/2009 5:37:35 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/1/2009 5:37:35 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/1/2009 5:37:35 PM
Naphthalene	ND	2.0		µg/L	1	9/1/2009 5:37:35 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	9/1/2009 5:37:35 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	9/1/2009 5:37:35 PM
Acetone	ND	10		µg/L	1	9/4/2009 10:31:08 AM
Bromobenzene	ND	1.0		µg/L	1	9/1/2009 5:37:35 PM
Bromodichloromethane	ND	1.0		µg/L	1	9/1/2009 5:37:35 PM
Bromoform	ND	1.0		µg/L	1	9/1/2009 5:37:35 PM
Bromomethane	ND	1.0		µg/L	1	9/1/2009 5:37:35 PM
2-Butanone	ND	10		µg/L	1	9/1/2009 5:37:35 PM
Carbon disulfide	ND	10		µg/L	1	9/1/2009 5:37:35 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	9/1/2009 5:37:35 PM
Chlorobenzene	ND	1.0		µg/L	1	9/1/2009 5:37:35 PM
Chloroethane	ND	2.0		µg/L	1	9/1/2009 5:37:35 PM
Chloroform	ND	1.0		µg/L	1	9/1/2009 5:37:35 PM
Chloromethane	ND	1.0		µg/L	1	9/1/2009 5:37:35 PM
2-Chlorotoluene	ND	1.0		µg/L	1	9/1/2009 5:37:35 PM
4-Chlorotoluene	ND	1.0		µg/L	1	9/1/2009 5:37:35 PM
cis-1,2-DCE	ND	1.0		µg/L	1	9/1/2009 5:37:35 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/1/2009 5:37:35 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/1/2009 5:37:35 PM
Dibromochloromethane	ND	1.0		µg/L	1	9/1/2009 5:37:35 PM
Dibromomethane	ND	1.0		µg/L	1	9/1/2009 5:37:35 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/1/2009 5:37:35 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/1/2009 5:37:35 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/1/2009 5:37:35 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/1/2009 5:37:35 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	9/1/2009 5:37:35 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	9/1/2009 5:37:35 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	9/1/2009 5:37:35 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	9/1/2009 5:37:35 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *24-Sep-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	Trip Blank
Lab Order:	0908358	**Collection Date:**	
Project:	3RD Qtr Samples	**Date Received:**	8/21/2009
Lab ID:	0908358-05	**Matrix:**	TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
2,2-Dichloropropane	ND	2.0		µg/L	1	9/1/2009 5:37:35 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	9/1/2009 5:37:35 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	9/1/2009 5:37:35 PM
2-Hexanone	ND	10		µg/L	1	9/1/2009 5:37:35 PM
Isopropylbenzene	ND	1.0		µg/L	1	9/1/2009 5:37:35 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	9/1/2009 5:37:35 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	9/1/2009 5:37:35 PM
Methylene Chloride	ND	3.0		µg/L	1	9/1/2009 5:37:35 PM
n-Butylbenzene	ND	1.0		µg/L	1	9/1/2009 5:37:35 PM
n-Propylbenzene	ND	1.0		µg/L	1	9/1/2009 5:37:35 PM
sec-Butylbenzene	ND	1.0		µg/L	1	9/1/2009 5:37:35 PM
Styrene	ND	1.0		µg/L	1	9/1/2009 5:37:35 PM
tert-Butylbenzene	ND	1.0		µg/L	1	9/1/2009 5:37:35 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/1/2009 5:37:35 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/1/2009 5:37:35 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/1/2009 5:37:35 PM
trans-1,2-DCE	ND	1.0		µg/L	1	9/1/2009 5:37:35 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/1/2009 5:37:35 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/1/2009 5:37:35 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/1/2009 5:37:35 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/1/2009 5:37:35 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/1/2009 5:37:35 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/1/2009 5:37:35 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	9/1/2009 5:37:35 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/1/2009 5:37:35 PM
Vinyl chloride	ND	1.0		µg/L	1	9/1/2009 5:37:35 PM
Xylenes, Total	ND	1.5		µg/L	1	9/1/2009 5:37:35 PM
Surr: 1,2-Dichloroethane-d4	98.4	54.6-141		%REC	1	9/1/2009 5:37:35 PM
Surr: 4-Bromofluorobenzene	138	60.1-133	S	%REC	1	9/1/2009 5:37:35 PM
Surr: Dibromofluoromethane	101	78.5-130		%REC	1	9/1/2009 5:37:35 PM
Surr: Toluene-d8	90.4	79.5-126		%REC	1	9/1/2009 5:37:35 PM

Qualifiers:

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

4301 Masthead NE | Albuquerque, New Mexico 87109 505.344.3777 | 505.345.8964

Explanation of codes	
B	Analyte Detected In Method Blank
E	Result Is Estimated
H	Analyzed Out of Hold Time
N	Tentatively Identified Compound
S	Subcontracted
1-9	See Footnote

HALL ENVIRONMENTAL
attn ANDY FREEMAN
4901 HAWKINS NE, SUITE D
ALBUQUERQUE NM 87109-4372

STANDARD

ARS Analytical, LLC

Certificate of Analysis

All samples are reported on an "as received" basis, unless otherwise noted (i.e. - Dry Weight).

Client: HALL ENVIRONMENTAL
Project: 0908358
Order: 09080587 HAL03 Receipt: 08-21-09

FOR Elvin J. Chavez: President of ARS Analytical, LLC

Sample: *0908358-02D PILOT EFF* Collected: *08-19-09 10:14:00* By:
Matrix: *AQUEOUS*

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09080587-001A		SM 5220C						By: ECC		
COD-09-034	WC.2009.2155.2	C-004	Chemical Oxygen Demand	905	mg/L	1	10		08-28-09	08-28-09

Sample: *0908358-02E PILOT EFF* Collected: *08-19-09 10:14:00* By:
Matrix: *AQUEOUS*

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09080587-002A		SM 5210B						By: ECC		
BOD090103	WC.2009.2159.17	10-26-4	Biochemical Oxygen Demand	712	mg/L	1	4		08-21-09	08-26-09

Sample: *0908385-04D EP-1* Collected: *08-19-09 11:02:00* By:
Matrix: *AQUEOUS*

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09080587-003A		SM 5220C						By: ECC		
COD-09-034	WC.2009.2155.5	C-004	Chemical Oxygen Demand	400	mg/L	1	10		08-28-09	08-28-09

ARS Analytical, LLC

Certificate of Analysis

All samples are reported on an "as received" basis, unless otherwise noted (i.e. - Dry Weight).

Client: **HALL ENVIRONMENTAL**

Project: **0908358**

Order: **09080587 HAL03** Receipt: **08-21-09**

Sample: ***0908358-04E EP-1*** Collected: *08-19-09 11:02:00* By:

Matrix: ***AQUEOUS***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09080587-004A		**SM 5210B**						By: ECC		
BOD090103	WC.2009.2159.16	10-26-4	Biochemical Oxygen Demand	264	mg/L	1	4		08-21-09	08-26-09

Unless otherwise noted, all samples were received in acceptable condition and all sampling was performed by client or client representative. Sample result of ND indicates Not Detected, ie result is less than the sample specific Detection Limit. Sample specific Detection Limit is determined by multiplying the sample Dilution Factor by the listed Reporting Detection Limit. All results relate only to the items tested. Any miscellaneous workorder information or foonotes will appear below.

Analytical results are not corrected for method blank or field blank contamination.

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LABORATORY ANALYTICAL REPORT

Client:	Hall Environmental	**Report Date:**	09/02/09
Project:	0908358	**Collection Date:**	08/19/09 10:01
Lab ID:	B09082398-001	**DateReceived:**	08/26/09
Client Sample ID:	0908358-01E, NAPIS EFF	**Matrix:**	Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
METALS, TOTAL							
Uranium	0.002	mg/L		0.001		SW6020	09/02/09 03:53 / ajs

Report Definitions:	RL - Analyte reporting limit.	MCL - Maximum contaminant level.
	QCL - Quality control limit.	ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client:	Hall Environmental	**Report Date:**	09/02/09
Project:	0908358	**Collection Date:**	08/19/09 10:14
Lab ID:	B09082398-002	**DateReceived:**	08/26/09
Client Sample ID:	0908358-02C, PILOT EFF	**Matrix:**	Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
METALS, TOTAL							
Uranium	0.001	mg/L		0.001		SW6020	09/02/09 04:02 / aje

Report Definitions:	RL - Analyte reporting limit.	MCL - Maximum contaminant level.
	QCL - Quality control limit.	ND - Not detected at the reporting limit.

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LABORATORY ANALYTICAL REPORT

Client:	Hall Environmental	**Report Date:**	09/02/09
Project:	0908358	**Collection Date:**	08/19/09 10:38
Lab ID:	B09082398-003	**DateReceived:**	08/26/09
Client Sample ID:	0908358-03D, AL2-EP1	**Matrix:**	Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
METALS, TOTAL							
Uranium	0.002	mg/L		0.001		SW6020	09/02/09 04:07 / aje

Report Definitions:	RL - Analyte reporting limit.	MCL - Maximum contaminant level.
	QCL - Quality control limit.	ND - Not detected at the reporting limit.

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QA/QC Summary Report

Client: Hall Environmental
Project: 0908358

Report Date: 09/02/09
Work Order: B09082398

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6020									**Batch:** 41043
Sample ID: MB-41043	Method Blank				Run: ICPMS203-B_090829A			08/29/09 11:27	
Uranium	ND	mg/L	6E-06						
Sample ID: LCS-41043	Laboratory Control Sample				Run: ICPMS203-B_090829A			08/29/09 11:32	
Uranium	0.496	mg/L	0.0010	99	85	115			
Sample ID: B09082398-001ADIL	Serial Dilution				Run: ICPMS203-B_090829A			08/29/09 12:09	
Uranium	0.00300	mg/L	0.0015		0	0		10	N
Sample ID: B09082418-001AMS5	Sample Matrix Spike				Run: ICPMS203-B_090829A			08/29/09 12:28	
Uranium	0.531	mg/L	0.0010	103	75	125			
Sample ID: B09082418-001AMSD5	Sample Matrix Spike Duplicate				Run: ICPMS203-B_090829A			08/29/09 12:32	
Uranium	0.519	mg/L	0.0010	100	75	125	2.3	20	
Sample ID: MB-41043	Method Blank				Run: ICPMS203-B_090901A			09/02/09 03:48	
Uranium	1E-05	mg/L	6E-06						
Method: SW6020									**Analytical Run:** ICPMS203-B_090901A
Sample ID: QCS-090602A,090609B,0	Initial Calibration Verification Standard							09/01/09 20:55	
Uranium	0.0200	mg/L	0.00030	100	90	110			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

N - The analyte concentration was not sufficiently high to calculate a RPD for the serial dilution test.

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 3RD Qtr Samples **Work Order:** 0908358

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 300.0: Anions											
Sample ID: MB		*MBLK*				Batch ID:	**R35000**	Analysis Date:	8/21/2009 2:48:13 PM		
Chloride	ND	mg/L	0.10								
Bromide	ND	mg/L	0.10								
Nitrate (As N)+Nitrite (As N)	ND	mg/L	0.20								
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50								
Sulfate	ND	mg/L	0.50								
Sample ID: MB		*MBLK*				Batch ID:	**R35014**	Analysis Date:	8/24/2009 12:18:23 PM		
Fluoride	ND	mg/L	0.10								
Chloride	ND	mg/L	0.10								
Bromide	ND	mg/L	0.10								
Nitrate (As N)+Nitrite (As N)	ND	mg/L	0.20								
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50								
Sulfate	ND	mg/L	0.50								
Sample ID: MB		*MBLK*				Batch ID:	**R35084**	Analysis Date:	8/28/2009 12:27:42 PM		
Chloride	ND	mg/L	0.10								
Bromide	ND	mg/L	0.10								
Nitrate (As N)+Nitrite (As N)	ND	mg/L	0.20								
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50								
Sulfate	ND	mg/L	0.50								
Sample ID: LCS		*LCS*				Batch ID:	**R35000**	Analysis Date:	8/21/2009 3:05:38 PM		
Fluoride	0.5424	mg/L	0.10	0.5	0	108	90	110			
Chloride	4.854	mg/L	0.10	5	0	97.1	90	110			
Bromide	2.495	mg/L	0.10	2.5	0.094	96.0	90	110			
Nitrate (As N)+Nitrite (As N)	3.456	mg/L	0.20	3.5	0	98.7	90	110			
Phosphorus, Orthophosphate (As P)	4.913	mg/L	0.50	5	0	98.3	90	110			
Sulfate	9.920	mg/L	0.50	10	0	99.2	90	110			
Sample ID: LCS		*LCS*				Batch ID:	**R35014**	Analysis Date:	8/24/2009 12:35:48 PM		
Fluoride	0.5071	mg/L	0.10	0.5	0	101	90	110			
Chloride	4.889	mg/L	0.10	5	0	97.8	90	110			
Bromide	2.517	mg/L	0.10	2.5	0	101	90	110			
Nitrate (As N)+Nitrite (As N)	3.492	mg/L	0.20	3.5	0	99.8	90	110			
Phosphorus, Orthophosphate (As P)	4.785	mg/L	0.50	5	0	95.7	90	110			
Sulfate	9.920	mg/L	0.50	10	0	99.2	90	110			
Sample ID: LCS		*LCS*				Batch ID:	**R35084**	Analysis Date:	8/28/2009 12:45:07 PM		
Chloride	4.787	mg/L	0.10	5	0	95.7	90	110			
Bromide	2.463	mg/L	0.10	2.5	0	98.5	90	110			
Nitrate (As N)+Nitrite (As N)	3.406	mg/L	0.20	3.5	0	97.3	90	110			
Phosphorus, Orthophosphate (As P)	4.949	mg/L	0.50	5	0	99.0	90	110			
Sulfate	9.816	mg/L	0.50	10	0	98.2	90	110			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 3RD Qtr Samples **Work Order:** 0908358

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8015B: Diesel Range											
Sample ID: MB-19942		*MBLK*				Batch ID:	**19942**	Analysis Date:		8/24/2009 5:07:36 PM	
Diesel Range Organics (DRO)	ND	mg/L	1.0								
Motor Oil Range Organics (MRO)	ND	mg/L	5.0								
Sample ID: LCS-19942		*LCS*				Batch ID:	**19942**	Analysis Date:		8/24/2009 5:43:00 PM	
Diesel Range Organics (DRO)	4.576	mg/L	1.0	5	0	91.5	74	157			
Sample ID: LCSD-19942		*LCSD*				Batch ID:	**19942**	Analysis Date:		8/24/2009 6:18:27 PM	
Diesel Range Organics (DRO)	3.993	mg/L	1.0	5	0	79.9	74	157	13.6	23	
Method: EPA Method 8015B: Gasoline Range											
Sample ID: 5ML RB		*MBLK*				Batch ID:	**R35033**	Analysis Date:		8/25/2009 9:00:16 AM	
Gasoline Range Organics (GRO)	ND	mg/L	0.050								
Sample ID: b 16		*MBLK*				Batch ID:	**R35033**	Analysis Date:		8/25/2009 4:29:53 PM	
Gasoline Range Organics (GRO)	ND	mg/L	0.050								
Sample ID: 5ML RB		*MBLK*				Batch ID:	**R35048**	Analysis Date:		8/26/2009 9:05:31 AM	
Gasoline Range Organics (GRO)	ND	mg/L	0.050								
Sample ID: 2.5UG GRO LCS		*LCS*				Batch ID:	**R35033**	Analysis Date:		8/26/2009 4:10:57 AM	
Gasoline Range Organics (GRO)	0.4636	mg/L	0.050	0.5	0	92.7	80	115			
Sample ID: 2.5UG GRO LCS-II		*LCS*				Batch ID:	**R35033**	Analysis Date:		8/26/2009 4:41:23 AM	
Gasoline Range Organics (GRO)	0.5176	mg/L	0.050	0.5	0	104	80	115			
[illegible]e ID: 2.5UG GRO LCS		*LCS*				Batch ID:	**R35048**	Analysis Date:		8/26/2009 7:47:18 PM	
[illegible]line Range Organics (GRO)	0.5130	mg/L	0.050	0.5	0	103	80	115			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 3RD Qtr Samples **Work Order:** 0908358

Method: EPA Method 8260B: VOLATILES
Sample ID: 5ml rb MBLK Batch ID: **R35124** Analysis Date: 9/1/2009 8:49:28 AM

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	µg/L	1.0								
Toluene	ND	µg/L	1.0								
Ethylbenzene	ND	µg/L	1.0								
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0								
1,2,4-Trimethylbenzene	ND	µg/L	1.0								
1,3,5-Trimethylbenzene	ND	µg/L	1.0								
1,2-Dichloroethane (EDC)	ND	µg/L	1.0								
1,2-Dibromoethane (EDB)	ND	µg/L	1.0								
Naphthalene	ND	µg/L	2.0								
1-Methylnaphthalene	ND	µg/L	4.0								
2-Methylnaphthalene	ND	µg/L	4.0								
Acetone	ND	µg/L	10								
Bromobenzene	ND	µg/L	1.0								
Bromodichloromethane	ND	µg/L	1.0								
Bromoform	ND	µg/L	1.0								
Bromomethane	ND	µg/L	1.0								
2-Butanone	ND	µg/L	10								
Carbon disulfide	ND	µg/L	10								
Carbon Tetrachloride	ND	µg/L	1.0								
Chlorobenzene	ND	µg/L	1.0								
Chloroethane	ND	µg/L	2.0								
Chloroform	ND	µg/L	1.0								
Chloromethane	ND	µg/L	1.0								
2-Chlorotoluene	ND	µg/L	1.0								
4-Chlorotoluene	ND	µg/L	1.0								
cis-1,2-DCE	ND	µg/L	1.0								
cis-1,3-Dichloropropene	ND	µg/L	1.0								
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0								
Dibromochloromethane	ND	µg/L	1.0								
Dibromomethane	ND	µg/L	1.0								
1,2-Dichlorobenzene	ND	µg/L	1.0								
1,3-Dichlorobenzene	ND	µg/L	1.0								
1,4-Dichlorobenzene	ND	µg/L	1.0								
Dichlorodifluoromethane	ND	µg/L	1.0								
1,1-Dichloroethane	ND	µg/L	1.0								
1,1-Dichloroethene	ND	µg/L	1.0								
1,2-Dichloropropane	ND	µg/L	1.0								
1,3-Dichloropropane	ND	µg/L	1.0								
2,2-Dichloropropane	ND	µg/L	2.0								
1,1-Dichloropropene	ND	µg/L	1.0								
Hexachlorobutadiene	ND	µg/L	1.0								
2-Hexanone	ND	µg/L	10								
Isopropylbenzene	ND	µg/L	1.0								
4-Isopropyltoluene	ND	µg/L	1.0								

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 3RD Qtr Samples **Work Order:** 0908358

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES											
Sample ID: 5ml rb		*MBLK*				Batch ID: **R35124**		Analysis Date:	9/1/2009 8:49:28 AM		
4-Methyl-2-pentanone	ND	µg/L	10								
Methylene Chloride	ND	µg/L	3.0								
n-Butylbenzene	ND	µg/L	1.0								
n-Propylbenzene	ND	µg/L	1.0								
sec-Butylbenzene	ND	µg/L	1.0								
Styrene	ND	µg/L	1.0								
tert-Butylbenzene	ND	µg/L	1.0								
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0								
1,1,2,2-Tetrachloroethane	ND	µg/L	2.0								
Tetrachloroethene (PCE)	ND	µg/L	1.0								
trans-1,2-DCE	ND	µg/L	1.0								
trans-1,3-Dichloropropene	ND	µg/L	1.0								
1,2,3-Trichlorobenzene	ND	µg/L	1.0								
1,2,4-Trichlorobenzene	ND	µg/L	1.0								
1,1,1-Trichloroethane	ND	µg/L	1.0								
1,1,2-Trichloroethane	ND	µg/L	1.0								
Trichloroethene (TCE)	ND	µg/L	1.0								
Trichlorofluoromethane	ND	µg/L	1.0								
1,2,3-Trichloropropane	ND	µg/L	2.0								
[illegible] chloride	ND	µg/L	1.0								
[illegible]nes, Total	ND	µg/L	1.5								
Sample ID: 5ml rb		*MBLK*				Batch ID: **R35183**		Analysis Date:	9/4/2009 8:40:27 AM		
Benzene	ND	µg/L	1.0								
Toluene	ND	µg/L	1.0								
Ethylbenzene	ND	µg/L	1.0								
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0								
1,2,4-Trimethylbenzene	ND	µg/L	1.0								
1,3,5-Trimethylbenzene	ND	µg/L	1.0								
1,2-Dichloroethane (EDC)	ND	µg/L	1.0								
1,2-Dibromoethane (EDB)	ND	µg/L	1.0								
Naphthalene	ND	µg/L	2.0								
1-Methylnaphthalene	ND	µg/L	4.0								
2-Methylnaphthalene	ND	µg/L	4.0								
Acetone	ND	µg/L	10								
Bromobenzene	ND	µg/L	1.0								
Bromodichloromethane	ND	µg/L	1.0								
Bromoform	ND	µg/L	1.0								
Bromomethane	ND	µg/L	1.0								
2-Butanone	ND	µg/L	10								
Carbon disulfide	ND	µg/L	10								
Carbon Tetrachloride	ND	µg/L	1.0								
Chlorobenzene	ND	µg/L	1.0								
Chloroethane	ND	µg/L	2.0								
Chloroform	ND	µg/L	1.0								

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 3RD Qtr Samples **Work Order:** 0908358

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES											
Sample ID: 5ml rb		*MBLK*					Batch ID: **R35183**		Analysis Date:	9/4/2009 8:40:27 AM	
Chloromethane	ND	µg/L	1.0								
2-Chlorotoluene	ND	µg/L	1.0								
4-Chlorotoluene	ND	µg/L	1.0								
cis-1,2-DCE	ND	µg/L	1.0								
cis-1,3-Dichloropropene	ND	µg/L	1.0								
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0								
Dibromochloromethane	ND	µg/L	1.0								
Dibromomethane	ND	µg/L	1.0								
1,2-Dichlorobenzene	ND	µg/L	1.0								
1,3-Dichlorobenzene	ND	µg/L	1.0								
1,4-Dichlorobenzene	ND	µg/L	1.0								
Dichlorodifluoromethane	ND	µg/L	1.0								
1,1-Dichloroethane	ND	µg/L	1.0								
1,1-Dichloroethene	ND	µg/L	1.0								
1,2-Dichloropropane	ND	µg/L	1.0								
1,3-Dichloropropane	ND	µg/L	1.0								
2,2-Dichloropropane	ND	µg/L	2.0								
1,1-Dichloropropene	ND	µg/L	1.0								
Hexachlorobutadiene	ND	µg/L	1.0								
2-[illegible]anone	ND	µg/L	10								
[illegible]pylbenzene	ND	µg/L	1.0								
4-Isopropyltoluene	ND	µg/L	1.0								
4-Methyl-2-pentanone	ND	µg/L	10								
Methylene Chloride	ND	µg/L	3.0								
n-Butylbenzene	ND	µg/L	1.0								
n-Propylbenzene	ND	µg/L	1.0								
sec-Butylbenzene	ND	µg/L	1.0								
Styrene	ND	µg/L	1.0								
tert-Butylbenzene	ND	µg/L	1.0								
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0								
1,1,2,2-Tetrachloroethane	ND	µg/L	2.0								
Tetrachloroethene (PCE)	ND	µg/L	1.0								
trans-1,2-DCE	ND	µg/L	1.0								
trans-1,3-Dichloropropene	ND	µg/L	1.0								
1,2,3-Trichlorobenzene	ND	µg/L	1.0								
1,2,4-Trichlorobenzene	ND	µg/L	1.0								
1,1,1-Trichloroethane	ND	µg/L	1.0								
1,1,2-Trichloroethane	ND	µg/L	1.0								
Trichloroethene (TCE)	ND	µg/L	1.0								
Trichlorofluoromethane	ND	µg/L	1.0								
1,2,3-Trichloropropane	ND	µg/L	2.0								
Vinyl chloride	ND	µg/L	1.0								
Xylenes, Total	ND	µg/L	1.5								
Sample ID: b4		*MBLK*					Batch ID: **R35183**		Analysis Date:	9/4/2009 10:04:33 PM	

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 3RD Qtr Samples **Work Order:** 0908358

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES											
Sample ID: b4		*MBLK*				**Batch ID:** **R35183**		**Analysis Date:**	9/4/2009 10:04:33 PM		
Benzene	ND	µg/L	1.0								
Toluene	ND	µg/L	1.0								
Ethylbenzene	ND	µg/L	1.0								
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0								
1,2,4-Trimethylbenzene	ND	µg/L	1.0								
1,3,5-Trimethylbenzene	ND	µg/L	1.0								
1,2-Dichloroethane (EDC)	ND	µg/L	1.0								
1,2-Dibromoethane (EDB)	ND	µg/L	1.0								
Naphthalene	ND	µg/L	2.0								
1-Methylnaphthalene	ND	µg/L	4.0								
2-Methylnaphthalene	ND	µg/L	4.0								
Acetone	ND	µg/L	10								
Bromobenzene	ND	µg/L	1.0								
Bromodichloromethane	ND	µg/L	1.0								
Bromoform	ND	µg/L	1.0								
Bromomethane	ND	µg/L	1.0								
2-Butanone	ND	µg/L	10								
Carbon disulfide	ND	µg/L	10								
Carbon Tetrachloride	ND	µg/L	1.0								
[illegible]benzene	ND	µg/L	1.0								
[illegible]oethane	ND	µg/L	2.0								
Chloroform	ND	µg/L	1.0								
Chloromethane	ND	µg/L	1.0								
2-Chlorotoluene	ND	µg/L	1.0								
4-Chlorotoluene	ND	µg/L	1.0								
cis-1,2-DCE	ND	µg/L	1.0								
cis-1,3-Dichloropropene	ND	µg/L	1.0								
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0								
Dibromochloromethane	ND	µg/L	1.0								
Dibromomethane	ND	µg/L	1.0								
1,2-Dichlorobenzene	ND	µg/L	1.0								
1,3-Dichlorobenzene	ND	µg/L	1.0								
1,4-Dichlorobenzene	ND	µg/L	1.0								
Dichlorodifluoromethane	ND	µg/L	1.0								
1,1-Dichloroethane	ND	µg/L	1.0								
1,1-Dichloroethene	ND	µg/L	1.0								
1,2-Dichloropropane	ND	µg/L	1.0								
1,3-Dichloropropane	ND	µg/L	1.0								
2,2-Dichloropropane	ND	µg/L	2.0								
1,1-Dichloropropene	ND	µg/L	1.0								
Hexachlorobutadiene	ND	µg/L	1.0								
2-Hexanone	ND	µg/L	10								
Isopropylbenzene	ND	µg/L	1.0								
4-Isopropyltoluene	ND	µg/L	1.0								

[illegible]ifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 3RD Qtr Samples **Work Order:** 0908358

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES											
Sample ID: b4		*MBLK*					Batch ID: **R35183**		Analysis Date:	9/4/2009 10:04:33 PM	
4-Methyl-2-pentanone	ND	µg/L	10								
Methylene Chloride	ND	µg/L	3.0								
n-Butylbenzene	ND	µg/L	1.0								
n-Propylbenzene	ND	µg/L	1.0								
sec-Butylbenzene	ND	µg/L	1.0								
Styrene	ND	µg/L	1.0								
tert-Butylbenzene	ND	µg/L	1.0								
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0								
1,1,2,2-Tetrachloroethane	ND	µg/L	2.0								
Tetrachloroethene (PCE)	ND	µg/L	1.0								
trans-1,2-DCE	ND	µg/L	1.0								
trans-1,3-Dichloropropene	ND	µg/L	1.0								
1,2,3-Trichlorobenzene	ND	µg/L	1.0								
1,2,4-Trichlorobenzene	ND	µg/L	1.0								
1,1,1-Trichloroethane	ND	µg/L	1.0								
1,1,2-Trichloroethane	ND	µg/L	1.0								
Trichloroethene (TCE)	ND	µg/L	1.0								
Trichlorofluoromethane	ND	µg/L	1.0								
1,2,3-Trichloropropane	ND	µg/L	2.0								
Vinyl chloride	ND	µg/L	1.0								
Xylenes, Total	ND	µg/L	1.5								
Sample ID: b6		*MBLK*					Batch ID: **R35183**		Analysis Date:	9/5/2009 10:09:29 AM	
Benzene	ND	µg/L	1.0								
Toluene	ND	µg/L	1.0								
Ethylbenzene	ND	µg/L	1.0								
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0								
1,2,4-Trimethylbenzene	ND	µg/L	1.0								
1,3,5-Trimethylbenzene	ND	µg/L	1.0								
1,2-Dichloroethane (EDC)	ND	µg/L	1.0								
1,2-Dibromoethane (EDB)	ND	µg/L	1.0								
Naphthalene	ND	µg/L	2.0								
1-Methylnaphthalene	ND	µg/L	4.0								
2-Methylnaphthalene	ND	µg/L	4.0								
Acetone	ND	µg/L	10								
Bromobenzene	ND	µg/L	1.0								
Bromodichloromethane	ND	µg/L	1.0								
Bromoform	ND	µg/L	1.0								
Bromomethane	ND	µg/L	1.0								
2-Butanone	ND	µg/L	10								
Carbon disulfide	ND	µg/L	10								
Carbon Tetrachloride	ND	µg/L	1.0								
Chlorobenzene	ND	µg/L	1.0								
Chloroethane	ND	µg/L	2.0								
Chloroform	ND	µg/L	1.0								

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 3RD Qtr Samples **Work Order:** 0908358

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES											
Sample ID: b6		*MBLK*				Batch ID: **R35183**		Analysis Date:	9/5/2009 10:09:29 AM		
Chloromethane	ND	µg/L	1.0								
2-Chlorotoluene	ND	µg/L	1.0								
4-Chlorotoluene	ND	µg/L	1.0								
cis-1,2-DCE	ND	µg/L	1.0								
cis-1,3-Dichloropropene	ND	µg/L	1.0								
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0								
Dibromochloromethane	ND	µg/L	1.0								
Dibromomethane	ND	µg/L	1.0								
1,2-Dichlorobenzene	ND	µg/L	1.0								
1,3-Dichlorobenzene	ND	µg/L	1.0								
1,4-Dichlorobenzene	ND	µg/L	1.0								
Dichlorodifluoromethane	ND	µg/L	1.0								
1,1-Dichloroethane	ND	µg/L	1.0								
1,1-Dichloroethene	ND	µg/L	1.0								
1,2-Dichloropropane	ND	µg/L	1.0								
1,3-Dichloropropane	ND	µg/L	1.0								
2,2-Dichloropropane	ND	µg/L	2.0								
1,1-Dichloropropene	ND	µg/L	1.0								
Hexachlorobutadiene	ND	µg/L	1.0								
[illegible]anone	ND	µg/L	10								
Isopropylbenzene	ND	µg/L	1.0								
4-Isopropyltoluene	ND	µg/L	1.0								
4-Methyl-2-pentanone	ND	µg/L	10								
Methylene Chloride	ND	µg/L	3.0								
n-Butylbenzene	ND	µg/L	1.0								
n-Propylbenzene	ND	µg/L	1.0								
sec-Butylbenzene	ND	µg/L	1.0								
Styrene	ND	µg/L	1.0								
tert-Butylbenzene	ND	µg/L	1.0								
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0								
1,1,2,2-Tetrachloroethane	ND	µg/L	2.0								
Tetrachloroethene (PCE)	ND	µg/L	1.0								
trans-1,2-DCE	ND	µg/L	1.0								
trans-1,3-Dichloropropene	ND	µg/L	1.0								
1,2,3-Trichlorobenzene	ND	µg/L	1.0								
1,2,4-Trichlorobenzene	ND	µg/L	1.0								
1,1,1-Trichloroethane	ND	µg/L	1.0								
1,1,2-Trichloroethane	ND	µg/L	1.0								
Trichloroethene (TCE)	ND	µg/L	1.0								
Trichlorofluoromethane	ND	µg/L	1.0								
1,2,3-Trichloropropane	ND	µg/L	2.0								
Vinyl chloride	ND	µg/L	1.0								
Xylenes, Total	ND	µg/L	1.5								
Sample ID: 100ng lcs		*LCS*				Batch ID: **R35124**		Analysis Date:	9/1/2009 9:44:38 AM		

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 3RD Qtr Samples **Work Order:** 0908358

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES											
Sample ID: 100ng lcs		*LCS*				Batch ID:	**R35124**	Analysis Date:		9/1/2009 9:44:38 AM	
Benzene	22.40	µg/L	1.0	20	0	112	76.7	114			
Toluene	20.57	µg/L	1.0	20	0	103	78.4	117			
Chlorobenzene	20.35	µg/L	1.0	20	0	102	80.7	127			
1,1-Dichloroethene	24.17	µg/L	1.0	20	0	121	80.2	128			
Trichloroethene (TCE)	19.01	µg/L	1.0	20	0	95.1	77.4	115			
Sample ID: 100ng lcs		*LCS*				Batch ID:	**R35183**	Analysis Date:		9/4/2009 9:35:47 AM	
Benzene	19.18	µg/L	1.0	20	0	95.9	76.7	114			
Toluene	21.46	µg/L	1.0	20	0	107	78.4	117			
Chlorobenzene	21.27	µg/L	1.0	20	0	106	80.7	127			
1,1-Dichloroethene	21.14	µg/L	1.0	20	0	106	80.2	128			
Trichloroethene (TCE)	17.23	µg/L	1.0	20	0	86.2	77.4	115			
Sample ID: 100ng lcs_b		*LCS*				Batch ID:	**R35183**	Analysis Date:		9/4/2009 9:36:51 PM	
Benzene	18.66	µg/L	1.0	20	0	93.3	76.7	114			
Toluene	20.16	µg/L	1.0	20	0	101	78.4	117			
Chlorobenzene	19.61	µg/L	1.0	20	0	98.0	80.7	127			
1,1-Dichloroethene	20.01	µg/L	1.0	20	0	100	80.2	128			
Trichloroethene (TCE)	16.28	µg/L	1.0	20	0	81.4	77.4	115			
Sample ID: 100ng lcs-c		*LCS*				Batch ID:	**R35183**	Analysis Date:		9/5/2009 9:41:54 AM	
[illegible]ene	18.91	µg/L	1.0	20	0	94.5	76.7	114			
[illegible]ene	19.81	µg/L	1.0	20	0	99.0	78.4	117			
Chlorobenzene	19.94	µg/L	1.0	20	0	99.7	80.7	127			
1,1-Dichloroethene	20.19	µg/L	1.0	20	0	101	80.2	128			
Trichloroethene (TCE)	16.73	µg/L	1.0	20	0	83.6	77.4	115			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 3RD Qtr Samples **Work Order:** 0908358

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8270C: Semivolatiles											
Sample ID: mb-19953		*MBLK*				Batch ID: **19953**		Analysis Date:		8/27/2009	
Acenaphthene	ND	µg/L	10								
Acenaphthylene	ND	µg/L	10								
Aniline	ND	µg/L	10								
Anthracene	ND	µg/L	10								
Azobenzene	ND	µg/L	10								
Benz(a)anthracene	ND	µg/L	10								
Benzo(a)pyrene	ND	µg/L	10								
Benzo(b)fluoranthene	ND	µg/L	10								
Benzo(g,h,i)perylene	ND	µg/L	10								
Benzo(k)fluoranthene	ND	µg/L	10								
Benzoic acid	ND	µg/L	20								
Benzyl alcohol	ND	µg/L	10								
Bis(2-chloroethoxy)methane	ND	µg/L	10								
Bis(2-chloroethyl)ether	ND	µg/L	10								
Bis(2-chloroisopropyl)ether	ND	µg/L	10								
Bis(2-ethylhexyl)phthalate	ND	µg/L	10								
4-Bromophenyl phenyl ether	ND	µg/L	10								
Butyl benzyl phthalate	ND	µg/L	10								
Carbazole	ND	µg/L	10								
[illegible]oro-3-methylphenol	ND	µg/L	10								
[illegible]loroaniline	ND	µg/L	10								
2-Chloronaphthalene	ND	µg/L	10								
2-Chlorophenol	ND	µg/L	10								
4-Chlorophenyl phenyl ether	ND	µg/L	10								
Chrysene	ND	µg/L	10								
Di-n-butyl phthalate	ND	µg/L	10								
Di-n-octyl phthalate	ND	µg/L	10								
Dibenz(a,h)anthracene	ND	µg/L	10								
Dibenzofuran	ND	µg/L	10								
1,2-Dichlorobenzene	ND	µg/L	10								
1,3-Dichlorobenzene	ND	µg/L	10								
1,4-Dichlorobenzene	ND	µg/L	10								
3,3'-Dichlorobenzidine	ND	µg/L	10								
Diethyl phthalate	ND	µg/L	10								
Dimethyl phthalate	ND	µg/L	10								
2,4-Dichlorophenol	ND	µg/L	20								
2,4-Dimethylphenol	ND	µg/L	10								
4,6-Dinitro-2-methylphenol	ND	µg/L	20								
2,4-Dinitrophenol	ND	µg/L	20								
2,4-Dinitrotoluene	ND	µg/L	10								
2,6-Dinitrotoluene	ND	µg/L	10								
Fluoranthene	ND	µg/L	10								
Fluorene	ND	µg/L	10								
Hexachlorobenzene	ND	µg/L	10								

[illegible]lifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 3RD Qtr Samples **Work Order:** 0908358

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8270C: Semivolatiles											
Sample ID: mb-19953		*MBLK*				Batch ID:	**19953**	Analysis Date:			8/27/2009
Hexachlorobutadiene	ND	µg/L	10								
Hexachlorocyclopentadiene	ND	µg/L	10								
Hexachloroethane	ND	µg/L	10								
Indeno(1,2,3-cd)pyrene	ND	µg/L	10								
Isophorone	ND	µg/L	10								
2-Methylnaphthalene	ND	µg/L	10								
2-Methylphenol	ND	µg/L	10								
3+4-Methylphenol	ND	µg/L	10								
N-Nitrosodi-n-propylamine	ND	µg/L	10								
N-Nitrosodimethylamine	ND	µg/L	10								
N-Nitrosodiphenylamine	ND	µg/L	10								
Naphthalene	ND	µg/L	10								
2-Nitroaniline	ND	µg/L	10								
3-Nitroaniline	ND	µg/L	10								
4-Nitroaniline	ND	µg/L	10								
Nitrobenzene	ND	µg/L	10								
2-Nitrophenol	ND	µg/L	10								
4-Nitrophenol	ND	µg/L	10								
Pentachlorophenol	ND	µg/L	20								
[illegible]anthrene	ND	µg/L	10								
[illegible]nol	ND	µg/L	10								
Pyrene	ND	µg/L	10								
Pyridine	ND	µg/L	10								
1,2,4-Trichlorobenzene	ND	µg/L	10								
2,4,5-Trichlorophenol	ND	µg/L	10								
2,4,6-Trichlorophenol	ND	µg/L	10								
Sample ID: lcs-19953		*LCS*				Batch ID:	**19953**	Analysis Date:			8/27/2009
Acenaphthene	71.90	µg/L	10	100	0	71.9	33.2	88.1			
4-Chloro-3-methylphenol	146.2	µg/L	10	200	0	73.1	26.5	101			
2-Chlorophenol	121.3	µg/L	10	200	0	60.6	27.5	88.7			
1,4-Dichlorobenzene	60.42	µg/L	10	100	0	60.4	27.2	74.1			
2,4-Dinitrotoluene	81.10	µg/L	10	100	0	81.1	32.6	107			
N-Nitrosodi-n-propylamine	68.24	µg/L	10	100	0	68.2	27.1	96.3			
4-Nitrophenol	88.04	µg/L	10	200	0	44.0	6.78	74.7			
Pentachlorophenol	155.1	µg/L	20	200	0	77.5	14.8	113			
Phenol	77.60	µg/L	10	200	0	38.8	17	53.4			
Pyrene	78.76	µg/L	10	100	0	78.8	27	96.3			
1,2,4-Trichlorobenzene	68.48	µg/L	10	100	0	68.5	30	77.9			
Sample ID: lcsd-19953		*LCSD*				Batch ID:	**19953**	Analysis Date:			8/27/2009
Acenaphthene	73.82	µg/L	10	100	0	73.8	33.2	88.1	2.64	30.5	
4-Chloro-3-methylphenol	149.9	µg/L	10	200	0	75.0	26.5	101	2.54	28.6	
2-Chlorophenol	123.7	µg/L	10	200	0	61.8	27.5	88.7	1.96	107	
1,4-Dichlorobenzene	59.34	µg/L	10	100	0	59.3	27.2	74.1	1.80	62.1	
2,4-Dinitrotoluene	83.12	µg/L	10	100	0	83.1	32.6	107	2.46	14.7	

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 3RD Qtr Samples **Work Order:** 0908358

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8270C: Semivolatiles											
Sample ID: lcsd-19953		*LCSD*				Batch ID:	**19953**	Analysis Date:			8/27/2009
N-Nitrosodi-n-propylamine	68.54	µg/L	10	100	0	68.5	27.1	96.3	0.439	30.3	
4-Nitrophenol	86.38	µg/L	10	200	0	43.2	6.78	74.7	1.90	36.3	
Pentachlorophenol	149.7	µg/L	20	200	0	74.9	14.8	113	3.53	49	
Phenol	79.84	µg/L	10	200	0	39.9	17	53.4	2.85	52.4	
Pyrene	75.12	µg/L	10	100	0	75.1	27	96.3	4.73	16.3	
1,2,4-Trichlorobenzene	64.64	µg/L	10	100	0	64.6	30	77.9	5.77	36.4	
Method: EPA Method 7470: Mercury											
Sample ID: MBLK-20019		*MBLK*				Batch ID:	**20019**	Analysis Date:		9/2/2009 4:34:02 PM	
Mercury	ND	mg/L	0.00020								
Sample ID: LCS1-20019		*LCS*				Batch ID:	**20019**	Analysis Date:		9/2/2009 4:35:50 PM	
Mercury	0.005345	mg/L	0.00020	0.005	3E-05	106	80	120			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 3RD Qtr Samples **Work Order:** 0908358

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA 6010B: Total Recoverable Metals											
Sample ID: MB-19944		*MBLK*				Batch ID:	**19944**	Analysis Date:		8/26/2009 7:44:36 PM	
Calcium	ND	mg/L	0.50								
Magnesium	ND	mg/L	0.50								
Potassium	ND	mg/L	1.0								
Sodium	ND	mg/L	0.50								
Sample ID: MB-19944		*MBLK*				Batch ID:	**19944**	Analysis Date:		8/27/2009 4:31:19 PM	
Arsenic	ND	mg/L	0.020								
Barium	ND	mg/L	0.010								
Cadmium	ND	mg/L	0.0020								
Chromium	ND	mg/L	0.0060								
Copper	ND	mg/L	0.0060								
Iron	ND	mg/L	0.050								
Lead	ND	mg/L	0.0050								
Manganese	ND	mg/L	0.0020								
Selenium	ND	mg/L	0.050								
Silver	ND	mg/L	0.0050								
Zinc	ND	mg/L	0.020								
Sample ID: MB-19995		*MBLK*				Batch ID:	**19995**	Analysis Date:		9/2/2009 2:23:03 PM	
Calcium	ND	mg/L	0.50								
Magnesium	ND	mg/L	0.50								
Sample ID: MB-19995		*MBLK*				Batch ID:	**19995**	Analysis Date:		9/18/2009 1:27:10 PM	
Calcium	ND	mg/L	0.50								
Magnesium	ND	mg/L	0.50								
Potassium	ND	mg/L	1.0								
Sodium	ND	mg/L	0.50								
Sample ID: LCS-19944		*LCS*				Batch ID:	**19944**	Analysis Date:		8/26/2009 7:47:50 PM	
Calcium	51.06	mg/L	0.50	50	0	102	80	120			
Magnesium	51.67	mg/L	0.50	50	0	103	80	120			
Potassium	53.21	mg/L	1.0	50	0	106	80	120			
Sodium	55.05	mg/L	0.50	50	0	110	80	120			
Sample ID: LCS-19944		*LCS*				Batch ID:	**19944**	Analysis Date:		8/27/2009 4:34:32 PM	
Arsenic	0.4856	mg/L	0.020	0.5	0	97.1	80	120			
Barium	0.4931	mg/L	0.010	0.5	0	98.6	80	120			
Cadmium	0.5015	mg/L	0.0020	0.5	0.0004	100	80	120			
Chromium	0.4988	mg/L	0.0060	0.5	0	99.8	80	120			
Copper	0.5105	mg/L	0.0060	0.5	0.0011	102	80	120			
Iron	0.5252	mg/L	0.050	0.5	0	105	80	120			
Lead	0.4910	mg/L	0.0050	0.5	0	98.2	80	120			
Manganese	0.4915	mg/L	0.0020	0.5	0	98.3	80	120			
Selenium	0.5017	mg/L	0.050	0.5	0	100	80	120			
Silver	0.5071	mg/L	0.0050	0.5	0	101	80	120			
Zinc	0.4903	mg/L	0.020	0.5	0.0016	97.8	80	120			
Sample ID: LCS-19995		*LCS*				Batch ID:	**19995**	Analysis Date:		9/2/2009 2:25:49 PM	
Calcium	53.17	mg/L	0.50	50	0.1133	106	80	120			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 3RD Qtr Samples **Work Order:** 0908358

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA 6010B: Total Recoverable Metals											
Sample ID: LCS-19995		*LCS*				Batch ID:	**19995**	Analysis Date:	9/2/2009 2:25:49 PM		
Magnesium	49.73	mg/L	0.50	50	0.1352	99.2	80	120			
Sample ID: LCS-19995		*LCS*				Batch ID:	**19995**	Analysis Date:	9/18/2009 1:44:54 PM		
Calcium	50.01	mg/L	0.50	50	0	100	80	120			
Magnesium	50.81	mg/L	0.50	50	0	102	80	120			
Potassium	54.13	mg/L	1.0	50	0.0705	108	80	120			
Sodium	54.17	mg/L	0.50	50	0.2458	108	80	120			

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Name WESTERN REFINING GALLU — Date Received: 8/21/2009

Work Order Number 0908358 — Received by: ARS

Sample ID labels checked by: AS (Initials)

Checklist completed by: [signature] (Signature) 8/21/09 (Date)

Matrix: Carrier name: UPS

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☑	No ☐	N/A ☐	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☐	No ☑		
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☑	No ☐	
er - Preservation labels on bottle and cap match?	Yes ☑	No ☐	N/A ☐	
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐	
Container/Temp Blank temperature?	17.8°	<6° C Acceptable If given sufficient time to cool.		

Number of preserved bottles checked for pH: 10

<2 >12 unless noted below.

COMMENTS:

Client contacted ______ Date contacted: ______ Person contacted ______

Contacted by: ______ Regarding: ______

Comments: preserved 1x500 HNO3 in lab for EPA 1 cations /AT 8/31/09

orrective Action ______

Chain-of-Custody Record

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

Client: Western Refining Gallup Refinery
Mailing Address: Rt 3 Box 7 Gallup, NM 87301
Phone #: 505 722 3833
email or Fax#: 505 722 0210
QA/QC Package: ☒ Standard ☐ Level 4 (Full Validation)
Accreditation ☐ NELAP ☐ Other
☐ EDD (Type)

Turn-Around Time: ☒ Standard ☐ Rush
Project Name: 3rd QTR Samples
Project #:
Project Manager: G. Rajen
Sampler: Cheryl Johnson
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.8

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 0908358	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Gen Chem	BOD	COD	WQCC Metals Tot	Air Bubbles (Y or N)
8/19/09	1001	H2O	NAPIS EFF			1			X							X	X	X			X	
	1014		Pilot EFF*			2			X							X			X	X	X	
	1038		AL2-EP1			3			X							X	X				X	
	1102		EP-1			4			X					X		X	X	X	X	X		
			Trip Blank			5																

Date: 8/19/09 Time: 1205 Relinquished by: [signature]
Received by: [signature] 10:05 Date 8/21/09
Date: Time: Relinquished by:
Received by: Date Time

Remarks: Gen Chem - Cations, Ions, pH, Cond
*Caution: Biohazards possible on Pilot Samp.

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Friday, September 11, 2009

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

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

RE: 3rd Qtr NAPIS

Order No.: 0909044

Dear Gaurav Rajen:

Hall Environmental Analysis Laboratory, Inc. received 3 sample(s) on 9/2/2009 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman, Laboratory Manager

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

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

Hall Environmental Analysis Laboratory, Inc.

Date: *11-Sep-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:** ~~NAPIS-3~~ KA-3S	
Lab Order:	0909044	**Collection Date:**	8/31/2009 9:58:00 AM
Project:	3rd Qtr NAPIS	**Date Received:**	9/2/2009
Lab ID:	0909044-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **SCC**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	9/3/2009 6:17:41 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	9/3/2009 6:17:41 AM
Surr: DNOP	118	58-140		%REC	1	9/3/2009 6:17:41 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	9/8/2009 6:20:08 PM
Surr: BFB	105	55.2-107		%REC	1	9/8/2009 6:20:08 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	9/8/2009 6:20:08 PM
Benzene	ND	1.0		µg/L	1	9/8/2009 6:20:08 PM
Toluene	ND	1.0		µg/L	1	9/8/2009 6:20:08 PM
Ethylbenzene	ND	1.0		µg/L	1	9/8/2009 6:20:08 PM
Xylenes, Total	ND	2.0		µg/L	1	9/8/2009 6:20:08 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/8/2009 6:20:08 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/8/2009 6:20:08 PM
Surr: 4-Bromofluorobenzene	101	65.9-130		%REC	1	9/8/2009 6:20:08 PM
EPA METHOD 8310: PAHS						Analyst: **JAT**
Naphthalene	ND	2.0		µg/L	1	9/9/2009 6:17:03 PM
1-Methylnaphthalene	ND	2.0		µg/L	1	9/9/2009 6:17:03 PM
2-Methylnaphthalene	ND	2.0		µg/L	1	9/9/2009 6:17:03 PM
Acenaphthylene	ND	2.5		µg/L	1	9/9/2009 6:17:03 PM
Acenaphthene	ND	5.0		µg/L	1	9/9/2009 6:17:03 PM
Fluorene	ND	0.80		µg/L	1	9/9/2009 6:17:03 PM
Phenanthrene	ND	0.60		µg/L	1	9/9/2009 6:17:03 PM
Anthracene	ND	0.60		µg/L	1	9/9/2009 6:17:03 PM
Fluoranthene	ND	0.30		µg/L	1	9/9/2009 6:17:03 PM
Pyrene	ND	0.30		µg/L	1	9/9/2009 6:17:03 PM
Benz(a)anthracene	ND	0.070		µg/L	1	9/9/2009 6:17:03 PM
Chrysene	ND	0.20		µg/L	1	9/9/2009 6:17:03 PM
Benzo(b)fluoranthene	ND	0.10		µg/L	1	9/9/2009 6:17:03 PM
Benzo(k)fluoranthene	ND	0.070		µg/L	1	9/9/2009 6:17:03 PM
Benzo(a)pyrene	ND	0.070		µg/L	1	9/9/2009 6:17:03 PM
Dibenz(a,h)anthracene	ND	0.070		µg/L	1	9/9/2009 6:17:03 PM
Benzo(g,h,i)perylene	ND	0.080		µg/L	1	9/9/2009 6:17:03 PM
Indeno(1,2,3-cd)pyrene	ND	0.080		µg/L	1	9/9/2009 6:17:03 PM
Surr: Benzo(e)pyrene	66.5	28.3-111		%REC	1	9/9/2009 6:17:03 PM
EPA METHOD 300.0: ANIONS						Analyst: **LJB**
Fluoride	0.47	0.10		mg/L	1	9/2/2009 5:09:38 PM
Chloride	1000	10		mg/L	100	9/4/2009 2:55:35 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *11-Sep-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:** ~~NAPIS-3~~ KA-35	
Lab Order:	0909044	**Collection Date:**	8/31/2009 9:58:00 AM
Project:	3rd Qtr NAPIS	**Date Received:**	9/2/2009
Lab ID:	0909044-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **LJB**
Nitrate (As N)+Nitrite (As N)	14	4.0		mg/L	20	9/4/2009 3:13:00 PM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	9/2/2009 5:09:38 PM
Sulfate	ND	10		mg/L	20	9/2/2009 5:27:03 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **DAM**
Specific Conductance	4000	0.010		µmhos/cm	1	9/3/2009 4:29:00 PM
SM4500-H+B: PH						Analyst: **DAM**
pH	8.07	0.1		pH units	1	9/3/2009 4:29:00 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *11-Sep-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:** ~~KA-3~~ NAPIS-3
Lab Order:	0909044	**Collection Date:**	8/31/2009 10:31:00 AM
Project:	3rd Qtr NAPIS	**Date Received:**	9/2/2009
Lab ID:	0909044-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **SCC**
Diesel Range Organics (DRO)	1.4	1.0		mg/L	1	9/3/2009 6:53:54 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	9/3/2009 6:53:54 AM
Surr: DNOP	120	58-140		%REC	1	9/3/2009 6:53:54 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	0.52	0.050		mg/L	1	9/8/2009 7:20:46 PM
Surr: BFB	127	55.2-107	S	%REC	1	9/8/2009 7:20:46 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Methyl tert-butyl ether (MTBE)	170	25		µg/L	10	9/8/2009 6:50:36 PM
Benzene	ND	1.0		µg/L	1	9/8/2009 7:20:46 PM
Toluene	ND	1.0		µg/L	1	9/8/2009 7:20:46 PM
Ethylbenzene	ND	1.0		µg/L	1	9/8/2009 7:20:46 PM
Xylenes, Total	ND	2.0		µg/L	1	9/8/2009 7:20:46 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/8/2009 7:20:46 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/8/2009 7:20:46 PM
Surr: 4-Bromofluorobenzene	107	65.9-130		%REC	1	9/8/2009 7:20:46 PM
EPA METHOD 8310: PAHS						Analyst: **JAT**
Naphthalene	ND	2.0		µg/L	1	9/9/2009 6:37:15 PM
1-Methylnaphthalene	ND	2.0		µg/L	1	9/9/2009 6:37:15 PM
2-Methylnaphthalene	ND	2.0		µg/L	1	9/9/2009 6:37:15 PM
Acenaphthylene	ND	2.5		µg/L	1	9/9/2009 6:37:15 PM
Acenaphthene	ND	5.0		µg/L	1	9/9/2009 6:37:15 PM
Fluorene	ND	0.80		µg/L	1	9/9/2009 6:37:15 PM
Phenanthrene	ND	0.60		µg/L	1	9/9/2009 6:37:15 PM
Anthracene	ND	0.60		µg/L	1	9/9/2009 6:37:15 PM
Fluoranthene	ND	0.30		µg/L	1	9/9/2009 6:37:15 PM
Pyrene	ND	0.30		µg/L	1	9/9/2009 6:37:15 PM
Benz(a)anthracene	ND	0.070		µg/L	1	9/9/2009 6:37:15 PM
Chrysene	ND	0.20		µg/L	1	9/9/2009 6:37:15 PM
Benzo(b)fluoranthene	ND	0.10		µg/L	1	9/9/2009 6:37:15 PM
Benzo(k)fluoranthene	ND	0.070		µg/L	1	9/9/2009 6:37:15 PM
Benzo(a)pyrene	ND	0.070		µg/L	1	9/9/2009 6:37:15 PM
Dibenz(a,h)anthracene	ND	0.070		µg/L	1	9/9/2009 6:37:15 PM
Benzo(g,h,i)perylene	ND	0.080		µg/L	1	9/9/2009 6:37:15 PM
Indeno(1,2,3-cd)pyrene	ND	0.080		µg/L	1	9/9/2009 6:37:15 PM
Surr: Benzo(e)pyrene	40.1	28.3-111		%REC	1	9/9/2009 6:37:15 PM
EPA METHOD 300.0: ANIONS						Analyst: **LJB**
Fluoride	2.4	0.10		mg/L	1	9/2/2009 6:19:17 PM
Chloride	230	2.0		mg/L	20	9/2/2009 6:36:41 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *11-Sep-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	~~KA-3~~ NAPIS-3Q
Lab Order:	0909044	**Collection Date:**	8/31/2009 10:31:00 AM
Project:	3rd Qtr NAPIS	**Date Received:**	9/2/2009
Lab ID:	0909044-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **LJB**
Nitrate (As N)+Nitrite (As N)	ND	2.0		mg/L	10	9/4/2009 1:02:30 AM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	9/2/2009 6:19:17 PM
Sulfate	50	0.50		mg/L	1	9/2/2009 6:19:17 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **DAM**
Specific Conductance	1500	0.010		µmhos/cm	1	9/3/2009 4:37:00 PM
SM4500-H+B: PH						Analyst: **DAM**
pH	7.58	0.1		pH units	1	9/3/2009 4:37:00 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *11-Sep-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	Trip Blank
Lab Order:	0909044	**Collection Date:**	
Project:	3rd Qtr NAPIS	**Date Received:**	9/2/2009
Lab ID:	0909044-03	**Matrix:**	TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	9/8/2009 8:21:12 PM
Surr: BFB	104	55.2-107		%REC	1	9/8/2009 8:21:12 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	9/8/2009 8:21:12 PM
Benzene	ND	1.0		µg/L	1	9/8/2009 8:21:12 PM
Toluene	ND	1.0		µg/L	1	9/8/2009 8:21:12 PM
Ethylbenzene	ND	1.0		µg/L	1	9/8/2009 8:21:12 PM
Xylenes, Total	ND	2.0		µg/L	1	9/8/2009 8:21:12 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/8/2009 8:21:12 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/8/2009 8:21:12 PM
Surr: 4-Bromofluorobenzene	102	65.9-130		%REC	1	9/8/2009 8:21:12 PM

Qualifiers:

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

ENVIRONMENTAL SCIENCE CORP.

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

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

September 10, 2009

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

ESC Sample # : L420901-01

Date Received : September 04, 2009
Description : 0909044

Site ID :

Sample ID : ~~NAPIS~~-3 KA-3

Project # : 0909044

Collected By :
Collection Date : 08/31/09 09:58

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Mercury	BDL	0.00020	mg/l	7470A	09/09/09	1
Arsenic	BDL	0.020	mg/l	6010B	09/09/09	1
Barium	0.092	0.0050	mg/l	6010B	09/09/09	1
Cadmium	BDL	0.0050	mg/l	6010B	09/09/09	1
Calcium	39.	0.50	mg/l	6010B	09/09/09	1
Chromium	BDL	0.010	mg/l	6010B	09/09/09	1
Lead	BDL	0.0050	mg/l	6010B	09/09/09	1
Magnesium	6.4	0.10	mg/l	6010B	09/09/09	1
Potassium	4.0	0.50	mg/l	6010B	09/09/09	1
Selenium	BDL	0.020	mg/l	6010B	09/09/09	1
Silver	BDL	0.010	mg/l	6010B	09/09/09	1
Sodium	870	0.50	mg/l	6010B	09/09/09	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.

Reported: 09/10/09 16:01 Printed: 09/10/09 16:02

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Est. 1970

REPORT OF ANALYSIS

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

September 10, 2009

Date Received : September 04, 2009
Description : 0909044
Sample ID : ~~KA-3~~ NAPIS 3
Collected By :
Collection Date : 08/31/09 10:31

ESC Sample # : L420901-02
Site ID :
Project # : 0909044

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Mercury	BDL	0.00020	mg/l	7470A	09/09/09	1
Arsenic	BDL	0.020	mg/l	6010B	09/09/09	1
Barium	0.22	0.0050	mg/l	6010B	09/09/09	1
Cadmium	BDL	0.0050	mg/l	6010B	09/09/09	1
Calcium	53.	0.50	mg/l	6010B	09/09/09	1
Chromium	BDL	0.010	mg/l	6010B	09/09/09	1
Lead	BDL	0.0050	mg/l	6010B	09/09/09	1
Magnesium	8.9	0.10	mg/l	6010B	09/09/09	1
Potassium	0.73	0.50	mg/l	6010B	09/09/09	1
Selenium	BDL	0.020	mg/l	6010B	09/09/09	1
Silver	BDL	0.010	mg/l	6010B	09/09/09	1
Sodium	330	0.50	mg/l	6010B	09/09/09	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.

Reported: 09/10/09 16:01 Printed: 09/10/09 16:02

ENVIRONMENTAL SCIENCE CORP.

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

Tax I.D. 62-0814289

Est. 1970

Hall Environmental Analysis Laboratory
Anne Thorne
4901 Hawkins NE

Albuquerque, NM 87109

Quality Assurance Report
Level II

L420901

September 10, 2009

Laboratory Blank

Analyte	Result	Units	% Rec	Limit	Batch	Date Analyzed
Mercury	< 0.0002	mg/l			WG439864	09/08/09 12:59
Potassium	< .5	mg/l			WG439934	09/09/09 18:32
Sodium	< .15	mg/l			WG439934	09/09/09 18:32
Arsenic	< .02	mg/l			WG439934	09/08/09 22:26
Barium	< .005	mg/l			WG439934	09/08/09 22:26
Cadmium	< .005	mg/l			WG439934	09/08/09 22:26
Calcium	< .5	mg/l			WG439934	09/08/09 22:26
Chromium	< .01	mg/l			WG439934	09/08/09 22:26
Lead	< .005	mg/l			WG439934	09/08/09 22:26
Magnesium	< .1	mg/l			WG439934	09/08/09 22:26
Selenium	< .02	mg/l			WG439934	09/08/09 22:26
Silver	< .01	mg/l			WG439934	09/08/09 22:26

Duplicate

Analyte	Units	Result	Duplicate	RPD	Limit	Ref Samp	Batch
Mercury	mg/l	0.00	0.00	0.00	20	L420982-04	WG439864
Arsenic	mg/l	0.00	0.00	0.00	20	L420909-06	WG439934
Barium	mg/l	0.00	0.000240	NA	20	L420909-06	WG439934
Cadmium	mg/l	0.00	0.00	0.00	20	L420909-06	WG439934
Calcium	mg/l	0.00	0.315	NA	20	L420909-06	WG439934
Chromium	mg/l	0.00	0.000100	NA	20	L420909-06	WG439934
Lead	mg/l	0.00	0.00126	NA	20	L420909-06	WG439934
Magnesium	mg/l	0.00	0.0973	NA	20	L420909-06	WG439934
Potassium	mg/l	0.681	0.653	4.20	20	L420909-06	WG439934
Selenium	mg/l	0.00	0.00180	NA	20	L420909-06	WG439934
Silver	mg/l	0.00	0.000300	NA	20	L420909-06	WG439934
Sodium	mg/l	8.02	8.09	0.88	20	L420909-06	WG439934

Laboratory Control Sample

Analyte	Units	Known Val	Result	% Rec	Limit	Batch
Mercury	mg/l	0.003	0.00307	102	85-115	WG439864
Arsenic	mg/l	1.13	0.991	87.7	85-115	WG439934
Barium	mg/l	1.13	1.05	92.9	85-115	WG439934
Cadmium	mg/l	1.13	1.04	92.0	85-115	WG439934
Calcium	mg/l	11.3	10.3	91.2	85-115	WG439934
Chromium	mg/l	1.13	1.04	92.0	85-115	WG439934
Lead	mg/l	1.13	1.06	93.8	85-115	WG439934
Magnesium	mg/l	11.3	10.4	92.0	85-115	WG439934
Potassium	mg/l	11.31	11.3	100	85-115	WG439934
Selenium	mg/l	1.13	0.959	84.9*	85-115	WG439934
Silver	mg/l	1.13	1.02	90.3	85-115	WG439934
Sodium	mg/l	11.31	11.6	102	85-115	WG439934

Matrix Spike

Analyte	Units	MS Res	Ref Res	TV	% Rec	Limit	Ref Samp	Batch
Mercury	mg/l	0.00319	0.00	.003	106	70-130	L420982-04	WG439864
Arsenic	mg/l	0.954	0.00	1.13	84.4	75-125	L420909-06	WG439934
Barium	mg/l	1.03	0.00024	1.13	91.1	75-125	L420909-06	WG439934

* Performance of this Analyte is outside of established criteria.
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 3rd Qtr NAPIS **Work Order:** 0909044

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 300.0: Anions											
Sample ID: 0909044-01CMSD		*MSD*				Batch ID:	**R35157**	Analysis Date:		9/2/2009 6:01:52 PM	
Fluoride	0.9447	mg/L	0.10	0.5	0.4669	95.6	75.3	117	4.90	20	
Nitrate (As N)+Nitrite (As N)	20.42	mg/L	0.20	3.5	17.44	85.0	72.5	119	1.06	20	
Phosphorus, Orthophosphate (As P)	4.929	mg/L	0.50	5	0	98.6	74.5	116	7.12	20	
Sample ID: MB		*MBLK*				Batch ID:	**R35157**	Analysis Date:		9/2/2009 4:34:50 PM	
Fluoride	ND	mg/L	0.10								
Chloride	ND	mg/L	0.10								
Nitrate (As N)+Nitrite (As N)	ND	mg/L	0.20								
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50								
Sulfate	ND	mg/L	0.50								
Sample ID: MB		*MBLK*				Batch ID:	**R35172**	Analysis Date:		9/3/2009 2:01:00 PM	
Fluoride	ND	mg/L	0.10								
Chloride	ND	mg/L	0.10								
Nitrate (As N)+Nitrite (As N)	ND	mg/L	0.20								
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50								
Sulfate	ND	mg/L	0.50								
Sample ID: MB		*MBLK*				Batch ID:	**R35195**	Analysis Date:		9/4/2009 11:44:05 AM	
Fluoride	ND	mg/L	0.10								
Chloride	ND	mg/L	0.10								
Nitrate (As N)+Nitrite (As N)	ND	mg/L	0.20								
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50								
Sulfate	ND	mg/L	0.50								
Sample ID: LCS		*LCS*				Batch ID:	**R35157**	Analysis Date:		9/2/2009 4:52:14 PM	
Fluoride	0.5343	mg/L	0.10	0.5	0	107	90	110			
Chloride	4.833	mg/L	0.10	5	0	96.7	90	110			
Nitrate (As N)+Nitrite (As N)	3.426	mg/L	0.20	3.5	0	97.9	90	110			
Phosphorus, Orthophosphate (As P)	5.218	mg/L	0.50	5	0	104	90	110			
Sulfate	10.03	mg/L	0.50	10	0	100	90	110			
Sample ID: LCS		*LCS*				Batch ID:	**R35172**	Analysis Date:		9/3/2009 2:18:24 PM	
Fluoride	0.5550	mg/L	0.10	0.5	0	111	90	110			S
Chloride	4.844	mg/L	0.10	5	0	96.9	90	110			
Nitrate (As N)+Nitrite (As N)	3.436	mg/L	0.20	3.5	0	98.2	90	110			
Phosphorus, Orthophosphate (As P)	4.973	mg/L	0.50	5	0	99.5	90	110			
Sulfate	9.844	mg/L	0.50	10	0	98.4	90	110			
Sample ID: LCS		*LCS*				Batch ID:	**R35195**	Analysis Date:		9/4/2009 12:01:30 PM	
Fluoride	0.5134	mg/L	0.10	0.5	0	103	90	110			
Chloride	4.819	mg/L	0.10	5	0	96.4	90	110			
Nitrate (As N)+Nitrite (As N)	3.427	mg/L	0.20	3.5	0	97.9	90	110			
Phosphorus, Orthophosphate (As P)	4.869	mg/L	0.50	5	0	97.4	90	110			
Sulfate	9.825	mg/L	0.50	10	0	98.3	90	110			
Sample ID: 0909044-01CMS		*MS*				Batch ID:	**R35157**	Analysis Date:		9/2/2009 5:44:28 PM	
Fluoride	0.9922	mg/L	0.10	0.5	0.4669	105	75.3	117			
Nitrate (As N)+Nitrite (As N)	20.20	mg/L	0.20	3.5	17.44	78.8	72.5	119			
Phosphorus, Orthophosphate (As P)	4.590	mg/L	0.50	5	0	91.8	74.5	116			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 3rd Qtr NAPIS **Work Order:** 0909044

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8015B: Diesel Range											
Sample ID: MB-20013		*MBLK*				Batch ID:	**20013**	Analysis Date:		9/2/2009 5:49:37 PM	
Diesel Range Organics (DRO)	ND	mg/L	1.0								
Motor Oil Range Organics (MRO)	ND	mg/L	5.0								
Sample ID: LCS-20013		*LCS*				Batch ID:	**20013**	Analysis Date:		9/2/2009 7:01:15 PM	
Diesel Range Organics (DRO)	4.778	mg/L	1.0	5	0	95.6	74	157			
Sample ID: LCSD-20013		*LCSD*				Batch ID:	**20013**	Analysis Date:		9/2/2009 7:37:12 PM	
Diesel Range Organics (DRO)	4.764	mg/L	1.0	5	0	95.3	74	157	0.289	23	
Method: EPA Method 8015B: Gasoline Range											
Sample ID: 0909044-01A MSD		*MSD*				Batch ID:	**R35219**	Analysis Date:		9/9/2009 3:55:57 AM	
Gasoline Range Organics (GRO)	0.5564	mg/L	0.050	0.5	0	111	80	115	8.82	8.39	R
Sample ID: 5ML RB		*MBLK*				Batch ID:	**R35219**	Analysis Date:		9/8/2009 9:20:48 AM	
Gasoline Range Organics (GRO)	ND	mg/L	0.050								
Sample ID: 2.5UG GRO LCS		*LCS*				Batch ID:	**R35219**	Analysis Date:		9/9/2009 4:26:18 AM	
Gasoline Range Organics (GRO)	0.5232	mg/L	0.050	0.5	0	105	80	115			
Sample ID: 0909044-01A MS		*MS*				Batch ID:	**R35219**	Analysis Date:		9/9/2009 3:25:41 AM	
Gasoline Range Organics (GRO)	0.5094	mg/L	0.050	0.5	0	102	80	115			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 3rd Qtr NAPIS **Work Order:** 0909044

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8021B: Volatiles											
Sample ID: 0909044-01A MSD		*MSD*				Batch ID:	**R35219**	Analysis Date:		9/9/2009 2:24:51 AM	
Methyl tert-butyl ether (MTBE)	20.22	µg/L	2.5	20	0	101	51.2	138	0.208	28	
Benzene	21.26	µg/L	1.0	20	0	106	85.9	113	0.169	27	
Toluene	22.58	µg/L	1.0	20	0	113	86.4	113	0.470	19	
Ethylbenzene	21.97	µg/L	1.0	20	0.082	109	83.5	118	2.20	10	
Xylenes, Total	63.67	µg/L	2.0	60	0	106	83.4	122	0.820	13	
1,2,4-Trimethylbenzene	19.82	µg/L	1.0	20	0	99.1	83.5	115	1.53	21	
1,3,5-Trimethylbenzene	19.34	µg/L	1.0	20	0	96.7	85.2	113	0.155	10	
Sample ID: 5ML RB		*MBLK*				Batch ID:	**R35219**	Analysis Date:		9/8/2009 9:20:48 AM	
Methyl tert-butyl ether (MTBE)	ND	µg/L	2.5								
Benzene	ND	µg/L	1.0								
Toluene	ND	µg/L	1.0								
Ethylbenzene	ND	µg/L	1.0								
Xylenes, Total	ND	µg/L	2.0								
1,2,4-Trimethylbenzene	ND	µg/L	1.0								
1,3,5-Trimethylbenzene	ND	µg/L	1.0								
Sample ID: 100NG BTEX LCS		*LCS*				Batch ID:	**R35219**	Analysis Date:		9/9/2009 2:55:15 AM	
Methyl tert-butyl ether (MTBE)	20.97	µg/L	2.5	20	0	105	51.2	138			
Benzene	21.17	µg/L	1.0	20	0	106	85.9	113			
Toluene	21.76	µg/L	1.0	20	0	109	86.4	113			
Ethylbenzene	21.04	µg/L	1.0	20	0.134	105	83.5	118			
Xylenes, Total	62.33	µg/L	2.0	60	0	104	83.4	122			
1,2,4-Trimethylbenzene	21.00	µg/L	1.0	20	0.132	104	83.5	115			
1,3,5-Trimethylbenzene	19.74	µg/L	1.0	20	0	98.7	85.2	113			
Sample ID: 0909044-01A MS		*MS*				Batch ID:	**R35219**	Analysis Date:		9/9/2009 1:54:30 AM	
Methyl tert-butyl ether (MTBE)	20.18	µg/L	2.5	20	0	101	51.2	138			
Benzene	21.22	µg/L	1.0	20	0	106	85.9	113			
Toluene	22.48	µg/L	1.0	20	0	112	86.4	113			
Ethylbenzene	21.49	µg/L	1.0	20	0.082	107	83.5	118			
Xylenes, Total	63.15	µg/L	2.0	60	0	105	83.4	122			
1,2,4-Trimethylbenzene	19.52	µg/L	1.0	20	0	97.6	83.5	115			
1,3,5-Trimethylbenzene	19.31	µg/L	1.0	20	0	96.5	85.2	113			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 3rd Qtr NAPIS **Work Order:** 0909044

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8310: PAHs											
Sample ID: MB-20037		*MBLK*				Batch ID:	**20037**	Analysis Date:		9/9/2009 5:16:32 PM	
Naphthalene	ND	µg/L	2.0								
1-Methylnaphthalene	ND	µg/L	2.0								
2-Methylnaphthalene	ND	µg/L	2.0								
Acenaphthylene	ND	µg/L	2.5								
Acenaphthene	ND	µg/L	5.0								
Fluorene	ND	µg/L	0.80								
Phenanthrene	ND	µg/L	0.60								
Anthracene	ND	µg/L	0.60								
Fluoranthene	ND	µg/L	0.30								
Pyrene	ND	µg/L	0.30								
Benz(a)anthracene	ND	µg/L	0.070								
Chrysene	ND	µg/L	0.20								
Benzo(b)fluoranthene	ND	µg/L	0.10								
Benzo(k)fluoranthene	ND	µg/L	0.070								
Benzo(a)pyrene	ND	µg/L	0.070								
Dibenz(a,h)anthracene	ND	µg/L	0.070								
Benzo(g,h,i)perylene	ND	µg/L	0.080								
Indeno(1,2,3-cd)pyrene	ND	µg/L	0.080								
Sample ID: LCS-20037		*LCS*				Batch ID:	**20037**	Analysis Date:		9/9/2009 5:36:43 PM	
Naphthalene	38.23	µg/L	2.0	80	0	47.8	20.5	109			
1-Methylnaphthalene	37.76	µg/L	2.0	80.2	0	47.1	23.1	116			
2-Methylnaphthalene	34.08	µg/L	2.0	80	0	42.6	19.5	112			
Acenaphthylene	41.89	µg/L	2.5	80.2	0	52.2	27.5	119			
Acenaphthene	43.97	µg/L	5.0	80	0	55.0	31	117			
Fluorene	3.950	µg/L	0.80	8.02	0	49.3	17.1	109			
Phenanthrene	2.460	µg/L	0.60	4.02	0	61.2	25.5	112			
Anthracene	2.440	µg/L	0.60	4.02	0	60.7	25.8	119			
Fluoranthene	4.970	µg/L	0.30	8.02	0	62.0	27.2	122			
Pyrene	4.510	µg/L	0.30	8.02	0	56.2	24.1	118			
Benz(a)anthracene	0.4700	µg/L	0.070	0.802	0	58.6	31.1	125			
Chrysene	2.350	µg/L	0.20	4.02	0	58.5	32.8	119			
Benzo(b)fluoranthene	0.5500	µg/L	0.10	1.002	0	54.9	24.4	117			
Benzo(k)fluoranthene	0.3000	µg/L	0.070	0.5	0	60.0	28.4	132			
Benzo(a)pyrene	0.2600	µg/L	0.070	0.502	0	51.8	32.4	119			
Dibenz(a,h)anthracene	0.5700	µg/L	0.070	1.002	0	56.9	33.9	120			
Benzo(g,h,i)perylene	0.5600	µg/L	0.080	1	0	56.0	35.2	113			
Indeno(1,2,3-cd)pyrene	1.140	µg/L	0.080	2.004	0	56.9	33.6	115			
Sample ID: LCSD-20037		*LCSD*				Batch ID:	**20037**	Analysis Date:		9/9/2009 5:56:54 PM	
Naphthalene	41.02	µg/L	2.0	80	0	51.3	20.5	109	7.04	32.1	
1-Methylnaphthalene	41.64	µg/L	2.0	80.2	0	51.9	23.1	116	9.77	32.7	
2-Methylnaphthalene	40.22	µg/L	2.0	80	0	50.3	19.5	112	16.5	34	
Acenaphthylene	41.73	µg/L	2.5	80.2	0	52.0	27.5	119	0.383	38.8	
Acenaphthene	46.47	µg/L	5.0	80	0	58.1	31	117	5.53	38.6	
Fluorene	4.170	µg/L	0.80	8.02	0	52.0	17.1	109	5.42	29.3	

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 3rd Qtr NAPIS **Work Order:** 0909044

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8310: PAHs											
Sample ID: LCSD-20037		*LCSD*				Batch ID:	**20037**	Analysis Date:		9/9/2009 5:56:54 PM	
Phenanthrene	2.550	µg/L	0.60	4.02	0	63.4	25.5	112	3.59	25	
Anthracene	2.510	µg/L	0.60	4.02	0	62.4	25.8	119	2.83	23.9	
Fluoranthene	5.510	µg/L	0.30	8.02	0	68.7	27.2	122	10.3	15.7	
Pyrene	5.160	µg/L	0.30	8.02	0	64.3	24.1	118	13.4	15.3	
Benz(a)anthracene	0.4700	µg/L	0.070	0.802	0	58.6	31.1	125	0	19	
Chrysene	2.410	µg/L	0.20	4.02	0	60.0	32.8	119	2.52	16.6	
Benzo(b)fluoranthene	0.5600	µg/L	0.10	1.002	0	55.9	24.4	117	1.80	21.7	
Benzo(k)fluoranthene	0.2900	µg/L	0.070	0.5	0	58.0	28.4	132	3.39	19.4	
Benzo(a)pyrene	0.2000	µg/L	0.070	0.502	0	39.8	32.4	119	26.1	16.7	R
Dibenz(a,h)anthracene	0.4900	µg/L	0.070	1.002	0	48.9	33.9	120	15.1	17.3	
Benzo(g,h,i)perylene	0.4700	µg/L	0.080	1	0	47.0	35.2	113	17.5	18	
Indeno(1,2,3-cd)pyrene	0.9700	µg/L	0.080	2.004	0	48.4	33.6	115	16.1	17.7	

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name **WESTERN REFINING GALLU** Date Received: **9/2/2009**

Work Order Number **0909044** Received by: **ARS**

Checklist completed by: _____ 9/2/09 Sample ID labels checked by: _____
Signature Date Initials

Matrix: Carrier name: UPS

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☑	No ☐	N/A ☑	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☐	No ☑		
Water - VOA vials have zero headspace? No VOA vials submitted ☑		Yes ☐	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☑	No ☐	N/A ☐	
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐	
Container/Temp Blank temperature?	19.7°	*<6° C Acceptable* If given sufficient time to cool.		

Number of preserved bottles checked for pH: 6

(<2) *>12 unless noted below.*

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

Chain-of-Custody Record

Client: Western Refining Gallup Refinery
Mailing Address: Rt 3 Box 17 Gallup, NM 87301
Phone #: 505 722 3833
email or Fax#: 505 722 0210
QA/QC Package: ☒ Standard ☐ Level 4 (Full Validation)
Accreditation ☐ NELAP ☐ Other
☐ EDD (Type)

Turn-Around Time: ☒ Standard ☐ Rush
Project Name: 3rd QTR NAPIS
Project #:
Project Manager: G Rajen
Sampler: Cheryl 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

Date	Time	Matrix	Sample Request ID (00 9/2)	Container Type and #	Preservative Type	HEAL No. 0909041	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals Total 1	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Gen Chem				Air Bubbles (Y or N)
8/31/09	0958	H2O	~~KA 3~~ Napis 3			1	X		X			X	X					X				
8/31/09	1031	H2O	~~NAPIS 3~~ KA 3			2	X		X			X	X					X				
			Trip Blank			3																

Date: 8/31/09 Time: 1138 Relinquished by:
Date: Time: Relinquished by:

Received by:
Date: 9/2/09 Time: 12:20
Received by:
Date: Time:

Remarks: Gen Chem: Cations Anions, pH Conductivity

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

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Wednesday, October 28, 2009

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

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

RE: AL-1, AL-2, EP-1

Order No.: 0909189

Dear Gaurav Rajen:

Hall Environmental Analysis Laboratory, Inc. received 3 sample(s) on 9/10/2009 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman, Laboratory Manager

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

Hall Environmental Analysis Laboratory, Inc.

Date: *28-Oct-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL-1 Inlet
Lab Order:	0909189	**Collection Date:**	9/8/2009 10:45:00 AM
Project:	AL-1, AL-2, EP-1	**Date Received:**	9/10/2009
Lab ID:	0909189-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
4-Chloro-3-methylphenol	ND	50		µg/L	1	9/14/2009 7:53:40 PM
2-Chlorophenol	ND	50		µg/L	1	9/14/2009 7:53:40 PM
2,4-Dichlorophenol	ND	100		µg/L	1	9/14/2009 7:53:40 PM
2,4-Dimethylphenol	ND	50		µg/L	1	9/14/2009 7:53:40 PM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	9/14/2009 7:53:40 PM
2,4-Dinitrophenol	ND	100		µg/L	1	9/14/2009 7:53:40 PM
2-Methylphenol	150	50		µg/L	1	9/14/2009 7:53:40 PM
3+4-Methylphenol	1100	500		µg/L	10	9/14/2009 7:23:38 PM
2-Nitrophenol	ND	50		µg/L	1	9/14/2009 7:53:40 PM
4-Nitrophenol	ND	50		µg/L	1	9/14/2009 7:53:40 PM
Pentachlorophenol	ND	100		µg/L	1	9/14/2009 7:53:40 PM
Phenol	2400	500		µg/L	10	9/14/2009 7:23:38 PM
2,4,5-Trichlorophenol	ND	50		µg/L	1	9/14/2009 7:53:40 PM
2,4,6-Trichlorophenol	ND	50		µg/L	1	9/14/2009 7:53:40 PM
Surr: 2,4,6-Tribromophenol	46.4	16.6-150		%REC	1	9/14/2009 7:53:40 PM
Surr: 2-Fluorobiphenyl	39.3	19.6-134		%REC	1	9/14/2009 7:53:40 PM
Surr: 2-Fluorophenol	18.2	9.54-113		%REC	1	9/14/2009 7:53:40 PM
Surr: 4-Terphenyl-d14	54.1	22.7-145		%REC	1	9/14/2009 7:53:40 PM
Surr: Nitrobenzene-d5	33.0	14.6-134		%REC	1	9/14/2009 7:53:40 PM
Surr: Phenol-d5	17.3	10.7-80.3		%REC	1	9/14/2009 7:53:40 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *28-Oct-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL-2-Inlet
Lab Order:	0909189	**Collection Date:**	9/8/2009 11:10:00 AM
Project:	AL-1, AL-2, EP-1	**Date Received:**	9/10/2009
Lab ID:	0909189-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
4-Chloro-3-methylphenol	ND	50		µg/L	1	9/14/2009 8:53:43 PM
2-Chlorophenol	ND	50		µg/L	1	9/14/2009 8:53:43 PM
2,4-Dichlorophenol	ND	100		µg/L	1	9/14/2009 8:53:43 PM
2,4-Dimethylphenol	98	50		µg/L	1	9/14/2009 8:53:43 PM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	9/14/2009 8:53:43 PM
2,4-Dinitrophenol	ND	100		µg/L	1	9/14/2009 8:53:43 PM
2-Methylphenol	570	50		µg/L	1	9/14/2009 8:53:43 PM
3+4-Methylphenol	1200	500		µg/L	10	9/14/2009 8:23:43 PM
2-Nitrophenol	ND	50		µg/L	1	9/14/2009 8:53:43 PM
4-Nitrophenol	ND	50		µg/L	1	9/14/2009 8:53:43 PM
Pentachlorophenol	ND	100		µg/L	1	9/14/2009 8:53:43 PM
Phenol	890	50		µg/L	1	9/14/2009 8:53:43 PM
2,4,5-Trichlorophenol	ND	50		µg/L	1	9/14/2009 8:53:43 PM
2,4,6-Trichlorophenol	ND	50		µg/L	1	9/14/2009 8:53:43 PM
Surr: 2,4,6-Tribromophenol	18.6	16.6-150		%REC	1	9/14/2009 8:53:43 PM
Surr: 2-Fluorobiphenyl	53.3	19.6-134		%REC	1	9/14/2009 8:53:43 PM
Surr: 2-Fluorophenol	15.8	9.54-113		%REC	10	9/14/2009 8:23:43 PM
Surr: 4-Terphenyl-d14	56.1	22.7-145		%REC	1	9/14/2009 8:53:43 PM
Surr: Nitrobenzene-d5	48.0	14.6-134		%REC	1	9/14/2009 8:53:43 PM
Surr: Phenol-d5	11.6	10.7-80.3		%REC	1	9/14/2009 8:53:43 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *28-Oct-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	EP-1 Inlet
Lab Order:	0909189	**Collection Date:**	9/8/2009 11:30:00 AM
Project:	AL-1, AL-2, EP-1	**Date Received:**	9/10/2009
Lab ID:	0909189-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
4-Chloro-3-methylphenol	ND	50		µg/L	1	9/14/2009 9:53:43 PM
2-Chlorophenol	ND	50		µg/L	1	9/14/2009 9:53:43 PM
2,4-Dichlorophenol	ND	100		µg/L	1	9/14/2009 9:53:43 PM
2,4-Dimethylphenol	160	50		µg/L	1	9/14/2009 9:53:43 PM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	9/14/2009 9:53:43 PM
2,4-Dinitrophenol	ND	100		µg/L	1	9/14/2009 9:53:43 PM
2-Methylphenol	1200	500		µg/L	10	9/14/2009 9:23:44 PM
3+4-Methylphenol	2400	500		µg/L	10	9/14/2009 9:23:44 PM
2-Nitrophenol	ND	50		µg/L	1	9/14/2009 9:53:43 PM
4-Nitrophenol	ND	50		µg/L	1	9/14/2009 9:53:43 PM
Pentachlorophenol	ND	100		µg/L	1	9/14/2009 9:53:43 PM
Phenol	2900	500		µg/L	10	9/14/2009 9:23:44 PM
2,4,5-Trichlorophenol	ND	50		µg/L	1	9/14/2009 9:53:43 PM
2,4,6-Trichlorophenol	ND	50		µg/L	1	9/14/2009 9:53:43 PM
Surr: 2,4,6-Tribromophenol	54.7	16.6-150		%REC	1	9/14/2009 9:53:43 PM
Surr: 2-Fluorobiphenyl	62.5	19.6-134		%REC	1	9/14/2009 9:53:43 PM
Surr: 2-Fluorophenol	44.6	9.54-113		%REC	1	9/14/2009 9:53:43 PM
Surr: 4-Terphenyl-d14	59.8	22.7-145		%REC	1	9/14/2009 9:53:43 PM
Surr: Nitrobenzene-d5	63.5	14.6-134		%REC	1	9/14/2009 9:53:43 PM
Surr: Phenol-d5	36.4	10.7-80.3		%REC	1	9/14/2009 9:53:43 PM

Qualifiers:

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

ARS ANALYTICAL, LLC
4301 Masthead NE | Albuquerque, New Mexico 87109 505.344.3777 | 505.345.8964

Explanation of codes	
E	Result is Estimated
H	Analyzed Out of Hold Time
N	Tentatively Identified Compound
S	Subcontracted
U	Concentration is below MDL
J	Concentration between MDL and RDL
1-9	See Footnote

HALL ENVIRONMENTAL
attn ANDY FREEMAN
4901 HAWKINS NE, SUITE D
ALBUQUERQUE NM 87109-4372

STANDARD

ARS Analytical, LLC

Certificate of Analysis

All samples are reported on an "as received" basis, unless otherwise noted (i.e. - Dry Weight).

Client: **HALL ENVIRONMENTAL**
Project: **0909189**
Order: **09090281 HAL03** Receipt: **09-11-09**

For Elvin J. Chavez: President of ARS Analytical, LLC

Sample: ***0909189-01B AL-1 INLET*** Collected: *09-08-09 10:45:00* By:
Matrix: ***AQUEOUS***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09090281-001A		SM 5220C						By: FAS		
COD09045	WC.2009.2604.7	C-004	Chemical Oxygen Demand	565	mg/L	1	10	H	10-16-09	10-19-09

Sample: ***0909189-01C AL-1 INLET*** Collected: *09-08-09 10:45:00* By:
Matrix: ***AQUEOUS***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09090281-002A		SM 5210B						By: JLE		
BOD090125	WC.2009.2641.6	10-26-4	Biochemical Oxygen Demand	397	mg/L	1	4	1, H	10-16-09	10-21-09

Sample: ***0909189-02B AL-2 INLET*** Collected: *09-08-09 11:10:00* By:
Matrix: ***AQUEOUS***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09090281-003A		SM 5220C						By: FAS		
COD09046	WC.2009.2708.8	C-004	Chemical Oxygen Demand	1,190	mg/L	1	10	H	10-26-09	10-27-09

ARS Analytical, LLC

Certificate of Analysis

All samples are reported on an "as received" basis, unless otherwise noted (i.e. - Dry Weight).

Client: **HALL ENVIRONMENTAL**

Project: **0909189**

Order: **09090281 HAL03** Receipt: **09-11-09**

Sample: ***0909189-02C AL-2 INLET*** Collected: *09-08-09 11:10:00* By:

Matrix: ***AQUEOUS***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09090281-004A		SM 5210B						By: JLE		
BOD090126	WC.2009.2841.7	10-28-4	Biochemical Oxygen Demand	406	mg/L	1	4	1, H	10-16-09	10-21-09

Sample: ***0909189-03B EP-1 INLET*** Collected: *09-08-09 11:30:00* By:

Matrix: ***AQUEOUS***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09090281-005A		SM 5220C						By: FAS		
COD09039	WC.2009.2468.11	C-004	Chemical Oxygen Demand	667	mg/L	1	10		09-30-09	10-01-09

Sample: ***0909189-03C EP-1 INLET*** Collected: *09-08-09 11:30:00* By:

Matrix: ***AQUEOUS***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09090281-006A		SM 5210B						By: JLE		
BOD090112	WC.2009.2316.16	10-28-4	Biochemical Oxygen Demand	109	mg/L	1	4	H	09-11-09	09-16-09

Unless otherwise noted, all samples were received in acceptable condition and all sampling was performed by client or client representative. Sample result of ND indicates Not Detected, ie result is less than the sample specific Detection Limit. Sample specific Detection Limit is determined by multiplying the sample Dilution Factor by the listed Reporting Detection Limit. All results relate only to the items tested. Any miscellaneous workorder information or footnotes will appear below.

Analytical results are not corrected for method blank or field blank contamination.

1 The LCS/LCSD failed low. This is attributed to seasonal changes. Adjustments are being made to the seed concentration to accommodate these changes. All other QC results were within range, validating the system performance. All results are valid as reported.

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: AL-1, AL-2, EP-1 **Work Order:** 0909189

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8270C: Semivolatiles											
Sample ID: mb-20089		*MBLK*				Batch ID:	**20089**	Analysis Date:	9/14/2009 1:25:38 PM		
4-Chloro-3-methylphenol	ND	µg/L	10								
2-Chlorophenol	ND	µg/L	10								
2,4-Dichlorophenol	ND	µg/L	20								
2,4-Dimethylphenol	ND	µg/L	10								
4,6-Dinitro-2-methylphenol	ND	µg/L	20								
2,4-Dinitrophenol	ND	µg/L	20								
2-Methylphenol	ND	µg/L	10								
3+4-Methylphenol	ND	µg/L	10								
2-Nitrophenol	ND	µg/L	10								
4-Nitrophenol	ND	µg/L	10								
Pentachlorophenol	ND	µg/L	20								
Phenol	ND	µg/L	10								
2,4,5-Trichlorophenol	ND	µg/L	10								
2,4,6-Trichlorophenol	ND	µg/L	10								
Sample ID: lcs-20089		*LCS*				Batch ID:	**20089**	Analysis Date:	9/14/2009 1:55:20 PM		
4-Chloro-3-methylphenol	108.8	µg/L	10	200	0	54.4	26.5	101			
2-Chlorophenol	97.30	µg/L	10	200	0	48.7	27.5	88.7			
4-Nitrophenol	62.52	µg/L	10	200	0	31.3	6.78	74.7			
Pentachlorophenol	111.0	µg/L	20	200	3.68	53.7	14.8	113			
Phenol	58.00	µg/L	10	200	0	29.0	17	53.4			

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name **WESTERN REFINING GALLU** Date Received: **9/10/2009**

Work Order Number **0909189** Received by: **TLS**

Checklist completed by: _____ 9/10/09 Sample ID labels checked by: TJ
Signature Date Initials

Matrix: Carrier name: UPS

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	N/A ☑	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Water - VOA vials have zero headspace? No VOA vials submitted ☑		Yes ☐	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☑	No ☐	N/A ☐	
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐	
Container/Temp Blank temperature?	**3.1°**	*<6° C Acceptable* If given sufficient time to cool.		

Number of preserved bottles checked for pH: 4

(<2 >12 unless noted below.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: 0909189-03A Sample for 8270 is preserved with H_2SO_4 Sample should be unpreserved. TJ 9/10/09

Corrective Action _____

Chain-of-Custody Record

Client: WESTERN REFINING
GALLUP REFINERY
Mailing Address: RT 3 Box 9
GALLUP NM 87301
Phone #:
email or Fax#:
QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)
☐ Other
☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: AL-1, AL-2, EP-1
Project #:
Project Manager: GAURAV RAJEN
Sampler: ALVIN DORSEY
On Ice: ☒ Yes ☐ No
Sample Temperature: 5°

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 0909199
9-8-09	1045	AQ	AL-1 INLET	1-1000ml	—	1
9-8-09	1045		AL-1 INLET	1-500ml	H_2SO_4	1
9-8-09	1045		AL-1 INLET	1-LITER	—	1
9-8-09	1110		AL-2 INLET	1-1000ml	—	2
9-8-09	1110		AL-2 INLET	1-500ml	H_2SO_4	2
9-8-09	1110		AL-2 INLET	1-LITER	—	2
9-8-09	1130		EP-1 INLET	1-1000ml	—	3
9-8-09	1130		EP-1 INLET	1-500ml	H_2SO_4	3
9-8-09	1130		EP-1 INLET	1-LITER	—	3

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	BOD	COD	8270 PHENOL		Air Bubbles (Y or N)
											X				
												X			
													X		
											X				
												X			
													X		
											X				
												X			
													X		

Date:	Time:	Relinquished by:	Received by:	Date	Time
9-9-09	1200			9/10/09	1005
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

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

Semi-Annual

(5)

EP1-IN, BW In to EP1

HALL ENVIRONMENTAL ANALYSIS LABORATORY

COVER LETTER

Wednesday, November 11, 2009

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

TEL: (505) 722-0227
FAX (505) 722-0210

RE: 2009 Semi-Annual Samples

Order No.: 0910505

Dear Gaurav Rajen:

Hall Environmental Analysis Laboratory, Inc. received 2 sample(s) on 10/28/2009 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman, Laboratory Manager

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

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

Hall Environmental Analysis Laboratory, Inc.

Date: *11-Nov-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	EPI-IN
Lab Order:	0910505	**Collection Date:**	10/27/2009 8:35:00 AM
Project:	2009 Semi-Annual Samples	**Date Received:**	10/28/2009
Lab ID:	0910505-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **SCC**
Diesel Range Organics (DRO)	29	3.0		mg/L	1	11/4/2009 2:51:07 AM
Motor Oil Range Organics (MRO)	22	15		mg/L	1	11/4/2009 2:51:07 AM
Surr: DNOP	108	58-140		%REC	1	11/4/2009 2:51:07 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **DAM**
Gasoline Range Organics (GRO)	0.83	0.25		mg/L	5	10/30/2009 12:00:50 PM
Surr: BFB	102	55.2-107		%REC	5	10/30/2009 12:00:50 PM
EPA METHOD 300.0: ANIONS						Analyst: **TAF**
Fluoride	120	5.0		mg/L	50	10/31/2009 6:25:21 PM
Chloride	250	2.0		mg/L	20	10/29/2009 1:10:12 AM
Nitrogen, Nitrite (As N)	0.80	0.50		mg/L	5	10/29/2009 12:52:47 AM
Bromide	1.3	0.50		mg/L	5	10/29/2009 12:52:47 AM
Nitrogen, Nitrate (As N)	0.68	0.50		mg/L	5	10/29/2009 12:52:47 AM
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	10/29/2009 12:52:47 AM
Sulfate	310	10		mg/L	20	10/29/2009 1:10:12 AM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **RAGS**
Barium	0.30	0.010		mg/L	1	11/2/2009 7:38:53 PM
Cadmium	ND	0.0020		mg/L	1	11/2/2009 7:38:53 PM
Calcium	43	0.50		mg/L	1	11/2/2009 7:38:53 PM
Chromium	0.0073	0.0060		mg/L	1	11/2/2009 7:38:53 PM
Copper	0.020	0.0060		mg/L	1	11/2/2009 7:38:53 PM
Iron	4.0	0.25		mg/L	5	11/2/2009 7:47:00 PM
Lead	0.0064	0.0050		mg/L	1	11/2/2009 7:38:53 PM
Magnesium	14	0.50		mg/L	1	11/2/2009 7:38:53 PM
Manganese	0.13	0.0020		mg/L	1	11/2/2009 7:38:53 PM
Potassium	26	1.0		mg/L	1	11/2/2009 7:38:53 PM
Silver	ND	0.0050		mg/L	1	11/2/2009 7:38:53 PM
Sodium	480	5.0		mg/L	10	11/3/2009 1:46:07 PM
Zinc	0.47	0.020		mg/L	1	11/2/2009 7:38:53 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	50		µg/L	1	11/2/2009 11:03:57 PM
Acenaphthylene	ND	50		µg/L	1	11/2/2009 11:03:57 PM
Aniline	160	50		µg/L	1	11/2/2009 11:03:57 PM
Anthracene	ND	50		µg/L	1	11/2/2009 11:03:57 PM
Azobenzene	ND	50		µg/L	1	11/2/2009 11:03:57 PM
Benz(a)anthracene	ND	50		µg/L	1	11/2/2009 11:03:57 PM
Benzo(a)pyrene	ND	50		µg/L	1	11/2/2009 11:03:57 PM
Benzo(b)fluoranthene	ND	50		µg/L	1	11/2/2009 11:03:57 PM
Benzo(g,h,i)perylene	ND	50		µg/L	1	11/2/2009 11:03:57 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *11-Nov-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	EPI-IN
Lab Order:	0910505	**Collection Date:**	10/27/2009 8:35:00 AM
Project:	2009 Semi-Annual Samples	**Date Received:**	10/28/2009
Lab ID:	0910505-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Benzo(k)fluoranthene	ND	50		µg/L	1	11/2/2009 11:03:57 PM
Benzoic acid	ND	100		µg/L	1	11/2/2009 11:03:57 PM
Benzyl alcohol	ND	50		µg/L	1	11/2/2009 11:03:57 PM
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	11/2/2009 11:03:57 PM
Bis(2-chloroethyl)ether	ND	50		µg/L	1	11/2/2009 11:03:57 PM
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	11/2/2009 11:03:57 PM
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	11/2/2009 11:03:57 PM
4-Bromophenyl phenyl ether	ND	50		µg/L	1	11/2/2009 11:03:57 PM
Butyl benzyl phthalate	ND	50		µg/L	1	11/2/2009 11:03:57 PM
Carbazole	ND	50		µg/L	1	11/2/2009 11:03:57 PM
4-Chloro-3-methylphenol	ND	50		µg/L	1	11/2/2009 11:03:57 PM
4-Chloroaniline	ND	50		µg/L	1	11/2/2009 11:03:57 PM
2-Chloronaphthalene	ND	50		µg/L	1	11/2/2009 11:03:57 PM
2-Chlorophenol	ND	50		µg/L	1	11/2/2009 11:03:57 PM
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	11/2/2009 11:03:57 PM
Chrysene	ND	50		µg/L	1	11/2/2009 11:03:57 PM
Di-n-butyl phthalate	ND	50		µg/L	1	11/2/2009 11:03:57 PM
Di-n-octyl phthalate	ND	50		µg/L	1	11/2/2009 11:03:57 PM
Dibenz(a,h)anthracene	ND	50		µg/L	1	11/2/2009 11:03:57 PM
Dibenzofuran	ND	50		µg/L	1	11/2/2009 11:03:57 PM
1,2-Dichlorobenzene	ND	50		µg/L	1	11/2/2009 11:03:57 PM
1,3-Dichlorobenzene	ND	50		µg/L	1	11/2/2009 11:03:57 PM
1,4-Dichlorobenzene	ND	50		µg/L	1	11/2/2009 11:03:57 PM
3,3'-Dichlorobenzidine	ND	50		µg/L	1	11/2/2009 11:03:57 PM
Diethyl phthalate	ND	50		µg/L	1	11/2/2009 11:03:57 PM
Dimethyl phthalate	ND	50		µg/L	1	11/2/2009 11:03:57 PM
2,4-Dichlorophenol	ND	100		µg/L	1	11/2/2009 11:03:57 PM
2,4-Dimethylphenol	65	50		µg/L	1	11/2/2009 11:03:57 PM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	11/2/2009 11:03:57 PM
2,4-Dinitrophenol	ND	100		µg/L	1	11/2/2009 11:03:57 PM
2,4-Dinitrotoluene	ND	50		µg/L	1	11/2/2009 11:03:57 PM
2,6-Dinitrotoluene	ND	50		µg/L	1	11/2/2009 11:03:57 PM
Fluoranthene	ND	50		µg/L	1	11/2/2009 11:03:57 PM
Fluorene	ND	50		µg/L	1	11/2/2009 11:03:57 PM
Hexachlorobenzene	ND	50		µg/L	1	11/2/2009 11:03:57 PM
Hexachlorobutadiene	ND	50		µg/L	1	11/2/2009 11:03:57 PM
Hexachlorocyclopentadiene	ND	50		µg/L	1	11/2/2009 11:03:57 PM
Hexachloroethane	ND	50		µg/L	1	11/2/2009 11:03:57 PM
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	11/2/2009 11:03:57 PM
Isophorone	ND	50		µg/L	1	11/2/2009 11:03:57 PM
2-Methylnaphthalene	ND	50		µg/L	1	11/2/2009 11:03:57 PM
2-Methylphenol	1100	500		µg/L	10	11/2/2009 10:34:56 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *11-Nov-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	EPI-IN
Lab Order:	0910505	**Collection Date:**	10/27/2009 8:35:00 AM
Project:	2009 Semi-Annual Samples	**Date Received:**	10/28/2009
Lab ID:	0910505-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3+4-Methylphenol	3900	500		µg/L	10	11/2/2009 10:34:56 PM
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	11/2/2009 11:03:57 PM
N-Nitrosodimethylamine	ND	50		µg/L	1	11/2/2009 11:03:57 PM
N-Nitrosodiphenylamine	ND	50		µg/L	1	11/2/2009 11:03:57 PM
Naphthalene	ND	50		µg/L	1	11/2/2009 11:03:57 PM
2-Nitroaniline	ND	50		µg/L	1	11/2/2009 11:03:57 PM
3-Nitroaniline	ND	50		µg/L	1	11/2/2009 11:03:57 PM
4-Nitroaniline	ND	50		µg/L	1	11/2/2009 11:03:57 PM
Nitrobenzene	ND	50		µg/L	1	11/2/2009 11:03:57 PM
2-Nitrophenol	ND	50		µg/L	1	11/2/2009 11:03:57 PM
4-Nitrophenol	ND	50		µg/L	1	11/2/2009 11:03:57 PM
Pentachlorophenol	ND	100		µg/L	1	11/2/2009 11:03:57 PM
Phenanthrene	78	50		µg/L	1	11/2/2009 11:03:57 PM
Phenol	2100	500		µg/L	10	11/2/2009 10:34:56 PM
Pyrene	ND	50		µg/L	1	11/2/2009 11:03:57 PM
Pyridine	ND	50		µg/L	1	11/2/2009 11:03:57 PM
1,2,4-Trichlorobenzene	ND	50		µg/L	1	11/2/2009 11:03:57 PM
2,4,5-Trichlorophenol	ND	50		µg/L	1	11/2/2009 11:03:57 PM
2,4,6-Trichlorophenol	ND	50		µg/L	1	11/2/2009 11:03:57 PM
Surr: 2,4,6-Tribromophenol	77.6	16.6-150		%REC	1	11/2/2009 11:03:57 PM
Surr: 2-Fluorobiphenyl	63.5	19.6-134		%REC	1	11/2/2009 11:03:57 PM
Surr: 2-Fluorophenol	48.0	9.54-113		%REC	1	11/2/2009 11:03:57 PM
Surr: 4-Terphenyl-d14	60.9	22.7-145		%REC	1	11/2/2009 11:03:57 PM
Surr: Nitrobenzene-d5	62.8	14.6-134		%REC	1	11/2/2009 11:03:57 PM
Surr: Phenol-d5	44.6	10.7-80.3		%REC	1	11/2/2009 11:03:57 PM
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
Benzene	ND	5.0		µg/L	5	11/6/2009 8:54:21 PM
Toluene	ND	5.0		µg/L	5	11/6/2009 8:54:21 PM
Ethylbenzene	ND	5.0		µg/L	5	11/6/2009 8:54:21 PM
Methyl tert-butyl ether (MTBE)	ND	5.0		µg/L	5	11/6/2009 8:54:21 PM
1,2,4-Trimethylbenzene	ND	5.0		µg/L	5	11/6/2009 8:54:21 PM
1,3,5-Trimethylbenzene	ND	5.0		µg/L	5	11/6/2009 8:54:21 PM
1,2-Dichloroethane (EDC)	ND	5.0		µg/L	5	11/6/2009 8:54:21 PM
1,2-Dibromoethane (EDB)	ND	5.0		µg/L	5	11/6/2009 8:54:21 PM
Naphthalene	ND	10		µg/L	5	11/6/2009 8:54:21 PM
1-Methylnaphthalene	29	20		µg/L	5	11/6/2009 8:54:21 PM
2-Methylnaphthalene	40	20		µg/L	5	11/6/2009 8:54:21 PM
Acetone	1200	200		µg/L	20	11/6/2009 8:26:34 PM
Bromobenzene	ND	5.0		µg/L	5	11/6/2009 8:54:21 PM
Bromodichloromethane	ND	5.0		µg/L	5	11/6/2009 8:54:21 PM
Bromoform	ND	5.0		µg/L	5	11/6/2009 8:54:21 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *11-Nov-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	EPI-IN
Lab Order:	0910505	**Collection Date:**	10/27/2009 8:35:00 AM
Project:	2009 Semi-Annual Samples	**Date Received:**	10/28/2009
Lab ID:	0910505-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Bromomethane	ND	5.0		µg/L	5	11/6/2009 8:54:21 PM
2-Butanone	120	50		µg/L	5	11/6/2009 8:54:21 PM
Carbon disulfide	ND	50		µg/L	5	11/6/2009 8:54:21 PM
Carbon Tetrachloride	ND	5.0		µg/L	5	11/6/2009 8:54:21 PM
Chlorobenzene	ND	5.0		µg/L	5	11/6/2009 8:54:21 PM
Chloroethane	ND	10		µg/L	5	11/6/2009 8:54:21 PM
Chloroform	ND	5.0		µg/L	5	11/6/2009 8:54:21 PM
Chloromethane	ND	5.0		µg/L	5	11/6/2009 8:54:21 PM
2-Chlorotoluene	ND	5.0		µg/L	5	11/6/2009 8:54:21 PM
4-Chlorotoluene	ND	5.0		µg/L	5	11/6/2009 8:54:21 PM
cis-1,2-DCE	ND	5.0		µg/L	5	11/6/2009 8:54:21 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	5	11/6/2009 8:54:21 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	5	11/6/2009 8:54:21 PM
Dibromochloromethane	ND	5.0		µg/L	5	11/6/2009 8:54:21 PM
Dibromomethane	ND	5.0		µg/L	5	11/6/2009 8:54:21 PM
1,2-Dichlorobenzene	ND	5.0		µg/L	5	11/6/2009 8:54:21 PM
1,3-Dichlorobenzene	ND	5.0		µg/L	5	11/6/2009 8:54:21 PM
1,4-Dichlorobenzene	ND	5.0		µg/L	5	11/6/2009 8:54:21 PM
Dichlorodifluoromethane	ND	5.0		µg/L	5	11/6/2009 8:54:21 PM
1,1-Dichloroethane	ND	5.0		µg/L	5	11/6/2009 8:54:21 PM
1,1-Dichloroethene	ND	5.0		µg/L	5	11/6/2009 8:54:21 PM
1,2-Dichloropropane	ND	5.0		µg/L	5	11/6/2009 8:54:21 PM
1,3-Dichloropropane	ND	5.0		µg/L	5	11/6/2009 8:54:21 PM
2,2-Dichloropropane	ND	10		µg/L	5	11/6/2009 8:54:21 PM
1,1-Dichloropropene	ND	5.0		µg/L	5	11/6/2009 8:54:21 PM
Hexachlorobutadiene	ND	5.0		µg/L	5	11/6/2009 8:54:21 PM
2-Hexanone	ND	50		µg/L	5	11/6/2009 8:54:21 PM
Isopropylbenzene	ND	5.0		µg/L	5	11/6/2009 8:54:21 PM
4-Isopropyltoluene	ND	5.0		µg/L	5	11/6/2009 8:54:21 PM
4-Methyl-2-pentanone	ND	50		µg/L	5	11/6/2009 8:54:21 PM
Methylene Chloride	ND	15		µg/L	5	11/6/2009 8:54:21 PM
n-Butylbenzene	ND	5.0		µg/L	5	11/6/2009 8:54:21 PM
n-Propylbenzene	ND	5.0		µg/L	5	11/6/2009 8:54:21 PM
sec-Butylbenzene	ND	5.0		µg/L	5	11/6/2009 8:54:21 PM
Styrene	ND	5.0		µg/L	5	11/6/2009 8:54:21 PM
tert-Butylbenzene	ND	5.0		µg/L	5	11/6/2009 8:54:21 PM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	5	11/6/2009 8:54:21 PM
1,1,2,2-Tetrachloroethane	ND	10		µg/L	5	11/6/2009 8:54:21 PM
Tetrachloroethene (PCE)	ND	5.0		µg/L	5	11/6/2009 8:54:21 PM
trans-1,2-DCE	ND	5.0		µg/L	5	11/6/2009 8:54:21 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	5	11/6/2009 8:54:21 PM
1,2,3-Trichlorobenzene	ND	5.0		µg/L	5	11/6/2009 8:54:21 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *11-Nov-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	EPI-IN
Lab Order:	0910505	**Collection Date:**	10/27/2009 8:35:00 AM
Project:	2009 Semi-Annual Samples	**Date Received:**	10/28/2009
Lab ID:	0910505-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
1,2,4-Trichlorobenzene	ND	5.0		µg/L	5	11/6/2009 8:54:21 PM
1,1,1-Trichloroethane	ND	5.0		µg/L	5	11/6/2009 8:54:21 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	5	11/6/2009 8:54:21 PM
Trichloroethene (TCE)	ND	5.0		µg/L	5	11/6/2009 8:54:21 PM
Trichlorofluoromethane	ND	5.0		µg/L	5	11/6/2009 8:54:21 PM
1,2,3-Trichloropropane	ND	10		µg/L	5	11/6/2009 8:54:21 PM
Vinyl chloride	ND	5.0		µg/L	5	11/6/2009 8:54:21 PM
Xylenes, Total	ND	7.5		µg/L	5	11/6/2009 8:54:21 PM
Surr: 1,2-Dichloroethane-d4	95.4	54.6-141		%REC	5	11/6/2009 8:54:21 PM
Surr: 4-Bromofluorobenzene	111	60.1-133		%REC	5	11/6/2009 8:54:21 PM
Surr: Dibromofluoromethane	96.3	78.5-130		%REC	5	11/6/2009 8:54:21 PM
Surr: Toluene-d8	101	79.5-126		%REC	5	11/6/2009 8:54:21 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **DAM**
Specific Conductance	2600	0.010		µmhos/cm	1	11/2/2009 2:31:00 AM
SM4500-H+B: PH						Analyst: **DAM**
pH	7.76	0.1		pH units	1	11/2/2009 2:31:00 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *11-Nov-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	BWIN to EP2
Lab Order:	0910505	**Collection Date:**	10/27/2009 8:50:00 AM
Project:	2009 Semi-Annual Samples	**Date Received:**	10/28/2009
Lab ID:	0910505-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **TAF**
Fluoride	0.39	0.10		mg/L	1	10/29/2009 1:27:36 AM
Chloride	37	2.0		mg/L	20	10/29/2009 1:45:01 AM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	10/29/2009 1:27:36 AM
Bromide	1.3	0.10		mg/L	1	10/29/2009 1:27:36 AM
Nitrogen, Nitrate (As N)	0.12	0.10		mg/L	1	10/29/2009 1:27:36 AM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	10/29/2009 1:27:36 AM
Sulfate	630	10		mg/L	20	10/29/2009 1:45:01 AM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **RAGS**
Calcium	0.80	0.50		mg/L	1	11/2/2009 7:42:52 PM
Magnesium	ND	0.50		mg/L	1	11/2/2009 7:42:52 PM
Potassium	4.6	1.0		mg/L	1	11/2/2009 7:42:52 PM
Sodium	480	2.5		mg/L	5	11/2/2009 8:01:06 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **DAM**
Specific Conductance	1900	0.010		µmhos/cm	1	11/2/2009 2:40:00 AM
SM4500-H+B: PH						Analyst: **DAM**
pH	8.35	0.1		pH units	1	11/2/2009 2:40:00 AM

Qualifiers:

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

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: 0910505
Pace Project No.: 10115877

Sample: 0910505-01E **Lab ID: 10115877001** Collected: 10/27/09 08:35 Received: 10/29/09 09:48 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS	Analytical Method: EPA 6020 Preparation Method: EPA 3020							
Arsenic	**0.0098**	mg/L	0.0050	5	11/02/09 12:41	11/05/09 01:44	7440-38-2	
Selenium	**0.027**	mg/L	0.0050	5	11/02/09 12:41	11/05/09 01:44	7782-49-2	
Thallium	ND	mg/L	0.0050	5	11/02/09 12:41	11/05/09 01:44	7440-28-0	D3

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: 0910505
Pace Project No.: 10115877

QC Batch: MPRP/18053
QC Batch Method: EPA 3020
Analysis Method: EPA 6020
Analysis Description: 6020 MET
Associated Lab Samples: 10115877001

METHOD BLANK: 705983 Matrix: Water
Associated Lab Samples: 10115877001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.0010	11/04/09 20:34	
Selenium	mg/L	ND	0.0010	11/04/09 20:34	
Thallium	mg/L	ND	0.0010	11/04/09 20:34	

LABORATORY CONTROL SAMPLE: 705984

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	.08	0.075	94	85-115	
Selenium	mg/L	.08	0.076	95	85-115	
Thallium	mg/L	.08	0.076	95	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 705985 705986

Parameter	Units	10115640007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/L	0.00071	.08	.08	0.078	0.087	96	108	70-130	12	20	
Selenium	mg/L	0.0033	.08	.08	0.080	0.088	96	106	70-130	9	20	
Thallium	mg/L	<0.00025	.08	.08	0.074	0.082	93	102	70-130	10	20	

MATRIX SPIKE SAMPLE: 705987

Parameter	Units	10115880001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	5.8 ug/L	.08	0.081	94	70-130	
Selenium	mg/L	0.010	.08	0.084	92	70-130	
Thallium	mg/L	ND	.08	0.077	97	70-130	

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALIFIERS

Project: 0910505
Pace Project No.: 10115877

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

U - Indicates the compound was analyzed for, but not detected.

ANALYTE QUALIFIERS

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Semi-Annual Samples **Work Order:** 0910505

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 300.0: Anions											
Sample ID: MB		*MBLK*				Batch ID:	**R35925**	Analysis Date:	10/28/2009 10:39:49 AM		
Fluoride	ND	mg/L	0.10								
Chloride	ND	mg/L	0.10								
Nitrogen, Nitrite (As N)	ND	mg/L	0.10								
Bromide	ND	mg/L	0.10								
Nitrogen, Nitrate (As N)	ND	mg/L	0.10								
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50								
Sulfate	ND	mg/L	0.50								
Sample ID: MB		*MBLK*				Batch ID:	**R35951**	Analysis Date:	10/29/2009 1:13:41 PM		
Fluoride	ND	mg/L	0.10								
Chloride	ND	mg/L	0.10								
Nitrogen, Nitrite (As N)	ND	mg/L	0.10								
Bromide	ND	mg/L	0.10								
Nitrogen, Nitrate (As N)	ND	mg/L	0.10								
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50								
Sulfate	ND	mg/L	0.50								
Sample ID: MB		*MBLK*				Batch ID:	**R35966**	Analysis Date:	10/31/2009 12:54:35 PM		
Fluoride	ND	mg/L	0.10								
Chloride	ND	mg/L	0.10								
Nitrogen, Nitrite (As N)	ND	mg/L	0.10								
Bromide	ND	mg/L	0.10								
Nitrogen, Nitrate (As N)	ND	mg/L	0.10								
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50								
Sulfate	ND	mg/L	0.50								
Sample ID: LCS		*LCS*				Batch ID:	**R35925**	Analysis Date:	10/28/2009 10:57:13 AM		
Fluoride	0.5308	mg/L	0.10	0.5	0	106	90	110			
Chloride	5.050	mg/L	0.10	5	0	101	90	110			
Nitrogen, Nitrite (As N)	0.9788	mg/L	0.10	1	0	97.9	90	110			
Bromide	2.558	mg/L	0.10	2.5	0	102	90	110			
Nitrogen, Nitrate (As N)	2.577	mg/L	0.10	2.5	0	103	90	110			
Phosphorus, Orthophosphate (As P)	4.973	mg/L	0.50	5	0	99.5	90	110			
Sulfate	10.21	mg/L	0.50	10	0	102	90	110			
Sample ID: LCS		*LCS*				Batch ID:	**R35951**	Analysis Date:	10/29/2009 1:31:06 PM		
Fluoride	0.5407	mg/L	0.10	0.5	0	108	90	110			
Chloride	5.182	mg/L	0.10	5	0	104	90	110			
Nitrogen, Nitrite (As N)	1.050	mg/L	0.10	1	0	105	90	110			
Bromide	2.676	mg/L	0.10	2.5	0	107	90	110			
Nitrogen, Nitrate (As N)	2.566	mg/L	0.10	2.5	0	103	90	110			
Phosphorus, Orthophosphate (As P)	5.241	mg/L	0.50	5	0	105	90	110			
Sulfate	10.27	mg/L	0.50	10	0	103	90	110			
Sample ID: LCS-b		*LCS*				Batch ID:	**R35966**	Analysis Date:	10/31/2009 4:23:29 PM		
Fluoride	0.5222	mg/L	0.10	0.5	0	104	90	110			
Chloride	4.975	mg/L	0.10	5	0	99.5	90	110			
Nitrogen, Nitrite (As N)	0.9688	mg/L	0.10	1	0	96.9	90	110			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Semi-Annual Samples **Work Order:** 0910505

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 300.0: Anions											
Sample ID: LCS-b		*LCS*				Batch ID:	**R35966**	Analysis Date:	10/31/2009 4:23:29 PM		
Bromide	2.510	mg/L	0.10	2.5	0	100	90	110			
Nitrogen, Nitrate (As N)	2.554	mg/L	0.10	2.5	0	102	90	110			
Phosphorus, Orthophosphate (As P)	5.114	mg/L	0.50	5	0	102	90	110			
Sulfate	10.23	mg/L	0.50	10	0	102	90	110			
Sample ID: LCSD		*LCS*				Batch ID:	**R35966**	Analysis Date:	10/31/2009 4:40:54 PM		
Fluoride	0.5595	mg/L	0.10	0.5	0	112	90	110			S
Chloride	5.135	mg/L	0.10	5	0	103	90	110			
Nitrogen, Nitrite (As N)	0.9841	mg/L	0.10	1	0	98.4	90	110			
Bromide	2.619	mg/L	0.10	2.5	0	105	90	110			
Nitrogen, Nitrate (As N)	2.637	mg/L	0.10	2.5	0	105	90	110			
Phosphorus, Orthophosphate (As P)	5.078	mg/L	0.50	5	0	102	90	110			
Sulfate	10.39	mg/L	0.50	10	0	104	90	110			
Method: EPA Method 8015B: Diesel Range											
Sample ID: MB-20510		*MBLK*				Batch ID:	**20510**	Analysis Date:	11/3/2009 10:05:29 PM		
Diesel Range Organics (DRO)	ND	mg/L	1.0								
Motor Oil Range Organics (MRO)	ND	mg/L	5.0								
Sample ID: LCS-20510		*LCS*				Batch ID:	**20510**	Analysis Date:	11/3/2009 10:41:27 PM		
Diesel Range Organics (DRO)	5.500	mg/L	1.0	5	0	110	74	157			
Method: EPA Method 8015B: Gasoline Range											
Sample ID: 5ML RB		*MBLK*				Batch ID:	**R35952**	Analysis Date:	10/29/2009 8:23:42 AM		
Gasoline Range Organics (GRO)	ND	mg/L	0.050								
Sample ID: 2.5UG GRO LCS		*LCS*				Batch ID:	**R35952**	Analysis Date:	10/29/2009 9:37:59 PM		
Gasoline Range Organics (GRO)	0.4842	mg/L	0.050	0.5	0	96.8	80	115			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Semi-Annual Samples **Work Order:** 0910505

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES											
Sample ID: 5ml rb		*MBLK*				Batch ID: **R36078**		Analysis Date:	11/6/2009 9:22:58 AM		
Benzene	ND	µg/L	1.0								
Toluene	ND	µg/L	1.0								
Ethylbenzene	ND	µg/L	1.0								
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0								
1,2,4-Trimethylbenzene	ND	µg/L	1.0								
1,3,5-Trimethylbenzene	ND	µg/L	1.0								
1,2-Dichloroethane (EDC)	ND	µg/L	1.0								
1,2-Dibromoethane (EDB)	ND	µg/L	1.0								
Naphthalene	ND	µg/L	2.0								
1-Methylnaphthalene	ND	µg/L	4.0								
2-Methylnaphthalene	ND	µg/L	4.0								
Acetone	ND	µg/L	10								
Bromobenzene	ND	µg/L	1.0								
Bromodichloromethane	ND	µg/L	1.0								
Bromoform	ND	µg/L	1.0								
Bromomethane	ND	µg/L	1.0								
2-Butanone	ND	µg/L	10								
Carbon disulfide	ND	µg/L	10								
Carbon Tetrachloride	ND	µg/L	1.0								
Chlorobenzene	ND	µg/L	1.0								
[illegible]ethane	ND	µg/L	2.0								
Chloroform	ND	µg/L	1.0								
Chloromethane	ND	µg/L	1.0								
2-Chlorotoluene	ND	µg/L	1.0								
4-Chlorotoluene	ND	µg/L	1.0								
cis-1,2-DCE	ND	µg/L	1.0								
cis-1,3-Dichloropropene	ND	µg/L	1.0								
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0								
Dibromochloromethane	ND	µg/L	1.0								
Dibromomethane	ND	µg/L	1.0								
1,2-Dichlorobenzene	ND	µg/L	1.0								
1,3-Dichlorobenzene	ND	µg/L	1.0								
1,4-Dichlorobenzene	ND	µg/L	1.0								
Dichlorodifluoromethane	ND	µg/L	1.0								
1,1-Dichloroethane	ND	µg/L	1.0								
1,1-Dichloroethene	ND	µg/L	1.0								
1,2-Dichloropropane	ND	µg/L	1.0								
1,3-Dichloropropane	ND	µg/L	1.0								
2,2-Dichloropropane	ND	µg/L	2.0								
1,1-Dichloropropene	ND	µg/L	1.0								
Hexachlorobutadiene	ND	µg/L	1.0								
2-Hexanone	ND	µg/L	10								
Isopropylbenzene	ND	µg/L	1.0								
4-Isopropyltoluene	ND	µg/L	1.0								

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Semi-Annual Samples **Work Order:** 0910505

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES											
Sample ID: 5ml rb		*MBLK*				Batch ID: **R36078**		Analysis Date: 11/6/2009 9:22:58 AM			
4-Methyl-2-pentanone	ND	µg/L	10								
Methylene Chloride	ND	µg/L	3.0								
n-Butylbenzene	ND	µg/L	1.0								
n-Propylbenzene	ND	µg/L	1.0								
sec-Butylbenzene	ND	µg/L	1.0								
Styrene	ND	µg/L	1.0								
tert-Butylbenzene	ND	µg/L	1.0								
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0								
1,1,2,2-Tetrachloroethane	ND	µg/L	2.0								
Tetrachloroethene (PCE)	ND	µg/L	1.0								
trans-1,2-DCE	ND	µg/L	1.0								
trans-1,3-Dichloropropene	ND	µg/L	1.0								
1,2,3-Trichlorobenzene	ND	µg/L	1.0								
1,2,4-Trichlorobenzene	ND	µg/L	1.0								
1,1,1-Trichloroethane	ND	µg/L	1.0								
1,1,2-Trichloroethane	ND	µg/L	1.0								
Trichloroethene (TCE)	ND	µg/L	1.0								
Trichlorofluoromethane	ND	µg/L	1.0								
1,2,3-Trichloropropane	ND	µg/L	2.0								
Vinyl chloride	ND	µg/L	1.0								
Xylenes, Total	ND	µg/L	1.5								
Sample ID: 100ng lcs		*LCS*				Batch ID: **R36078**		Analysis Date: 11/6/2009 10:40:53 AM			
Benzene	19.17	µg/L	1.0	20	0	95.9	76.7	114			
Toluene	21.48	µg/L	1.0	20	0	107	78.4	117			
Chlorobenzene	21.18	µg/L	1.0	20	0	106	80.7	127			
1,1-Dichloroethene	22.39	µg/L	1.0	20	0	112	80.2	128			
Trichloroethene (TCE)	18.54	µg/L	1.0	20	0	92.7	77.4	115			

Qualifiers:

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R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Semi-Annual Samples **Work Order:** 0910505

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8270C: Semivolatiles											
Sample ID: mb-20456		*MBLK*				Batch ID: **20456**		Analysis Date: 11/3/2009 11:21:51 AM			
Acenaphthene	ND	µg/L	10								
Acenaphthylene	ND	µg/L	10								
Aniline	ND	µg/L	10								
Anthracene	ND	µg/L	10								
Azobenzene	ND	µg/L	10								
Benz(a)anthracene	ND	µg/L	10								
Benzo(a)pyrene	ND	µg/L	10								
Benzo(b)fluoranthene	ND	µg/L	10								
Benzo(g,h,i)perylene	ND	µg/L	10								
Benzo(k)fluoranthene	ND	µg/L	10								
Benzoic acid	ND	µg/L	20								
Benzyl alcohol	ND	µg/L	10								
Bis(2-chloroethoxy)methane	ND	µg/L	10								
Bis(2-chloroethyl)ether	ND	µg/L	10								
Bis(2-chloroisopropyl)ether	ND	µg/L	10								
Bis(2-ethylhexyl)phthalate	ND	µg/L	10								
4-Bromophenyl phenyl ether	ND	µg/L	10								
Butyl benzyl phthalate	ND	µg/L	10								
Carbazole	ND	µg/L	10								
4-Chloro-3-methylphenol	ND	µg/L	10								
4-Chloroaniline	ND	µg/L	10								
2-Chloronaphthalene	ND	µg/L	10								
2-Chlorophenol	ND	µg/L	10								
4-Chlorophenyl phenyl ether	ND	µg/L	10								
Chrysene	ND	µg/L	10								
Di-n-butyl phthalate	ND	µg/L	10								
Di-n-octyl phthalate	ND	µg/L	10								
Dibenz(a,h)anthracene	ND	µg/L	10								
Dibenzofuran	ND	µg/L	10								
1,2-Dichlorobenzene	ND	µg/L	10								
1,3-Dichlorobenzene	ND	µg/L	10								
1,4-Dichlorobenzene	ND	µg/L	10								
3,3'-Dichlorobenzidine	ND	µg/L	10								
Diethyl phthalate	ND	µg/L	10								
Dimethyl phthalate	ND	µg/L	10								
2,4-Dichlorophenol	ND	µg/L	20								
2,4-Dimethylphenol	ND	µg/L	10								
4,6-Dinitro-2-methylphenol	ND	µg/L	20								
2,4-Dinitrophenol	ND	µg/L	20								
2,4-Dinitrotoluene	ND	µg/L	10								
2,6-Dinitrotoluene	ND	µg/L	10								
Fluoranthene	ND	µg/L	10								
Fluorene	ND	µg/L	10								
Hexachlorobenzene	ND	µg/L	10								

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
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QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Semi-Annual Samples **Work Order:** 0910505

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8270C: Semivolatiles											
Sample ID: mb-20456		*MBLK*				Batch ID:	**20456**	Analysis Date:	11/3/2009 11:21:51 AM		
Hexachlorobutadiene	ND	µg/L	10								
Hexachlorocyclopentadiene	ND	µg/L	10								
Hexachloroethane	ND	µg/L	10								
Indeno(1,2,3-cd)pyrene	ND	µg/L	10								
Isophorone	ND	µg/L	10								
2-Methylnaphthalene	ND	µg/L	10								
2-Methylphenol	ND	µg/L	10								
3+4-Methylphenol	ND	µg/L	10								
N-Nitrosodi-n-propylamine	ND	µg/L	10								
N-Nitrosodimethylamine	ND	µg/L	10								
N-Nitrosodiphenylamine	ND	µg/L	10								
Naphthalene	ND	µg/L	10								
2-Nitroaniline	ND	µg/L	10								
3-Nitroaniline	ND	µg/L	10								
4-Nitroaniline	ND	µg/L	10								
Nitrobenzene	ND	µg/L	10								
2-Nitrophenol	ND	µg/L	10								
4-Nitrophenol	ND	µg/L	10								
Pentachlorophenol	ND	µg/L	20								
Phenanthrene	ND	µg/L	10								
Phenol	ND	µg/L	10								
Pyrene	ND	µg/L	10								
Pyridine	ND	µg/L	10								
1,2,4-Trichlorobenzene	ND	µg/L	10								
2,4,5-Trichlorophenol	ND	µg/L	10								
2,4,6-Trichlorophenol	ND	µg/L	10								
Sample ID: lcs-20456		*LCS*				Batch ID:	**20456**	Analysis Date:	11/2/2009 5:18:12 PM		
Acenaphthene	72.94	µg/L	10	100	0	72.9	33.2	88.1			
4-Chloro-3-methylphenol	139.7	µg/L	10	200	0	69.9	26.5	101			
2-Chlorophenol	110.2	µg/L	10	200	0	55.1	27.5	88.7			
1,4-Dichlorobenzene	48.54	µg/L	10	100	0	48.5	27.2	74.1			
2,4-Dinitrotoluene	86.90	µg/L	10	100	0	86.9	32.6	107			
N-Nitrosodi-n-propylamine	58.22	µg/L	10	100	0	58.2	27.1	96.3			
4-Nitrophenol	121.5	µg/L	10	200	0	60.7	6.78	74.7			
Pentachlorophenol	147.6	µg/L	20	200	0	73.8	14.8	113			
Phenol	69.36	µg/L	10	200	0	34.7	17	53.4			
Pyrene	61.02	µg/L	10	100	0	61.0	27	96.3			
1,2,4-Trichlorobenzene	53.38	µg/L	10	100	0	53.4	30	77.9			

Qualifiers:

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QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Semi-Annual Samples **Work Order:** 0910505

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA 6010B: Total Recoverable Metals											
Sample ID: MB-20477		*MBLK*				Batch ID:	**20477**	Analysis Date:	11/2/2009 4:55:04 PM		
Barium	ND	mg/L	0.010								
Cadmium	ND	mg/L	0.0020								
Calcium	ND	mg/L	0.50								
Chromium	ND	mg/L	0.0060								
Copper	ND	mg/L	0.0060								
Iron	ND	mg/L	0.050								
Lead	ND	mg/L	0.0050								
Magnesium	ND	mg/L	0.50								
Manganese	ND	mg/L	0.0020								
Potassium	ND	mg/L	1.0								
Silver	ND	mg/L	0.0050								
Sodium	ND	mg/L	0.50								
Zinc	ND	mg/L	0.020								
Sample ID: MB-20477		*MBLK*				Batch ID:	**20477**	Analysis Date:	11/4/2009 12:36:31 PM		
Barium	ND	mg/L	0.010								
Cadmium	ND	mg/L	0.0020								
Calcium	ND	mg/L	0.50								
Chromium	ND	mg/L	0.0060								
Copper	ND	mg/L	0.0060								
[illegible]	ND	mg/L	0.050								
[illegible]	ND	mg/L	0.0050								
Magnesium	ND	mg/L	0.50								
Manganese	ND	mg/L	0.0020								
Potassium	ND	mg/L	1.0								
Silver	ND	mg/L	0.0050								
Sodium	ND	mg/L	0.50								
Zinc	ND	mg/L	0.020								
Sample ID: LCS-20477		*LCS*				Batch ID:	**20477**	Analysis Date:	11/2/2009 4:58:02 PM		
Barium	0.4622	mg/L	0.010	0.5	0	92.4	80	120			
Cadmium	0.4742	mg/L	0.0020	0.5	0	94.8	80	120			
Calcium	51.58	mg/L	0.50	50	0	103	80	120			
Chromium	0.4698	mg/L	0.0060	0.5	0	94.0	80	120			
Copper	0.4814	mg/L	0.0060	0.5	0.0026	95.8	80	120			
Iron	0.4610	mg/L	0.050	0.5	0	92.2	80	120			
Lead	0.4615	mg/L	0.0050	0.5	0	92.3	80	120			
Magnesium	51.87	mg/L	0.50	50	0	104	80	120			
Manganese	0.4572	mg/L	0.0020	0.5	0	91.4	80	120			
Potassium	53.47	mg/L	1.0	50	0	107	80	120			
Silver	0.4884	mg/L	0.0050	0.5	0.0015	97.4	80	120			
Sodium	54.96	mg/L	0.50	50	0	110	80	120			
Zinc	0.4456	mg/L	0.020	0.5	0	89.1	80	120			
Sample ID: LCS-20477		*LCS*				Batch ID:	**20477**	Analysis Date:	11/4/2009 12:39:29 PM		
Barium	0.4473	mg/L	0.010	0.5	0	89.5	80	120			
Cadmium	0.4591	mg/L	0.0020	0.5	0	91.8	80	120			

Qualifiers:

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QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 2009 Semi-Annual Samples **Work Order:** 0910505

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA 6010B: Total Recoverable Metals											
Sample ID: LCS-20477		*LCS*				Batch ID:	**20477**	Analysis Date:	11/4/2009 12:39:29 PM		
Calcium	48.61	mg/L	0.50	50	0	97.2	80	120			
Chromium	0.4526	mg/L	0.0060	0.5	0	90.5	80	120			
Copper	0.4613	mg/L	0.0060	0.5	0.0018	91.9	80	120			
Iron	0.4645	mg/L	0.050	0.5	0	92.9	80	120			
Lead	0.4505	mg/L	0.0050	0.5	0	90.1	80	120			
Magnesium	49.29	mg/L	0.50	50	0	98.6	80	120			
Manganese	0.4398	mg/L	0.0020	0.5	0	88.0	80	120			
Potassium	52.41	mg/L	1.0	50	0.0854	105	80	120			
Silver	0.4607	mg/L	0.0050	0.5	0	92.1	80	120			
Sodium	52.89	mg/L	0.50	50	0	106	80	120			
Zinc	0.4290	mg/L	0.020	0.5	0	85.8	80	120			

Qualifiers:

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R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name **WESTERN REFINING GALLU** Date Received: **10/28/2009**

Work Order Number **0910505** Received by: ARS

Checklist completed by: _____ 10/28/09 Sample ID labels checked by: _____
Signature Date Initials

Matrix: Carrier name: UPS

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	N/A ☑	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☑	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☑	No ☐	N/A ☐	
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐	
Container/Temp Blank temperature?	**-0.9°**	*<6° C Acceptable* If given sufficient time to cool.		

Number of preserved bottles checked for pH: 6

<2 >12 unless noted below.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

Chain-of-Custody Record

Client: Western Refining Gallup Refinery
Mailing Address: Rt 3 Box 4 Gallup, NM 87301
Phone #: 505 722 3833
email or Fax#: 722-0210
QA/QC Package:
☑ Standard ☐ Level 4 (Full Validation)
☐ Other
☐ EDD (Type)

Turn-Around Time:
☑ Standard ☐ Rush
Project Name: Semi Annual Samples
Project #: EPI-IN, BWIN to EP2
Project Manager: G. Rajen
Sampler: Cheryl Johnson
On Ice: ☒ Yes ☐ No
Sample Temperature: 0.9

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 0911050
10/27/09	0835	H2O	EPI-IN	3-VOA	HCl	1
				3-VOA	HCl	1
				1L Amb	None	1
				1-500	HNO3	1
				1-125	H2SO4	1
				1-500	None	1
				1-500	HNO3	1
	0850		BWIN to EP2	1-500	HNO3	2
				1-125	H2SO4	2
				1-500	None	2

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA) Incl. Phenols	WQCC Metals	Gen Chem			Air Bubbles (Y or N)
		X													
									Y						
										X					
											X				
												X			
												X			
												X			
												X			
												X			
												X			

Date	Time	Relinquished by:	Received by:	Date	Time
10/27/09	0940			10/28/09	10:15
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks: Gen Chem - Cations, Ions, pH, Conductivity

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

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Monday, November 09, 2009

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

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

RE: AL-1, AL-2, EP-1

Order No.: 0910527

Dear Gaurav Rajen:

Hall Environmental Analysis Laboratory, Inc. received 3 sample(s) on 10/29/2009 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman, Laboratory Manager

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

Hall Environmental Analysis Laboratory, Inc.

Date: *09-Nov-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL-1 Inlet
Lab Order:	0910527	**Collection Date:**	10/27/2009 10:30:00 AM
Project:	AL-1, AL-2, EP-1	**Date Received:**	10/29/2009
Lab ID:	0910527-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
4-Chloro-3-methylphenol	ND	50		µg/L	1	11/3/2009 12:01:53 AM
2-Chlorophenol	ND	50		µg/L	1	11/3/2009 12:01:53 AM
2,4-Dichlorophenol	ND	100		µg/L	1	11/3/2009 12:01:53 AM
2,4-Dimethylphenol	130	50		µg/L	1	11/3/2009 12:01:53 AM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	11/3/2009 12:01:53 AM
2,4-Dinitrophenol	ND	100		µg/L	1	11/3/2009 12:01:53 AM
2-Methylphenol	970	50		µg/L	1	11/3/2009 12:01:53 AM
3+4-Methylphenol	4000	500		µg/L	10	11/2/2009 11:32:55 PM
2-Nitrophenol	ND	50		µg/L	1	11/3/2009 12:01:53 AM
4-Nitrophenol	ND	50		µg/L	1	11/3/2009 12:01:53 AM
Pentachlorophenol	ND	100		µg/L	1	11/3/2009 12:01:53 AM
Phenol	7100	500		µg/L	10	11/2/2009 11:32:55 PM
2,4,5-Trichlorophenol	ND	50		µg/L	1	11/3/2009 12:01:53 AM
2,4,6-Trichlorophenol	ND	50		µg/L	1	11/3/2009 12:01:53 AM
Surr: 2,4,6-Tribromophenol	42.5	16.6-150		%REC	1	11/3/2009 12:01:53 AM
Surr: 2-Fluorobiphenyl	56.3	19.6-134		%REC	1	11/3/2009 12:01:53 AM
Surr: 2-Fluorophenol	11.8	9.54-113		%REC	1	11/3/2009 12:01:53 AM
Surr: 4-Terphenyl-d14	55.9	22.7-145		%REC	1	11/3/2009 12:01:53 AM
Surr: Nitrobenzene-d5	61.2	14.6-134		%REC	1	11/3/2009 12:01:53 AM
Surr: Phenol-d5	32.5	10.7-80.3		%REC	1	11/3/2009 12:01:53 AM

Qualifiers:

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

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL-2-Inlet
Lab Order:	0910527	**Collection Date:**	10/27/2009 10:45:00 AM
Project:	AL-1, AL-2, EP-1	**Date Received:**	10/29/2009
Lab ID:	0910527-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
4-Chloro-3-methylphenol	ND	50		µg/L	1	11/3/2009 12:59:39 AM
2-Chlorophenol	ND	50		µg/L	1	11/3/2009 12:59:39 AM
2,4-Dichlorophenol	ND	100		µg/L	1	11/3/2009 12:59:39 AM
2,4-Dimethylphenol	140	50		µg/L	1	11/3/2009 12:59:39 AM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	11/3/2009 12:59:39 AM
2,4-Dinitrophenol	ND	100		µg/L	1	11/3/2009 12:59:39 AM
2-Methylphenol	1200	500		µg/L	10	11/3/2009 12:30:48 AM
3+4-Methylphenol	4500	500		µg/L	10	11/3/2009 12:30:48 AM
2-Nitrophenol	ND	50		µg/L	1	11/3/2009 12:59:39 AM
4-Nitrophenol	ND	50		µg/L	1	11/3/2009 12:59:39 AM
Pentachlorophenol	ND	100		µg/L	1	11/3/2009 12:59:39 AM
Phenol	4700	500		µg/L	10	11/3/2009 12:30:48 AM
2,4,5-Trichlorophenol	ND	50		µg/L	1	11/3/2009 12:59:39 AM
2,4,6-Trichlorophenol	ND	50		µg/L	1	11/3/2009 12:59:39 AM
Surr: 2,4,6-Tribromophenol	66.8	16.6-150		%REC	1	11/3/2009 12:59:39 AM
Surr: 2-Fluorobiphenyl	58.3	19.6-134		%REC	1	11/3/2009 12:59:39 AM
Surr: 2-Fluorophenol	42.1	9.54-113		%REC	1	11/3/2009 12:59:39 AM
Surr: 4-Terphenyl-d14	59.9	22.7-145		%REC	1	11/3/2009 12:59:39 AM
Surr: Nitrobenzene-d5	57.4	14.6-134		%REC	1	11/3/2009 12:59:39 AM
Surr: Phenol-d5	40.0	10.7-80.3		%REC	1	11/3/2009 12:59:39 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *09-Nov-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	EP-1 Inlet
Lab Order:	0910527	**Collection Date:**	10/27/2009 11:15:00 AM
Project:	AL-1, AL-2, EP-1	**Date Received:**	10/29/2009
Lab ID:	0910527-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
4-Chloro-3-methylphenol	ND	50		µg/L	1	11/3/2009 1:57:21 AM
2-Chlorophenol	ND	50		µg/L	1	11/3/2009 1:57:21 AM
2,4-Dichlorophenol	ND	100		µg/L	1	11/3/2009 1:57:21 AM
2,4-Dimethylphenol	140	50		µg/L	1	11/3/2009 1:57:21 AM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	11/3/2009 1:57:21 AM
2,4-Dinitrophenol	ND	100		µg/L	1	11/3/2009 1:57:21 AM
2-Methylphenol	1200	500		µg/L	10	11/3/2009 1:28:30 AM
3+4-Methylphenol	4100	500		µg/L	10	11/3/2009 1:28:30 AM
2-Nitrophenol	ND	50		µg/L	1	11/3/2009 1:57:21 AM
4-Nitrophenol	ND	50		µg/L	1	11/3/2009 1:57:21 AM
Pentachlorophenol	ND	100		µg/L	1	11/3/2009 1:57:21 AM
Phenol	2500	500		µg/L	10	11/3/2009 1:28:30 AM
2,4,5-Trichlorophenol	ND	50		µg/L	1	11/3/2009 1:57:21 AM
2,4,6-Trichlorophenol	ND	50		µg/L	1	11/3/2009 1:57:21 AM
Surr: 2,4,6-Tribromophenol	72.0	16.6-150		%REC	1	11/3/2009 1:57:21 AM
Surr: 2-Fluorobiphenyl	61.6	19.6-134		%REC	1	11/3/2009 1:57:21 AM
Surr: 2-Fluorophenol	47.0	9.54-113		%REC	1	11/3/2009 1:57:21 AM
Surr: 4-Terphenyl-d14	61.2	22.7-145		%REC	1	11/3/2009 1:57:21 AM
Surr: Nitrobenzene-d5	63.2	14.6-134		%REC	1	11/3/2009 1:57:21 AM
Surr: Phenol-d5	43.3	10.7-80.3		%REC	1	11/3/2009 1:57:21 AM

Qualifiers:

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

Anatek Labs, Inc.

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

Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	091030028
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	0910527
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	091030028-001	**Sampling Date**	10/27/2009	**Date/Time Received**	10/30/2009 11:00 AM
Client Sample ID	0910527-01B / AL-1 INLET	**Sampling Time**	10:30 AM		
Matrix	Water				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
COD	2550	mg/L	500	11/2/2009	JLU	EPA 410.4	

Sample Number	091030028-002	**Sampling Date**	10/27/2009	**Date/Time Received**	10/30/2009 11:00 AM
Client Sample ID	0910527-02B / AL-2 INLET	**Sampling Time**	10:45 AM		
Matrix	Water				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
COD	1200	mg/L	125	11/2/2009	JLU	EPA 410.4	

Sample Number	091030028-003	**Sampling Date**	10/27/2009	**Date/Time Received**	10/30/2009 11:00 AM
Client Sample ID	0910527-03B / EP-1 INLET	**Sampling Time**	11:15 AM		
Matrix	Water				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
COD	1660	mg/L	125	11/2/2009	JLU	EPA 410.4	

Authorized Signature John W. Coll

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

ARS ANALYTICAL, LLC

4301 Masthead NE | Albuquerque, New Mexico 87109 505.344.3777 | 505.345.8964

Explanation of codes	
E	Result Is Estimated
H	Analyzed Out of Hold Time
N	Tentatively Identified Compound
S	Subcontracted
U	Concentration is below MDL
J	Concentration between MDL and RDL
1-9	See Footnote

HALL ENVIRONMENTAL
attn ANDY FREEMAN
4901 HAWKINS NE, SUITE D
ALBUQUERQUE NM 87109-4372

STANDARD

ARS Analytical, LLC

Certificate of Analysis

All samples are reported on an "as received" basis, unless otherwise noted (i.e. - Dry Weight).

Client: **HALL ENVIRONMENTAL**
Project: **0910527**
Order: **09100836 HAL03** Receipt: **10-29-09**

FW: *Elvin J. Chavez: President of ARS Analytical, LLC*

Sample: ***0910527-01C AL-1 INLET*** Collected: *10-27-09 10:30:00* By:
Matrix: ***AQUEOUS***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09100836-001A		SM 5210B						By: JLE		
BOD090130	WC.2009.2776.18	10-26-4	Biochemical Oxygen Demand	785	mg/L	1	4	H	10-29-09	11-03-09

Sample: ***0910527-02C AL-2 INLET*** Collected: *10-27-09 10:45:00* By:
Matrix: ***AQUEOUS***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09100836-002A		SM 5210B						By: JLE		
BOD090130	WC.2009.2776.19	10-26-4	Biochemical Oxygen Demand	607	mg/L	1	4	H	10-29-09	11-03-09

Sample: ***0910527-03C EP-1 INLET*** Collected: *10-27-09 11:15:00* By:
Matrix: ***AQUEOUS***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09100836-003A		SM 5210B						By: JLE		
BOD090130	WC.2009.2776.17	10-26-4	Biochemical Oxygen Demand	265	mg/L	1	4	H	10-29-09	11-03-09

Unless otherwise noted, all samples were received in acceptable condition and all sampling was performed by client or client representative. Sample result of ND indicates Not Detected, ie result is less than the sample specific Detection Limit. Sample specific Detection Limit is determined by multiplying the sample Dilution Factor by the listed Reporting Detection Limit. All results relate only to the items tested. Any miscellaneous workorder information or foonotes will appear below.

Analytical results are not corrected for method blank or field blank contamination.

Report Date: 11/9/2009 10:57:33 AM

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: AL-1, AL-2, EP-1 **Work Order:** 0910527

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8270C: Semivolatiles											
Sample ID: mb-20456		*MBLK*				Batch ID:	**20456**	Analysis Date:	11/3/2009 11:21:51 AM		
4-Chloro-3-methylphenol	ND	µg/L	10								
2-Chlorophenol	ND	µg/L	10								
2,4-Dichlorophenol	ND	µg/L	20								
2,4-Dimethylphenol	ND	µg/L	10								
4,6-Dinitro-2-methylphenol	ND	µg/L	20								
2,4-Dinitrophenol	ND	µg/L	20								
2-Methylphenol	ND	µg/L	10								
3+4-Methylphenol	ND	µg/L	10								
2-Nitrophenol	ND	µg/L	10								
4-Nitrophenol	ND	µg/L	10								
Pentachlorophenol	ND	µg/L	20								
Phenol	ND	µg/L	10								
2,4,5-Trichlorophenol	ND	µg/L	10								
2,4,6-Trichlorophenol	ND	µg/L	10								
Sample ID: lcs-20456		*LCS*				Batch ID:	**20456**	Analysis Date:	11/2/2009 5:18:12 PM		
4-Chloro-3-methylphenol	139.7	µg/L	10	200	0	69.9	26.5	101			
2-Chlorophenol	110.2	µg/L	10	200	0	55.1	27.5	88.7			
4-Nitrophenol	121.5	µg/L	10	200	0	60.7	6.78	74.7			
Pentachlorophenol	147.6	µg/L	20	200	0	73.8	14.8	113			
Phenol	69.36	µg/L	10	200	0	34.7	17	53.4			

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name **WESTERN REFINING GALLU** Date Received: **10/29/2009**

Work Order Number **0910527** Received by: **TLS**

Checklist completed by: _____ 10/29/09 Sample ID labels checked by: _____
Signature Date Initials

Matrix: Carrier name: UPS

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	N/A ☑	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Water - VOA vials have zero headspace? No VOA vials submitted ☑		Yes ☐	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☑	No ☐	N/A ☐	
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐	
Container/Temp Blank temperature?	**-0.3°**	*<6° C Acceptable* If given sufficient time to cool.		

Number of preserved bottles checked for pH: 3

(<2) >12 unless noted below.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

Chain-of-Custody Record

Client: WESTERN REFINING
Gallup Refinery
Mailing Address: RT 3 Box 9
Gallup NM 87301
Phone #: 505 722 3833
email or Fax#: 505 722 0210
QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: AL-1, AL-2, EP-1
Project #:
Project Manager: GAUTAM, RAJEN
Sampler: ALVIN DORSEY
On Ice: YES NO
Sample Temperature: 6.0.3

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 0910527	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	BOD	COD	8270 Phenol		Air Bubbles (Y or N)
10-27-09	1030	AG	AL-1 Inlet	1-1000mL	—	1												X				
10-27-09	1030		AL-1 Inlet	1-500mL	H_2SO_4	1													X			
10-27-09	1030		AL-1 Inlet	1-liter	—	1														X		
10-27-09	1045		AL-2 Inlet	1-1000mL	—	2												X				
10-27-09	1045		AL-2 Inlet	1-500mL	H_2SO_4	2													X			
10-27-09	1045		AL-2 Inlet	1-liter	—	2														X		
10-27-09	1115		EP-1 Inlet	1-1000mL	—	3												X				
10-27-09	1115		EP-1 Inlet	1-500mL	H_2SO_4	3													X			
10-27-09	1115		EP-1 Inlet	1-liter	—	3														X		

Date:	Time:	Relinquished by:	Received by:	Date	Time
10-28-09	1200	Alvin Dorsey			
				10/29/09	1020
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

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

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Tuesday, November 17, 2009

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

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

RE: AL-1, AL-2, EP-1

Order No.: 0911098

Dear Gaurav Rajen:

Hall Environmental Analysis Laboratory, Inc. received 3 sample(s) on 11/5/2009 for the analyses presented in the following report.

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

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

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

Sincerely,

for Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901
AZ license # AZ0682
ORELAP Lab # NM100001
Texas Lab# T104704424-08-TX

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Nov-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL-1 Inlet
Lab Order:	0911098	**Collection Date:**	11/3/2009 1:45:00 PM
Project:	AL-1, AL-2, EP-1	**Date Received:**	11/5/2009
Lab ID:	0911098-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: LBJ
4-Chloro-3-methylphenol	ND	50		µg/L	1	11/13/2009 2:00:54 PM
2-Chlorophenol	ND	50		µg/L	1	11/13/2009 2:00:54 PM
2,4-Dichlorophenol	ND	100		µg/L	1	11/13/2009 2:00:54 PM
2,4-Dimethylphenol	690	50		µg/L	1	11/13/2009 2:00:54 PM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	11/13/2009 2:00:54 PM
2,4-Dinitrophenol	ND	100		µg/L	1	11/13/2009 2:00:54 PM
2-Methylphenol	2900	500		µg/L	10	11/13/2009 1:31:26 PM
3+4-Methylphenol	4300	500		µg/L	10	11/13/2009 1:31:26 PM
2-Nitrophenol	ND	50		µg/L	1	11/13/2009 2:00:54 PM
4-Nitrophenol	ND	50		µg/L	1	11/13/2009 2:00:54 PM
Pentachlorophenol	ND	100		µg/L	1	11/13/2009 2:00:54 PM
Phenol	8200	500		µg/L	10	11/13/2009 1:31:26 PM
2,4,5-Trichlorophenol	ND	50		µg/L	1	11/13/2009 2:00:54 PM
2,4,6-Trichlorophenol	ND	50		µg/L	1	11/13/2009 2:00:54 PM
Surr: 2,4,6-Tribromophenol	26.8	16.6-150		%REC	1	11/13/2009 2:00:54 PM
Surr: 2-Fluorobiphenyl	65.8	19.6-134		%REC	1	11/13/2009 2:00:54 PM
Surr: 2-Fluorophenol	51.1	9.54-113		%REC	1	11/13/2009 2:00:54 PM
Surr: 4-Terphenyl-d14	60.5	22.7-145		%REC	1	11/13/2009 2:00:54 PM
Surr: Nitrobenzene-d5	63.4	14.6-134		%REC	1	11/13/2009 2:00:54 PM
Surr: Phenol-d5	43.6	10.7-80.3		%REC	1	11/13/2009 2:00:54 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Nov-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL-2-Inlet
Lab Order:	0911098	**Collection Date:**	11/3/2009 2:15:00 PM
Project:	AL-1, AL-2, EP-1	**Date Received:**	11/5/2009
Lab ID:	0911098-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: LBJ
4-Chloro-3-methylphenol	ND	50		µg/L	1	11/13/2009 3:00:00 PM
2-Chlorophenol	ND	50		µg/L	1	11/13/2009 3:00:00 PM
2,4-Dichlorophenol	ND	100		µg/L	1	11/13/2009 3:00:00 PM
2,4-Dimethylphenol	260	50		µg/L	1	11/13/2009 3:00:00 PM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	11/13/2009 3:00:00 PM
2,4-Dinitrophenol	ND	100		µg/L	1	11/13/2009 3:00:00 PM
2-Methylphenol	1900	500		µg/L	10	11/13/2009 2:30:24 PM
3+4-Methylphenol	2900	500		µg/L	10	11/13/2009 2:30:24 PM
2-Nitrophenol	ND	50		µg/L	1	11/13/2009 3:00:00 PM
4-Nitrophenol	ND	50		µg/L	1	11/13/2009 3:00:00 PM
Pentachlorophenol	ND	100		µg/L	1	11/13/2009 3:00:00 PM
Phenol	1200	50		µg/L	1	11/13/2009 3:00:00 PM
2,4,5-Trichlorophenol	ND	50		µg/L	1	11/13/2009 3:00:00 PM
2,4,6-Trichlorophenol	ND	50		µg/L	1	11/13/2009 3:00:00 PM
Surr: 2,4,6-Tribromophenol	67.9	16.6-150		%REC	1	11/13/2009 3:00:00 PM
Surr: 2-Fluorobiphenyl	68.4	19.6-134		%REC	1	11/13/2009 3:00:00 PM
Surr: 2-Fluorophenol	57.6	9.54-113		%REC	1	11/13/2009 3:00:00 PM
Surr: 4-Terphenyl-d14	60.8	22.7-145		%REC	1	11/13/2009 3:00:00 PM
Surr: Nitrobenzene-d5	65.1	14.6-134		%REC	1	11/13/2009 3:00:00 PM
Surr: Phenol-d5	49.3	10.7-80.3		%REC	1	11/13/2009 3:00:00 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Nov-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	EP-1 Inlet
Lab Order:	0911098	**Collection Date:**	11/3/2009 2:40:00 PM
Project:	AL-1, AL-2, EP-1	**Date Received:**	11/5/2009
Lab ID:	0911098-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **LBJ**
4-Chloro-3-methylphenol	ND	50		µg/L	1	11/13/2009 3:58:58 PM
2-Chlorophenol	ND	50		µg/L	1	11/13/2009 3:58:58 PM
2,4-Dichlorophenol	ND	100		µg/L	1	11/13/2009 3:58:58 PM
2,4-Dimethylphenol	180	50		µg/L	1	11/13/2009 3:58:58 PM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	11/13/2009 3:58:58 PM
2,4-Dinitrophenol	ND	100		µg/L	1	11/13/2009 3:58:58 PM
2-Methylphenol	1100	50		µg/L	1	11/13/2009 3:58:58 PM
3+4-Methylphenol	740	50		µg/L	1	11/13/2009 3:58:58 PM
2-Nitrophenol	ND	50		µg/L	1	11/13/2009 3:58:58 PM
4-Nitrophenol	ND	50		µg/L	1	11/13/2009 3:58:58 PM
Pentachlorophenol	ND	100		µg/L	1	11/13/2009 3:58:58 PM
Phenol	ND	50		µg/L	1	11/13/2009 3:58:58 PM
2,4,5-Trichlorophenol	ND	50		µg/L	1	11/13/2009 3:58:58 PM
2,4,6-Trichlorophenol	ND	50		µg/L	1	11/13/2009 3:58:58 PM
Surr: 2,4,6-Tribromophenol	71.7	16.6-150		%REC	1	11/13/2009 3:58:58 PM
Surr: 2-Fluorobiphenyl	60.6	19.6-134		%REC	1	11/13/2009 3:58:58 PM
Surr: 2-Fluorophenol	62.4	9.54-113		%REC	1	11/13/2009 3:58:58 PM
Surr: 4-Terphenyl-d14	61.3	22.7-145		%REC	1	11/13/2009 3:58:58 PM
Surr: Nitrobenzene-d5	66.6	14.6-134		%REC	1	11/13/2009 3:58:58 PM
Surr: Phenol-d5	49.2	10.7-80.3		%REC	1	11/13/2009 3:58:58 PM

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

Anatek Labs, Inc.

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

Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	091106036
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	0911098
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	091106036-001	**Sampling Date**	11/3/2009	**Date/Time Received**	11/6/2009 11:50 AM
Client Sample ID	0911098-01B / AL-1 INLET	**Sampling Time**	1:45 PM		
Matrix	Water	**Sample Location**			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
COD	2410	mg/L	500	11/15/2009	JLU	EPA 410.4	

Sample Number	091106036-002	**Sampling Date**	11/3/2009	**Date/Time Received**	11/6/2009 11:50 AM
Client Sample ID	0911098-02B / AL-2 INLET	**Sampling Time**	2:15 PM		
Matrix	Water	**Sample Location**			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
COD	1730	mg/L	125	11/15/2009	JLU	EPA 410.4	

Sample Number	091106036-003	**Sampling Date**	11/3/2009	**Date/Time Received**	11/6/2009 11:50 AM
Client Sample ID	0911098-03B / EP-1 INLET	**Sampling Time**	2:40 PM		
Matrix	Water	**Sample Location**			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
COD	1370	mg/L	125	11/15/2009	JLU	EPA 410.4	

Authorized Signature

John Coddington, Lab Manager

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

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; IN:C-ID-01; KY:90142; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C1320
Certifications held by Anatek Labs WA: EPA:WA00169; CA:Cert2632; ID:WA00169; WA:C1287

ARS ANALYTICAL, LLC

4301 Masthead NE | Albuquerque, New Mexico 87109 505.344.3777 | 505.345.8964

Explanation of codes	
E	Result is Estimated
H	Analyzed Out of Hold Time
N	Tentatively Identified Compound
S	Subcontracted
U	Concentration is below MDL
J	Concentration between MDL and RDL
1-9	See Footnote

HALL ENVIRONMENTAL
attn ANDY FREEMAN
4901 HAWKINS NE, SUITE D
ALBUQUERQUE NM 87109-4372

STANDARD

ARS Analytical, LLC

Certificate of Analysis

All samples are reported on an "as received" basis, unless otherwise noted (i.e. - Dry Weight).

Client: **HALL ENVIRONMENTAL**
Project: **0911098**
Order: **09110135 HAL03** Receipt: **11-05-09**

FOR Francine Trivio
Elvin J. Chavez: President of ARS Analytical, LLC

Sample: ***0911098-01C AL-1 INLET*** Collected: *11-03-09 13:45:00* By:
Matrix: ***AQUEOUS***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09110135-001A		SM 5210B						By: JLE		
BOD090134	WC.2009.2660.15	10-26-4	Biochemical Oxygen Demand	1110	mg/L	1	4	H	11-06-09	11-11-09

Sample: ***0911098-02C AL-2 INLET*** Collected: *11-03-09 14:15:00* By:
Matrix: ***AQUEOUS***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09110135-002A		SM 5210B						By: JLE		
BOD090134	WC.2009.2660.16	10-26-4	Biochemical Oxygen Demand	686	mg/L	1	4	H	11-06-09	11-11-09

Sample: ***0911098-03C EP-1 INLET*** Collected: *11-03-09 14:40:00* By:
Matrix: ***AQUEOUS***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09110135-003A		SM 5210B						By: JLE		
BOD090134	WC.2009.2660.17	10-26-4	Biochemical Oxygen Demand	750	mg/L	1	4	H	11-06-09	11-11-09

Unless otherwise noted, all samples were received in acceptable condition and all sampling was performed by client or client representative. Sample result of ND indicates Not Detected, ie result is less than the sample specific Detection Limit. Sample specific Detection Limit is determined by multiplying the sample Dilution Factor by the listed Reporting Detection Limit. All results relate only to the items tested. Any miscellaneous workorder information or foonotes will appear below.

Analytical results are not corrected for method blank or field blank contamination.

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: AL-1, AL-2, EP-1 **Work Order:** 0911098

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8270C: Semivolatiles											
Sample ID: mb-20546		*MBLK*				Batch ID:	**20546**	Analysis Date:		11/13/09 10:05:02 AM	
4-Chloro-3-methylphenol	ND	µg/L	10								
2-Chlorophenol	ND	µg/L	10								
2,4-Dichlorophenol	ND	µg/L	20								
2,4-Dimethylphenol	ND	µg/L	10								
4,6-Dinitro-2-methylphenol	ND	µg/L	20								
2,4-Dinitrophenol	ND	µg/L	5.0								
2-Methylphenol	ND	µg/L	5.0								
3+4-Methylphenol	ND	µg/L	5.0								
2-Nitrophenol	ND	µg/L	10								
4-Nitrophenol	ND	µg/L	10								
Pentachlorophenol	ND	µg/L	5.0								
Phenol	ND	µg/L	10								
2,4,5-Trichlorophenol	ND	µg/L	10								
2,4,6-Trichlorophenol	ND	µg/L	10								
Surr: 2,4,6-Tribromophenol	169.2	µg/L	0	200	0	84.6	16.6	150			
Surr: 2-Fluorobiphenyl	62.92	µg/L	0	100	0	62.9	19.6	134			
Surr: 2-Fluorophenol	98.16	µg/L	0	200	0	49.1	9.54	113			
Surr: 4-Terphenyl-d14	49.24	µg/L	0	100	0	49.2	22.7	145			
Surr: Nitrobenzene-d5	63.52	µg/L	0	100	0	63.5	14.6	134			
Surr: Phenol-d5	78.56	µg/L	0	200	0	39.3	10.7	80.3			
Sample ID: lcsd-20546		*LCSD4*				Batch ID:	**20546**	Analysis Date:		11/13/09 11:03:47 AM	
4-Chloro-3-methylphenol	76.28	µg/L	10	100	0	76.3	46.5	99	2.82	20	
2-Chlorophenol	66.74	µg/L	10	100	0	66.7	38.8	102	1.78	20	
2,4-Dichlorophenol	72.26	µg/L	20	100	0	72.3	44.3	101	0.304	20	
2,4-Dimethylphenol	76.86	µg/L	10	100	0	76.9	43.2	99.2	5.48	20	
4,6-Dinitro-2-methylphenol	74.64	µg/L	20	100	0	74.6	56.8	90.4	20.1	20	R
2,4-Dinitrophenol	77.42	µg/L	5.0	100	0	77.4	48.3	93.3	13.7	20	
2-Methylphenol	68.66	µg/L	5.0	100	0	68.7	37.7	102	0.819	20	
3+4-Methylphenol	69.70	µg/L	5.0	100	0	69.7	44.4	92.8	1.80	20	
2-Nitrophenol	73.02	µg/L	10	100	0	73.0	42.9	102	1.60	20	
4-Nitrophenol	66.76	µg/L	10	100	0	66.8	38.8	79.2	24.3	20	R
Pentachlorophenol	67.64	µg/L	5.0	100	0	67.6	45.3	108	2.48	20	
Phenol	59.32	µg/L	10	100	0	59.3	32.7	77.3	4.13	20	
2,4,5-Trichlorophenol	73.86	µg/L	10	100	0	73.9	51.6	93.1	3.35	20	
2,4,6-Trichlorophenol	75.26	µg/L	10	100	0	75.3	51.6	98	2.70	20	
Surr: 2,4,6-Tribromophenol	72.02	µg/L	0	100	0	72.0	16.6	150	0		
Surr: 2-Fluorobiphenyl	72.22	µg/L	0	100	0	72.2	19.6	134	0		
Surr: 2-Fluorophenol	59.68	µg/L	0	100	0	59.7	9.54	113	0		
Surr: 4-Terphenyl-d14	67.18	µg/L	0	100	0	67.2	22.7	145	0		
Surr: Nitrobenzene-d5	70.92	µg/L	0	100	0	70.9	14.6	134	0		
Surr: Phenol-d5	59.28	µg/L	0	100	0	59.3	10.7	80.3	0		
Sample ID: lcs-20546		*LCS4*				Batch ID:	**20546**	Analysis Date:		11/13/09 10:34:25 AM	
4-Chloro-3-methylphenol	78.46	µg/L	10	100	0	78.5	46.5	99			
2-Chlorophenol	65.56	µg/L	10	100	0	65.6	38.8	102			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: AL-1, AL-2, EP-1 **Work Order:** 0911098

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8270C: Semivolatiles											
Sample ID: lcs-20546		*LCS4*				Batch ID:	**20546**	Analysis Date:		11/13/09 10:34:25 AM	
2,4-Dichlorophenol	72.48	µg/L	20	100	0	72.5	44.3	101			
2,4-Dimethylphenol	72.76	µg/L	10	100	0	72.8	43.2	99.2			
4,6-Dinitro-2-methylphenol	91.32	µg/L	20	100	0	91.3	56.8	90.4			S
2,4-Dinitrophenol	88.78	µg/L	5.0	100	0	88.8	48.3	93.3			
2-Methylphenol	68.10	µg/L	5.0	100	0	68.1	37.7	102			
3+4-Methylphenol	68.46	µg/L	5.0	100	0	68.5	44.4	92.8			
2-Nitrophenol	71.86	µg/L	10	100	0	71.9	42.9	102			
4-Nitrophenol	85.20	µg/L	10	100	0	85.2	38.8	79.2			S
Pentachlorophenol	69.34	µg/L	5.0	100	0	69.3	45.3	108			
Phenol	56.92	µg/L	10	100	0	56.9	32.7	77.3			
2,4,5-Trichlorophenol	76.38	µg/L	10	100	0	76.4	51.6	93.1			
2,4,6-Trichlorophenol	77.32	µg/L	10	100	0	77.3	51.6	98			
Surr: 2,4,6-Tribromophenol	82.38	µg/L	0	100	0	82.4	16.6	150			
Surr: 2-Fluorobiphenyl	71.28	µg/L	0	100	0	71.3	19.6	134			
Surr: 2-Fluorophenol	58.14	µg/L	0	100	0	58.1	9.54	113			
Surr: 4-Terphenyl-d14	62.46	µg/L	0	100	0	62.5	22.7	145			
Surr: Nitrobenzene-d5	70.24	µg/L	0	100	0	70.2	14.6	134			
Surr: Phenol-d5	56.92	µg/L	0	100	0	56.9	10.7	80.3			

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name WESTERN REFINING GALLU | Date Received: 11/5/2009

Work Order Number 0911098 | Received by: ARS

Checklist completed by: [signature] Signature | 11/5/09 Date | Sample ID labels checked by: B Initials

Matrix: | Carrier name: UPS

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	N/A ☑	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Water - VOA vials have zero headspace?	No VOA vials submitted ☑	Yes ☐	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☑	No ☐	N/A ☐	
Water - pH acceptable upon receipt?	Yes ☑ AD	No ☑	N/A ☐	
Container/Temp Blank temperature?	0.4°	<6° C Acceptable If given sufficient time to cool.		

Number of preserved bottles checked for pH: 5

(<2) >12 unless noted below.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: Added 1ml H_2SO_4 to sample EP-1 Inlet for acceptable ph. AD 11/5

Corrective Action _____

Chain-of-Custody Record

Client: WESTERN - Refining
Gallup Refinery
Mailing Address: RT 3 Box 9
Gallup NM 87301
Phone #: 505 722 3227
email or Fax#: 505 722 0210
QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☐ EDD (Type)

Turn-Around Time:
☐ Standard ☐ Rush
Project Name: AL-1, AL-2, EP-1
Project #:
Project Manager: GAUTAU, RAJEN
Sampler:
On Ice: ☐ Yes ☐ No
Sample Temperature: 0.7

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 0911093	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	BOD	COD	8270 PHENOL		Air Bubbles (Y or N)
11-03-09	1345	Ag	AL-1 Inlet	1-1000 mL	—	1												X				
11-03-09	1345		AL-1 Inlet	1-500 mL	H_2SO_4	1													X			
11-03-09	1345		AL-1 Inlet	1-Liter	HCl	1														X		
11-03-09	1415		AL-2 Inlet	1-1000mL	—	2												X				
11-03-09	1415		AL-2 Inlet	1-500mL	H_2SO_4	2													X			
11-03-09	1415		AL-2 Inlet	1-Liter	HCL	2														X		
11-03-09	1440		EP-1 Inlet	1-1000mL	—	3												X				
11-03-09	1440		EP-1 Inlet	1-500mL	H_2SO_4	3													X			
11-03-09	1440		EP-1 Inlet	1-Liter	HCL	3														X		

Date: 11-04-09 Time: 1200 Relinquished by:
Date: Time: Relinquished by:

Received by: 10:00 Date: 11/5/09 Time:
Received by: Date: Time:

Remarks:

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Wednesday, November 18, 2009

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

TEL: (505) 722-0227
FAX (505) 722-0210

RE: 4th QTR OW Wells

Order No.: 0911097

Dear Gaurav Rajen:

Hall Environmental Analysis Laboratory, Inc. received 4 sample(s) on 11/5/2009 for the analyses presented in the following report.

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

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

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

Sincerely,

For Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901
AZ license # AZ0682
ORELAP Lab # NM100001
Texas Lab# T104704424-08-TX

Hall Environmental Analysis Laboratory, Inc.

Date: *18-Nov-09*

CLIENT: Western Refining Southwest, Gallup
Project: 4th QTR OW Wells
Lab Order: 0911097

Lab ID: 0911097-01 **Collection Date:** 11/2/2009 9:51:00 AM
Client Sample ID: OW-30 **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Methyl tert-butyl ether (MTBE)	1100	130		µg/L	50	11/12/2009 1:17:19 PM
Benzene	ND	1.0		µg/L	1	11/12/2009 1:01:59 AM
Toluene	ND	1.0		µg/L	1	11/12/2009 1:01:59 AM
Ethylbenzene	ND	1.0		µg/L	1	11/12/2009 1:01:59 AM
Xylenes, Total	ND	2.0		µg/L	1	11/12/2009 1:01:59 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/12/2009 1:01:59 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/12/2009 1:01:59 AM
Surr: 4-Bromofluorobenzene	79.7	65.9-130		%REC	1	11/12/2009 1:01:59 AM

Lab ID: 0911097-02 **Collection Date:** 11/2/2009 2:13:00 PM
Client Sample ID: OW-14 **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Methyl tert-butyl ether (MTBE)	1200	130		µg/L	50	11/12/2009 1:47:42 PM
Benzene	34	1.0		µg/L	1	11/12/2009 2:32:45 AM
Toluene	3.0	1.0		µg/L	1	11/12/2009 2:32:45 AM
Ethylbenzene	6.4	1.0		µg/L	1	11/12/2009 2:32:45 AM
Xylenes, Total	ND	2.0		µg/L	1	11/12/2009 2:32:45 AM
1,2,4-Trimethylbenzene	2.7	1.0		µg/L	1	11/12/2009 2:32:45 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/12/2009 2:32:45 AM
Surr: 4-Bromofluorobenzene	126	65.9-130		%REC	1	11/12/2009 2:32:45 AM

Lab ID: 0911097-03 **Collection Date:** 11/3/2009 11:09:00 AM
Client Sample ID: OW-29 **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Methyl tert-butyl ether (MTBE)	82	5.0		µg/L	2	11/12/2009 12:47:00 PM
Benzene	ND	1.0		µg/L	1	11/12/2009 3:33:28 AM
Toluene	ND	1.0		µg/L	1	11/12/2009 3:33:28 AM
Ethylbenzene	ND	1.0		µg/L	1	11/12/2009 3:33:28 AM
Xylenes, Total	ND	2.0		µg/L	1	11/12/2009 3:33:28 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/12/2009 3:33:28 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/12/2009 3:33:28 AM
Surr: 4-Bromofluorobenzene	85.3	65.9-130		%REC	1	11/12/2009 3:33:28 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *18-Nov-09*

CLIENT: Western Refining Southwest, Gallup
Project: 4th QTR OW Wells
Lab Order: 0911097

Lab ID: 0911097-04
Collection Date: 11/3/2009 3:42:00 PM
Client Sample ID: OW-13
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	11/12/2009 4:03:48 AM
Benzene	ND	1.0		µg/L	1	11/12/2009 4:03:48 AM
Toluene	ND	1.0		µg/L	1	11/12/2009 4:03:48 AM
Ethylbenzene	ND	1.0		µg/L	1	11/12/2009 4:03:48 AM
Xylenes, Total	ND	2.0		µg/L	1	11/12/2009 4:03:48 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/12/2009 4:03:48 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/12/2009 4:03:48 AM
Surr: 4-Bromofluorobenzene	76.5	65.9-130		%REC	1	11/12/2009 4:03:48 AM

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 4th QTR OW Wells **Work Order:** 0911097

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8021B: Volatiles											
Sample ID: 5ML RB		*MBLK*				Batch ID:	**R36137**	Analysis Date:	11/11/2009 9:50:52 AM		
Methyl tert-butyl ether (MTBE)	ND	µg/L	2.5								
Benzene	ND	µg/L	1.0								
Toluene	ND	µg/L	1.0								
Ethylbenzene	ND	µg/L	1.0								
Xylenes, Total	ND	µg/L	2.0								
1,2,4-Trimethylbenzene	ND	µg/L	1.0								
1,3,5-Trimethylbenzene	ND	µg/L	1.0								
Sample ID: 5ML RB		*MBLK*				Batch ID:	**R36161**	Analysis Date:	11/12/2009 10:10:54 AM		
Methyl tert-butyl ether (MTBE)	ND	µg/L	2.5								
Benzene	ND	µg/L	1.0								
Toluene	ND	µg/L	1.0								
Ethylbenzene	ND	µg/L	1.0								
Xylenes, Total	ND	µg/L	2.0								
1,2,4-Trimethylbenzene	ND	µg/L	1.0								
1,3,5-Trimethylbenzene	ND	µg/L	1.0								
Sample ID: 100NG BTEX LCS		*LCS*				Batch ID:	**R36137**	Analysis Date:	11/12/2009 5:34:45 AM		
Methyl tert-butyl ether (MTBE)	16.44	µg/L	2.5	20	0	82.2	51.2	138			
Benzene	19.03	µg/L	1.0	20	0	95.1	85.9	113			
Toluene	18.35	µg/L	1.0	20	0	91.8	86.4	113			
Ethylbenzene	18.08	µg/L	1.0	20	0	90.4	83.5	118			
Xylenes, Total	53.66	µg/L	2.0	60	0	89.4	83.4	122			
1,2,4-Trimethylbenzene	18.13	µg/L	1.0	20	0.136	90.0	83.5	115			
1,3,5-Trimethylbenzene	17.06	µg/L	1.0	20	0	85.3	85.2	113			
Sample ID: 100NG BTEX LCS		*LCS*				Batch ID:	**R36161**	Analysis Date:	11/13/2009 5:28:07 AM		
Methyl tert-butyl ether (MTBE)	15.85	µg/L	2.5	20	0	79.2	51.2	138			
Benzene	18.02	µg/L	1.0	20	0	90.1	85.9	113			
Toluene	18.41	µg/L	1.0	20	0	92.0	86.4	113			
Ethylbenzene	18.37	µg/L	1.0	20	0	91.8	83.5	118			
Xylenes, Total	55.04	µg/L	2.0	60	0	91.7	83.4	122			
1,2,4-Trimethylbenzene	19.35	µg/L	1.0	20	0.148	96.0	83.5	115			
1,3,5-Trimethylbenzene	17.84	µg/L	1.0	20	0	89.2	85.2	113			

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name **WESTERN REFINING GALLU** Date Received: **11/5/2009**

Work Order Number **0911097** Received by: **ARS**

Sample ID labels checked by: **lm** (Initials)

Checklist completed by: _____ (Signature) **11/5/09** (Date)

Matrix: Carrier name: UPS

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☑	No ☐	N/A ☐	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Water - VOA vials have zero headspace? No VOA vials submitted ☐		Yes ☑	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☐	No ☐	N/A ☑	
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑	
Container/Temp Blank temperature?	**3.4°**	*<6° C Acceptable* If given sufficient time to cool.		

Number of preserved bottles checked for pH: _____

<2 >12 unless noted below.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

_____

_____

_____

_____

Corrective Action _____

_____

_____

Chain-of-Custody Record

Client: Western Refining Gallup Refinery

Mailing Address: Rt 3 Box 7 Gallup, NM 87301

Phone #: 505 722 3833

email or Fax#: 505 722 0210

QA/QC Package:
- [X] Standard
- [ ] Level 4 (Full Validation)
- [ ] Other
- [ ] EDD (Type)

Turn-Around Time:
- [X] Standard
- [ ] Rush

Project Name: 4th QTR OW Wells

Project #:

Project Manager: G. Rajen

Sampler: Cheryl Johnson

On Ice: [X] Yes [ ] No

Sample Temperature: 3.7

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. 0911097	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)					Air Bubbles (Y or N)
11/2/09	0951	H2O	OW-[redacted]30			1	X															
11/2/09	1413	"	OW-14			2																
11/3/09	1109	"	OW-29			3																
11/3/09	1542	"	OW-13			4																

Date: 11/4/09 Time: 0848 Relinquished by:

Received by: Date 11/5/09 Time 10:00

Date: Time: Relinquished by:

Received by: Date Time

Remarks:

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

AL2. EP1
Napis/Plat
EP1
4th QTR

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Thursday, December 03, 2009

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

TEL: (505) 722-0227
FAX (505) 722-0210

RE: 4TH QTR EFF

Order No.: 0911220

Dear Gaurav Rajen:

Hall Environmental Analysis Laboratory, Inc. received 3 sample(s) on 11/11/2009 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901
AZ license # AZ0682
ORELAP Lab # NM100001
Texas Lab# T104704424-08-TX

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

Table I-1. Approved Waste Streams Applied to the Land Treatment Unit

EPA Hazardous Waste No.	Waste Description	Annual Application Limit (Tons)
D001	Ignitable Materials	50
D007	Cooling Water Filter Sludge	5
K049	Slop Oil Emulsion Sludge	200
K050	Heat Exchanger Bundle Cleaning sludge	15
K051	API Separator Sludge	1000
K052	Tank Bottoms (leaded)	5

Hall Environmental Analysis Laboratory, Inc.

Date: *03-Dec-09*

CLIENT: Western Refining Southwest, Gallup
Lab Order: 0911220
Project: 4TH QTR EFF
Lab ID: 0911220-01

Client Sample ID: NAPIS EFF
Collection Date: 11/10/2009 9:32:00 AM
Date Received: 11/11/2009
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **SCC**
Diesel Range Organics (DRO)	130	3.0		mg/L	1	11/12/2009 9:37:32 AM
Motor Oil Range Organics (MRO)	22	15		mg/L	1	11/12/2009 9:37:32 AM
Surr: DNOP	115	58-140		%REC	1	11/12/2009 9:37:32 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	84	10		mg/L	200	11/17/2009 4:56:40 PM
Surr: BFB	103	55.2-107		%REC	200	11/17/2009 4:56:40 PM
EPA METHOD 300.0: ANIONS						Analyst: **TAF**
Fluoride	86	5.0		mg/L	50	11/12/2009 9:25:47 PM
Chloride	430	5.0		mg/L	50	11/12/2009 9:25:47 PM
Nitrogen, Nitrite (As N)	ND	2.0		mg/L	20	11/11/2009 7:56:34 PM
Bromide	5.4	2.0		mg/L	20	11/11/2009 7:56:34 PM
Nitrogen, Nitrate (As N)	ND	2.0		mg/L	20	11/11/2009 7:56:34 PM
Phosphorus, Orthophosphate (As P)	36	10		mg/L	20	11/11/2009 7:56:34 PM
Sulfate	450	10		mg/L	20	11/11/2009 7:56:34 PM
EPA METHOD 7470: MERCURY						Analyst: **RAGS**
Mercury	0.00055	0.00020		mg/L	1	11/17/2009 4:21:15 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **RAGS**
Arsenic	ND	0.10		mg/L	1	11/19/2009 4:28:03 PM
Barium	0.77	0.050		mg/L	1	11/19/2009 4:28:03 PM
Cadmium	ND	0.010		mg/L	1	11/19/2009 4:28:03 PM
Calcium	93	2.5		mg/L	1	11/19/2009 4:28:03 PM
Chromium	0.035	0.030		mg/L	1	11/19/2009 4:28:03 PM
Copper	0.053	0.030		mg/L	1	11/20/2009 4:35:50 PM
Iron	19	1.3		mg/L	5	11/19/2009 4:30:52 PM
Lead	0.029	0.025		mg/L	1	11/19/2009 4:28:03 PM
Magnesium	21	2.5		mg/L	1	11/19/2009 4:28:03 PM
Manganese	0.15	0.010		mg/L	1	11/19/2009 4:28:03 PM
Potassium	37	5.0		mg/L	1	11/19/2009 4:28:03 PM
Selenium	ND	0.25		mg/L	1	11/19/2009 4:28:03 PM
Silver	ND	0.025		mg/L	1	11/19/2009 4:28:03 PM
Sodium	390	2.5		mg/L	1	11/19/2009 4:28:03 PM
Zinc	0.47	0.10		mg/L	1	11/19/2009 4:28:03 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **LBJ**
Acenaphthene	85	50		µg/L	1	11/17/2009 3:07:23 PM
Acenaphthylene	ND	50		µg/L	1	11/17/2009 3:07:23 PM
Aniline	1400	500		µg/L	10	11/17/2009 2:08:58 PM
Anthracene	ND	50		µg/L	1	11/17/2009 3:07:23 PM

Qualifiers:

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

Table D-2a. Ciniza Z01 Analytical Results, 1993 – 1999 (Continued)

Bi-Monthly Fall 1993

Sample ID [a]	pH	%TOC [b]	Total P [c]	TKN [d]	O & G [e]	Units
Z0I-1-147-092193					9300	mg/kg
Z0I-2-025-092193					9400	mg/kg
Z0I-2-124-092193					20000	mg/kg
Z0I-3-022-092193					2600	mg/kg

Fall 1993

Sample ID [a]	pH	%TOC [b]	Total P [c]	TKN [d]	O & G [e]	Units
Z0I-1-179-080293					11000	mg/kg
Z0I-2-032-080293					29000	mg/kg
Z0I-2-136-080293					28000	mg/kg
Z0I-3-1089-080293					1500	mg/kg

Spring 1993

Sample ID [a]	pH	%TOC [b]	Total P [c]	TKN [d]	O & G [e]	Units
Z0I-1-039-060293	7.3		200	1700	15000	mg/kg
Z0I-2-027-060293	7.2		210	1700	17000	mg/kg
Z0I-2-062-060293	8.1		245	1000	15000	mg/kg
Z0I-3-015-060293	7.8		160	820	180	mg/kg

[a] Sample Number Identification
(1) Zone of Incorporation – upper 12 inches of soil
(2) LTU Cell 1, 2, or 3
(3) Grid Cell number
(4) Data Sample number

[b] TOC = Total Organic Carbon

[c] Total P = Total Phosphorus

[d] TKN = Total Kjeldahl Nitrogen

[e] O&G = Oil and Grease

Hall Environmental Analysis Laboratory, Inc.

Date: *03-Dec-09*

CLIENT: Western Refining Southwest, Gallup
Lab Order: 0911220
Project: 4TH QTR EFF
Lab ID: 0911220-01

Client Sample ID: NAPIS EFF
Collection Date: 11/10/2009 9:32:00 AM
Date Received: 11/11/2009
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **LBJ**
Azobenzene	ND	50		µg/L	1	11/17/2009 3:07:23 PM
Benz(a)anthracene	ND	50		µg/L	1	11/17/2009 3:07:23 PM
Benzo(a)pyrene	ND	50		µg/L	1	11/17/2009 3:07:23 PM
Benzo(b)fluoranthene	ND	50		µg/L	1	11/17/2009 3:07:23 PM
Benzo(g,h,i)perylene	ND	50		µg/L	1	11/17/2009 3:07:23 PM
Benzo(k)fluoranthene	ND	50		µg/L	1	11/17/2009 3:07:23 PM
Benzoic acid	ND	100		µg/L	1	11/17/2009 3:07:23 PM
Benzyl alcohol	ND	50		µg/L	1	11/17/2009 3:07:23 PM
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	11/17/2009 3:07:23 PM
Bis(2-chloroethyl)ether	ND	50		µg/L	1	11/17/2009 3:07:23 PM
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	11/17/2009 3:07:23 PM
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	11/17/2009 3:07:23 PM
4-Bromophenyl phenyl ether	ND	50		µg/L	1	11/17/2009 3:07:23 PM
Butyl benzyl phthalate	ND	50		µg/L	1	11/17/2009 3:07:23 PM
Carbazole	ND	50		µg/L	1	11/17/2009 3:07:23 PM
4-Chloro-3-methylphenol	ND	50		µg/L	1	11/17/2009 3:07:23 PM
4-Chloroaniline	ND	50		µg/L	1	11/17/2009 3:07:23 PM
2-Chloronaphthalene	ND	50		µg/L	1	11/17/2009 3:07:23 PM
2-Chlorophenol	ND	50		µg/L	1	11/17/2009 3:07:23 PM
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	11/17/2009 3:07:23 PM
Chrysene	ND	50		µg/L	1	11/17/2009 3:07:23 PM
Di-n-butyl phthalate	ND	50		µg/L	1	11/17/2009 3:07:23 PM
Di-n-octyl phthalate	ND	50		µg/L	1	11/17/2009 3:07:23 PM
Dibenz(a,h)anthracene	ND	50		µg/L	1	11/17/2009 3:07:23 PM
Dibenzofuran	ND	50		µg/L	1	11/17/2009 3:07:23 PM
1,2-Dichlorobenzene	ND	50		µg/L	1	11/17/2009 3:07:23 PM
1,3-Dichlorobenzene	ND	50		µg/L	1	11/17/2009 3:07:23 PM
1,4-Dichlorobenzene	ND	50		µg/L	1	11/17/2009 3:07:23 PM
3,3'-Dichlorobenzidine	ND	50		µg/L	1	11/17/2009 3:07:23 PM
Diethyl phthalate	ND	50		µg/L	1	11/17/2009 3:07:23 PM
Dimethyl phthalate	ND	50		µg/L	1	11/17/2009 3:07:23 PM
2,4-Dichlorophenol	ND	100		µg/L	1	11/17/2009 3:07:23 PM
2,4-Dimethylphenol	300	50		µg/L	1	11/17/2009 3:07:23 PM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	11/17/2009 3:07:23 PM
2,4-Dinitrophenol	ND	100		µg/L	1	11/17/2009 3:07:23 PM
2,4-Dinitrotoluene	ND	50		µg/L	1	11/17/2009 3:07:23 PM
2,6-Dinitrotoluene	ND	50		µg/L	1	11/17/2009 3:07:23 PM
Fluoranthene	ND	50		µg/L	1	11/17/2009 3:07:23 PM
Fluorene	110	50		µg/L	1	11/17/2009 3:07:23 PM
Hexachlorobenzene	ND	50		µg/L	1	11/17/2009 3:07:23 PM
Hexachlorobutadiene	ND	50		µg/L	1	11/17/2009 3:07:23 PM
Hexachlorocyclopentadiene	ND	50		µg/L	1	11/17/2009 3:07:23 PM

Qualifiers:

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

Table D-2a. Ciniza Z01 Analytical Results, 1993 – 1999 (Continued)

Fall of 1994

Sample ID [a]	pH	%TOC [b]	Total P [c]	TKN [d]	O & G [e]	Units
Z0I-1-089-080494					32000	mg/kg
Z0I-1-069-080494					16000	mg/kg
Z0I-2-132-080494					16000	mg/kg
Z0I-3-122-080494					60000	mg/kg

Bi-Monthly Summer 1994

Sample ID [a]	pH	%TOC [b]	Total P [c]	TKN [d]	O & G [e]	Units
Z0I-1-056-061694					21000	mg/kg
Z0I-1-149-061694					22000	mg/kg
Z0I-2-097-061694					19000	mg/kg
Z0I-3-126-061694					2100	mg/kg

Spring 1994

Sample ID [a]	pH	%TOC [b]	Total P [c]	TKN [d]	O & G [e]	Units
Z0I-1-174-052394	7.8	1.3	270	8	70	mg/kg
Z0I-2-061-052394	7.7	5.8	310	7	65	mg/kg
Z0I-2-147-052394	7.3	4.5	330	13	ND	mg/kg
Z0I-3-153-052394	7.9	2.1	270	25	160	mg/kg

[a] Sample Number Identification
(1) Zone of Incorporation – upper 12 inches of soil
(2) LTU Cell 1, 2, or 3
(3) Grid Cell number
(4) Data Sample number

[b] TOC = Total Organic Carbon

[c] Total P = Total Phosphorus

[d] TKN = Total Kjeldahl Nitrogen

[e] O&G = Oil and Grease

Hall Environmental Analysis Laboratory, Inc.

Date: *03-Dec-09*

CLIENT: Western Refining Southwest, Gallup
Lab Order: 0911220
Project: 4TH QTR EFF
Lab ID: 0911220-01

Client Sample ID: NAPIS EFF
Collection Date: 11/10/2009 9:32:00 AM
Date Received: 11/11/2009
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **LBJ**
Hexachloroethane	ND	50		µg/L	1	11/17/2009 3:07:23 PM
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	11/17/2009 3:07:23 PM
Isophorone	ND	50		µg/L	1	11/17/2009 3:07:23 PM
2-Methylnaphthalene	1700	500		µg/L	10	11/17/2009 2:08:58 PM
2-Methylphenol	4400	500		µg/L	10	11/17/2009 2:08:58 PM
3+4-Methylphenol	7400	500		µg/L	10	11/17/2009 2:08:58 PM
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	11/17/2009 3:07:23 PM
N-Nitrosodimethylamine	ND	50		µg/L	1	11/17/2009 3:07:23 PM
N-Nitrosodiphenylamine	ND	50		µg/L	1	11/17/2009 3:07:23 PM
Naphthalene	1300	500		µg/L	10	11/17/2009 2:08:58 PM
2-Nitroaniline	ND	50		µg/L	1	11/17/2009 3:07:23 PM
3-Nitroaniline	ND	50		µg/L	1	11/17/2009 3:07:23 PM
4-Nitroaniline	ND	50		µg/L	1	11/17/2009 3:07:23 PM
Nitrobenzene	ND	50		µg/L	1	11/17/2009 3:07:23 PM
2-Nitrophenol	ND	50		µg/L	1	11/17/2009 3:07:23 PM
4-Nitrophenol	ND	50		µg/L	1	11/17/2009 3:07:23 PM
Pentachlorophenol	ND	100		µg/L	1	11/17/2009 3:07:23 PM
Phenanthrene	330	50		µg/L	1	11/17/2009 3:07:23 PM
Phenol	14000	1000		µg/L	20	11/17/2009 4:05:48 PM
Pyrene	ND	50		µg/L	1	11/17/2009 3:07:23 PM
Pyridine	80	50		µg/L	1	11/17/2009 3:07:23 PM
1,2,4-Trichlorobenzene	ND	50		µg/L	1	11/17/2009 3:07:23 PM
2,4,5-Trichlorophenol	ND	50		µg/L	1	11/17/2009 3:07:23 PM
2,4,6-Trichlorophenol	ND	50		µg/L	1	11/17/2009 3:07:23 PM
Surr: 2,4,6-Tribromophenol	21.7	16.6-150		%REC	1	11/17/2009 3:07:23 PM
Surr: 2-Fluorobiphenyl	77.8	19.6-134		%REC	1	11/17/2009 3:07:23 PM
Surr: 2-Fluorophenol	21.1	9.54-113		%REC	1	11/17/2009 3:07:23 PM
Surr: 4-Terphenyl-d14	51.6	22.7-145		%REC	1	11/17/2009 3:07:23 PM
Surr: Nitrobenzene-d5	77.4	14.6-134		%REC	1	11/17/2009 3:07:23 PM
Surr: Phenol-d5	39.3	10.7-80.3		%REC	1	11/17/2009 3:07:23 PM
EPA METHOD 8260B: VOLATILES						Analyst: **DAM**
Benzene	5900	500		µg/L	500	11/16/2009 11:23:59 AM
Toluene	16000	500		µg/L	500	11/16/2009 11:23:59 AM
Ethylbenzene	1600	50		µg/L	50	11/13/2009 4:07:45 PM
Methyl tert-butyl ether (MTBE)	ND	50		µg/L	50	11/13/2009 4:07:45 PM
1,2,4-Trimethylbenzene	1200	50		µg/L	50	11/13/2009 4:07:45 PM
1,3,5-Trimethylbenzene	440	50		µg/L	50	11/13/2009 4:07:45 PM
1,2-Dichloroethane (EDC)	ND	50		µg/L	50	11/13/2009 4:07:45 PM
1,2-Dibromoethane (EDB)	ND	50		µg/L	50	11/13/2009 4:07:45 PM
Naphthalene	830	100		µg/L	50	11/13/2009 4:07:45 PM
1-Methylnaphthalene	410	200		µg/L	50	11/13/2009 4:07:45 PM

Qualifiers:

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

Table D-2a. Ciniza Z01 Analytical Results, 1993 – 1999 (Continued)

Fall of 1995

Sample ID [a]	pH	%TOC [b]	Total P [c]	TKN [d]	O & G [e]	Units
Z0I-1-088-111595	7.7		360	470	88000	mg/kg
Z0I-2-114-111595	7.7		350	710	75000	mg/kg
Z0I-3-043-111595	8.3		220	510	14000	mg/kg
Z0I-3-134-111595	8.6		230	290	100	mg/kg

Bi-Monthly Fall 1995

Sample ID [a]	pH	%TOC [b]	Total P [c]	TKN [d]	O & G [e]	Units
Z0I-1-118-083195					6590	mg/kg
Z0I-2-008-083195					10800	mg/kg
Z0I-2-178-083195					3950	mg/kg
Z0I-3-145-083195					17	mg/kg

Bi-Monthly Summer 1995

Sample ID [a]	pH	%TOC [b]	Total P [c]	TKN [d]	O & G [e]	Units
Z0I-1-038-062995					5830	mg/kg
Z0I-1-085-062995					9720	mg/kg
Z0I-2-117-062995					7390	mg/kg
Z0I-3-065-062995					2870	mg/kg

Spring 1995

Sample ID [a]	pH	%TOC [b]	Total P [c]	TKN [d]	O & G [e]	Units
Z0I-1-015-042895	6.0		301	1330	18000	mg/kg
Z0I-1-186-042895	7.5		297	666	14000	mg/kg
Z0I-2-064-042895	7.5		334	775	9400	mg/kg
Z0I-3-099-042895	10.1		410	49	6340	mg/kg

[a] Sample Number Identification
(1) Zone of Incorporation – upper 12 inches of soil
(2) LTU Cell 1, 2, or 3
(3) Grid Cell number
(4) Data Sample number

[b] TOC = Total Organic Carbon

[c] Total P = Total Phosphorus

[d] TKN = Total Kjeldahl Nitrogen

[e] O&G = Oil and Grease

Hall Environmental Analysis Laboratory, Inc.

Date: *03-Dec-09*

CLIENT: Western Refining Southwest, Gallup
Lab Order: 0911220
Project: 4TH QTR EFF
Lab ID: 0911220-01

Client Sample ID: NAPIS EFF
Collection Date: 11/10/2009 9:32:00 AM
Date Received: 11/11/2009
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DAM**
2-Methylnaphthalene	680	200		µg/L	50	11/13/2009 4:07:45 PM
Acetone	11000	5000		µg/L	500	11/16/2009 11:23:59 AM
Bromobenzene	ND	50		µg/L	50	11/13/2009 4:07:45 PM
Bromodichloromethane	ND	50		µg/L	50	11/13/2009 4:07:45 PM
Bromoform	ND	50		µg/L	50	11/13/2009 4:07:45 PM
Bromomethane	ND	50		µg/L	50	11/13/2009 4:07:45 PM
2-Butanone	ND	500		µg/L	50	11/13/2009 4:07:45 PM
Carbon disulfide	ND	500		µg/L	50	11/13/2009 4:07:45 PM
Carbon Tetrachloride	ND	50		µg/L	50	11/13/2009 4:07:45 PM
Chlorobenzene	ND	50		µg/L	50	11/13/2009 4:07:45 PM
Chloroethane	ND	100		µg/L	50	11/13/2009 4:07:45 PM
Chloroform	ND	50		µg/L	50	11/13/2009 4:07:45 PM
Chloromethane	ND	50		µg/L	50	11/13/2009 4:07:45 PM
2-Chlorotoluene	ND	50		µg/L	50	11/13/2009 4:07:45 PM
4-Chlorotoluene	ND	50		µg/L	50	11/13/2009 4:07:45 PM
cis-1,2-DCE	ND	50		µg/L	50	11/13/2009 4:07:45 PM
cis-1,3-Dichloropropene	ND	50		µg/L	50	11/13/2009 4:07:45 PM
1,2-Dibromo-3-chloropropane	ND	100		µg/L	50	11/13/2009 4:07:45 PM
Dibromochloromethane	ND	50		µg/L	50	11/13/2009 4:07:45 PM
Dibromomethane	ND	50		µg/L	50	11/13/2009 4:07:45 PM
1,2-Dichlorobenzene	ND	50		µg/L	50	11/13/2009 4:07:45 PM
1,3-Dichlorobenzene	ND	50		µg/L	50	11/13/2009 4:07:45 PM
1,4-Dichlorobenzene	ND	50		µg/L	50	11/13/2009 4:07:45 PM
Dichlorodifluoromethane	ND	50		µg/L	50	11/13/2009 4:07:45 PM
1,1-Dichloroethane	ND	50		µg/L	50	11/13/2009 4:07:45 PM
1,1-Dichloroethene	ND	50		µg/L	50	11/13/2009 4:07:45 PM
1,2-Dichloropropane	ND	50		µg/L	50	11/13/2009 4:07:45 PM
1,3-Dichloropropane	ND	50		µg/L	50	11/13/2009 4:07:45 PM
2,2-Dichloropropane	ND	100		µg/L	50	11/13/2009 4:07:45 PM
1,1-Dichloropropene	ND	50		µg/L	50	11/13/2009 4:07:45 PM
Hexachlorobutadiene	ND	50		µg/L	50	11/13/2009 4:07:45 PM
2-Hexanone	ND	500		µg/L	50	11/13/2009 4:07:45 PM
Isopropylbenzene	ND	50		µg/L	50	11/13/2009 4:07:45 PM
4-Isopropyltoluene	ND	50		µg/L	50	11/13/2009 4:07:45 PM
4-Methyl-2-pentanone	ND	500		µg/L	50	11/13/2009 4:07:45 PM
Methylene Chloride	ND	150		µg/L	50	11/13/2009 4:07:45 PM
n-Butylbenzene	ND	50		µg/L	50	11/13/2009 4:07:45 PM
n-Propylbenzene	210	50		µg/L	50	11/13/2009 4:07:45 PM
sec-Butylbenzene	ND	50		µg/L	50	11/13/2009 4:07:45 PM
Styrene	ND	50		µg/L	50	11/13/2009 4:07:45 PM
tert-Butylbenzene	ND	50		µg/L	50	11/13/2009 4:07:45 PM
1,1,1,2-Tetrachloroethane	ND	50		µg/L	50	11/13/2009 4:07:45 PM

Qualifiers:

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

Table D-2a. Ciniza Z01 Analytical Results, 1993 – 1999 (Continued)

Fall of 1996

Sample ID [a]	pH	%TOC [b]	Total P [c]	TKN [d]	O & G [e]	Units
Z0I-1-089-021897	7.5	0.01	0.1	400	ND	mg/kg
Z0I-2-168-021897	7.7	0.01	0.2	300	ND	mg/kg
Z0I-3-027-021897	7.8	0.01	0.2	400	ND	mg/kg
Z0I-3-186-021897	7.7	0.01	0.3	400	ND	mg/kg

Bi-Monthly Fall 1996

Sample ID [a]	pH	%TOC [b]	Total P [c]	TKN [d]	O & G [e]	Units
Z0I-1-082-090396					138	mg/kg
Z0I-2-033-090396					29	mg/kg
Z0I-2-165-090396					ND	mg/kg
Z0I-3-088-090396					ND	mg/kg

Summer 1996

Sample ID [a]	pH	%TOC [b]	Total P [c]	TKN [d]	O & G [e]	Units
Z0I-1-073-061196					ND	mg/kg
Z0I-2-075-061196					ND	mg/kg
Z0I-2-120-061196					ND	mg/kg
Z0I-3-148-061196					ND	mg/kg

Spring 1996 – Special Sampling

Sample ID [a]	pH	%TOC [b]	Total P [c]	TKN [d]	O & G [e]	Units
Z0I-1-014-040296					3930	mg/kg
Z0I-1-091-040196					2940	mg/kg
Z0I-1-104-040196		Container broken in transit to the Lab				mg/kg
Z0I-1-178-040296					6900	mg/kg
Z0I-2-050-040196					4850	
Z0I-2-078-040196					13400	
Z0I-2-081-040196					3640	
Z0I-2-132-040296					4760	
Z0I-3-090-040296					164	
Z0I-3-092-040296					ND	
Z0I-3-163-040296					ND	
Z01-3-198-040296					ND	

[a] Sample Number Identification
(1) Zone of Incorporation – upper 12 inches of soil
(2) LTU Cell 1, 2, or 3
(3) Grid Cell number
(4) Data Sample number

[b] TOC = Total Organic Carbon

[c] Total P = Total Phosphorus, [d] TKN = Total Kjeldahl Nitrogen, [e] O&G = Oil and Grease

Hall Environmental Analysis Laboratory, Inc.

Date: *03-Dec-09*

CLIENT: Western Refining Southwest, Gallup
Lab Order: 0911220
Project: 4TH QTR EFF
Lab ID: 0911220-01

Client Sample ID: NAPIS EFF
Collection Date: 11/10/2009 9:32:00 AM
Date Received: 11/11/2009
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DAM**
1,1,2,2-Tetrachloroethane	ND	100		µg/L	50	11/13/2009 4:07:45 PM
Tetrachloroethene (PCE)	ND	50		µg/L	50	11/13/2009 4:07:45 PM
trans-1,2-DCE	ND	50		µg/L	50	11/13/2009 4:07:45 PM
trans-1,3-Dichloropropene	ND	50		µg/L	50	11/13/2009 4:07:45 PM
1,2,3-Trichlorobenzene	ND	50		µg/L	50	11/13/2009 4:07:45 PM
1,2,4-Trichlorobenzene	ND	50		µg/L	50	11/13/2009 4:07:45 PM
1,1,1-Trichloroethane	ND	50		µg/L	50	11/13/2009 4:07:45 PM
1,1,2-Trichloroethane	ND	50		µg/L	50	11/13/2009 4:07:45 PM
Trichloroethene (TCE)	ND	50		µg/L	50	11/13/2009 4:07:45 PM
Trichlorofluoromethane	ND	50		µg/L	50	11/13/2009 4:07:45 PM
1,2,3-Trichloropropane	ND	100		µg/L	50	11/13/2009 4:07:45 PM
Vinyl chloride	ND	50		µg/L	50	11/13/2009 4:07:45 PM
Xylenes, Total	9400	75		µg/L	50	11/13/2009 4:07:45 PM
Surr: 1,2-Dichloroethane-d4	99.3	54.6-141		%REC	50	11/13/2009 4:07:45 PM
Surr: 4-Bromofluorobenzene	89.8	60.1-133		%REC	50	11/13/2009 4:07:45 PM
Surr: Dibromofluoromethane	94.2	78.5-130		%REC	50	11/13/2009 4:07:45 PM
Surr: Toluene-d8	105	79.5-126		%REC	50	11/13/2009 4:07:45 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **DAM**
Specific Conductance	3600	0.010		µmhos/cm	1	11/12/2009 6:15:00 PM
SM4500-H+B: PH						Analyst: **DAM**
pH	8.90	0.1		pH units	1	11/12/2009 6:15:00 PM

Qualifiers:

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

Table D-2a. Ciniza Z01 Analytical Results, 1993 – 1999 (Continued)

Fall of 1997

Sample ID [a]	pH	%TOC [b]	Total P [c]	TKN [d]	O & G [e]	Units
Z0I-1-039-111197	7.8	0.5	270	150	120	mg/kg
Z0I-1-163-111197	8.1	0.6	220	280	55	mg/kg
Z0I-2-114-111197	8.2	0.2	190	130	74	mg/kg
Z0I-3-153-111197	8.5	0.4	280	190	74	mg/kg

Bi-Monthly Fall 1997

Sample ID [a]	pH	%TOC [b]	Total P [c]	TKN [d]	O & G [e]	Units
Z0I-1-075-091097	8.7	0.7				mg/kg
Z0I-2-198-091097	8.6	0.4				mg/kg
Z0I-3-064-091097	8.6	0.8				mg/kg
Z0I-3-142-091097	8.5	0.7				mg/kg

Bi-Monthly Summer 1997

Sample ID [a]	pH	%TOC [b]	Total P [c]	TKN [d]	O & G [e]	Units
Z0I-1-068-052797	7.8	0.5			50	mg/kg
Z0I-2-037-052797	7.8	0.4			110	mg/kg
Z0I-3-079-052797	7.5	1.0			ND	mg/kg
Z0I-3-093-052797	7.6	1.0			80	mg/kg

Spring 1997

Sample ID [a]	pH	%TOC [b]	Total P [c]	TKN [d]	O & G [e]	Units
Z0I-1-140-050297	7.7	<1	267	313		mg/kg
Z0I-2-068-050297	7.7	<1	139	470		mg/kg
Z0I-2-073-050297	7.7	<1	81	359		mg/kg
Z0I-3-066-050297	7.7	<1	99	455		mg/kg

[a] Sample Number Identification
(1) Zone of Incorporation – upper 12 inches of soil
(2) LTU Cell 1, 2, or 3
(3) Grid Cell number
(4) Data Sample number

[b] TOC = Total Organic Carbon

[c] Total P = Total Phosphorus

[d] TKN = Total Kjeldahl Nitrogen

[e] O&G = Oil and Grease

Hall Environmental Analysis Laboratory, Inc.

Date: *03-Dec-09*

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: PILOT EFF
Lab Order: 0911220
Collection Date: 11/10/2009 9:04:00 AM
Project: 4TH QTR EFF
Date Received: 11/11/2009
Lab ID: 0911220-02
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **SCC**
Diesel Range Organics (DRO)	8.3	3.0		mg/L	1	11/12/2009 10:13:45 AM
Motor Oil Range Organics (MRO)	25	15		mg/L	1	11/12/2009 10:13:45 AM
Surr: DNOP	105	58-140		%REC	1	11/12/2009 10:13:45 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.25		mg/L	5	11/17/2009 5:56:56 PM
Surr: BFB	94.9	55.2-107		%REC	5	11/17/2009 5:56:56 PM
EPA METHOD 7470: MERCURY						Analyst: **RAGS**
Mercury	ND	0.00020		mg/L	1	11/17/2009 4:22:59 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **RAGS**
Arsenic	ND	0.040		mg/L	1	11/19/2009 4:33:54 PM
Barium	0.023	0.020		mg/L	1	11/19/2009 4:33:54 PM
Cadmium	ND	0.0040		mg/L	1	11/19/2009 4:33:54 PM
Calcium	34	1.0		mg/L	1	11/19/2009 4:33:54 PM
Chromium	ND	0.012		mg/L	1	11/19/2009 4:33:54 PM
Copper	0.047	0.012		mg/L	1	11/20/2009 4:48:38 PM
Iron	0.28	0.10		mg/L	1	11/19/2009 4:33:54 PM
Lead	ND	0.010		mg/L	1	11/19/2009 4:33:54 PM
Magnesium	8.8	1.0		mg/L	1	11/19/2009 4:33:54 PM
Manganese	0.041	0.0040		mg/L	1	11/19/2009 4:33:54 PM
Potassium	17	2.0		mg/L	1	11/19/2009 4:33:54 PM
Selenium	ND	0.10		mg/L	1	11/19/2009 4:33:54 PM
Silver	ND	0.010		mg/L	1	11/19/2009 4:33:54 PM
Sodium	390	5.0		mg/L	5	11/19/2009 4:37:01 PM
Zinc	0.058	0.040		mg/L	1	11/19/2009 4:33:54 PM
EPA METHOD 8260B: VOLATILES						Analyst: **DAM**
Benzene	ND	5.0		µg/L	5	11/16/2009 1:45:40 PM
Toluene	ND	5.0		µg/L	5	11/16/2009 1:45:40 PM
Ethylbenzene	ND	5.0		µg/L	5	11/16/2009 1:45:40 PM
Methyl tert-butyl ether (MTBE)	ND	5.0		µg/L	5	11/16/2009 1:45:40 PM
1,2,4-Trimethylbenzene	ND	5.0		µg/L	5	11/16/2009 1:45:40 PM
1,3,5-Trimethylbenzene	ND	5.0		µg/L	5	11/16/2009 1:45:40 PM
1,2-Dichloroethane (EDC)	ND	5.0		µg/L	5	11/16/2009 1:45:40 PM
1,2-Dibromoethane (EDB)	ND	5.0		µg/L	5	11/16/2009 1:45:40 PM
Naphthalene	ND	10		µg/L	5	11/16/2009 1:45:40 PM
1-Methylnaphthalene	ND	20		µg/L	5	11/16/2009 1:45:40 PM
2-Methylnaphthalene	ND	20		µg/L	5	11/16/2009 1:45:40 PM
Acetone	ND	50		µg/L	5	11/16/2009 1:45:40 PM
Bromobenzene	ND	5.0		µg/L	5	11/16/2009 1:45:40 PM

Qualifiers:

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

Table D-2b. Ciniza BTZ Analytical Results, 1993 – 1999 (Continued)

Fall 1994

Sample ID [a]	pH	%TOC [b]	% Moisture	Vols (8021)	Semi-Vols (8270)	Units
BTZ-1-174-052394	8.8	0.4	14	ND	ND	ug/kg
BTZ-2-081-052394	9.0	0.3	12	ND	ND	ug/kg
BTZ-2-147-052394	9.2	0.3	13	ND	ND	ug/kg
BTZ-3-143-052394	9.5	0.3	9	ND	ND	ug/kg

[a] Sample Number Identification
(1) Below Treatment Zone
(2) LTU Cell 1, 2, or 3
(3) Grid Cell number
(4) Data Sample number

[b] TOC = Total Organic Carbon

Hall Environmental Analysis Laboratory, Inc.

Date: *03-Dec-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	PILOT EFF
Lab Order:	0911220	**Collection Date:**	11/10/2009 9:04:00 AM
Project:	4TH QTR EFF	**Date Received:**	11/11/2009
Lab ID:	0911220-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DAM**
Bromodichloromethane	ND	5.0		µg/L	5	11/16/2009 1:45:40 PM
Bromoform	ND	5.0		µg/L	5	11/16/2009 1:45:40 PM
Bromomethane	ND	5.0		µg/L	5	11/16/2009 1:45:40 PM
2-Butanone	ND	50		µg/L	5	11/16/2009 1:45:40 PM
Carbon disulfide	150	50		µg/L	5	11/16/2009 1:45:40 PM
Carbon Tetrachloride	ND	5.0		µg/L	5	11/16/2009 1:45:40 PM
Chlorobenzene	ND	5.0		µg/L	5	11/16/2009 1:45:40 PM
Chloroethane	ND	10		µg/L	5	11/16/2009 1:45:40 PM
Chloroform	6.2	5.0		µg/L	5	11/16/2009 1:45:40 PM
Chloromethane	ND	5.0		µg/L	5	11/16/2009 1:45:40 PM
2-Chlorotoluene	ND	5.0		µg/L	5	11/16/2009 1:45:40 PM
4-Chlorotoluene	ND	5.0		µg/L	5	11/16/2009 1:45:40 PM
cis-1,2-DCE	ND	5.0		µg/L	5	11/16/2009 1:45:40 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	5	11/16/2009 1:45:40 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	5	11/16/2009 1:45:40 PM
Dibromochloromethane	ND	5.0		µg/L	5	11/16/2009 1:45:40 PM
Dibromomethane	ND	5.0		µg/L	5	11/16/2009 1:45:40 PM
1,2-Dichlorobenzene	ND	5.0		µg/L	5	11/16/2009 1:45:40 PM
1,3-Dichlorobenzene	ND	5.0		µg/L	5	11/16/2009 1:45:40 PM
1,4-Dichlorobenzene	ND	5.0		µg/L	5	11/16/2009 1:45:40 PM
Dichlorodifluoromethane	ND	5.0		µg/L	5	11/16/2009 1:45:40 PM
1,1-Dichloroethane	ND	5.0		µg/L	5	11/16/2009 1:45:40 PM
1,1-Dichloroethene	ND	5.0		µg/L	5	11/16/2009 1:45:40 PM
1,2-Dichloropropane	ND	5.0		µg/L	5	11/16/2009 1:45:40 PM
1,3-Dichloropropane	ND	5.0		µg/L	5	11/16/2009 1:45:40 PM
2,2-Dichloropropane	ND	10		µg/L	5	11/16/2009 1:45:40 PM
1,1-Dichloropropene	ND	5.0		µg/L	5	11/16/2009 1:45:40 PM
Hexachlorobutadiene	ND	5.0		µg/L	5	11/16/2009 1:45:40 PM
2-Hexanone	ND	50		µg/L	5	11/16/2009 1:45:40 PM
Isopropylbenzene	ND	5.0		µg/L	5	11/16/2009 1:45:40 PM
4-Isopropyltoluene	ND	5.0		µg/L	5	11/16/2009 1:45:40 PM
4-Methyl-2-pentanone	ND	50		µg/L	5	11/16/2009 1:45:40 PM
Methylene Chloride	ND	15		µg/L	5	11/16/2009 1:45:40 PM
n-Butylbenzene	ND	5.0		µg/L	5	11/16/2009 1:45:40 PM
n-Propylbenzene	ND	5.0		µg/L	5	11/16/2009 1:45:40 PM
sec-Butylbenzene	ND	5.0		µg/L	5	11/16/2009 1:45:40 PM
Styrene	ND	5.0		µg/L	5	11/16/2009 1:45:40 PM
tert-Butylbenzene	ND	5.0		µg/L	5	11/16/2009 1:45:40 PM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	5	11/16/2009 1:45:40 PM
1,1,2,2-Tetrachloroethane	ND	10		µg/L	5	11/16/2009 1:45:40 PM
Tetrachloroethene (PCE)	ND	5.0		µg/L	5	11/16/2009 1:45:40 PM
trans-1,2-DCE	ND	5.0		µg/L	5	11/16/2009 1:45:40 PM

Qualifiers:

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

Table D-2b. Ciniza BTZ Analytical Results, 1993 – 1999 (Continued)

Fall 1995

Sample ID [a]	pH	%TOC [b]	% Moisture	Vols (8021)	Semi-Vols (8270)	Units
BTZ-1-088-111595	9.5		13	ND	ND	ug/kg
BTZ-2-114-111595	9.1		15	ND	ND	ug/kg
BTZ-3-043-111595	9.6		10	ND	ND	ug/kg
BTZ-3-134-111595	9.2		13	ND	ND	ug/kg

Spring 199

Sample ID [a]	pH	%TOC [b]	% Moisture	Vols (8021)	Semi-Vols (8270)	Units
BTZ-1-015-042895	8.2		14.8	ND	ND	ug/kg
BTZ-1-186-042895	8.3		14.0	ND	ND	ug/kg
BTZ-2-064-042895	8.0		16.4	ND	ND	ug/kg
BTZ-3-099-042895	7.0		17.5	ND	ND	ug/kg

[a] Sample Number Identification
(1) Below Treatment Zone
(2) LTU Cell 1, 2, or 3
(3) Grid Cell number
(4) Data Sample number

[b] TOC = Total Organic Carbon

Hall Environmental Analysis Laboratory, Inc.

Date: *03-Dec-09*

CLIENT: Western Refining Southwest, Gallup
Lab Order: 0911220
Project: 4TH QTR EFF
Lab ID: 0911220-02

Client Sample ID: PILOT EFF
Collection Date: 11/10/2009 9:04:00 AM
Date Received: 11/11/2009
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DAM**
trans-1,3-Dichloropropene	ND	5.0		µg/L	5	11/16/2009 1:45:40 PM
1,2,3-Trichlorobenzene	ND	5.0		µg/L	5	11/16/2009 1:45:40 PM
1,2,4-Trichlorobenzene	ND	5.0		µg/L	5	11/16/2009 1:45:40 PM
1,1,1-Trichloroethane	ND	5.0		µg/L	5	11/16/2009 1:45:40 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	5	11/16/2009 1:45:40 PM
Trichloroethene (TCE)	ND	5.0		µg/L	5	11/16/2009 1:45:40 PM
Trichlorofluoromethane	ND	5.0		µg/L	5	11/16/2009 1:45:40 PM
1,2,3-Trichloropropane	ND	10		µg/L	5	11/16/2009 1:45:40 PM
Vinyl chloride	ND	5.0		µg/L	5	11/16/2009 1:45:40 PM
Xylenes, Total	ND	7.5		µg/L	5	11/16/2009 1:45:40 PM
Surr: 1,2-Dichloroethane-d4	93.5	54.6-141		%REC	5	11/16/2009 1:45:40 PM
Surr: 4-Bromofluorobenzene	107	60.1-133		%REC	5	11/16/2009 1:45:40 PM
Surr: Dibromofluoromethane	92.7	78.5-130		%REC	5	11/16/2009 1:45:40 PM
Surr: Toluene-d8	88.7	79.5-126		%REC	5	11/16/2009 1:45:40 PM

Qualifiers:

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

Table D-2b. Ciniza BTZ Analytical Results, 1993 – 1999 (Continued)

Fall 1996

Sample ID [a]	pH	%TOC [b]	% Moisture	Vols (8021)	Semi-Vols (8270)	Units
BTZ-1-089-021897	7.6	0.01	13.0	ND	ND	ug/kg
BTZ-2-168-021897	7.6	0.01	13.8	ND	ND	ug/kg
BTZ-3-027-021897	7.8	0.01	18.9	ND	ND	ug/kg
BTZ-3-186-021897	7.9	0.01	11.5	ND	ND	ug/kg

Summer 1996

Sample ID [a]	pH	%TOC [b]	% Moisture	Vols (8021)	Semi-Vols (8270)	Units
BTZ-1-073-061196	8.1	0.3	11.5	ND	ND	ug/kg
BTZ-2-075-061196	8.0	0.2	13.9	ND	ND	ug/kg
BTZ-2-120-061196	7.8	0.2	15.4	ND	ND	ug/kg
BTZ-3-148-061196	8.1	0.2	13.8	ND	ND	ug/kg

Spring 1996 Special Sampling

Sample ID [a]	pH	%TOC [b]	% Moisture	Vols (8021)	Semi-Vols (8270)	Units
BTZ-1-014-040296		0.4		ND	ND	ug/kg
BTZ-1-091-040196		0.4		ND	ND	ug/kg
BTZ-1-104-040196		0.5		ND	ND	ug/kg
BTZ-1-178-040296		0.3		ND	ND	ug/kg
BTZ-2-050-040196		0.3		ND	ND	ug/kg
BTZ-2-078-040196		0.4		ND	ND	ug/kg
BTZ-2-081-040196		0.2		ND	ND	ug/kg
BTZ-2-132-040296		0.4		ND	ND	ug/kg
BTZ-3-090-040296		0.3		ND	ND	ug/kg
BTZ-3-092-040296		0.3		ND	ND	ug/kg
BTZ-3-163-040296		0.3		ND	ND	ug/kg
BTZ-3-198-040296		0.3		ND	ND	ug/kg

[a] Sample Number Identification
(1) Below Treatment Zone
(2) LTU Cell 1, 2, or 3
(3) Grid Cell number
(4) Data Sample number

[b] TOC = Total Organic Carbon

Hall Environmental Analysis Laboratory, Inc.

Date: *03-Dec-09*

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: AL2 TO EP1
Lab Order: 0911220
Collection Date: 11/10/2009 8:50:00 AM
Project: 4TH QTR EFF
Date Received: 11/11/2009
Lab ID: 0911220-03
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **SCC**
Diesel Range Organics (DRO)	49	3.0		mg/L	1	11/12/2009 10:49:58 AM
Motor Oil Range Organics (MRO)	30	15		mg/L	1	11/12/2009 10:49:58 AM
Surr: DNOP	118	58-140		%REC	1	11/12/2009 10:49:58 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	0.48	0.25		mg/L	5	11/17/2009 6:57:08 PM
Surr: BFB	125	55.2-107	S	%REC	5	11/17/2009 6:57:08 PM
EPA METHOD 7470: MERCURY						Analyst: **RAGS**
Mercury	0.00029	0.00020		mg/L	1	11/17/2009 4:24:44 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **RAGS**
Arsenic	ND	0.10		mg/L	1	11/19/2009 4:39:59 PM
Barium	0.056	0.050		mg/L	1	11/19/2009 4:39:59 PM
Cadmium	ND	0.010		mg/L	1	11/19/2009 4:39:59 PM
Calcium	43	2.5		mg/L	1	11/19/2009 4:39:59 PM
Chromium	ND	0.030		mg/L	1	11/19/2009 4:39:59 PM
Copper	ND	0.030		mg/L	1	11/20/2009 4:51:38 PM
Iron	1.9	0.25		mg/L	1	11/19/2009 4:39:59 PM
Lead	ND	0.025		mg/L	1	11/19/2009 4:39:59 PM
Magnesium	14	2.5		mg/L	1	11/19/2009 4:39:59 PM
Manganese	0.12	0.010		mg/L	1	11/19/2009 4:39:59 PM
Potassium	35	5.0		mg/L	1	11/19/2009 4:39:59 PM
Selenium	ND	0.25		mg/L	1	11/19/2009 4:39:59 PM
Silver	ND	0.025		mg/L	1	11/19/2009 4:39:59 PM
Sodium	430	2.5		mg/L	1	11/19/2009 4:39:59 PM
Zinc	0.11	0.10		mg/L	1	11/19/2009 4:39:59 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **LBJ**
Acenaphthene	ND	50		µg/L	1	11/17/2009 3:36:34 PM
Acenaphthylene	ND	50		µg/L	1	11/17/2009 3:36:34 PM
Aniline	150	50		µg/L	1	11/17/2009 3:36:34 PM
Anthracene	ND	50		µg/L	1	11/17/2009 3:36:34 PM
Azobenzene	ND	50		µg/L	1	11/17/2009 3:36:34 PM
Benz(a)anthracene	ND	50		µg/L	1	11/17/2009 3:36:34 PM
Benzo(a)pyrene	ND	50		µg/L	1	11/17/2009 3:36:34 PM
Benzo(b)fluoranthene	ND	50		µg/L	1	11/17/2009 3:36:34 PM
Benzo(g,h,i)perylene	ND	50		µg/L	1	11/17/2009 3:36:34 PM
Benzo(k)fluoranthene	ND	50		µg/L	1	11/17/2009 3:36:34 PM
Benzoic acid	ND	100		µg/L	1	11/17/2009 3:36:34 PM
Benzyl alcohol	ND	50		µg/L	1	11/17/2009 3:36:34 PM
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	11/17/2009 3:36:34 PM

Qualifiers:

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

Table D-2b. Ciniza BTZ Analytical Results, 1993 – 1999 (Continued)

Fall 1997

Sample ID [a]	pH	%TOC [b]	% Moisture	Vols (8021)	Semi-Vols (8270)	Units
BTZ-1-039-111197	8.1	0.4	12	ND		ug/kg
BTZ-1-163-111197	8.6	0.1	8	ND		ug/kg
BTZ-2-114-111197	8.5	0.5	15	ND		ug/kg
BTZ-3-153-111197	8.5	0.4	11	ND		ug/kg

Summer 1997

Sample ID [a]	pH	%TOC [b]	% Moisture	Vols (8021)	Semi-Vols (8270)	Units
BTZ-1-140-050297	7.8	<1	10.7	ND	ND	ug/kg
BTZ-2-068-050297	7.8	<1	14.3	ND	ND	ug/kg
BTZ-2-073-050297	7.8	<1	12.9	ND	ND	ug/kg
BTZ-3-066-050297	7.8	<1	11.8	ND	ND	ug/kg

Fall 1997

Sample ID [a]	pH	%TOC [b]	% Moisture	Vols (8021)	Semi-Vols (8270)	Units
BTZ-1-039-111197	8.1	0.4	12	ND		ug/kg
BTZ-1163-111197	8.6	0.1	8	ND		ug/kg
BTZ-2-114-111197	8.5	0.5	15	ND		ug/kg
BTZ-3-153-111197	8.5	0.4	11	ND		ug/kg

Spring 1997

Sample ID [a]	pH	%TOC [b]	% Moisture	Vols (8021)	Semi-Vols (8270)	Units
BTZ-1-140-050297	7.8	<1	10.7	ND	ND	ug/kg
BTZ-2-068-050297	7.8	<1	14.3	ND	ND	ug/kg
BTZ-2-073-050297	7.8	<1	12.9	ND	ND	ug/kg
BTZ-3-066-050297	7.8	<1	11.8	ND	ND	ug/kg

[a] Sample Number Identification
(1) Below Treatment Zone
(2) LTU Cell 1, 2, or 3
(3) Grid Cell number
(4) Data Sample number

[b] TOC = Total Organic Carbon

Hall Environmental Analysis Laboratory, Inc.

Date: *03-Dec-09*

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: AL2 TO EP1
Lab Order: 0911220
Collection Date: 11/10/2009 8:50:00 AM
Project: 4TH QTR EFF
Date Received: 11/11/2009
Lab ID: 0911220-03
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: LBJ
Bis(2-chloroethyl)ether	ND	50		µg/L	1	11/17/2009 3:36:34 PM
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	11/17/2009 3:36:34 PM
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	11/17/2009 3:36:34 PM
4-Bromophenyl phenyl ether	ND	50		µg/L	1	11/17/2009 3:36:34 PM
Butyl benzyl phthalate	ND	50		µg/L	1	11/17/2009 3:36:34 PM
Carbazole	ND	50		µg/L	1	11/17/2009 3:36:34 PM
4-Chloro-3-methylphenol	ND	50		µg/L	1	11/17/2009 3:36:34 PM
4-Chloroaniline	ND	50		µg/L	1	11/17/2009 3:36:34 PM
2-Chloronaphthalene	ND	50		µg/L	1	11/17/2009 3:36:34 PM
2-Chlorophenol	ND	50		µg/L	1	11/17/2009 3:36:34 PM
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	11/17/2009 3:36:34 PM
Chrysene	ND	50		µg/L	1	11/17/2009 3:36:34 PM
Di-n-butyl phthalate	ND	50		µg/L	1	11/17/2009 3:36:34 PM
Di-n-octyl phthalate	ND	50		µg/L	1	11/17/2009 3:36:34 PM
Dibenz(a,h)anthracene	ND	50		µg/L	1	11/17/2009 3:36:34 PM
Dibenzofuran	ND	50		µg/L	1	11/17/2009 3:36:34 PM
1,2-Dichlorobenzene	ND	50		µg/L	1	11/17/2009 3:36:34 PM
1,3-Dichlorobenzene	ND	50		µg/L	1	11/17/2009 3:36:34 PM
1,4-Dichlorobenzene	ND	50		µg/L	1	11/17/2009 3:36:34 PM
3,3'-Dichlorobenzidine	ND	50		µg/L	1	11/17/2009 3:36:34 PM
Diethyl phthalate	ND	50		µg/L	1	11/17/2009 3:36:34 PM
Dimethyl phthalate	ND	50		µg/L	1	11/17/2009 3:36:34 PM
2,4-Dichlorophenol	ND	100		µg/L	1	11/17/2009 3:36:34 PM
2,4-Dimethylphenol	160	50		µg/L	1	11/17/2009 3:36:34 PM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	11/17/2009 3:36:34 PM
2,4-Dinitrophenol	ND	100		µg/L	1	11/17/2009 3:36:34 PM
2,4-Dinitrotoluene	ND	50		µg/L	1	11/17/2009 3:36:34 PM
2,6-Dinitrotoluene	ND	50		µg/L	1	11/17/2009 3:36:34 PM
Fluoranthene	ND	50		µg/L	1	11/17/2009 3:36:34 PM
Fluorene	ND	50		µg/L	1	11/17/2009 3:36:34 PM
Hexachlorobenzene	ND	50		µg/L	1	11/17/2009 3:36:34 PM
Hexachlorobutadiene	ND	50		µg/L	1	11/17/2009 3:36:34 PM
Hexachlorocyclopentadiene	ND	50		µg/L	1	11/17/2009 3:36:34 PM
Hexachloroethane	ND	50		µg/L	1	11/17/2009 3:36:34 PM
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	11/17/2009 3:36:34 PM
Isophorone	ND	50		µg/L	1	11/17/2009 3:36:34 PM
2-Methylnaphthalene	67	50		µg/L	1	11/17/2009 3:36:34 PM
2-Methylphenol	1200	500		µg/L	10	11/17/2009 2:38:11 PM
3+4-Methylphenol	2200	500		µg/L	10	11/17/2009 2:38:11 PM
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	11/17/2009 3:36:34 PM
N-Nitrosodimethylamine	ND	50		µg/L	1	11/17/2009 3:36:34 PM
N-Nitrosodiphenylamine	ND	50		µg/L	1	11/17/2009 3:36:34 PM

Qualifiers:

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

Table D-2b. Ciniza BTZ Analytical Results, 1993 – 1999 (Continued)

Fall 1998

Sample ID [a]	pH	%TOC [b]	% Moisture	Vols (8021)	Semi-Vols (8270)	Units
BTZ-1-127-011499	8.9	0.3	13	ND	ND	ug/kg
BTZ-1-142-011499	8.8	0.2	10	ND	ND	ug/kg
BTZ-2-113-011499	8.9	0.6	6	ND	ND	ug/kg
BTZ-3-056-011499	8.3	0.3	5	ND	ND	ug/kg

Summer 1998

Sample ID [a]	pH	%TOC [b]	% Moisture	Vols (8021)	Semi-Vols (8270)	Units
BTZ-1-058-061798				ND	ND	ug/kg
BTZ-1-189-061798				ND	ND	ug/kg
BTZ-2-089-061798				ND	ND	ug/kg
BTZ-3-047-061798				ND	ND	ug/kg

Spring 1998

Sample ID [a]	pH	%TOC [b]	% Moisture	Vols (8021)	Semi-Vols (8270)	Units
BTZ-1-174-042398	8.4	0.4	12	ND	ND	ug/kg
BTZ-2-186-042398	8.6	0.4	13	ND	ND	ug/kg
BTZ-3-036-042398	8.5	0.4	19	ND	ND	ug/kg
BTZ-3-119-042398	8.7	0.4	14	ND	ND	ug/kg

[a] Sample Number Identification
(1) Below Treatment Zone
(2) LTU Cell 1, 2, or 3
(3) Grid Cell number
(4) Data Sample number

[b] TOC = Total Organic Carbon

CLIENT: Western Refining Southwest, Gallup
Lab Order: 0911220
Project: 4TH QTR EFF
Lab ID: 0911220-03

Client Sample ID: AL2 TO EP1
Collection Date: 11/10/2009 8:50:00 AM
Date Received: 11/11/2009
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **LBJ**
Naphthalene	ND	50		µg/L	1	11/17/2009 3:36:34 PM
2-Nitroaniline	ND	50		µg/L	1	11/17/2009 3:36:34 PM
3-Nitroaniline	ND	50		µg/L	1	11/17/2009 3:36:34 PM
4-Nitroaniline	ND	50		µg/L	1	11/17/2009 3:36:34 PM
Nitrobenzene	ND	50		µg/L	1	11/17/2009 3:36:34 PM
2-Nitrophenol	ND	50		µg/L	1	11/17/2009 3:36:34 PM
4-Nitrophenol	ND	50		µg/L	1	11/17/2009 3:36:34 PM
Pentachlorophenol	ND	100		µg/L	1	11/17/2009 3:36:34 PM
Phenanthrene	120	50		µg/L	1	11/17/2009 3:36:34 PM
Phenol	1200	500		µg/L	10	11/17/2009 2:38:11 PM
Pyrene	ND	50		µg/L	1	11/17/2009 3:36:34 PM
Pyridine	ND	50		µg/L	1	11/17/2009 3:36:34 PM
1,2,4-Trichlorobenzene	ND	50		µg/L	1	11/17/2009 3:36:34 PM
2,4,5-Trichlorophenol	ND	50		µg/L	1	11/17/2009 3:36:34 PM
2,4,6-Trichlorophenol	ND	50		µg/L	1	11/17/2009 3:36:34 PM
Surr: 2,4,6-Tribromophenol	58.4	16.6-150		%REC	1	11/17/2009 3:36:34 PM
Surr: 2-Fluorobiphenyl	62.5	19.6-134		%REC	1	11/17/2009 3:36:34 PM
Surr: 2-Fluorophenol	45.4	9.54-113		%REC	1	11/17/2009 3:36:34 PM
Surr: 4-Terphenyl-d14	54.8	22.7-145		%REC	1	11/17/2009 3:36:34 PM
Surr: Nitrobenzene-d5	59.7	14.6-134		%REC	1	11/17/2009 3:36:34 PM
Surr: Phenol-d5	38.2	10.7-80.3		%REC	1	11/17/2009 3:36:34 PM
EPA METHOD 8260B: VOLATILES						Analyst: **DAM**
Benzene	ND	5.0		µg/L	5	11/16/2009 2:42:27 PM
Toluene	ND	5.0		µg/L	5	11/16/2009 2:42:27 PM
Ethylbenzene	ND	5.0		µg/L	5	11/16/2009 2:42:27 PM
Methyl tert-butyl ether (MTBE)	ND	5.0		µg/L	5	11/16/2009 2:42:27 PM
1,2,4-Trimethylbenzene	5.2	5.0		µg/L	5	11/16/2009 2:42:27 PM
1,3,5-Trimethylbenzene	ND	5.0		µg/L	5	11/16/2009 2:42:27 PM
1,2-Dichloroethane (EDC)	ND	5.0		µg/L	5	11/16/2009 2:42:27 PM
1,2-Dibromoethane (EDB)	ND	5.0		µg/L	5	11/16/2009 2:42:27 PM
Naphthalene	12	10		µg/L	5	11/16/2009 2:42:27 PM
1-Methylnaphthalene	40	20		µg/L	5	11/16/2009 2:42:27 PM
2-Methylnaphthalene	47	20		µg/L	5	11/16/2009 2:42:27 PM
Acetone	750	50		µg/L	5	11/16/2009 2:42:27 PM
Bromobenzene	ND	5.0		µg/L	5	11/16/2009 2:42:27 PM
Bromodichloromethane	ND	5.0		µg/L	5	11/16/2009 2:42:27 PM
Bromoform	ND	5.0		µg/L	5	11/16/2009 2:42:27 PM
Bromomethane	ND	5.0		µg/L	5	11/16/2009 2:42:27 PM
2-Butanone	89	50		µg/L	5	11/16/2009 2:42:27 PM
Carbon disulfide	240	50		µg/L	5	11/16/2009 2:42:27 PM
Carbon Tetrachloride	ND	5.0		µg/L	5	11/16/2009 2:42:27 PM

Qualifiers:

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

Table D-2b. Ciniza BTZ Analytical Results, 1993 - 1999

Fall 1999

Sample ID [a]	pH	%TOC [b]	% Moisture	Vols (8021)	Semi-Vols (8270)	Units
BTZ-1-055-101999	8.0	0.3	Lab error -	ND	ND	ug/kg
BTZ-1-193-101999	8.1	0.3	did not run	ND	ND	ug/kg
BTZ-2-055-101999	8.8	0.1	requested	ND	ND	ug/kg
BTZ-3-160-101999	8.2	0.3	analyses	ND	ND	ug/kg

Spring 1999

Sample ID [a]	pH	%TOC [b]	% Moisture	Vols (8021)	Semi-Vols (8270)	Units
BTZ-1-040-051899	8.4	0.2	12	ND	ND	ug/kg
BTZ-1-098-051899	8.4	0.3	13	ND	ND	ug/kg
BTZ-1-143-051899	8.5	0.4	12	ND	ND	ug/kg
BTZ-2-040-051899	8.1	0.3	15	ND	ND	ug/kg
BTZ-2-041-051899	8.1	0.3	13	ND	ND	ug/kg
BTZ-2-107-051899	8.4	0.2	13	ND	ND	ug/kg
BTZ-3-038-051899	8.4	0.3	16	ND	ND	ug/kg
BTZ-3-097-051899	8.6	0.2	13	ND	ND	ug/kg
BTZ-3-135-051899	8.4	0.4	14	ND	ND	ug/kg
BTZ-3-152-051899	8.9	0.1	10	ND	ND	ug/kg

[a] Sample Number Identification
(1) Below Treatment Zone
(2) LTU Cell 1, 2, or 3
(3) Grid Cell number
(4) Data Sample number

[b] TOC = Total Organic Carbon

Hall Environmental Analysis Laboratory, Inc.

Date: *03-Dec-09*

CLIENT: Western Refining Southwest, Gallup
Lab Order: 0911220
Project: 4TH QTR EFF
Lab ID: 0911220-03

Client Sample ID: AL2 TO EP1
Collection Date: 11/10/2009 8:50:00 AM
Date Received: 11/11/2009
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DAM**
Chlorobenzene	ND	5.0		µg/L	5	11/16/2009 2:42:27 PM
Chloroethane	260	10		µg/L	5	11/16/2009 2:42:27 PM
Chloroform	ND	5.0		µg/L	5	11/16/2009 2:42:27 PM
Chloromethane	ND	5.0		µg/L	5	11/16/2009 2:42:27 PM
2-Chlorotoluene	ND	5.0		µg/L	5	11/16/2009 2:42:27 PM
4-Chlorotoluene	ND	5.0		µg/L	5	11/16/2009 2:42:27 PM
cis-1,2-DCE	ND	5.0		µg/L	5	11/16/2009 2:42:27 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	5	11/16/2009 2:42:27 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	5	11/16/2009 2:42:27 PM
Dibromochloromethane	ND	5.0		µg/L	5	11/16/2009 2:42:27 PM
Dibromomethane	ND	5.0		µg/L	5	11/16/2009 2:42:27 PM
1,2-Dichlorobenzene	ND	5.0		µg/L	5	11/16/2009 2:42:27 PM
1,3-Dichlorobenzene	ND	5.0		µg/L	5	11/16/2009 2:42:27 PM
1,4-Dichlorobenzene	ND	5.0		µg/L	5	11/16/2009 2:42:27 PM
Dichlorodifluoromethane	ND	5.0		µg/L	5	11/16/2009 2:42:27 PM
1,1-Dichloroethane	ND	5.0		µg/L	5	11/16/2009 2:42:27 PM
1,1-Dichloroethene	ND	5.0		µg/L	5	11/16/2009 2:42:27 PM
1,2-Dichloropropane	ND	5.0		µg/L	5	11/16/2009 2:42:27 PM
1,3-Dichloropropane	ND	5.0		µg/L	5	11/16/2009 2:42:27 PM
2,2-Dichloropropane	ND	10		µg/L	5	11/16/2009 2:42:27 PM
1,1-Dichloropropene	ND	5.0		µg/L	5	11/16/2009 2:42:27 PM
Hexachlorobutadiene	ND	5.0		µg/L	5	11/16/2009 2:42:27 PM
2-Hexanone	ND	50		µg/L	5	11/16/2009 2:42:27 PM
Isopropylbenzene	ND	5.0		µg/L	5	11/16/2009 2:42:27 PM
4-Isopropyltoluene	ND	5.0		µg/L	5	11/16/2009 2:42:27 PM
4-Methyl-2-pentanone	ND	50		µg/L	5	11/16/2009 2:42:27 PM
Methylene Chloride	ND	15		µg/L	5	11/16/2009 2:42:27 PM
n-Butylbenzene	ND	5.0		µg/L	5	11/16/2009 2:42:27 PM
n-Propylbenzene	ND	5.0		µg/L	5	11/16/2009 2:42:27 PM
sec-Butylbenzene	ND	5.0		µg/L	5	11/16/2009 2:42:27 PM
Styrene	ND	5.0		µg/L	5	11/16/2009 2:42:27 PM
tert-Butylbenzene	ND	5.0		µg/L	5	11/16/2009 2:42:27 PM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	5	11/16/2009 2:42:27 PM
1,1,2,2-Tetrachloroethane	ND	10		µg/L	5	11/16/2009 2:42:27 PM
Tetrachloroethene (PCE)	ND	5.0		µg/L	5	11/16/2009 2:42:27 PM
trans-1,2-DCE	ND	5.0		µg/L	5	11/16/2009 2:42:27 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	5	11/16/2009 2:42:27 PM
1,2,3-Trichlorobenzene	ND	5.0		µg/L	5	11/16/2009 2:42:27 PM
1,2,4-Trichlorobenzene	ND	5.0		µg/L	5	11/16/2009 2:42:27 PM
1,1,1-Trichloroethane	ND	5.0		µg/L	5	11/16/2009 2:42:27 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	5	11/16/2009 2:42:27 PM
Trichloroethene (TCE)	ND	5.0		µg/L	5	11/16/2009 2:42:27 PM

Qualifiers:

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

Table D-2a. Ciniza Z01 Analytical Results, 1993 – 1999 (Continued)

Fall of 1998

Sample ID [a]	pH	%TOC [b]	Total P [c]	TKN [d]	O & G [e]	Units
Z0I-1-127-011499	8.6	0.3	120	190	ND	mg/kg
Z0I-1-142-011499	8.0	0.4	130	190	ND	mg/kg
Z0I-2-113-011499	8.7	0.5	140	220	ND	mg/kg
Z0I-3-056-011499	8.8	0.4	150	220	ND	mg/kg

Bi-Monthly Summer 1998

Sample ID [a]	pH	%TOC [b]	Total P [c]	TKN [d]	O & G [e]	Units
Z0I-1-176-060598					210	mg/kg
Z0I-2-014-060598					9200	mg/kg
Z0I-2-070-060598					470	mg/kg
Z0I-3-058-060598					400	mg/kg

Spring 1998

Sample ID [a]	pH	%TOC [b]	Total P [c]	TKN [d]	O & G [e]	Units
Z0I-1-174-042398	8.5	0.5	230	220	120	mg/kg
Z0I-2-186-042398	8.5	0.3	190	160	ND	mg/kg
Z0I-3-036-042398	7.9	0.7	230	350	220	mg/kg
Z0I-3-119-042398	8.4	0.5	250	280	80	mg/kg

[a] Sample Number Identification
(1) Zone of Incorporation – upper 12 inches of soil
(2) LTU Cell 1, 2, or 3
(3) Grid Cell number
(4) Data Sample number

[b] TOC = Total Organic Carbon

[c] Total P = Total Phosphorus

[d] TKN = Total Kjeldahl Nitrogen

[e] O&G = Oil and Grease

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL2 TO EP1
Lab Order:	0911220	**Collection Date:**	11/10/2009 8:50:00 AM
Project:	4TH QTR EFF	**Date Received:**	11/11/2009
Lab ID:	0911220-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DAM**
Trichlorofluoromethane	ND	5.0		µg/L	5	11/16/2009 2:42:27 PM
1,2,3-Trichloropropane	ND	10		µg/L	5	11/16/2009 2:42:27 PM
Vinyl chloride	ND	5.0		µg/L	5	11/16/2009 2:42:27 PM
Xylenes, Total	ND	7.5		µg/L	5	11/16/2009 2:42:27 PM
Surr: 1,2-Dichloroethane-d4	96.1	54.6-141		%REC	5	11/16/2009 2:42:27 PM
Surr: 4-Bromofluorobenzene	107	60.1-133		%REC	5	11/16/2009 2:42:27 PM
Surr: Dibromofluoromethane	89.4	78.5-130		%REC	5	11/16/2009 2:42:27 PM
Surr: Toluene-d8	98.6	79.5-126		%REC	5	11/16/2009 2:42:27 PM

Qualifiers:

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

Table D-2a. Ciniza Z01 Analytical Results, 1993 – 1999

Fall of 1999

Sample ID [a]	pH	%TOC [b]	Total P [c]	TKN [d]	O & G [e]	Units
Z0I-1-055-101999	7.5	1.40	190	210	710	mg/kg
Z0I-1-193-101999	8.1	0.38	140	300	580	mg/kg
Z0I-2-055-101999	7.7	2.20	260	600	4400	mg/kg
Z0I-3-160-101999	8.1	0.37	210	260	180	mg/kg

Bi-Monthly Fall 1999

Sample ID [a]	pH	%TOC [b]	Total P [c]	TKN [d]	O & G [e]	Units
Z0I-1-160-100799					5700	mg/kg
Z0I-1-198-100799					390	mg/kg
Z0I-2-084-100799					2600	mg/kg
Z0I-3-158-100799					360	mg/kg

Spring 1999

Sample ID [a]	pH	%TOC [b]	Total P [c]	TKN [d]	O & G [e]	Units
Z0I-1-040-051899	7.6	2.8	0.1	730	6600	mg/kg
Z0I-1-098-051899	7.2	2.6	0.3	500	4900	mg/kg
Z0I-1-143-051899	7.9	5.5	0.2	230	10000	mg/kg
Z0I-2-040-051899	7.1	5.8	0.2	700	18000	mg/kg
Z0I-2-041-051899	8.1	3.2	0.2	540	4500	mg/kg
Z0I-2-107-051899	7.5	3.4	0.2	510	7000	mg/kg
Z0I-3-038-051899	6.6	1.7	0.1	500	3500	mg/kg
Z0I-3-097-051899	8.0	0.5	0.5	190	900	mg/kg
Z0I-3-135-051899	8.8	0.3	0.2	320	ND	mg/kg
Z0I-3-152-051899	8.4	0.4	0.2	300	ND	mg/kg

[a] Sample Number Identification
(1) Zone of Incorporation – upper 12 inches of soil
(2) LTU Cell 1, 2, or 3
(3) Grid Cell number
(4) Data Sample number

[b] TOC = Total Organic Carbon

[c] Total P = Total Phosphorus

[d] TKN = Total Kjeldahl Nitrogen

[e] O&G = Oil and Grease

ARS ANALYTICAL, LLC

4301 Masthead NE | Albuquerque, New Mexico 87109 505.344.3777 | 505.345.8964

Explanation of codes	
E	Result is Estimated
H	Analyzed Out of Hold Time
N	Tentatively Identified Compound
S	Subcontracted
U	Concentration is below MDL
J	Concentration between MDL and RDL
1-9	See Footnote

HALL ENVIRONMENTAL
attn **ANDY FREEMAN**
4901 HAWKINS NE, SUITE D
ALBUQUERQUE NM 87109-4372

STANDARD

ARS Analytical, LLC

Certificate of Analysis

All samples are reported on an "as received" basis, unless otherwise noted (i.e. - Dry Weight).

ent: **HALL ENVIRONMENTAL**
oject: **0911220**
der: **09110267 HAL03** Receipt: **11-12-09**

For Elvin J. Chavez: President of ARS Analytical, LLC

mple: ***0911220-02E PILOT EFF*** Collected: *11-10-09 9:04:00* By:
atrix: ***AQUEOUS***

C Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
110267-001A		SM 5210B						By: JLE		
D090136	WC.2009.2910.9	10-26-4	Biochemical Oxygen Demand	410	mg/L	1	4		11-12-09	11-17-09

Unless otherwise noted, all samples were received in acceptable condition and all sampling was performed by client or client representative. Sample result of ND indicates Not Detected, ie result is less than the sample specific Detection Limit. Sample specific Detection Limit is determined by multiplying the sample Dilution Factor by the listed Reporting Detection Limit. All results relate only to the items tested. Any miscellaneous workorder information or foonotes will appear below.

Analytical results are not corrected for method blank or field blank contamination.

Table I-4. Re-vegetation Seed Mixture

Seed Type	Pls/Ac*
Blue Gramma, *Bouteloua gracilis* "Lovington"	2
Sideoats Gramma, *Bouteloua curipendula* "El Reno"	4
Buffalo Grass, *Buchloeda tyloides* "Texoka"	5
Alkali Sacaton, *sporbolus Airoides*	0.5

*Pounds of pure live seed per acre

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 4TH QTR EFF **Work Order:** 0911220

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 300.0: Anions											
Sample ID: MB		*MBLK*				Batch ID:	**R36133**	Analysis Date:	11/11/2009 9:29:50 AM		
Fluoride	ND	mg/L	0.10								
Chloride	ND	mg/L	0.10								
Nitrogen, Nitrite (As N)	ND	mg/L	0.10								
Bromide	ND	mg/L	0.10								
Nitrogen, Nitrate (As N)	ND	mg/L	0.10								
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50								
Sulfate	ND	mg/L	0.50								
Sample ID: MB		*MBLK*				Batch ID:	**R36150**	Analysis Date:	11/12/2009 5:39:26 PM		
Fluoride	ND	mg/L	0.10								
Chloride	ND	mg/L	0.10								
Nitrogen, Nitrite (As N)	ND	mg/L	0.10								
Bromide	ND	mg/L	0.10								
Nitrogen, Nitrate (As N)	ND	mg/L	0.10								
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50								
Sulfate	ND	mg/L	0.50								
Sample ID: LCS		*LCS*				Batch ID:	**R36133**	Analysis Date:	11/11/2009 9:47:14 AM		
Fluoride	0.5664	mg/L	0.10	0.5	0	113	90	110			S
Chloride	5.162	mg/L	0.10	5	0	103	90	110			
Nitrogen, Nitrite (As N)	0.9362	mg/L	0.10	1	0	93.6	90	110			
Bromide	2.675	mg/L	0.10	2.5	0	107	90	110			
Nitrogen, Nitrate (As N)	2.657	mg/L	0.10	2.5	0	106	90	110			
Phosphorus, Orthophosphate (As P)	5.218	mg/L	0.50	5	0	104	90	110			
Sulfate	10.31	mg/L	0.50	10	0	103	90	110			
Sample ID: LCS		*LCS*				Batch ID:	**R36150**	Analysis Date:	11/12/2009 5:56:51 PM		
Fluoride	0.5209	mg/L	0.10	0.5	0	104	90	110			
Chloride	5.148	mg/L	0.10	5	0	103	90	110			
Nitrogen, Nitrite (As N)	0.9415	mg/L	0.10	1	0	94.2	90	110			
Bromide	2.654	mg/L	0.10	2.5	0	106	90	110			
Nitrogen, Nitrate (As N)	2.649	mg/L	0.10	2.5	0	106	90	110			
Phosphorus, Orthophosphate (As P)	5.144	mg/L	0.50	5	0	103	90	110			
Sulfate	10.23	mg/L	0.50	10	0	102	90	110			
Method: EPA Method 8015B: Diesel Range											
Sample ID: MB-20585		*MBLK*				Batch ID:	**20585**	Analysis Date:	11/11/2009 6:35:28 PM		
Diesel Range Organics (DRO)	ND	mg/L	1.0								
Motor Oil Range Organics (MRO)	ND	mg/L	5.0								
Sample ID: LCS-20585		*LCS*				Batch ID:	**20585**	Analysis Date:	11/11/2009 7:11:26 PM		
Diesel Range Organics (DRO)	5.547	mg/L	1.0	5	0	111	74	157			

Qualifiers:

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

Table I-3. Final Closure Cost Estimate

Activity	Material	Cost Frequency (over 30 years)	Estimated Cost
Sample by Zone			
ZOI	4 samples at $1450	3	$ 17,400
Treatment Zone	4 samples at $1450	3	$ 17,400
Chinle Slope Wash	1 sample at $1650	8	$ 13,200
Sonsela Aquifer	4 samples at $1650	8	$ 52, 800
Sample QC	25% of $100,800		$ 25,200
Mobilization			
ZOI and Treatment Zone	3 events at $1000/event		$ 3,000
Chinle Slope Wash and Sonsela	8 events at $2000/event		$ 16,000
Field Technician	$10,000		$ 10,000
Microtox	$ 300 per test	9	$ 2,700
Soil Amendments	352,000 ft^2 at 0.02/ft^2		$ 7,040
Establish Vegetative Cover			
Top Soil	7.8 acres at $2000/acre		$ 15,600
Level LTU	7.8 acres at $950/acre		$ 7,410
Plant Seed	7.8 acres at $750/acre		$ 5,850
Water	1140 Mgal at $1/Mgal		$ 1,140
Routine Inspection, Maintenance and Repair			
Site Inspection	Weekly Inspection		$ 6,000
Security Device	$100 annually		$ 3,000
Run on/run off	$1000 annually to maintain perimeter berm		$ 30,000
Prepare Certification			
Certify LTU Closure	120 hrs at $125/hr 6		$ 15,000
Notice in Deed	hrs at $150/hr		$ 900
Certify Final Closure	120 hrs at $125/hr 6		$ 15,000
Notice in Deed	hrs at $150/hr		$ 900
Total Task			
Indirect Costs	20% closure and post closure cost		$ 53,108
Ciniza Overhead			$ 26,554
Contingency			$ 26,554
TOTAL			**$371,756**

Mgal = million gallons
ZOI = Zone of Incorporation

QA/QC SUMMARY REPORT

lient: Western Refining Southwest, Gallup
roj 4TH QTR EFF **Work Order:** 0911220

nalyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
ethod: EPA Method 8015B: Gasoline Range											
mple ID: 5ML RB		*MBLK*				Batch ID:	**R36222**	Analysis Date:	11/17/2009 10:41:33 AM		
asoline Range Organics (GRO)	ND	mg/L	0.050								
mple ID: 2.5UG GRO LCS		*LCS*				Batch ID:	**R36222**	Analysis Date:	11/17/2009 7:54:47 PM		
asoline Range Organics (GRO)	0.5040	mg/L	0.050	0.5	0	101	80	115			

Qu s:

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

Table I-2B, Final Closure, Closure and Post-Closure Schedule of Activities

Day 0[1]

Activity	Years																												
	1	2	3	4	5	6	7	8	9																				30
Sample and Analysis									•												•								•
Z01									•												•								•
Treatment Zone									•												•								•
Chinle Slope Wash	•	•	•		•		•		•												•								•
Sonsela Aquifer	•	•	•		•		•		•												•								•
Inspection and Maintenance[2] (See Table F-1 for detailed schedule)	==========																												
Final Cover Activities[3]	•																												
Certification of Post Closure Care[4]																													•

[1] Day 0: All post closure activities begin 90 days after post closure permit issuance.
[2] ===== On going
[3] Final cover activities will be completed approximately 120 to 180 days after permit issuance. Completion date is dependent on weather conditions and optimal seeding times.

[4] Certification of post closure care occurs 60 days after completion of the post closure care period.

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Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES											
Sample ID: 5ml rb		*MBLK*				Batch ID: **R36173**		Analysis Date: 11/13/2009 8:32:42 AM			
Benzene	ND	µg/L	1.0								
Toluene	ND	µg/L	1.0								
Ethylbenzene	ND	µg/L	1.0								
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0								
1,2,4-Trimethylbenzene	ND	µg/L	1.0								
1,3,5-Trimethylbenzene	ND	µg/L	1.0								
1,2-Dichloroethane (EDC)	ND	µg/L	1.0								
1,2-Dibromoethane (EDB)	ND	µg/L	1.0								
Naphthalene	ND	µg/L	2.0								
1-Methylnaphthalene	ND	µg/L	4.0								
2-Methylnaphthalene	ND	µg/L	4.0								
Acetone	ND	µg/L	10								
Bromobenzene	ND	µg/L	1.0								
Bromodichloromethane	ND	µg/L	1.0								
Bromoform	ND	µg/L	1.0								
Bromomethane	ND	µg/L	1.0								
2-Butanone	ND	µg/L	10								
Carbon disulfide	ND	µg/L	10								
Carbon Tetrachloride	ND	µg/L	1.0								
Chlorobenzene	ND	µg/L	1.0								
Chloroethane	ND	µg/L	2.0								
Chloroform	ND	µg/L	1.0								
Chloromethane	ND	µg/L	1.0								
2-Chlorotoluene	ND	µg/L	1.0								
4-Chlorotoluene	ND	µg/L	1.0								
cis-1,2-DCE	ND	µg/L	1.0								
cis-1,3-Dichloropropene	ND	µg/L	1.0								
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0								
Dibromochloromethane	ND	µg/L	1.0								
Dibromomethane	ND	µg/L	1.0								
1,2-Dichlorobenzene	ND	µg/L	1.0								
1,3-Dichlorobenzene	ND	µg/L	1.0								
1,4-Dichlorobenzene	ND	µg/L	1.0								
Dichlorodifluoromethane	ND	µg/L	1.0								
1,1-Dichloroethane	ND	µg/L	1.0								
1,1-Dichloroethene	ND	µg/L	1.0								
1,2-Dichloropropane	ND	µg/L	1.0								
1,3-Dichloropropane	ND	µg/L	1.0								
2,2-Dichloropropane	ND	µg/L	2.0								
1,1-Dichloropropene	ND	µg/L	1.0								
Hexachlorobutadiene	ND	µg/L	1.0								
2-Hexanone	ND	µg/L	10								
Isopropylbenzene	ND	µg/L	1.0								
4-Isopropyltoluene	ND	µg/L	1.0								

Qualifiers:

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

patterns. Optimal seeding time should occur during the fall or spring immediately following evaluation. When the correct seeding is reached, the LTU surface will be tilled as necessary to destroy any existing vegetation that may detrimentally compete with the selected plant species and to create a favorable soil density. Native plant varieties that spread naturally have been evaluated to determine whether their presence compromises performance of the vegetative cover. The County Agriculture Agent or other certified professional have been consulted for characteristics of species in question. It is possible that field tests might be performed to provide preliminary information about final selection of a particular seed mixture regarding the ability to germinate and develop in soil conditions of the LTU. The following three factors must be considered for seeding:

1. Seeding Method – Broadcasting or drilling the seeds are the principal preferred methods. Broadcasting, followed by disking, provides the best soil-seed contact for establishing seedlings.

2. Seeding Rate – the suggested seeding rate will be 12 lb/acre to provide adequate density of vegetative cover.

3. Seeding Depth – Seeding depth will be 0.25 to 0.50 inches.

Table I-4 includes the species of grasses to be sown. These grasses are known to thrive locally. They share the characteristics of rapid germination and spread; resistance to fire, insects, and diseases; depth of root system to prevent erosion; vegetative thickness to minimize percolation; and low maintenance. The final vegetative cover will be capable of maintaining growth without extensive maintenance as required by 20 NMAC 4.1, subpart V, §264.280(c) (2).

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lient: Western Refining Southwest, Gallup
roject: 4TH QTR EFF **Work Order:** 0911220

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
ethod: EPA Method 8260B: VOLATILES											
ample ID: 5ml rb		*MBLK*				Batch ID: **R36173**		Analysis Date: 11/13/2009 8:32:42 AM			
Methyl-2-pentanone	ND	µg/L	10								
ethylene Chloride	ND	µg/L	3.0								
Butylbenzene	ND	µg/L	1.0								
Propylbenzene	ND	µg/L	1.0								
ec-Butylbenzene	ND	µg/L	1.0								
tyrene	ND	µg/L	1.0								
rt-Butylbenzene	ND	µg/L	1.0								
1,1,2-Tetrachloroethane	ND	µg/L	1.0								
1,2,2-Tetrachloroethane	ND	µg/L	2.0								
etrachloroethene (PCE)	ND	µg/L	1.0								
ans-1,2-DCE	ND	µg/L	1.0								
ans-1,3-Dichloropropene	ND	µg/L	1.0								
,2,3-Trichlorobenzene	ND	µg/L	1.0								
,2,4-Trichlorobenzene	ND	µg/L	1.0								
,1,1-Trichloroethane	ND	µg/L	1.0								
,1,2-Trichloroethane	ND	µg/L	1.0								
richloroethene (TCE)	ND	µg/L	1.0								
richlorofluoromethane	ND	µg/L	1.0								
,2,3-Trichloropropane	ND	µg/L	2.0								
inyl chloride	ND	µg/L	1.0								
yle[illegible]otal	ND	µg/L	1.5								
ample ID: 5ml rb		*MBLK*				Batch ID: **R36189**		Analysis Date: 11/16/2009 9:02:41 AM			
enzene	ND	µg/L	1.0								
oluene	ND	µg/L	1.0								
thylbenzene	ND	µg/L	1.0								
lethyl tert-butyl ether (MTBE)	ND	µg/L	1.0								
,2,4-Trimethylbenzene	ND	µg/L	1.0								
,3,5-Trimethylbenzene	ND	µg/L	1.0								
,2-Dichloroethane (EDC)	ND	µg/L	1.0								
,2-Dibromoethane (EDB)	ND	µg/L	1.0								
laphthalene	ND	µg/L	2.0								
-Methylnaphthalene	ND	µg/L	4.0								
-Methylnaphthalene	ND	µg/L	4.0								
cetone	ND	µg/L	10								
romobenzene	ND	µg/L	1.0								
romodichloromethane	ND	µg/L	1.0								
romoform	ND	µg/L	1.0								
romomethane	ND	µg/L	1.0								
-Butanone	ND	µg/L	10								
arbon disulfide	ND	µg/L	10								
arbon Tetrachloride	ND	µg/L	1.0								
hlorobenzene	ND	µg/L	1.0								
hloroethane	ND	µg/L	2.0								
hloroform	ND	µg/L	1.0								

Qu[illegible]s:

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

Larger equipment (see Section I.1.7) that is used in final closure activities will be moved onto an impermeable synthetic liner for decontamination. The liner will be designed, constructed, and installed to contain the wash water generated by the decontamination process, and to provide sufficient load-bearing capacity for the equipment. Activities will be conducted at the inner perimeter of the LTU so recontamination is prevented as equipment exit the site. Decontamination includes scraping, brushing, or otherwise removing soil that may be clustered on equipment. The outer surface and undercarriage will be washed with potable water and scrubbed with biodegradable soap as necessary to remove remaining residues. Items will be inspected and allowed to air dry before removal from the decontamination area. Wash waters will either be allowed to evaporate or be properly processed through the plant wastewater treatment system. The liner will be properly disposed after use.

I.5.5 Final Cover [20 NMAC 4.1, subpart V, §264.280(c) (I)]

Maintaining surface soil conditions that foster ample coverage of a vegetative growth are additional measures planned to meet the closure performance standard. The final closure schedule (Table I-2) shows how closure and post closure activities are coordinated. Activities included in vegetative cover maintenance are: inspection, testing soils, amending soils as necessary, planting, irrigating, if necessary, and cultivating young seedlings. Adjustments may be made as indicated by routine inspections of vegetative growth. The LTU surface is not toxic to the final vegetative cover; the LTU soil surface will be prepared and amended as necessary for seeding. At least a six inch topsoil cover will be applied for plant growth.

The LTU surface will be graded as necessary to eliminate local depressions and elevations and provide a flat even expanse. A level surface minimizes the ponding of precipitation and irrigation water, controlling uneven water percolation into the soil. Uniform water distribution promotes optimum nutrient distribution and enhances growth of the vegetative cover.

After considering the appropriate seeding time and making the evaluations noted the Gallup Refinery will determine the appropriate time to seed. There may be a lag time between evaluation and actual seeding in order to take advantage of seasonal weather

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Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES											
Sample ID: 5ml rb		*MBLK*									
				Batch ID: **R36189**			Analysis Date:	11/16/2009 9:02:41 AM			
Chloromethane	ND	µg/L	1.0								
2-Chlorotoluene	ND	µg/L	1.0								
4-Chlorotoluene	ND	µg/L	1.0								
cis-1,2-DCE	ND	µg/L	1.0								
cis-1,3-Dichloropropene	ND	µg/L	1.0								
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0								
Dibromochloromethane	ND	µg/L	1.0								
Dibromomethane	ND	µg/L	1.0								
1,2-Dichlorobenzene	ND	µg/L	1.0								
1,3-Dichlorobenzene	ND	µg/L	1.0								
1,4-Dichlorobenzene	ND	µg/L	1.0								
Dichlorodifluoromethane	ND	µg/L	1.0								
1,1-Dichloroethane	ND	µg/L	1.0								
1,1-Dichloroethene	ND	µg/L	1.0								
1,2-Dichloropropane	ND	µg/L	1.0								
1,3-Dichloropropane	ND	µg/L	1.0								
2,2-Dichloropropane	ND	µg/L	2.0								
1,1-Dichloropropene	ND	µg/L	1.0								
Hexachlorobutadiene	ND	µg/L	1.0								
2-Hexanone	ND	µg/L	10								
Isopropylbenzene	ND	µg/L	1.0								
4-Isopropyltoluene	ND	µg/L	1.0								
4-Methyl-2-pentanone	ND	µg/L	10								
Methylene Chloride	ND	µg/L	3.0								
n-Butylbenzene	ND	µg/L	1.0								
n-Propylbenzene	ND	µg/L	1.0								
sec-Butylbenzene	ND	µg/L	1.0								
Styrene	ND	µg/L	1.0								
tert-Butylbenzene	ND	µg/L	1.0								
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0								
1,1,2,2-Tetrachloroethane	ND	µg/L	2.0								
Tetrachloroethene (PCE)	ND	µg/L	1.0								
trans-1,2-DCE	ND	µg/L	1.0								
trans-1,3-Dichloropropene	ND	µg/L	1.0								
1,2,3-Trichlorobenzene	ND	µg/L	1.0								
1,2,4-Trichlorobenzene	ND	µg/L	1.0								
1,1,1-Trichloroethane	ND	µg/L	1.0								
1,1,2-Trichloroethane	ND	µg/L	1.0								
Trichloroethene (TCE)	ND	µg/L	1.0								
Trichlorofluoromethane	ND	µg/L	1.0								
1,2,3-Trichloropropane	ND	µg/L	2.0								
Vinyl chloride	ND	µg/L	1.0								
Xylenes, Total	ND	µg/L	1.5								
Sample ID: 100ng lcs		*LCS*									
				Batch ID: **R36173**			Analysis Date:	11/13/2009 9:29:17 AM			

Qualifiers:

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

referred to as the modified Skinner List) are proposed for providing a reliable indication of the presence of hazardous constituents in the uppermost aquifer. Analytes and sample frequency are detailed in Section E-0 and Appendix E, the Post Closure Monitoring Plan.

I.5.3 Required Personal Protective Equipment [20 NMAC 4.1, subpart V, §264.112(b) (4)]

Before beginning any field activities, the Gallup Refinery Team Leader will inspect the LTU to determine the PPE and monitoring requirements for the subject activity. The level of PPE required will depend primarily upon environmental factors (wind, precipitation, temperature), field conditions (e.g., soil moisture), and type of activity being conducted. Personnel involved in final closure activities will be trained in decontamination activities, wear appropriate PPE as specified by the closure coordinator, and follow good hygiene practices to protect themselves from potential exposure to hazardous waste and residues. After use, contaminated PPE will be decontaminated and managed in accordance with 20 NMAC 4.1, subpart V, §264.114. Typical PPE is described in Section F.3.5.

I.5.4 Equipment Decontamination [20 NMAC 4.1, subpart V, §264.112(b) (4)]

Decontamination activities are proposed to meet the final closure performance standard of controlling, minimizing, or eliminating potential escape of an exposure to hazardous constituents by contaminated equipment and structures. All contaminated equipment, structures, and soils will be properly disposed of or decontaminated according to 20 NMAC 4.1, subpart V, §264.114. Any hazardous waste generated during final closure activities will be managed in compliance with the facility's generator status and as described in this application.

The Post Closure Monitoring Plan describes measures for preventing sampling and drilling equipment cross contamination during sampling events and measures for decontaminating items after use. Contaminated PPE will be disposed of off site at an approved facility. Items slated for reuse will be scrubbed with biodegradable soap and potable water, triple rinsed in clean water, then wiped dry with a clean towel, and inspected before being properly stored for reuse. Items will again be inspected before each use.

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lient: Western Refining Southwest, Gallup
roject: 4TH QTR EFF **Work Order:** 0911220

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
ethod: EPA Method 8260B: VOLATILES											
ample ID: 100ng lcs		*LCS*				Batch ID:	**R36173**	Analysis Date:	11/13/2009 9:29:17 AM		
enzene	17.91	µg/L	1.0	20	0	89.6	76.7	114			
oluene	20.07	µg/L	1.0	20	0	100	78.4	117			
hlorobenzene	19.82	µg/L	1.0	20	0	99.1	80.7	127			
1-Dichloroethene	20.72	µg/L	1.0	20	0	104	80.2	128			
ichloroethene (TCE)	20.31	µg/L	1.0	20	0	102	77.4	115			
ample ID: 100ng lcs		*LCS*				Batch ID:	**R36189**	Analysis Date:	11/16/2009 9:59:11 AM		
enzene	19.72	µg/L	1.0	20	0	98.6	76.7	114			
oluene	20.70	µg/L	1.0	20	0	103	78.4	117			
hlorobenzene	20.01	µg/L	1.0	20	0	100	80.7	127			
1-Dichloroethene	23.20	µg/L	1.0	20	0	116	80.2	128			
ichloroethene (TCE)	19.66	µg/L	1.0	20	0	98.3	77.4	115			

Qualifiers:

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

the presence of the indicated constituents. If constituents are confirmed, the program describes the appropriate NMED notification, preparation of a compliance monitoring program and work plan preparation and subsequent implementation of an approved compliance monitoring program.

I.4.3.5 Administrative Amendments for Monitoring Activities.

Final closure activities for the LTU are designed to meet all regulatory requirements as they relate to the LTU. Section I.3.2 contains procedures for responding to circumstances that require administrative modifications of the final closure plan. Monitoring activities are designed to collect reliable data that will support future decisions on any modifications needed in the monitoring programs. The Gallup Refinery will maintain and monitor control systems and programs to ensure that performance standards are preserved. Activities are based on the historical data and records obtained during the operating permit term and are designed for current data needs.

I.5 Site Control Measures

I.5.1 Security. [20 NMAC 4.1, subpart V, §264.117(b)]

Restricted access to authorized personnel and warning signs will effectively safeguard potential contaminant exposure during the closure and post closure care period. These restrictions minimize unknowing exposure possibilities. Figure I-2 shows the LTU, location of the refinery fence, and warning signs. Security measures are described further in Section F-1.

I.5.2 Control of Release to Hazardous Constituents to Groundwater [NMAC 4.1, subpart V, §264.112(b) (5)]

The Gallup Refinery will continue the groundwater detection monitoring program of the Sonsela aquifer through the post closure care period, as described in Appendix E, the Post Closure Monitoring Plan. Other post closure care monitoring includes the Chinle slope wash and soil-core monitoring as described in Section E-0 and detailed in the Post Closure Monitoring Plan. The EDW is SMW-4, and detection MWs includes MW-1, MW-2, MW-4 and MW-5. Sample collection and analysis of organics and metals from the modified Skinner List and principal hazardous constituents (PHCs) (collectively

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Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8270C: Semivolatiles											
Sample ID: mb-20598		*MBLK*				Batch ID: **20598**		Analysis Date: 11/17/2009 12:10:18 PM			
Acenaphthene	ND	µg/L	10								
Acenaphthylene	ND	µg/L	10								
Aniline	ND	µg/L	10								
Anthracene	ND	µg/L	10								
Azobenzene	ND	µg/L	10								
Benz(a)anthracene	ND	µg/L	10								
Benzo(a)pyrene	ND	µg/L	10								
Benzo(b)fluoranthene	ND	µg/L	10								
Benzo(g,h,i)perylene	ND	µg/L	10								
Benzo(k)fluoranthene	ND	µg/L	10								
Benzoic acid	ND	µg/L	20								
Benzyl alcohol	ND	µg/L	10								
Bis(2-chloroethoxy)methane	ND	µg/L	10								
Bis(2-chloroethyl)ether	ND	µg/L	10								
Bis(2-chloroisopropyl)ether	ND	µg/L	10								
Bis(2-ethylhexyl)phthalate	ND	µg/L	10								
4-Bromophenyl phenyl ether	ND	µg/L	10								
Butyl benzyl phthalate	ND	µg/L	10								
Carbazole	ND	µg/L	10								
4-Chloro-3-methylphenol	ND	µg/L	10								
4-Chloroaniline	ND	µg/L	10								
2-Chloronaphthalene	ND	µg/L	10								
2-Chlorophenol	ND	µg/L	10								
4-Chlorophenyl phenyl ether	ND	µg/L	10								
Chrysene	ND	µg/L	10								
Di-n-butyl phthalate	ND	µg/L	10								
Di-n-octyl phthalate	ND	µg/L	10								
Dibenz(a,h)anthracene	ND	µg/L	10								
Dibenzofuran	ND	µg/L	10								
1,2-Dichlorobenzene	ND	µg/L	10								
1,3-Dichlorobenzene	ND	µg/L	10								
1,4-Dichlorobenzene	ND	µg/L	10								
3,3'-Dichlorobenzidine	ND	µg/L	10								
Diethyl phthalate	ND	µg/L	10								
Dimethyl phthalate	ND	µg/L	10								
2,4-Dichlorophenol	ND	µg/L	20								
2,4-Dimethylphenol	ND	µg/L	10								
4,6-Dinitro-2-methylphenol	ND	µg/L	20								
2,4-Dinitrophenol	ND	µg/L	20								
2,4-Dinitrotoluene	ND	µg/L	10								
2,6-Dinitrotoluene	ND	µg/L	10								
Fluoranthene	ND	µg/L	10								
Fluorene	ND	µg/L	10								
Hexachlorobenzene	ND	µg/L	10								

Qualifiers:

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

constituent concentrations in these zones. The Gallup Refinery will conduct post closure monitoring in accordance with 20 NMAC 4.1, subpart V, §264.280 and will use consistent procedures for sample collection, preservation, and shipment; analytical methods, and chain of custody control.

If significant concentrations are confirmed, appropriate seven day notification to the New Mexico Environment Department, Hazardous Waste Bureau (NMED HWB) will be provided indicating what constituent has exceeded the concentration limits, and a permit modification request may be required for further characterization of these zones. The Gallup Refinery will conduct additional sampling, as necessary, to confirm the presence or absence of the indicated constituent and to ensure that additional constituents that are present in the location of the release area are characterized.

I.4.3.3 Chinle Slope Wash Monitoring.

Sampling and analysis of the Chinle slope wash supplements the above described soil-core monitoring program. The combination of ZOI and treatment zone soil core monitoring and Chinle slope wash monitoring provides ample means to maintain and monitor the LTU integrity in the post closure care period. Sampling frequency is described in Figure E-1.

I.4.3.4 Groundwater Detection Monitoring Program

The groundwater detection monitoring program established for the Sonsela aquifer (the uppermost aquifer) consists of program elements to meet 20 NMAC 4.1, subpart V, §264, subpart F requirements and will be conducted through the post closure care period. No hazardous constituents have been indentified in the Sonsela aquifer during the operating life of the LTU. Releases are not expected to be detected because of the physical and chemical properties of the remaining containments and due to the site's geologic characteristics. Artesian qualities of the Sonsela demonstrate geological confining layers that isolate this water supply from potential surface recharge in the Gallup Refinery vicinity. These confining shale layers minimize any surface source potential migration that could impact water quality. Nonetheless, the groundwater detection monitoring program contains provisions for responding to constituents present in the uppermost aquifer. Response for indicated constituents would be confirmation sampling to verify

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lient: Western Refining Southwest, Gallup
·oj 4TH QTR EFF **Work Order:** 0911220

nalyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
ethod: EPA Method 8270C: Semivolatiles											
mple ID: mb-20598		*MBLK*				Batch ID:	**20598**	Analysis Date:	11/17/2009 12:10:18 PM		
exachlorobutadiene	ND	µg/L	10								
exachlorocyclopentadiene	ND	µg/L	10								
exachloroethane	ND	µg/L	10								
deno(1,2,3-cd)pyrene	ND	µg/L	10								
ophorone	ND	µg/L	10								
Methylnaphthalene	ND	µg/L	10								
Methylphenol	ND	µg/L	10								
4-Methylphenol	ND	µg/L	10								
Nitrosodi-n-propylamine	ND	µg/L	10								
Nitrosodimethylamine	ND	µg/L	10								
Nitrosodiphenylamine	ND	µg/L	10								
aphthalene	ND	µg/L	10								
Nitroaniline	ND	µg/L	10								
Nitroaniline	ND	µg/L	10								
Nitroaniline	ND	µg/L	10								
itrobenzene	ND	µg/L	10								
Nitrophenol	ND	µg/L	10								
Nitrophenol	ND	µg/L	10								
entachlorophenol	ND	µg/L	20								
hen rene	ND	µg/L	10								
hen	ND	µg/L	10								
yrene	ND	µg/L	10								
yridine	ND	µg/L	10								
,2,4-Trichlorobenzene	ND	µg/L	10								
,4,5-Trichlorophenol	ND	µg/L	10								
,4,6-Trichlorophenol	ND	µg/L	10								
ample ID: lcs-20598		*LCS*				Batch ID:	**20598**	Analysis Date:	11/17/2009 12:39:57 PM		
cenaphthene	52.78	µg/L	10	100	0	52.8	33.2	88.1			
-Chloro-3-methylphenol	110.4	µg/L	10	200	0	55.2	26.5	101			
-Chlorophenol	87.86	µg/L	10	200	0	43.9	27.5	88.7			
,4-Dichlorobenzene	36.54	µg/L	10	100	0	36.5	27.2	74.1			
,4-Dinitrotoluene	68.52	µg/L	10	100	0	68.5	32.6	107			
l-Nitrosodi-n-propylamine	47.88	µg/L	10	100	0	47.9	27.1	96.3			
-Nitrophenol	72.32	µg/L	10	200	0	36.2	6.78	74.7			
'entachlorophenol	110.4	µg/L	20	200	3.26	53.6	14.8	113			
'henol	52.58	µg/L	10	200	0	26.3	17	53.4			
'yrene	51.84	µg/L	10	100	0	51.8	27	96.3			
,2,4-Trichlorobenzene	43.76	µg/L	10	100	0	43.8	30	77.9			
lethod: EPA Method 7470: Mercury											
ample ID: MB-20647		*MBLK*				Batch ID:	**20647**	Analysis Date:	11/17/2009 4:03:07 PM		
lercury	ND	mg/L	0.00020								
ample ID: LCS-20647		*LCS*				Batch ID:	**20647**	Analysis Date:	11/17/2009 4:08:36 PM		
lercury	0.004753	mg/L	0.00020	0.005	2E-05	94.7	80	120			

Qu ers:

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

growth, when properly dense, will control particulate lift from the soil-atmosphere interface through decreased turbulent air flow. Soil moisture supplemented by irrigation, if necessary, will also be a temporary means to control wind dispersal from any bare areas of the vegetative cover. Routine inspections scheduled for the post closure period will evaluate the cover system's ability to control wind erosion and initiate any necessary remedies.

I.4.2.4 Compliance with Food Chain Corp Restrictions [20 NMAC 4.1, subpart V, §264.280(a) (6)]

The Gallup Refinery will not allow the cultivation of food-chain crops on the closed LTU, except for the scientific testing of such cultivation with the intent of providing data only or with the intent of plowing under such a crop for mulch to enhance top soil growth conditions of the final cover (with approval of the Secretary of the NMED). In accordance with 20 NMAC 4.1, subpart V, §264.276(b) (2) (iv), the appropriate Notice of Deed will be filed with McKinley County, New Mexico, to notify future property owners of the LTU location and the food chain crop restriction.

I.4.3 Description of Monitoring Activities

I.4.3.1 Clay Unit.

Immobility of constituents within the treatment zone are demonstrated by permeability data collected from soils in the LTU documented in the Land Treatment Demonstration Engineering Report (Appendix D). Low permeability and other soil properties make the unit an effective barrier for restricting constituent migration.

Planned monitoring activities at various subsurface depths will collect data to verify that the clay layer's effectiveness is maintained throughout the post closure care period. This monitoring system is the early detection monitoring, which includes the sampling of the ZO1, treatment zone, and Chinle slope wash.

I.4.3.2 Zone of Incorporation and Treatment Zone Soil-Core Monitoring.

The Gallup Refinery will continue a soil-core monitoring program to collect analytical data from soils in the ZOI and treatment zone at appropriate depths, locations, and numbers of samples to provide adequate detection of any statistically significant

QA/QC SUMMARY REPORT

ient: Western Refining Southwest, Gallup
oj 4TH QTR EFF **Work Order:** 0911220

nalyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
thod: EPA 6010B: Total Recoverable Metals											
mple ID: MB-20603		*MBLK*				Batch ID:	**20603**	Analysis Date:	11/19/2009 2:56:44 PM		
senic	ND	mg/L	0.020								
rium	ND	mg/L	0.010								
dmium	ND	mg/L	0.0020								
lcium	ND	mg/L	0.50								
romium	ND	mg/L	0.0060								
pper	ND	mg/L	0.0060								
n	ND	mg/L	0.050								
ad	ND	mg/L	0.0050								
agnesium	ND	mg/L	0.50								
anganese	ND	mg/L	0.0020								
tassium	ND	mg/L	1.0								
lenium	ND	mg/L	0.050								
lver	ND	mg/L	0.0050								
dium	ND	mg/L	0.50								
nc	ND	mg/L	0.020								
ample ID: LCS-20603		*LCS*				Batch ID:	**20603**	Analysis Date:	11/19/2009 3:10:37 PM		
senic	0.4864	mg/L	0.020	0.5	0	97.3	80	120			
arium	0.4943	mg/L	0.010	0.5	0	98.9	80	120			
admium	0.4876	mg/L	0.0020	0.5	0	97.5	80	120			
alci	50.57	mg/L	0.50	50	0	101	80	120			
hro n	0.4936	mg/L	0.0060	0.5	0	98.7	80	120			
opper	0.5137	mg/L	0.0060	0.5	0	103	80	120			
on	0.4870	mg/L	0.050	0.5	0	97.4	80	120			
ead	0.4761	mg/L	0.0050	0.5	0	95.2	80	120			
lagnesium	50.91	mg/L	0.50	50	0	102	80	120			
langanese	0.4873	mg/L	0.0020	0.5	0	97.5	80	120			
otassium	52.63	mg/L	1.0	50	0	105	80	120			
elenium	0.4850	mg/L	0.050	0.5	0	97.0	80	120			
ilver	0.5104	mg/L	0.0050	0.5	0	102	80	120			
odium	54.29	mg/L	0.50	50	0	109	80	120			
inc	0.4737	mg/L	0.020	0.5	0	94.7	80	120			
ample ID: LCS-20603		*LCS*				Batch ID:	**20603**	Analysis Date:	11/19/2009 3:13:46 PM		
rsenic	0.4856	mg/L	0.020	0.5	0	97.1	80	120			
larium	0.4888	mg/L	0.010	0.5	0	97.8	80	120			
admium	0.4910	mg/L	0.0020	0.5	0	98.2	80	120			
alcium	50.28	mg/L	0.50	50	0	101	80	120			
hromium	0.4878	mg/L	0.0060	0.5	0	97.6	80	120			
opper	0.5061	mg/L	0.0060	0.5	0	101	80	120			
ron	0.4809	mg/L	0.050	0.5	0	96.2	80	120			
ead	0.4766	mg/L	0.0050	0.5	0	95.3	80	120			
Magnesium	50.82	mg/L	0.50	50	0	102	80	120			
Manganese	0.4828	mg/L	0.0020	0.5	0	96.6	80	120			
Potassium	52.67	mg/L	1.0	50	0	105	80	120			
Selenium	0.4759	mg/L	0.050	0.5	0	95.2	80	120			

Qu rs:

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

Table I-4. Re-vegetation Seed Mixture

Seed Type	Pls/Ac*
Blue Gramma, *Bouteloua gracilis* "Lovington"	2
Sideoats Gramma, *Bouteloua curipendula* "El Reno"	4
Buffalo Grass, *Buchloeda tyloides* "Texoka"	5
Alkali Sacaton, *sporbolus Airoides*	0.5

*Pounds of pure live seed per acre

QA/QC SUMMARY REPORT

ient: Western Refining Southwest, Gallup
oje 4TH QTR EFF **Work Order:** 0911220

nalyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
ıthod: EPA 6010B: Total Recoverable Metals											
mple ID: LCS-20603		*LCS*				Batch ID:	**20603**	Analysis Date:	11/19/2009 3:13:46 PM		
ver	0.5063	mg/L	0.0050	0.5	0	101	80	120			
dium	54.31	mg/L	0.50	50	0	109	80	120			
ıc	0.4699	mg/L	0.020	0.5	0	94.0	80	120			

Qualifiers:

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

Table I-3. Final Closure Cost Estimate

Activity	Material	Cost Frequency (over 30 years)	Estimated Cost
Sample by Zone			
ZOI	4 samples at $1450	3	$ 17,400
Treatment Zone	4 samples at $1450	3	$ 17,400
Chinle Slope Wash	1 sample at $1650	8	$ 13,200
Sonsela Aquifer	4 samples at $1650	8	$ 52, 800
Sample QC	25% of $100,800		$ 25,200
Mobilization			
ZOI and Treatment Zone	3 events at $1000/event		$ 3,000
Chinle Slope Wash and Sonsela	8 events at $2000/event		$ 16,000
Field Technician	$10,000		$ 10,000
Microtox	$ 300 per test	9	$ 2,700
Soil Amendments	352,000 ft^2 at 0.02/ft^2		$ 7,040
Establish Vegetative Cover			
Top Soil	7.8 acres at $2000/acre		$ 15,600
Level LTU	7.8 acres at $950/acre		$ 7,410
Plant Seed	7.8 acres at $750/acre		$ 5,850
Water	1140 Mgal at $1/Mgal		$ 1,140
Routine Inspection, Maintenance and Repair			
Site Inspection	Weekly Inspection		$ 6,000
Security Device	$100 annually		$ 3,000
Run on/run off	$1000 annually to maintain perimeter berm		$ 30,000
Prepare Certification			
Certify LTU Closure	120 hrs at $125/hr 6		$ 15,000
Notice in Deed	hrs at $150/hr		$ 900
Certify Final Closure	120 hrs at $125/hr 6		$ 15,000
Notice in Deed	hrs at $150/hr		$ 900
Total Task			
Indirect Costs	20% closure and post closure cost		$ 53,108
Ciniza Overhead			$ 26,554
Contingency			$ 26,554
TOTAL			**$371,756**

Mgal = million gallons
ZOI = Zone of Incorporation

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name **WESTERN REFINING GALLU** Date Received: 11/11/2009

Work Order Number **0911220** Received by: ARS

Checklist completed by: _____ 11/11/09 Sample ID labels checked by: AO
Signature Date Initials

Matrix: Carrier name: UPS

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☑	No ☐	N/A ☐	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Water - VOA vials have zero headspace? No VOA vials submitted ☐		Yes ☑	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☑	No ☐	N/A ☐	
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐	
Container/Temp Blank temperature?	**4.6°**	*<6° C Acceptable* If given sufficient time to cool.		

Number of preserved bottles checked for pH: 2

(<2) >12 unless noted below.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: Trip Blank not received AS 11/11/09

Corrective Action _____

Table I-2B, Final Closure, Closure and Post-Closure Schedule of Activities

Day 0[1]

Activity	Years																												
	1	2	3	4	5	6	7	8	9																				30
Sample and Analysis									•																				•
Z01									•																				•
Treatment Zone									•																				•
Chinle Slope Wash	•	•	•		•		•		•																				•
Sonsela Aquifer	•	•	•		•		•		•																				•
Inspection and Maintenance[2]	==========																												
(See Table F-1 for detailed schedule)																													
Final Cover Activities[3]	•																												
Certification of Post Closure Care[4]																													•

[1] Day 0: All post closure activities begin 90 days after post closure permit issuance.

[2] ===== On going

[3] Final cover activities will be completed approximately 120 to 180 days after permit issuance. Completion date is dependent on weather conditions and optimal seeding times.

[4] Certification of post closure care occurs 60 days after completion of the post closure care period.

Chain-of-Custody Record

Client: Western Refining Gallup Refinery
Mailing Address: Rt 3 Box 7 Gallup, NM 87301
Phone #: 505 722 3833
email or Fax#: 722 0210
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
☐ Other
☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: 4th QTR EFF
Project #:
Project Manager: G Rajen
Sampler: Cheryl Johnson
On Ice: ☒ YES ☐ NO
Sample Temperature: 4.6

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 0911220	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	WQM Metals	Gen Chem	BOD	COD	Air Bubbles (Y or N)
11/10/09	0932	H2O	10APIS EFF	3-VOA	HCl	1			X													
				3VOA	HCl	1										X						
				1L Amb	None	1											X					
				500 ml	HNO3	1												X				
				500ml	HNO3	1													X			
				125 ml	H2SO4	1													X			
				500 ml	None	1													X			
11/10/09	0904		Pilot EFF*	3-VOA	HCl	2			X													
				3-VOA	HCl	2										X						
				500 ml	HNO3	2												X				
				500ml	None	2														X		
				250ml	H2SO4	2															X	

Date: 11/10/09 Time: 1014 Relinquished by:
Date: Time: Relinquished by:

Received by: Date 11/11/09 Time 10:30
Received by: Date Time

Remarks: Gen Chem - Cations, Ions, pH, cond.
*Pilot Samples - may contain bio-hazards

Table I-2A. Schedule and Vegetative Cover Activities During Closure

Closure Schedule

An estimated 180 days will be required to accomplish closure procedures and reporting requirements. The year of closure of the Land Treatment Unit is 2000. Closure will observe the sampling provided below.

Activity	Milestone Date[d]
Notify the NMED	- 90 Days
Begin vegetative cover activities	Day 30
Submit certification report to NMED	Day 60

[d] Time dependent on seed germination and vegetation maturity.

Vegetative Cover Activities During Closure

Activity	Milestone Date[a]
Microtox soil test[b] , if necessary	Day 0[c]
Receive and evaluate test results	Day 30
Soil Amendments, if necessary	Day 60
Determine seeding time	Day 60
Prepare LTU	Day 90
• Level Surface;	
• Add topsoil layer	
• Irrigate as Necessary	
Low Maintenance Vegetation	Day 120
• Seeding	1-2 years[d]
• Irrigation as necessary to establish cover system	

[d] Time is dependent upon seed germination and vegetation maturity.

[a] Completion dates are dependent on weather conditions and optimal seeding times. NMED will be notified if weather conditions delay listed activities. Under such circumstances, Gallup Refinery will negotiate the closure schedule with NMED.

[b] Microtox or other soil chemical tests may be conducted as needed. Consult with professional agronomist as needed.

[c] Day 0 = within 90 days after post-closure permit issuance (Approval of Closure Plan), weather dependent.

Chain-of-Custody Record

Client: Western Refining Gallup Refinery

Mailing Address: Rt 3 Box 7 Gallup, NM 87301

Phone #: 505 722 3833

email or Fax#: 722 0210

QA/QC Package:
- [x] Standard
- [ ] Level 4 (Full Validation)
- [ ] Other
- [ ] EDD (Type)

Turn-Around Time:
- [x] Standard
- [ ] Rush

Project Name: 4th QTR - AL 2-EP1

Project #:

Project Manager: G Rajen

Sampler: Ghent Johnson

On Ice: [x] Yes [ ] No

Sample Temperature: 4°C

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 0911220
11-10-09	0850	H2O	AL2 to EP1	3 VOA	HCl	3
"	"	"	"	3 VOA	HCl	3
"	"	"	"	1L Amb	None	3
"	"	"	"	500mL	HNO3	3
			Trip Blank			4
			AD 11/11/09			

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	10 Day Metals				Air Bubbles (Y or N)
		X													
									X						
										X					
											X				

Date	Time	Relinquished by:	Received by:	Date	Time
11/10/09	1014				
			10:30	11/11/09	

Date	Time	Relinquished by:	Received by:	Date	Time

Remarks:

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

Table I-1. Approved Waste Streams Applied to the Land Treatment Unit

EPA Hazardous Waste No.	Waste Description	Annual Application Limit (Tons)
D001	Ignitable Materials	50
D007	Cooling Water Filter Sludge	5
K049	Slop Oil Emulsion Sludge	200
K050	Heat Exchanger Bundle Cleaning sludge	15
K051	API Separator Sludge	1000
K052	Tank Bottoms (leaded)	5

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Thursday, December 10, 2009

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

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

RE: 4th Qtr NAPIS

Order No.: 0911470

Dear Gaurav Rajen:

Hall Environmental Analysis Laboratory, Inc. received 5 sample(s) on 11/24/2009 for the analyses presented in the following report.

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

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

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

Sincerely,

for Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901
AZ license # AZ0682
ORELAP Lab # NM100001
Texas Lab# T104704424-08-TX

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

Hall Environmental Analysis Laboratory, Inc.

Date: *10-Dec-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	NAPIS-1
Lab Order:	0911470	**Collection Date:**	11/23/2009 1:15:00 PM
Project:	4th Qtr NAPIS	**Date Received:**	11/24/2009
Lab ID:	0911470-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **SCC**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	11/30/2009 9:41:28 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/30/2009 9:41:28 AM
Surr: DNOP	105	58-140		%REC	1	11/30/2009 9:41:28 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	12/3/2009 1:16:29 PM
Surr: BFB	76.9	55.2-107		%REC	1	12/3/2009 1:16:29 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	12/3/2009 1:16:29 PM
Benzene	ND	1.0		µg/L	1	12/3/2009 1:16:29 PM
Toluene	1.6	1.0		µg/L	1	12/3/2009 1:16:29 PM
Ethylbenzene	ND	1.0		µg/L	1	12/3/2009 1:16:29 PM
Xylenes, Total	ND	2.0		µg/L	1	12/3/2009 1:16:29 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	12/3/2009 1:16:29 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	12/3/2009 1:16:29 PM
Surr: 4-Bromofluorobenzene	80.7	65.9-130		%REC	1	12/3/2009 1:16:29 PM
EPA METHOD 8310: PAHS						Analyst: **JAT**
Naphthalene	ND	2.0		µg/L	1	12/2/2009 9:13:38 PM
1-Methylnaphthalene	ND	2.0		µg/L	1	12/2/2009 9:13:38 PM
2-Methylnaphthalene	ND	2.0		µg/L	1	12/2/2009 9:13:38 PM
Acenaphthylene	ND	2.5		µg/L	1	12/2/2009 9:13:38 PM
Acenaphthene	ND	5.0		µg/L	1	12/2/2009 9:13:38 PM
Fluorene	ND	0.80		µg/L	1	12/2/2009 9:13:38 PM
Phenanthrene	ND	0.60		µg/L	1	12/2/2009 9:13:38 PM
Anthracene	ND	0.60		µg/L	1	12/2/2009 9:13:38 PM
Fluoranthene	ND	0.30		µg/L	1	12/2/2009 9:13:38 PM
Pyrene	ND	0.30		µg/L	1	12/2/2009 9:13:38 PM
Benz(a)anthracene	ND	0.070		µg/L	1	12/2/2009 9:13:38 PM
Chrysene	ND	0.20		µg/L	1	12/2/2009 9:13:38 PM
Benzo(b)fluoranthene	ND	0.10		µg/L	1	12/2/2009 9:13:38 PM
Benzo(k)fluoranthene	ND	0.070		µg/L	1	12/2/2009 9:13:38 PM
Benzo(a)pyrene	ND	0.070		µg/L	1	12/2/2009 9:13:38 PM
Dibenz(a,h)anthracene	ND	0.070		µg/L	1	12/2/2009 9:13:38 PM
Benzo(g,h,i)perylene	ND	0.080		µg/L	1	12/2/2009 9:13:38 PM
Indeno(1,2,3-cd)pyrene	ND	0.080		µg/L	1	12/2/2009 9:13:38 PM
Surr: Benzo(e)pyrene	89.9	28.3-111		%REC	1	12/2/2009 9:13:38 PM
EPA METHOD 300.0: ANIONS						Analyst: **LJB**
Fluoride	1.4	0.10		mg/L	1	11/24/2009 8:17:29 PM
Chloride	170	2.0		mg/L	20	11/24/2009 8:34:53 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *10-Dec-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	NAPIS-1
Lab Order:	0911470	**Collection Date:**	11/23/2009 1:15:00 PM
Project:	4th Qtr NAPIS	**Date Received:**	11/24/2009
Lab ID:	0911470-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **LJB**
Nitrogen, Nitrate (As N)	1.8	0.10		mg/L	1	11/24/2009 8:17:29 PM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	11/24/2009 8:17:29 PM
Sulfate	100	10		mg/L	20	11/24/2009 8:34:53 PM
EPA METHOD 7470: MERCURY						Analyst: **IC**
Mercury	ND	0.00020		mg/L	1	11/25/2009 5:11:47 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **RAGS**
Arsenic	ND	0.020		mg/L	1	12/7/2009 6:37:11 PM
Barium	0.20	0.020		mg/L	1	12/7/2009 6:37:11 PM
Cadmium	ND	0.0020		mg/L	1	12/7/2009 6:37:11 PM
Calcium	58	1.0		mg/L	1	12/7/2009 6:37:11 PM
Chromium	0.0077	0.0060		mg/L	1	12/7/2009 6:37:11 PM
Lead	ND	0.0050		mg/L	1	12/7/2009 6:37:11 PM
Magnesium	13	1.0		mg/L	1	12/7/2009 6:37:11 PM
Potassium	3.7	1.0		mg/L	1	12/7/2009 6:37:11 PM
Selenium	ND	0.050		mg/L	1	12/7/2009 6:37:11 PM
Silver	ND	0.0050		mg/L	1	12/7/2009 6:37:11 PM
Sodium	390	5.0		mg/L	5	12/7/2009 7:53:15 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **MMS**
Specific Conductance	2000	0.010		µmhos/cm	1	12/1/2009 1:21:43 PM
SM4500-H+B: PH						Analyst: **MMS**
pH	7.39	0.1		pH units	1	11/25/2009 12:27:15 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *10-Dec-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	NAPIS-2
Lab Order:	0911470	**Collection Date:**	11/23/2009 11:40:00 AM
Project:	4th Qtr NAPIS	**Date Received:**	11/24/2009
Lab ID:	0911470-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **SCC**
Diesel Range Organics (DRO)	2.7	1.0		mg/L	1	11/30/2009 10:17:57 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/30/2009 10:17:57 AM
Surr: DNOP	104	58-140		%REC	1	11/30/2009 10:17:57 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	0.78	0.050		mg/L	1	12/4/2009 12:20:27 PM
Surr: BFB	123	55.2-107	S	%REC	1	12/4/2009 12:20:27 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Methyl tert-butyl ether (MTBE)	94	2.5		µg/L	1	12/4/2009 12:20:27 PM
Benzene	32	1.0		µg/L	1	12/4/2009 12:20:27 PM
Toluene	1.0	1.0		µg/L	1	12/4/2009 12:20:27 PM
Ethylbenzene	9.3	1.0		µg/L	1	12/4/2009 12:20:27 PM
Xylenes, Total	ND	2.0		µg/L	1	12/4/2009 12:20:27 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	12/4/2009 12:20:27 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	12/4/2009 12:20:27 PM
Surr: 4-Bromofluorobenzene	107	65.9-130		%REC	1	12/4/2009 12:20:27 PM
EPA METHOD 8310: PAHS						Analyst: **JAT**
Naphthalene	46	2.0		µg/L	1	12/2/2009 9:33:48 PM
1-Methylnaphthalene	ND	2.0		µg/L	1	12/2/2009 9:33:48 PM
2-Methylnaphthalene	ND	2.0		µg/L	1	12/2/2009 9:33:48 PM
Acenaphthylene	ND	2.5		µg/L	1	12/2/2009 9:33:48 PM
Acenaphthene	ND	5.0		µg/L	1	12/2/2009 9:33:48 PM
Fluorene	9.0	0.80		µg/L	1	12/2/2009 9:33:48 PM
Phenanthrene	1.7	0.60		µg/L	1	12/2/2009 9:33:48 PM
Anthracene	ND	0.60		µg/L	1	12/2/2009 9:33:48 PM
Fluoranthene	ND	0.30		µg/L	1	12/2/2009 9:33:48 PM
Pyrene	ND	0.30		µg/L	1	12/2/2009 9:33:48 PM
Benz(a)anthracene	ND	0.070		µg/L	1	12/2/2009 9:33:48 PM
Chrysene	ND	0.20		µg/L	1	12/2/2009 9:33:48 PM
Benzo(b)fluoranthene	ND	0.10		µg/L	1	12/2/2009 9:33:48 PM
Benzo(k)fluoranthene	ND	0.070		µg/L	1	12/2/2009 9:33:48 PM
Benzo(a)pyrene	ND	0.070		µg/L	1	12/2/2009 9:33:48 PM
Dibenz(a,h)anthracene	ND	0.070		µg/L	1	12/2/2009 9:33:48 PM
Benzo(g,h,i)perylene	ND	0.080		µg/L	1	12/2/2009 9:33:48 PM
Indeno(1,2,3-cd)pyrene	ND	0.080		µg/L	1	12/2/2009 9:33:48 PM
Surr: Benzo(e)pyrene	68.4	28.3-111		%REC	1	12/2/2009 9:33:48 PM
EPA METHOD 300.0: ANIONS						Analyst: **LJB**
Fluoride	1.6	0.10		mg/L	1	11/24/2009 8:52:18 PM
Chloride	220	2.0		mg/L	20	11/24/2009 9:09:43 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *10-Dec-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	NAPIS-2
Lab Order:	0911470	**Collection Date:**	11/23/2009 11:40:00 AM
Project:	4th Qtr NAPIS	**Date Received:**	11/24/2009
Lab ID:	0911470-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **LJB**
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	11/24/2009 8:52:18 PM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	11/24/2009 8:52:18 PM
Sulfate	13	0.50		mg/L	1	11/24/2009 8:52:18 PM
EPA METHOD 7470: MERCURY						Analyst: **IC**
Mercury	ND	0.00020		mg/L	1	11/25/2009 5:13:31 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **RAGS**
Arsenic	ND	0.020		mg/L	1	12/7/2009 6:41:19 PM
Barium	1.1	0.10		mg/L	5	12/7/2009 7:56:07 PM
Cadmium	ND	0.0020		mg/L	1	12/7/2009 6:41:19 PM
Calcium	56	1.0		mg/L	1	12/7/2009 6:41:19 PM
Chromium	ND	0.0060		mg/L	1	12/7/2009 6:41:19 PM
Lead	ND	0.0050		mg/L	1	12/7/2009 6:41:19 PM
Magnesium	11	1.0		mg/L	1	12/7/2009 6:41:19 PM
Potassium	ND	1.0		mg/L	1	12/7/2009 6:41:19 PM
Selenium	ND	0.050		mg/L	1	12/7/2009 6:41:19 PM
Silver	ND	0.0050		mg/L	1	12/7/2009 6:41:19 PM
Sodium	350	5.0		mg/L	5	12/7/2009 7:56:07 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **MMS**
Specific Conductance	1500	0.010		µmhos/cm	1	12/1/2009 1:23:38 PM
SM4500-H+B: PH						Analyst: **MMS**
pH	7.16	0.1		pH units	1	11/25/2009 12:31:23 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *10-Dec-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	~~NAPIS-3~~ KA-3
Lab Order:	0911470	**Collection Date:**	11/23/2009 11:10:00 AM
Project:	4th Qtr NAPIS	**Date Received:**	11/24/2009
Lab ID:	0911470-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **SCC**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	11/30/2009 10:54:10 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/30/2009 10:54:10 AM
Surr: DNOP	107	58-140		%REC	1	11/30/2009 10:54:10 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	12/3/2009 2:47:33 PM
Surr: BFB	81.4	55.2-107		%REC	1	12/3/2009 2:47:33 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	12/3/2009 2:47:33 PM
Benzene	ND	1.0		µg/L	1	12/3/2009 2:47:33 PM
Toluene	ND	1.0		µg/L	1	12/3/2009 2:47:33 PM
Ethylbenzene	ND	1.0		µg/L	1	12/3/2009 2:47:33 PM
Xylenes, Total	ND	2.0		µg/L	1	12/3/2009 2:47:33 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	12/3/2009 2:47:33 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	12/3/2009 2:47:33 PM
Surr: 4-Bromofluorobenzene	86.7	65.9-130		%REC	1	12/3/2009 2:47:33 PM
EPA METHOD 8310: PAHS						Analyst: **JAT**
Naphthalene	ND	2.0		µg/L	1	12/2/2009 9:54:02 PM
1-Methylnaphthalene	ND	2.0		µg/L	1	12/2/2009 9:54:02 PM
2-Methylnaphthalene	ND	2.0		µg/L	1	12/2/2009 9:54:02 PM
Acenaphthylene	ND	2.5		µg/L	1	12/2/2009 9:54:02 PM
Acenaphthene	ND	5.0		µg/L	1	12/2/2009 9:54:02 PM
Fluorene	ND	0.80		µg/L	1	12/2/2009 9:54:02 PM
Phenanthrene	ND	0.60		µg/L	1	12/2/2009 9:54:02 PM
Anthracene	ND	0.60		µg/L	1	12/2/2009 9:54:02 PM
Fluoranthene	ND	0.30		µg/L	1	12/2/2009 9:54:02 PM
Pyrene	ND	0.30		µg/L	1	12/2/2009 9:54:02 PM
Benz(a)anthracene	ND	0.070		µg/L	1	12/2/2009 9:54:02 PM
Chrysene	ND	0.20		µg/L	1	12/2/2009 9:54:02 PM
Benzo(b)fluoranthene	ND	0.10		µg/L	1	12/2/2009 9:54:02 PM
Benzo(k)fluoranthene	ND	0.070		µg/L	1	12/2/2009 9:54:02 PM
Benzo(a)pyrene	ND	0.070		µg/L	1	12/2/2009 9:54:02 PM
Dibenz(a,h)anthracene	ND	0.070		µg/L	1	12/2/2009 9:54:02 PM
Benzo(g,h,i)perylene	ND	0.080		µg/L	1	12/2/2009 9:54:02 PM
Indeno(1,2,3-cd)pyrene	ND	0.080		µg/L	1	12/2/2009 9:54:02 PM
Surr: Benzo(e)pyrene	71.9	28.3-111		%REC	1	12/2/2009 9:54:02 PM
EPA METHOD 300.0: ANIONS						Analyst: **LJB**
Fluoride	0.49	0.10		mg/L	1	11/24/2009 9:27:08 PM
Chloride	1100	10		mg/L	100	11/25/2009 12:19:41 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *10-Dec-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	~~NAPIS~~-3 KA-3
Lab Order:	0911470	**Collection Date:**	11/23/2009 11:10:00 AM
Project:	4th Qtr NAPIS	**Date Received:**	11/24/2009
Lab ID:	0911470-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **LJB**
Nitrogen, Nitrate (As N)	15	2.0		mg/L	20	11/24/2009 9:44:33 PM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	11/24/2009 9:27:08 PM
Sulfate	370	10		mg/L	20	11/24/2009 9:44:33 PM
EPA METHOD 7470: MERCURY						Analyst: **IC**
Mercury	ND	0.00020		mg/L	1	11/25/2009 5:15:16 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **RAGS**
Arsenic	ND	0.020		mg/L	1	12/7/2009 6:58:49 PM
Barium	0.15	0.020		mg/L	1	12/7/2009 6:58:49 PM
Cadmium	ND	0.0020		mg/L	1	12/7/2009 6:58:49 PM
Calcium	46	1.0		mg/L	1	12/7/2009 6:58:49 PM
Chromium	0.0072	0.0060		mg/L	1	12/7/2009 6:58:49 PM
Lead	ND	0.0050		mg/L	1	12/7/2009 6:58:49 PM
Magnesium	8.8	1.0		mg/L	1	12/7/2009 6:58:49 PM
Potassium	5.4	1.0		mg/L	1	12/7/2009 6:58:49 PM
Selenium	ND	0.050		mg/L	1	12/7/2009 6:58:49 PM
Silver	ND	0.0050		mg/L	1	12/7/2009 6:58:49 PM
Sodium	930	20		mg/L	20	12/8/2009 12:21:32 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **MMS**
Specific Conductance	4400	0.010		µmhos/cm	1	12/1/2009 1:25:31 PM
SM4500-H+B: PH						Analyst: **MMS**
pH	7.91	0.1		pH units	1	11/25/2009 12:35:29 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *10-Dec-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:** KA-3 NAPIS3	
Lab Order:	0911470	**Collection Date:**	11/23/2009 12:45:00 PM
Project:	4th Qtr NAPIS	**Date Received:**	11/24/2009
Lab ID:	0911470-04	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **SCC**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	11/30/2009 11:30:56 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/30/2009 11:30:56 AM
Surr: DNOP	108	58-140		%REC	1	11/30/2009 11:30:56 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	0.19	0.050		mg/L	1	12/3/2009 3:48:16 PM
Surr: BFB	93.9	55.2-107		%REC	1	12/3/2009 3:48:16 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Methyl tert-butyl ether (MTBE)	77	2.5		µg/L	1	12/3/2009 3:48:16 PM
Benzene	ND	1.0		µg/L	1	12/3/2009 3:48:16 PM
Toluene	ND	1.0		µg/L	1	12/3/2009 3:48:16 PM
Ethylbenzene	ND	1.0		µg/L	1	12/3/2009 3:48:16 PM
Xylenes, Total	ND	2.0		µg/L	1	12/3/2009 3:48:16 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	12/3/2009 3:48:16 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	12/3/2009 3:48:16 PM
Surr: 4-Bromofluorobenzene	100	65.9-130		%REC	1	12/3/2009 3:48:16 PM
EPA METHOD 8310: PAHS						Analyst: **JAT**
Naphthalene	33	2.0		µg/L	1	12/2/2009 10:14:13 PM
1-Methylnaphthalene	22	2.0		µg/L	1	12/2/2009 10:14:13 PM
2-Methylnaphthalene	ND	2.0		µg/L	1	12/2/2009 10:14:13 PM
Acenaphthylene	ND	2.5		µg/L	1	12/2/2009 10:14:13 PM
Acenaphthene	ND	5.0		µg/L	1	12/2/2009 10:14:13 PM
Fluorene	2.9	0.80		µg/L	1	12/2/2009 10:14:13 PM
Phenanthrene	2.5	0.60		µg/L	1	12/2/2009 10:14:13 PM
Anthracene	ND	0.60		µg/L	1	12/2/2009 10:14:13 PM
Fluoranthene	ND	0.30		µg/L	1	12/2/2009 10:14:13 PM
Pyrene	ND	0.30		µg/L	1	12/2/2009 10:14:13 PM
Benz(a)anthracene	0.070	0.070		µg/L	1	12/2/2009 10:14:13 PM
Chrysene	ND	0.20		µg/L	1	12/2/2009 10:14:13 PM
Benzo(b)fluoranthene	ND	0.10		µg/L	1	12/2/2009 10:14:13 PM
Benzo(k)fluoranthene	ND	0.070		µg/L	1	12/2/2009 10:14:13 PM
Benzo(a)pyrene	ND	0.070		µg/L	1	12/2/2009 10:14:13 PM
Dibenz(a,h)anthracene	ND	0.070		µg/L	1	12/2/2009 10:14:13 PM
Benzo(g,h,i)perylene	ND	0.080		µg/L	1	12/2/2009 10:14:13 PM
Indeno(1,2,3-cd)pyrene	ND	0.080		µg/L	1	12/2/2009 10:14:13 PM
Surr: Benzo(e)pyrene	63.1	28.3-111		%REC	1	12/2/2009 10:14:13 PM
EPA METHOD 300.0: ANIONS						Analyst: **LJB**
Fluoride	1.3	0.10		mg/L	1	11/24/2009 10:01:58 PM
Chloride	610	5.0		mg/L	50	11/25/2009 12:37:05 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *10-Dec-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:** ~~KA-3~~ NAPIS 3	
Lab Order:	0911470	**Collection Date:**	11/23/2009 12:45:00 PM
Project:	4th Qtr NAPIS	**Date Received:**	11/24/2009
Lab ID:	0911470-04	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **LJB**
Nitrogen, Nitrate (As N)	3.2	0.10		mg/L	1	11/24/2009 10:01:58 PM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	11/24/2009 10:01:58 PM
Sulfate	120	10		mg/L	20	11/24/2009 10:19:23 PM
EPA METHOD 7470: MERCURY						Analyst: **IC**
Mercury	ND	0.00020		mg/L	1	11/25/2009 5:17:02 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **RAGS**
Arsenic	ND	0.020		mg/L	1	12/7/2009 7:02:42 PM
Barium	0.55	0.020		mg/L	1	12/7/2009 7:02:42 PM
Cadmium	ND	0.0020		mg/L	1	12/7/2009 7:02:42 PM
Calcium	100	5.0		mg/L	5	12/7/2009 8:04:34 PM
Chromium	ND	0.0060		mg/L	1	12/7/2009 7:02:42 PM
Lead	ND	0.0050		mg/L	1	12/7/2009 7:02:42 PM
Magnesium	19	1.0		mg/L	1	12/7/2009 7:02:42 PM
Potassium	2.0	1.0		mg/L	1	12/7/2009 7:02:42 PM
Selenium	ND	0.050		mg/L	1	12/7/2009 7:02:42 PM
Silver	ND	0.0050		mg/L	1	12/7/2009 7:02:42 PM
Sodium	480	5.0		mg/L	5	12/7/2009 8:04:34 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **MMS**
Specific Conductance	2900	0.010		µmhos/cm	1	12/1/2009 1:27:23 PM
SM4500-H+B: PH						Analyst: **MMS**
pH	7.31	0.1		pH units	1	11/25/2009 12:39:35 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *10-Dec-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	Trip Blank
Lab Order:	0911470	**Collection Date:**	
Project:	4th Qtr NAPIS	**Date Received:**	11/24/2009
Lab ID:	0911470-05	**Matrix:**	TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	12/3/2009 4:49:04 PM
Surr: BFB	85.3	55.2-107		%REC	1	12/3/2009 4:49:04 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	12/3/2009 4:49:04 PM
Benzene	ND	1.0		µg/L	1	12/3/2009 4:49:04 PM
Toluene	ND	1.0		µg/L	1	12/3/2009 4:49:04 PM
Ethylbenzene	ND	1.0		µg/L	1	12/3/2009 4:49:04 PM
Xylenes, Total	ND	2.0		µg/L	1	12/3/2009 4:49:04 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	12/3/2009 4:49:04 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	12/3/2009 4:49:04 PM
Surr: 4-Bromofluorobenzene	92.7	65.9-130		%REC	1	12/3/2009 4:49:04 PM

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 4th Qtr NAPIS **Work Order:** 0911470

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 300.0: Anions											
Sample ID: MB		*MBLK*				Batch ID:	**R36326**	Analysis Date:	11/24/2009 7:42:40 PM		
Fluoride	ND	mg/L	0.10								
Chloride	ND	mg/L	0.10								
Nitrogen, Nitrate (As N)	ND	mg/L	0.10								
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50								
Sulfate	ND	mg/L	0.50								
Sample ID: MB		*MBLK*				Batch ID:	**R36344**	Analysis Date:	11/25/2009 11:44:51 AM		
Fluoride	ND	mg/L	0.10								
Chloride	ND	mg/L	0.10								
Nitrogen, Nitrate (As N)	ND	mg/L	0.10								
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50								
Sulfate	ND	mg/L	0.50								
Sample ID: LCS		*LCS*				Batch ID:	**R36326**	Analysis Date:	11/24/2009 8:00:05 PM		
Fluoride	0.5089	mg/L	0.10	0.5	0	102	90	110			
Chloride	4.999	mg/L	0.10	5	0	100	90	110			
Nitrogen, Nitrate (As N)	2.548	mg/L	0.10	2.5	0	102	90	110			
Phosphorus, Orthophosphate (As P)	5.084	mg/L	0.50	5	0	102	90	110			
Sulfate	10.03	mg/L	0.50	10	0	100	90	110			
Sample ID: LCS		*LCS*				Batch ID:	**R36344**	Analysis Date:	11/25/2009 12:02:16 PM		
Fluoride	0.5325	mg/L	0.10	0.5	0	107	90	110			
Chloride	5.149	mg/L	0.10	5	0	103	90	110			
Nitrogen, Nitrate (As N)	2.643	mg/L	0.10	2.5	0	106	90	110			
Phosphorus, Orthophosphate (As P)	5.289	mg/L	0.50	5	0	106	90	110			
Sulfate	10.47	mg/L	0.50	10	0	105	90	110			
Method: EPA Method 8015B: Diesel Range											
Sample ID: MB-20702		*MBLK*				Batch ID:	**20702**	Analysis Date:	11/29/2009 7:23:03 PM		
Diesel Range Organics (DRO)	ND	mg/L	1.0								
Motor Oil Range Organics (MRO)	ND	mg/L	5.0								
Sample ID: LCS-20702		*LCS*				Batch ID:	**20702**	Analysis Date:	11/29/2009 7:58:44 PM		
Diesel Range Organics (DRO)	5.932	mg/L	1.0	5	0	119	74	157			
Method: EPA Method 8015B: Gasoline Range											
Sample ID: 5ML RB		*MBLK*				Batch ID:	**R36424**	Analysis Date:	12/3/2009 9:43:08 AM		
Gasoline Range Organics (GRO)	ND	mg/L	0.050								
Sample ID: 5ML RB		*MBLK*				Batch ID:	**R36448**	Analysis Date:	12/4/2009 9:48:19 AM		
Gasoline Range Organics (GRO)	ND	mg/L	0.050								
Sample ID: 2.5UG GRO LCS		*LCS*				Batch ID:	**R36424**	Analysis Date:	12/3/2009 7:50:57 PM		
Gasoline Range Organics (GRO)	0.4506	mg/L	0.050	0.5	0	90.1	80	115			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 4th Qtr NAPIS **Work Order:** 0911470

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8021B: Volatiles											
Sample ID: 5ML RB		*MBLK*				Batch ID: **R36424**		Analysis Date:	12/3/2009 9:43:08 AM		
Methyl tert-butyl ether (MTBE)	ND	µg/L	2.5								
Benzene	ND	µg/L	1.0								
Toluene	ND	µg/L	1.0								
Ethylbenzene	ND	µg/L	1.0								
Xylenes, Total	ND	µg/L	2.0								
1,2,4-Trimethylbenzene	ND	µg/L	1.0								
1,3,5-Trimethylbenzene	ND	µg/L	1.0								
Sample ID: 5ML RB		*MBLK*				Batch ID: **R36448**		Analysis Date:	12/4/2009 9:48:19 AM		
Methyl tert-butyl ether (MTBE)	ND	µg/L	2.5								
Benzene	ND	µg/L	1.0								
Toluene	ND	µg/L	1.0								
Ethylbenzene	ND	µg/L	1.0								
Xylenes, Total	ND	µg/L	2.0								
1,2,4-Trimethylbenzene	ND	µg/L	1.0								
1,3,5-Trimethylbenzene	ND	µg/L	1.0								
Sample ID: 100NG BTEX LCS		*LCS*				Batch ID: **R36424**		Analysis Date:	12/3/2009 9:24:43 PM		
Methyl tert-butyl ether (MTBE)	16.98	µg/L	2.5	20	0.144	84.2	51.2	138			
Benzene	21.02	µg/L	1.0	20	0	105	85.9	113			
Toluene	20.84	µg/L	1.0	20	0	104	86.4	113			
Ethylbenzene	20.38	µg/L	1.0	20	0.088	101	83.5	118			
Xylenes, Total	61.05	µg/L	2.0	60	0	102	83.4	122			
1,2,4-Trimethylbenzene	19.63	µg/L	1.0	20	0.29	96.7	83.5	115			
1,3,5-Trimethylbenzene	19.33	µg/L	1.0	20	0.12	96.1	85.2	113			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 4th Qtr NAPIS **Work Order:** 0911470

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8310: PAHs											
Sample ID: MB-20743		*MBLK*				Batch ID:	**20743**	Analysis Date:	12/2/2009 8:13:09 PM		
Naphthalene	ND	µg/L	2.0								
1-Methylnaphthalene	ND	µg/L	2.0								
2-Methylnaphthalene	ND	µg/L	2.0								
Acenaphthylene	ND	µg/L	2.5								
Acenaphthene	ND	µg/L	5.0								
Fluorene	ND	µg/L	0.80								
Phenanthrene	ND	µg/L	0.60								
Anthracene	ND	µg/L	0.60								
Fluoranthene	ND	µg/L	0.30								
Pyrene	ND	µg/L	0.30								
Benz(a)anthracene	ND	µg/L	0.070								
Chrysene	ND	µg/L	0.20								
Benzo(b)fluoranthene	ND	µg/L	0.10								
Benzo(k)fluoranthene	ND	µg/L	0.070								
Benzo(a)pyrene	ND	µg/L	0.070								
Dibenz(a,h)anthracene	ND	µg/L	0.070								
Benzo(g,h,i)perylene	ND	µg/L	0.080								
Indeno(1,2,3-cd)pyrene	ND	µg/L	0.080								
Sample ID: LCS-20743		*LCS*				Batch ID:	**20743**	Analysis Date:	12/2/2009 8:33:18 PM		
Naphthalene	60.57	µg/L	2.0	80	0	75.7	20.5	109			
1-Methylnaphthalene	67.54	µg/L	2.0	80.2	0	84.2	23.1	116			
2-Methylnaphthalene	61.70	µg/L	2.0	80	0	77.1	19.5	112			
Acenaphthylene	60.20	µg/L	2.5	80.2	0	75.1	27.5	119			
Acenaphthene	69.28	µg/L	5.0	80	0	86.6	31	117			
Fluorene	3.800	µg/L	0.80	8.02	0	47.4	17.1	109			
Phenanthrene	2.500	µg/L	0.60	4.02	0	62.2	25.5	112			
Anthracene	3.350	µg/L	0.60	4.02	0	83.3	25.8	119			
Fluoranthene	6.150	µg/L	0.30	8.02	0	76.7	27.2	122			
Pyrene	5.620	µg/L	0.30	8.02	0	70.1	24.1	118			
Benz(a)anthracene	0.6700	µg/L	0.070	0.802	0	83.5	31.1	125			
Chrysene	3.240	µg/L	0.20	4.02	0	80.6	32.8	119			
Benzo(b)fluoranthene	0.7200	µg/L	0.10	1.002	0	71.9	24.4	117			
Benzo(k)fluoranthene	0.6200	µg/L	0.070	0.5	0	124	28.4	132			
Benzo(a)pyrene	0.3800	µg/L	0.070	0.502	0	75.7	32.4	119			
Dibenz(a,h)anthracene	0.7800	µg/L	0.070	1.002	0	77.8	33.9	120			
Benzo(g,h,i)perylene	0.7300	µg/L	0.080	1	0	73.0	35.2	113			
Indeno(1,2,3-cd)pyrene	1.710	µg/L	0.080	2.004	0	85.3	33.6	115			
Method: EPA Method 7470: Mercury											
Sample ID: MB-20729		*MBLK*				Batch ID:	**20729**	Analysis Date:	11/25/2009 4:41:21 PM		
Mercury	ND	mg/L	0.00020								
Sample ID: LCS-20729		*LCS*				Batch ID:	**20729**	Analysis Date:	11/25/2009 4:43:07 PM		
Mercury	0.005101	mg/L	0.00020	0.005	0	102	80	120			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 4th Qtr NAPIS **Work Order:** 0911470

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: **EPA 6010B: Total Recoverable Metals**											
Sample ID: **MB-20747**		*MBLK*				Batch ID:	**20747**	Analysis Date:	12/1/2009 1:49:50 PM		
Arsenic	ND	mg/L	0.020								
Cadmium	ND	mg/L	0.0020								
Calcium	ND	mg/L	0.50								
Chromium	ND	mg/L	0.0060								
Lead	ND	mg/L	0.0050								
Magnesium	ND	mg/L	0.50								
Potassium	ND	mg/L	1.0								
Selenium	ND	mg/L	0.050								
Sodium	ND	mg/L	0.50								
Sample ID: **MB-SPLP #2**		*MBLK*				Batch ID:	**20747**	Analysis Date:	12/1/2009 1:55:59 PM		
Arsenic	ND	mg/L	0.020								
Cadmium	ND	mg/L	0.0020								
Calcium	ND	mg/L	0.50								
Chromium	ND	mg/L	0.0060								
Lead	ND	mg/L	0.0050								
Magnesium	ND	mg/L	0.50								
Potassium	ND	mg/L	1.0								
Selenium	ND	mg/L	0.050								
Sodium	ND	mg/L	0.50								
Sample ID: **MB-20747**		*MBLK*				Batch ID:	**20747**	Analysis Date:	12/2/2009 4:28:58 PM		
Barium	ND	mg/L	0.010								
Cadmium	ND	mg/L	0.0020								
Chromium	ND	mg/L	0.0060								
Lead	ND	mg/L	0.0050								
Sample ID: **MB-20747**		*MBLK*				Batch ID:	**20747**	Analysis Date:	12/7/2009 5:40:29 PM		
Arsenic	ND	mg/L	0.020								
Barium	ND	mg/L	0.010								
Cadmium	ND	mg/L	0.0020								
Calcium	ND	mg/L	0.50								
Chromium	ND	mg/L	0.0060								
Lead	ND	mg/L	0.0050								
Magnesium	ND	mg/L	0.50								
Potassium	ND	mg/L	1.0								
Selenium	ND	mg/L	0.050								
Silver	ND	mg/L	0.0050								
Sodium	ND	mg/L	0.50								
Sample ID: **LCS-20747**		*LCS*				Batch ID:	**20747**	Analysis Date:	12/1/2009 1:52:48 PM		
Arsenic	0.5070	mg/L	0.020	0.5	0	101	80	120			
Cadmium	0.4860	mg/L	0.0020	0.5	0	97.2	80	120			
Calcium	50.34	mg/L	0.50	50	0	101	80	120			
Chromium	0.4872	mg/L	0.0060	0.5	0	97.4	80	120			
Lead	0.4802	mg/L	0.0050	0.5	0	96.0	80	120			
Magnesium	50.59	mg/L	0.50	50	0	101	80	120			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: 4th Qtr NAPIS **Work Order:** 0911470

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: **EPA 6010B: Total Recoverable Metals**											
Sample ID: **LCS-20747**		*LCS*				Batch ID:	**20747**	Analysis Date:	12/1/2009 1:52:48 PM		
Potassium	52.24	mg/L	1.0	50	0	104	80	120			
Selenium	0.4811	mg/L	0.050	0.5	0	96.2	80	120			
Sodium	53.74	mg/L	0.50	50	0	107	80	120			
Sample ID: **LCS-20747**		*LCS*				Batch ID:	**20747**	Analysis Date:	12/2/2009 4:31:54 PM		
Barium	0.4757	mg/L	0.010	0.5	0	95.1	80	120			
Cadmium	0.4823	mg/L	0.0020	0.5	0	96.5	80	120			
Chromium	0.4811	mg/L	0.0060	0.5	0	96.2	80	120			
Lead	0.4773	mg/L	0.0050	0.5	0	95.5	80	120			
Sample ID: **LCS-20747**		*LCS*				Batch ID:	**20747**	Analysis Date:	12/7/2009 5:43:26 PM		
Arsenic	0.5037	mg/L	0.020	0.5	0	101	80	120			
Barium	0.4784	mg/L	0.010	0.5	0	95.7	80	120			
Cadmium	0.4862	mg/L	0.0020	0.5	0	97.2	80	120			
Calcium	50.77	mg/L	0.50	50	0	102	80	120			
Chromium	0.4828	mg/L	0.0060	0.5	0	96.6	80	120			
Lead	0.4792	mg/L	0.0050	0.5	0	95.8	80	120			
Magnesium	51.01	mg/L	0.50	50	0	102	80	120			
Potassium	52.95	mg/L	1.0	50	0	106	80	120			
Selenium	0.4711	mg/L	0.050	0.5	0	94.2	80	120			
Silver	0.4968	mg/L	0.0050	0.5	0	99.4	80	120			
[illegible]m	54.24	mg/L	0.50	50	0	108	80	120			

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name **WESTERN REFINING GALLU** Date Received: **11/24/2009**

Work Order Number **0911470** Received by: **ARS**

Checklist completed by: _____ 11/24/09 Sample ID labels checked by: _____
Signature Date Initials

Matrix: Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☑	No ☐	N/A ☐	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☑	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☑	No ☐	N/A ☐	
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐	
Container/Temp Blank temperature?	**1.6°**	*<6° C Acceptable* If given sufficient time to cool.		

Number of preserved bottles checked for pH: 12

<2 >12 unless noted below.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

Chain-of-Custody Record

Client: Western Refining
Gallup Refinery
Mailing Address: Rt 3 Box A
Gallup NM 87301
Phone #: 505 722 3833
email or Fax#: 722 0210
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
☐ Other
☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: 4th QTR NAPIS
Project #:
Project Manager: G Rajan
Sampler: Cheryl Johnson
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.1°C

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. 0911410	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Gen Chem				Air Bubbles (Y or N)
11/23/09	1315	H_2O	NAPIS-1	3-VOA	HCl	1			X													
				3-VOA	HCl	1	X															
				500ml	HNO_3	1							X									
				1L Amb	None	1						X										
				1-500	HNO_3	1												X				
				1-125	H_2SO_4	1												X				
				1-500	None	1												X				
	1140		NAPIS-2	3-VOA	HCl	2	X															
				3-VOA	HCl	2			X													
				500ml	HNO_3	2							X									
				1L Amber	None	2						X										
				1-500	HNO_3	2												X				

Date: 11/23/09 Time: 1438 Relinquished by:
Date: Time: Relinquished by:

Received by: 8:45 Date: 11/24/09 Time:
Received by: Date: Time:

Remarks: Gen Chem - Anions, Cations
EC, pH /A 11/24/09

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.

Chain-of-Custody Record

Client: Western Refining Gallup Refinery
Mailing Address: Rt 3 Box 7 Gallup NM 87301
Phone #: 505 722 3833
email or Fax#: 722 0210
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
☐ Other
☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: 4th QTR NAPIS
Project #:
Project Manager: G Rojem
Sampler: Cheryl Johnson
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.6

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 0911170	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Chem Chem				Air Bubbles (Y or N)
11/23/09	1140	H2O	NAPIS 2	125 ml	H2SO4	1 2												X				
				500 ml	None	1 2												X				
	1110		NAPIS 3	3 VOA	HCl	1 2 3	X															
				3 VOA	HCl	1 2 3			X													
				1L Amb	None	1 2 3						X										
				500 ml	HNO3	1 2 3							X									
				500 ml	HNO3	1 2 3												X				
				125 ml	H2SO4	1 2 3												X				
				500 ml	None	1 2 3												X				
	1245		KA-3	3 VOA	HCl	1 2 3	X															
				3 VOA	HCl	1 2 3			X													
				1L Amb	None	1 2 3						X										

Date:	Time:	Relinquished by:	Received by:	Date	Time
11/24/09	1438			11/24/09	8:45
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

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

Chain-of-Custody Record

Client: Western Refining
Gallup Refinery
Mailing Address: Rt 3 Box 7
Gallup NM 87301
Phone #: 505 722 3833
email or Fax#: 722 0210

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

Turn-Around Time:
☒ Standard ☐ Rush _____

Project Name: 4th QTR NAPLS

Project #:

Project Manager: GRajen

Sampler: Cheryl Johnson

On Ice: ☒ Yes ☐ No

Sample Temperature: 6

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com
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Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 691470	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	GenChem				Air Bubbles (Y or N)
11/23/09	1245	H_2O	KA-3	500ml	HNO_3	4							X									
"	"	"	"	500ml	HNO_3	4												X				
"	"	"	"	125ml	H_2SO_4	4												X				
"	"	"	"	500ml	None	4												X				
			TRIP Blank			5																

Date:	Time:	Relinquished by:	Received by:	Date	Time
11/23/09	1438				
Date:	Time:	Relinquished by:	Received by:	11/24/09	8:45

Remarks:

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

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Monday, December 28, 2009

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

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

RE: AL-1, AL-2, EP-1

Order No.: 0912336

Dear Gaurav Rajen:

Hall Environmental Analysis Laboratory, Inc. received 3 sample(s) on 12/16/2009 for the analyses presented in the following report.

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

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

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

Sincerely,

For Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901
AZ license # AZ0682
ORELAP Lab # NM100001
Texas Lab# T104704424-08-TX

Hall Environmental Analysis Laboratory, Inc.

Date: *28-Dec-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL-1 Inlet
Lab Order:	0912336	**Collection Date:**	12/14/2009 8:45:00 AM
Project:	AL-1, AL-2, EP-1	**Date Received:**	12/16/2009
Lab ID:	0912336-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **LBJ**
4-Chloro-3-methylphenol	ND	50		µg/L	1	12/21/2009 5:38:23 PM
2-Chlorophenol	ND	50		µg/L	1	12/21/2009 5:38:23 PM
2,4-Dichlorophenol	ND	100		µg/L	1	12/21/2009 5:38:23 PM
2,4-Dimethylphenol	170	50		µg/L	1	12/21/2009 5:38:23 PM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	12/21/2009 5:38:23 PM
2,4-Dinitrophenol	ND	100		µg/L	1	12/21/2009 5:38:23 PM
2-Methylphenol	920	50		µg/L	1	12/21/2009 5:38:23 PM
3+4-Methylphenol	1700	500		µg/L	10	12/21/2009 5:09:09 PM
2-Nitrophenol	ND	50		µg/L	1	12/21/2009 5:38:23 PM
4-Nitrophenol	ND	50		µg/L	1	12/21/2009 5:38:23 PM
Pentachlorophenol	ND	100		µg/L	1	12/21/2009 5:38:23 PM
Phenol	3100	500		µg/L	10	12/21/2009 5:09:09 PM
2,4,5-Trichlorophenol	ND	50		µg/L	1	12/21/2009 5:38:23 PM
2,4,6-Trichlorophenol	ND	50		µg/L	1	12/21/2009 5:38:23 PM
Surr: 2,4,6-Tribromophenol	65.5	16.6-150		%REC	1	12/21/2009 5:38:23 PM
Surr: 2-Fluorobiphenyl	61.5	19.6-134		%REC	1	12/21/2009 5:38:23 PM
Surr: 2-Fluorophenol	40.8	9.54-113		%REC	1	12/21/2009 5:38:23 PM
Surr: 4-Terphenyl-d14	38.7	22.7-145		%REC	1	12/21/2009 5:38:23 PM
Surr: Nitrobenzene-d5	60.5	14.6-134		%REC	1	12/21/2009 5:38:23 PM
Surr: Phenol-d5	34.8	10.7-80.3		%REC	1	12/21/2009 5:38:23 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *28-Dec-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL-2-Inlet
Lab Order:	0912336	**Collection Date:**	12/14/2009 9:10:00 AM
Project:	AL-1, AL-2, EP-1	**Date Received:**	12/16/2009
Lab ID:	0912336-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: LBJ
4-Chloro-3-methylphenol	ND	50		µg/L	1	12/21/2009 6:36:39 PM
2-Chlorophenol	ND	50		µg/L	1	12/21/2009 6:36:39 PM
2,4-Dichlorophenol	ND	100		µg/L	1	12/21/2009 6:36:39 PM
2,4-Dimethylphenol	65	50		µg/L	1	12/21/2009 6:36:39 PM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	12/21/2009 6:36:39 PM
2,4-Dinitrophenol	ND	100		µg/L	1	12/21/2009 6:36:39 PM
2-Methylphenol	ND	50		µg/L	1	12/21/2009 6:36:39 PM
3+4-Methylphenol	ND	50		µg/L	1	12/21/2009 6:36:39 PM
2-Nitrophenol	ND	50		µg/L	1	12/21/2009 6:36:39 PM
4-Nitrophenol	ND	50		µg/L	1	12/21/2009 6:36:39 PM
Pentachlorophenol	ND	100		µg/L	1	12/21/2009 6:36:39 PM
Phenol	ND	50		µg/L	1	12/21/2009 6:36:39 PM
2,4,5-Trichlorophenol	ND	50		µg/L	1	12/21/2009 6:36:39 PM
2,4,6-Trichlorophenol	ND	50		µg/L	1	12/21/2009 6:36:39 PM
Surr: 2,4,6-Tribromophenol	76.7	16.6-150		%REC	1	12/21/2009 6:36:39 PM
Surr: 2-Fluorobiphenyl	71.1	19.6-134		%REC	1	12/21/2009 6:36:39 PM
Surr: 2-Fluorophenol	31.1	9.54-113		%REC	1	12/21/2009 6:36:39 PM
Surr: 4-Terphenyl-d14	41.0	22.7-145		%REC	1	12/21/2009 6:36:39 PM
Surr: Nitrobenzene-d5	57.6	14.6-134		%REC	1	12/21/2009 6:36:39 PM
Surr: Phenol-d5	30.6	10.7-80.3		%REC	1	12/21/2009 6:36:39 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *28-Dec-09*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	EP-1 Inlet
Lab Order:	0912336	**Collection Date:**	12/14/2009 9:30:00 AM
Project:	AL-1, AL-2, EP-1	**Date Received:**	12/16/2009
Lab ID:	0912336-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: LBJ
4-Chloro-3-methylphenol	ND	50		µg/L	1	12/21/2009 7:34:16 PM
2-Chlorophenol	ND	50		µg/L	1	12/21/2009 7:34:16 PM
2,4-Dichlorophenol	ND	100		µg/L	1	12/21/2009 7:34:16 PM
2,4-Dimethylphenol	120	50		µg/L	1	12/21/2009 7:34:16 PM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	12/21/2009 7:34:16 PM
2,4-Dinitrophenol	ND	100		µg/L	1	12/21/2009 7:34:16 PM
2-Methylphenol	110	50		µg/L	1	12/21/2009 7:34:16 PM
3+4-Methylphenol	ND	50		µg/L	1	12/21/2009 7:34:16 PM
2-Nitrophenol	ND	50		µg/L	1	12/21/2009 7:34:16 PM
4-Nitrophenol	ND	50		µg/L	1	12/21/2009 7:34:16 PM
Pentachlorophenol	ND	100		µg/L	1	12/21/2009 7:34:16 PM
Phenol	85	50		µg/L	1	12/21/2009 7:34:16 PM
2,4,5-Trichlorophenol	ND	50		µg/L	1	12/21/2009 7:34:16 PM
2,4,6-Trichlorophenol	ND	50		µg/L	1	12/21/2009 7:34:16 PM
Surr: 2,4,6-Tribromophenol	48.3	16.6-150		%REC	1	12/21/2009 7:34:16 PM
Surr: 2-Fluorobiphenyl	57.8	19.6-134		%REC	1	12/21/2009 7:34:16 PM
Surr: 2-Fluorophenol	39.8	9.54-113		%REC	1	12/21/2009 7:34:16 PM
Surr: 4-Terphenyl-d14	36.0	22.7-145		%REC	1	12/21/2009 7:34:16 PM
Surr: Nitrobenzene-d5	57.8	14.6-134		%REC	1	12/21/2009 7:34:16 PM
Surr: Phenol-d5	34.7	10.7-80.3		%REC	1	12/21/2009 7:34:16 PM

Qualifiers:

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

ARS ANALYTICAL, LLC

4301 Masthead NE | Albuquerque, New Mexico 87109 505.344.3777 | 505.345.8964

Explanation of codes	
E	Result is Estimated
H	Analyzed Out of Hold Time
N	Tentatively Identified Compound
S	Subcontracted
U	Concentration is below MDL
J	Concentration between MDL and RDL
1-9	See Footnote

HALL ENVIRONMENTAL
attn ANDY FREEMAN
4901 HAWKINS NE, SUITE D
ALBUQUERQUE NM 87109-4372

STANDARD

ARS Analytical, LLC

Certificate of Analysis

All samples are reported on an "as received" basis, unless otherwise noted (i.e. - Dry Weight).

Client: **HALL ENVIRONMENTAL**
Project: **0912336**
Order: **09120416 HAL03** Receipt: **12-16-09**

Elvin J. Chavez, President of ARS Analytical, LLC

Sample: ***0912336-01B AL-1 INLET*** Collected: *12-14-09 8:45:00* By:
Matrix: ***AQUEOUS***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09120416-001A		SM 5220C						By: FAS		
COD09057	WC.2009.3195.11	C-004	Chemical Oxygen Demand	518	mg/L	1	10		12-22-09	12-23-09

Sample: ***0912336-01C AL-1 INLET*** Collected: *12-14-09 8:45:00* By:
Matrix: ***AQUEOUS***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09120416-002A		SM 5210B						By: JLE		
BOD090148	WC.2009.3170.19	10-26-4	Biochemical Oxygen Demand	459	mg/L	1	4		12-16-09	12-21-09

Sample: ***0912336-02B AL-2 INLET*** Collected: *12-14-09 9:10:00* By:
Matrix: ***AQUEOUS***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09120416-003A		SM 5220C						By: FAS		
COD09057	WC.2009.3195.12	C-004	Chemical Oxygen Demand	1,270	mg/L	1	10		12-22-09	12-23-09

ARS Analytical, LLC

Certificate of Analysis

All samples are reported on an "as received" basis, unless otherwise noted (i.e. - Dry Weight).

Client: **HALL ENVIRONMENTAL**

Project: **0912336**

Order: **09120416 HAL03** Receipt: **12-16-09**

Sample: ***0912336-02C AL-2 INLET*** Collected: *12-14-09 9:10:00* By:

Matrix: ***AQUEOUS***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09120416-004A		SM 5210B						By: JLE		
BOD090148	WC.2009.3170.18	10-26-4	Biochemical Oxygen Demand	597	mg/L	1	4		12-16-09	12-21-09

Sample: ***0912336-03B EP-1 INLET*** Collected: *12-14-09 9:30:00* By:

Matrix: ***AQUEOUS***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09120416-005A		SM 5220C						By: FAS		
COD09057	WC.2009.3195.13	C-004	Chemical Oxygen Demand	1,150	mg/L	1	10		12-22-09	12-23-09

Sample: ***0912336-03C EP-1 INLET*** Collected: *12-14-09 9:30:00* By:

Matrix: ***AQUEOUS***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
09120416-006A		SM 5210B						By: JLE		
BOD090148	WC.2009.3170.20	10-26-4	Biochemical Oxygen Demand	438	mg/L	1	4		12-16-09	12-21-09

Unless otherwise noted, all samples were received in acceptable condition and all sampling was performed by client or client representative. Sample result of ND indicates Not Detected, ie result is less than the sample specific Detection Limit. Sample specific Detection Limit is determined by multiplying the sample Dilution Factor by the listed Reporting Detection Limit. All results relate only to the items tested. Any miscellaneous workorder information or foonotes will appear below.

Analytical results are not corrected for method blank or field blank contamination.

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: AL-1, AL-2, EP-1 **Work Order:** 0912336

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8270C: Semivolatiles											
Sample ID: mb-20904		*MBLK*				Batch ID:	**20904**	Analysis Date:	12/21/2009 10:49:13 AM		
4-Chloro-3-methylphenol	ND	µg/L	10								
2-Chlorophenol	ND	µg/L	10								
2,4-Dichlorophenol	ND	µg/L	20								
2,4-Dimethylphenol	ND	µg/L	10								
4,6-Dinitro-2-methylphenol	ND	µg/L	20								
2,4-Dinitrophenol	ND	µg/L	20								
2-Methylphenol	ND	µg/L	10								
3+4-Methylphenol	ND	µg/L	10								
2-Nitrophenol	ND	µg/L	10								
4-Nitrophenol	ND	µg/L	10								
Pentachlorophenol	ND	µg/L	20								
Phenol	ND	µg/L	10								
2,4,5-Trichlorophenol	ND	µg/L	10								
2,4,6-Trichlorophenol	ND	µg/L	10								
Sample ID: lcs-20904		*LCS*				Batch ID:	**20904**	Analysis Date:	12/21/2009 11:18:11 AM		
4-Chloro-3-methylphenol	153.1	µg/L	10	200	0	76.6	26.5	101			
2-Chlorophenol	140.4	µg/L	10	200	0	70.2	27.5	88.7			
4-Nitrophenol	112.1	µg/L	10	200	0	56.0	6.78	74.7			
Pentachlorophenol	157.0	µg/L	20	200	3.26	76.9	14.8	113			
Phenol	78.98	µg/L	10	200	0	39.5	17	53.4			

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name **WESTERN REFINING GALLU** Date Received: **12/16/2009**

Work Order Number **0912336** Received by: **ARS**

Checklist completed by: _____ 12/16/09 Sample ID labels checked by: _____
Signature Date Initials

Matrix: Carrier name: UPS

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	N/A ☑	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Water - VOA vials have zero headspace?	No VOA vials submitted ☑	Yes ☐	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☑	No ☐	N/A ☐	
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐	

Number of preserved bottles checked for pH: 3

(<2 or >12 unless noted below.)

Container/Temp Blank temperature? **3.8°** *<6° C Acceptable* If given sufficient time to cool.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

Chain-of-Custody Record

Client: WESTERN REFINING
Gallop Refinery
Mailing Address: RT 3 Box 9
Gallup NM 87301
Phone #: 505 722 3227
email or Fax#: 505 722 0210

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

Turn-Around Time:
☐ Standard ☐ Rush

Project Name: AL-1, AL-2, EP-1
Project #:

Project Manager: GAURAV, RAJEN

Sampler: Alvin Dorsey
On Ice: ☑ YES ☐ NO
Sample Temperature: 3°

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 0912320	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)					Air Bubbles (Y or N)
																		X BOD				
12-14-09	0845	water	AL-1 INLET	1-1000 mL		1																
12-14-09	0845	water	AL-1 Inlet	1-500 mL	H_2SO_4	1													X			
12-14-09	0845	water	AL-1 Inlet	1-Liter		1														X		
12-14-09	0910	water	AL-2 Inlet	1-1000 mL		2												X				
12-14-09	0910	water	AL-2 Inlet	1-500 mL	H_2SO_4	2													X			
12-14-09	0910	water	AL-2 Inlet	1-Liter		2														X		
12-14-09	0930	water	EP-1 Inlet	1-1000 mL		3												X				
12-14-09	0930	water	EP-1 Inlet	1-500 mL	H_2SO_4	3													X			
12-14-09	0930	water	EP-1 Inlet	1-Liter		3														X		

Date:	Time:	Relinquished by:	Received by:	Date	Time
12-15-09	1200			12/16/09	1075
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

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