GW - 001

ANNUAL REPORT

2011

Western Refining

WNR LISTED NYSE

April 12, 2012

Glen Von Gonten
Acting Environmental Bureau Chief
Environmental Bureau
New Mexico Energy, Minerals & Natural Resources Dept.
1220 South St. Francis Drive
Santa Fe, NM 87505

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RE: 2011 Annual Report – former Giant Bloomfield Refinery.

UPS Tracking #: 1Z 881 839 24 5457 5832

Dear Mr. Von Gonten;

Please find enclosed the 2011 Annual Report for the former Giant Bloomfield Refinery located in the NW ¼ of Section 27 and the SW ¼ of Section 22, Township 29 N, Range 12 W in San Juan County, New Mexico.

If you should have any questions or require additional information, please do not hesitate to contact me at 505-632-4171 or at Randy.Schmaltz@wnr.com.

Sincerely,

James R. Schmaltz
Health, Safety, Environmental & Regulatory Director
Western Refining Southwest, Inc.

Cc: Brandon Powell, NM OCD Aztec District Office
Allen Haines, Western Refining, El Paso
WNR File

FORMER GIANT BLOOMFIELD REFINERY
BLOOMFIELD, NEW MEXICO

ANNUAL REPORT

DISCHARGE PERMIT GW-040

March 2012

WESTERN REFINING SOUTHWEST, INC.

111 County Road 4990

Bloomfield, New Mexico 87413

ANNUAL REPORT

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MARCH 2012

Prepared for:

WESTERN REFINING SOUTHWEST, INC.
111 CR 4990
Bloomfield, New Mexico 87413

Prepared by:

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EXECUTIVE SUMMARY

LT Environmental, Inc. (LTE) on behalf of Western Refining Southwest, Inc. (Western) has prepared this report detailing work completed from January through December 2011 at the former Giant Bloomfield Refinery (Site) in Bloomfield, New Mexico. The scope of work for this project was continued mitigation and monitoring of petroleum hydrocarbon impacts to groundwater, which were identified upon cessation of refinery operations. During the time period covered in this report, Western utilized a groundwater recovery and remediation system consisting of groundwater recovery wells, a carbon filtration unit, and a treated water infiltration trench.

LTE conducted operations and maintenance on the remediation system and monitored groundwater quality during 2011. In 2011 the total volume of groundwater recovered and treated increased from the volume observed in 2010 by 330,486 gallons to a total of 1,451,849 gallons.

Thin accumulations of PSH exist in previously identified source areas. LTE measured depth to groundwater in monitoring wells and recovery wells quarterly, and recovered phase separated hydrocarbons (PSH) in monitoring wells with oil absorbent socks when PSH was detected. Beginning in August of 2011, Western increased the frequency of PSH recovery activities to weekly. A total of 7.03 gallons of PSH were recovered from the Site in 2011; a significant increase from the 1.36 gallons recovered in 2010.

LTE sampled the remediation system influent and effluent quarterly for laboratory analysis of volatile organic compounds (VOCs) and general water chemistry. The system effluent was also analyzed for polynuclear aromatic hydrocarbons (PAHs) and metals. Annual sampling in January 2011 included collecting groundwater samples from 13 monitoring wells and two recovery wells for laboratory analysis of VOCs and general water chemistry. Six of the groundwater samples were also analyzed for PAHs and five were analyzed for metals concentrations.

Laboratory analytical results indicated no VOCs or PAHs were detected in influent and effluent groundwater samples and groundwater samples collected from monitoring and recovery wells did not contain VOCs or PAHs exceeding New Mexico Water Quality Control Commission (NMWQCC) standards. Sulfate concentrations and total dissolved solids exceeded NMWQCC standards in samples collected from most of the monitoring and recovery wells and from the influent and effluent. Chloride concentrations exceeded the NMWQCC standard in groundwater samples collected from three upgradient monitoring wells and one onsite monitoring well. The influent and effluent contained manganese in excess of NMWQCC standards. Iron concentrations exceeded the NMWQCC standard in one upgradient groundwater sample and in the influent sample collected during the April 2011 quarterly sampling event. Chromium and nickel concentrations exceeding NMWQCC standards were observed in upgradient monitoring wells. These parameters can be attributed to an upgradient release at the Lee Acres Landfill in 1985 or to naturally occurring background conditions.

Based on the results presented in this report, Western will continue PSH recovery and operation of the remediation system. Western will continue quarterly monitoring of groundwater flow behavior, as well as influent and effluent sampling and laboratory analysis. Annual sampling of monitoring wells and recovery wells will continue.

1.0 INTRODUCTION

LT Environmental, Inc. (LTE) prepared this report for Western Refining Southwest, Inc. (Western) to summarize work completed from January through December 2011 at the former Giant Bloomfield Refinery (Site) in Bloomfield, New Mexico.

1.1 SITE DESCRIPTION

The Site is on the northeast corner of United States (U.S.) Highway 64 and County Road 3500, approximately five miles west of Bloomfield, New Mexico, in the northwest quarter of Section 27 and the southwest quarter of Section 22, Township 29 North, Range 12 West in San Juan County (Figure 1). Facilities include a control building, aboveground storage tanks, a carbon filtration tank, groundwater monitoring wells, and groundwater recovery wells (Figure 2).

1.2 SITE HISTORY

The former refinery, under ownership of Giant Industries, Arizona (Giant), currently known as Western Refining Southwest, Inc., produced leaded and unleaded gasoline, diesel, kerosene, and other refined petroleum products from 1974 to 1982 but is presently inactive. The refining operations and subsequent truck loading and unloading activities impacted groundwater, which were identified and investigated as part of the site closure requirements prescribed by the New Mexico Oil Conservation Division (NMOCD) in 1986. Details of a subsurface investigation and initial remediation efforts are contained in a 1987 report entitled *Soil and Groundwater Investigations and Remedial Action Plan, Giant Industries, Inc. Bloomfield Refinery, Bloomfield, New Mexico.* The investigation identified three source areas (Figure 2):

- Northern Area (Diesel Spill Area): 10,000 to 15,000 gallons of diesel were released from a pipeline in 1985;
- Central Area (Truck Fueling Area): 15,000 gallons of diesel were released from a pipeline in 1986; and
- Southern Area: Historic releases from a former fire fighting drill area east and upgradient of the Site may have collected in a former seep and a stormwater catchment area.

Concurrent with refinery operations, the former Lee Acres Landfill, located up-gradient of the Site, operated as a San Juan County landfill from 1962 to 1986 (Figure 1). Solid wastes were disposed of in trenches, and a series of lagoons were used for disposal of a variety of liquid wastes. The NMOCD sampled the lagoons in 1985 and demonstrated that the liquids in the impoundments contained a variety of chlorinated solvents, petroleum hydrocarbon constituents, heavy metals, and salts. In April 1985, a breach in the dike retaining the lagoons released liquid wastes into an arroyo west of the Site. The arroyo drains south toward the Lee Acres Subdivision, where the NMOCD and the New Mexico Environment Department (NMED) identified impacted groundwater in domestic water wells in 1988. In response, the NMOCD required Giant to investigate petroleum hydrocarbon impacts to groundwater downgradient of the refinery in the Lee Acres Subdivision, and the NMED conducted a separate investigation to identify potential impacts from the landfill. The results of the subsurface investigation conducted by Giant south of the refinery are contained in three volumes of the 1992 report, *Remedial*

Investigation Report for Lee Acres Landfill. The NMED, in conjunction with the Bureau of Land Management and the United States Geological Survey, published their results in three reports referenced in Section 6.0 of this report.

The investigations identified two separate plumes of impacted groundwater that commingled across the refinery and flowed downgradient into the Lee Acres Subdivision. Groundwater contaminants detected in the refinery plume included phase-separated hydrocarbons (PSH) and dissolved phase petroleum hydrocarbons. The dissolved-phase constituents included benzene, toluene, ethylbenzene and total xylenes (BTEX), naphthalene, and 1,2 dichloroethane (EDC). The landfill contaminant plume contained total dissolved solids (TDS), chloride, sulfate, manganese, metals, BTEX, naphthalene, 1,1 dichloroethane, cis-1,2-dichloroethene, trans-1,2-dichloroethene, tetrachloroethene, 1,1,1-trichloroethane, and trichloroethene.

Beginning in 1988, Giant installed a groundwater recovery, treatment, and disposal system in stages at the Site to restrict migration of contaminants and to remediate groundwater impacts caused by their operations. A total of 45 monitoring wells were initially installed and designated GBR wells (Figure 2). Of these 45 monitoring wells, 11 were converted to recovery wells and re-named with GRW designations. An additional 17 monitoring wells were completed in the Lee Acres Subdivision and designated as SHS wells. Four SHS wells initially operated as recovery wells. Giant pumped groundwater from the recovery wells into storage tanks, then treated the groundwater with an air stripper and carbon filtration, and re-injected treated groundwater into the subsurface through two infiltration galleries.

As groundwater quality improved over time, the remediation system was gradually simplified. It currently consists of 9 active groundwater recovery wells that pump groundwater into a single storage tank (Tank 102). Groundwater from the tank is pumped to a carbon filtration tank, and then passes through a treated water infiltration gallery (Figure 2). Following initial contaminant reduction, the groundwater remediation system operated in an operation and maintenance mode. Concentrations of contaminates within the remediation system's influent and effluent were below laboratory detection limits for 18 years. In 2008, Western conducted a supplemental evaluation of the remedial operations, which included shutting down the remediation system and sampling groundwater wells under static conditions in an effort to redefine the area of impact and assess effectiveness of the remediation system. Existing equipment was inspected and repaired to optimize performance. Results from the sampling event were included in the 2008 annual report submitted to the NMOCD. Pumping and treating operations were resumed in February 2009 and continued through 2011.

1.3 SITE HYDROLOGY

The Site is located on weathered outcrops of the Nacimiento Formation, which is comprised of shales, sandstones, and siltstones of Cretaceous-Teritary age. The San Juan River is approximately 2,000 feet south of the Site. Immediately west is a large unnamed arroyo, which is underlain by 30 feet to 60 feet of Quaternary alluvial sediments. Older Quaternary terrace deposits of cobbles and boulders were observed on the interfluvial ridges adjacent to the arroyo. These terrace deposits may have been utilized as fill on the Site. The outcropping surfaces of the Nacimiento Formation have been eroded to form a paleo-channel that appears to be similar in morphology to the existing surface arroyo located to the west. The bedrock is overlain by recent

alluvial deposits (gravel, sand, silt, and clay), which thicken toward the south-southwest as shown on the cross section in Figure 3.

The subsurface geology is a controlling feature for groundwater flow direction and contaminant migration. Shallow groundwater is generally unconfined with some local areas potentially under semi-confined conditions. There are two aquifers of concern that are in direct hydraulic communication: a shallow aquifer composed of recent alluvial materials and a bedrock aquifer that exists in the underlying Nacimiento Formation (Figures 3 and 4). The alluvial aquifer generally has the higher permeability of the two aquifers, and recovery wells completed within this aquifer have higher yields with larger radii of influence.

1.4 SCOPE OF WORK

The scope of work for this project included operating and maintaining the groundwater remediation system, monitoring groundwater quality and presence of PSH, and recovering PSH. A summary of field activities, results, conclusions, and recommendations are presented in the subsequent sections of this report.

2.0 METHODOLOGY

2.1 GROUNDWATER REMEDIATION SYSTEM

The groundwater remediation system at the Site was designed to pump impacted groundwater from local aquifers through a series of recovery wells, which prevent migration of impacted groundwater beyond the influence of the wells as illustrated on Figure 5. The recovered groundwater is collected in Tank 102 and pumped to a second tank with a carbon matrix lining where it is treated by carbon adsorption. The treated water is then returned to the aquifer through an infiltration trench. The infiltration trench consists of a subsurface system of perforated polyvinyl chloride (PVC) pipes placed within gravel packs. Water infiltrates the surrounding strata and eventually makes its way back to the aquifer. The return of recovered water to the aquifer acts as a recharge mechanism. Figure 6 is a simplified diagram representation of groundwater recovery, treatment, and disposal system at the Site.

2.2 OPERATIONS AND MAINTENANCE

LTE conducted weekly inspections to ensure normal operation of the remediation system. A panel located in the control building controls operation of the remediation system and incorporates shutdown functions to safeguard against a tank overflow and other undesirable events. The control panel was monitored weekly, as were water flow meters at the storage tank and each recovery well. Weekly observations were recorded in a bound field log book with the date, time and person recording the information noted. Water flow meter readings were entered into a spreadsheet to calculate flow volumes and monitor cumulative flow rates. All equipment at the Site was inspected for leaks and malfunctions. The inspector was familiar with the location of underground lines and noted any surface indication of underground leaks.

Maintenance included repair and replacement of well pumps, pump controllers, and flow meters. LTE also replaced filters in well houses on a regular basis, inspected the carbon pre-filter, and repaired any other hardware as necessary.

2.3 PSH RECOVERY

Oil absorbent socks were used to passively recover PSH detected in groundwater monitoring wells at the Site. The socks were checked quarterly from January through July, then weekly from August through December and replaced when they were greater than 50 percent full. Volumes of recovered PSH were estimated based on percent saturation observed in the socks and were recorded in a field log book. In addition, LTE and Western manually recovered PSH from GBR-34 with disposable bailers when possible.

2.4 GROUNDWATER MONITORING

Quarterly groundwater monitoring included measurements of depth to groundwater at all monitoring and recovery wells with a Keck oil-water interface probe. The interface probe was decontaminated with Alconox™ soap and rinsed with de-ionized water before each measurement. Depth to groundwater measurements were used to calculate quarterly groundwater elevations at the Site to determine direction of groundwater flow and hydraulic control achieved

by the recovery wells. The recovery pumps were not turned off during quarterly monitoring events nor were the pumps removed from the recovery wells; therefore, calculated groundwater elevations do not represent static conditions.

Influent and effluent groundwater samples were collected quarterly and analyzed for volatile organic compounds (VOCs) using U.S. Environmental Protection Agency (EPA) Method 8260B and general water chemistry parameters including pH, electrical conductivity (EC), TDS, alkalinity, hardness, anions (bromide, chloride, sulfate, fluoride, nitrite, nitrate, and phosphate), and cations (calcium, iron, magnesium, manganese, potassium, and sodium). The effluent was also analyzed for polynuclear aromatic hydrocarbons (PAHs) according to EPA Method 8310 and metals (beryllium, cadmium, chromium, copper, iron, nickel, silver, zinc, antimony, arsenic, selenium, thallium, and mercury) annually. Influent groundwater was collected from a system valve before it entered Tank 102. Effluent groundwater was collected through a sample valve as treated water exited the carbon adsorption tank. Groundwater samples were collected in appropriate pre-cleaned and/or pre-preserved sample bottles or glass vials. Samples were labeled with the date and time of collection, sample designation, project name, collector's name, and parameters to be analyzed and immediately sealed and packed on ice. The samples were shipped on ice following strict chain-of-custody procedures to Hall Environmental Analysis Laboratory (HEAL) in Albuquerque, New Mexico before designated holding times expired.

LTE collected annual groundwater samples from groundwater monitoring wells and recovery within and south of the Site (Table 1). The volume of groundwater in the monitoring wells was calculated, and a minimum of three well casing volumes of groundwater was purged from each well using a disposable bailer. As groundwater was extracted, pH, EC, and temperature were monitored. Monitoring wells were purged until these properties stabilized or the well bailed dry, indicating the purge water was representative of aquifer conditions. Stabilization was defined as three consecutive stable readings for each water property (±0.4 units for pH, ±10 percent for electric conductivity and ±2° Celsius for temperature). Once each monitoring well was properly purged, groundwater samples were collected in bottles or vials and shipped to HEAL. Groundwater sampling from recovery wells followed the same procedures as monitoring wells, except pumps installed in recovery wells were used to purge the appropriate volume of groundwater from each recovery well. The groundwater samples were analyzed for VOCs according to EPA method 8260B and general water chemistry parameters including pH, EC, TDS, alkalinity, hardness, anions (chloride and sulfate), and cations (calcium, iron, magnesium, potassium, and sodium). Six of the groundwater samples were also analyzed for PAHs according to EPA Method 8310 and five groundwater samples were analyzed for metals (beryllium, cadmium, chromium, copper, lead, nickel, silver, zinc, antimony, arsenic, selenium, thallium, and mercury).

3.0 RESULTS

3.1 OPERATIONS AND MAINTENANCE

LTE and Western addressed several maintenance problems at the Site:

- LTE replaced the groundwater pump in GRW-2 due to poor performance on August 29, 2011 and groundwater recovery volumes increased as a result;
- LTE replaced the groundwater pump in GRW-4 on January 28, 2011 after it ceased pumping and again on October 3, 2011 due to poor performance. The pump tubing was also replaced on October 3, 2011. The groundwater pump stopped pumping again in early November and was pulled from the recovery well on November 15, 2011 for well servicing. An air compressor successfully removed sediment buildup within the well casing, but the groundwater pump never resumed pumping after reinstallation. LTE suspected a broken pump controller. As of December 31, 2011, the controller and pump remained out of service and troubleshooting by LTE and Western continued;
- LTE replaced the flow meter at GRW-6 on February 3, 2011;
- LTE removed the groundwater pump in GRW-9 during the second week of January 2011 and did not return it to service. Recovery wells GRW-2, GRW-3, GRW-4, GRW-5, and GRW-6 form a sufficient barrier to prevent offsite migration of contaminants. The pump in GRW-9 was refurbished and used as a spare;
- LTE replaced the groundwater pump and tubing in GRW-10 on May 11, 2011 after three months of poor performance. The new pump increased groundwater recovery volumes;
- LTE pulled the groundwater pump in GRW-12 for inspection and service on November 22, 2011 after observing a sharp decline in groundwater recovery volumes. Depth to groundwater and total depth measurements in the recovery well indicated redevelopment was necessary. Western attempted to clean out the recovery well with an air compressor, but was unsuccessful. The groundwater pump remains out of service until additional well maintenance can be scheduled;
- LTE replaced heaters in two recovery well housings; and
- LTE repaired above ground piping during the winter after freeze damage.

All recovery wells except GRW-10 pumped lower volumes of groundwater as compared to 2010; however, repairs and/or pump replacement improved productivity during the year. GRW-10 pumped 845,062 gallons of groundwater in 2011, which was 725,691 gallons more than GRW-10 pumped in 2010. Table 2 presents the total volume of groundwater pumped from each recovery well during 2010 and 2011. A total of 1,451,849 gallons of groundwater were recovered and treated by carbon filtration in 2011, representing an increase from the 1,121,363 gallons of groundwater treated during 2010.

3.2 GROUNDWATER ELEVATION

Groundwater elevations measured in groundwater monitoring and recovery wells are presented in Table 3 and quarterly potentiometric surface maps are depicted in Figures 7 through 10.

Groundwater flow direction was consistently toward the southwest throughout the year. Drawdown around recovery wells is evident each quarter.

3.3 PSH Recovery

Thin accumulations of PSH were measured in groundwater monitoring wells near the source areas identified in the preliminary subsurface investigation conducted by Giant. PSH recovery socks were installed and maintained in monitoring wells GBR-7, GBR-8, GBR-11, GBR-20, GBR-22, GBR-23, GBR-25, GBR-26, and GBR-34 during 2011 (Figure 11). Annual volumes of PSH recovered from 2009 through 2011 are presented in Table 4.

In the Northern Area, GBR-23, GBR-25, and GBR-26 did not contain measurable PSH, but small volumes of PSH were recovered with oil absorbent socks through September 2011. PSH was regularly detected and recovered in GBR-34 and GBR-22 in the Central Area. Thickness of PSH in GBR-34 ranged from 0.53 feet in January 2011 to 1.24 feet in October 2011. A total of 5.2 gallons of PSH was removed from GBR-34 during 2011 using PSH recovery socks and manual bailing. The cross sections depicted in Figures 3 and 4 shows a small depression in the groundwater table at GBR-34 that may be controlling product accumulations at this location. Monitoring well GBR-22 contained as much as 1.99 feet of PSH in July 2011. However, no PSH was measured in GBR-22 after August 2011, when weekly product recovery activities began. In the Southern Area, traces of PSH were detected in GBR-7, GBR-8, and GBR-11during the first three quarters of 2011, but no PSH was detected following the increased frequency of PSH recovery activities. Figure 3 shows another depression in the water table near GBR-11 that may affect product accumulation. LTE continued to recover small volumes of PSH in oil absorbent socks the Southern Area monitoring wells sporadically throughout the year.

The number of monitoring wells in which PSH was detected as well as measured PSH thicknesses decreased as a result of improved product recovery activities in all wells except GBR-34. The total volume of PSH recovered from monitoring wells during 2011 was 7.03 gallons, almost five times the amount recovered in 2010 (Table 4).

3.4 GROUNDWATER SAMPLING

Laboratory analytical results from groundwater sampling are presented in Table 5 and the complete laboratory analytical reports are in Appendix A. Isopach maps and geologic cross sections illustrating the distribution of analytes are not included, because the sampling events do not include wells from all of the current source areas. Such a presentation of results would not be indicative of true conditions at the Site. Laboratory analytical results from 2011 are summarized below:

- No VOCs exceeded laboratory detection limits in influent or effluent samples;
- VOCs were detected in the annual groundwater samples, but only in minor concentrations that did not exceed NMWQCC standards:
    - ethylbenzene, acetone, and 2-butanone were detected in monitoring well GRW-3;
    - Tetrachloroethene was detected in upgradient monitoring wells GBR-32 and GBR-49;
    - Acetone was detected in upgradient monitoring well GBR-50;

    - Tricholrofluromethane was detected in cross-gradient monitoring well GBR-51; and
    - Ethylbenzene was detected in monitoring well SHS-8;
- No concentrations of PAHs were detected in the influent, effluent, or any of the groundwater monitoring and recovery wells;
- Sulfate concentrations and TDS exceeded NMWQCC standards in groundwater samples from most monitoring and recovery wells and from the influent and effluent samples. Similar results have been reported for groundwater samples collected in the past and elevated concentrations are observed upgradient of the Site;
- Chloride concentrations exceeded NMWQCC standards in GBR-30, GBR-32, GBR-48, and GBR-49. Only one of these wells (GBR-30) is located near a source area onsite. Monitoring wells GBR-32, GBR-48 and GBR-49 are located upgradient of the Site;
- Chromium concentrations exceeded NMWQCC standard in GBR-32, GBR48, and GBR-49. These monitoring wells are located within the arroyo adjacent to and upgradient of the Site;
- Iron concentrations exceeded the NMWQCC standard in the annual groundwater sample from GBR-48 and in the influent groundwater sample from the April 2011 quarterly sampling event;
- Manganese was detected in concentrations exceeding the NMWQCC standard in the influent samples from April and July and in the effluent sample from April;
- The concentration of nickel exceeded the NMWQCC standard in groundwater collected from upgradient monitoring well GBR-32;
- The concentration of selenium in GBR-48 exceeded the NMWQCC standard. GBR-48 is upgradient of the Site; and
- None of the parameters analyzed in downgradient monitoring well SHS-8 exceeded NMWQCC standards.

4.0 CONCLUSIONS

Western successfully prevented migration of contaminants in groundwater during 2011 and increased the total volume of PSH recovered at the Site. The volume of groundwater recovered at the Site increased due to improved production at GRW-10 following groundwater pump replacement. Decreased productivity was observed in all other groundwater recovery wells as compared to volumes of groundwater recovered during 2010. Reduced pumping volumes are most likely due to equipment failures and sediment and bacterial accumulation within the wells that occurs with time. Nevertheless, the groundwater pumps recovered a sufficient volume of groundwater to maintain a hydraulic barrier at the Site.

PSH near the previously identified sources at the Site does not appear to be migrating. The increased frequency of PSH recovery activities starting in August resulted in an increase of more than five times the volume of PSH recovered in 2011 than was recovered in 2010. Occurrence and thickness of PSH reduced over the course of 2011.

Contaminants of concern were either not detected in groundwater samples or, if detected, can be attributed to an upgradient source or naturally occurring background conditions. The influent and effluent groundwater associated with the remediation system at the Site did not contain detectable concentrations of VOCs or PAHs during 2011 and groundwater samples collected from monitoring and recovery wells did not contain VOCs or PAHs exceeding NMWQCC standards.

Influent and effluent water associated with the pump and treat system at the Site is consistently below standards for general chemistry parameters and metals, with the exception of TDS, chloride, and sulfate. Elevated sulfate, chloride and TDS are historically characteristic of almost all monitoring wells at the Site and are most likely related to a release at the Lee Acres Landfill in 1985. These analytes were identified in earlier studies as constituents within the groundwater contaminant plume that originated from the landfill. Previous investigations at the landfill reported elevated levels of chloride present in the water sampled from liquid waste lagoons (McQuillan, D. and Longmire, P. Water Quality Investigations at the Lee Acres Landfill and Vicinity, San Juan County, New Mexico), and the landfill accepted produced water from natural gas well operations in the San Juan Basin. During initial landfill investigations, the upgradient area near GBR-32, GBR-48, GBR-49 and GBR-50 was identified as the "northern containment slug." Groundwater representative of this area contained TDS concentrations ranging from 2,125 milligrams per kilogram (mg/kg) to 6,068 mg/kg, sulfate concentrations ranging from 1,920 mg/kg to 5,830 mg/kg and chloride concentrations ranging from 14.7 mg/kg to 2,110 mg/kg (Roy F. Weston, Inc., Remedial Investigation Report for Lee Acres Landfill, Volume 1).

Heavy metals, including chromium, iron, nickel, and selenium were detected in upgradient monitoring wells during the annual sampling in January 2011. Previous studies conducted for the Lee Acres Landfill identified chromium, iron, manganese, nickel, and selenium in groundwater sampled upgradient of the landfill. The Remedial Investigation Report for Lee Acres Landfill, Volume 1 states that the upgradient background alluvial aquifer contains elevated levels of chromium and manganese and suggests an unidentified source that is unrelated to the landfill or the Site.

5.0 RECOMMENDATIONS

Western will continue to operate the remediation system and monitor groundwater as described in this report:

- Operate and maintain the remediation system to prevent migration of PSH;
- Use oil absorbent socks to recover PSH and monitor PSH weekly, replacing socks as needed;
- Monitor groundwater flow behavior quarterly by measuring depth to groundwater;
- Sample the system influent and effluent quarterly; and
- Sample groundwater monitoring and recovery wells, including SHS-8 south of the Site, annually to identify potential changes in water quality.

6.0 REFERENCES

AEPCO, Inc. *Site Investigation Report for Lee Acres Site, San Juan County, New Mexico (Final Report),* BLM Contract NO. AA852-Ct5-26, U.S. Department of the Interior, BLM, Washing D.C., May 1986.

McQuillan, D. and Longmire, P. *Water Quality Investigations at the Lee Acres Landfill and Vicinity, San Juan County, New Mexico,* Environmental Division, Ground water/Hazardous Waste Bureau, Santa Fe, NM, February 1986.

Peter, K., Williams, R.A. and King, K.W. *Hydrogeologic Characteristics of the Lee Acres Landfill Area, San Juan County, New Mexico,* U.S. Geological Survey Water Resources Investigations Report 87-4246, Albuquerque, NM, 1987.

Roy F. Weston, Inc. *Remedial Investigation Report for Lee Acres Landfill, Volumes 1-3,* Albuquerque, NM, September 1992.

Roy F. Weston, Inc. *Proposed Emergency Action for Lee Acres Landfill,* Albuquerque, NM, November 1990.

Geoscience Consultants, LTD., *Soil and Groundwater Investigations and Remedial Action Plan, Giant Industries, Inc. Bloomfield Refinery, Bloomfield, New Mexico,* 1987.

Lodestar Services, Inc., *Annual Data Report Former Giant Bloomfield Refinery,* March 2009.

RPS JDC Consulting, *Review of Groundwater Remediation System, Old Giant Bloomfield Refinery, Bloomfield, New Mexico,* June 2009.

TABLE 1

2011 SAMPLING SCHEDULE
FORMER GIANT BLOOMFIELD REFINERY
WESTERN REFINING SOUTHWEST, INC.

	Jan-11	Feb-11	Mar-11	Apr-11	May-11	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11
System Influent	VOCs,GWC			VOCs, GWC			VOCs, GWC			VOCs, GWC		
System Effluent	VOCs, GWC, PAH, Metals			VOCs			VOCs, GWC			VOCs, GWC		
GRW-3	VOCs,GWC,PAH											
GRW-6	VOCs,GWC,PAH											
GBR-17	VOCs,GWC,PAH											
GBR-24D	VOCs,GWC,PAH											
GBR-30	VOCs,GWC,PAH											
GBR-31	VOCs,GWC,PAH											
GBR-32	VOCs, GWC, PAH, Metals											
GBR-48	VOCs, GWC, PAH, Metals											
GBR-49	VOCs, GWC, PAH, Metals											
GBR-50	VOCs, GWC, PAH, Metals											
GBR-51	VOCs,GWC											
GBR-52	VOCs,GWC											
SHS-8	VOCs, GWC, Metals											

Notes:

GWC - Ground Water Chemistry , PH, EC, TDS, alkalinity, hardness, anions (bromide, chloride, sulfate, flouride, nitrate/nitrite, phosphorus), cations (calcium, iron, magnesium, manganese, potassium, sodium)

Metals - barium, beryllium, cadmium, chromium, copper, lead, nickel, silver, zinc, antimony, arsenic, selenium, thallium, mercury

PAH - polynuclear aromatic hydrocarbons

VOCs - volatile organic compounds

TABLE 2

GROUNDWATER RECOVERY WELL VOLUME TABULATION
FORMER GIANT BLOOMFIELD REFINERY
WESTERN REFINING SOUTHWEST, INC.

Well Number	Total Volume Pumped in 2010 (Gallons)	Total Volume Pumped in 2011 (Gallons)	Difference (Gallons)
GRW-1	0	0	0
GRW-2	91,479	37,232	-54,247
GRW-3	85,084	76,932	-8,152
GRW-4	179,535	80,309	-99,226
GRW-5	118,414	110,572	-7,842
GRW-6	136,921	53,528	-83,393
GRW-9	36,723	226	-36,497
GRW-10	119,371	845,062	725,691
GRW-11	292,763	216,499	-76,264
GRW-12	16,722	7,008	-9,714
GRW-13	44,351	24,481	-19,870
Total Volume Pumped (Gallons)	**1,121,363**	**1,451,849**	**330,486**

Notes:
GRW-1 Pump broke in August 2009 and was not returned to service.

TABLE 3

GROUNDWATER ELEVATIONS AND THICKNESS OF PHASE SEPARATED HYDROCARBONS
FORMER GIANT BLOOMFIELD REFINERY
WESTERN REFINING SOUTHWEST, INC.

Well Number	Wellhead Elevation (feet)	Total Depth (feet)	January 2011				April 2011				July 2011				October 2011			
			Depth to Water (feet BTOC)	Depth to Product (feet)	PSH Thickness (feet)	Adjusted GWEL (feet)	Depth to Water (feet BTOC)	Depth to Product (feet)	PSH Thickness (feet)	Adjusted GWEL (feet)	Depth to Water (feet BTOC)	Depth to Product (feet)	PSH Thickness (feet)	Adjusted GWEL (feet)	Depth to Water (feet) BTOC)	Depth to Product (feet)	PSH Thickness (feet)	Adjusted GWEL (feet)
GRW-1	5,394.30	73.35	41.8	-	-	5,352.50	41.77	-	-	5,352.53	41.50	-	-	5,352.80	40.93	-	-	5,353.37
GRW-2	5,391.28	61.00	49.13	-	-	5,342.15	44.28	-	-	5,347.00	44.69	-	-	5,346.59	50.10	-	-	5,341.18
GRW-3	5,388.77	58.30	44.90	-	-	5,343.87	47.49	-	-	5,341.28	47.36	-	-	5,341.41	50.98	-	-	5,337.79
GRW-4	5,390.02	60.00	43.94	-	-	5,346.08	47.48	-	-	5,342.54	43.86	-	-	5,346.16	51.61	-	-	5,338.41
GRW-5	5,390.56	68.30	64.98	-	-	5,325.58	68.80	-	-	5,321.76	55.63	-	-	5,334.93	48.92	-	-	5,341.64
GRW-6	5,390.81	53.80	39.85	-	-	5,350.96	48.71	-	-	5,342.10	44.01	-	-	5,346.80	47.75	-	-	5,343.06
GRW-9	5,395.70	54.40	40.63	-	-	5,355.07	40.67	-	-	5,355.03	37.73	-	-	5,357.97	37.15	-	-	5,358.55
GRW-10	5,395.02	66.02	38.63	-	-	5,356.39	39.30	-	-	5,355.72	44.59	-	-	5,350.43	46.35	-	-	5,348.67
GRW-11	5,397.85	64.00	60.57	-	-	5,337.28	30.65	-	-	5,367.20	34.82	-	-	5,363.03	57.02	-	-	5,340.83
GRW-12	5,397.24	48.00	44.53	-	-	5,352.71	44.40	-	-	5,352.84	43.53	-	-	5,353.71	41.45	-	-	5,355.79
GRW-13	5,396.90	61.30	36.7	-	-	5,360.20	55.85	-	-	5,341.05	55.12	-	-	5,341.78	55.32	-	-	5,341.58
GBR-5	5,395.07	47.08	32.17	-	-	5,362.90	32.09	-	-	5,362.98	30.02	-	-	5,365.05	30.88	-	-	5,364.19
GBR-7	5,395.85	51.65	34.49	34.47	0.02	5,361.38	34.37	-	-	5,361.48 †	32.23	-	-	5,363.62 †	31.75	-	-	5,364.10 †
GBR-8	5,390.50	50.90	43.89	-	-	5,346.61	44.16	44.14	0.02	5,346.36	44.13	-	-	5,346.37 †	43.57	-	-	5,346.93 †
GBR-9	5,389.92	67.22	43.93	-	-	5,345.99	48.13	-	-	5,341.79	43.86	-	-	5,346.06	48.53	-	-	5,341.39
GBR-10	5,390.57	47.56	47.29	-	-	5,343.28	47.29	-	-	5,343.28	47.30	-	-	5,343.27	47.31	-	-	5,343.26
GBR-11	5,389.43	51.87	43.36	43.35	0.01	5,346.08	43.52	-	-	5,345.91 †	43.50	-	-	5,345.93 †	43.20	-	-	5,346.23 †
GBR-13	5,393.04	45.47	43.57	-	-	5,349.47	43.54	-	-	5,349.50	43.24	-	-	5,349.80	43.21	-	-	5,349.83
GBR-15	5,397.99	58.42	38.74	-	-	5,359.25	39.20	-	-	5,358.79	37.85	-	-	5,360.14	39.65	-	-	5,358.34
GBR-17	5,402.69	43.20	38.08	-	-	5,364.61	38.10	-	-	5,364.59	38.34	-	-	5,364.35	dry	-	-	-
GBR-18	5,421.68	47.85	36.98	-	-	5,384.70	36.82	-	-	5,384.86	37.00	-	-	5,384.68	37.47	-	-	5,384.21
GBR-19* **	5,393.83	46.23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GBR-20	5,393.47	54.57	40.19	-	-	5,353.28 †	40.22	-	-	5,353.25 †	37.12	-	-	5,356.35 †	37.50	-	-	5,355.97 †
GBR-21D	5,400.19	49.77	40.44	-	-	5,359.75	40.59	-	-	5,359.60	39.95	-	-	5,360.24	41.01	-	-	5,359.18
GBR-21S	5,400.65	49.77	dry		-	-	dry	-	-	-	dry	-	-	-	dry	-	-	-
GBR-22	5,395.91	38.73	dry	38.70	0.03	- †	dry	37.72	1.01	- †	dry	36.74	1.99	- †	dry	-	-	- †
GBR-23	5,403.72	39.45	37.22	-	-	5,366.50 †	37.83	-	-	5,365.89 †	39.47	-	-	5,364.25 †	dry	-	-	- †
GBR-24D	5,396.77	51.40	33.91	-	-	5,362.86	34.18	-	-	5,362.59	34.02	-	-	5,362.75	34.52	-	-	5,362.25
GBR-24S	5,396.08	37.05	33.1	-	-	5,362.98	33.35	-	-	5,362.73	33.26	-	-	5,362.82	33.59	-	-	5,362.49
GBR-25	5,397.03	37.12	38.69	-	-	5,358.34 †	38.73	-	-	5,358.30 †	39.16	-	-	5,357.87 †	38.50	-	-	5,358.53 †
GBR-26	5,396.72	41.29	35.72	-	-	5,361.00 †	35.68	-	-	5,361.04	35.21	-	-	5,361.51	36.24	-	-	5,360.48 †
GBR-30	5,395.59	41.66	35.65	-	-	5,359.94	35.70	-	-	5,359.89	35.87	-	-	5,359.72	36.05	-	-	5,359.54
GBR-31	5,396.58	43.50	35.86	-	-	5,360.72	35.87	-	-	5,360.71	36.30	-	-	5,360.28	36.69	-	-	5,359.89
GBR-32	5,414.86	47.83	38.75	-	-	5,376.11	38.60	-	-	5,376.26	38.93	-	-	5,375.93	39.27	-	-	5,375.59
GBR-33	5,396.28	45.72	37.18	-	-	5,359.10	37.20	-	-	5,359.08	37.88	-	-	5,358.40	38.25	-	-	5,358.03
GBR-34	5,394.00	42.20	38.4	37.87	0.53	5,356.02 †	38.61	37.94	0.67	5,355.93 †	39.72	38.67	1.05	5,355.12 †	40.01	38.77	1.24	5,355.08 †
GBR-35	5,393.66	42.35	37.27	-	-	5,356.39	37.33	-	-	5,356.33	37.91	-	-	5,355.75	38.35	-	-	5,355.31
GBR-39	5,397.55	41.42	38.25	-	-	5,359.30	38.71	-	-	5,358.84	37.60	-	-	5,359.95	39.08	-	-	5,358.47
GBR-40	5,400.76	39.38	34.74	-	-	5,366.02	35.10	-	-	5,365.66	35.86	-	-	5,364.90	36.63	-	-	5,364.13
GBR-41	5,396.35	34.28	30.36	-	-	5,365.99	30.81	-	-	5,365.54	30.53	-	-	5,365.82	29.11	-	-	5,367.24
GBR-48	5,413.90	43.54	40.33	-	-	5,373.57	40.36	-	-	5,373.54	40.43	-	-	5,373.47	41.86	-	-	5,372.04
GBR-49	*	40.30	36.63	-	-	-	36.63	-	-	-	36.81	-	-	-	37.15	-	-	-
GBR-50	*	44.37	36.03	-	-	-	36.03	-	-	-	36.18	-	-	-	36.53	-	-	-
GBR-51	5,389.68	57.07	42.42	-	-	5,347.26	42.35	-	-	5,347.33	42.64	-	-	5,347.04	42.91	-	-	5,346.77
GBR-52	5,387.74	52.73	40.21	-	-	5,347.53	40.15	-	-	5,347.59	40.52	-	-	5,347.22	40.77	-	-	5,346.97

TABLE 3

GROUNDWATER ELEVATIONS AND THICKNESS OF PHASE SEPARATED HYDROCARBONS
FORMER GIANT BLOOMFIELD REFINERY
WESTERN REFINING SOUTHWEST, INC.

Well Number	Wellhead Elevation (feet)	Total Depth (feet)	January 2011				April 2011				July 2011				October 2011			
			Depth to Water (feet BTOC)	Depth to Product (feet)	PSH Thickness (feet)	Adjusted GWEL (feet)	Depth to Water (feet BTOC)	Depth to Product (feet)	PSH Thickness (feet)	Adjusted GWEL (feet)	Depth to Water (feet BTOC)	Depth to Product (feet)	PSH Thickness (feet)	Adjusted GWEL (feet)	Depth to Water (feet) BTOC)	Depth to Product (feet)	PSH Thickness (feet)	Adjusted GWEL (feet)
SHS-1	5,383.54	50.40	40.03	-	-	5,343.51	39.92	-	-	5,343.62	40.21	-	-	5,343.33	40.47	-	-	5,343.07
SHS-2	5,381.66	44.56	40.21	-	-	5,341.45	40.74	-	-	5,340.92	41.02	-	-	5,340.64	41.18	-	-	5,340.48
SHS-3**	5,383.33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SHS-4	5,383.62	52.16	42.43	-	-	5,341.19	42.78	-	-	5,340.84	42.55	-	-	5,341.07	42.78	-	-	5,340.84
SHS-5	5,378.36	47.85	39.45	-	-	5,338.91	39.31	-	-	5,339.05	39.60	-	-	5,338.76	39.88	-	-	5,338.48
SHS-6	5,378.17	52.78	39.13	-	-	5,339.04	39.00	-	-	5,339.17	39.32	-	-	5,338.85	39.60	-	-	5,338.57
SHS-8	5,380.25	50.92	39.89	-	-	5,340.36	39.77	-	-	5,340.48	40.08	-	-	5,340.17	dry	-	-	-
SHS-9	5,380.79	46.25	38.99	-	-	5,341.80	38.91	-	-	5,341.88	39.22	-	-	5,341.57	39.45	-	-	5,341.34
SHS-10	5,373.80	45.80	36.54	-	-	5,337.26	36.42	-	-	5,337.38	36.86	-	-	5,336.94	37.15	-	-	5,336.65
SHS-12	5,373.94	52.41	39.95	-	-	5,333.99	39.63	-	-	5,334.31	40.07	-	-	5,333.87	40.65	-	-	5,333.29
SHS-13	5,367.81	47.51	36.51	-	-	5,331.30	36.21	-	-	5,331.60	36.57	-	-	5,331.24	37.18	-	-	5,330.63
SHS-14	5,367.07	52.71	34.7	-	-	5,332.37	34.37	-	-	5,332.70	34.91	-	-	5,332.16	36.56	-	-	5,330.51
SHS-15	5,366.21	47.78	33.54	-	-	5,332.67	33.18	-	-	5,333.03	33.78	-	-	5,332.43	34.47	-	-	5,331.74
SHS-16	5,362.58	42.20	31.54	-	-	5,331.04	31.07	-	-	5,331.51	31.55	-	-	5,331.03	32.14	-	-	5,330.44
SHS-17	5,364.35	46.21	33.27	-	-	5,331.08	32.98	-	-	5,331.37	33.41	-	-	5,330.94	33.99	-	-	5,330.36
SHS-18	5,373.64	47.36	39.93	-	-	5,333.71	39.63	-	-	5,334.01	40.13	-	-	5,333.51	40.66	-	-	5,332.98
SHS-19	5,378.89	52.40	31.08	-	-	5,347.81	38.97	-	-	5,339.92	39.29	-	-	5,339.60	39.54	-	-	5,339.35

Notes:
BTOC - below top of casing
D - designates the well is deep
GWEL - groundwater elevation
PSH - phase separated hydrocarbon
S - designates the well is shallow
* Top-of-casing elevation is unknown
** Well is damaged by a tree root
*** Well was paved over in June 2010
† Product Recovery socks in well, groundwater and PSH levels are not static
- indicates no GWEL or PSH measured
When PSH is detected, the GWEL is corrected using an estimated denisity correction factor of 0.8.

TABLE 4

ESTIMATED VOLUMES OF PHASE SEPARATED HYDROCARBONS
RECOVERED FROM GROUNDWATER MONITORING WELLS
FORMER GIANT BLOOMFIELD REFINERY
WESTERN REFINING SOUTHWEST, INC.

Well Number	2009 Total	2010 Total	1/26/2011	4/11/2011	7/5/2011	8/23/2011	8/30/2011	9/6/2011	9/13/2011	9/20/2011	9/27/2011	10/5/2011	10/12/2011	10/18/2011	10/25/2011	10/31/2011	11/7/2011	11/15/2011	11/22/2011	11/29/2011	12/6/2011	12/12/2011	12/19/2011	12/26/2011	Total Year to Date
	(oz)	(oz)	(oz)	(oz)	(oz)	(oz)	(oz)	(oz)	(oz)	(oz)	(oz)	(oz)	(oz)	(oz)	(oz)	(oz)	(oz)	(oz)	(oz)	(oz)	(oz)	(oz)	(oz)	(oz)	(oz)
GBR-7	0.1	0.0	no sock	3.4	4.3	NM	8.5	0.0	0.0	8.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.7
GBR-8	no sock	no sock	no sock	no sock	15.3	NM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.5	0.0	0.0	0.0	0.0	0.0	23.8
GBR-11	no sock	no sock	no sock	6.0	4.3	NM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.8
GBR-20	no sock	17.0	5.6	4.25	11.1	NM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.5	0.0	0.0	25.2
GBR-22	0.2	0.0	15.3	8.5	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.7
GBR-23	38.4	48.2	1.7	3.4	6.8	NM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.5
GBR-25	9.0	45.6	8.5	5.95	8.5	NM	17.0	8.5	0.0	0.0	8.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	51.0
GBR-26	17.9	0.0	0.0	no sock	no sock	NM	no sock	install sock	0.0	0.0	10.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.2
GBR-34	12.8	63.2	17.0	17.0	8.5	17.0	87.0	42.6	42.6	27.0	27.0	33.0	0.0	29.8	33.0	43.2	42.6	33.0	33.0	23.4	33.0	33.0	23.5	25.0	671.2
Annual Total	78.3	174.0																						2011 Total (oz)	849.03
																								2011 Total (gal)	7.03
																								Total 2009 - 2011 (gal)	8.60

Notes:
gal - gallon
NM - Not Measured
Only wells in which phase separated hydrocarbons were detected are listed.
oz - ounces

TABLE 5

2011 GROUNDWATER LABORATORY ANALYTICAL RESULTS
FORMER GIANT BLOOMFIELD REFINERY
WESTERN REFINING SOUTHWEST, INC.

Analyte	NMWQCC Standard	Unit	INFLUENT				EFFLUENT				GRW-3	GRW-6	GBR-17	GBR-24D	GBR-30	GBR-31	GBR-32	GBR-48	GBR-49	GBR-50	GBR-51	GBR-52	SHS-8
			Jan 2011	Apr 2011	Jul 2011	Oct 2011	Jan 2011	Apr 2011	Jul 2011	Oct 2011	Jan 2011	Jan 2011	Jan 2011	Jan 2011	Jan 2011	Jan 2011	Jan 2011	Jan 2011	Jan 2011	Jan 2011	Jan 2011	Jan 2011	Jan 2011
USEPA Method 8260B																							
benzene	10	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
toluene	750	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
ethylbenzene	750	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.9	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.4
methyl tert-butyl ether (MTBE)		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-trimethylbenzene	620	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,3,5-trimethylbenzene		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-dichloroethane (EDC)	10	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-dibromoethane (EDB)		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
naphthalene		ug/l	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1-methylnaphthalene		ug/l	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
2-methylnaphthalene		ug/l	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
acetone		ug/l	<10	<10	<10	<10	<10	<10	<10	<10	77	<10	<10	<10	<10	<10	<10	<10	<10	15	<10	<10	<10
bromobenzene		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
bromodichloromethane		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
bromoform		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
bromomethane		ug/l	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
2-butanone		ug/l	<10	<10	<10	<10	<10	<10	<10	<10	33	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
carbon disulfide		ug/l	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
carbon tetrachloride	10	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
chlorobenzene		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
chloroethane		ug/l	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
chloroform	100	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloromethane		ug/l	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
2-chlorotoluene		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
4-chlorotoluene		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,2-DCE		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,3-dichloropropene		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-dibromo-3-chloropropane		ug/l	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
dibromochloromethane		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
dibromomethane		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-dichlorobenzene		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,3-dichlorobenzene		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,4-dichlorobenzene		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
dichlorodifluoromethane		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-dichloroethane	25	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-dichloroethene	5	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-dichloropropane		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,3-dichloropropane		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2,2-dichloropropane		ug/l	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,1-dichloropropene		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
hexachlorobutadiene		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2-hexanone		ug/l	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
isopropylbenzene		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
4-isopropyltoluene		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
4-methyl-2-pentanone		ug/l	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
methylene chloride	100	ug/l	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
n-butylbenzene		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
n-propylbenzene		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
sec-butylbenzene		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
styrene		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
tert-butylbenzene		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,1,2-tetrachloroethane		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2,2-tetrachloroethane	10	ug/l	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
tetrachloroethene (PCE)	20	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.2	<1.0	1.6	<1.0	<1.0	<1.0	<1.0
trans-1,2-DCE		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,3-dichloropropene		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,3-trichlorobenzene		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-trichlorobenzene		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,1-trichloroethane	60	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2-trichloroethane	10	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trichloroethene (TCE)	100	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trichlorofluoromethane		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.2	<1.0	<1.0
1,2,3-trichloropropane		ug/l	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
vinyl chloride	1	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
xylenes, total	620	ug/L	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5
Total BTEX		ug/L	0.0 - <4.5	0.0 - <4.5	0.0 - <4.5	0.0 - <4.5	0.0 - <4.5	0.0 - <4.5	0.0 - <4.5	0.0 - <4.5	1.9 - <5.4	0.0 - <4.5	0.0 - <4.5	0.0 - <4.5	0.0 - <4.5	0.0 - <4.5	0.0 - <4.5	0.0 - <4.5	0.0 - <4.5	0.0 - <4.5	0.0 - <4.5	0.0 - <4.5	1.4 - <4.9

TABLE 5

2011 GROUNDWATER LABORATORY ANALYTICAL RESULTS
FORMER GIANT BLOOMFIELD REFINERY
WESTERN REFINING SOUTHWEST, INC.

Analyte	NMWQCC Standard	Unit	INFLUENT				EFFLUENT				GRW-3	GRW-6	GBR-17	GBR-24D	GBR-30	GBR-31	GBR-32	GBR-48	GBR-49	GBR-50	GBR-51	GBR-52	SHS-8
			Jan 2011	Apr 2011	Jul 2011	Oct 2011	Jan 2011	Apr 2011	Jul 2011	Oct 2011	Jan 2011	Jan 2011	Jan 2011	Jan 2011	Jan 2011	Jan 2011	Jan 2011	Jan 2011	Jan 2011	Jan 2011	Jan 2011	Jan 2011	Jan 2011
PAH - Method 8270C																							
naphthalene	30	ug/l	NT	NT	NT	NT	<0.50	NT	NT	NT	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NT	NT	NT	NT	NT	NT	NT
1-methylnaphthalene		ug/l	NT	NT	NT	NT	<0.50	NT	NT	NT	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NT	NT	NT	NT	NT	NT	NT
2-methylnaphthalene		ug/l	NT	NT	NT	NT	<0.50	NT	NT	NT	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NT	NT	NT	NT	NT	NT	NT
acenaphthylene		ug/l	NT	NT	NT	NT	<0.50	NT	NT	NT	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NT	NT	NT	NT	NT	NT	NT
acenaphthene		ug/l	NT	NT	NT	NT	<0.50	NT	NT	NT	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NT	NT	NT	NT	NT	NT	NT
fluorene		ug/l	NT	NT	NT	NT	<0.50	NT	NT	NT	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NT	NT	NT	NT	NT	NT	NT
phenanthrene		ug/l	NT	NT	NT	NT	<0.50	NT	NT	NT	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NT	NT	NT	NT	NT	NT	NT
anthracene		ug/l	NT	NT	NT	NT	<0.50	NT	NT	NT	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NT	NT	NT	NT	NT	NT	NT
fluoranthene		ug/l	NT	NT	NT	NT	<0.50	NT	NT	NT	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NT	NT	NT	NT	NT	NT	NT
pyrene		ug/l	NT	NT	NT	NT	<0.50	NT	NT	NT	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NT	NT	NT	NT	NT	NT	NT
benz(a)anthracene		ug/l	NT	NT	NT	NT	<0.50	NT	NT	NT	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NT	NT	NT	NT	NT	NT	NT
chrysene		ug/l	NT	NT	NT	NT	<0.50	NT	NT	NT	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NT	NT	NT	NT	NT	NT	NT
benzo(b)fluoranthene		ug/l	NT	NT	NT	NT	<0.50	NT	NT	NT	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NT	NT	NT	NT	NT	NT	NT
benzo(k)fluoranthene		ug/l	NT	NT	NT	NT	<0.50	NT	NT	NT	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NT	NT	NT	NT	NT	NT	NT
benzo(e)pyrene	0.7	ug/l	NT	NT	NT	NT	<0.50	NT	NT	NT	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NT	NT	NT	NT	NT	NT	NT
dibenz(a,h)anthracene		ug/l	NT	NT	NT	NT	<0.50	NT	NT	NT	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NT	NT	NT	NT	NT	NT	NT
benzo(g,h,i)perylene		ug/l	NT	NT	NT	NT	<0.50	NT	NT	NT	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NT	NT	NT	NT	NT	NT	NT
Indeno(1,2,3-cd)pyrene		ug/l	NT	NT	NT	NT	<0.50	NT	NT	NT	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NT	NT	NT	NT	NT	NT	NT
EPA Method 300.0 Anions																							
Bromide		mg/L	NT	NT	0.26	0.50	NT	NT	0.29	0.32	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Chloride	250	mg/L	84	90	80	85	83	89	81	81	95	110	47	170	**320**	97	**420**	**390**	**310**	46	53	62	150
Sulfate	600	mg/L	**1,990**	**1,500**	**1,600**	**1,500**	**2,000**	**1,500**	**1,800**	**1,600**	480	**1,400**	**1,300**	**2,400**	**1,600**	**1,800**	**2,300**	**2,200**	**2,000**	**1,800**	**1,600**	**1,900**	150
Fluoride	1.6	mg/L	NT	0.88	0.83	0.86	NT	0.91	0.92	0.82	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Nitrogen, Nitite (As N)		mg/L	NT	<2.0	<0.10	<0.10	NT	<2.0	<0.10	<0.10	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Nitrogen, Nitate (As N)	10	mg/L	NT	<0.10	1.4	1.5	NT	<0.10	1.3	1.6	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Phosphate, Orthophosphate (As P)		mg/L	NT	<0.50	<5.0	<0.50	NT	<0.50	<5.0	<0.50	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
EPA Method 200.7: Metals																							
Beryllium		mg/L	NT	NT	NT	NT	<0.0020	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.0020	<0.0020	<0.0020	<0.0020	NT	NT	<0.0020
Cadmium	0.01	mg/L	NT	NT	NT	NT	<0.0020	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.0020	<0.0020	<0.0020	<0.0020	NT	NT	<0.0020
Calcium		mg/L	340	330	400	370	350	330	380	370	140	300	310	420	410	380	450	460	450	390	380	450	110
Chromium	0.05	mg/L	NT	NT	NT	NT	<0.0060	NT	NT	NT	NT	NT	NT	NT	NT	NT	**0.13**	**0.71**	**0.48**	0.023	NT	NT	0.0063
Copper	1.0	mg/L	NT	NT	NT	NT	<0.0060	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.014	0.013	0.032	0.014	NT	NT	0.023
Iron	1.0	mg/L	NT	**1.5**	0.56	0.029	NT	0.047	<0.020	<0.020	NT	NT	NT	NT	NT	NT	NT	**9.3**	NT	NT	NT	NT	NT
Lead	0.05	mg/L	NT	NT	NT	NT	<0.0050	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.0050	NT	<0.0050	0.0051	NT	NT	0.026
Magnesium		mg/L	34	33	32	29	34	0.99	30	29	35	36	25	42	46	34	53	46	46	31	31	37	15
Manganese	0.2	mg/L	NT	0.96	**0.25**	0.17	NT	**0.99**	0.0070	0.0044	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Nickel	0.2	mg/L	NT	NT	NT	NT	0.055	NT	NT	NT	NT	NT	NT	NT	NT	NT	**0.21**	0.071	0.16	0.010	NT	NT	0.052
Potassium		mg/L	3.9	3.3	2.9	2.8	3.8	3.8	2.8	2.8	1.7	2.7	<5.0	8.4	7.8	3.1	4.7	6.0	5.5	3.2	1.4	1.7	2.8
Silver	0.05	mg/L	NT	NT	NT	NT	<0.0050	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.0050	<0.0050	<0.0050	<0.0050	NT	NT	<0.0050
Sodium		mg/L	590	580	470	440	600	560	450	450	460	490	240	620	530	430	700	720	590	380	340	340	<480
Zinc	10	mg/L	NT	NT	NT	NT	0.065	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.11	0.076	0.26	0.34	NT	NT	0.033
EPA 200.8: Metals																							
Antimony		mg/L	NT	NT	NT	NT	<0.0025	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.0025	<0.0025	<0.0025	<0.0025	NT	NT	<0.0025
Arsenic	0.1	mg/L	NT	NT	NT	NT	<0.0025	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.0033	0.0089	0.0038	<0.0025	NT	NT	0.0075
Selenium	0.05	mg/L	NT	NT	NT	NT	0.0051	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.048	**0.19**	0.012	0.011	NT	NT	0.0090
Thallium		mg/L	NT	NT	NT	NT	<0.0025	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.0025	<0.0025	<0.0025	<0.0025	NT	NT	<0.0025
EPA METHOD 245.1: Mercury																							
Mercury	0.002	mg/L	NT	NT	NT	NT	<0.00020	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.00020	<0.00020	<0.00020	<0.00020	NT	NT	<0.00020
EPA 200.7: Hardness																							
Hardness (as CaCO3)		mg/L	1,000	NT	NT	NT	1,000	NT	NT	NT	480	890	870	1,200	1,200	1,100	1,400	1,300	1,300	1,100	1,100	1,300	320
SM 2320B: Alkalinity																							
Alkalinity, Total (As CaCO3)		mg/L CaCO3	370	490	270	310	370	490	280	310	900	550	210	180	230	240	310	250	260	200	210	210	980
Carbonate		mg/L CaCO4	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Bicarbonate		mg/L CaCO5	370	490	270	310	370	490	280	310	900	550	210	180	230	240	310	250	260	200	210	210	980
Hydroxide		mg/L CaCO6	<2.0	NT	NT	NT	<2.0	NT	NT	NT	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
EPA 120.1: Specific Conductance																							
Specific Conductance		umhos/cm	3,600	3,400	3,300	3,200	3,600	3,500	3,300	3,200	2,600	3,200	2,500	4,000	4,100	3,300	4,800	4,400	4,100	3,100	2,700	3,100	2,300
SM4500-H+B: PH																							
pH	6-9	pH units	7.35	7.51	7.70	7.75	7.51	7.59	7.75	7.71	7.57	7.44	7.74	7.51	7.24	7.47	7.67	7.63	7.25	7.59	7.44	7.82	7.42
SM2540C MOD: Total Dissolved Solids																							
Total Dissolved Solids	1,000	mg/L	3,030	2,770	2,830	2,770	3,030	2,760	2,820	2,750	1,810	2,490	2,140	3,410	3,340	2,740	4,010	3,510	3,390	2,640	2,380	2,700	1,440

Notes:
BOLD - Bold font indicates concentration greater than NMWQCC standard
mg/L - milligarms per liter
NT - not tested
NMWQCC - New Mexico Water Quality Control Commission
ug/l - micrograms per liter

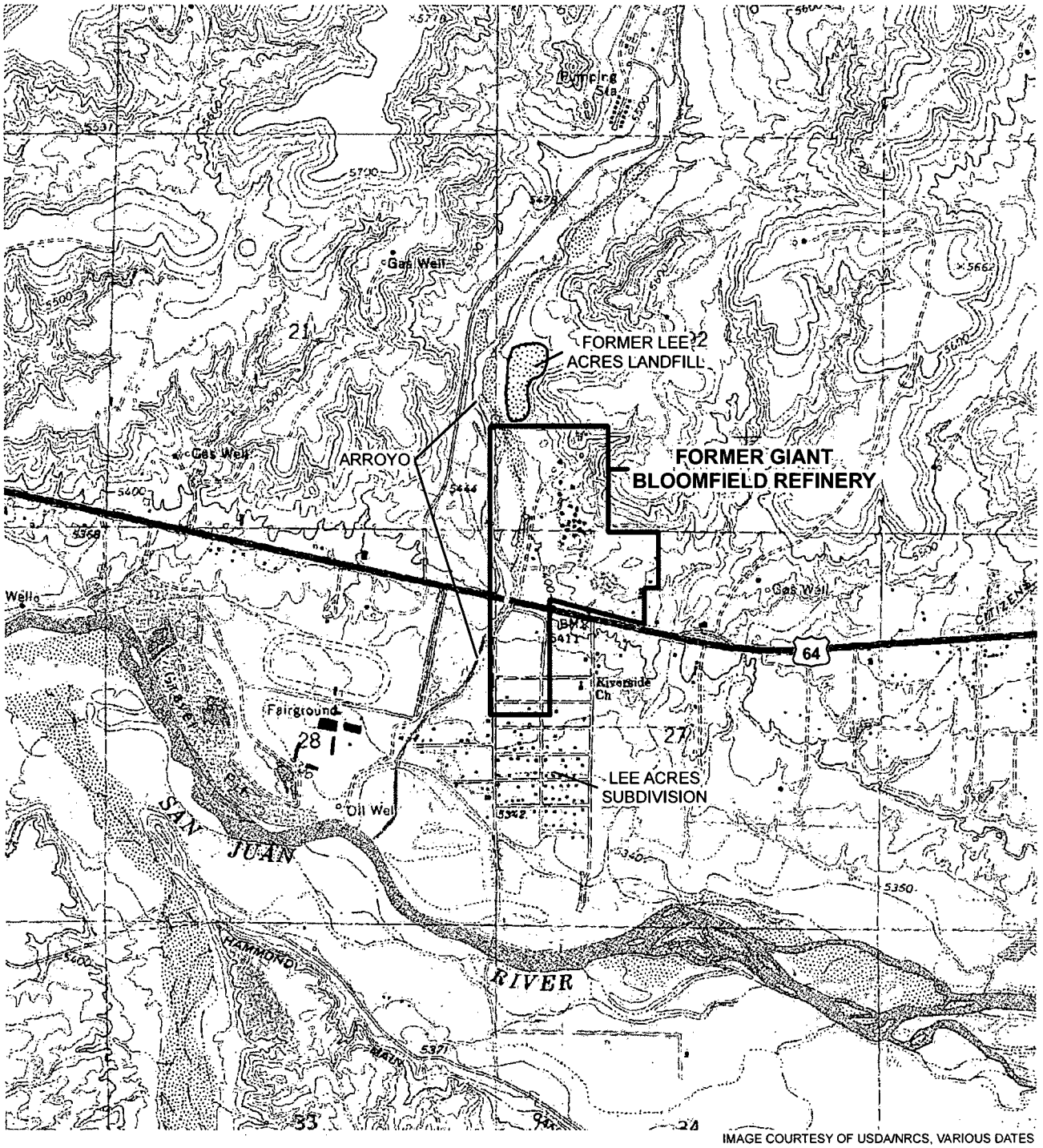


IMAGE COURTESY OF USDA/NRCS, VARIOUS DATES

0 2,000 4,000

Feet

N

LEGEND

- SITE LOCATION
- ARROYO
- FORMER LEE ACRES LANDFILL

FIGURE 1
REGIONAL MAP
FORMER GIANT BLOOMFIELD REFINERY
SWSW SEC 22 & WNW SEC 27 T29N R12W
SAN JUAN COUNTY, NEW MEXICO
WESTERN REFINING SOUTHWEST, INC.

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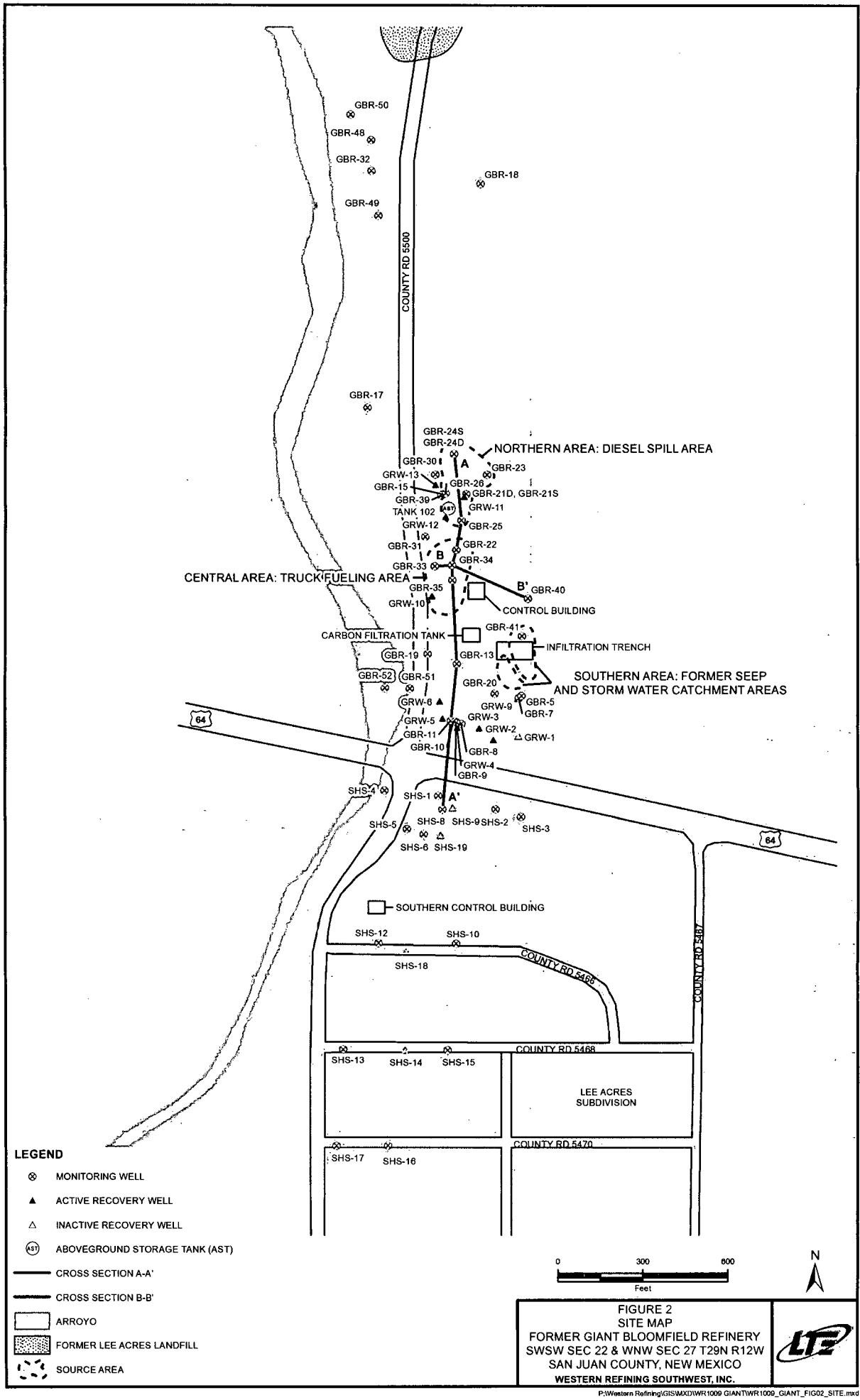
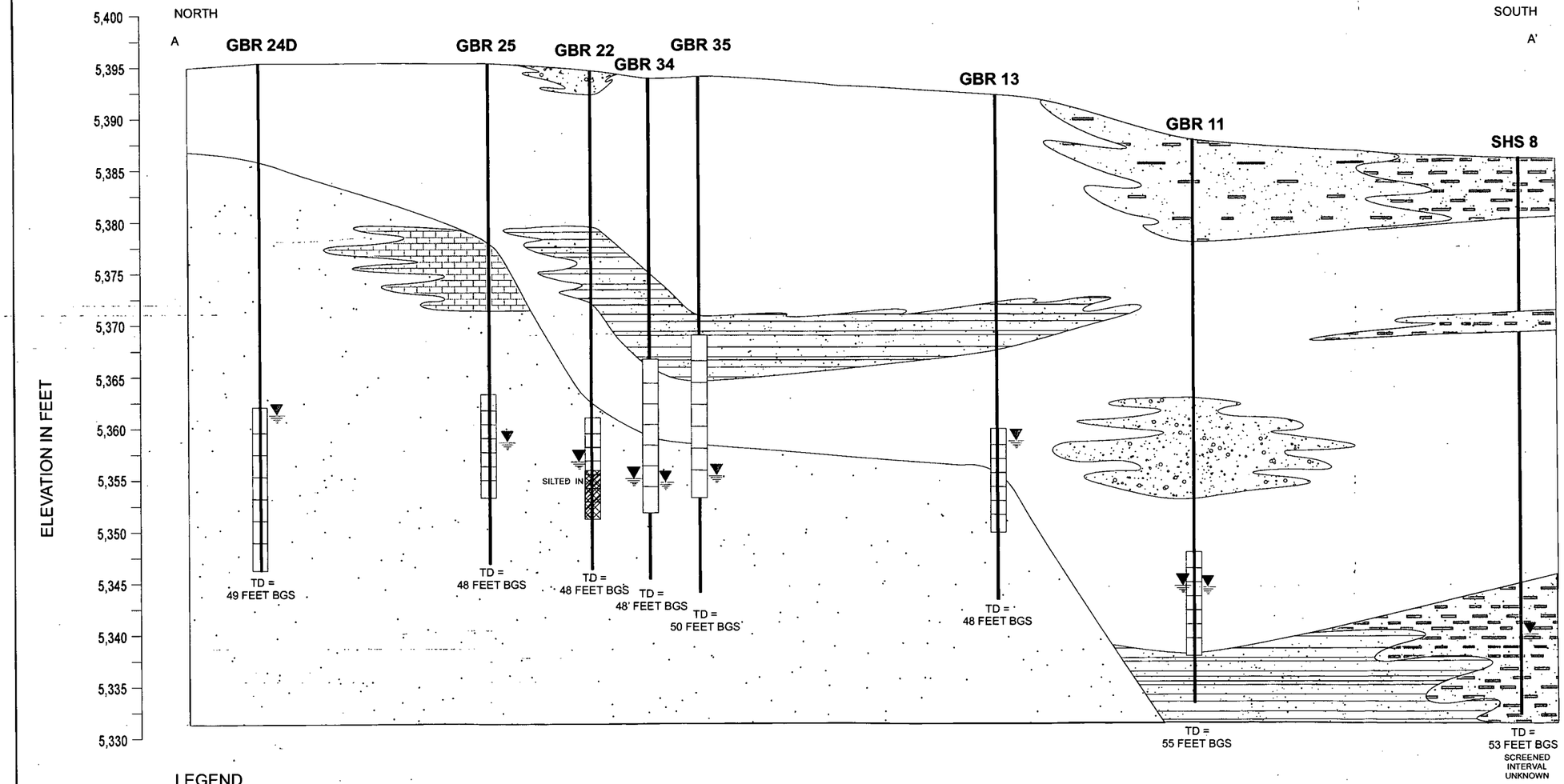


FIGURE 2
SITE MAP
FORMER GIANT BLOOMFIELD REFINERY
SWSW SEC 22 & WNW SEC 27 T29N R12W
SAN JUAN COUNTY, NEW MEXICO
WESTERN REFINING SOUTHWEST, INC.

P:\Western Refining\GIS\MXD\WR1009 GIANT\WR1009_GIANT_FIG02_SITE.mxd



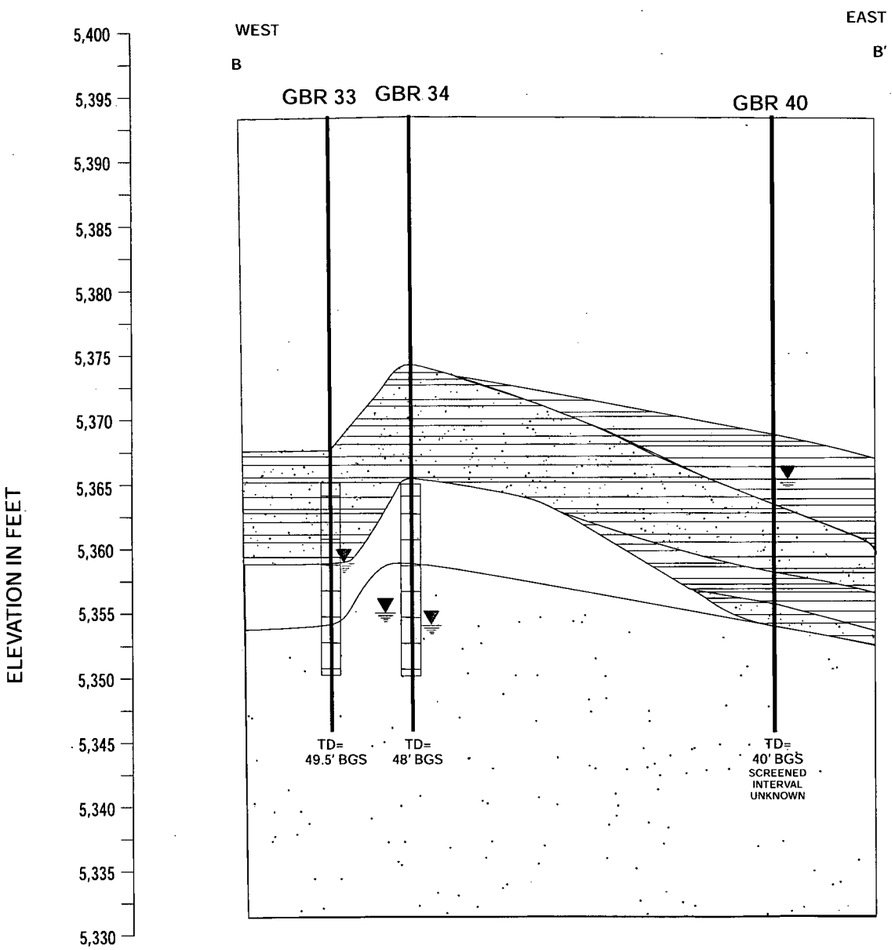
LEGEND

- SANDY SILT
- CLAYEY SAND
- SILTY SAND
- SAND
- PEBBLES/GRAVEL
- NACIMIENTO SHALE
- NACIMIENTO SANDSTONE
- BOREHOLE
- SCREENED INTERVAL
- BGS BELOW GROUND SURFACE
- TD TOTAL DEPTH IN FEET
- ELEVATION OF PHASE SEPARATED HYDROCARBON (PSH) ON 1/12/2011
- GROUNDWATER ELEVATION ON 1/12/2011

HORIZONTAL SCALE
1" = 10 FEET

VERTICAL SCALE
1" = 90 FEET

FIGURE3
CROSS-SECTION A-A'
WESTERN REFINING SOUTHWEST, INC.
FORMER GIANT REFINERY



LEGEND

- CLAYEY SAND
- CLAY
- SAND
- NACIMIENTO SANDSTONE
- BOREHOLE
- SCREENED INTERVAL

BGS BELOW GROUND SURFACE

TD TOTAL DEPTH IN FEET

ELEVATION OF PHASE SEPARATED HYDROCARBON (PSH) ON 1/12/2011

GROUNDWATER ELEVATION ON 1/12/2011

HORIZONTAL SCALE
1" = 10 FEET

VERTICAL SCALE
1" = 90 FEET

FIGURE4
CROSS-SECTION B - B'
WESTERN REFINING SOUTHWEST, INC.
FORMER GIANT REFINERY

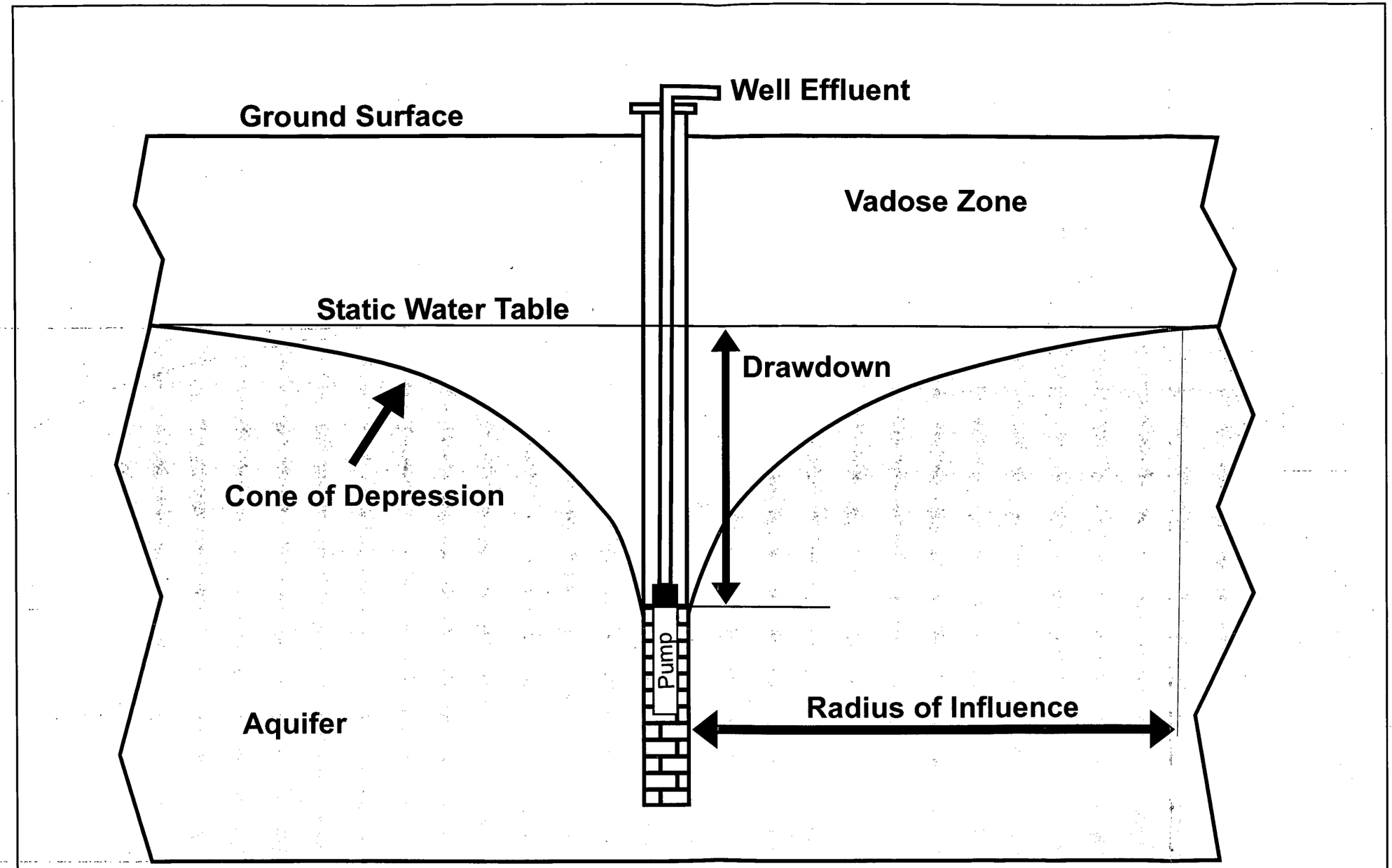


FIGURE 5
HYDRAULIC BARRIER
FORMER GIANT BLOOMFIELD REFINERY
SWSW SEC 22 & WNW SEC 27 T29N R12W
WESTERN REFINING SOUTHWEST, INC.

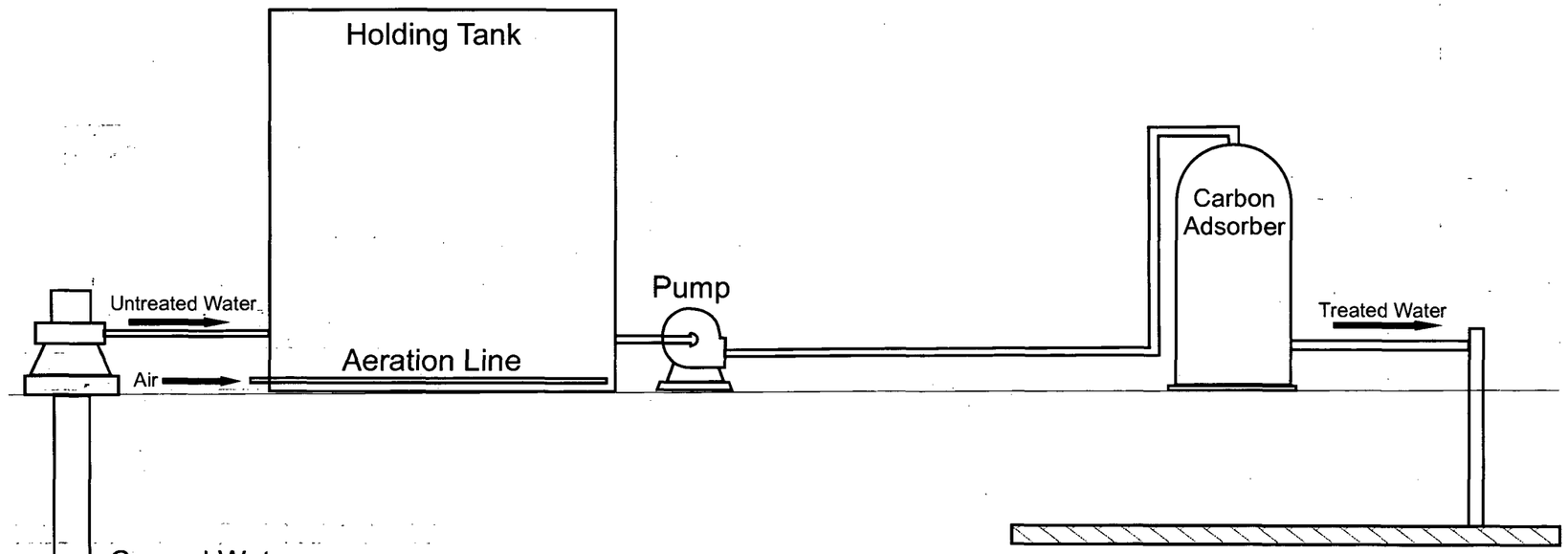


FIGURE 6
SIMPLIFIED REPRESENTATION OF THE GROUNDWATER RECOVERY, TREATMENT AND DISPOSAL SYSTEM
FORMER GIANT BLOOMFIELD REFINERY
SWSW SEC 22 & WNW SEC 27 T29N R12W
WESTERN REFINING SOUTHWEST, INC.

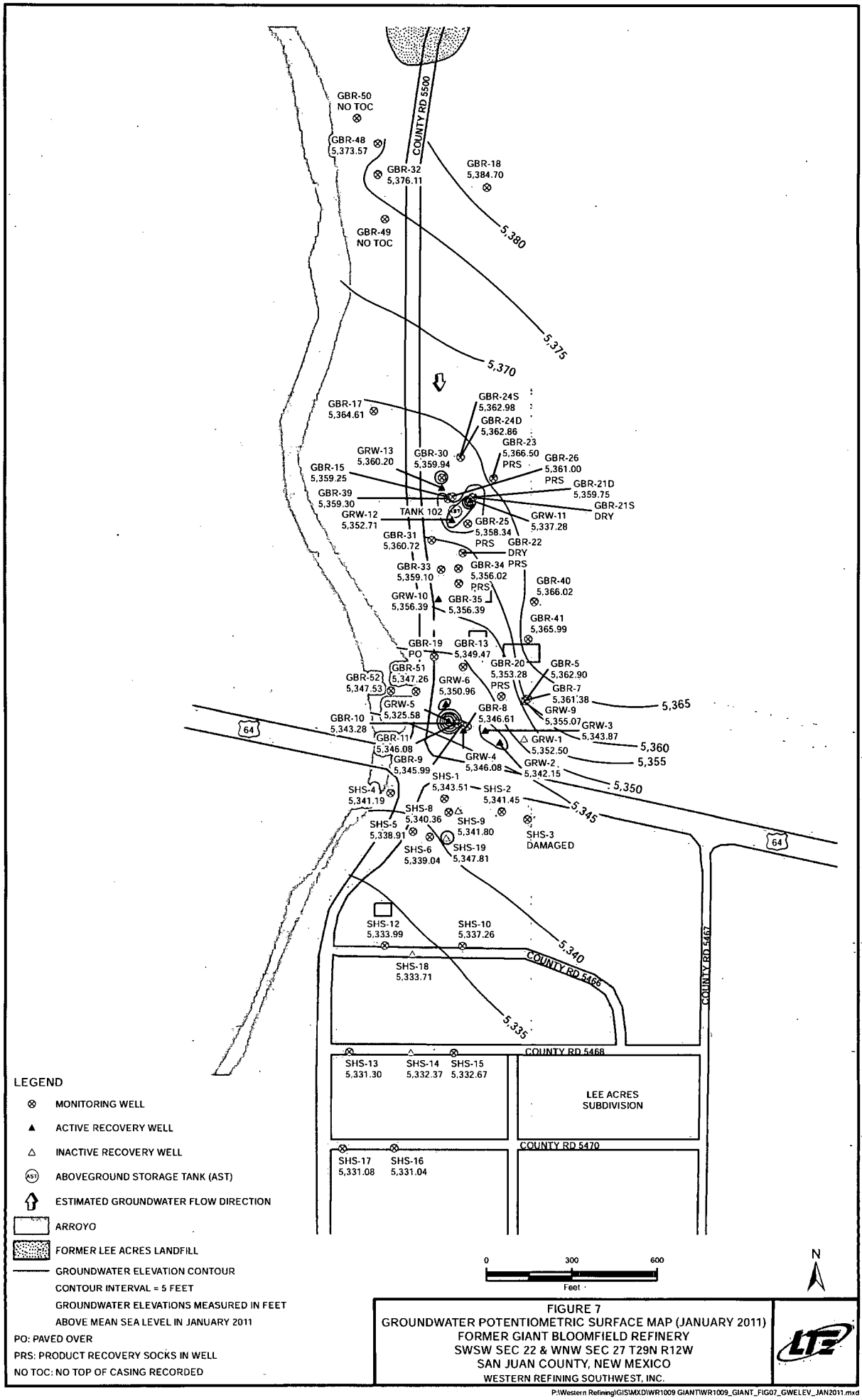


FIGURE 7
GROUNDWATER POTENTIOMETRIC SURFACE MAP (JANUARY 2011)
FORMER GIANT BLOOMFIELD REFINERY
SWSW SEC 22 & WNW SEC 27 T29N R12W
SAN JUAN COUNTY, NEW MEXICO
WESTERN REFINING SOUTHWEST, INC.

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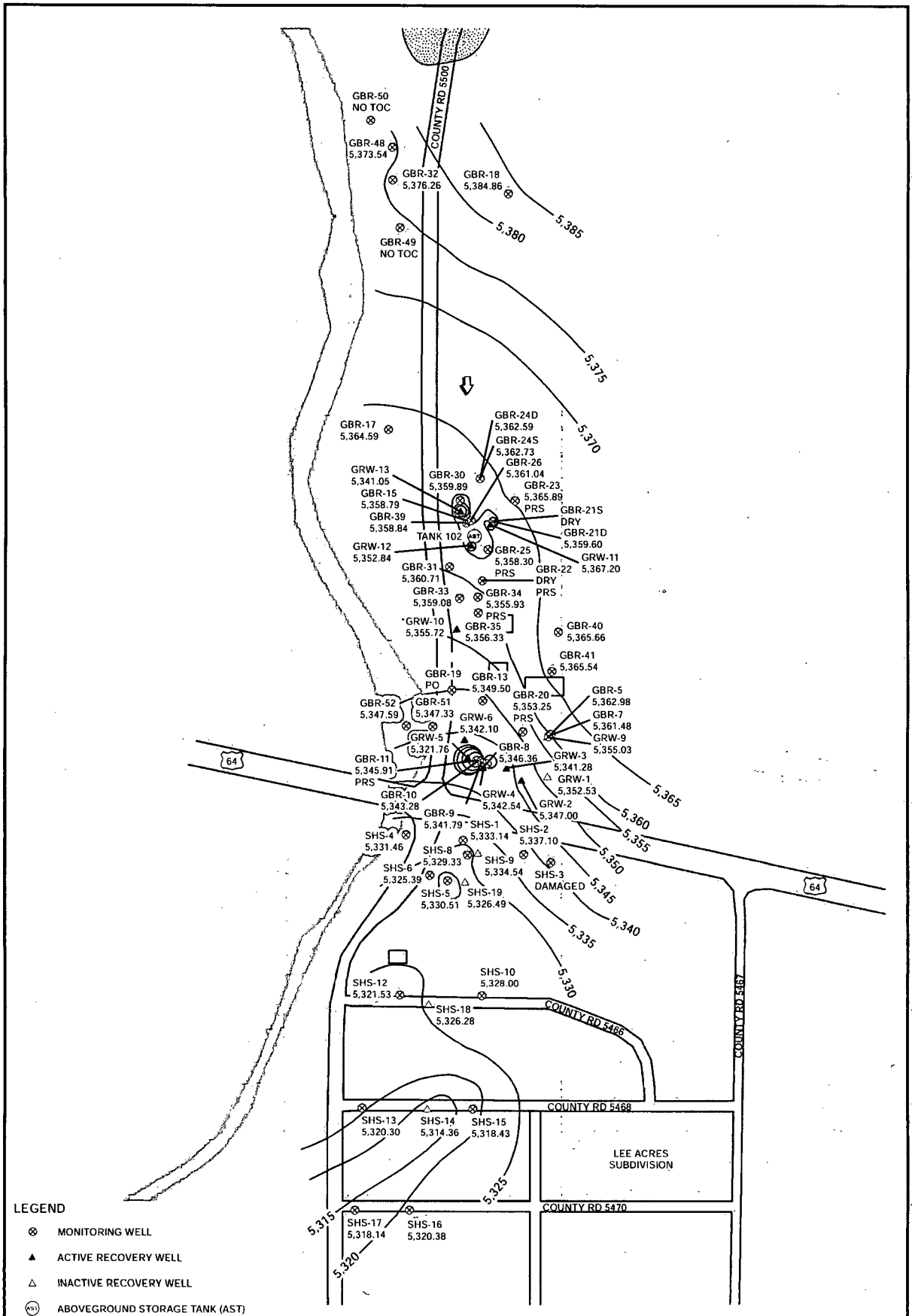
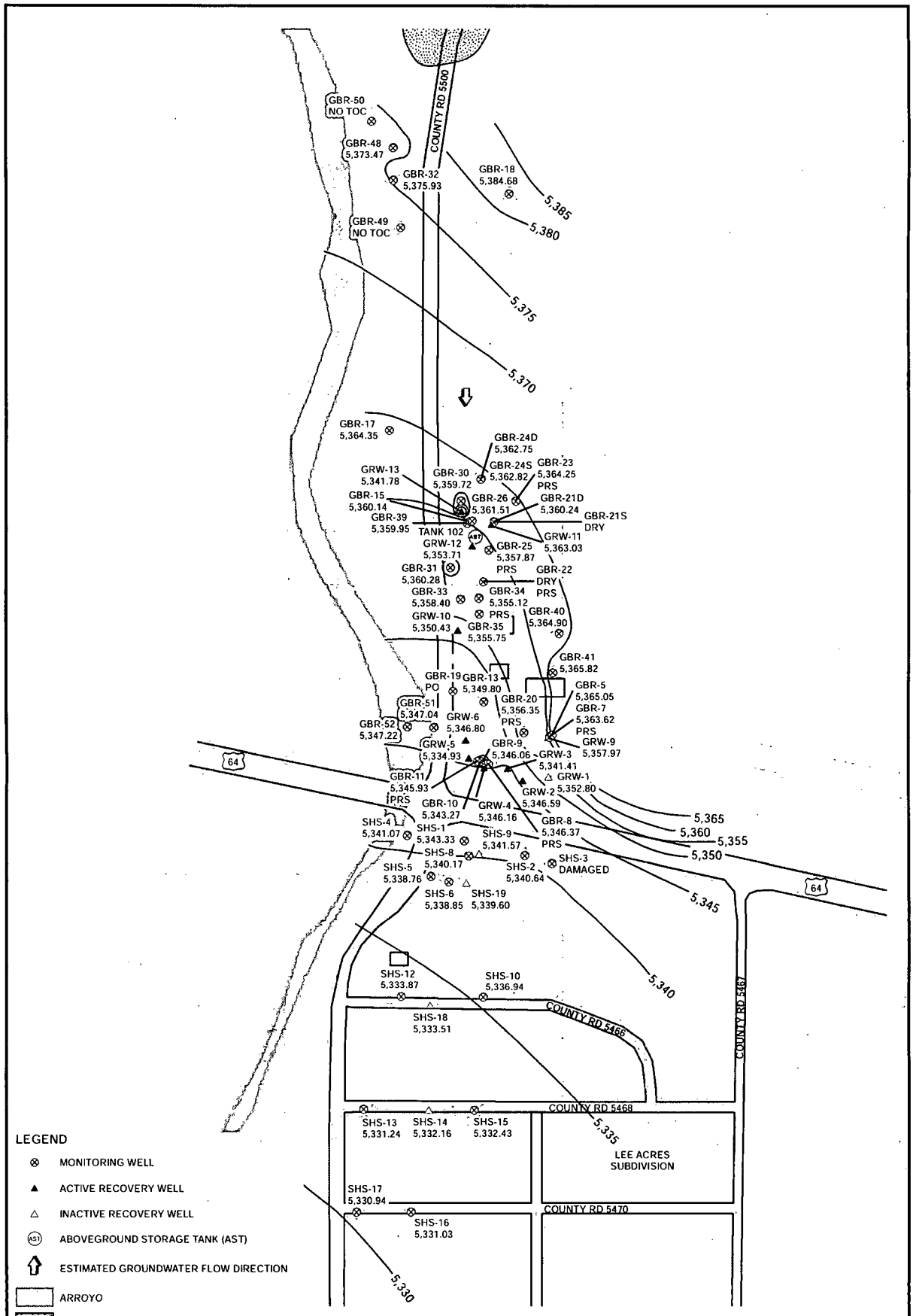


FIGURE 8
GROUNDWATER POTENTIOMETRIC SURFACE MAP (APRIL 2011)
FORMER GIANT BLOOMFIELD REFINERY
SWSW SEC 22 & WNW SEC 27 T29N R12W
SAN JUAN COUNTY, NEW MEXICO
WESTERN REFINING SOUTHWEST, INC.

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LEGEND

- MONITORING WELL
- ACTIVE RECOVERY WELL
- INACTIVE RECOVERY WELL
- ABOVEGROUND STORAGE TANK (AST)
- ESTIMATED GROUNDWATER FLOW DIRECTION
- ARROYO
- FORMER LEE ACRES LANDFILL
- GROUNDWATER ELEVATION CONTOUR
  CONTOUR INTERVAL = 5 FEET
  GROUNDWATER ELEVATIONS MEASURED IN FEET
  ABOVE MEAN SEA LEVEL IN JULY 2011

PO: PAVED OVER
PRS: PRODUCT RECOVERY SOCKS IN WELL
NO TOC: NO TOP OF CASING RECORDED

FIGURE 9
GROUNDWATER POTENTIOMETRIC SURFACE MAP (JULY 2011)
FORMER GIANT BLOOMFIELD REFINERY
SWSW SEC 22 & WNW SEC 27 T29N R12W
SAN JUAN COUNTY, NEW MEXICO
WESTERN REFINING SOUTHWEST, INC.

P:\Western Refining\GIS\MXD\WR1009 GIANT\WR1009_GIANT_FIG09_GWELEV_JULY2011.mxd

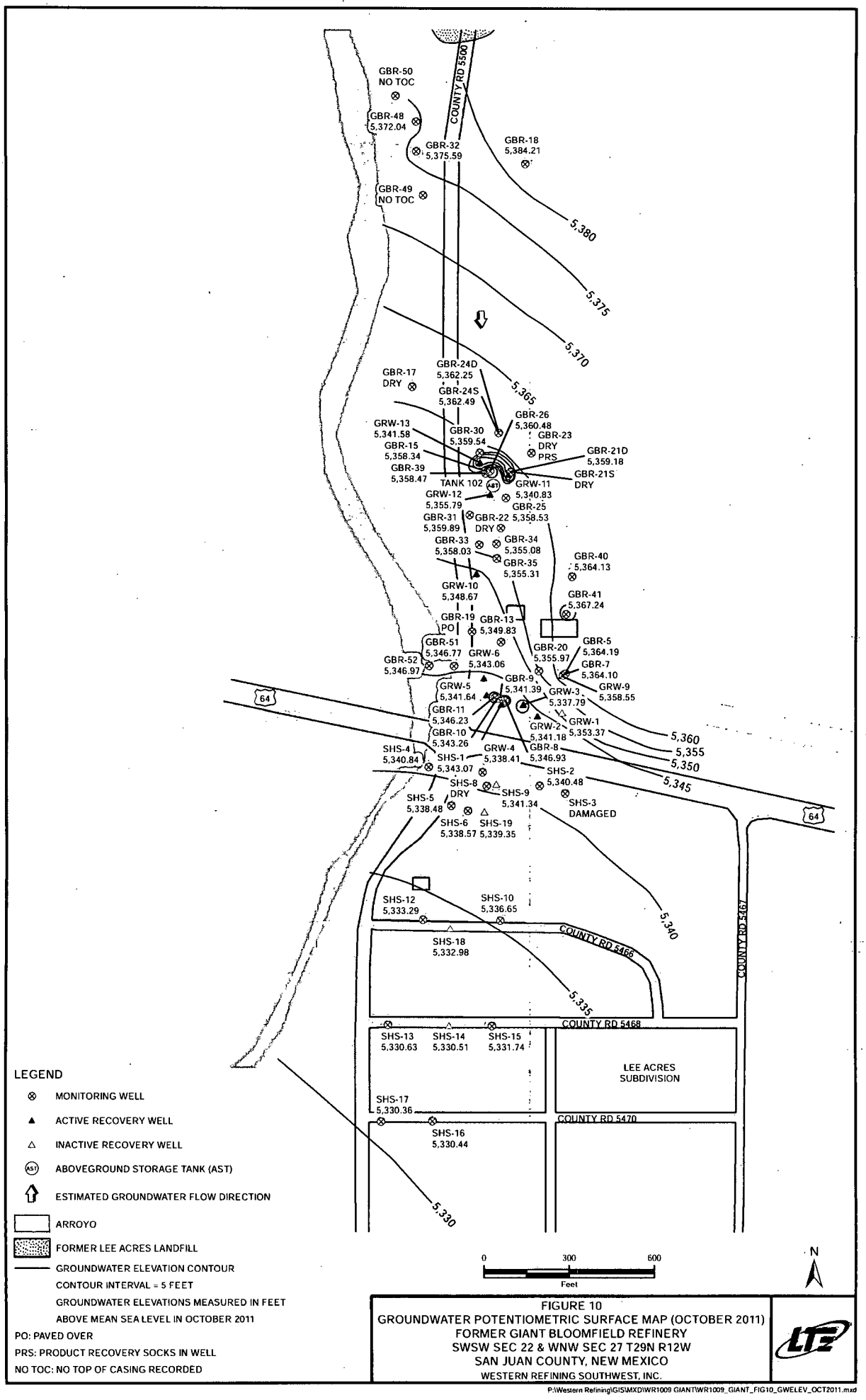


FIGURE 10
GROUNDWATER POTENTIOMETRIC SURFACE MAP (OCTOBER 2011)
FORMER GIANT BLOOMFIELD REFINERY
SWSW SEC 22 & WNW SEC 27 T29N R12W
SAN JUAN COUNTY, NEW MEXICO
WESTERN REFINING SOUTHWEST, INC.

P:\Western Refining\GIS\MXD\WR1009 GIANT\WR1009_GIANT_FIG10_GWELEV_OCT2011.mxd

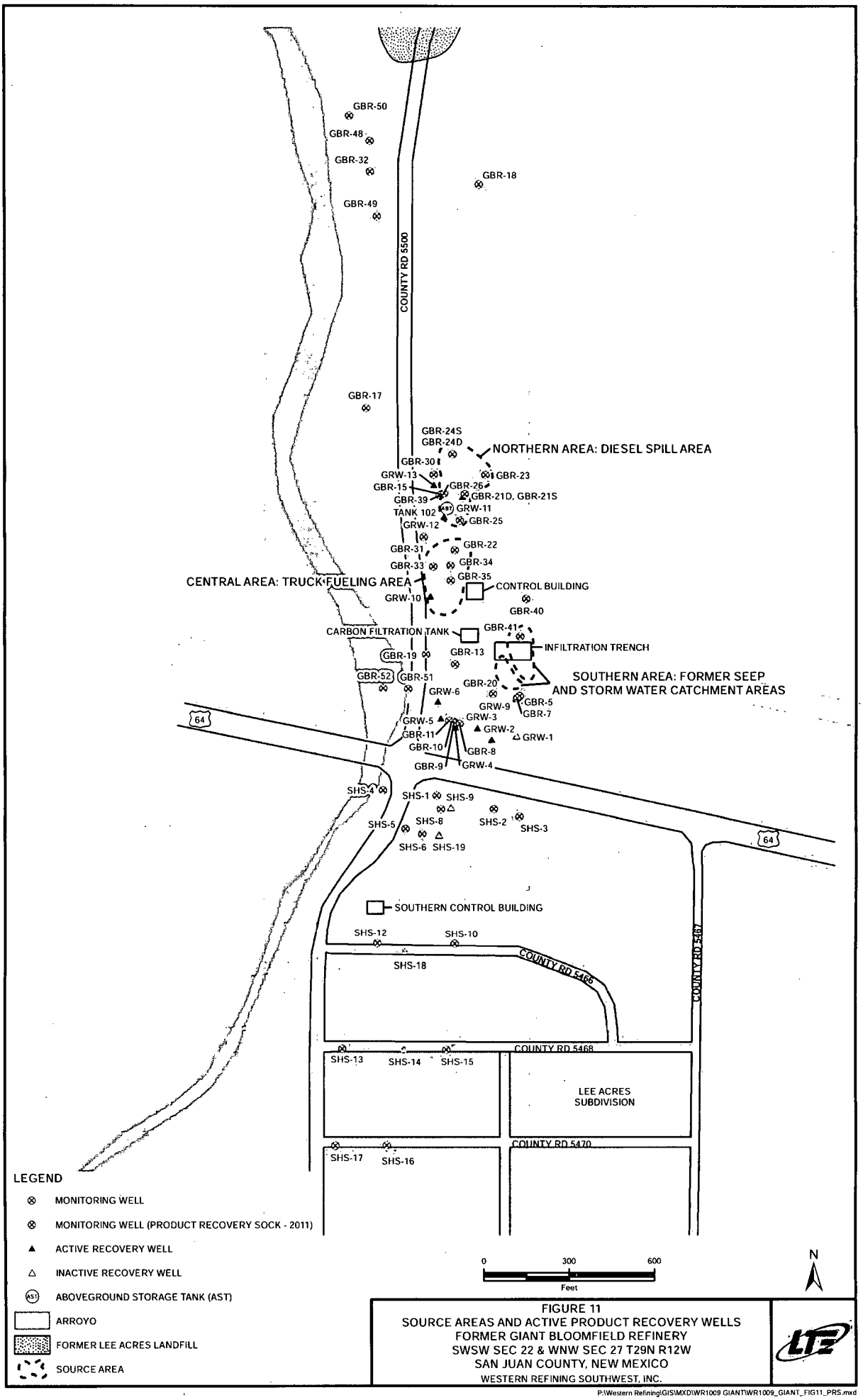


FIGURE 11
SOURCE AREAS AND ACTIVE PRODUCT RECOVERY WELLS
FORMER GIANT BLOOMFIELD REFINERY
SWSW SEC 22 & WNW SEC 27 T29N R12W
SAN JUAN COUNTY, NEW MEXICO
WESTERN REFINING SOUTHWEST, INC.

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HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Tuesday, February 15, 2011

Ashley Ager
Western Refining Southwest, Inc.
#50 CR 4990
Bloomfield, NM 87413
TEL: (970) 946-1093
FAX (505) 632-3911

RE: GBR

Order No.: 1101895

Dear Ashley Ager:

Hall Environmental Analysis Laboratory, Inc. received 4 sample(s) on 1/28/2011 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.

Please do not 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: *17-Feb-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	SHS 8
Lab Order:	1101895	**Collection Date:**	1/26/2011 12:57:00 PM
Project:	GBR	**Date Received:**	1/28/2011
Lab ID:	1101895-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						**Analyst: SRM**
Chloride	150	10		mg/L	20	1/29/2011 5:03:54 AM
Sulfate	150	10		mg/L	20	1/29/2011 5:03:54 AM
EPA METHOD 200.7: METALS						**Analyst: RAGS**
Beryllium	ND	0.0020		mg/L	1	2/3/2011 5:57:22 PM
Cadmium	ND	0.0020		mg/L	1	2/3/2011 5:57:22 PM
Calcium	110	10		mg/L	10	2/10/2011 8:13:37 PM
Chromium	0.0063	0.0060		mg/L	1	2/3/2011 5:57:22 PM
Copper	0.023	0.0060		mg/L	1	2/3/2011 5:57:22 PM
Lead	0.026	0.0050		mg/L	1	2/3/2011 5:57:22 PM
Magnesium	15	1.0		mg/L	1	2/3/2011 5:57:22 PM
Nickel	0.052	0.010		mg/L	1	2/3/2011 5:57:22 PM
Potassium	2.8	1.0		mg/L	1	2/3/2011 5:57:22 PM
Silver	ND	0.0050		mg/L	1	2/11/2011 5:21:42 PM
Sodium	480	10		mg/L	10	2/10/2011 8:13:37 PM
Zinc	0.033	0.010		mg/L	1	2/3/2011 5:57:22 PM
EPA 200.8: METALS						**Analyst: SNV**
Antimony	ND	0.0025		mg/L	2.5	2/9/2011 1:56:04 PM
Arsenic	0.0075	0.0025		mg/L	2.5	2/9/2011 1:56:04 PM
Selenium	0.0090	0.0025		mg/L	2.5	2/9/2011 1:56:04 PM
Thallium	ND	0.0025		mg/L	2.5	2/9/2011 1:56:04 PM
EPA METHOD 245.1: MERCURY						**Analyst: ELS**
Mercury	ND	0.00020		mg/L	1	2/3/2011 12:14:25 PM
EPA 200.7: HARDNESS						**Analyst: RAGS**
Hardness (As CaCO3)	320	1.0		mg/L	1	2/10/2011
EPA METHOD 8260B: VOLATILES						**Analyst: RAA**
Benzene	ND	1.0		µg/L	1	2/3/2011 3:20:34 AM
Toluene	ND	1.0		µg/L	1	2/3/2011 3:20:34 AM
Ethylbenzene	1.4	1.0		µg/L	1	2/3/2011 3:20:34 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	2/3/2011 3:20:34 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	2/3/2011 3:20:34 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	2/3/2011 3:20:34 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	2/3/2011 3:20:34 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	2/3/2011 3:20:34 AM
Naphthalene	ND	2.0		µg/L	1	2/3/2011 3:20:34 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	2/3/2011 3:20:34 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	2/3/2011 3:20:34 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
- NC Non-Chlorinated
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitation Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Feb-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	SHS 8
Lab Order:	1101895	**Collection Date:**	1/26/2011 12:57:00 PM
Project:	GBR	**Date Received:**	1/28/2011
Lab ID:	1101895-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Acetone	ND	10		µg/L	1	2/3/2011 3:20:34 AM
Bromobenzene	ND	1.0		µg/L	1	2/3/2011 3:20:34 AM
Bromodichloromethane	ND	1.0		µg/L	1	2/3/2011 3:20:34 AM
Bromoform	ND	1.0		µg/L	1	2/3/2011 3:20:34 AM
Bromomethane	ND	3.0		µg/L	1	2/3/2011 3:20:34 AM
2-Butanone	ND	10		µg/L	1	2/3/2011 3:20:34 AM
Carbon disulfide	ND	10		µg/L	1	2/3/2011 3:20:34 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	2/3/2011 3:20:34 AM
Chlorobenzene	ND	1.0		µg/L	1	2/3/2011 3:20:34 AM
Chloroethane	ND	2.0		µg/L	1	2/3/2011 3:20:34 AM
Chloroform	ND	1.0		µg/L	1	2/3/2011 3:20:34 AM
Chloromethane	ND	3.0		µg/L	1	2/3/2011 3:20:34 AM
2-Chlorotoluene	ND	1.0		µg/L	1	2/3/2011 3:20:34 AM
4-Chlorotoluene	ND	1.0		µg/L	1	2/3/2011 3:20:34 AM
cis-1,2-DCE	ND	1.0		µg/L	1	2/3/2011 3:20:34 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	2/3/2011 3:20:34 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	2/3/2011 3:20:34 AM
Dibromochloromethane	ND	1.0		µg/L	1	2/3/2011 3:20:34 AM
Dibromomethane	ND	1.0		µg/L	1	2/3/2011 3:20:34 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	2/3/2011 3:20:34 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	2/3/2011 3:20:34 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	2/3/2011 3:20:34 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	2/3/2011 3:20:34 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	2/3/2011 3:20:34 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	2/3/2011 3:20:34 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	2/3/2011 3:20:34 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	2/3/2011 3:20:34 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	2/3/2011 3:20:34 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	2/3/2011 3:20:34 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	2/3/2011 3:20:34 AM
2-Hexanone	ND	10		µg/L	1	2/3/2011 3:20:34 AM
Isopropylbenzene	ND	1.0		µg/L	1	2/3/2011 3:20:34 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	2/3/2011 3:20:34 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	2/3/2011 3:20:34 AM
Methylene Chloride	ND	3.0		µg/L	1	2/3/2011 3:20:34 AM
n-Butylbenzene	ND	1.0		µg/L	1	2/3/2011 3:20:34 AM
n-Propylbenzene	ND	1.0		µg/L	1	2/3/2011 3:20:34 AM
sec-Butylbenzene	ND	1.0		µg/L	1	2/3/2011 3:20:34 AM
Styrene	ND	1.0		µg/L	1	2/3/2011 3:20:34 AM
tert-Butylbenzene	ND	1.0		µg/L	1	2/3/2011 3:20:34 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	2/3/2011 3:20:34 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
- NC Non-Chlorinated
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitation Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Feb-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	SHS 8
Lab Order:	1101895	**Collection Date:**	1/26/2011 12:57:00 PM
Project:	GBR	**Date Received:**	1/28/2011
Lab ID:	1101895-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	2/3/2011 3:20:34 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	2/3/2011 3:20:34 AM
trans-1,2-DCE	ND	1.0		µg/L	1	2/3/2011 3:20:34 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	2/3/2011 3:20:34 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	2/3/2011 3:20:34 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	2/3/2011 3:20:34 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	2/3/2011 3:20:34 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	2/3/2011 3:20:34 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	2/3/2011 3:20:34 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	2/3/2011 3:20:34 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	2/3/2011 3:20:34 AM
Vinyl chloride	ND	1.0		µg/L	1	2/3/2011 3:20:34 AM
Xylenes, Total	ND	1.5		µg/L	1	2/3/2011 3:20:34 AM
Surr: 1,2-Dichloroethane-d4	97.3	77.7-113		%REC	1	2/3/2011 3:20:34 AM
Surr: 4-Bromofluorobenzene	103	76.4-106		%REC	1	2/3/2011 3:20:34 AM
Surr: Dibromofluoromethane	109	91.6-125		%REC	1	2/3/2011 3:20:34 AM
Surr: Toluene-d8	99.2	92.3-107		%REC	1	2/3/2011 3:20:34 AM
SM 2320B: ALKALINITY						Analyst: IC
Alkalinity, Total (As CaCO3)	980	20		mg/L CaCO3	1	2/1/2011 6:25:00 PM
Carbonate	ND	2.0		mg/L CaCO3	1	2/1/2011 6:25:00 PM
Bicarbonate	980	20		mg/L CaCO3	1	2/1/2011 6:25:00 PM
Hydroxide	ND	2.0		mg/L CaCO3	1	2/1/2011 6:25:00 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: IC
Specific Conductance	2300	0.010		µmhos/cm	1	2/1/2011 6:25:00 PM
SM4500-H+B: PH						Analyst: IC
pH	7.42	0.100		pH units	1	2/1/2011 6:25:00 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: KS
Total Dissolved Solids	1440	100		mg/L	1	2/3/2011 1:53:00 PM

Qualifiers:

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- E Estimated value
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- J Analyte detected below quantitation limits
- MCL Maximum Contaminant Level
- NC Non-Chlorinated
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitation Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Feb-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	Trip Blank
Lab Order:	1101895	**Collection Date:**	
Project:	GBR	**Date Received:**	1/28/2011
Lab ID:	1101895-02	**Matrix:**	TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Benzene	ND	1.0		µg/L	1	2/3/2011 3:47:51 AM
Toluene	ND	1.0		µg/L	1	2/3/2011 3:47:51 AM
Ethylbenzene	ND	1.0		µg/L	1	2/3/2011 3:47:51 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	2/3/2011 3:47:51 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	2/3/2011 3:47:51 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	2/3/2011 3:47:51 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	2/3/2011 3:47:51 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	2/3/2011 3:47:51 AM
Naphthalene	ND	2.0		µg/L	1	2/3/2011 3:47:51 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	2/3/2011 3:47:51 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	2/3/2011 3:47:51 AM
Acetone	ND	10		µg/L	1	2/3/2011 3:47:51 AM
Bromobenzene	ND	1.0		µg/L	1	2/3/2011 3:47:51 AM
Bromodichloromethane	ND	1.0		µg/L	1	2/3/2011 3:47:51 AM
Bromoform	ND	1.0		µg/L	1	2/3/2011 3:47:51 AM
Bromomethane	ND	3.0		µg/L	1	2/3/2011 3:47:51 AM
2-Butanone	ND	10		µg/L	1	2/3/2011 3:47:51 AM
Carbon disulfide	ND	10		µg/L	1	2/3/2011 3:47:51 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	2/3/2011 3:47:51 AM
Chlorobenzene	ND	1.0		µg/L	1	2/3/2011 3:47:51 AM
Chloroethane	ND	2.0		µg/L	1	2/3/2011 3:47:51 AM
Chloroform	ND	1.0		µg/L	1	2/3/2011 3:47:51 AM
Chloromethane	ND	3.0		µg/L	1	2/3/2011 3:47:51 AM
2-Chlorotoluene	ND	1.0		µg/L	1	2/3/2011 3:47:51 AM
4-Chlorotoluene	ND	1.0		µg/L	1	2/3/2011 3:47:51 AM
cis-1,2-DCE	ND	1.0		µg/L	1	2/3/2011 3:47:51 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	2/3/2011 3:47:51 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	2/3/2011 3:47:51 AM
Dibromochloromethane	ND	1.0		µg/L	1	2/3/2011 3:47:51 AM
Dibromomethane	ND	1.0		µg/L	1	2/3/2011 3:47:51 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	2/3/2011 3:47:51 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	2/3/2011 3:47:51 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	2/3/2011 3:47:51 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	2/3/2011 3:47:51 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	2/3/2011 3:47:51 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	2/3/2011 3:47:51 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	2/3/2011 3:47:51 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	2/3/2011 3:47:51 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	2/3/2011 3:47:51 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	2/3/2011 3:47:51 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	2/3/2011 3:47:51 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
- NC Non-Chlorinated
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitation Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Feb-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	Trip Blank
Lab Order:	1101895	**Collection Date:**	
Project:	GBR	**Date Received:**	1/28/2011
Lab ID:	1101895-02	**Matrix:**	TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
2-Hexanone	ND	10		µg/L	1	2/3/2011 3:47:51 AM
Isopropylbenzene	ND	1.0		µg/L	1	2/3/2011 3:47:51 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	2/3/2011 3:47:51 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	2/3/2011 3:47:51 AM
Methylene Chloride	ND	3.0		µg/L	1	2/3/2011 3:47:51 AM
n-Butylbenzene	ND	1.0		µg/L	1	2/3/2011 3:47:51 AM
n-Propylbenzene	ND	1.0		µg/L	1	2/3/2011 3:47:51 AM
sec-Butylbenzene	ND	1.0		µg/L	1	2/3/2011 3:47:51 AM
Styrene	ND	1.0		µg/L	1	2/3/2011 3:47:51 AM
tert-Butylbenzene	ND	1.0		µg/L	1	2/3/2011 3:47:51 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	2/3/2011 3:47:51 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	2/3/2011 3:47:51 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	2/3/2011 3:47:51 AM
trans-1,2-DCE	ND	1.0		µg/L	1	2/3/2011 3:47:51 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	2/3/2011 3:47:51 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	2/3/2011 3:47:51 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	2/3/2011 3:47:51 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	2/3/2011 3:47:51 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	2/3/2011 3:47:51 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	2/3/2011 3:47:51 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	2/3/2011 3:47:51 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	2/3/2011 3:47:51 AM
Vinyl chloride	ND	1.0		µg/L	1	2/3/2011 3:47:51 AM
Xylenes, Total	ND	1.5		µg/L	1	2/3/2011 3:47:51 AM
Surr: 1,2-Dichloroethane-d4	96.2	77.7-113		%REC	1	2/3/2011 3:47:51 AM
Surr: 4-Bromofluorobenzene	103	76.4-106		%REC	1	2/3/2011 3:47:51 AM
Surr: Dibromofluoromethane	103	91.6-125		%REC	1	2/3/2011 3:47:51 AM
Surr: Toluene-d8	102	92.3-107		%REC	1	2/3/2011 3:47:51 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
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Feb-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	GBR 31
Lab Order:	1101895	**Collection Date:**	1/26/2011 2:03:00 PM
Project:	GBR	**Date Received:**	1/28/2011
Lab ID:	1101895-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Chloride	97	10		mg/L	20	1/29/2011 6:30:58 AM
Sulfate	1800	25		mg/L	50	2/1/2011 5:17:25 AM
EPA METHOD 200.7: METALS						Analyst: **RAGS**
Calcium	380	10		mg/L	10	2/10/2011 8:17:42 PM
Magnesium	34	1.0		mg/L	1	2/3/2011 6:01:39 PM
Potassium	3.1	1.0		mg/L	1	2/3/2011 6:01:39 PM
Sodium	430	10		mg/L	10	2/10/2011 8:17:42 PM
EPA 200.7: HARDNESS						Analyst: **RAGS**
Hardness (As CaCO3)	1100	1.0		mg/L	1	2/10/2011
EPA METHOD 8270C: PAHS						Analyst: **MAW**
Naphthalene	ND	0.50		µg/L	1	2/3/2011 3:09:04 PM
1-Methylnaphthalene	ND	0.50		µg/L	1	2/3/2011 3:09:04 PM
2-Methylnaphthalene	ND	0.50		µg/L	1	2/3/2011 3:09:04 PM
Acenaphthylene	ND	0.50		µg/L	1	2/3/2011 3:09:04 PM
Acenaphthene	ND	0.50		µg/L	1	2/3/2011 3:09:04 PM
Fluorene	ND	0.50		µg/L	1	2/3/2011 3:09:04 PM
Phenanthrene	ND	0.50		µg/L	1	2/3/2011 3:09:04 PM
Anthracene	ND	0.50		µg/L	1	2/3/2011 3:09:04 PM
Fluoranthene	ND	0.50		µg/L	1	2/3/2011 3:09:04 PM
Pyrene	ND	0.50		µg/L	1	2/3/2011 3:09:04 PM
Benz(a)anthracene	ND	0.50		µg/L	1	2/3/2011 3:09:04 PM
Chrysene	ND	0.50		µg/L	1	2/3/2011 3:09:04 PM
Benzo(b)fluoranthene	ND	0.50		µg/L	1	2/3/2011 3:09:04 PM
Benzo(k)fluoranthene	ND	0.50		µg/L	1	2/3/2011 3:09:04 PM
Benzo(a)pyrene	ND	0.50		µg/L	1	2/3/2011 3:09:04 PM
Dibenz(a,h)anthracene	ND	0.50		µg/L	1	2/3/2011 3:09:04 PM
Benzo(g,h,i)perylene	ND	0.50		µg/L	1	2/3/2011 3:09:04 PM
Indeno(1,2,3-cd)pyrene	ND	0.50		µg/L	1	2/3/2011 3:09:04 PM
Surr: Benzo(e)pyrene	87.9	38-145		%REC	1	2/3/2011 3:09:04 PM
Surr: N-hexadecane	84.2	40-107		%REC	1	2/3/2011 3:09:04 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	2/3/2011 4:15:14 AM
Toluene	ND	1.0		µg/L	1	2/3/2011 4:15:14 AM
Ethylbenzene	ND	1.0		µg/L	1	2/3/2011 4:15:14 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	2/3/2011 4:15:14 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	2/3/2011 4:15:14 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	2/3/2011 4:15:14 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
- NC Non-Chlorinated
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitation Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Feb-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	GBR 31
Lab Order:	1101895	**Collection Date:**	1/26/2011 2:03:00 PM
Project:	GBR	**Date Received:**	1/28/2011
Lab ID:	1101895-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	2/3/2011 4:15:14 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	2/3/2011 4:15:14 AM
Naphthalene	ND	2.0		µg/L	1	2/3/2011 4:15:14 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	2/3/2011 4:15:14 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	2/3/2011 4:15:14 AM
Acetone	ND	10		µg/L	1	2/3/2011 4:15:14 AM
Bromobenzene	ND	1.0		µg/L	1	2/3/2011 4:15:14 AM
Bromodichloromethane	ND	1.0		µg/L	1	2/3/2011 4:15:14 AM
Bromoform	ND	1.0		µg/L	1	2/3/2011 4:15:14 AM
Bromomethane	ND	3.0		µg/L	1	2/3/2011 4:15:14 AM
2-Butanone	ND	10		µg/L	1	2/3/2011 4:15:14 AM
Carbon disulfide	ND	10		µg/L	1	2/3/2011 4:15:14 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	2/3/2011 4:15:14 AM
Chlorobenzene	ND	1.0		µg/L	1	2/3/2011 4:15:14 AM
Chloroethane	ND	2.0		µg/L	1	2/3/2011 4:15:14 AM
Chloroform	ND	1.0		µg/L	1	2/3/2011 4:15:14 AM
Chloromethane	ND	3.0		µg/L	1	2/3/2011 4:15:14 AM
2-Chlorotoluene	ND	1.0		µg/L	1	2/3/2011 4:15:14 AM
4-Chlorotoluene	ND	1.0		µg/L	1	2/3/2011 4:15:14 AM
cis-1,2-DCE	ND	1.0		µg/L	1	2/3/2011 4:15:14 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	2/3/2011 4:15:14 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	2/3/2011 4:15:14 AM
Dibromochloromethane	ND	1.0		µg/L	1	2/3/2011 4:15:14 AM
Dibromomethane	ND	1.0		µg/L	1	2/3/2011 4:15:14 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	2/3/2011 4:15:14 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	2/3/2011 4:15:14 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	2/3/2011 4:15:14 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	2/3/2011 4:15:14 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	2/3/2011 4:15:14 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	2/3/2011 4:15:14 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	2/3/2011 4:15:14 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	2/3/2011 4:15:14 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	2/3/2011 4:15:14 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	2/3/2011 4:15:14 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	2/3/2011 4:15:14 AM
2-Hexanone	ND	10		µg/L	1	2/3/2011 4:15:14 AM
Isopropylbenzene	ND	1.0		µg/L	1	2/3/2011 4:15:14 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	2/3/2011 4:15:14 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	2/3/2011 4:15:14 AM
Methylene Chloride	ND	3.0		µg/L	1	2/3/2011 4:15:14 AM
n-Butylbenzene	ND	1.0		µg/L	1	2/3/2011 4:15:14 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Feb-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	GBR 31
Lab Order:	1101895	**Collection Date:**	1/26/2011 2:03:00 PM
Project:	GBR	**Date Received:**	1/28/2011
Lab ID:	1101895-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
n-Propylbenzene	ND	1.0		µg/L	1	2/3/2011 4:15:14 AM
sec-Butylbenzene	ND	1.0		µg/L	1	2/3/2011 4:15:14 AM
Styrene	ND	1.0		µg/L	1	2/3/2011 4:15:14 AM
tert-Butylbenzene	ND	1.0		µg/L	1	2/3/2011 4:15:14 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	2/3/2011 4:15:14 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	2/3/2011 4:15:14 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	2/3/2011 4:15:14 AM
trans-1,2-DCE	ND	1.0		µg/L	1	2/3/2011 4:15:14 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	2/3/2011 4:15:14 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	2/3/2011 4:15:14 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	2/3/2011 4:15:14 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	2/3/2011 4:15:14 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	2/3/2011 4:15:14 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	2/3/2011 4:15:14 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	2/3/2011 4:15:14 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	2/3/2011 4:15:14 AM
Vinyl chloride	ND	1.0		µg/L	1	2/3/2011 4:15:14 AM
Xylenes, Total	ND	1.5		µg/L	1	2/3/2011 4:15:14 AM
Surr: 1,2-Dichloroethane-d4	91.2	77.7-113		%REC	1	2/3/2011 4:15:14 AM
Surr: 4-Bromofluorobenzene	98.6	76.4-106		%REC	1	2/3/2011 4:15:14 AM
Surr: Dibromofluoromethane	99.8	91.6-125		%REC	1	2/3/2011 4:15:14 AM
Surr: Toluene-d8	97.2	92.3-107		%REC	1	2/3/2011 4:15:14 AM
SM 2320B: ALKALINITY						Analyst: IC
Alkalinity, Total (As CaCO3)	240	20		mg/L CaCO3	1	2/1/2011 8:40:00 PM
Carbonate	ND	2.0		mg/L CaCO3	1	2/1/2011 8:40:00 PM
Bicarbonate	240	20		mg/L CaCO3	1	2/1/2011 8:40:00 PM
Hydroxide	ND	2.0		mg/L CaCO3	1	2/1/2011 8:40:00 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: IC
Specific Conductance	3300	0.010		µmhos/cm	1	2/1/2011 8:40:00 PM
SM4500-H+B: PH						Analyst: IC
pH	7.47	0.100		pH units	1	2/1/2011 8:40:00 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: KS
Total Dissolved Solids	2740	40.0		mg/L	1	2/3/2011 1:53:00 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
- NC Non-Chlorinated
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitation Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Feb-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	GRW 6
Lab Order:	1101895	**Collection Date:**	1/26/2011 10:05:00 AM
Project:	GBR	**Date Received:**	1/28/2011
Lab ID:	1101895-04	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Chloride	110	10		mg/L	20	1/29/2011 7:05:47 AM
Sulfate	1400	25		mg/L	50	2/1/2011 5:34:50 AM
EPA METHOD 200.7: METALS						Analyst: **RAGS**
Calcium	300	10		mg/L	10	2/10/2011 8:21:45 PM
Magnesium	36	1.0		mg/L	1	2/3/2011 6:06:34 PM
Potassium	2.7	1.0		mg/L	1	2/3/2011 6:06:34 PM
Sodium	490	10		mg/L	10	2/10/2011 8:21:45 PM
EPA 200.7: HARDNESS						Analyst: **RAGS**
Hardness (As CaCO3)	890	1.0		mg/L	1	2/10/2011
EPA METHOD 8270C: PAHS						Analyst: **MAW**
Naphthalene	ND	0.50		µg/L	1	2/3/2011 3:31:17 PM
1-Methylnaphthalene	ND	0.50		µg/L	1	2/3/2011 3:31:17 PM
2-Methylnaphthalene	ND	0.50		µg/L	1	2/3/2011 3:31:17 PM
Acenaphthylene	ND	0.50		µg/L	1	2/3/2011 3:31:17 PM
Acenaphthene	ND	0.50		µg/L	1	2/3/2011 3:31:17 PM
Fluorene	ND	0.50		µg/L	1	2/3/2011 3:31:17 PM
Phenanthrene	ND	0.50		µg/L	1	2/3/2011 3:31:17 PM
Anthracene	ND	0.50		µg/L	1	2/3/2011 3:31:17 PM
Fluoranthene	ND	0.50		µg/L	1	2/3/2011 3:31:17 PM
Pyrene	ND	0.50		µg/L	1	2/3/2011 3:31:17 PM
Benz(a)anthracene	ND	0.50		µg/L	1	2/3/2011 3:31:17 PM
Chrysene	ND	0.50		µg/L	1	2/3/2011 3:31:17 PM
Benzo(b)fluoranthene	ND	0.50		µg/L	1	2/3/2011 3:31:17 PM
Benzo(k)fluoranthene	ND	0.50		µg/L	1	2/3/2011 3:31:17 PM
Benzo(a)pyrene	ND	0.50		µg/L	1	2/3/2011 3:31:17 PM
Dibenz(a,h)anthracene	ND	0.50		µg/L	1	2/3/2011 3:31:17 PM
Benzo(g,h,i)perylene	ND	0.50		µg/L	1	2/3/2011 3:31:17 PM
Indeno(1,2,3-cd)pyrene	ND	0.50		µg/L	1	2/3/2011 3:31:17 PM
Surr: Benzo(e)pyrene	80.4	38-145		%REC	1	2/3/2011 3:31:17 PM
Surr: N-hexadecane	74.0	40-107		%REC	1	2/3/2011 3:31:17 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	2/3/2011 4:42:37 AM
Toluene	ND	1.0		µg/L	1	2/3/2011 4:42:37 AM
Ethylbenzene	ND	1.0		µg/L	1	2/3/2011 4:42:37 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	2/3/2011 4:42:37 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	2/3/2011 4:42:37 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	2/3/2011 4:42:37 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
- NC Non-Chlorinated
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitation Limit
- S Spike recovery outside accepted recovery limits

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	GRW 6
Lab Order:	1101895	**Collection Date:**	1/26/2011 10:05:00 AM
Project:	GBR	**Date Received:**	1/28/2011
Lab ID:	1101895-04	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	2/3/2011 4:42:37 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	2/3/2011 4:42:37 AM
Naphthalene	ND	2.0		µg/L	1	2/3/2011 4:42:37 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	2/3/2011 4:42:37 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	2/3/2011 4:42:37 AM
Acetone	ND	10		µg/L	1	2/3/2011 4:42:37 AM
Bromobenzene	ND	1.0		µg/L	1	2/3/2011 4:42:37 AM
Bromodichloromethane	ND	1.0		µg/L	1	2/3/2011 4:42:37 AM
Bromoform	ND	1.0		µg/L	1	2/3/2011 4:42:37 AM
Bromomethane	ND	3.0		µg/L	1	2/3/2011 4:42:37 AM
2-Butanone	ND	10		µg/L	1	2/3/2011 4:42:37 AM
Carbon disulfide	ND	10		µg/L	1	2/3/2011 4:42:37 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	2/3/2011 4:42:37 AM
Chlorobenzene	ND	1.0		µg/L	1	2/3/2011 4:42:37 AM
Chloroethane	ND	2.0		µg/L	1	2/3/2011 4:42:37 AM
Chloroform	ND	1.0		µg/L	1	2/3/2011 4:42:37 AM
Chloromethane	ND	3.0		µg/L	1	2/3/2011 4:42:37 AM
2-Chlorotoluene	ND	1.0		µg/L	1	2/3/2011 4:42:37 AM
4-Chlorotoluene	ND	1.0		µg/L	1	2/3/2011 4:42:37 AM
cis-1,2-DCE	ND	1.0		µg/L	1	2/3/2011 4:42:37 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	2/3/2011 4:42:37 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	2/3/2011 4:42:37 AM
Dibromochloromethane	ND	1.0		µg/L	1	2/3/2011 4:42:37 AM
Dibromomethane	ND	1.0		µg/L	1	2/3/2011 4:42:37 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	2/3/2011 4:42:37 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	2/3/2011 4:42:37 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	2/3/2011 4:42:37 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	2/3/2011 4:42:37 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	2/3/2011 4:42:37 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	2/3/2011 4:42:37 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	2/3/2011 4:42:37 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	2/3/2011 4:42:37 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	2/3/2011 4:42:37 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	2/3/2011 4:42:37 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	2/3/2011 4:42:37 AM
2-Hexanone	ND	10		µg/L	1	2/3/2011 4:42:37 AM
Isopropylbenzene	ND	1.0		µg/L	1	2/3/2011 4:42:37 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	2/3/2011 4:42:37 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	2/3/2011 4:42:37 AM
Methylene Chloride	ND	3.0		µg/L	1	2/3/2011 4:42:37 AM
n-Butylbenzene	ND	1.0		µg/L	1	2/3/2011 4:42:37 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Feb-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	GRW 6
Lab Order:	1101895	**Collection Date:**	1/26/2011 10:05:00 AM
Project:	GBR	**Date Received:**	1/28/2011
Lab ID:	1101895-04	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
n-Propylbenzene	ND	1.0		µg/L	1	2/3/2011 4:42:37 AM
sec-Butylbenzene	ND	1.0		µg/L	1	2/3/2011 4:42:37 AM
Styrene	ND	1.0		µg/L	1	2/3/2011 4:42:37 AM
tert-Butylbenzene	ND	1.0		µg/L	1	2/3/2011 4:42:37 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	2/3/2011 4:42:37 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	2/3/2011 4:42:37 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	2/3/2011 4:42:37 AM
trans-1,2-DCE	ND	1.0		µg/L	1	2/3/2011 4:42:37 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	2/3/2011 4:42:37 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	2/3/2011 4:42:37 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	2/3/2011 4:42:37 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	2/3/2011 4:42:37 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	2/3/2011 4:42:37 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	2/3/2011 4:42:37 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	2/3/2011 4:42:37 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	2/3/2011 4:42:37 AM
Vinyl chloride	ND	1.0		µg/L	1	2/3/2011 4:42:37 AM
Xylenes, Total	ND	1.5		µg/L	1	2/3/2011 4:42:37 AM
Surr: 1,2-Dichloroethane-d4	95.2	77.7-113		%REC	1	2/3/2011 4:42:37 AM
Surr: 4-Bromofluorobenzene	99.7	76.4-106		%REC	1	2/3/2011 4:42:37 AM
Surr: Dibromofluoromethane	106	91.6-125		%REC	1	2/3/2011 4:42:37 AM
Surr: Toluene-d8	99.4	92.3-107		%REC	1	2/3/2011 4:42:37 AM
SM 2320B: ALKALINITY						Analyst: **IC**
Alkalinity, Total (As CaCO3)	550	20		mg/L CaCO3	1	2/1/2011 8:53:00 PM
Carbonate	ND	2.0		mg/L CaCO3	1	2/1/2011 8:53:00 PM
Bicarbonate	550	20		mg/L CaCO3	1	2/1/2011 8:53:00 PM
Hydroxide	ND	2.0		mg/L CaCO3	1	2/1/2011 8:53:00 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **IC**
Specific Conductance	3200	0.010		µmhos/cm	1	2/1/2011 8:53:00 PM
SM4500-H+B: PH						Analyst: **IC**
pH	7.44	0.100		pH units	1	2/1/2011 8:53:00 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**
Total Dissolved Solids	2490	40.0		mg/L	1	2/3/2011 1:53:00 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
- NC Non-Chlorinated
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitation Limit
- S Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

t: Western Refining Southwest, Inc.
Project: GBR **Work Order:** 1101895

Analyte	Result	Units	PQL	SPK Val	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 200.7: Metals											
Sample ID: MB-25514		*MBLK*				**Batch ID: 25514**		**Analysis Date: 2/3/2011 4:36:56 PM**			
Beryllium	ND	mg/L	0.0020								
Cadmium	ND	mg/L	0.0020								
Calcium	ND	mg/L	1.0								
Chromium	ND	mg/L	0.0060								
Copper	ND	mg/L	0.0060								
Lead	ND	mg/L	0.0050								
Magnesium	ND	mg/L	1.0								
Nickel	ND	mg/L	0.010								
Potassium	ND	mg/L	1.0								
Sodium	ND	mg/L	1.0								
Zinc	ND	mg/L	0.010								
Sample ID: MB		*MBLK*				**Batch ID: R43601**		**Analysis Date: 2/10/2011 2:57:41 PM**			
Aluminum	ND	mg/L	0.020								
Arsenic	ND	mg/L	0.020								
Barium	ND	mg/L	0.0020								
Beryllium	ND	mg/L	0.0020								
Cadmium	ND	mg/L	0.0020								
[illegible]n	ND	mg/L	1.0								
[illegible]m	ND	mg/L	0.0060								
[illegible]	ND	mg/L	0.0060								
Copper	ND	mg/L	0.0060								
Iron	ND	mg/L	0.020								
Lead	ND	mg/L	0.0050								
Magnesium	ND	mg/L	1.0								
Manganese	ND	mg/L	0.0020								
Molybdenum	ND	mg/L	0.0080								
Nickel	ND	mg/L	0.010								
Potassium	ND	mg/L	1.0								
Selenium	ND	mg/L	0.050								
Silica	ND	mg/L	0.16								
Silver	ND	mg/L	0.0050								
Sodium	ND	mg/L	1.0								
Vanadium	ND	mg/L	0.050								
Zinc	ND	mg/L	0.010								
Sample ID: MB-25581		*MBLK*				**Batch ID: 25581**		**Analysis Date: 2/11/2011 4:29:28 PM**			
Lead	ND	mg/L	0.0050								
Silver	ND	mg/L	0.0050								
Sample ID: LCS-25514		*LCS*				**Batch ID: 25514**		**Analysis Date: 2/3/2011 4:40:40 PM**			
Beryllium	0.5386	mg/L	0.0020	0.5	0	108	85	115			
Cadmium	0.5061	mg/L	0.0020	0.5	0	101	85	115			
Calcium	51.82	mg/L	1.0	50.5	0	103	85	115			
Chromium	0.5317	mg/L	0.0060	0.5	0	106	85	115			
Copper	0.5484	mg/L	0.0060	0.5	0.003	109	85	115			
	0.5052	mg/L	0.0050	0.5	0	101	85	115			

[illegible]fiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: GBR **Work Order:** 1101895

Analyte	Result	Units	PQL	SPK Val	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 200.7: Metals											
Sample ID: LCS-25514		*LCS*				Batch ID:	25514	Analysis Date:	2/3/2011 4:40:40 PM		
Magnesium	52.47	mg/L	1.0	50.5	0	104	85	115			
Nickel	0.4909	mg/L	0.010	0.5	0	98.2	85	115			
Potassium	55.17	mg/L	1.0	55	0	100	85	115			
Sodium	51.89	mg/L	1.0	50.5	0	103	85	115			
Zinc	0.4978	mg/L	0.010	0.5	0	99.6	85	115			
Sample ID: LCS		*LCS*				Batch ID:	R43601	Analysis Date:	2/10/2011 3:01:34 PM		
Aluminum	0.5213	mg/L	0.020	0.5	0	104	85	115			
Arsenic	0.5114	mg/L	0.020	0.5	0	102	85	115			
Barium	0.4587	mg/L	0.0020	0.5	0	91.7	85	115			
Beryllium	0.5093	mg/L	0.0020	0.5	0	102	85	115			
Cadmium	0.4826	mg/L	0.0020	0.5	0	96.5	85	115			
Calcium	49.76	mg/L	1.0	50.5	0	98.5	85	115			
Chromium	0.5000	mg/L	0.0060	0.5	0	100	85	115			
Cobalt	0.4568	mg/L	0.0060	0.5	0	91.4	85	115			
Copper	0.5009	mg/L	0.0060	0.5	0	100	85	115			
Iron	0.4673	mg/L	0.020	0.5	0.0056	92.3	85	115			
Lead	0.4872	mg/L	0.0050	0.5	0	97.4	85	115			
Magnesium	49.78	mg/L	1.0	50.5	0	98.6	85	115			
Manganese	0.4781	mg/L	0.0020	0.5	0	95.6	85	115			
Molybdenum	0.5052	mg/L	0.0080	0.5	0.0004	101	85	115			
Nickel	0.4705	mg/L	0.010	0.5	0	94.1	85	115			
Potassium	52.46	mg/L	1.0	55	0	95.4	85	115			
Selenium	0.4726	mg/L	0.050	0.5	0	94.5	85	115			
Silica	6.017	mg/L	0.16	5.885	0	102	85	115			
Silver	0.4985	mg/L	0.0050	0.5	0	99.7	85	115			
Sodium	48.63	mg/L	1.0	50.5	0	96.3	85	115			
Vanadium	0.5155	mg/L	0.050	0.5	0	103	85	115			
Zinc	0.4888	mg/L	0.010	0.5	0	97.8	85	115			
Sample ID: LCS-25581		*LCS*				Batch ID:	25581	Analysis Date:	2/11/2011 11:55:16 AM		
Lead	0.4856	mg/L	0.0050	0.5	0	97.1	85	115			
Silver	0.5140	mg/L	0.0050	0.5	0.0007	103	85	115			
Method: EPA 200.8: Metals											
Sample ID: MB-25514		*MBLK*				Batch ID:	25514	Analysis Date:	2/9/2011 1:44:44 PM		
Antimony	ND	mg/L	0.0025								
Arsenic	ND	mg/L	0.0025								
Lead	ND	mg/L	0.0025								
Selenium	ND	mg/L	0.0025								
Thallium	ND	mg/L	0.0025								

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: GBR **Work Order:** 1101895

Analyte	Result	Units	PQL	SPK Val	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 245.1: Mercury											
Sample ID: MB-25499		*MBLK*				**Batch ID: 25499**		**Analysis Date: 2/3/2011 11:42:04 AM**			
Mercury	ND	mg/L	0.00020								
Sample ID: LCS-25499		*LCS*				**Batch ID: 25499**		**Analysis Date: 2/3/2011 11:43:48 AM**			
Mercury	0.004836	mg/L	0.00020	0.005	0	96.7	80	120			
Method: EPA Method 300.0: Anions											
Sample ID: MB		*MBLK*				**Batch ID: R43425**		**Analysis Date: 1/26/2011 12:31:30 PM**			
Chloride	ND	mg/L	0.50								
Sulfate	ND	mg/L	0.50								
Sample ID: MB		*MBLK*				**Batch ID: R43425**		**Analysis Date: 1/29/2011 2:27:13 AM**			
Chloride	ND	mg/L	0.50								
Sulfate	ND	mg/L	0.50								
Sample ID: MB		*MBLK*				**Batch ID: R43443**		**Analysis Date: 1/31/2011 4:48:37 PM**			
Chloride	ND	mg/L	0.50								
Sulfate	ND	mg/L	0.50								
Sample ID: LCS		*LCS*				**Batch ID: R43425**		**Analysis Date: 1/26/2011 12:48:55 PM**			
Chloride	5.158	mg/L	0.50	5	0	103	90	110			
Sulfate	10.38	mg/L	0.50	10	0	104	90	110			
le ID: LCS		*LCS*				**Batch ID: R43425**		**Analysis Date: 1/29/2011 2:44:38 AM**			
de	4.875	mg/L	0.50	5	0	97.5	90	110			
Sulfate	10.01	mg/L	0.50	10	0	100	90	110			
Sample ID: LCS		*LCS*				**Batch ID: R43443**		**Analysis Date: 1/31/2011 5:06:02 PM**			
Chloride	4.926	mg/L	0.50	5	0	98.5	90	110			
Sulfate	10.08	mg/L	0.50	10	0	101	90	110			

Qualifiers:

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QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: GBR **Work Order:** 1101895

Analyte	Result	Units	PQL	SPK Val	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: SM 2320B: Alkalinity											
Sample ID: 1101895-01CMSD		*MSD*				**Batch ID: R43482**		**Analysis Date:**		**2/1/2011 8:06:00 PM**	
Alkalinity, Total (As CaCO3)	1013	mg/L Ca	20	80	981.6	39.9	32.8	119	1.16	7.36	
Sample ID: MB-1		*MBLK*				**Batch ID: R43482**		**Analysis Date:**		**2/1/2011 12:09:00 PM**	
Alkalinity, Total (As CaCO3)	ND	mg/L Ca	20								
Carbonate	ND	mg/L Ca	2.0								
Bicarbonate	ND	mg/L Ca	20								
Sample ID: MB-2		*MBLK*				**Batch ID: R43482**		**Analysis Date:**		**2/1/2011 5:01:00 PM**	
Alkalinity, Total (As CaCO3)	ND	mg/L Ca	20								
Carbonate	ND	mg/L Ca	2.0								
Bicarbonate	ND	mg/L Ca	20								
Sample ID: MB-3		*MBLK*				**Batch ID: R43482**		**Analysis Date:**		**2/1/2011 11:32:00 PM**	
Alkalinity, Total (As CaCO3)	ND	mg/L Ca	20								
Carbonate	ND	mg/L Ca	2.0								
Bicarbonate	ND	mg/L Ca	20								
Sample ID: LCS-2		*LCS*				**Batch ID: R43482**		**Analysis Date:**		**2/1/2011 5:07:00 PM**	
Alkalinity, Total (As CaCO3)	80.36	mg/L Ca	20	80	0	100	96.5	104			
Sample ID: LCS-3		*LCS*				**Batch ID: R43482**		**Analysis Date:**		**2/1/2011 11:38:00 PM**	
Alkalinity, Total (As CaCO3)	80.16	mg/L Ca	20	80	0	100	96.5	104			
Sample ID: 1101895-01CMS		*MS*				**Batch ID: R43482**		**Analysis Date:**		**2/1/2011 7:33:00 PM**	
Alkalinity, Total (As CaCO3)	1025	mg/L Ca	20	80	981.6	54.7	32.8	119			

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
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ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits

QA/QC SUMMARY REPORT

t: Western Refining Southwest, Inc.
Project: GBR **Work Order:** 1101895

Analyte	Result	Units	PQL	SPK Val	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES											
Sample ID: 6ml-rb		*MBLK*				**Batch ID: R43488**		**Analysis Date: 2/2/2011 11:54:31 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	3.0								
2-Butanone	ND	µg/L	10								
Carbon disulfide	ND	µg/L	10								
n Tetrachloride	ND	µg/L	1.0								
obenzene	ND	µg/L	1.0								
Chloroethane	ND	µg/L	2.0								
Chloroform	ND	µg/L	1.0								
Chloromethane	ND	µg/L	3.0								
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								
opropyltoluene	ND	µg/L	1.0								

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
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ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: GBR **Work Order:** 1101895

Analyte	Result	Units	PQL	SPK Val	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES											
Sample ID: 5ml-rb		*MBLK*				**Batch ID: R43488**		**Analysis Date: 2/2/2011 11:54:31 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: R43488**		**Analysis Date: 2/2/2011 12:49:31 PM**			
Benzene	19.22	µg/L	1.0	20	0	96.1	84.6	109			
Toluene	17.44	µg/L	1.0	20	0	87.2	81	114			
Chlorobenzene	17.55	µg/L	1.0	20	0	87.8	85.2	113			
1,1-Dichloroethene	20.61	µg/L	1.0	20	0	103	79.6	124			
Trichloroethene (TCE)	15.93	µg/L	1.0	20	0	79.6	78.3	102			

Qualifiers:

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QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: GBR **Work Order:** 1101895

Analyte	Result	Units	PQL	SPK Val	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8270C: PAHs											
Sample ID: mb-25479		*MBLK*				**Batch ID: 25479**		**Analysis Date:**		**2/3/2011 2:02:30 PM**	
Naphthalene	ND	µg/L	0.50								
1-Methylnaphthalene	ND	µg/L	0.50								
2-Methylnaphthalene	ND	µg/L	0.50								
Acenaphthylene	ND	µg/L	0.50								
Acenaphthene	ND	µg/L	0.50								
Fluorene	ND	µg/L	0.50								
Phenanthrene	ND	µg/L	0.50								
Anthracene	ND	µg/L	0.50								
Fluoranthene	ND	µg/L	0.50								
Pyrene	ND	µg/L	0.50								
Benz(a)anthracene	ND	µg/L	0.50								
Chrysene	ND	µg/L	0.50								
Benzo(b)fluoranthene	ND	µg/L	0.50								
Benzo(k)fluoranthene	ND	µg/L	0.50								
Benzo(a)pyrene	ND	µg/L	0.50								
Dibenz(a,h)anthracene	ND	µg/L	0.50								
Benzo(g,h,i)perylene	ND	µg/L	0.50								
Indeno(1,2,3-cd)pyrene	ND	µg/L	0.50								
Sample ID: lcs-25479		*LCS*				**Batch ID: 25479**		**Analysis Date:**		**2/3/2011 2:24:41 PM**	
Naphthalene	18.14	µg/L	0.50	20	0	90.7	33.9	106			
1-Methylnaphthalene	18.96	µg/L	0.50	20	0	94.8	36.3	111			
2-Methylnaphthalene	17.48	µg/L	0.50	20	0	87.4	36.5	105			
Acenaphthylene	16.96	µg/L	0.50	20	0	84.8	28.4	122			
Acenaphthene	15.74	µg/L	0.50	20	0	78.7	32.7	118			
Fluorene	16.78	µg/L	0.50	20	0	83.9	39.1	119			
Phenanthrene	20.56	µg/L	0.50	20	0	103	47.1	119			
Anthracene	20.00	µg/L	0.50	20	0	100	51.1	117			
Fluoranthene	19.48	µg/L	0.50	20	0	97.4	40	132			
Pyrene	17.58	µg/L	0.50	20	0	87.9	43.9	123			
Benz(a)anthracene	17.58	µg/L	0.50	20	0	87.9	35	163			
Chrysene	18.10	µg/L	0.50	20	0	90.5	45.9	119			
Benzo(b)fluoranthene	17.96	µg/L	0.50	20	0	89.8	36.5	137			
Benzo(k)fluoranthene	18.24	µg/L	0.50	20	0	91.2	37.1	143			
Benzo(a)pyrene	17.26	µg/L	0.50	20	0	86.3	26.7	144			
Dibenz(a,h)anthracene	19.14	µg/L	0.50	20	0	95.7	31	146			
Benzo(g,h,i)perylene	18.36	µg/L	0.50	20	0	91.8	30.9	150			
Indeno(1,2,3-cd)pyrene	18.50	µg/L	0.50	20	0	92.5	35.2	169			
Sample ID: lcsd-25479		*LCSD*				**Batch ID: 25479**		**Analysis Date:**		**2/3/2011 2:46:52 PM**	
Naphthalene	16.88	µg/L	0.50	20	0	84.4	33.9	106	7.20	20	
1-Methylnaphthalene	17.68	µg/L	0.50	20	0	88.4	36.3	111	6.99	20	
2-Methylnaphthalene	16.50	µg/L	0.50	20	0	82.5	36.5	105	5.77	20	
Acenaphthylene	17.60	µg/L	0.50	20	0	88.0	28.4	122	3.70	20	
Acenaphthene	17.00	µg/L	0.50	20	0	85.0	32.7	118	7.70	20	
Fluorene	17.98	µg/L	0.50	20	0	89.9	39.1	119	6.90	20	

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: GBR **Work Order:** 1101895

Analyte	Result	Units	PQL	SPK Val	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8270C: PAHs											
Sample ID: lcsd-25479		*LCSD*				**Batch ID: 25479**		**Analysis Date:**		**2/3/2011 2:46:52 PM**	
Phenanthrene	21.62	µg/L	0.50	20	0	108	47.1	119	5.03	20	
Anthracene	21.96	µg/L	0.50	20	0	110	51.1	117	9.34	20	
Fluoranthene	21.36	µg/L	0.50	20	0	107	40	132	9.21	20	
Pyrene	19.96	µg/L	0.50	20	0	99.8	43.9	123	12.7	20	
Benz(a)anthracene	19.74	µg/L	0.50	20	0	98.7	35	163	11.6	20	
Chrysene	21.54	µg/L	0.50	20	0	108	45.9	119	17.4	20	
Benzo(b)fluoranthene	20.06	µg/L	0.50	20	0	100	36.5	137	11.0	20	
Benzo(k)fluoranthene	20.72	µg/L	0.50	20	0	104	37.1	143	12.7	20	
Benzo(a)pyrene	19.62	µg/L	0.50	20	0	98.1	26.7	144	12.8	20	
Dibenz(a,h)anthracene	21.58	µg/L	0.50	20	0	108	31	146	12.0	20	
Benzo(g,h,i)perylene	20.86	µg/L	0.50	20	0	104	30.9	150	12.7	20	
Indeno(1,2,3-cd)pyrene	21.38	µg/L	0.50	20	0	107	35.2	169	14.4	20	
Method: SM2540C MOD: Total Dissolved Solids											
Sample ID: MB-25500		*MBLK*				**Batch ID: 25500**		**Analysis Date:**		**2/3/2011 1:53:00 PM**	
Total Dissolved Solids	ND	mg/L	20.0								
Sample ID: LCS-25500		*LCS*				**Batch ID: 25500**		**Analysis Date:**		**2/3/2011 1:53:00 PM**	
Total Dissolved Solids	1005	mg/L	20.0	1000	0	101	80	120			

Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name WESTERN REFINING SOUT | Date Received: 1/28/2011

Work Order Number 1101895 | Received by: AT

Checklist completed by: _____ 01/28/11 | Sample ID labels checked by: _____

Signature | Date | Initials

Matrix: | Carrier name: Greyhound

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:
er - 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 ☐	*<2 >12 unless noted below.*
Container/Temp Blank temperature?	3.2°	*<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

Mailing Address: 111 CR 4990
Bloomfield NM

Phone #:

email or Fax#:

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

Accreditation
☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush

Project Name:
GBR

Project #:

Project Manager:
Ashley Ager

Sampler: Tray Urban
On Ice: ☒ Yes ☐ No
Sample Temperature: 3.2

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. 1101995
01/26/11	1257	GW	SHS 8	*5		-1
01/25/11	0700	GW	trip blank	2		-2
01/26/11	1403	GW	GBR31	6 •		-3
01/26/11	1005	GW	GRW 6	6 •		-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)	8270 (Semi-VOA)	See Attached List			Air Bubbles (Y or N)
											✓			
											✓			
											✓			
											✓			

Date:	Time:	Relinquished by:	Received by:	Date	Time
1/27/11	1327	Tray Urban	Christin Walter	1/27/11	1327
1/27/11	1443	Christin Walter		01-27-11	1026

Remarks: Please email results to aager@itenv.com
• = 8270 SIMS
* = additional metals list AT 2111C

If neces ples submitted to Hall Environmental may be subcontracted to other accredited laboratories. yes as notice of this possibility. Any sub-contracted data will be clearly notated on the analytic.

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Tuesday, February 15, 2011

Ashley Ager
Western Refining Southwest, Inc.
#50 CR 4990
Bloomfield, NM 87413
TEL: (970) 946-1093
FAX (505) 632-3911

RE: GBR

Order No.: 1101896

Dear Ashley Ager:

Hall Environmental Analysis Laboratory, Inc. received 5 sample(s) on 1/28/2011 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.

Please do not 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: *15-Feb-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	GBR 51
Lab Order:	1101896	**Collection Date:**	1/27/2011 10:12:00 AM
Project:	GBR	**Date Received:**	1/28/2011
Lab ID:	1101896-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Chloride	53	10		mg/L	20	1/29/2011 1:17:45 AM
Sulfate	1600	25		mg/L	50	2/1/2011 2:05:52 AM
EPA METHOD 200.7: METALS						Analyst: **RAGS**
Calcium	380	5.0		mg/L	5	2/10/2011 8:25:49 PM
Magnesium	31	1.0		mg/L	1	2/3/2011 6:13:08 PM
Potassium	1.4	1.0		mg/L	1	2/3/2011 6:13:08 PM
Sodium	340	5.0		mg/L	5	2/10/2011 8:25:49 PM
EPA 200.7: HARDNESS						Analyst: **RAGS**
Hardness (As CaCO3)	1100	1.0		mg/L	1	2/10/2011
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	2/3/2011 5:09:58 AM
Toluene	ND	1.0		µg/L	1	2/3/2011 5:09:58 AM
Ethylbenzene	ND	1.0		µg/L	1	2/3/2011 5:09:58 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	2/3/2011 5:09:58 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	2/3/2011 5:09:58 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	2/3/2011 5:09:58 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	2/3/2011 5:09:58 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	2/3/2011 5:09:58 AM
Naphthalene	ND	2.0		µg/L	1	2/3/2011 5:09:58 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	2/3/2011 5:09:58 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	2/3/2011 5:09:58 AM
Acetone	ND	10		µg/L	1	2/3/2011 5:09:58 AM
Bromobenzene	ND	1.0		µg/L	1	2/3/2011 5:09:58 AM
Bromodichloromethane	ND	1.0		µg/L	1	2/3/2011 5:09:58 AM
Bromoform	ND	1.0		µg/L	1	2/3/2011 5:09:58 AM
Bromomethane	ND	3.0		µg/L	1	2/3/2011 5:09:58 AM
2-Butanone	ND	10		µg/L	1	2/3/2011 5:09:58 AM
Carbon disulfide	ND	10		µg/L	1	2/3/2011 5:09:58 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	2/3/2011 5:09:58 AM
Chlorobenzene	ND	1.0		µg/L	1	2/3/2011 5:09:58 AM
Chloroethane	ND	2.0		µg/L	1	2/3/2011 5:09:58 AM
Chloroform	ND	1.0		µg/L	1	2/3/2011 5:09:58 AM
Chloromethane	ND	3.0		µg/L	1	2/3/2011 5:09:58 AM
2-Chlorotoluene	ND	1.0		µg/L	1	2/3/2011 5:09:58 AM
4-Chlorotoluene	ND	1.0		µg/L	1	2/3/2011 5:09:58 AM
cis-1,2-DCE	ND	1.0		µg/L	1	2/3/2011 5:09:58 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	2/3/2011 5:09:58 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	2/3/2011 5:09:58 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
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *15-Feb-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	GBR 51
Lab Order:	1101896	**Collection Date:**	1/27/2011 10:12:00 AM
Project:	GBR	**Date Received:**	1/28/2011
Lab ID:	1101896-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Dibromochloromethane	ND	1.0		µg/L	1	2/3/2011 5:09:58 AM
Dibromomethane	ND	1.0		µg/L	1	2/3/2011 5:09:58 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	2/3/2011 5:09:58 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	2/3/2011 5:09:58 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	2/3/2011 5:09:58 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	2/3/2011 5:09:58 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	2/3/2011 5:09:58 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	2/3/2011 5:09:58 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	2/3/2011 5:09:58 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	2/3/2011 5:09:58 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	2/3/2011 5:09:58 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	2/3/2011 5:09:58 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	2/3/2011 5:09:58 AM
2-Hexanone	ND	10		µg/L	1	2/3/2011 5:09:58 AM
Isopropylbenzene	ND	1.0		µg/L	1	2/3/2011 5:09:58 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	2/3/2011 5:09:58 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	2/3/2011 5:09:58 AM
Methylene Chloride	ND	3.0		µg/L	1	2/3/2011 5:09:58 AM
n-Butylbenzene	ND	1.0		µg/L	1	2/3/2011 5:09:58 AM
n-Propylbenzene	ND	1.0		µg/L	1	2/3/2011 5:09:58 AM
sec-Butylbenzene	ND	1.0		µg/L	1	2/3/2011 5:09:58 AM
Styrene	ND	1.0		µg/L	1	2/3/2011 5:09:58 AM
tert-Butylbenzene	ND	1.0		µg/L	1	2/3/2011 5:09:58 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	2/3/2011 5:09:58 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	2/3/2011 5:09:58 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	2/3/2011 5:09:58 AM
trans-1,2-DCE	ND	1.0		µg/L	1	2/3/2011 5:09:58 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	2/3/2011 5:09:58 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	2/3/2011 5:09:58 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	2/3/2011 5:09:58 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	2/3/2011 5:09:58 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	2/3/2011 5:09:58 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	2/3/2011 5:09:58 AM
Trichlorofluoromethane	2.2	1.0		µg/L	1	2/3/2011 5:09:58 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	2/3/2011 5:09:58 AM
Vinyl chloride	ND	1.0		µg/L	1	2/3/2011 5:09:58 AM
Xylenes, Total	ND	1.5		µg/L	1	2/3/2011 5:09:58 AM
Surr: 1,2-Dichloroethane-d4	96.4	77.7-113		%REC	1	2/3/2011 5:09:58 AM
Surr: 4-Bromofluorobenzene	104	76.4-106		%REC	1	2/3/2011 5:09:58 AM
Surr: Dibromofluoromethane	105	91.6-125		%REC	1	2/3/2011 5:09:58 AM
Surr: Toluene-d8	98.0	92.3-107		%REC	1	2/3/2011 5:09:58 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
- NC Non-Chlorinated
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitation Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *15-Feb-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	GBR 51
Lab Order:	1101896	**Collection Date:**	1/27/2011 10:12:00 AM
Project:	GBR	**Date Received:**	1/28/2011
Lab ID:	1101896-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
SM 2320B: ALKALINITY						Analyst: IC
Alkalinity, Total (As CaCO3)	210	20		mg/L CaCO3	1	2/7/2011 12:03:00 PM
Carbonate	ND	2.0		mg/L CaCO3	1	2/7/2011 12:03:00 PM
Bicarbonate	210	20		mg/L CaCO3	1	2/7/2011 12:03:00 PM
Hydroxide	ND	2.0		mg/L CaCO3	1	2/7/2011 12:03:00 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: IC
Specific Conductance	2700	0.010		µmhos/cm	1	2/7/2011 12:03:00 PM
SM4500-H+B: PH						Analyst: IC
pH	7.44	0.100		pH units	1	2/7/2011 12:03:59 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: KS
Total Dissolved Solids	2380	20.0		mg/L	1	2/3/2011 1:53:00 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
- NC Non-Chlorinated
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitation Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *15-Feb-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	Influent
Lab Order:	1101896	**Collection Date:**	1/27/2011 10:53:00 AM
Project:	GBR	**Date Received:**	1/28/2011
Lab ID:	1101896-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Chloride	84	10		mg/L	20	1/29/2011 1:40:13 AM
Sulfate	1900	25		mg/L	50	2/1/2011 2:23:17 AM
EPA METHOD 200.7: METALS						Analyst: **RAGS**
Calcium	340	10		mg/L	10	2/10/2011 8:31:33 PM
Magnesium	34	1.0		mg/L	1	2/3/2011 6:16:04 PM
Potassium	3.9	1.0		mg/L	1	2/3/2011 6:16:04 PM
Sodium	590	10		mg/L	10	2/10/2011 8:31:33 PM
EPA 200.7: HARDNESS						Analyst: **RAGS**
Hardness (As CaCO3)	1000	1.0		mg/L	1	2/10/2011
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	2/3/2011 5:37:17 AM
Toluene	ND	1.0		µg/L	1	2/3/2011 5:37:17 AM
Ethylbenzene	ND	1.0		µg/L	1	2/3/2011 5:37:17 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	2/3/2011 5:37:17 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	2/3/2011 5:37:17 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	2/3/2011 5:37:17 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	2/3/2011 5:37:17 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	2/3/2011 5:37:17 AM
Naphthalene	ND	2.0		µg/L	1	2/3/2011 5:37:17 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	2/3/2011 5:37:17 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	2/3/2011 5:37:17 AM
Acetone	ND	10		µg/L	1	2/3/2011 5:37:17 AM
Bromobenzene	ND	1.0		µg/L	1	2/3/2011 5:37:17 AM
Bromodichloromethane	ND	1.0		µg/L	1	2/3/2011 5:37:17 AM
Bromoform	ND	1.0		µg/L	1	2/3/2011 5:37:17 AM
Bromomethane	ND	3.0		µg/L	1	2/3/2011 5:37:17 AM
2-Butanone	ND	10		µg/L	1	2/3/2011 5:37:17 AM
Carbon disulfide	ND	10		µg/L	1	2/3/2011 5:37:17 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	2/3/2011 5:37:17 AM
Chlorobenzene	ND	1.0		µg/L	1	2/3/2011 5:37:17 AM
Chloroethane	ND	2.0		µg/L	1	2/3/2011 5:37:17 AM
Chloroform	ND	1.0		µg/L	1	2/3/2011 5:37:17 AM
Chloromethane	ND	3.0		µg/L	1	2/3/2011 5:37:17 AM
2-Chlorotoluene	ND	1.0		µg/L	1	2/3/2011 5:37:17 AM
4-Chlorotoluene	ND	1.0		µg/L	1	2/3/2011 5:37:17 AM
cis-1,2-DCE	ND	1.0		µg/L	1	2/3/2011 5:37:17 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	2/3/2011 5:37:17 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	2/3/2011 5:37:17 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *15-Feb-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	Influent
Lab Order:	1101896	**Collection Date:**	1/27/2011 10:53:00 AM
Project:	GBR	**Date Received:**	1/28/2011
Lab ID:	1101896-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Dibromochloromethane	ND	1.0		µg/L	1	2/3/2011 5:37:17 AM
Dibromomethane	ND	1.0		µg/L	1	2/3/2011 5:37:17 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	2/3/2011 5:37:17 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	2/3/2011 5:37:17 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	2/3/2011 5:37:17 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	2/3/2011 5:37:17 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	2/3/2011 5:37:17 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	2/3/2011 5:37:17 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	2/3/2011 5:37:17 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	2/3/2011 5:37:17 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	2/3/2011 5:37:17 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	2/3/2011 5:37:17 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	2/3/2011 5:37:17 AM
2-Hexanone	ND	10		µg/L	1	2/3/2011 5:37:17 AM
Isopropylbenzene	ND	1.0		µg/L	1	2/3/2011 5:37:17 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	2/3/2011 5:37:17 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	2/3/2011 5:37:17 AM
Methylene Chloride	ND	3.0		µg/L	1	2/3/2011 5:37:17 AM
n-Butylbenzene	ND	1.0		µg/L	1	2/3/2011 5:37:17 AM
n-Propylbenzene	ND	1.0		µg/L	1	2/3/2011 5:37:17 AM
sec-Butylbenzene	ND	1.0		µg/L	1	2/3/2011 5:37:17 AM
Styrene	ND	1.0		µg/L	1	2/3/2011 5:37:17 AM
tert-Butylbenzene	ND	1.0		µg/L	1	2/3/2011 5:37:17 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	2/3/2011 5:37:17 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	2/3/2011 5:37:17 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	2/3/2011 5:37:17 AM
trans-1,2-DCE	ND	1.0		µg/L	1	2/3/2011 5:37:17 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	2/3/2011 5:37:17 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	2/3/2011 5:37:17 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	2/3/2011 5:37:17 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	2/3/2011 5:37:17 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	2/3/2011 5:37:17 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	2/3/2011 5:37:17 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	2/3/2011 5:37:17 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	2/3/2011 5:37:17 AM
Vinyl chloride	ND	1.0		µg/L	1	2/3/2011 5:37:17 AM
Xylenes, Total	ND	1.5		µg/L	1	2/3/2011 5:37:17 AM
Surr: 1,2-Dichloroethane-d4	95.8	77.7-113		%REC	1	2/3/2011 5:37:17 AM
Surr: 4-Bromofluorobenzene	104	76.4-106		%REC	1	2/3/2011 5:37:17 AM
Surr: Dibromofluoromethane	106	91.6-125		%REC	1	2/3/2011 5:37:17 AM
Surr: Toluene-d8	99.3	92.3-107		%REC	1	2/3/2011 5:37:17 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
- NC Non-Chlorinated
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitation Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *15-Feb-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	Influent
Lab Order:	1101896	**Collection Date:**	1/27/2011 10:53:00 AM
Project:	GBR	**Date Received:**	1/28/2011
Lab ID:	1101896-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						**Analyst: RAA**
SM 2320B: ALKALINITY						**Analyst: IC**
Alkalinity, Total (As CaCO3)	370	20		mg/L CaCO3	1	2/7/2011 1:02:00 PM
Carbonate	ND	2.0		mg/L CaCO3	1	2/7/2011 1:02:00 PM
Bicarbonate	370	20		mg/L CaCO3	1	2/7/2011 1:02:00 PM
Hydroxide	ND	2.0		mg/L CaCO3	1	2/7/2011 1:02:00 PM
EPA 120.1: SPECIFIC CONDUCTANCE						**Analyst: IC**
Specific Conductance	3600	0.010		µmhos/cm	1	2/7/2011 1:02:00 PM
SM4500-H+B: PH						**Analyst: IC**
pH	7.35	0.100		pH units	1	2/7/2011 1:02:06 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						**Analyst: KS**
Total Dissolved Solids	3030	20.0		mg/L	1	2/3/2011 1:53:00 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
- NC Non-Chlorinated
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitation Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *15-Feb-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	Effluent
Lab Order:	1101896	**Collection Date:**	1/27/2011 11:22:00 AM
Project:	GBR	**Date Received:**	1/28/2011
Lab ID:	1101896-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Chloride	83	10		mg/L	20	1/29/2011 2:02:41 AM
Sulfate	2000	25		mg/L	50	2/1/2011 3:15:30 AM
EPA METHOD 200.7: METALS						Analyst: **RAGS**
Beryllium	ND	0.0020		mg/L	1	2/3/2011 6:34:39 PM
Cadmium	ND	0.0020		mg/L	1	2/3/2011 6:34:39 PM
Calcium	350	10		mg/L	10	2/10/2011 8:35:39 PM
Chromium	ND	0.0060		mg/L	1	2/3/2011 6:34:39 PM
Copper	ND	0.0060		mg/L	1	2/3/2011 6:34:39 PM
Lead	ND	0.0050		mg/L	1	2/3/2011 6:34:39 PM
Magnesium	34	1.0		mg/L	1	2/3/2011 6:34:39 PM
Nickel	0.055	0.010		mg/L	1	2/3/2011 6:34:39 PM
Potassium	3.8	1.0		mg/L	1	2/3/2011 6:34:39 PM
Silver	ND	0.0050		mg/L	1	2/11/2011 5:30:52 PM
Sodium	600	10		mg/L	10	2/10/2011 8:35:39 PM
Zinc	0.065	0.010		mg/L	1	2/3/2011 6:34:39 PM
EPA 200.8: METALS						Analyst: **SNV**
Antimony	ND	0.0025		mg/L	2.5	2/9/2011 2:14:28 PM
Arsenic	ND	0.0025		mg/L	2.5	2/9/2011 2:14:28 PM
Selenium	0.0051	0.0025		mg/L	2.5	2/9/2011 2:14:28 PM
Thallium	ND	0.0025		mg/L	2.5	2/9/2011 2:14:28 PM
EPA METHOD 245.1: MERCURY						Analyst: **ELS**
Mercury	ND	0.00020		mg/L	1	2/3/2011 12:16:09 PM
EPA 200.7: HARDNESS						Analyst: **RAGS**
Hardness (As CaCO3)	1000	1.0		mg/L	1	2/10/2011
EPA METHOD 8270C: PAHS						Analyst: **MAW**
Naphthalene	ND	0.50		µg/L	1	2/3/2011 3:53:29 PM
1-Methylnaphthalene	ND	0.50		µg/L	1	2/3/2011 3:53:29 PM
2-Methylnaphthalene	ND	0.50		µg/L	1	2/3/2011 3:53:29 PM
Acenaphthylene	ND	0.50		µg/L	1	2/3/2011 3:53:29 PM
Acenaphthene	ND	0.50		µg/L	1	2/3/2011 3:53:29 PM
Fluorene	ND	0.50		µg/L	1	2/3/2011 3:53:29 PM
Phenanthrene	ND	0.50		µg/L	1	2/3/2011 3:53:29 PM
Anthracene	ND	0.50		µg/L	1	2/3/2011 3:53:29 PM
Fluoranthene	ND	0.50		µg/L	1	2/3/2011 3:53:29 PM
Pyrene	ND	0.50		µg/L	1	2/3/2011 3:53:29 PM
Benz(a)anthracene	ND	0.50		µg/L	1	2/3/2011 3:53:29 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
- NC Non-Chlorinated
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitation Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *15-Feb-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	Effluent
Lab Order:	1101896	**Collection Date:**	1/27/2011 11:22:00 AM
Project:	GBR	**Date Received:**	1/28/2011
Lab ID:	1101896-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: PAHS						Analyst: MAW
Chrysene	ND	0.50		µg/L	1	2/3/2011 3:53:29 PM
Benzo(b)fluoranthene	ND	0.50		µg/L	1	2/3/2011 3:53:29 PM
Benzo(k)fluoranthene	ND	0.50		µg/L	1	2/3/2011 3:53:29 PM
Benzo(a)pyrene	ND	0.50		µg/L	1	2/3/2011 3:53:29 PM
Dibenz(a,h)anthracene	ND	0.50		µg/L	1	2/3/2011 3:53:29 PM
Benzo(g,h,i)perylene	ND	0.50		µg/L	1	2/3/2011 3:53:29 PM
Indeno(1,2,3-cd)pyrene	ND	0.50		µg/L	1	2/3/2011 3:53:29 PM
Surr: Benzo(e)pyrene	102	38-145		%REC	1	2/3/2011 3:53:29 PM
Surr: N-hexadecane	90.0	40-107		%REC	1	2/3/2011 3:53:29 PM
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Benzene	ND	1.0		µg/L	1	2/3/2011 6:04:36 AM
Toluene	ND	1.0		µg/L	1	2/3/2011 6:04:36 AM
Ethylbenzene	ND	1.0		µg/L	1	2/3/2011 6:04:36 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	2/3/2011 6:04:36 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	2/3/2011 6:04:36 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	2/3/2011 6:04:36 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	2/3/2011 6:04:36 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	2/3/2011 6:04:36 AM
Naphthalene	ND	2.0		µg/L	1	2/3/2011 6:04:36 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	2/3/2011 6:04:36 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	2/3/2011 6:04:36 AM
Acetone	ND	10		µg/L	1	2/3/2011 6:04:36 AM
Bromobenzene	ND	1.0		µg/L	1	2/3/2011 6:04:36 AM
Bromodichloromethane	ND	1.0		µg/L	1	2/3/2011 6:04:36 AM
Bromoform	ND	1.0		µg/L	1	2/3/2011 6:04:36 AM
Bromomethane	ND	3.0		µg/L	1	2/3/2011 6:04:36 AM
2-Butanone	ND	10		µg/L	1	2/3/2011 6:04:36 AM
Carbon disulfide	ND	10		µg/L	1	2/3/2011 6:04:36 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	2/3/2011 6:04:36 AM
Chlorobenzene	ND	1.0		µg/L	1	2/3/2011 6:04:36 AM
Chloroethane	ND	2.0		µg/L	1	2/3/2011 6:04:36 AM
Chloroform	ND	1.0		µg/L	1	2/3/2011 6:04:36 AM
Chloromethane	ND	3.0		µg/L	1	2/3/2011 6:04:36 AM
2-Chlorotoluene	ND	1.0		µg/L	1	2/3/2011 6:04:36 AM
4-Chlorotoluene	ND	1.0		µg/L	1	2/3/2011 6:04:36 AM
cis-1,2-DCE	ND	1.0		µg/L	1	2/3/2011 6:04:36 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	2/3/2011 6:04:36 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	2/3/2011 6:04:36 AM
Dibromochloromethane	ND	1.0		µg/L	1	2/3/2011 6:04:36 AM
Dibromomethane	ND	1.0		µg/L	1	2/3/2011 6:04:36 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
- NC Non-Chlorinated
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitation Limit
- S Spike recovery outside accepted recovery limits

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	Effluent
Lab Order:	1101896	**Collection Date:**	1/27/2011 11:22:00 AM
Project:	GBR	**Date Received:**	1/28/2011
Lab ID:	1101896-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
1,2-Dichlorobenzene	ND	1.0		µg/L	1	2/3/2011 6:04:36 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	2/3/2011 6:04:36 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	2/3/2011 6:04:36 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	2/3/2011 6:04:36 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	2/3/2011 6:04:36 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	2/3/2011 6:04:36 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	2/3/2011 6:04:36 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	2/3/2011 6:04:36 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	2/3/2011 6:04:36 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	2/3/2011 6:04:36 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	2/3/2011 6:04:36 AM
2-Hexanone	ND	10		µg/L	1	2/3/2011 6:04:36 AM
Isopropylbenzene	ND	1.0		µg/L	1	2/3/2011 6:04:36 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	2/3/2011 6:04:36 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	2/3/2011 6:04:36 AM
Methylene Chloride	ND	3.0		µg/L	1	2/3/2011 6:04:36 AM
n-Butylbenzene	ND	1.0		µg/L	1	2/3/2011 6:04:36 AM
n-Propylbenzene	ND	1.0		µg/L	1	2/3/2011 6:04:36 AM
sec-Butylbenzene	ND	1.0		µg/L	1	2/3/2011 6:04:36 AM
Styrene	ND	1.0		µg/L	1	2/3/2011 6:04:36 AM
tert-Butylbenzene	ND	1.0		µg/L	1	2/3/2011 6:04:36 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	2/3/2011 6:04:36 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	2/3/2011 6:04:36 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	2/3/2011 6:04:36 AM
trans-1,2-DCE	ND	1.0		µg/L	1	2/3/2011 6:04:36 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	2/3/2011 6:04:36 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	2/3/2011 6:04:36 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	2/3/2011 6:04:36 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	2/3/2011 6:04:36 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	2/3/2011 6:04:36 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	2/3/2011 6:04:36 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	2/3/2011 6:04:36 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	2/3/2011 6:04:36 AM
Vinyl chloride	ND	1.0		µg/L	1	2/3/2011 6:04:36 AM
Xylenes, Total	ND	1.5		µg/L	1	2/3/2011 6:04:36 AM
Surr: 1,2-Dichloroethane-d4	94.2	77.7-113		%REC	1	2/3/2011 6:04:36 AM
Surr: 4-Bromofluorobenzene	100	76.4-106		%REC	1	2/3/2011 6:04:36 AM
Surr: Dibromofluoromethane	103	91.6-125		%REC	1	2/3/2011 6:04:36 AM
Surr: Toluene-d8	98.6	92.3-107		%REC	1	2/3/2011 6:04:36 AM
SM 2320B: ALKALINITY						Analyst: IC

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *15-Feb-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	Effluent
Lab Order:	1101896	**Collection Date:**	1/27/2011 11:22:00 AM
Project:	GBR	**Date Received:**	1/28/2011
Lab ID:	1101896-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
SM 2320B: ALKALINITY						Analyst: IC
Alkalinity, Total (As CaCO3)	370	20		mg/L CaCO3	1	2/7/2011 1:18:00 PM
Carbonate	ND	2.0		mg/L CaCO3	1	2/7/2011 1:18:00 PM
Bicarbonate	370	20		mg/L CaCO3	1	2/7/2011 1:18:00 PM
Hydroxide	ND	2.0		mg/L CaCO3	1	2/7/2011 1:18:00 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: IC
Specific Conductance	3600	0.010		µmhos/cm	1	2/7/2011 1:18:00 PM
SM4500-H+B: PH						Analyst: IC
pH	7.51	0.100		pH units	1	2/7/2011 1:18:40 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: KS
Total Dissolved Solids	3030	20.0		mg/L	1	2/3/2011 1:53:00 PM

Qualifiers:

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- PQL Practical Quantitation Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *15-Feb-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	GBR 49
Lab Order:	1101896	**Collection Date:**	1/26/2011 9:20:00 AM
Project:	GBR	**Date Received:**	1/28/2011
Lab ID:	1101896-04	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Chloride	310	10		mg/L	20	1/29/2011 2:13:54 AM
Sulfate	2000	50		mg/L	100	2/1/2011 3:32:55 AM
EPA METHOD 200.7: METALS						Analyst: **RAGS**
Beryllium	ND	0.0020		mg/L	1	2/3/2011 6:39:43 PM
Cadmium	ND	0.0020		mg/L	1	2/3/2011 6:39:43 PM
Calcium	450	10		mg/L	10	2/10/2011 8:39:41 PM
Chromium	0.48	0.0060		mg/L	1	2/3/2011 6:39:43 PM
Copper	0.032	0.0060		mg/L	1	2/3/2011 6:39:43 PM
Lead	ND	0.0050		mg/L	1	2/3/2011 6:39:43 PM
Magnesium	46	1.0		mg/L	1	2/3/2011 6:39:43 PM
Nickel	0.16	0.010		mg/L	1	2/3/2011 6:39:43 PM
Potassium	5.5	1.0		mg/L	1	2/3/2011 6:39:43 PM
Silver	ND	0.0050		mg/L	1	2/11/2011 5:26:17 PM
Sodium	590	10		mg/L	10	2/10/2011 8:39:41 PM
Zinc	0.26	0.010		mg/L	1	2/3/2011 6:39:43 PM
EPA 200.8: METALS						Analyst: **SNV**
Antimony	ND	0.0025		mg/L	2.5	2/9/2011 2:25:51 PM
Arsenic	0.0038	0.0025		mg/L	2.5	2/9/2011 2:25:51 PM
Selenium	0.012	0.0025		mg/L	2.5	2/9/2011 2:25:51 PM
Thallium	ND	0.0025		mg/L	2.5	2/9/2011 2:25:51 PM
EPA METHOD 245.1: MERCURY						Analyst: **ELS**
Mercury	ND	0.00020		mg/L	1	2/3/2011 12:17:53 PM
EPA 200.7: HARDNESS						Analyst: **RAGS**
Hardness (As CaCO3)	1300	1.0		mg/L	1	2/10/2011
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	2/3/2011 7:26:25 AM
Toluene	ND	1.0		µg/L	1	2/3/2011 7:26:25 AM
Ethylbenzene	ND	1.0		µg/L	1	2/3/2011 7:26:25 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	2/3/2011 7:26:25 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	2/3/2011 7:26:25 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	2/3/2011 7:26:25 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	2/3/2011 7:26:25 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	2/3/2011 7:26:25 AM
Naphthalene	ND	2.0		µg/L	1	2/3/2011 7:26:25 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	2/3/2011 7:26:25 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	2/3/2011 7:26:25 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
- NC Non-Chlorinated
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitation Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *15-Feb-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	GBR 49
Lab Order:	1101896	**Collection Date:**	1/26/2011 9:20:00 AM
Project:	GBR	**Date Received:**	1/28/2011
Lab ID:	1101896-04	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Acetone	ND	10		µg/L	1	2/3/2011 7:26:25 AM
Bromobenzene	ND	1.0		µg/L	1	2/3/2011 7:26:25 AM
Bromodichloromethane	ND	1.0		µg/L	1	2/3/2011 7:26:25 AM
Bromoform	ND	1.0		µg/L	1	2/3/2011 7:26:25 AM
Bromomethane	ND	3.0		µg/L	1	2/3/2011 7:26:25 AM
2-Butanone	ND	10		µg/L	1	2/3/2011 7:26:25 AM
Carbon disulfide	ND	10		µg/L	1	2/3/2011 7:26:25 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	2/3/2011 7:26:25 AM
Chlorobenzene	ND	1.0		µg/L	1	2/3/2011 7:26:25 AM
Chloroethane	ND	2.0		µg/L	1	2/3/2011 7:26:25 AM
Chloroform	ND	1.0		µg/L	1	2/3/2011 7:26:25 AM
Chloromethane	ND	3.0		µg/L	1	2/3/2011 7:26:25 AM
2-Chlorotoluene	ND	1.0		µg/L	1	2/3/2011 7:26:25 AM
4-Chlorotoluene	ND	1.0		µg/L	1	2/3/2011 7:26:25 AM
cis-1,2-DCE	ND	1.0		µg/L	1	2/3/2011 7:26:25 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	2/3/2011 7:26:25 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	2/3/2011 7:26:25 AM
Dibromochloromethane	ND	1.0		µg/L	1	2/3/2011 7:26:25 AM
Dibromomethane	ND	1.0		µg/L	1	2/3/2011 7:26:25 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	2/3/2011 7:26:25 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	2/3/2011 7:26:25 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	2/3/2011 7:26:25 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	2/3/2011 7:26:25 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	2/3/2011 7:26:25 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	2/3/2011 7:26:25 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	2/3/2011 7:26:25 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	2/3/2011 7:26:25 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	2/3/2011 7:26:25 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	2/3/2011 7:26:25 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	2/3/2011 7:26:25 AM
2-Hexanone	ND	10		µg/L	1	2/3/2011 7:26:25 AM
Isopropylbenzene	ND	1.0		µg/L	1	2/3/2011 7:26:25 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	2/3/2011 7:26:25 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	2/3/2011 7:26:25 AM
Methylene Chloride	ND	3.0		µg/L	1	2/3/2011 7:26:25 AM
n-Butylbenzene	ND	1.0		µg/L	1	2/3/2011 7:26:25 AM
n-Propylbenzene	ND	1.0		µg/L	1	2/3/2011 7:26:25 AM
sec-Butylbenzene	ND	1.0		µg/L	1	2/3/2011 7:26:25 AM
Styrene	ND	1.0		µg/L	1	2/3/2011 7:26:25 AM
tert-Butylbenzene	ND	1.0		µg/L	1	2/3/2011 7:26:25 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	2/3/2011 7:26:25 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *15-Feb-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	GBR 49
Lab Order:	1101896	**Collection Date:**	1/26/2011 9:20:00 AM
Project:	GBR	**Date Received:**	1/28/2011
Lab ID:	1101896-04	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	2/3/2011 7:26:25 AM
Tetrachloroethene (PCE)	1.6	1.0		µg/L	1	2/3/2011 7:26:25 AM
trans-1,2-DCE	ND	1.0		µg/L	1	2/3/2011 7:26:25 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	2/3/2011 7:26:25 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	2/3/2011 7:26:25 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	2/3/2011 7:26:25 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	2/3/2011 7:26:25 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	2/3/2011 7:26:25 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	2/3/2011 7:26:25 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	2/3/2011 7:26:25 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	2/3/2011 7:26:25 AM
Vinyl chloride	ND	1.0		µg/L	1	2/3/2011 7:26:25 AM
Xylenes, Total	ND	1.5		µg/L	1	2/3/2011 7:26:25 AM
Surr: 1,2-Dichloroethane-d4	91.2	77.7-113		%REC	1	2/3/2011 7:26:25 AM
Surr: 4-Bromofluorobenzene	105	76.4-106		%REC	1	2/3/2011 7:26:25 AM
Surr: Dibromofluoromethane	107	91.6-125		%REC	1	2/3/2011 7:26:25 AM
Surr: Toluene-d8	95.9	92.3-107		%REC	1	2/3/2011 7:26:25 AM
SM 2320B: ALKALINITY						Analyst: IC
Alkalinity, Total (As CaCO3)	260	20		mg/L CaCO3	1	2/1/2011 9:14:00 PM
Carbonate	ND	2.0		mg/L CaCO3	1	2/1/2011 9:14:00 PM
Bicarbonate	260	20		mg/L CaCO3	1	2/1/2011 9:14:00 PM
Hydroxide	ND	2.0		mg/L CaCO3	1	2/1/2011 9:14:00 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: IC
Specific Conductance	4100	0.010		µmhos/cm	1	2/1/2011 9:14:00 PM
SM4500-H+B: PH						Analyst: IC
pH	7.26	0.100		pH units	1	2/1/2011 9:14:00 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: KS
Total Dissolved Solids	3390	20.0		mg/L	1	2/3/2011 1:53:00 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
- NC Non-Chlorinated
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitation Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *15-Feb-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	GBR 24D
Lab Order:	1101896	**Collection Date:**	1/26/2011 11:17:00 AM
Project:	GBR	**Date Received:**	1/28/2011
Lab ID:	1101896-05	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Chloride	170	10		mg/L	20	1/29/2011 3:32:31 AM
Sulfate	2400	50		mg/L	100	2/1/2011 3:50:20 AM
EPA METHOD 200.7: METALS						Analyst: **RAGS**
Calcium	420	10		mg/L	10	2/10/2011 8:43:43 PM
Magnesium	42	1.0		mg/L	1	2/3/2011 6:46:57 PM
Potassium	8.4	1.0		mg/L	1	2/3/2011 6:46:57 PM
Sodium	620	10		mg/L	10	2/10/2011 8:43:43 PM
EPA 200.7: HARDNESS						Analyst: **RAGS**
Hardness (As CaCO3)	1200	1.0		mg/L	1	2/10/2011
EPA METHOD 8270C: PAHS						Analyst: **MAW**
Naphthalene	ND	0.50		µg/L	1	2/3/2011 4:15:41 PM
1-Methylnaphthalene	ND	0.50		µg/L	1	2/3/2011 4:15:41 PM
2-Methylnaphthalene	ND	0.50		µg/L	1	2/3/2011 4:15:41 PM
Acenaphthylene	ND	0.50		µg/L	1	2/3/2011 4:15:41 PM
Acenaphthene	ND	0.50		µg/L	1	2/3/2011 4:15:41 PM
Fluorene	ND	0.50		µg/L	1	2/3/2011 4:15:41 PM
Phenanthrene	ND	0.50		µg/L	1	2/3/2011 4:15:41 PM
Anthracene	ND	0.50		µg/L	1	2/3/2011 4:15:41 PM
Fluoranthene	ND	0.50		µg/L	1	2/3/2011 4:15:41 PM
Pyrene	ND	0.50		µg/L	1	2/3/2011 4:15:41 PM
Benz(a)anthracene	ND	0.50		µg/L	1	2/3/2011 4:15:41 PM
Chrysene	ND	0.50		µg/L	1	2/3/2011 4:15:41 PM
Benzo(b)fluoranthene	ND	0.50		µg/L	1	2/3/2011 4:15:41 PM
Benzo(k)fluoranthene	ND	0.50		µg/L	1	2/3/2011 4:15:41 PM
Benzo(a)pyrene	ND	0.50		µg/L	1	2/3/2011 4:15:41 PM
Dibenz(a,h)anthracene	ND	0.50		µg/L	1	2/3/2011 4:15:41 PM
Benzo(g,h,i)perylene	ND	0.50		µg/L	1	2/3/2011 4:15:41 PM
Indeno(1,2,3-cd)pyrene	ND	0.50		µg/L	1	2/3/2011 4:15:41 PM
Surr: Benzo(e)pyrene	78.3	38-145		%REC	1	2/3/2011 4:15:41 PM
Surr: N-hexadecane	71.1	40-107		%REC	1	2/3/2011 4:15:41 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	2/3/2011 7:53:38 AM
Toluene	ND	1.0		µg/L	1	2/3/2011 7:53:38 AM
Ethylbenzene	ND	1.0		µg/L	1	2/3/2011 7:53:38 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	2/3/2011 7:53:38 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	2/3/2011 7:53:38 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	2/3/2011 7:53:38 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *15-Feb-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	GBR 24D
Lab Order:	1101896	**Collection Date:**	1/26/2011 11:17:00 AM
Project:	GBR	**Date Received:**	1/28/2011
Lab ID:	1101896-05	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	2/3/2011 7:53:38 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	2/3/2011 7:53:38 AM
Naphthalene	ND	2.0		µg/L	1	2/3/2011 7:53:38 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	2/3/2011 7:53:38 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	2/3/2011 7:53:38 AM
Acetone	ND	10		µg/L	1	2/3/2011 7:53:38 AM
Bromobenzene	ND	1.0		µg/L	1	2/3/2011 7:53:38 AM
Bromodichloromethane	ND	1.0		µg/L	1	2/3/2011 7:53:38 AM
Bromoform	ND	1.0		µg/L	1	2/3/2011 7:53:38 AM
Bromomethane	ND	3.0		µg/L	1	2/3/2011 7:53:38 AM
2-Butanone	ND	10		µg/L	1	2/3/2011 7:53:38 AM
Carbon disulfide	ND	10		µg/L	1	2/3/2011 7:53:38 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	2/3/2011 7:53:38 AM
Chlorobenzene	ND	1.0		µg/L	1	2/3/2011 7:53:38 AM
Chloroethane	ND	2.0		µg/L	1	2/3/2011 7:53:38 AM
Chloroform	ND	1.0		µg/L	1	2/3/2011 7:53:38 AM
Chloromethane	ND	3.0		µg/L	1	2/3/2011 7:53:38 AM
2-Chlorotoluene	ND	1.0		µg/L	1	2/3/2011 7:53:38 AM
4-Chlorotoluene	ND	1.0		µg/L	1	2/3/2011 7:53:38 AM
cis-1,2-DCE	ND	1.0		µg/L	1	2/3/2011 7:53:38 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	2/3/2011 7:53:38 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	2/3/2011 7:53:38 AM
Dibromochloromethane	ND	1.0		µg/L	1	2/3/2011 7:53:38 AM
Dibromomethane	ND	1.0		µg/L	1	2/3/2011 7:53:38 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	2/3/2011 7:53:38 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	2/3/2011 7:53:38 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	2/3/2011 7:53:38 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	2/3/2011 7:53:38 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	2/3/2011 7:53:38 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	2/3/2011 7:53:38 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	2/3/2011 7:53:38 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	2/3/2011 7:53:38 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	2/3/2011 7:53:38 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	2/3/2011 7:53:38 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	2/3/2011 7:53:38 AM
2-Hexanone	ND	10		µg/L	1	2/3/2011 7:53:38 AM
Isopropylbenzene	ND	1.0		µg/L	1	2/3/2011 7:53:38 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	2/3/2011 7:53:38 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	2/3/2011 7:53:38 AM
Methylene Chloride	ND	3.0		µg/L	1	2/3/2011 7:53:38 AM
n-Butylbenzene	ND	1.0		µg/L	1	2/3/2011 7:53:38 AM

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*
- NC Non-Chlorinated
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitation Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *15-Feb-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	GBR 24D
Lab Order:	1101896	**Collection Date:**	1/26/2011 11:17:00 AM
Project:	GBR	**Date Received:**	1/28/2011
Lab ID:	1101896-05	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
n-Propylbenzene	ND	1.0		µg/L	1	2/3/2011 7:53:38 AM
sec-Butylbenzene	ND	1.0		µg/L	1	2/3/2011 7:53:38 AM
Styrene	ND	1.0		µg/L	1	2/3/2011 7:53:38 AM
tert-Butylbenzene	ND	1.0		µg/L	1	2/3/2011 7:53:38 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	2/3/2011 7:53:38 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	2/3/2011 7:53:38 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	2/3/2011 7:53:38 AM
trans-1,2-DCE	ND	1.0		µg/L	1	2/3/2011 7:53:38 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	2/3/2011 7:53:38 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	2/3/2011 7:53:38 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	2/3/2011 7:53:38 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	2/3/2011 7:53:38 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	2/3/2011 7:53:38 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	2/3/2011 7:53:38 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	2/3/2011 7:53:38 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	2/3/2011 7:53:38 AM
Vinyl chloride	ND	1.0		µg/L	1	2/3/2011 7:53:38 AM
Xylenes, Total	ND	1.5		µg/L	1	2/3/2011 7:53:38 AM
Surr: 1,2-Dichloroethane-d4	97.6	77.7-113		%REC	1	2/3/2011 7:53:38 AM
Surr: 4-Bromofluorobenzene	104	76.4-106		%REC	1	2/3/2011 7:53:38 AM
Surr: Dibromofluoromethane	101	91.6-125		%REC	1	2/3/2011 7:53:38 AM
Surr: Toluene-d8	96.5	92.3-107		%REC	1	2/3/2011 7:53:38 AM
SM 2320B: ALKALINITY						Analyst: IC
Alkalinity, Total (As CaCO3)	180	20		mg/L CaCO3	1	2/7/2011 1:35:00 PM
Carbonate	ND	2.0		mg/L CaCO3	1	2/7/2011 1:35:00 PM
Bicarbonate	180	20		mg/L CaCO3	1	2/7/2011 1:35:00 PM
Hydroxide	ND	2.0		mg/L CaCO3	1	2/7/2011 1:35:00 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: IC
Specific Conductance	4000	0.010		µmhos/cm	1	2/7/2011 1:35:00 PM
SM4500-H+B: PH						Analyst: IC
pH	7.51	0.100		pH units	1	2/7/2011 1:35:06 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: KS
Total Dissolved Solids	3410	40.0		mg/L	1	2/3/2011 1:53:00 PM

Qualifiers:

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- MCL Maximum Contaminant Level
- NC Non-Chlorinated
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitation Limit
- S Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: GBR **Work Order:** 1101896

Analyte	Result	Units	PQL	SPK Val	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 200.7: Metals											
Sample ID: MB-25514		*MBLK*				**Batch ID: 25514**		**Analysis Date: 2/3/2011 4:36:56 PM**			
Beryllium	ND	mg/L	0.0020								
Cadmium	ND	mg/L	0.0020								
Calcium	ND	mg/L	1.0								
Chromium	ND	mg/L	0.0060								
Copper	ND	mg/L	0.0060								
Lead	ND	mg/L	0.0050								
Magnesium	ND	mg/L	1.0								
Nickel	ND	mg/L	0.010								
Potassium	ND	mg/L	1.0								
Sodium	ND	mg/L	1.0								
Zinc	ND	mg/L	0.010								
Sample ID: MB		*MBLK*				**Batch ID: R43601**		**Analysis Date: 2/10/2011 2:57:41 PM**			
Aluminum	ND	mg/L	0.020								
Arsenic	ND	mg/L	0.020								
Barium	ND	mg/L	0.0020								
Beryllium	ND	mg/L	0.0020								
Cadmium	ND	mg/L	0.0020								
Calcium	ND	mg/L	1.0								
Chromium	ND	mg/L	0.0060								
Cobalt	ND	mg/L	0.0060								
Copper	ND	mg/L	0.0060								
Iron	ND	mg/L	0.020								
Lead	ND	mg/L	0.0050								
Magnesium	ND	mg/L	1.0								
Manganese	ND	mg/L	0.0020								
Molybdenum	ND	mg/L	0.0080								
Nickel	ND	mg/L	0.010								
Potassium	ND	mg/L	1.0								
Selenium	ND	mg/L	0.050								
Silica	ND	mg/L	0.16								
Silver	ND	mg/L	0.0050								
Sodium	ND	mg/L	1.0								
Vanadium	ND	mg/L	0.050								
Zinc	ND	mg/L	0.010								
Sample ID: MB-25581		*MBLK*				**Batch ID: 25581**		**Analysis Date: 2/11/2011 4:29:28 PM**			
Lead	ND	mg/L	0.0050								
Silver	ND	mg/L	0.0050								
Sample ID: LCS-25514		*LCS*				**Batch ID: 25514**		**Analysis Date: 2/3/2011 4:40:40 PM**			
Beryllium	0.5386	mg/L	0.0020	0.5	0	108	85	115			
Cadmium	0.5061	mg/L	0.0020	0.5	0	101	85	115			
Calcium	51.82	mg/L	1.0	50.5	0	103	85	115			
Chromium	0.5317	mg/L	0.0060	0.5	0	106	85	115			
Copper	0.5484	mg/L	0.0060	0.5	0.003	109	85	115			
Lead	0.5052	mg/L	0.0050	0.5	0	101	85	115			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: GBR **Work Order:** 1101896

Analyte	Result	Units	PQL	SPK Val	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 200.7: Metals											
Sample ID: LCS-25514		*LCS*				**Batch ID: 25514**		**Analysis Date: 2/3/2011 4:40:40 PM**			
Magnesium	52.47	mg/L	1.0	50.5	0	104	85	115			
Nickel	0.4909	mg/L	0.010	0.5	0	98.2	85	115			
Potassium	55.17	mg/L	1.0	55	0	100	85	115			
Sodium	51.89	mg/L	1.0	50.5	0	103	85	115			
Zinc	0.4978	mg/L	0.010	0.5	0	99.6	85	115			
Sample ID: LCS		*LCS*				**Batch ID: R43601**		**Analysis Date: 2/10/2011 3:01:34 PM**			
Aluminum	0.5213	mg/L	0.020	0.5	0	104	85	115			
Arsenic	0.5114	mg/L	0.020	0.5	0	102	85	115			
Barium	0.4587	mg/L	0.0020	0.5	0	91.7	85	115			
Beryllium	0.5093	mg/L	0.0020	0.5	0	102	85	115			
Cadmium	0.4826	mg/L	0.0020	0.5	0	96.5	85	115			
Calcium	49.76	mg/L	1.0	50.5	0	98.5	85	115			
Chromium	0.5000	mg/L	0.0060	0.5	0	100	85	115			
Cobalt	0.4568	mg/L	0.0060	0.5	0	91.4	85	115			
Copper	0.5009	mg/L	0.0060	0.5	0	100	85	115			
Iron	0.4673	mg/L	0.020	0.5	0.0056	92.3	85	115			
Lead	0.4872	mg/L	0.0050	0.5	0	97.4	85	115			
nesium	49.78	mg/L	1.0	50.5	0	98.6	85	115			
anese	0.4781	mg/L	0.0020	0.5	0	95.6	85	115			
ybdenum	0.5052	mg/L	0.0080	0.5	0.0004	101	85	115			
Nickel	0.4705	mg/L	0.010	0.5	0	94.1	85	115			
Potassium	52.46	mg/L	1.0	55	0	95.4	85	115			
Selenium	0.4726	mg/L	0.050	0.5	0	94.5	85	115			
Silica	6.017	mg/L	0.18	5.885	0	102	85	115			
Silver	0.4985	mg/L	0.0050	0.5	0	99.7	85	115			
Sodium	48.63	mg/L	1.0	50.5	0	96.3	85	115			
Vanadium	0.5155	mg/L	0.050	0.5	0	103	85	115			
Zinc	0.4888	mg/L	0.010	0.5	0	97.8	85	115			
Sample ID: LCS-25581		*LCS*				**Batch ID: 25581**		**Analysis Date: 2/11/2011 11:55:16 AM**			
Lead	0.4856	mg/L	0.0050	0.5	0	97.1	85	115			
Silver	0.5140	mg/L	0.0050	0.5	0.0007	103	85	115			
Method: EPA 200.8: Metals											
Sample ID: MB-25514		*MBLK*				**Batch ID: 25514**		**Analysis Date: 2/9/2011 1:44:44 PM**			
Antimony	ND	mg/L	0.0025								
Arsenic	ND	mg/L	0.0025								
Lead	ND	mg/L	0.0025								
Selenium	ND	mg/L	0.0025								
Thallium	ND	mg/L	0.0025								

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: GBR **Work Order:** 1101896

Analyte	Result	Units	PQL	SPK Val	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 245.1: Mercury											
Sample ID: MB-25499		*MBLK*				Batch ID:	**25499**	Analysis Date:	2/3/2011 11:42:04 AM		
Mercury	ND	mg/L	0.00020								
Sample ID: LCS-25499		*LCS*				Batch ID:	**25499**	Analysis Date:	2/3/2011 11:43:48 AM		
Mercury	0.004836	mg/L	0.00020	0.005	0	96.7	80	120			
Method: EPA Method 300.0: Anions											
Sample ID: MB		*MBLK*				Batch ID:	**R43411**	Analysis Date:	1/28/2011 12:57:01 PM		
Chloride	ND	mg/L	0.50								
Sulfate	ND	mg/L	0.50								
Sample ID: MB		*MBLK*				Batch ID:	**R43411**	Analysis Date:	1/28/2011 10:51:42 PM		
Chloride	ND	mg/L	0.50								
Sulfate	ND	mg/L	0.50								
Sample ID: MB		*MBLK*				Batch ID:	**R43411**	Analysis Date:	1/29/2011 9:31:58 AM		
Chloride	ND	mg/L	0.50								
Sulfate	ND	mg/L	0.50								
Sample ID: MB		*MBLK*				Batch ID:	**R43443**	Analysis Date:	1/31/2011 4:48:37 PM		
Chloride	ND	mg/L	0.50								
Sulfate	ND	mg/L	0.50								
Sample ID: LCS		*LCS*				Batch ID:	**R43411**	Analysis Date:	1/28/2011 1:08:14 F		
Chloride	5.049	mg/L	0.50	5	0	101	90	110			
Sulfate	10.21	mg/L	0.50	10	0	102	90	110			
Sample ID: LCS		*LCS*				Batch ID:	**R43411**	Analysis Date:	1/28/2011 11:02:55 PM		
Chloride	5.123	mg/L	0.50	5	0	102	90	110			
Sulfate	10.34	mg/L	0.50	10	0	103	90	110			
Sample ID: LCS		*LCS*				Batch ID:	**R43411**	Analysis Date:	1/29/2011 9:43:12 AM		
Chloride	5.124	mg/L	0.50	5	0	102	90	110			
Sulfate	10.37	mg/L	0.50	10	0	104	90	110			
Sample ID: LCS		*LCS*				Batch ID:	**R43443**	Analysis Date:	1/31/2011 5:06:02 PM		
Chloride	4.926	mg/L	0.50	5	0	98.5	90	110			
Sulfate	10.08	mg/L	0.50	10	0	101	90	110			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: GBR **Work Order:** 1101896

Analyte	Result	Units	PQL	SPK Val	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: SM 2320B: Alkalinity											
Sample ID: 1101696-02CMSD		*MSD*				**Batch ID: R43553**		**Analysis Date: 2/7/2011 5:26:00 PM**			
Alkalinity, Total (As CaCO3)	433.2	mg/L Ca	20	80	365.6	84.5	32.8	119	0.323	7.36	
Sample ID: MB-1		*MBLK*				**Batch ID: R43482**		**Analysis Date: 2/1/2011 12:09:00 PM**			
Alkalinity, Total (As CaCO3)	ND	mg/L Ca	20								
Carbonate	ND	mg/L Ca	2.0								
Bicarbonate	ND	mg/L Ca	20								
Sample ID: MB-2		*MBLK*				**Batch ID: R43482**		**Analysis Date: 2/1/2011 5:01:00 PM**			
Alkalinity, Total (As CaCO3)	ND	mg/L Ca	20								
Carbonate	ND	mg/L Ca	2.0								
Bicarbonate	ND	mg/L Ca	20								
Sample ID: MB-3		*MBLK*				**Batch ID: R43482**		**Analysis Date: 2/1/2011 11:32:00 PM**			
Alkalinity, Total (As CaCO3)	ND	mg/L Ca	20								
Carbonate	ND	mg/L Ca	2.0								
Bicarbonate	ND	mg/L Ca	20								
Sample ID: MB-1		*MBLK*				**Batch ID: R43553**		**Analysis Date: 2/7/2011 11:20:00 AM**			
Alkalinity, Total (As CaCO3)	ND	mg/L Ca	20								
Carbonate	ND	mg/L Ca	2.0								
[illegible]bonate	ND	mg/L Ca	20								
[illegible]le ID: MB-2		*MBLK*				**Batch ID: R43553**		**Analysis Date: 2/7/2011 5:44:00 PM**			
Alkalinity, Total (As CaCO3)	ND	mg/L Ca	20								
Carbonate	ND	mg/L Ca	2.0								
Bicarbonate	ND	mg/L Ca	20								
Sample ID: LCS-2		*LCS*				**Batch ID: R43482**		**Analysis Date: 2/1/2011 5:07:00 PM**			
Alkalinity, Total (As CaCO3)	80.36	mg/L Ca	20	80	0	100	96.5	104			
Sample ID: LCS-3		*LCS*				**Batch ID: R43482**		**Analysis Date: 2/1/2011 11:38:00 PM**			
Alkalinity, Total (As CaCO3)	80.16	mg/L Ca	20	80	0	100	96.5	104			
Sample ID: LCS-1		*LCS*				**Batch ID: R43553**		**Analysis Date: 2/7/2011 11:26:00 AM**			
Alkalinity, Total (As CaCO3)	79.88	mg/L Ca	20	80	0	99.8	96.5	104			
Sample ID: LCS-2		*LCS*				**Batch ID: R43553**		**Analysis Date: 2/7/2011 5:50:00 PM**			
Alkalinity, Total (As CaCO3)	80.40	mg/L Ca	20	80	0	101	96.5	104			
Sample ID: 1101696-02CMS		*MS*				**Batch ID: R43553**		**Analysis Date: 2/7/2011 5:08:00 PM**			
Alkalinity, Total (As CaCO3)	434.6	mg/L Ca	20	80	365.6	86.2	32.8	119			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: GBR **Work Order:** 1101896

Analyte	Result	Units	PQL	SPK Val	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES											
Sample ID: 1101896-03a msd		*MSD*				Batch ID:	R43488	Analysis Date:		2/3/2011 6:59:10 AM	
Benzene	19.38	µg/L	1.0	20	0	96.9	73.1	117	0.0227	11.3	
Toluene	18.29	µg/L	1.0	20	0	91.4	82.9	109	0.969	11.6	
Chlorobenzene	18.62	µg/L	1.0	20	0	93.1	87.5	110	0.114	10.6	
1,1-Dichloroethene	19.82	µg/L	1.0	20	0	99.1	66.2	131	1.88	14.4	
Trichloroethene (TCE)	16.01	µg/L	1.0	20	0	80.0	67.1	110	1.65	11.2	
Sample ID: 5ml-rb		*MBLK*				Batch ID:	R43488	Analysis Date:		2/2/2011 11:54:31 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	3.0								
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	3.0								
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
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- H Holding times for preparation or analysis exceeded
- NC Non-Chlorinated
- R RPD outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: GBR **Work Order:** 1101896

Analyte	Result	Units	PQL	SPK Val	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES											
Sample ID: 5ml-rb		*MBLK*				**Batch ID: R43488**		**Analysis Date:**		**2/2/2011 11:54:31 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								
[illegible]s-1,3-Dichloropropene	ND	µg/L	1.0								
[illegible]-Trichlorobenzene	ND	µg/L	1.0								
[illegible]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: R43488**		**Analysis Date:**		**2/2/2011 12:49:31 PM**	
Benzene	19.22	µg/L	1.0	20	0	96.1	84.6	109			
Toluene	17.44	µg/L	1.0	20	0	87.2	81	114			
Chlorobenzene	17.55	µg/L	1.0	20	0	87.8	85.2	113			
1,1-Dichloroethene	20.61	µg/L	1.0	20	0	103	79.6	124			
Trichloroethene (TCE)	15.93	µg/L	1.0	20	0	79.6	78.3	102			
Sample ID: 1101896-03a ms		*MS*				**Batch ID: R43488**		**Analysis Date:**		**2/3/2011 6:31:53 AM**	
Benzene	19.38	µg/L	1.0	20	0	96.9	73.1	117			
Toluene	18.46	µg/L	1.0	20	0	92.3	82.9	109			
Chlorobenzene	18.64	µg/L	1.0	20	0	93.2	87.5	110			
1,1-Dichloroethene	20.20	µg/L	1.0	20	0	101	66.2	131			
Trichloroethene (TCE)	15.71	µg/L	1.0	20	0	78.6	67.1	110			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: GBR **Work Order:** 1101896

Analyte	Result	Units	PQL	SPK Val	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8270C: PAHs											
Sample ID: mb-25479		*MBLK*				**Batch ID: 25479**		**Analysis Date:**		**2/3/2011 2:02:30 PM**	
Naphthalene	ND	µg/L	0.50								
1-Methylnaphthalene	ND	µg/L	0.50								
2-Methylnaphthalene	ND	µg/L	0.50								
Acenaphthylene	ND	µg/L	0.50								
Acenaphthene	ND	µg/L	0.50								
Fluorene	ND	µg/L	0.50								
Phenanthrene	ND	µg/L	0.50								
Anthracene	ND	µg/L	0.50								
Fluoranthene	ND	µg/L	0.50								
Pyrene	ND	µg/L	0.50								
Benz(a)anthracene	ND	µg/L	0.50								
Chrysene	ND	µg/L	0.50								
Benzo(b)fluoranthene	ND	µg/L	0.50								
Benzo(k)fluoranthene	ND	µg/L	0.50								
Benzo(a)pyrene	ND	µg/L	0.50								
Dibenz(a,h)anthracene	ND	µg/L	0.50								
Benzo(g,h,i)perylene	ND	µg/L	0.50								
Indeno(1,2,3-cd)pyrene	ND	µg/L	0.50								
Sample ID: lcs-25479		*LCS*				**Batch ID: 25479**		**Analysis Date:**		**2/3/2011 2:24:41 P**	
Naphthalene	18.14	µg/L	0.50	20	0	90.7	33.9	106			
1-Methylnaphthalene	18.96	µg/L	0.50	20	0	94.8	36.3	111			
2-Methylnaphthalene	17.48	µg/L	0.50	20	0	87.4	36.5	105			
Acenaphthylene	16.96	µg/L	0.50	20	0	84.8	28.4	122			
Acenaphthene	15.74	µg/L	0.50	20	0	78.7	32.7	118			
Fluorene	16.78	µg/L	0.50	20	0	83.9	39.1	119			
Phenanthrene	20.56	µg/L	0.50	20	0	103	47.1	119			
Anthracene	20.00	µg/L	0.50	20	0	100	51.1	117			
Fluoranthene	19.48	µg/L	0.50	20	0	97.4	40	132			
Pyrene	17.58	µg/L	0.50	20	0	87.9	43.9	123			
Benz(a)anthracene	17.58	µg/L	0.50	20	0	87.9	35	163			
Chrysene	18.10	µg/L	0.50	20	0	90.5	45.9	119			
Benzo(b)fluoranthene	17.96	µg/L	0.50	20	0	89.8	36.5	137			
Benzo(k)fluoranthene	18.24	µg/L	0.50	20	0	91.2	37.1	143			
Benzo(a)pyrene	17.26	µg/L	0.50	20	0	86.3	26.7	144			
Dibenz(a,h)anthracene	19.14	µg/L	0.50	20	0	95.7	31	146			
Benzo(g,h,i)perylene	18.36	µg/L	0.50	20	0	91.8	30.9	150			
Indeno(1,2,3-cd)pyrene	18.50	µg/L	0.50	20	0	92.5	35.2	169			
Sample ID: lcsd-25479		*LCSD*				**Batch ID: 25479**		**Analysis Date:**		**2/3/2011 2:46:52 PM**	
Naphthalene	16.88	µg/L	0.50	20	0	84.4	33.9	106	7.20	20	
1-Methylnaphthalene	17.68	µg/L	0.50	20	0	88.4	36.3	111	6.99	20	
2-Methylnaphthalene	16.50	µg/L	0.50	20	0	82.5	36.5	105	5.77	20	
Acenaphthylene	17.60	µg/L	0.50	20	0	88.0	28.4	122	3.70	20	
Acenaphthene	17.00	µg/L	0.50	20	0	85.0	32.7	118	7.70	20	
Fluorene	17.98	µg/L	0.50	20	0	89.9	39.1	119	6.90	20	

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: GBR **Work Order:** 1101896

Analyte	Result	Units	PQL	SPK Val	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8270C: PAHs											
Sample ID: lcsd-25479		*LCSD*				**Batch ID: 25479**		**Analysis Date:**		**2/3/2011 2:46:52 PM**	
Phenanthrene	21.62	µg/L	0.50	20	0	108	47.1	119	5.03	20	
Anthracene	21.96	µg/L	0.50	20	0	110	51.1	117	9.34	20	
Fluoranthene	21.36	µg/L	0.50	20	0	107	40	132	9.21	20	
Pyrene	19.96	µg/L	0.50	20	0	99.8	43.9	123	12.7	20	
Benz(a)anthracene	19.74	µg/L	0.50	20	0	98.7	35	163	11.6	20	
Chrysene	21.54	µg/L	0.50	20	0	108	45.9	119	17.4	20	
Benzo(b)fluoranthene	20.06	µg/L	0.50	20	0	100	36.5	137	11.0	20	
Benzo(k)fluoranthene	20.72	µg/L	0.50	20	0	104	37.1	143	12.7	20	
Benzo(a)pyrene	19.62	µg/L	0.50	20	0	98.1	26.7	144	12.8	20	
Dibenz(a,h)anthracene	21.58	µg/L	0.50	20	0	108	31	146	12.0	20	
Benzo(g,h,i)perylene	20.86	µg/L	0.50	20	0	104	30.9	150	12.7	20	
Indeno(1,2,3-cd)pyrene	21.38	µg/L	0.50	20	0	107	35.2	169	14.4	20	
Method: SM2540C MOD: Total Dissolved Solids											
Sample ID: 1101896-03CMSD		*MSD*				**Batch ID: 25500**		**Analysis Date:**		**2/3/2011 1:53:00 PM**	
Total Dissolved Solids	3963	mg/L	20.0	1000	3027	93.6	80	120	2.34	20	
Sample ID: MB-25500		*MBLK*				**Batch ID: 25500**		**Analysis Date:**		**2/3/2011 1:53:00 PM**	
Total Dissolved Solids	ND	mg/L	20.0								
Sample ID: LCS-25500		*LCS*				**Batch ID: 25500**		**Analysis Date:**		**2/3/2011 1:53:00 PM**	
Total Dissolved Solids	1005	mg/L	20.0	1000	0	101	80	120			
Sample ID: 1101896-03CMS		*MS*				**Batch ID: 25500**		**Analysis Date:**		**2/3/2011 1:53:00 PM**	
Total Dissolved Solids	4057	mg/L	20.0	1000	3027	103	80	120			

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name WESTERN REFINING SOUT | Date Received: 1/28/2011

Work Order Number 1101896 | Received by: AMG

Checklist completed by: _____ 01/28/11 (Signature / Date) | Sample ID labels checked by: _____ (Initials)

Matrix: | Carrier name: Greyhound

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?	3.2°	<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: _____

Corrective Action _____

Chain-of-Custody Record

Client: Western Refining

Mailing Address: 111 CR 4990
Bloomfield NM

Phone #:

email or Fax#:

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

Accreditation
☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush

Project Name: GBR

Project #:

Project Manager: Ashley Ager

Sampler: Troy Urban

On Ice: ☒ Yes ☐ No

Sample Temperature: 3.2

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 # (AT 2/11/11)	Preservative Type	HEAL No. 1101896	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)	See Attached List				Air Bubbles (Y or N)
01/27/11	1012	GW	GBR 51	5		-1												✓				
01/27/11	1053	GW	Influent	5		-2												✓				
01/27/11	1122	GW	Effluent	7 *		-3												✓				
01/26/11	0920	GW	GBR 49	6 *		-4												✓				
01/26/11	1117	GW	GBR 24D	6 *		-5												✓				

Date:	Time:	Relinquished by:	Received by:	Date	Time
1/27/11	1327	Troy Urban	Christine Walker	1/27/11	1327
1/27/11	1440	Christine Walker		1/28/11	1102

Remarks: Please email results to aager@ltenv.com

* = 8270 sims
X = additional metal list AT 2/11/11

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, February 21, 2011

Ashley Ager
Western Refining Southwest, Inc.
#50 CR 4990
Bloomfield, NM 87413
TEL: (970) 946-1093
FAX (505) 632-3911

RE: GBR

Order No.: 1101899

Dear Ashley Ager:

Hall Environmental Analysis Laboratory, Inc. received 3 sample(s) on 1/28/2011 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.

Please do not 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: 21-Feb-11

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	GBR 48
Lab Order:	1101899	**Collection Date:**	1/25/2011 10:19:00 AM
Project:	GBR	**Date Received:**	1/28/2011
Lab ID:	1101899-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Chloride	390	10		mg/L	20	1/29/2011 7:40:36 AM
Sulfate	2200	50		mg/L	100	2/1/2011 5:52:14 AM
EPA METHOD 200.7: METALS						Analyst: **RAGS**
Beryllium	ND	0.0020		mg/L	1	2/3/2011 4:48:30 PM
Cadmium	ND	0.0020		mg/L	1	2/3/2011 4:48:30 PM
Calcium	460	20		mg/L	20	2/3/2011 8:53:13 PM
Chromium	0.71	0.0060		mg/L	1	2/3/2011 4:48:30 PM
Copper	0.013	0.0060		mg/L	1	2/3/2011 4:48:30 PM
Iron	9.3	0.40		mg/L	20	2/3/2011 8:53:13 PM
Magnesium	46	1.0		mg/L	1	2/3/2011 4:48:30 PM
Nickel	0.071	0.010		mg/L	1	2/3/2011 4:48:30 PM
Potassium	6.0	1.0		mg/L	1	2/3/2011 4:48:30 PM
Silver	ND	0.0050		mg/L	1	2/11/2011 5:12:44 PM
Sodium	720	20		mg/L	20	2/3/2011 8:53:13 PM
Zinc	0.076	0.010		mg/L	1	2/3/2011 4:48:30 PM
EPA 200.8: METALS						Analyst: **SNV**
Antimony	ND	0.0025		mg/L	2.5	2/9/2011 2:32:41 PM
Arsenic	0.0089	0.0050		mg/L	5	2/9/2011 3:53:32 PM
Selenium	0.19	0.0050		mg/L	5	2/9/2011 3:53:32 PM
Thallium	ND	0.0025		mg/L	2.5	2/9/2011 2:32:41 PM
EPA METHOD 245.1: MERCURY						Analyst: **ELS**
Mercury	ND	0.00020		mg/L	1	2/3/2011 12:19:38 PM
EPA 200.7: HARDNESS						Analyst: **RAGS**
Hardness (As CaCO3)	1300	1.0		mg/L	1	2/3/2011
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	2/3/2011 8:20:50 AM
Toluene	ND	1.0		µg/L	1	2/3/2011 8:20:50 AM
Ethylbenzene	ND	1.0		µg/L	1	2/3/2011 8:20:50 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	2/3/2011 8:20:50 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	2/3/2011 8:20:50 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	2/3/2011 8:20:50 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	2/3/2011 8:20:50 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	2/3/2011 8:20:50 AM
Naphthalene	ND	2.0		µg/L	1	2/3/2011 8:20:50 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	2/3/2011 8:20:50 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	2/3/2011 8:20:50 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
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *21-Feb-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	GBR 48
Lab Order:	1101899	**Collection Date:**	1/25/2011 10:19:00 AM
Project:	GBR	**Date Received:**	1/28/2011
Lab ID:	1101899-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Acetone	ND	10		µg/L	1	2/3/2011 8:20:50 AM
Bromobenzene	ND	1.0		µg/L	1	2/3/2011 8:20:50 AM
Bromodichloromethane	ND	1.0		µg/L	1	2/3/2011 8:20:50 AM
Bromoform	ND	1.0		µg/L	1	2/3/2011 8:20:50 AM
Bromomethane	ND	3.0		µg/L	1	2/3/2011 8:20:50 AM
2-Butanone	ND	10		µg/L	1	2/3/2011 8:20:50 AM
Carbon disulfide	ND	10		µg/L	1	2/3/2011 8:20:50 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	2/3/2011 8:20:50 AM
Chlorobenzene	ND	1.0		µg/L	1	2/3/2011 8:20:50 AM
Chloroethane	ND	2.0		µg/L	1	2/3/2011 8:20:50 AM
Chloroform	ND	1.0		µg/L	1	2/3/2011 8:20:50 AM
Chloromethane	ND	3.0		µg/L	1	2/3/2011 8:20:50 AM
2-Chlorotoluene	ND	1.0		µg/L	1	2/3/2011 8:20:50 AM
4-Chlorotoluene	ND	1.0		µg/L	1	2/3/2011 8:20:50 AM
cis-1,2-DCE	ND	1.0		µg/L	1	2/3/2011 8:20:50 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	2/3/2011 8:20:50 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	2/3/2011 8:20:50 AM
Dibromochloromethane	ND	1.0		µg/L	1	2/3/2011 8:20:50 AM
Dibromomethane	ND	1.0		µg/L	1	2/3/2011 8:20:50 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	2/3/2011 8:20:50 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	2/3/2011 8:20:50 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	2/3/2011 8:20:50 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	2/3/2011 8:20:50 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	2/3/2011 8:20:50 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	2/3/2011 8:20:50 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	2/3/2011 8:20:50 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	2/3/2011 8:20:50 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	2/3/2011 8:20:50 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	2/3/2011 8:20:50 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	2/3/2011 8:20:50 AM
2-Hexanone	ND	10		µg/L	1	2/3/2011 8:20:50 AM
Isopropylbenzene	ND	1.0		µg/L	1	2/3/2011 8:20:50 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	2/3/2011 8:20:50 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	2/3/2011 8:20:50 AM
Methylene Chloride	ND	3.0		µg/L	1	2/3/2011 8:20:50 AM
n-Butylbenzene	ND	1.0		µg/L	1	2/3/2011 8:20:50 AM
n-Propylbenzene	ND	1.0		µg/L	1	2/3/2011 8:20:50 AM
sec-Butylbenzene	ND	1.0		µg/L	1	2/3/2011 8:20:50 AM
Styrene	ND	1.0		µg/L	1	2/3/2011 8:20:50 AM
tert-Butylbenzene	ND	1.0		µg/L	1	2/3/2011 8:20:50 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	2/3/2011 8:20:50 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
- NC Non-Chlorinated
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitation Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *21-Feb-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	GBR 48
Lab Order:	1101899	**Collection Date:**	1/25/2011 10:19:00 AM
Project:	GBR	**Date Received:**	1/28/2011
Lab ID:	1101899-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	2/3/2011 8:20:50 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	2/3/2011 8:20:50 AM
trans-1,2-DCE	ND	1.0		µg/L	1	2/3/2011 8:20:50 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	2/3/2011 8:20:50 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	2/3/2011 8:20:50 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	2/3/2011 8:20:50 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	2/3/2011 8:20:50 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	2/3/2011 8:20:50 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	2/3/2011 8:20:50 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	2/3/2011 8:20:50 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	2/3/2011 8:20:50 AM
Vinyl chloride	ND	1.0		µg/L	1	2/3/2011 8:20:50 AM
Xylenes, Total	ND	1.5		µg/L	1	2/3/2011 8:20:50 AM
Surr: 1,2-Dichloroethane-d4	88.0	77.7-113		%REC	1	2/3/2011 8:20:50 AM
Surr: 4-Bromofluorobenzene	111	76.4-106	S	%REC	1	2/3/2011 8:20:50 AM
Surr: Dibromofluoromethane	107	91.6-125		%REC	1	2/3/2011 8:20:50 AM
Surr: Toluene-d8	94.6	92.3-107		%REC	1	2/3/2011 8:20:50 AM
SM 2320B: ALKALINITY						Analyst: **IC**
Alkalinity, Total (As CaCO3)	250	20		mg/L CaCO3	1	2/1/2011 9:28:00 PM
Carbonate	ND	2.0		mg/L CaCO3	1	2/1/2011 9:28:00 PM
Bicarbonate	250	20		mg/L CaCO3	1	2/1/2011 9:28:00 PM
Hydroxide	ND	2.0		mg/L CaCO3	1	2/1/2011 9:28:00 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **IC**
Specific Conductance	4400	0.010		µmhos/cm	1	2/1/2011 9:28:00 PM
SM4500-H+B: PH						Analyst: **IC**
pH	7.63	0.100		pH units	1	2/1/2011 9:28:00 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**
Total Dissolved Solids	3510	40.0		mg/L	1	2/1/2011 2:26:00 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
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *21-Feb-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	GBR 52
Lab Order:	1101899	**Collection Date:**	1/25/2011 1:39:00 PM
Project:	GBR	**Date Received:**	1/28/2011
Lab ID:	1101899-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Chloride	62	10		mg/L	20	1/29/2011 8:15:25 AM
Sulfate	1900	25		mg/L	50	2/1/2011 6:44:28 AM
EPA METHOD 200.7: TOTAL METALS						Analyst: **RAGS**
Calcium	450	10		mg/L	10	2/3/2011 9:04:27 PM
Magnesium	37	1.0		mg/L	1	2/3/2011 4:52:57 PM
Potassium	1.7	1.0		mg/L	1	2/3/2011 4:52:57 PM
Sodium	340	10		mg/L	10	2/3/2011 9:04:27 PM
EPA 200.7: HARDNESS						Analyst: **RAGS**
Hardness (As CaCO3)	1300	1.0		mg/L	1	2/3/2011
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	2/3/2011 8:48:09 AM
Toluene	ND	1.0		µg/L	1	2/3/2011 8:48:09 AM
Ethylbenzene	ND	1.0		µg/L	1	2/3/2011 8:48:09 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	2/3/2011 8:48:09 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	2/3/2011 8:48:09 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	2/3/2011 8:48:09 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	2/3/2011 8:48:09 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	2/3/2011 8:48:09 AM
Naphthalene	ND	2.0		µg/L	1	2/3/2011 8:48:09 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	2/3/2011 8:48:09 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	2/3/2011 8:48:09 AM
Acetone	ND	10		µg/L	1	2/3/2011 8:48:09 AM
Bromobenzene	ND	1.0		µg/L	1	2/3/2011 8:48:09 AM
Bromodichloromethane	ND	1.0		µg/L	1	2/3/2011 8:48:09 AM
Bromoform	ND	1.0		µg/L	1	2/3/2011 8:48:09 AM
Bromomethane	ND	3.0		µg/L	1	2/3/2011 8:48:09 AM
2-Butanone	ND	10		µg/L	1	2/3/2011 8:48:09 AM
Carbon disulfide	ND	10		µg/L	1	2/3/2011 8:48:09 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	2/3/2011 8:48:09 AM
Chlorobenzene	ND	1.0		µg/L	1	2/3/2011 8:48:09 AM
Chloroethane	ND	2.0		µg/L	1	2/3/2011 8:48:09 AM
Chloroform	ND	1.0		µg/L	1	2/3/2011 8:48:09 AM
Chloromethane	ND	3.0		µg/L	1	2/3/2011 8:48:09 AM
2-Chlorotoluene	ND	1.0		µg/L	1	2/3/2011 8:48:09 AM
4-Chlorotoluene	ND	1.0		µg/L	1	2/3/2011 8:48:09 AM
cis-1,2-DCE	ND	1.0		µg/L	1	2/3/2011 8:48:09 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	2/3/2011 8:48:09 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	2/3/2011 8:48:09 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
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *21-Feb-11*

CLIENT: Western Refining Southwest, Inc.
Lab Order: 1101899
Project: GBR
Lab ID: 1101899-02

Client Sample ID: GBR 52
Collection Date: 1/25/2011 1:39:00 PM
Date Received: 1/28/2011
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Dibromochloromethane	ND	1.0		µg/L	1	2/3/2011 8:48:09 AM
Dibromomethane	ND	1.0		µg/L	1	2/3/2011 8:48:09 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	2/3/2011 8:48:09 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	2/3/2011 8:48:09 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	2/3/2011 8:48:09 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	2/3/2011 8:48:09 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	2/3/2011 8:48:09 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	2/3/2011 8:48:09 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	2/3/2011 8:48:09 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	2/3/2011 8:48:09 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	2/3/2011 8:48:09 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	2/3/2011 8:48:09 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	2/3/2011 8:48:09 AM
2-Hexanone	ND	10		µg/L	1	2/3/2011 8:48:09 AM
Isopropylbenzene	ND	1.0		µg/L	1	2/3/2011 8:48:09 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	2/3/2011 8:48:09 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	2/3/2011 8:48:09 AM
Methylene Chloride	ND	3.0		µg/L	1	2/3/2011 8:48:09 AM
n-Butylbenzene	ND	1.0		µg/L	1	2/3/2011 8:48:09 AM
n-Propylbenzene	ND	1.0		µg/L	1	2/3/2011 8:48:09 AM
sec-Butylbenzene	ND	1.0		µg/L	1	2/3/2011 8:48:09 AM
Styrene	ND	1.0		µg/L	1	2/3/2011 8:48:09 AM
tert-Butylbenzene	ND	1.0		µg/L	1	2/3/2011 8:48:09 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	2/3/2011 8:48:09 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	2/3/2011 8:48:09 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	2/3/2011 8:48:09 AM
trans-1,2-DCE	ND	1.0		µg/L	1	2/3/2011 8:48:09 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	2/3/2011 8:48:09 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	2/3/2011 8:48:09 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	2/3/2011 8:48:09 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	2/3/2011 8:48:09 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	2/3/2011 8:48:09 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	2/3/2011 8:48:09 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	2/3/2011 8:48:09 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	2/3/2011 8:48:09 AM
Vinyl chloride	ND	1.0		µg/L	1	2/3/2011 8:48:09 AM
Xylenes, Total	ND	1.5		µg/L	1	2/3/2011 8:48:09 AM
Surr: 1,2-Dichloroethane-d4	88.2	77.7-113		%REC	1	2/3/2011 8:48:09 AM
Surr: 4-Bromofluorobenzene	112	76.4-106	S	%REC	1	2/3/2011 8:48:09 AM
Surr: Dibromofluoromethane	109	91.6-125		%REC	1	2/3/2011 8:48:09 AM
Surr: Toluene-d8	95.6	92.3-107		%REC	1	2/3/2011 8:48:09 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *21-Feb-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	GBR 52
Lab Order:	1101899	**Collection Date:**	1/25/2011 1:39:00 PM
Project:	GBR	**Date Received:**	1/28/2011
Lab ID:	1101899-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
SM 2320B: ALKALINITY						Analyst: IC
Alkalinity, Total (As CaCO3)	210	20		mg/L CaCO3	1	2/1/2011 9:41:00 PM
Carbonate	ND	2.0		mg/L CaCO3	1	2/1/2011 9:41:00 PM
Bicarbonate	210	20		mg/L CaCO3	1	2/1/2011 9:41:00 PM
Hydroxide	ND	2.0		mg/L CaCO3	1	2/1/2011 9:41:00 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: IC
Specific Conductance	3100	0.010		µmhos/cm	1	2/1/2011 9:41:00 PM
SM4500-H+B: PH						Analyst: IC
pH	7.82	0.100		pH units	1	2/1/2011 9:41:00 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: KS
Total Dissolved Solids	2700	20.0		mg/L	1	2/1/2011 2:26:00 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
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *21-Feb-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	GBR 32
Lab Order:	1101899	**Collection Date:**	1/25/2011 11:27:00 AM
Project:	GBR	**Date Received:**	1/28/2011
Lab ID:	1101899-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: SRM
Chloride	420	25		mg/L	50	2/1/2011 7:01:53 AM
Sulfate	2300	50		mg/L	100	2/1/2011 7:19:18 AM
EPA METHOD 200.7: TOTAL METALS						Analyst: RAGS
Beryllium	ND	0.0020		mg/L	1	2/3/2011 4:59:33 PM
Cadmium	ND	0.0020		mg/L	1	2/3/2011 4:59:33 PM
Calcium	450	10		mg/L	10	2/3/2011 9:24:15 PM
Chromium	0.13	0.0060		mg/L	1	2/3/2011 4:59:33 PM
Copper	0.014	0.0060		mg/L	1	2/3/2011 4:59:33 PM
Lead	ND	0.0050		mg/L	1	2/3/2011 4:59:33 PM
Magnesium	53	1.0		mg/L	1	2/3/2011 4:59:33 PM
Nickel	0.21	0.010		mg/L	1	2/3/2011 4:59:33 PM
Potassium	4.7	1.0		mg/L	1	2/3/2011 4:59:33 PM
Silver	ND	0.0050		mg/L	1	2/11/2011 12:10:42 PM
Sodium	700	10		mg/L	10	2/3/2011 9:24:15 PM
Zinc	0.11	0.010		mg/L	1	2/3/2011 4:59:33 PM
EPA 200.8: METALS						Analyst: SNV
Antimony	ND	0.0025		mg/L	2.5	2/9/2011 2:39:29 PM
Arsenic	0.0033	0.0025		mg/L	2.5	2/9/2011 2:39:29 PM
Selenium	0.048	0.0025		mg/L	2.5	2/9/2011 2:39:29 PM
Thallium	ND	0.0025		mg/L	2.5	2/9/2011 2:39:29 PM
EPA METHOD 245.1: MERCURY						Analyst: ELS
Mercury	ND	0.00020		mg/L	1	2/3/2011 12:25:07 PM
EPA 200.7: HARDNESS						Analyst: RAGS
Hardness (As CaCO3)	1400	1.0		mg/L	1	2/3/2011
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Benzene	ND	1.0		µg/L	1	2/3/2011 9:15:27 AM
Toluene	ND	1.0		µg/L	1	2/3/2011 9:15:27 AM
Ethylbenzene	ND	1.0		µg/L	1	2/3/2011 9:15:27 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	2/3/2011 9:15:27 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	2/3/2011 9:15:27 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	2/3/2011 9:15:27 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	2/3/2011 9:15:27 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	2/3/2011 9:15:27 AM
Naphthalene	ND	2.0		µg/L	1	2/3/2011 9:15:27 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	2/3/2011 9:15:27 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	2/3/2011 9:15:27 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
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *21-Feb-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	GBR 32
Lab Order:	1101899	**Collection Date:**	1/25/2011 11:27:00 AM
Project:	GBR	**Date Received:**	1/28/2011
Lab ID:	1101899-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Acetone	ND	10		µg/L	1	2/3/2011 9:15:27 AM
Bromobenzene	ND	1.0		µg/L	1	2/3/2011 9:15:27 AM
Bromodichloromethane	ND	1.0		µg/L	1	2/3/2011 9:15:27 AM
Bromoform	ND	1.0		µg/L	1	2/3/2011 9:15:27 AM
Bromomethane	ND	3.0		µg/L	1	2/3/2011 9:15:27 AM
2-Butanone	ND	10		µg/L	1	2/3/2011 9:15:27 AM
Carbon disulfide	ND	10		µg/L	1	2/3/2011 9:15:27 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	2/3/2011 9:15:27 AM
Chlorobenzene	ND	1.0		µg/L	1	2/3/2011 9:15:27 AM
Chloroethane	ND	2.0		µg/L	1	2/3/2011 9:15:27 AM
Chloroform	ND	1.0		µg/L	1	2/3/2011 9:15:27 AM
Chloromethane	ND	3.0		µg/L	1	2/3/2011 9:15:27 AM
2-Chlorotoluene	ND	1.0		µg/L	1	2/3/2011 9:15:27 AM
4-Chlorotoluene	ND	1.0		µg/L	1	2/3/2011 9:15:27 AM
cis-1,2-DCE	ND	1.0		µg/L	1	2/3/2011 9:15:27 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	2/3/2011 9:15:27 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	2/3/2011 9:15:27 AM
Dibromochloromethane	ND	1.0		µg/L	1	2/3/2011 9:15:27 AM
Dibromomethane	ND	1.0		µg/L	1	2/3/2011 9:15:27 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	2/3/2011 9:15:27 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	2/3/2011 9:15:27 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	2/3/2011 9:15:27 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	2/3/2011 9:15:27 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	2/3/2011 9:15:27 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	2/3/2011 9:15:27 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	2/3/2011 9:15:27 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	2/3/2011 9:15:27 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	2/3/2011 9:15:27 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	2/3/2011 9:15:27 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	2/3/2011 9:15:27 AM
2-Hexanone	ND	10		µg/L	1	2/3/2011 9:15:27 AM
Isopropylbenzene	ND	1.0		µg/L	1	2/3/2011 9:15:27 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	2/3/2011 9:15:27 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	2/3/2011 9:15:27 AM
Methylene Chloride	ND	3.0		µg/L	1	2/3/2011 9:15:27 AM
n-Butylbenzene	ND	1.0		µg/L	1	2/3/2011 9:15:27 AM
n-Propylbenzene	ND	1.0		µg/L	1	2/3/2011 9:15:27 AM
sec-Butylbenzene	ND	1.0		µg/L	1	2/3/2011 9:15:27 AM
Styrene	ND	1.0		µg/L	1	2/3/2011 9:15:27 AM
tert-Butylbenzene	ND	1.0		µg/L	1	2/3/2011 9:15:27 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	2/3/2011 9:15:27 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
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *21-Feb-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	GBR 32
Lab Order:	1101899	**Collection Date:**	1/25/2011 11:27:00 AM
Project:	GBR	**Date Received:**	1/28/2011
Lab ID:	1101899-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	2/3/2011 9:15:27 AM
Tetrachloroethene (PCE)	1.2	1.0		µg/L	1	2/3/2011 9:15:27 AM
trans-1,2-DCE	ND	1.0		µg/L	1	2/3/2011 9:15:27 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	2/3/2011 9:15:27 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	2/3/2011 9:15:27 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	2/3/2011 9:15:27 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	2/3/2011 9:15:27 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	2/3/2011 9:15:27 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	2/3/2011 9:15:27 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	2/3/2011 9:15:27 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	2/3/2011 9:15:27 AM
Vinyl chloride	ND	1.0		µg/L	1	2/3/2011 9:15:27 AM
Xylenes, Total	ND	1.5		µg/L	1	2/3/2011 9:15:27 AM
Surr: 1,2-Dichloroethane-d4	86.9	77.7-113		%REC	1	2/3/2011 9:15:27 AM
Surr: 4-Bromofluorobenzene	113	76.4-106	S	%REC	1	2/3/2011 9:15:27 AM
Surr: Dibromofluoromethane	103	91.6-125		%REC	1	2/3/2011 9:15:27 AM
Surr: Toluene-d8	96.9	92.3-107		%REC	1	2/3/2011 9:15:27 AM
SM 2320B: ALKALINITY						Analyst: **IC**
Alkalinity, Total (As CaCO3)	310	20		mg/L CaCO3	1	2/1/2011 9:52:00 PM
Carbonate	ND	2.0		mg/L CaCO3	1	2/1/2011 9:52:00 PM
Bicarbonate	310	20		mg/L CaCO3	1	2/1/2011 9:52:00 PM
Hydroxide	ND	2.0		mg/L CaCO3	1	2/1/2011 9:52:00 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **IC**
Specific Conductance	4800	0.010		µmhos/cm	1	2/1/2011 9:52:00 PM
SM4500-H+B: PH						Analyst: **IC**
pH	7.67	0.100		pH units	1	2/1/2011 9:52:00 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**
Total Dissolved Solids	4010	20.0		mg/L	1	2/1/2011 2:26:00 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
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: GBR **Work Order:** 1101899

Analyte	Result	Units	PQL	SPK Val	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: **EPA Method 200.7: Metals**											
Sample ID: **MB-25514**		*MBLK*				**Batch ID:**	**25514**	**Analysis Date:**		**2/3/2011 4:36:56 PM**	
Beryllium	ND	mg/L	0.0020								
Cadmium	ND	mg/L	0.0020								
Calcium	ND	mg/L	1.0								
Chromium	ND	mg/L	0.0060								
Copper	ND	mg/L	0.0060								
Iron	ND	mg/L	0.020								
Lead	ND	mg/L	0.0050								
Magnesium	ND	mg/L	1.0								
Nickel	ND	mg/L	0.010								
Potassium	ND	mg/L	1.0								
Sodium	ND	mg/L	1.0								
Zinc	ND	mg/L	0.010								
Sample ID: **MB-25581**		*MBLK*				**Batch ID:**	**25581**	**Analysis Date:**		**2/11/2011 4:29:28 PM**	
Copper	ND	mg/L	0.0060								
Silver	ND	mg/L	0.0050								
Sample ID: **LCS-25514**		*LCS*				**Batch ID:**	**25514**	**Analysis Date:**		**2/3/2011 4:40:40 PM**	
Beryllium	0.5386	mg/L	0.0020	0.5	0	108	85	115			
Cadmium	0.5061	mg/L	0.0020	0.5	0	101	85	115			
Calcium	51.82	mg/L	1.0	50.5	0	103	85	115			
Chromium	0.5317	mg/L	0.0060	0.5	0	106	85	115			
Copper	0.5484	mg/L	0.0060	0.5	0.003	109	85	115			
Iron	0.5182	mg/L	0.020	0.5	0.0032	103	85	115			
Lead	0.5052	mg/L	0.0050	0.5	0	101	85	115			
Magnesium	52.47	mg/L	1.0	50.5	0	104	85	115			
Nickel	0.4909	mg/L	0.010	0.5	0	98.2	85	115			
Potassium	55.17	mg/L	1.0	55	0	100	85	115			
Sodium	51.89	mg/L	1.0	50.5	0	103	85	115			
Zinc	0.4978	mg/L	0.010	0.5	0	99.6	85	115			
Sample ID: **LCS-25581**		*LCS*				**Batch ID:**	**25581**	**Analysis Date:**		**2/11/2011 11:55:16 AM**	
Copper	0.5648	mg/L	0.0060	0.5	0	113	85	115			
Silver	0.5140	mg/L	0.0050	0.5	0.0007	103	85	115			

Qualifiers:

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

QA/QC SUMMARY REPORT

t: Western Refining Southwest, Inc.
Project: GBR **Work Order:** 1101899

Analyte	Result	Units	PQL	SPK Val	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 200.7: Total Metals											
Sample ID: 1101899-03CMSD		*MSD*				**Batch ID: 25591**		**Analysis Date:**		**2/11/2011 12:21:20 PM**	
Silver	0.5294	mg/L	0.0050	0.5	0	106	70	130	1.96	20	
Sample ID: MB-25514		*MBLK*				**Batch ID: 25514**		**Analysis Date:**		**2/3/2011 4:36:56 PM**	
Beryllium	ND	mg/L	0.0020								
Cadmium	ND	mg/L	0.0020								
Calcium	ND	mg/L	1.0								
Chromium	ND	mg/L	0.0060								
Copper	ND	mg/L	0.0060								
Iron	ND	mg/L	0.020								
Lead	ND	mg/L	0.0050								
Magnesium	ND	mg/L	1.0								
Nickel	ND	mg/L	0.010								
Potassium	ND	mg/L	1.0								
Sodium	ND	mg/L	1.0								
Zinc	ND	mg/L	0.010								
Sample ID: LCS-25514		*LCS*				**Batch ID: 25514**		**Analysis Date:**		**2/3/2011 4:40:40 PM**	
Beryllium	0.5386	mg/L	0.0020	0.5	0	108	85	115			
Cadmium	0.5061	mg/L	0.0020	0.5	0	101	85	115			
[illegible]ium	51.82	mg/L	1.0	50.5	0	103	85	115			
[illegible]nium	0.5317	mg/L	0.0060	0.5	0	106	85	115			
[illegible]per	0.5484	mg/L	0.0060	0.5	0.003	109	85	115			
Iron	0.5182	mg/L	0.020	0.5	0.0032	103	85	115			
Lead	0.5052	mg/L	0.0050	0.5	0	101	85	115			
Magnesium	52.47	mg/L	1.0	50.5	0	104	85	115			
Nickel	0.4909	mg/L	0.010	0.5	0	98.2	85	115			
Potassium	55.17	mg/L	1.0	55	0	100	85	115			
Sodium	51.89	mg/L	1.0	50.5	0	103	85	115			
Zinc	0.4978	mg/L	0.010	0.5	0	99.6	85	115			
Sample ID: 1101899-03CMS		*MS*				**Batch ID: 25591**		**Analysis Date:**		**2/11/2011 12:15:57 PM**	
Silver	0.5398	mg/L	0.0050	0.5	0	108	70	130			
Method: EPA 200.8: Metals											
Sample ID: MB-25514		*MBLK*				**Batch ID: 25514**		**Analysis Date:**		**2/9/2011 1:44:44 PM**	
Antimony	ND	mg/L	0.0025								
Arsenic	ND	mg/L	0.0025								
Lead	ND	mg/L	0.0025								
Selenium	ND	mg/L	0.0025								
Thallium	ND	mg/L	0.0025								
Sample ID: MB-25581		*MBLK*				**Batch ID: 25581**		**Analysis Date:**		**2/10/2011 6:02:15 PM**	
Arsenic	ND	mg/L	0.0025								

.ifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: GBR **Work Order:** 1101899

Analyte	Result	Units	PQL	SPK Val	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 245.1: Mercury											
Sample ID: MB-25499		*MBLK*				Batch ID:	**25499**	Analysis Date:		2/3/2011 11:42:04 AM	
Mercury	ND	mg/L	0.00020								
Sample ID: LCS-25499		*LCS*				Batch ID:	**25499**	Analysis Date:		2/3/2011 11:43:48 AM	
Mercury	0.004836	mg/L	0.00020	0.005	0	96.7	80	120			
Method: EPA Method 300.0: Anions											
Sample ID: MB		*MBLK*				Batch ID:	**R43425**	Analysis Date:		1/28/2011 12:31:30 PM	
Chloride	ND	mg/L	0.50								
Sulfate	ND	mg/L	0.50								
Sample ID: MB		*MBLK*				Batch ID:	**R43425**	Analysis Date:		1/29/2011 2:27:13 AM	
Chloride	ND	mg/L	0.50								
Sulfate	ND	mg/L	0.50								
Sample ID: MB		*MBLK*				Batch ID:	**R43443**	Analysis Date:		1/31/2011 4:48:37 PM	
Chloride	ND	mg/L	0.50								
Sulfate	ND	mg/L	0.50								
Sample ID: LCS		*LCS*				Batch ID:	**R43425**	Analysis Date:		1/28/2011 12:48:55 PM	
Chloride	5.158	mg/L	0.50	5	0	103	90	110			
Sulfate	10.38	mg/L	0.50	10	0	104	90	110			
Sample ID: LCS		*LCS*				Batch ID:	**R43425**	Analysis Date:		1/29/2011 2:44:38 AM	
Chloride	4.875	mg/L	0.50	5	0	97.5	90	110			
Sulfate	10.01	mg/L	0.50	10	0	100	90	110			
Sample ID: LCS		*LCS*				Batch ID:	**R43443**	Analysis Date:		1/31/2011 5:06:02 PM	
Chloride	4.926	mg/L	0.50	5	0	98.5	90	110			
Sulfate	10.08	mg/L	0.50	10	0	101	90	110			
Method: SM 2320B: Alkalinity											
Sample ID: MB-1		*MBLK*				Batch ID:	**R43482**	Analysis Date:		2/1/2011 12:09:00 PM	
Alkalinity, Total (As CaCO3)	ND	mg/L Ca	20								
Carbonate	ND	mg/L Ca	2.0								
Bicarbonate	ND	mg/L Ca	20								
Sample ID: MB-2		*MBLK*				Batch ID:	**R43482**	Analysis Date:		2/1/2011 5:01:00 PM	
Alkalinity, Total (As CaCO3)	ND	mg/L Ca	20								
Carbonate	ND	mg/L Ca	2.0								
Bicarbonate	ND	mg/L Ca	20								
Sample ID: MB-3		*MBLK*				Batch ID:	**R43482**	Analysis Date:		2/1/2011 11:32:00 PM	
Alkalinity, Total (As CaCO3)	ND	mg/L Ca	20								
Carbonate	ND	mg/L Ca	2.0								
Bicarbonate	ND	mg/L Ca	20								
Sample ID: LCS-2		*LCS*				Batch ID:	**R43482**	Analysis Date:		2/1/2011 5:07:00 PM	
Alkalinity, Total (As CaCO3)	80.36	mg/L Ca	20	80	0	100	96.5	104			
Sample ID: LCS-3		*LCS*				Batch ID:	**R43482**	Analysis Date:		2/1/2011 11:38:00 PM	
Alkalinity, Total (As CaCO3)	80.16	mg/L Ca	20	80	0	100	96.5	104			

Qualifiers:

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

QA/QC SUMMARY REPORT

: Western Refining Southwest, Inc.
Project: GBR **Work Order:** 1101899

Analyte	Result	Units	PQL	SPK Val	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES											
Sample ID: 5ml-rb		*MBLK*									
				Batch ID: R43488				**Analysis Date: 2/2/2011 11:54:31 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	3.0								
2-Butanone	ND	µg/L	10								
Carbon disulfide	ND	µg/L	10								
›n Tetrachloride	ND	µg/L	1.0								
obenzene	ND	µg/L	1.0								
Chloroethane	ND	µg/L	2.0								
Chloroform	ND	µg/L	1.0								
Chloromethane	ND	µg/L	3.0								
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	NC	Non-Chlorinated
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: GBR **Work Order:** 1101899

Analyte	Result	Units	PQL	SPK Val	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES											
Sample ID: 5ml-rb		*MBLK*				**Batch ID: R43488**		**Analysis Date: 2/2/2011 11:54:31 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: R43488**		**Analysis Date: 2/2/2011 12:49:31 PM**			
Benzene	19.22	µg/L	1.0	20	0	96.1	84.6	109			
Toluene	17.44	µg/L	1.0	20	0	87.2	81	114			
Chlorobenzene	17.55	µg/L	1.0	20	0	87.8	85.2	113			
1,1-Dichloroethene	20.61	µg/L	1.0	20	0	103	79.6	124			
Trichloroethene (TCE)	15.93	µg/L	1.0	20	0	79.6	78.3	102			
Method: SM2540C MOD: Total Dissolved Solids											
Sample ID: 1101899-02BMSD		*MSD*				**Batch ID: 25466**		**Analysis Date: 2/1/2011 2:26:00 PM**			
Total Dissolved Solids	3713	mg/L	20.0	1000	2699	101	80	120	0.350	20	
Sample ID: MB-25466		*MBLK*				**Batch ID: 25466**		**Analysis Date: 2/1/2011 2:26:00 PM**			
Total Dissolved Solids	ND	mg/L	20.0								
Sample ID: LCS-25466		*LCS*				**Batch ID: 25466**		**Analysis Date: 2/1/2011 2:26:00 PM**			
Total Dissolved Solids	999.0	mg/L	20.0	1000	0	99.9	80	120			
Sample ID: 1101899-02BMS		*MS*				**Batch ID: 25466**		**Analysis Date: 2/1/2011 2:26:00 PM**			
Total Dissolved Solids	3726	mg/L	20.0	1000	2699	103	80	120			

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name NMED SANTA FE | Date Received: 1/28/2011

Work Order Number 1101898 | Received by: AMG

Checklist completed by: _____ 01/28/11 | 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 ☐		
r - 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 ☐	

Number of preserved bottles checked for pH: 3

(<2) >12 unless noted below.

Container/Temp Blank temperature? **5.6°** *<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: 111 CR 4990
Bloomfield NM

Phone #:

email or Fax#:

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

Accreditation
☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:
☒ Standard ☐ Rush _____

Project Name: GBR

Project #:

Project Manager: Ashley Ager

Sampler: Troy Urban

On Ice: ☒ Yes ☐ No

Sample Temperature: 3.2

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. 101899
01/25/11	1019	GW	GBR 48	* 6		-1
01/25/11	1339	GW	GBR 52	5		-2
~~01/25/11~~ 01/26/11	1127	GW	GBR 32	* 6		-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)	See Attached List				Air Bubbles (Y or N)
											✓				
											✓				
											✓				

Date:	Time:	Relinquished by:	Received by:	Date	Time
1/27/11	1327	Troy Urban	Christine Walters	1/27/11	1327
1/27/11	1447	Christine Walters		01/27/11	1026

Remarks: Please email results to aager@itenv.com

* = additional metals list 211

If neces... les submitted to Hall Environmental may be subcontracted to other accredited laboratories. ...as as notice of this possibility. Any sub-contracted data will be clearly notated on the analytica...

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Tuesday, February 15, 2011

Ashley Ager
Western Refining Southwest, Inc.
#50 CR 4990
Bloomfield, NM 87413
TEL: (970) 946-1093
FAX (505) 632-3911

RE: GBR

Order No.: 1101913

Dear Ashley Ager:

Hall Environmental Analysis Laboratory, Inc. received 4 sample(s) on 1/28/2011 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.

Please do not 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: *15-Feb-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	GBR 30
Lab Order:	1101913	**Collection Date:**	1/26/2011 2:45:00 PM
Project:	GBR	**Date Received:**	1/28/2011
Lab ID:	1101913-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Chloride	320	25		mg/L	50	2/1/2011 4:07:45 AM
Sulfate	1600	25		mg/L	50	2/1/2011 4:07:45 AM
EPA METHOD 200.7: METALS						Analyst: **RAGS**
Calcium	410	10		mg/L	10	2/3/2011 9:00:42 PM
Magnesium	46	1.0		mg/L	1	2/3/2011 5:04:37 PM
Potassium	7.8	1.0		mg/L	1	2/3/2011 5:04:37 PM
Sodium	530	10		mg/L	10	2/3/2011 9:00:42 PM
EPA 200.7: HARDNESS						Analyst: **RAGS**
Hardness (As CaCO3)	1200	1.0		mg/L	1	2/3/2011
EPA METHOD 8270C: PAHS						Analyst: **MAW**
Naphthalene	ND	0.50		µg/L	1	2/3/2011 4:37:56 PM
1-Methylnaphthalene	ND	0.50		µg/L	1	2/3/2011 4:37:56 PM
2-Methylnaphthalene	ND	0.50		µg/L	1	2/3/2011 4:37:56 PM
Acenaphthylene	ND	0.50		µg/L	1	2/3/2011 4:37:56 PM
Acenaphthene	ND	0.50		µg/L	1	2/3/2011 4:37:56 PM
Fluorene	ND	0.50		µg/L	1	2/3/2011 4:37:56 PM
Phenanthrene	ND	0.50		µg/L	1	2/3/2011 4:37:56 PM
Anthracene	ND	0.50		µg/L	1	2/3/2011 4:37:56 PM
Fluoranthene	ND	0.50		µg/L	1	2/3/2011 4:37:56 PM
Pyrene	ND	0.50		µg/L	1	2/3/2011 4:37:56 PM
Benz(a)anthracene	ND	0.50		µg/L	1	2/3/2011 4:37:56 PM
Chrysene	ND	0.50		µg/L	1	2/3/2011 4:37:56 PM
Benzo(b)fluoranthene	ND	0.50		µg/L	1	2/3/2011 4:37:56 PM
Benzo(k)fluoranthene	ND	0.50		µg/L	1	2/3/2011 4:37:56 PM
Benzo(a)pyrene	ND	0.50		µg/L	1	2/3/2011 4:37:56 PM
Dibenz(a,h)anthracene	ND	0.50		µg/L	1	2/3/2011 4:37:56 PM
Benzo(g,h,i)perylene	ND	0.50		µg/L	1	2/3/2011 4:37:56 PM
Indeno(1,2,3-cd)pyrene	ND	0.50		µg/L	1	2/3/2011 4:37:56 PM
Surr: Benzo(e)pyrene	83.7	38-145		%REC	1	2/3/2011 4:37:56 PM
Surr: N-hexadecane	82.0	40-107		%REC	1	2/3/2011 4:37:56 PM
EPA METHOD 8260B: VOLATILES						Analyst: **MMS**
Benzene	ND	1.0		µg/L	1	2/4/2011 8:44:47 PM
Toluene	ND	1.0		µg/L	1	2/4/2011 8:44:47 PM
Ethylbenzene	ND	1.0		µg/L	1	2/4/2011 8:44:47 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	2/4/2011 8:44:47 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	2/4/2011 8:44:47 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	2/4/2011 8:44:47 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
- NC Non-Chlorinated
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitation Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *15-Feb-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	GBR 30
Lab Order:	1101913	**Collection Date:**	1/26/2011 2:45:00 PM
Project:	GBR	**Date Received:**	1/28/2011
Lab ID:	1101913-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **MMS**
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	2/4/2011 8:44:47 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	2/4/2011 8:44:47 PM
Naphthalene	ND	2.0		µg/L	1	2/4/2011 8:44:47 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	2/4/2011 8:44:47 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	2/4/2011 8:44:47 PM
Acetone	ND	10		µg/L	1	2/4/2011 8:44:47 PM
Bromobenzene	ND	1.0		µg/L	1	2/4/2011 8:44:47 PM
Bromodichloromethane	ND	1.0		µg/L	1	2/4/2011 8:44:47 PM
Bromoform	ND	1.0		µg/L	1	2/4/2011 8:44:47 PM
Bromomethane	ND	3.0		µg/L	1	2/4/2011 8:44:47 PM
2-Butanone	ND	10		µg/L	1	2/4/2011 8:44:47 PM
Carbon disulfide	ND	10		µg/L	1	2/4/2011 8:44:47 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	2/4/2011 8:44:47 PM
Chlorobenzene	ND	1.0		µg/L	1	2/4/2011 8:44:47 PM
Chloroethane	ND	2.0		µg/L	1	2/4/2011 8:44:47 PM
Chloroform	ND	1.0		µg/L	1	2/4/2011 8:44:47 PM
Chloromethane	ND	3.0		µg/L	1	2/4/2011 8:44:47 PM
2-Chlorotoluene	ND	1.0		µg/L	1	2/4/2011 8:44:47 PM
4-Chlorotoluene	ND	1.0		µg/L	1	2/4/2011 8:44:47 PM
cis-1,2-DCE	ND	1.0		µg/L	1	2/4/2011 8:44:47 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	2/4/2011 8:44:47 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	2/4/2011 8:44:47 PM
Dibromochloromethane	ND	1.0		µg/L	1	2/4/2011 8:44:47 PM
Dibromomethane	ND	1.0		µg/L	1	2/4/2011 8:44:47 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	2/4/2011 8:44:47 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	2/4/2011 8:44:47 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	2/4/2011 8:44:47 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	2/4/2011 8:44:47 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	2/4/2011 8:44:47 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	2/4/2011 8:44:47 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	2/4/2011 8:44:47 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	2/4/2011 8:44:47 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	2/4/2011 8:44:47 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	2/4/2011 8:44:47 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	2/4/2011 8:44:47 PM
2-Hexanone	ND	10		µg/L	1	2/4/2011 8:44:47 PM
Isopropylbenzene	ND	1.0		µg/L	1	2/4/2011 8:44:47 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	2/4/2011 8:44:47 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	2/4/2011 8:44:47 PM
Methylene Chloride	ND	3.0		µg/L	1	2/4/2011 8:44:47 PM
n-Butylbenzene	ND	1.0		µg/L	1	2/4/2011 8:44:47 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *15-Feb-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	GBR 30
Lab Order:	1101913	**Collection Date:**	1/26/2011 2:45:00 PM
Project:	GBR	**Date Received:**	1/28/2011
Lab ID:	1101913-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: MMS
n-Propylbenzene	ND	1.0		µg/L	1	2/4/2011 8:44:47 PM
sec-Butylbenzene	ND	1.0		µg/L	1	2/4/2011 8:44:47 PM
Styrene	ND	1.0		µg/L	1	2/4/2011 8:44:47 PM
tert-Butylbenzene	ND	1.0		µg/L	1	2/4/2011 8:44:47 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	2/4/2011 8:44:47 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	2/4/2011 8:44:47 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	2/4/2011 8:44:47 PM
trans-1,2-DCE	ND	1.0		µg/L	1	2/4/2011 8:44:47 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	2/4/2011 8:44:47 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	2/4/2011 8:44:47 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	2/4/2011 8:44:47 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	2/4/2011 8:44:47 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	2/4/2011 8:44:47 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	2/4/2011 8:44:47 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	2/4/2011 8:44:47 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	2/4/2011 8:44:47 PM
Vinyl chloride	ND	1.0		µg/L	1	2/4/2011 8:44:47 PM
Xylenes, Total	ND	1.5		µg/L	1	2/4/2011 8:44:47 PM
Surr: 1,2-Dichloroethane-d4	97.1	77.7-113		%REC	1	2/4/2011 8:44:47 PM
Surr: 4-Bromofluorobenzene	92.1	76.4-106		%REC	1	2/4/2011 8:44:47 PM
Surr: Dibromofluoromethane	97.6	91.6-125		%REC	1	2/4/2011 8:44:47 PM
Surr: Toluene-d8	103	92.3-107		%REC	1	2/4/2011 8:44:47 PM
SM 2320B: ALKALINITY						Analyst: IC
Alkalinity, Total (As CaCO3)	230	20		mg/L CaCO3	1	2/7/2011 1:46:00 PM
Carbonate	ND	2.0		mg/L CaCO3	1	2/7/2011 1:46:00 PM
Bicarbonate	230	20		mg/L CaCO3	1	2/7/2011 1:46:00 PM
Hydroxide	ND	2.0		mg/L CaCO3	1	2/7/2011 1:46:00 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: IC
Specific Conductance	4100	0.010		µmhos/cm	1	2/7/2011 1:46:00 PM
SM4500-H+B: PH						Analyst: IC
pH	7.24	0.100		pH units	1	2/7/2011 1:46:08 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: KS
Total Dissolved Solids	3340	40.0		mg/L	1	2/1/2011 2:26:00 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
- NC Non-Chlorinated
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitation Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *15-Feb-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	GRW 3
Lab Order:	1101913	**Collection Date:**	1/26/2011 8:23:00 AM
Project:	GBR	**Date Received:**	1/28/2011
Lab ID:	1101913-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Chloride	95	10		mg/L	20	1/29/2011 5:58:32 AM
Sulfate	480	10		mg/L	20	1/29/2011 5:58:32 AM
EPA METHOD 200.7: METALS						Analyst: **RAGS**
Calcium	140	5.0		mg/L	5	2/3/2011 5:40:44 PM
Magnesium	35	1.0		mg/L	1	2/3/2011 5:12:48 PM
Potassium	1.7	1.0		mg/L	1	2/3/2011 5:12:48 PM
Sodium	460	5.0		mg/L	5	2/3/2011 5:40:44 PM
EPA 200.7: HARDNESS						Analyst: **RAGS**
Hardness (As CaCO3)	480	1.0		mg/L	1	2/3/2011
EPA METHOD 8270C: PAHS						Analyst: **MAW**
Naphthalene	ND	0.50		µg/L	1	2/3/2011 5:00:10 PM
1-Methylnaphthalene	ND	0.50		µg/L	1	2/3/2011 5:00:10 PM
2-Methylnaphthalene	ND	0.50		µg/L	1	2/3/2011 5:00:10 PM
Acenaphthylene	ND	0.50		µg/L	1	2/3/2011 5:00:10 PM
Acenaphthene	ND	0.50		µg/L	1	2/3/2011 5:00:10 PM
Fluorene	ND	0.50		µg/L	1	2/3/2011 5:00:10 PM
Phenanthrene	ND	0.50		µg/L	1	2/3/2011 5:00:10 PM
Anthracene	ND	0.50		µg/L	1	2/3/2011 5:00:10 PM
Fluoranthene	ND	0.50		µg/L	1	2/3/2011 5:00:10 PM
Pyrene	ND	0.50		µg/L	1	2/3/2011 5:00:10 PM
Benz(a)anthracene	ND	0.50		µg/L	1	2/3/2011 5:00:10 PM
Chrysene	ND	0.50		µg/L	1	2/3/2011 5:00:10 PM
Benzo(b)fluoranthene	ND	0.50		µg/L	1	2/3/2011 5:00:10 PM
Benzo(k)fluoranthene	ND	0.50		µg/L	1	2/3/2011 5:00:10 PM
Benzo(a)pyrene	ND	0.50		µg/L	1	2/3/2011 5:00:10 PM
Dibenz(a,h)anthracene	ND	0.50		µg/L	1	2/3/2011 5:00:10 PM
Benzo(g,h,i)perylene	ND	0.50		µg/L	1	2/3/2011 5:00:10 PM
Indeno(1,2,3-cd)pyrene	ND	0.50		µg/L	1	2/3/2011 5:00:10 PM
Surr: Benzo(e)pyrene	85.4	38-145		%REC	1	2/3/2011 5:00:10 PM
Surr: N-hexadecane	77.6	40-107		%REC	1	2/3/2011 5:00:10 PM
EPA METHOD 8260B: VOLATILES						Analyst: **MMS**
Benzene	ND	1.0		µg/L	1	2/4/2011 10:37:04 PM
Toluene	ND	1.0		µg/L	1	2/4/2011 10:37:04 PM
Ethylbenzene	1.9	1.0		µg/L	1	2/4/2011 10:37:04 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	2/4/2011 10:37:04 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	2/4/2011 10:37:04 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	2/4/2011 10:37:04 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *15-Feb-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	GRW 3
Lab Order:	1101913	**Collection Date:**	1/26/2011 8:23:00 AM
Project:	GBR	**Date Received:**	1/28/2011
Lab ID:	1101913-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **MMS**
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	2/4/2011 10:37:04 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	2/4/2011 10:37:04 PM
Naphthalene	ND	2.0		µg/L	1	2/4/2011 10:37:04 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	2/4/2011 10:37:04 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	2/4/2011 10:37:04 PM
Acetone	77	10		µg/L	1	2/4/2011 10:37:04 PM
Bromobenzene	ND	1.0		µg/L	1	2/4/2011 10:37:04 PM
Bromodichloromethane	ND	1.0		µg/L	1	2/4/2011 10:37:04 PM
Bromoform	ND	1.0		µg/L	1	2/4/2011 10:37:04 PM
Bromomethane	ND	3.0		µg/L	1	2/4/2011 10:37:04 PM
2-Butanone	33	10		µg/L	1	2/4/2011 10:37:04 PM
Carbon disulfide	ND	10		µg/L	1	2/4/2011 10:37:04 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	2/4/2011 10:37:04 PM
Chlorobenzene	ND	1.0		µg/L	1	2/4/2011 10:37:04 PM
Chloroethane	ND	2.0		µg/L	1	2/4/2011 10:37:04 PM
Chloroform	ND	1.0		µg/L	1	2/4/2011 10:37:04 PM
Chloromethane	ND	3.0		µg/L	1	2/4/2011 10:37:04 PM
2-Chlorotoluene	ND	1.0		µg/L	1	2/4/2011 10:37:04 PM
4-Chlorotoluene	ND	1.0		µg/L	1	2/4/2011 10:37:04 PM
cis-1,2-DCE	ND	1.0		µg/L	1	2/4/2011 10:37:04 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	2/4/2011 10:37:04 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	2/4/2011 10:37:04 PM
Dibromochloromethane	ND	1.0		µg/L	1	2/4/2011 10:37:04 PM
Dibromomethane	ND	1.0		µg/L	1	2/4/2011 10:37:04 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	2/4/2011 10:37:04 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	2/4/2011 10:37:04 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	2/4/2011 10:37:04 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	2/4/2011 10:37:04 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	2/4/2011 10:37:04 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	2/4/2011 10:37:04 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	2/4/2011 10:37:04 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	2/4/2011 10:37:04 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	2/4/2011 10:37:04 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	2/4/2011 10:37:04 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	2/4/2011 10:37:04 PM
2-Hexanone	ND	10		µg/L	1	2/4/2011 10:37:04 PM
Isopropylbenzene	ND	1.0		µg/L	1	2/4/2011 10:37:04 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	2/4/2011 10:37:04 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	2/4/2011 10:37:04 PM
Methylene Chloride	ND	3.0		µg/L	1	2/4/2011 10:37:04 PM
n-Butylbenzene	ND	1.0		µg/L	1	2/4/2011 10:37:04 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
- NC Non-Chlorinated
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitation Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *15-Feb-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	GRW 3
Lab Order:	1101913	**Collection Date:**	1/26/2011 8:23:00 AM
Project:	GBR	**Date Received:**	1/28/2011
Lab ID:	1101913-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						**Analyst: MMS**
n-Propylbenzene	ND	1.0		µg/L	1	2/4/2011 10:37:04 PM
sec-Butylbenzene	ND	1.0		µg/L	1	2/4/2011 10:37:04 PM
Styrene	ND	1.0		µg/L	1	2/4/2011 10:37:04 PM
tert-Butylbenzene	ND	1.0		µg/L	1	2/4/2011 10:37:04 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	2/4/2011 10:37:04 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	2/4/2011 10:37:04 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	2/4/2011 10:37:04 PM
trans-1,2-DCE	ND	1.0		µg/L	1	2/4/2011 10:37:04 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	2/4/2011 10:37:04 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	2/4/2011 10:37:04 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	2/4/2011 10:37:04 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	2/4/2011 10:37:04 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	2/4/2011 10:37:04 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	2/4/2011 10:37:04 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	2/4/2011 10:37:04 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	2/4/2011 10:37:04 PM
Vinyl chloride	ND	1.0		µg/L	1	2/4/2011 10:37:04 PM
Xylenes, Total	ND	1.5		µg/L	1	2/4/2011 10:37:04 PM
Surr: 1,2-Dichloroethane-d4	102	77.7-113		%REC	1	2/4/2011 10:37:04 PM
Surr: 4-Bromofluorobenzene	90.8	76.4-106		%REC	1	2/4/2011 10:37:04 PM
Surr: Dibromofluoromethane	98.2	91.6-125		%REC	1	2/4/2011 10:37:04 PM
Surr: Toluene-d8	101	92.3-107		%REC	1	2/4/2011 10:37:04 PM
SM 2320B: ALKALINITY						**Analyst: IC**
Alkalinity, Total (As CaCO3)	900	20		mg/L CaCO3	1	2/7/2011 1:58:00 PM
Carbonate	ND	2.0		mg/L CaCO3	1	2/7/2011 1:58:00 PM
Bicarbonate	900	20		mg/L CaCO3	1	2/7/2011 1:58:00 PM
Hydroxide	ND	2.0		mg/L CaCO3	1	2/7/2011 1:58:00 PM
EPA 120.1: SPECIFIC CONDUCTANCE						**Analyst: IC**
Specific Conductance	2600	0.010		µmhos/cm	1	2/7/2011 1:58:00 PM
SM4500-H+B: PH						**Analyst: IC**
pH	7.57	0.100		pH units	1	2/7/2011 1:58:31 AM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						**Analyst: KS**
Total Dissolved Solids	1810	20.0		mg/L	1	2/1/2011 2:26:00 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *15-Feb-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	GBR 17
Lab Order:	1101913	**Collection Date:**	1/25/2011 2:38:00 PM
Project:	GBR	**Date Received:**	1/28/2011
Lab ID:	1101913-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: SRM
Chloride	47	10		mg/L	20	1/29/2011 6:21:00 AM
Sulfate	1300	25		mg/L	50	2/1/2011 4:42:35 AM
EPA METHOD 200.7: METALS						Analyst: RAGS
Calcium	310	5.0		mg/L	5	2/3/2011 5:09:02 PM
Magnesium	25	5.0		mg/L	5	2/3/2011 5:09:02 PM
Potassium	ND	5.0		mg/L	5	2/3/2011 5:09:02 PM
Sodium	240	5.0		mg/L	5	2/3/2011 5:09:02 PM
EPA 200.7: HARDNESS						Analyst: RAGS
Hardness (As CaCO3)	870	1.0		mg/L	1	2/3/2011
EPA METHOD 8270C: PAHS						Analyst: MAW
Naphthalene	ND	0.50		µg/L	1	2/3/2011 5:22:25 PM
1-Methylnaphthalene	ND	0.50		µg/L	1	2/3/2011 5:22:25 PM
2-Methylnaphthalene	ND	0.50		µg/L	1	2/3/2011 5:22:25 PM
Acenaphthylene	ND	0.50		µg/L	1	2/3/2011 5:22:25 PM
Acenaphthene	ND	0.50		µg/L	1	2/3/2011 5:22:25 PM
Fluorene	ND	0.50		µg/L	1	2/3/2011 5:22:25 PM
Phenanthrene	ND	0.50		µg/L	1	2/3/2011 5:22:25 PM
Anthracene	ND	0.50		µg/L	1	2/3/2011 5:22:25 PM
Fluoranthene	ND	0.50		µg/L	1	2/3/2011 5:22:25 PM
Pyrene	ND	0.50		µg/L	1	2/3/2011 5:22:25 PM
Benz(a)anthracene	ND	0.50		µg/L	1	2/3/2011 5:22:25 PM
Chrysene	ND	0.50		µg/L	1	2/3/2011 5:22:25 PM
Benzo(b)fluoranthene	ND	0.50		µg/L	1	2/3/2011 5:22:25 PM
Benzo(k)fluoranthene	ND	0.50		µg/L	1	2/3/2011 5:22:25 PM
Benzo(a)pyrene	ND	0.50		µg/L	1	2/3/2011 5:22:25 PM
Dibenz(a,h)anthracene	ND	0.50		µg/L	1	2/3/2011 5:22:25 PM
Benzo(g,h,i)perylene	ND	0.50		µg/L	1	2/3/2011 5:22:25 PM
Indeno(1,2,3-cd)pyrene	ND	0.50		µg/L	1	2/3/2011 5:22:25 PM
Surr: Benzo(e)pyrene	91.9	38-145		%REC	1	2/3/2011 5:22:25 PM
Surr: N-hexadecane	83.3	40-107		%REC	1	2/3/2011 5:22:25 PM
EPA METHOD 8260B: VOLATILES						Analyst: MMS
Benzene	ND	1.0		µg/L	1	2/4/2011 11:05:08 PM
Toluene	ND	1.0		µg/L	1	2/4/2011 11:05:08 PM
Ethylbenzene	ND	1.0		µg/L	1	2/4/2011 11:05:08 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	2/4/2011 11:05:08 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	2/4/2011 11:05:08 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	2/4/2011 11:05:08 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
- NC Non-Chlorinated
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitation Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *15-Feb-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	GBR 17
Lab Order:	1101913	**Collection Date:**	1/25/2011 2:38:00 PM
Project:	GBR	**Date Received:**	1/28/2011
Lab ID:	1101913-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						**Analyst: MMS**
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	2/4/2011 11:05:08 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	2/4/2011 11:05:08 PM
Naphthalene	ND	2.0		µg/L	1	2/4/2011 11:05:08 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	2/4/2011 11:05:08 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	2/4/2011 11:05:08 PM
Acetone	ND	10		µg/L	1	2/4/2011 11:05:08 PM
Bromobenzene	ND	1.0		µg/L	1	2/4/2011 11:05:08 PM
Bromodichloromethane	ND	1.0		µg/L	1	2/4/2011 11:05:08 PM
Bromoform	ND	1.0		µg/L	1	2/4/2011 11:05:08 PM
Bromomethane	ND	3.0		µg/L	1	2/4/2011 11:05:08 PM
2-Butanone	ND	10		µg/L	1	2/4/2011 11:05:08 PM
Carbon disulfide	ND	10		µg/L	1	2/4/2011 11:05:08 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	2/4/2011 11:05:08 PM
Chlorobenzene	ND	1.0		µg/L	1	2/4/2011 11:05:08 PM
Chloroethane	ND	2.0		µg/L	1	2/4/2011 11:05:08 PM
Chloroform	ND	1.0		µg/L	1	2/4/2011 11:05:08 PM
Chloromethane	ND	3.0		µg/L	1	2/4/2011 11:05:08 PM
2-Chlorotoluene	ND	1.0		µg/L	1	2/4/2011 11:05:08 PM
4-Chlorotoluene	ND	1.0		µg/L	1	2/4/2011 11:05:08 PM
cis-1,2-DCE	ND	1.0		µg/L	1	2/4/2011 11:05:08 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	2/4/2011 11:05:08 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	2/4/2011 11:05:08 PM
Dibromochloromethane	ND	1.0		µg/L	1	2/4/2011 11:05:08 PM
Dibromomethane	ND	1.0		µg/L	1	2/4/2011 11:05:08 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	2/4/2011 11:05:08 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	2/4/2011 11:05:08 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	2/4/2011 11:05:08 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	2/4/2011 11:05:08 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	2/4/2011 11:05:08 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	2/4/2011 11:05:08 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	2/4/2011 11:05:08 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	2/4/2011 11:05:08 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	2/4/2011 11:05:08 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	2/4/2011 11:05:08 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	2/4/2011 11:05:08 PM
2-Hexanone	ND	10		µg/L	1	2/4/2011 11:05:08 PM
Isopropylbenzene	ND	1.0		µg/L	1	2/4/2011 11:05:08 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	2/4/2011 11:05:08 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	2/4/2011 11:05:08 PM
Methylene Chloride	ND	3.0		µg/L	1	2/4/2011 11:05:08 PM
n-Butylbenzene	ND	1.0		µg/L	1	2/4/2011 11:05:08 PM

Qualifiers:

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

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	GBR 17
Lab Order:	1101913	**Collection Date:**	1/25/2011 2:38:00 PM
Project:	GBR	**Date Received:**	1/28/2011
Lab ID:	1101913-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **MMS**
n-Propylbenzene	ND	1.0		µg/L	1	2/4/2011 11:05:08 PM
sec-Butylbenzene	ND	1.0		µg/L	1	2/4/2011 11:05:08 PM
Styrene	ND	1.0		µg/L	1	2/4/2011 11:05:08 PM
tert-Butylbenzene	ND	1.0		µg/L	1	2/4/2011 11:05:08 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	2/4/2011 11:05:08 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	2/4/2011 11:05:08 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	2/4/2011 11:05:08 PM
trans-1,2-DCE	ND	1.0		µg/L	1	2/4/2011 11:05:08 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	2/4/2011 11:05:08 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	2/4/2011 11:05:08 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	2/4/2011 11:05:08 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	2/4/2011 11:05:08 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	2/4/2011 11:05:08 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	2/4/2011 11:05:08 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	2/4/2011 11:05:08 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	2/4/2011 11:05:08 PM
Vinyl chloride	ND	1.0		µg/L	1	2/4/2011 11:05:08 PM
Xylenes, Total	ND	1.5		µg/L	1	2/4/2011 11:05:08 PM
Surr: 1,2-Dichloroethane-d4	97.5	77.7-113		%REC	1	2/4/2011 11:05:08 PM
Surr: 4-Bromofluorobenzene	89.3	76.4-106		%REC	1	2/4/2011 11:05:08 PM
Surr: Dibromofluoromethane	97.9	91.6-125		%REC	1	2/4/2011 11:05:08 PM
Surr: Toluene-d8	100	92.3-107		%REC	1	2/4/2011 11:05:08 PM
SM 2320B: ALKALINITY						Analyst: **IC**
Alkalinity, Total (As CaCO3)	210	20		mg/L CaCO3	1	2/1/2011 10:07:00 PM
Carbonate	ND	2.0		mg/L CaCO3	1	2/1/2011 10:07:00 PM
Bicarbonate	210	20		mg/L CaCO3	1	2/1/2011 10:07:00 PM
Hydroxide	ND	2.0		mg/L CaCO3	1	2/1/2011 10:07:00 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **IC**
Specific Conductance	2500	0.010		µmhos/cm	1	2/1/2011 10:07:00 PM
SM4500-H+B: PH						Analyst: **IC**
pH	7.74	0.100		pH units	1	2/1/2011 10:07:00 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**
Total Dissolved Solids	2140	20.0		mg/L	1	2/1/2011 2:26:00 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
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *15-Feb-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	GBR 50
Lab Order:	1101913	**Collection Date:**	1/25/2011 9:30:00 AM
Project:	GBR	**Date Received:**	1/28/2011
Lab ID:	1101913-04	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						**Analyst: SRM**
Chloride	46	10		mg/L	20	1/29/2011 6:43:29 AM
Sulfate	1800	50		mg/L	100	2/1/2011 5:00:00 AM
EPA METHOD 200.7: METALS						**Analyst: RAGS**
Beryllium	ND	0.0020		mg/L	1	2/3/2011 5:52:27 PM
Cadmium	ND	0.0020		mg/L	1	2/3/2011 5:52:27 PM
Calcium	390	5.0		mg/L	5	2/10/2011 8:09:31 PM
Chromium	0.023	0.0060		mg/L	1	2/3/2011 5:52:27 PM
Copper	0.014	0.0060		mg/L	1	2/3/2011 5:52:27 PM
Lead	0.0051	0.0050		mg/L	1	2/11/2011 5:17:17 PM
Magnesium	31	1.0		mg/L	1	2/3/2011 5:52:27 PM
Nickel	0.010	0.010		mg/L	1	2/3/2011 5:52:27 PM
Potassium	3.2	1.0		mg/L	1	2/3/2011 5:52:27 PM
Silver	ND	0.0050		mg/L	1	2/11/2011 5:17:17 PM
Sodium	380	5.0		mg/L	5	2/10/2011 8:09:31 PM
Zinc	0.34	0.010		mg/L	1	2/3/2011 5:52:27 PM
EPA 200.8: METALS						**Analyst: SNV**
Antimony	ND	0.0025		mg/L	2.5	2/9/2011 2:46:18 PM
Arsenic	ND	0.0025		mg/L	2.5	2/9/2011 2:46:18 PM
Selenium	0.011	0.0025		mg/L	2.5	2/9/2011 2:46:18 PM
Thallium	ND	0.0025		mg/L	2.5	2/9/2011 2:46:18 PM
EPA METHOD 245.1: MERCURY						**Analyst: ELS**
Mercury	ND	0.00020		mg/L	1	2/3/2011 12:26:52 PM
EPA 200.7: HARDNESS						**Analyst: RAGS**
Hardness (As CaCO3)	1100	1.0		mg/L	1	2/10/2011
EPA METHOD 8260B: VOLATILES						**Analyst: MMS**
Benzene	ND	1.0		µg/L	1	2/4/2011 11:33:08 PM
Toluene	ND	1.0		µg/L	1	2/4/2011 11:33:08 PM
Ethylbenzene	ND	1.0		µg/L	1	2/4/2011 11:33:08 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	2/4/2011 11:33:08 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	2/4/2011 11:33:08 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	2/4/2011 11:33:08 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	2/4/2011 11:33:08 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	2/4/2011 11:33:08 PM
Naphthalene	ND	2.0		µg/L	1	2/4/2011 11:33:08 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	2/4/2011 11:33:08 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	2/4/2011 11:33:08 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
- NC Non-Chlorinated
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitation Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *15-Feb-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	GBR 50
Lab Order:	1101913	**Collection Date:**	1/25/2011 9:30:00 AM
Project:	GBR	**Date Received:**	1/28/2011
Lab ID:	1101913-04	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **MMS**
Acetone	15	10		µg/L	1	2/4/2011 11:33:08 PM
Bromobenzene	ND	1.0		µg/L	1	2/4/2011 11:33:08 PM
Bromodichloromethane	ND	1.0		µg/L	1	2/4/2011 11:33:08 PM
Bromoform	ND	1.0		µg/L	1	2/4/2011 11:33:08 PM
Bromomethane	ND	3.0		µg/L	1	2/4/2011 11:33:08 PM
2-Butanone	ND	10		µg/L	1	2/4/2011 11:33:08 PM
Carbon disulfide	ND	10		µg/L	1	2/4/2011 11:33:08 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	2/4/2011 11:33:08 PM
Chlorobenzene	ND	1.0		µg/L	1	2/4/2011 11:33:08 PM
Chloroethane	ND	2.0		µg/L	1	2/4/2011 11:33:08 PM
Chloroform	ND	1.0		µg/L	1	2/4/2011 11:33:08 PM
Chloromethane	ND	3.0		µg/L	1	2/4/2011 11:33:08 PM
2-Chlorotoluene	ND	1.0		µg/L	1	2/4/2011 11:33:08 PM
4-Chlorotoluene	ND	1.0		µg/L	1	2/4/2011 11:33:08 PM
cis-1,2-DCE	ND	1.0		µg/L	1	2/4/2011 11:33:08 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	2/4/2011 11:33:08 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	2/4/2011 11:33:08 PM
Dibromochloromethane	ND	1.0		µg/L	1	2/4/2011 11:33:08 PM
Dibromomethane	ND	1.0		µg/L	1	2/4/2011 11:33:08 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	2/4/2011 11:33:08 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	2/4/2011 11:33:08 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	2/4/2011 11:33:08 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	2/4/2011 11:33:08 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	2/4/2011 11:33:08 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	2/4/2011 11:33:08 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	2/4/2011 11:33:08 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	2/4/2011 11:33:08 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	2/4/2011 11:33:08 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	2/4/2011 11:33:08 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	2/4/2011 11:33:08 PM
2-Hexanone	ND	10		µg/L	1	2/4/2011 11:33:08 PM
Isopropylbenzene	ND	1.0		µg/L	1	2/4/2011 11:33:08 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	2/4/2011 11:33:08 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	2/4/2011 11:33:08 PM
Methylene Chloride	ND	3.0		µg/L	1	2/4/2011 11:33:08 PM
n-Butylbenzene	ND	1.0		µg/L	1	2/4/2011 11:33:08 PM
n-Propylbenzene	ND	1.0		µg/L	1	2/4/2011 11:33:08 PM
sec-Butylbenzene	ND	1.0		µg/L	1	2/4/2011 11:33:08 PM
Styrene	ND	1.0		µg/L	1	2/4/2011 11:33:08 PM
tert-Butylbenzene	ND	1.0		µg/L	1	2/4/2011 11:33:08 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	2/4/2011 11:33:08 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
- NC Non-Chlorinated
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitation Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *15-Feb-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	GBR 50
Lab Order:	1101913	**Collection Date:**	1/25/2011 9:30:00 AM
Project:	GBR	**Date Received:**	1/28/2011
Lab ID:	1101913-04	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **MMS**
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	2/4/2011 11:33:08 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	2/4/2011 11:33:08 PM
trans-1,2-DCE	ND	1.0		µg/L	1	2/4/2011 11:33:08 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	2/4/2011 11:33:08 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	2/4/2011 11:33:08 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	2/4/2011 11:33:08 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	2/4/2011 11:33:08 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	2/4/2011 11:33:08 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	2/4/2011 11:33:08 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	2/4/2011 11:33:08 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	2/4/2011 11:33:08 PM
Vinyl chloride	ND	1.0		µg/L	1	2/4/2011 11:33:08 PM
Xylenes, Total	ND	1.5		µg/L	1	2/4/2011 11:33:08 PM
Surr: 1,2-Dichloroethane-d4	97.2	77.7-113		%REC	1	2/4/2011 11:33:08 PM
Surr: 4-Bromofluorobenzene	90.9	76.4-106		%REC	1	2/4/2011 11:33:08 PM
Surr: Dibromofluoromethane	96.7	91.6-125		%REC	1	2/4/2011 11:33:08 PM
Surr: Toluene-d8	101	92.3-107		%REC	1	2/4/2011 11:33:08 PM
SM 2320B: ALKALINITY						Analyst: **IC**
Alkalinity, Total (As CaCO3)	200	20		mg/L CaCO3	1	2/1/2011 10:19:00 PM
Carbonate	ND	2.0		mg/L CaCO3	1	2/1/2011 10:19:00 PM
Bicarbonate	200	20		mg/L CaCO3	1	2/1/2011 10:19:00 PM
Hydroxide	ND	2.0		mg/L CaCO3	1	2/1/2011 10:19:00 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **IC**
Specific Conductance	3100	0.010		µmhos/cm	1	2/1/2011 10:19:00 PM
SM4500-H+B: PH						Analyst: **IC**
pH	7.59	0.100		pH units	1	2/1/2011 10:19:00 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**
Total Dissolved Solids	2640	40.0		mg/L	1	2/1/2011 2:26:00 PM

Qualifiers:

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- J Analyte detected below quantitation limits
- MCL Maximum Contaminant Level
- NC Non-Chlorinated
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitation Limit
- S Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: GBR **Work Order:** 1101913

Analyte	Result	Units	PQL	SPK Val	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 200.7: Metals											
Sample ID: 1101913-02DMSD		*MSD*				**Batch ID:**	**25514**	**Analysis Date:**		**2/3/2011 5:35:48 PM**	
Magnesium	86.17	mg/L	1.0	50.5	34.76	102	70	130	2.46	20	
Potassium	58.31	mg/L	1.0	55	1.725	103	70	130	1.19	20	
Sample ID: 1101913-02DMSD		*MSD*				**Batch ID:**	**25514**	**Analysis Date:**		**2/3/2011 5:48:30 PM**	
Calcium	184.0	mg/L	5.0	50.5	136.4	94.3	70	130	1.23	20	
Sample ID: MB-25514		*MBLK*				**Batch ID:**	**25514**	**Analysis Date:**		**2/3/2011 4:36:56 PM**	
Beryllium	ND	mg/L	0.0020								
Cadmium	ND	mg/L	0.0020								
Calcium	ND	mg/L	1.0								
Chromium	ND	mg/L	0.0060								
Copper	ND	mg/L	0.0060								
Lead	ND	mg/L	0.0050								
Magnesium	ND	mg/L	1.0								
Nickel	ND	mg/L	0.010								
Potassium	ND	mg/L	1.0								
Sodium	ND	mg/L	1.0								
Zinc	ND	mg/L	0.010								
Sample ID: MB		*MBLK*				**Batch ID:**	**R43601**	**Analysis Date:**		**2/10/2011 2:57:41 PM**	
Aluminum	ND	mg/L	0.020								
Arsenic	ND	mg/L	0.020								
Barium	ND	mg/L	0.0020								
Beryllium	ND	mg/L	0.0020								
Cadmium	ND	mg/L	0.0020								
Calcium	ND	mg/L	1.0								
Chromium	ND	mg/L	0.0060								
Cobalt	ND	mg/L	0.0060								
Copper	ND	mg/L	0.0060								
Iron	ND	mg/L	0.020								
Lead	ND	mg/L	0.0050								
Magnesium	ND	mg/L	1.0								
Manganese	ND	mg/L	0.0020								
Molybdenum	ND	mg/L	0.0080								
Nickel	ND	mg/L	0.010								
Potassium	ND	mg/L	1.0								
Selenium	ND	mg/L	0.050								
Silica	ND	mg/L	0.16								
Silver	ND	mg/L	0.0050								
Sodium	ND	mg/L	1.0								
Vanadium	ND	mg/L	0.050								
Zinc	ND	mg/L	0.010								
Sample ID: MB-25581		*MBLK*				**Batch ID:**	**25581**	**Analysis Date:**		**2/11/2011 4:29:28 PM**	
Lead	ND	mg/L	0.0050								
Silver	ND	mg/L	0.0050								
Sample ID: LCS-25514		*LCS*				**Batch ID:**	**25514**	**Analysis Date:**		**2/3/2011 4:40:40 PM**	

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: GBR **Work Order:** 1101913

Analyte	Result	Units	PQL	SPK Val	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 200.7: Metals											
Sample ID: LCS-25514		*LCS*				**Batch ID: 25514**		**Analysis Date: 2/3/2011 4:40:40 PM**			
Beryllium	0.5386	mg/L	0.0020	0.5	0	108	85	115			
Cadmium	0.5061	mg/L	0.0020	0.5	0	101	85	115			
Calcium	51.82	mg/L	1.0	50.5	0	103	85	115			
Chromium	0.5317	mg/L	0.0060	0.5	0	106	85	115			
Copper	0.5484	mg/L	0.0060	0.5	0.003	109	85	115			
Lead	0.5052	mg/L	0.0050	0.5	0	101	85	115			
Magnesium	52.47	mg/L	1.0	50.5	0	104	85	115			
Nickel	0.4909	mg/L	0.010	0.5	0	98.2	85	115			
Potassium	55.17	mg/L	1.0	55	0	100	85	115			
Sodium	51.89	mg/L	1.0	50.5	0	103	85	115			
Zinc	0.4978	mg/L	0.010	0.5	0	99.6	85	115			
Sample ID: LCS		*LCS*				**Batch ID: R43601**		**Analysis Date: 2/10/2011 3:01:34 PM**			
Aluminum	0.5213	mg/L	0.020	0.5	0	104	85	115			
Arsenic	0.5114	mg/L	0.020	0.5	0	102	85	115			
Barium	0.4587	mg/L	0.0020	0.5	0	91.7	85	115			
Beryllium	0.5093	mg/L	0.0020	0.5	0	102	85	115			
Cadmium	0.4826	mg/L	0.0020	0.5	0	96.5	85	115			
[illegible]n	49.76	mg/L	1.0	50.5	0	98.5	85	115			
[illegible]um	0.5000	mg/L	0.0060	0.5	0	100	85	115			
[illegible]balt	0.4568	mg/L	0.0060	0.5	0	91.4	85	115			
Copper	0.5009	mg/L	0.0060	0.5	0	100	85	115			
Iron	0.4673	mg/L	0.020	0.5	0.0056	92.3	85	115			
Lead	0.4872	mg/L	0.0050	0.5	0	97.4	85	115			
Magnesium	49.78	mg/L	1.0	50.5	0	98.6	85	115			
Manganese	0.4781	mg/L	0.0020	0.5	0	95.6	85	115			
Molybdenum	0.5052	mg/L	0.0080	0.5	0.0004	101	85	115			
Nickel	0.4705	mg/L	0.010	0.5	0	94.1	85	115			
Potassium	52.46	mg/L	1.0	55	0	95.4	85	115			
Selenium	0.4726	mg/L	0.050	0.5	0	94.5	85	115			
Silica	6.017	mg/L	0.16	5.885	0	102	85	115			
Silver	0.4985	mg/L	0.0050	0.5	0	99.7	85	115			
Sodium	48.63	mg/L	1.0	50.5	0	96.3	85	115			
Vanadium	0.5155	mg/L	0.050	0.5	0	103	85	115			
Zinc	0.4888	mg/L	0.010	0.5	0	97.8	85	115			
Sample ID: LCS-25581		*LCS*				**Batch ID: 25581**		**Analysis Date: 2/11/2011 11:55:16 AM**			
Lead	0.4856	mg/L	0.0050	0.5	0	97.1	85	115			
Silver	0.5140	mg/L	0.0050	0.5	0.0007	103	85	115			
Sample ID: 1101913-02DMS		*MS*				**Batch ID: 25614**		**Analysis Date: 2/3/2011 5:17:44 PM**			
Magnesium	84.09	mg/L	1.0	50.5	34.76	97.7	70	130			
Potassium	57.62	mg/L	1.0	55	1.725	102	70	130			
Sample ID: 1101913-02DMS		*MS*				**Batch ID: 25614**		**Analysis Date: 2/3/2011 5:44:37 PM**			
Calcium	186.3	mg/L	5.0	50.5	136.4	98.8	70	130			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: GBR **Work Order:** 1101913

Analyte	Result	Units	PQL	SPK Val	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA 200.8: Metals											
Sample ID: MB-26514		*MBLK*				Batch ID:	26514	Analysis Date:	2/9/2011 1:44:44 PM		
Antimony	ND	mg/L	0.0025								
Arsenic	ND	mg/L	0.0025								
Lead	ND	mg/L	0.0025								
Selenium	ND	mg/L	0.0025								
Thallium	ND	mg/L	0.0025								
Method: EPA Method 245.1: Mercury											
Sample ID: MB-26499		*MBLK*				Batch ID:	26499	Analysis Date:	2/3/2011 11:42:04 AM		
Mercury	ND	mg/L	0.00020								
Sample ID: LCS-26499		*LCS*				Batch ID:	26499	Analysis Date:	2/3/2011 11:43:48 AM		
Mercury	0.004836	mg/L	0.00020	0.005	0	96.7	80	120			
Method: EPA Method 300.0: Anions											
Sample ID: MB		*MBLK*				Batch ID:	R43411	Analysis Date:	1/28/2011 12:57:01 PM		
Chloride	ND	mg/L	0.50								
Sulfate	ND	mg/L	0.50								
Sample ID: MB		*MBLK*				Batch ID:	R43411	Analysis Date:	1/28/2011 10:51:42 PM		
Chloride	ND	mg/L	0.50								
Sulfate	ND	mg/L	0.50								
Sample ID: MB		*MBLK*				Batch ID:	R43411	Analysis Date:	1/29/2011 9:31:58 A		
Chloride	ND	mg/L	0.50								
Sulfate	ND	mg/L	0.50								
Sample ID: MB		*MBLK*				Batch ID:	R43443	Analysis Date:	1/31/2011 4:48:37 PM		
Chloride	ND	mg/L	0.50								
Sulfate	ND	mg/L	0.50								
Sample ID: LCS		*LCS*				Batch ID:	R43411	Analysis Date:	1/28/2011 1:08:14 PM		
Chloride	5.049	mg/L	0.50	5	0	101	90	110			
Sulfate	10.21	mg/L	0.50	10	0	102	90	110			
Sample ID: LCS		*LCS*				Batch ID:	R43411	Analysis Date:	1/28/2011 11:02:55 PM		
Chloride	5.123	mg/L	0.50	5	0	102	90	110			
Sulfate	10.34	mg/L	0.50	10	0	103	90	110			
Sample ID: LCS		*LCS*				Batch ID:	R43411	Analysis Date:	1/29/2011 9:43:12 AM		
Chloride	5.124	mg/L	0.50	5	0	102	90	110			
Sulfate	10.37	mg/L	0.50	10	0	104	90	110			
Sample ID: LCS		*LCS*				Batch ID:	R43443	Analysis Date:	1/31/2011 5:06:02 PM		
Chloride	4.926	mg/L	0.50	5	0	98.5	90	110			
Sulfate	10.08	mg/L	0.50	10	0	101	90	110			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: GBR **Work Order:** 1101913

Analyte	Result	Units	PQL	SPK Val	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: SM 2320B: Alkalinity											
Sample ID: MB-1		*MBLK*				Batch ID:	R43482	Analysis Date:	2/1/2011 12:09:00 PM		
Alkalinity, Total (As CaCO3)	ND	mg/L Ca	20								
Carbonate	ND	mg/L Ca	2.0								
Bicarbonate	ND	mg/L Ca	20								
Sample ID: MB-2		*MBLK*				Batch ID:	R43482	Analysis Date:	2/1/2011 5:01:00 PM		
Alkalinity, Total (As CaCO3)	ND	mg/L Ca	20								
Carbonate	ND	mg/L Ca	2.0								
Bicarbonate	ND	mg/L Ca	20								
Sample ID: MB-3		*MBLK*				Batch ID:	R43482	Analysis Date:	2/1/2011 11:32:00 PM		
Alkalinity, Total (As CaCO3)	ND	mg/L Ca	20								
Carbonate	ND	mg/L Ca	2.0								
Bicarbonate	ND	mg/L Ca	20								
Sample ID: MB-1		*MBLK*				Batch ID:	R43553	Analysis Date:	2/7/2011 11:20:00 AM		
Alkalinity, Total (As CaCO3)	ND	mg/L Ca	20								
Carbonate	ND	mg/L Ca	2.0								
Bicarbonate	ND	mg/L Ca	20								
Sample ID: MB-2		*MBLK*				Batch ID:	R43553	Analysis Date:	2/7/2011 5:44:00 PM		
''nity, Total (As CaCO3)	ND	mg/L Ca	20								
ıate	ND	mg/L Ca	2.0								
..oonate	ND	mg/L Ca	20								
Sample ID: LCS-2		*LCS*				Batch ID:	R43482	Analysis Date:	2/1/2011 5:07:00 PM		
Alkalinity, Total (As CaCO3)	80.36	mg/L Ca	20	80	0	100	96.5	104			
Sample ID: LCS-3		*LCS*				Batch ID:	R43482	Analysis Date:	2/1/2011 11:38:00 PM		
Alkalinity, Total (As CaCO3)	80.16	mg/L Ca	20	80	0	100	96.5	104			
Sample ID: LCS-1		*LCS*				Batch ID:	R43553	Analysis Date:	2/7/2011 11:26:00 AM		
Alkalinity, Total (As CaCO3)	79.88	mg/L Ca	20	80	0	99.8	96.5	104			
Sample ID: LCS-2		*LCS*				Batch ID:	R43553	Analysis Date:	2/7/2011 5:50:00 PM		
Alkalinity, Total (As CaCO3)	80.40	mg/L Ca	20	80	0	101	96.5	104			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: GBR **Work Order:** 1101913

Analyte	Result	Units	PQL	SPK Val	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES											
Sample ID: 6ml rb		*MBLK*				**Batch ID: R43496**		**Analysis Date: 2/4/2011 9:53:32 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	3.0								
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	3.0								
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	NC	Non-Chlorinated
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: GBR **Work Order:** 1101913

Analyte	Result	Units	PQL	SPK Val	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES											
Sample ID: 5ml rb		*MBLK*									
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*									
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	3.0								
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								

Sample ID: 5ml rb Batch ID: R43496 Analysis Date: 2/4/2011 9:53:32 AM

Sample ID: b6 Batch ID: R43496 Analysis Date: 2/4/2011 9:12:56 PM

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: GBR **Work Order:** 1101913

Analyte	Result	Units	PQL	SPK Val	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES											
Sample ID: b6		*MBLK*					**Batch ID: R43496**		**Analysis Date: 2/4/2011 9:12:56 PM**		
Chloromethane	ND	µg/L	3.0								
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: R43496**		**Analysis Date: 2/4/2011 10:48:59 AM**		

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: GBR **Work Order:** 1101913

Analyte	Result	Units	PQL	SPK Val	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES											
Sample ID: 100ng lcs		*LCS*				**Batch ID:**	**R43496**	**Analysis Date:**		**2/4/2011 10:48:59 AM**	
Benzene	20.68	µg/L	1.0	20	0	103	84.6	109			
Toluene	21.64	µg/L	1.0	20	0	108	81	114			
Chlorobenzene	20.89	µg/L	1.0	20	0	104	85.2	113			
1,1-Dichloroethene	20.18	µg/L	1.0	20	0	101	79.6	124			
Trichloroethene (TCE)	17.83	µg/L	1.0	20	0	89.2	78.3	102			
Sample ID: 100ng lcs-2		*LCS*				**Batch ID:**	**R43496**	**Analysis Date:**		**2/4/2011 11:16:53 AM**	
Benzene	20.35	µg/L	1.0	20	0	102	84.6	109			
Toluene	22.21	µg/L	1.0	20	0	111	81	114			
Chlorobenzene	21.67	µg/L	1.0	20	0	108	85.2	113			
1,1-Dichloroethene	20.52	µg/L	1.0	20	0	103	79.6	124			
Trichloroethene (TCE)	18.48	µg/L	1.0	20	0	92.4	78.3	102			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: GBR **Work Order:** 1101913

Analyte	Result	Units	PQL	SPK Val	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8270C: PAHs											
Sample ID: mb-25479		*MBLK*				**Batch ID: 25479**		**Analysis Date:**		**2/3/2011 2:02:30 PM**	
Naphthalene	ND	µg/L	0.50								
1-Methylnaphthalene	ND	µg/L	0.50								
2-Methylnaphthalene	ND	µg/L	0.50								
Acenaphthylene	ND	µg/L	0.50								
Acenaphthene	ND	µg/L	0.50								
Fluorene	ND	µg/L	0.50								
Phenanthrene	ND	µg/L	0.50								
Anthracene	ND	µg/L	0.50								
Fluoranthene	ND	µg/L	0.50								
Pyrene	ND	µg/L	0.50								
Benz(a)anthracene	ND	µg/L	0.50								
Chrysene	ND	µg/L	0.50								
Benzo(b)fluoranthene	ND	µg/L	0.50								
Benzo(k)fluoranthene	ND	µg/L	0.50								
Benzo(a)pyrene	ND	µg/L	0.50								
Dibenz(a,h)anthracene	ND	µg/L	0.50								
Benzo(g,h,i)perylene	ND	µg/L	0.50								
Indeno(1,2,3-cd)pyrene	ND	µg/L	0.50								
Sample ID: lcs-25479		*LCS*				**Batch ID: 25479**		**Analysis Date:**		**2/3/2011 2:24:41 F**	
Naphthalene	18.14	µg/L	0.50	20	0	90.7	33.9	106			
1-Methylnaphthalene	18.96	µg/L	0.50	20	0	94.8	36.3	111			
2-Methylnaphthalene	17.48	µg/L	0.50	20	0	87.4	36.5	105			
Acenaphthylene	16.96	µg/L	0.50	20	0	84.8	28.4	122			
Acenaphthene	15.74	µg/L	0.50	20	0	78.7	32.7	118			
Fluorene	16.78	µg/L	0.50	20	0	83.9	39.1	119			
Phenanthrene	20.56	µg/L	0.50	20	0	103	47.1	119			
Anthracene	20.00	µg/L	0.50	20	0	100	51.1	117			
Fluoranthene	19.48	µg/L	0.50	20	0	97.4	40	132			
Pyrene	17.58	µg/L	0.50	20	0	87.9	43.9	123			
Benz(a)anthracene	17.58	µg/L	0.50	20	0	87.9	35	163			
Chrysene	18.10	µg/L	0.50	20	0	90.5	45.9	119			
Benzo(b)fluoranthene	17.96	µg/L	0.50	20	0	89.8	36.5	137			
Benzo(k)fluoranthene	18.24	µg/L	0.50	20	0	91.2	37.1	143			
Benzo(a)pyrene	17.26	µg/L	0.50	20	0	86.3	26.7	144			
Dibenz(a,h)anthracene	19.14	µg/L	0.50	20	0	95.7	31	146			
Benzo(g,h,i)perylene	18.36	µg/L	0.50	20	0	91.8	30.9	150			
Indeno(1,2,3-cd)pyrene	18.50	µg/L	0.50	20	0	92.5	35.2	169			
Sample ID: lcsd-25479		*LCSD*				**Batch ID: 25479**		**Analysis Date:**		**2/3/2011 2:46:52 PM**	
Naphthalene	16.88	µg/L	0.50	20	0	84.4	33.9	106	7.20	20	
1-Methylnaphthalene	17.68	µg/L	0.50	20	0	88.4	36.3	111	6.99	20	
2-Methylnaphthalene	16.50	µg/L	0.50	20	0	82.5	36.5	105	5.77	20	
Acenaphthylene	17.60	µg/L	0.50	20	0	88.0	28.4	122	3.70	20	
Acenaphthene	17.00	µg/L	0.50	20	0	85.0	32.7	118	7.70	20	
Fluorene	17.98	µg/L	0.50	20	0	89.9	39.1	119	6.90	20	

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: GBR **Work Order:** 1101913

Analyte	Result	Units	PQL	SPK Val	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8270C: PAHs											
Sample ID: lcsd-25479		*LCSD*				**Batch ID: 25479**		**Analysis Date:**		**2/3/2011 2:46:52 PM**	
Phenanthrene	21.62	µg/L	0.50	20	0	108	47.1	119	5.03	20	
Anthracene	21.96	µg/L	0.50	20	0	110	51.1	117	9.34	20	
Fluoranthene	21.36	µg/L	0.50	20	0	107	40	132	9.21	20	
Pyrene	19.96	µg/L	0.50	20	0	99.8	43.9	123	12.7	20	
Benz(a)anthracene	19.74	µg/L	0.50	20	0	98.7	35	163	11.6	20	
Chrysene	21.54	µg/L	0.50	20	0	108	45.9	119	17.4	20	
Benzo(b)fluoranthene	20.06	µg/L	0.50	20	0	100	36.5	137	11.0	20	
Benzo(k)fluoranthene	20.72	µg/L	0.50	20	0	104	37.1	143	12.7	20	
Benzo(a)pyrene	19.62	µg/L	0.50	20	0	98.1	26.7	144	12.8	20	
Dibenz(a,h)anthracene	21.58	µg/L	0.50	20	0	108	31	146	12.0	20	
Benzo(g,h,i)perylene	20.86	µg/L	0.50	20	0	104	30.9	150	12.7	20	
Indeno(1,2,3-cd)pyrene	21.38	µg/L	0.50	20	0	107	35.2	169	14.4	20	
Method: SM2540C MOD: Total Dissolved Solids											
Sample ID: MB-25466		*MBLK*				**Batch ID: 25466**		**Analysis Date:**		**2/1/2011 2:26:00 PM**	
Total Dissolved Solids	ND	mg/L	20.0								
Sample ID: LCS-25466		*LCS*				**Batch ID: 25466**		**Analysis Date:**		**2/1/2011 2:26:00 PM**	
Total Dissolved Solids	999.0	mg/L	20.0	1000	0	99.9	80	120			

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name WESTERN REFINING SOUT — Date Received: 1/28/2011

Work Order Number 1101913 — Received by: AT

Checklist completed by: _____ 01/28/11 — Sample ID labels checked by: _____

Signature — Date — Initials

Matrix: — Carrier name: Greyhound

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: 4/

(<2 >12 unless noted below.

Container/Temp Blank temperature? 5.0° <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: 111 CR 4990
Bloomfield NM

Phone #:

email or Fax#:

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

Accreditation
☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush

Project Name: GBR

Project #:

Project Manager: Ashley Ager

Sampler: Troy Urban

On Ice: ☒ Yes ☐ No

Sample Temperature: 5.2°C

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1102913
012611	1445	GW	GBR 30	6 •		-1
012611	0823	GW	GRW 3	6 •		-2
012511	1438	GW	GBR 17	6 •		-3
012511	0930	GW	GBR 50	6 *		-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)	8270 (Semi-VOA)	Sent to Lab 1st			Air Bubbles (Y or N)
											✓			
											✓			
											✓			
											✓			

Date:	Time:	Relinquished by:	Received by:	Date	Time
1/27/11	1327	Troy Urban	Chester Walter	1/27/11	1327
1/27/11	1445	Chet Walter		1/28/11	10:30

Remarks: Please email results to aager@henv.com

• = 8270 Sims
* = additional metals list AT 2/11/11

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

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, May 02, 2011

Kelly Robinson
Western Refining Southwest, Inc.
#50 CR 4990
Bloomfield, NM 87413

TEL: (505) 632-4166
FAX (505) 632-3911

RE: GBR

Order No.: 1104457

Dear Kelly Robinson:

Hall Environmental Analysis Laboratory, Inc. received 3 sample(s) on 4/12/2011 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. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag.

Please do not 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

all Environmental Analysis Laboratory, Inc.

Date: *02-May-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	Influent
Lab Order:	1104457	**Collection Date:**	4/11/2011 8:32:00 AM
Project:	GBR	**Date Received:**	4/12/2011
Lab ID:	1104457-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Fluoride	0.88	0.10		mg/L	1	4/12/2011 1:02:01 PM
Chloride	90	10		mg/L	20	4/12/2011 1:19:26 PM
Nitrogen, Nitrite (As N)	ND	2.0		mg/L	20	4/12/2011 1:19:26 PM
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	4/12/2011 1:02:01 PM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	4/12/2011 1:02:01 PM
Sulfate	1500	50		mg/L	100	4/19/2011 2:22:02 AM
EPA METHOD 200.7: METALS						Analyst: **RAGS**
Calcium	330	10		mg/L	10	4/28/2011 11:56:01 AM
Iron	1.5	0.20		mg/L	10	4/28/2011 11:56:01 AM
Magnesium	33	1.0		mg/L	1	4/28/2011 11:37:45 AM
Manganese	0.96	0.0020		mg/L	1	4/28/2011 11:37:45 AM
Potassium	3.3	1.0		mg/L	1	4/28/2011 11:37:45 AM
Sodium	560	10		mg/L	10	4/28/2011 11:56:01 AM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	4/15/2011 12:43:55 AM
Toluene	ND	1.0		µg/L	1	4/15/2011 12:43:55 AM
Ethylbenzene	ND	1.0		µg/L	1	4/15/2011 12:43:55 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	4/15/2011 12:43:55 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	4/15/2011 12:43:55 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	4/15/2011 12:43:55 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	4/15/2011 12:43:55 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	4/15/2011 12:43:55 AM
Naphthalene	ND	2.0		µg/L	1	4/15/2011 12:43:55 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	4/15/2011 12:43:55 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	4/15/2011 12:43:55 AM
Acetone	ND	10		µg/L	1	4/15/2011 12:43:55 AM
Bromobenzene	ND	1.0		µg/L	1	4/15/2011 12:43:55 AM
Bromodichloromethane	ND	1.0		µg/L	1	4/15/2011 12:43:55 AM
Bromoform	ND	1.0		µg/L	1	4/15/2011 12:43:55 AM
Bromomethane	ND	3.0		µg/L	1	4/15/2011 12:43:55 AM
2-Butanone	ND	10		µg/L	1	4/15/2011 12:43:55 AM
Carbon disulfide	ND	10		µg/L	1	4/15/2011 12:43:55 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	4/15/2011 12:43:55 AM
Chlorobenzene	ND	1.0		µg/L	1	4/15/2011 12:43:55 AM
Chloroethane	ND	2.0		µg/L	1	4/15/2011 12:43:55 AM
Chloroform	ND	1.0		µg/L	1	4/15/2011 12:43:55 AM
Chloromethane	ND	3.0		µg/L	1	4/15/2011 12:43:55 AM
2-Chlorotoluene	ND	1.0		µg/L	1	4/15/2011 12:43:55 AM
4-Chlorotoluene	ND	1.0		µg/L	1	4/15/2011 12:43:55 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
- NC Non-Chlorinated
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitation Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *02-May-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	Influent
Lab Order:	1104457	**Collection Date:**	4/11/2011 8:32:00 AM
Project:	GBR	**Date Received:**	4/12/2011
Lab ID:	1104457-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
cis-1,2-DCE	ND	1.0		µg/L	1	4/15/2011 12:43:55 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	4/15/2011 12:43:55 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	4/15/2011 12:43:55 AM
Dibromochloromethane	ND	1.0		µg/L	1	4/15/2011 12:43:55 AM
Dibromomethane	ND	1.0		µg/L	1	4/15/2011 12:43:55 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	4/15/2011 12:43:55 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	4/15/2011 12:43:55 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	4/15/2011 12:43:55 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	4/15/2011 12:43:55 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	4/15/2011 12:43:55 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	4/15/2011 12:43:55 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	4/15/2011 12:43:55 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	4/15/2011 12:43:55 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	4/15/2011 12:43:55 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	4/15/2011 12:43:55 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	4/15/2011 12:43:55 AM
2-Hexanone	ND	10		µg/L	1	4/15/2011 12:43:55 AM
Isopropylbenzene	ND	1.0		µg/L	1	4/15/2011 12:43:55 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	4/15/2011 12:43:55 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	4/15/2011 12:43:55 AM
Methylene Chloride	ND	3.0		µg/L	1	4/15/2011 12:43:55 AM
n-Butylbenzene	ND	1.0		µg/L	1	4/15/2011 12:43:55 AM
n-Propylbenzene	ND	1.0		µg/L	1	4/15/2011 12:43:55 AM
sec-Butylbenzene	ND	1.0		µg/L	1	4/15/2011 12:43:55 AM
Styrene	ND	1.0		µg/L	1	4/15/2011 12:43:55 AM
tert-Butylbenzene	ND	1.0		µg/L	1	4/15/2011 12:43:55 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	4/15/2011 12:43:55 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	4/15/2011 12:43:55 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	4/15/2011 12:43:55 AM
trans-1,2-DCE	ND	1.0		µg/L	1	4/15/2011 12:43:55 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	4/15/2011 12:43:55 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	4/15/2011 12:43:55 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	4/15/2011 12:43:55 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	4/15/2011 12:43:55 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	4/15/2011 12:43:55 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	4/15/2011 12:43:55 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	4/15/2011 12:43:55 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	4/15/2011 12:43:55 AM
Vinyl chloride	ND	1.0		µg/L	1	4/15/2011 12:43:55 AM
Xylenes, Total	ND	1.5		µg/L	1	4/15/2011 12:43:55 AM
Surr: 1,2-Dichloroethane-d4	113	65.8-138		%REC	1	4/15/2011 12:43:55 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
- NC *Non-Chlorinated*
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitation Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *02-May-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	Influent
Lab Order:	1104457	**Collection Date:**	4/11/2011 8:32:00 AM
Project:	GBR	**Date Received:**	4/12/2011
Lab ID:	1104457-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Surr: 4-Bromofluorobenzene	130	72.7-128	S	%REC	1	4/15/2011 12:43:55 AM
Surr: Dibromofluoromethane	109	69-135		%REC	1	4/15/2011 12:43:55 AM
Surr: Toluene-d8	107	86.1-134		%REC	1	4/15/2011 12:43:55 AM
SM 2320B: ALKALINITY						Analyst: **LJB**
Alkalinity, Total (As CaCO3)	490	20		mg/L CaCO3	1	4/13/2011 5:32:00 PM
Carbonate	ND	2.0		mg/L CaCO3	1	4/13/2011 5:32:00 PM
Bicarbonate	490	20		mg/L CaCO3	1	4/13/2011 5:32:00 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **LJB**
Specific Conductance	3400	0.010		µmhos/cm	1	4/13/2011 5:32:00 PM
SM4500-H+B: PH						Analyst: **LJB**
pH	7.51	0.100		pH units	1	4/13/2011 5:32:00 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**
Total Dissolved Solids	2770	20.0		mg/L	1	4/18/2011 10:42:00 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *02-May-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	Effluent
Lab Order:	1104457	**Collection Date:**	4/11/2011 8:48:00 AM
Project:	GBR	**Date Received:**	4/12/2011
Lab ID:	1104457-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						**Analyst: SRM**
Fluoride	0.91	0.10		mg/L	1	4/12/2011 2:11:40 PM
Chloride	89	10		mg/L	20	4/12/2011 3:03:55 PM
Nitrogen, Nitrite (As N)	ND	2.0		mg/L	20	4/12/2011 3:03:55 PM
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	4/12/2011 2:11:40 PM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	4/12/2011 2:11:40 PM
Sulfate	1500	50		mg/L	100	4/19/2011 5:28:10 AM
EPA METHOD 200.7: METALS						**Analyst: RAGS**
Calcium	330	10		mg/L	10	4/28/2011 12:05:52 PM
Iron	0.047	0.020		mg/L	1	4/28/2011 12:00:40 PM
Magnesium	34	1.0		mg/L	1	4/28/2011 12:00:40 PM
Manganese	0.99	0.0020		mg/L	1	4/28/2011 12:00:40 PM
Potassium	3.6	1.0		mg/L	1	4/28/2011 12:00:40 PM
Sodium	560	10		mg/L	10	4/28/2011 12:05:52 PM
EPA METHOD 8260B: VOLATILES						**Analyst: RAA**
Benzene	ND	1.0		µg/L	1	4/14/2011 7:08:20 AM
Toluene	ND	1.0		µg/L	1	4/14/2011 7:08:20 AM
Ethylbenzene	ND	1.0		µg/L	1	4/14/2011 7:08:20 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	4/14/2011 7:08:20 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	4/14/2011 7:08:20 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	4/14/2011 7:08:20 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	4/14/2011 7:08:20 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	4/14/2011 7:08:20 AM
Naphthalene	ND	2.0		µg/L	1	4/14/2011 7:08:20 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	4/14/2011 7:08:20 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	4/14/2011 7:08:20 AM
Acetone	ND	10		µg/L	1	4/14/2011 7:08:20 AM
Bromobenzene	ND	1.0		µg/L	1	4/14/2011 7:08:20 AM
Bromodichloromethane	ND	1.0		µg/L	1	4/14/2011 7:08:20 AM
Bromoform	ND	1.0		µg/L	1	4/14/2011 7:08:20 AM
Bromomethane	ND	3.0		µg/L	1	4/14/2011 7:08:20 AM
2-Butanone	ND	10		µg/L	1	4/14/2011 7:08:20 AM
Carbon disulfide	ND	10		µg/L	1	4/14/2011 7:08:20 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	4/14/2011 7:08:20 AM
Chlorobenzene	ND	1.0		µg/L	1	4/14/2011 7:08:20 AM
Chloroethane	ND	2.0		µg/L	1	4/14/2011 7:08:20 AM
Chloroform	ND	1.0		µg/L	1	4/14/2011 7:08:20 AM
Chloromethane	ND	3.0		µg/L	1	4/14/2011 7:08:20 AM
2-Chlorotoluene	ND	1.0		µg/L	1	4/14/2011 7:08:20 AM
4-Chlorotoluene	ND	1.0		µg/L	1	4/14/2011 7:08:20 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
- NC Non-Chlorinated
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitation Limit
- S Spike recovery outside accepted recovery limits

CLIENT: Western Refining Southwest, Inc. **Client Sample ID:** Effluent
Lab Order: 1104457 **Collection Date:** 4/11/2011 8:48:00 AM
Project: GBR **Date Received:** 4/12/2011
Lab ID: 1104457-02 **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
cis-1,2-DCE	ND	1.0		µg/L	1	4/14/2011 7:08:20 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	4/14/2011 7:08:20 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	4/14/2011 7:08:20 AM
Dibromochloromethane	ND	1.0		µg/L	1	4/14/2011 7:08:20 AM
Dibromomethane	ND	1.0		µg/L	1	4/14/2011 7:08:20 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	4/14/2011 7:08:20 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	4/14/2011 7:08:20 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	4/14/2011 7:08:20 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	4/14/2011 7:08:20 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	4/14/2011 7:08:20 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	4/14/2011 7:08:20 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	4/14/2011 7:08:20 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	4/14/2011 7:08:20 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	4/14/2011 7:08:20 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	4/14/2011 7:08:20 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	4/14/2011 7:08:20 AM
2-Hexanone	ND	10		µg/L	1	4/14/2011 7:08:20 AM
Isopropylbenzene	ND	1.0		µg/L	1	4/14/2011 7:08:20 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	4/14/2011 7:08:20 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	4/14/2011 7:08:20 AM
Methylene Chloride	ND	3.0		µg/L	1	4/14/2011 7:08:20 AM
n-Butylbenzene	ND	1.0		µg/L	1	4/14/2011 7:08:20 AM
n-Propylbenzene	ND	1.0		µg/L	1	4/14/2011 7:08:20 AM
sec-Butylbenzene	ND	1.0		µg/L	1	4/14/2011 7:08:20 AM
Styrene	ND	1.0		µg/L	1	4/14/2011 7:08:20 AM
tert-Butylbenzene	ND	1.0		µg/L	1	4/14/2011 7:08:20 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	4/14/2011 7:08:20 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	4/14/2011 7:08:20 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	4/14/2011 7:08:20 AM
trans-1,2-DCE	ND	1.0		µg/L	1	4/14/2011 7:08:20 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	4/14/2011 7:08:20 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	4/14/2011 7:08:20 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	4/14/2011 7:08:20 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	4/14/2011 7:08:20 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	4/14/2011 7:08:20 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	4/14/2011 7:08:20 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	4/14/2011 7:08:20 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	4/14/2011 7:08:20 AM
Vinyl chloride	ND	1.0		µg/L	1	4/14/2011 7:08:20 AM
Xylenes, Total	ND	1.5		µg/L	1	4/14/2011 7:08:20 AM
Surr: 1,2-Dichloroethane-d4	109	65.8-138		%REC	1	4/14/2011 7:08:20 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
- NC Non-Chlorinated
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitation Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *02-May-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	Effluent
Lab Order:	1104457	**Collection Date:**	4/11/2011 8:48:00 AM
Project:	GBR	**Date Received:**	4/12/2011
Lab ID:	1104457-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Surr: 4-Bromofluorobenzene	129	72.7-128	S	%REC	1	4/14/2011 7:08:20 AM
Surr: Dibromofluoromethane	109	69-135		%REC	1	4/14/2011 7:08:20 AM
Surr: Toluene-d8	109	86.1-134		%REC	1	4/14/2011 7:08:20 AM
SM 2320B: ALKALINITY						Analyst: **LJB**
Alkalinity, Total (As CaCO3)	490	20		mg/L CaCO3	1	4/13/2011 6:52:00 PM
Carbonate	ND	2.0		mg/L CaCO3	1	4/13/2011 6:52:00 PM
Bicarbonate	490	20		mg/L CaCO3	1	4/13/2011 6:52:00 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **LJB**
Specific Conductance	3500	0.010		µmhos/cm	1	4/13/2011 6:52:00 PM
SM4500-H+B: PH						Analyst: **LJB**
pH	7.59	0.100		pH units	1	4/13/2011 6:52:00 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**
Total Dissolved Solids	2760	20.0		mg/L	1	4/18/2011 10:42:00 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
- NC Non-Chlorinated
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitation Limit
- S Spike recovery outside accepted recovery limits

CLIENT: Western Refining Southwest, Inc. **Client Sample ID:** TRIP BLANK
Lab Order: 1104457 **Collection Date:**
Project: GBR **Date Received:** 4/12/2011
Lab ID: 1104457-03 **Matrix:** TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Benzene	ND	1.0		µg/L	1	4/14/2011 7:34:17 AM
Toluene	ND	1.0		µg/L	1	4/14/2011 7:34:17 AM
Ethylbenzene	ND	1.0		µg/L	1	4/14/2011 7:34:17 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	4/14/2011 7:34:17 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	4/14/2011 7:34:17 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	4/14/2011 7:34:17 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	4/14/2011 7:34:17 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	4/14/2011 7:34:17 AM
Naphthalene	ND	2.0		µg/L	1	4/14/2011 7:34:17 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	4/14/2011 7:34:17 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	4/14/2011 7:34:17 AM
Acetone	ND	10		µg/L	1	4/14/2011 7:34:17 AM
Bromobenzene	ND	1.0		µg/L	1	4/14/2011 7:34:17 AM
Bromodichloromethane	ND	1.0		µg/L	1	4/14/2011 7:34:17 AM
Bromoform	ND	1.0		µg/L	1	4/14/2011 7:34:17 AM
Bromomethane	ND	3.0		µg/L	1	4/14/2011 7:34:17 AM
2-Butanone	ND	10		µg/L	1	4/14/2011 7:34:17 AM
Carbon disulfide	ND	10		µg/L	1	4/14/2011 7:34:17 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	4/14/2011 7:34:17 AM
Chlorobenzene	ND	1.0		µg/L	1	4/14/2011 7:34:17 AM
Chloroethane	ND	2.0		µg/L	1	4/14/2011 7:34:17 AM
Chloroform	ND	1.0		µg/L	1	4/14/2011 7:34:17 AM
Chloromethane	ND	3.0		µg/L	1	4/14/2011 7:34:17 AM
2-Chlorotoluene	ND	1.0		µg/L	1	4/14/2011 7:34:17 AM
4-Chlorotoluene	ND	1.0		µg/L	1	4/14/2011 7:34:17 AM
cis-1,2-DCE	ND	1.0		µg/L	1	4/14/2011 7:34:17 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	4/14/2011 7:34:17 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	4/14/2011 7:34:17 AM
Dibromochloromethane	ND	1.0		µg/L	1	4/14/2011 7:34:17 AM
Dibromomethane	ND	1.0		µg/L	1	4/14/2011 7:34:17 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	4/14/2011 7:34:17 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	4/14/2011 7:34:17 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	4/14/2011 7:34:17 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	4/14/2011 7:34:17 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	4/14/2011 7:34:17 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	4/14/2011 7:34:17 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	4/14/2011 7:34:17 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	4/14/2011 7:34:17 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	4/14/2011 7:34:17 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	4/14/2011 7:34:17 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	4/14/2011 7:34:17 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
- NC Non-Chlorinated
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitation Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *02-May-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	TRIP BLANK
Lab Order:	1104457	**Collection Date:**	
Project:	GBR	**Date Received:**	4/12/2011
Lab ID:	1104457-03	**Matrix:**	TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
2-Hexanone	ND	10		µg/L	1	4/14/2011 7:34:17 AM
Isopropylbenzene	ND	1.0		µg/L	1	4/14/2011 7:34:17 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	4/14/2011 7:34:17 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	4/14/2011 7:34:17 AM
Methylene Chloride	ND	3.0		µg/L	1	4/14/2011 7:34:17 AM
n-Butylbenzene	ND	1.0		µg/L	1	4/14/2011 7:34:17 AM
n-Propylbenzene	ND	1.0		µg/L	1	4/14/2011 7:34:17 AM
sec-Butylbenzene	ND	1.0		µg/L	1	4/14/2011 7:34:17 AM
Styrene	ND	1.0		µg/L	1	4/14/2011 7:34:17 AM
tert-Butylbenzene	ND	1.0		µg/L	1	4/14/2011 7:34:17 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	4/14/2011 7:34:17 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	4/14/2011 7:34:17 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	4/14/2011 7:34:17 AM
trans-1,2-DCE	ND	1.0		µg/L	1	4/14/2011 7:34:17 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	4/14/2011 7:34:17 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	4/14/2011 7:34:17 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	4/14/2011 7:34:17 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	4/14/2011 7:34:17 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	4/14/2011 7:34:17 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	4/14/2011 7:34:17 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	4/14/2011 7:34:17 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	4/14/2011 7:34:17 AM
Vinyl chloride	ND	1.0		µg/L	1	4/14/2011 7:34:17 AM
Xylenes, Total	ND	1.5		µg/L	1	4/14/2011 7:34:17 AM
Surr: 1,2-Dichloroethane-d4	113	65.8-138		%REC	1	4/14/2011 7:34:17 AM
Surr: 4-Bromofluorobenzene	124	72.7-128		%REC	1	4/14/2011 7:34:17 AM
Surr: Dibromofluoromethane	112	69-135		%REC	1	4/14/2011 7:34:17 AM
Surr: Toluene-d8	115	86.1-134		%REC	1	4/14/2011 7:34:17 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
- NC Non-Chlorinated
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitation Limit
- S Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: GBR **Work Order:** 1104457

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 200.7: Metals											
Sample ID: MB		*MBLK*				**Batch ID: R44955**		**Analysis Date: 4/26/2011 8:31:09 AM**			
Calcium	ND	mg/L	1.0								
Iron	ND	mg/L	0.020								
Magnesium	ND	mg/L	1.0								
Manganese	ND	mg/L	0.0020								
Potassium	ND	mg/L	1.0								
Sodium	ND	mg/L	1.0								
Sample ID: MB		*MBLK*				**Batch ID: R44955**		**Analysis Date: 4/26/2011 10:34:31 AM**			
Calcium	ND	mg/L	1.0								
Iron	ND	mg/L	0.020								
Magnesium	ND	mg/L	1.0								
Manganese	ND	mg/L	0.0020								
Potassium	ND	mg/L	1.0								
Sodium	ND	mg/L	1.0								
Sample ID: MB		*MBLK*				**Batch ID: R45011**		**Analysis Date: 4/28/2011 8:49:05 AM**			
Calcium	ND	mg/L	1.0								
Iron	ND	mg/L	0.020								
Magnesium	ND	mg/L	1.0								
nese	ND	mg/L	0.0020								
ium	ND	mg/L	1.0								
Sodium	ND	mg/L	1.0								
Sample ID: LCS		*LCS*				**Batch ID: R44955**		**Analysis Date: 4/26/2011 8:35:39 AM**			
Calcium	50.91	mg/L	1.0	50.5	0	101	85	115			
Iron	0.4918	mg/L	0.020	0.5	0	98.4	85	115			
Magnesium	50.94	mg/L	1.0	50.5	0.0031	101	85	115			
Manganese	0.4952	mg/L	0.0020	0.5	0	99.0	85	115			
Potassium	54.12	mg/L	1.0	55	0	98.4	85	115			
Sodium	50.10	mg/L	1.0	50.5	0	99.2	85	115			
Sample ID: LCS		*LCS*				**Batch ID: R44955**		**Analysis Date: 4/26/2011 10:39:01 AM**			
Calcium	48.73	mg/L	1.0	50.5	0	96.5	85	115			
Iron	0.4849	mg/L	0.020	0.5	0	97.0	85	115			
Magnesium	50.11	mg/L	1.0	50.5	0	99.2	85	115			
Manganese	0.4783	mg/L	0.0020	0.5	0	95.7	85	115			
Potassium	52.78	mg/L	1.0	55	0	96.0	85	115			
Sodium	50.29	mg/L	1.0	50.5	0	99.6	85	115			
Sample ID: LCS		*LCS*				**Batch ID: R45011**		**Analysis Date: 4/28/2011 8:53:33 AM**			
Calcium	51.86	mg/L	1.0	50.5	0	103	85	115			
Iron	0.4914	mg/L	0.020	0.5	0	98.3	85	115			
Magnesium	51.58	mg/L	1.0	50.5	0.0030	102	85	115			
Manganese	0.4978	mg/L	0.0020	0.5	0	99.6	85	115			
Potassium	53.88	mg/L	1.0	55	0	98.0	85	115			
Sodium	50.26	mg/L	1.0	50.5	0.0595	99.4	85	115			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: GBR **Work Order:** 1104457

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 300.0: Anions											
Sample ID: 1104457-02EMSD		*MSD*				**Batch ID:**	**R44696**	**Analysis Date:**		**4/12/2011 2:46:30 PM**	
Fluoride	1.357	mg/L	0.10	0.5	0.9058	90.2	71.7	114	0.568	20	
Nitrogen, Nitrate (As N)	2.352	mg/L	0.10	2.5	0	94.1	83.7	111	1.51	20	
Phosphorus, Orthophosphate (As P)	4.684	mg/L	0.50	5	0	93.7	80.5	108	0.0801	20	
Sample ID: MB		*MBLK*				**Batch ID:**	**R44696**	**Analysis Date:**		**4/12/2011 10:42:44 AM**	
Fluoride	ND	mg/L	0.10								
Chloride	ND	mg/L	0.50								
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		*MBLK*				**Batch ID:**	**R44812**	**Analysis Date:**		**4/18/2011 2:34:42 PM**	
Fluoride	ND	mg/L	0.10								
Chloride	ND	mg/L	0.50								
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		*MBLK*				**Batch ID:**	**R44812**	**Analysis Date:**		**4/19/2011 1:57:12 AM**	
Fluoride	ND	mg/L	0.10								
Chloride	ND	mg/L	0.50								
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:**	**R44696**	**Analysis Date:**		**4/12/2011 11:00:09 AM**	
Fluoride	0.5382	mg/L	0.10	0.5	0	108	90	110			
Chloride	4.897	mg/L	0.50	5	0	97.9	90	110			
Nitrogen, Nitrite (As N)	0.9666	mg/L	0.10	1	0	96.7	90	110			
Nitrogen, Nitrate (As N)	2.536	mg/L	0.10	2.5	0	101	90	110			
Phosphorus, Orthophosphate (As P)	5.352	mg/L	0.50	5	0	107	90	110			
Sulfate	10.40	mg/L	0.50	10	0	104	90	110			
Sample ID: LCS		*LCS*				**Batch ID:**	**R44812**	**Analysis Date:**		**4/18/2011 2:47:07 PM**	
Fluoride	0.5049	mg/L	0.10	0.5	0	101	90	110			
Chloride	4.880	mg/L	0.50	5	0	97.6	90	110			
Nitrogen, Nitrite (As N)	0.9946	mg/L	0.10	1	0	99.5	90	110			
Nitrogen, Nitrate (As N)	2.476	mg/L	0.10	2.5	0	99.1	90	110			
Phosphorus, Orthophosphate (As P)	4.939	mg/L	0.50	5	0	98.8	90	110			
Sulfate	9.951	mg/L	0.50	10	0	99.5	90	110			
Sample ID: LCS		*LCS*				**Batch ID:**	**R44812**	**Analysis Date:**		**4/19/2011 2:09:37 AM**	
Fluoride	0.4957	mg/L	0.10	0.5	0	99.1	90	110			
Chloride	4.698	mg/L	0.50	5	0	94.0	90	110			
Nitrogen, Nitrite (As N)	0.9638	mg/L	0.10	1	0	96.4	90	110			
Nitrogen, Nitrate (As N)	2.378	mg/L	0.10	2.5	0	95.1	90	110			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: GBR **Work Order:** 1104457

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 300.0: Anions											
Sample ID: LCS		*LCS*				**Batch ID: R44812**		**Analysis Date: 4/19/2011 2:09:37 AM**			
Phosphorus, Orthophosphate (As P)	4.857	mg/L	0.50	5	0	97.1	90	110			
Sulfate	9.562	mg/L	0.50	10	0	95.6	90	110			
Sample ID: 1104457-02BMS		*MS*				**Batch ID: R44698**		**Analysis Date: 4/12/2011 2:29:05 PM**			
Fluoride	1.365	mg/L	0.10	0.5	0.9058	91.8	71.7	114			
Nitrogen, Nitrate (As N)	2.388	mg/L	0.10	2.5	0	95.5	83.7	111			
Phosphorus, Orthophosphate (As P)	4.680	mg/L	0.50	5	0	93.6	80.5	108			
Method: SM 2320B: Alkalinity											
Sample ID: 1104457-01BMSD		*MSD*				**Batch ID: R44736**		**Analysis Date: 4/13/2011 6:32:00 PM**			
Alkalinity, Total (As CaCO3)	554.4	mg/L Ca	20	80	491	79.3	37.1	121	0.782	7.21	
Sample ID: MB-1		*MBLK*				**Batch ID: R44736**		**Analysis Date: 4/13/2011 4:30:00 PM**			
Alkalinity, Total (As CaCO3)	ND	mg/L Ca	20								
Carbonate	ND	mg/L Ca	2.0								
Bicarbonate	ND	mg/L Ca	20								
Sample ID: LCS-1		*LCS*				**Batch ID: R44736**		**Analysis Date: 4/13/2011 4:36:00 PM**			
Alkalinity, Total (As CaCO3)	79.92	mg/L Ca	20	80	0	99.9	98.7	102			
Sample ID: 1104457-01BMS		*MS*				**Batch ID: R44736**		**Analysis Date: 4/13/2011 6:12:00 PM**			
ity, Total (As CaCO3)	550.1	mg/L Ca	20	80	491	73.9	37.1	121			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: GBR **Work Order:** 1104457

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES											
Sample ID: b9		*MBLK*				**Batch ID: R44739**		**Analysis Date: 4/13/2011 4:21:39 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	3.0								
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	3.0								
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	NC	Non-Chlorinated
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: GBR **Work Order:** 1104457

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES											
Sample ID: b9		*MBLK*					**Batch ID: R44739**		**Analysis Date: 4/13/2011 4:21:39 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: b8		*MBLK*					**Batch ID: R44760**		**Analysis Date: 4/14/2011 2:16:45 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	3.0								
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	NC	Non-Chlorinated
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: GBR **Work Order:** 1104457

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES											
Sample ID: b8		*MBLK*				**Batch ID: R44760**		**Analysis Date: 4/14/2011 2:16:45 PM**			
Chloromethane	ND	µg/L	3.0								
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: R44739**		**Analysis Date: 4/13/2011 5:14:04 PM**			

Qualifiers:

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

QA/QC SUMMARY REPORT

C Western Refining Southwest, Inc.
Project: GBR **Work Order:** 1104457

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:**	**R44739**	**Analysis Date:**		**4/13/2011 5:14:04 PM**	
Benzene	21.35	µg/L	1.0	20	0	107	85.2	121			
Toluene	20.16	µg/L	1.0	20	0	101	88.3	121			
Chlorobenzene	19.07	µg/L	1.0	20	0	95.3	91.9	110			
1,1-Dichloroethene	18.86	µg/L	1.0	20	0.05	94.0	91.5	134			
Trichloroethene (TCE)	22.15	µg/L	1.0	20	0	111	78.3	102			S
Sample ID: 100ng lcs1		*LCS*				**Batch ID:**	**R44760**	**Analysis Date:**		**4/14/2011 3:09:13 PM**	
Benzene	20.90	µg/L	1.0	20	0	104	85.2	121			
Toluene	19.64	µg/L	1.0	20	0	98.2	88.3	121			
Chlorobenzene	18.25	µg/L	1.0	20	0	91.3	91.9	110			S
1,1-Dichloroethene	18.29	µg/L	1.0	20	0	91.4	91.5	134			S
Trichloroethene (TCE)	21.57	µg/L	1.0	20	0	108	78.3	102			S
Method: SM2540C MOD: Total Dissolved Solids											
Sample ID: MB-26415		*MBLK*				**Batch ID:**	**26415**	**Analysis Date:**		**4/18/2011 10:42:00 AM**	
Total Dissolved Solids	ND	mg/L	20.0								
Sample ID: LCS-26415		*LCS*				**Batch ID:**	**26415**	**Analysis Date:**		**4/18/2011 10:42:00 AM**	
Total Dissolved Solids	1020	mg/L	20.0	1000	6	101	80	120			

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name WESTERN REFINING SOUT

Date Received: 4/12/2011

Work Order Number 1104457

Received by: LNM

Checklist completed by: Signature 4/12/11 Date

Sample ID labels checked by: Initials

Matrix: Carrier name: Greyhound

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: 12

(<2 >12 unless noted below.)

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

Cha f-Custody Record

Client: Western Refining

Mailing Address: 111 CR 4990
Bloomfield NM 87413

Phone #:

email or Fax#:

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

Accreditation
☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush

Project Name:
GBR

Project #:

Project Manager: Ashley Ager

Sampler: Troy Urban

On Ice: Yes

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. 110475
041111	0832	GW	Influent	6 total	various	1
041111	0848	GW	Effluent	6 total	various	2
041111	0700	GW	trip blank	2	HCl	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)	8260 (VOC)	anions cations Fe,Mn	TDS, Alk, EC, pH		Air Bubbles (Y or N)
											✓	✓	✓		
											✓	✓	✓		
											✓				

Date:	Time:	Relinquished by:	Received by:	Date	Time
4/11/10	1038	Troy Urban	Chantra Walters	4/11/10	1038
4/11/11	1621	Chantra Walters		4/12/11	950

Remarks: please e mail results to ~~ata@ltenv.com~~ to aager@ltenv.com

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 21, 2011

Ashley Ager
Western Refining Southwest, Inc.
#50 CR 4990
Bloomfield, NM 87413

TEL: (970) 946-1093
FAX (505) 632-3911

RE: GBR

Order No.: 1107131

Dear Ashley Ager:

Hall Environmental Analysis Laboratory, Inc. received 3 sample(s) on 7/6/2011 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. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated.

Please do not hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901
AZ license # AZ0682

Hall Environmental Analysis Laboratory, Inc.

Date: *21-Jul-11*
Analytical Report

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	Influent
Lab Order:	1107131	**Collection Date:**	7/5/2011 8:03:00 AM
Project:	GBR	**Date Received:**	7/6/2011
Lab ID:	1107131-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Fluoride	0.83	0.10		mg/L	1	7/6/2011 5:07:12 PM
Chloride	80	10		mg/L	20	7/6/2011 5:18:25 PM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	7/6/2011 5:07:12 PM
Bromide	0.26	0.10		mg/L	1	7/6/2011 5:07:12 PM
Nitrogen, Nitrate (As N)	1.4	0.10		mg/L	1	7/6/2011 5:07:12 PM
Phosphorus, Orthophosphate (As P)	ND	5.0		mg/L	10	7/8/2011 1:04:55 PM
Sulfate	1600	25		mg/L	50	7/8/2011 1:22:20 PM
EPA METHOD 200.7: METALS						Analyst: **ELS**
Calcium	400	5.0		mg/L	5	7/12/2011 8:16:58 AM
Iron	0.56	0.020	*	mg/L	1	7/12/2011 8:13:28 AM
Magnesium	32	1.0		mg/L	1	7/12/2011 8:13:28 AM
Manganese	0.25	0.0020	*	mg/L	1	7/12/2011 8:13:28 AM
Potassium	2.9	1.0		mg/L	1	7/12/2011 8:13:28 AM
Sodium	470	5.0		mg/L	5	7/12/2011 8:16:58 AM
EPA METHOD 8260B: VOLATILES						Analyst: **NSB**
Benzene	ND	1.0		µg/L	1	7/8/2011 6:01:11 AM
Toluene	ND	1.0		µg/L	1	7/8/2011 6:01:11 AM
Ethylbenzene	ND	1.0		µg/L	1	7/8/2011 6:01:11 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	7/8/2011 6:01:11 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	7/8/2011 6:01:11 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	7/8/2011 6:01:11 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	7/8/2011 6:01:11 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/8/2011 6:01:11 AM
Naphthalene	ND	2.0		µg/L	1	7/8/2011 6:01:11 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	7/8/2011 6:01:11 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	7/8/2011 6:01:11 AM
Acetone	ND	10		µg/L	1	7/8/2011 6:01:11 AM
Bromobenzene	ND	1.0		µg/L	1	7/8/2011 6:01:11 AM
Bromodichloromethane	ND	1.0		µg/L	1	7/8/2011 6:01:11 AM
Bromoform	ND	1.0		µg/L	1	7/8/2011 6:01:11 AM
Bromomethane	ND	3.0		µg/L	1	7/8/2011 6:01:11 AM
2-Butanone	ND	10		µg/L	1	7/8/2011 6:01:11 AM
Carbon disulfide	ND	10		µg/L	1	7/8/2011 6:01:11 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	7/8/2011 6:01:11 AM
Chlorobenzene	ND	1.0		µg/L	1	7/8/2011 6:01:11 AM
Chloroethane	ND	2.0		µg/L	1	7/8/2011 6:01:11 AM
Chloroform	ND	1.0		µg/L	1	7/8/2011 6:01:11 AM
Chloromethane	ND	3.0		µg/L	1	7/8/2011 6:01:11 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
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *21-Jul-11*
Analytical Report

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	Influent
Lab Order:	1107131	**Collection Date:**	7/5/2011 8:03:00 AM
Project:	GBR	**Date Received:**	7/6/2011
Lab ID:	1107131-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
2-Chlorotoluene	ND	1.0		µg/L	1	7/8/2011 6:01:11 AM
4-Chlorotoluene	ND	1.0		µg/L	1	7/8/2011 6:01:11 AM
cis-1,2-DCE	ND	1.0		µg/L	1	7/8/2011 6:01:11 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/8/2011 6:01:11 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/8/2011 6:01:11 AM
Dibromochloromethane	ND	1.0		µg/L	1	7/8/2011 6:01:11 AM
Dibromomethane	ND	1.0		µg/L	1	7/8/2011 6:01:11 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	7/8/2011 6:01:11 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	7/8/2011 6:01:11 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/8/2011 6:01:11 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/8/2011 6:01:11 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	7/8/2011 6:01:11 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	7/8/2011 6:01:11 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	7/8/2011 6:01:11 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	7/8/2011 6:01:11 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	7/8/2011 6:01:11 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	7/8/2011 6:01:11 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	7/8/2011 6:01:11 AM
2-Hexanone	ND	10		µg/L	1	7/8/2011 6:01:11 AM
Isopropylbenzene	ND	1.0		µg/L	1	7/8/2011 6:01:11 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	7/8/2011 6:01:11 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/8/2011 6:01:11 AM
Methylene Chloride	ND	3.0		µg/L	1	7/8/2011 6:01:11 AM
n-Butylbenzene	ND	1.0		µg/L	1	7/8/2011 6:01:11 AM
n-Propylbenzene	ND	1.0		µg/L	1	7/8/2011 6:01:11 AM
sec-Butylbenzene	ND	1.0		µg/L	1	7/8/2011 6:01:11 AM
Styrene	ND	1.0		µg/L	1	7/8/2011 6:01:11 AM
tert-Butylbenzene	ND	1.0		µg/L	1	7/8/2011 6:01:11 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	7/8/2011 6:01:11 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	7/8/2011 6:01:11 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	7/8/2011 6:01:11 AM
trans-1,2-DCE	ND	1.0		µg/L	1	7/8/2011 6:01:11 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/8/2011 6:01:11 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/8/2011 6:01:11 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/8/2011 6:01:11 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/8/2011 6:01:11 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/8/2011 6:01:11 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	7/8/2011 6:01:11 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	7/8/2011 6:01:11 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/8/2011 6:01:11 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *21-Jul-11*
Analytical Report

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	Influent
Lab Order:	1107131	**Collection Date:**	7/5/2011 8:03:00 AM
Project:	GBR	**Date Received:**	7/6/2011
Lab ID:	1107131-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **NSB**
Vinyl chloride	ND	1.0		µg/L	1	7/8/2011 6:01:11 AM
Xylenes, Total	ND	1.5		µg/L	1	7/8/2011 6:01:11 AM
Surr: 1,2-Dichloroethane-d4	82.7	65.8-138		%REC	1	7/8/2011 6:01:11 AM
Surr: 4-Bromofluorobenzene	93.1	72.7-128		%REC	1	7/8/2011 6:01:11 AM
Surr: Dibromofluoromethane	77.0	69-135		%REC	1	7/8/2011 6:01:11 AM
Surr: Toluene-d8	104	86.1-134		%REC	1	7/8/2011 6:01:11 AM
SM 2320B: ALKALINITY						Analyst: **LJB**
Alkalinity, Total (As CaCO3)	270	20		mg/L CaCO3	1	7/6/2011 9:32:00 PM
Carbonate	ND	2.0		mg/L CaCO3	1	7/6/2011 9:32:00 PM
Bicarbonate	270	20		mg/L CaCO3	1	7/6/2011 9:32:00 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **LJB**
Specific Conductance	3300	0.010		µmhos/cm	1	7/6/2011 9:32:00 PM
SM4500-H+B: PH						Analyst: **LJB**
pH	7.70	0.100	H	pH units	1	7/6/2011 9:32:00 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **SNV**
Total Dissolved Solids	2830	20.0		mg/L	1	7/7/2011 2:28:00 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
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *21-Jul-11*
Analytical Report

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	Effluent
Lab Order:	1107131	**Collection Date:**	7/5/2011 7:44:00 AM
Project:	GBR	**Date Received:**	7/6/2011
Lab ID:	1107131-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Fluoride	0.92	0.10		mg/L	1	7/6/2011 5:52:06 PM
Chloride	81	10		mg/L	20	7/6/2011 6:03:21 PM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	7/6/2011 5:52:06 PM
Bromide	0.29	0.10		mg/L	1	7/6/2011 5:52:06 PM
Nitrogen, Nitrate (As N)	1.3	0.10		mg/L	1	7/6/2011 5:52:06 PM
Phosphorus, Orthophosphate (As P)	ND	5.0		mg/L	10	7/8/2011 1:39:45 PM
Sulfate	1800	25		mg/L	50	7/8/2011 1:57:10 PM
EPA METHOD 200.7: METALS						Analyst: **TES**
Calcium	380	5.0		mg/L	5	7/19/2011 12:28:13 PM
Iron	ND	0.020		mg/L	1	7/19/2011 12:24:42 PM
Magnesium	30	1.0		mg/L	1	7/19/2011 12:24:42 PM
Manganese	0.0070	0.0020		mg/L	1	7/19/2011 12:24:42 PM
Potassium	2.8	1.0		mg/L	1	7/19/2011 12:24:42 PM
Sodium	450	5.0		mg/L	5	7/19/2011 12:28:13 PM
EPA METHOD 8260B: VOLATILES						Analyst: **NSB**
Benzene	ND	1.0		µg/L	1	7/8/2011 6:30:01 AM
Toluene	ND	1.0		µg/L	1	7/8/2011 6:30:01 AM
Ethylbenzene	ND	1.0		µg/L	1	7/8/2011 6:30:01 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	7/8/2011 6:30:01 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	7/8/2011 6:30:01 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	7/8/2011 6:30:01 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	7/8/2011 6:30:01 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/8/2011 6:30:01 AM
Naphthalene	ND	2.0		µg/L	1	7/8/2011 6:30:01 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	7/8/2011 6:30:01 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	7/8/2011 6:30:01 AM
Acetone	ND	10		µg/L	1	7/8/2011 6:30:01 AM
Bromobenzene	ND	1.0		µg/L	1	7/8/2011 6:30:01 AM
Bromodichloromethane	ND	1.0		µg/L	1	7/8/2011 6:30:01 AM
Bromoform	ND	1.0		µg/L	1	7/8/2011 6:30:01 AM
Bromomethane	ND	3.0		µg/L	1	7/8/2011 6:30:01 AM
2-Butanone	ND	10		µg/L	1	7/8/2011 6:30:01 AM
Carbon disulfide	ND	10		µg/L	1	7/8/2011 6:30:01 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	7/8/2011 6:30:01 AM
Chlorobenzene	ND	1.0		µg/L	1	7/8/2011 6:30:01 AM
Chloroethane	ND	2.0		µg/L	1	7/8/2011 6:30:01 AM
Chloroform	ND	1.0		µg/L	1	7/8/2011 6:30:01 AM
Chloromethane	ND	3.0		µg/L	1	7/8/2011 6:30:01 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
- NC Non-Chlorinated
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitation Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *21-Jul-11*
Analytical Report

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	Effluent
Lab Order:	1107131	**Collection Date:**	7/5/2011 7:44:00 AM
Project:	GBR	**Date Received:**	7/6/2011
Lab ID:	1107131-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **NSB**
2-Chlorotoluene	ND	1.0		µg/L	1	7/8/2011 6:30:01 AM
4-Chlorotoluene	ND	1.0		µg/L	1	7/8/2011 6:30:01 AM
cis-1,2-DCE	ND	1.0		µg/L	1	7/8/2011 6:30:01 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/8/2011 6:30:01 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/8/2011 6:30:01 AM
Dibromochloromethane	ND	1.0		µg/L	1	7/8/2011 6:30:01 AM
Dibromomethane	ND	1.0		µg/L	1	7/8/2011 6:30:01 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	7/8/2011 6:30:01 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	7/8/2011 6:30:01 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/8/2011 6:30:01 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/8/2011 6:30:01 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	7/8/2011 6:30:01 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	7/8/2011 6:30:01 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	7/8/2011 6:30:01 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	7/8/2011 6:30:01 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	7/8/2011 6:30:01 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	7/8/2011 6:30:01 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	7/8/2011 6:30:01 AM
2-Hexanone	ND	10		µg/L	1	7/8/2011 6:30:01 AM
Isopropylbenzene	ND	1.0		µg/L	1	7/8/2011 6:30:01 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	7/8/2011 6:30:01 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/8/2011 6:30:01 AM
Methylene Chloride	ND	3.0		µg/L	1	7/8/2011 6:30:01 AM
n-Butylbenzene	ND	1.0		µg/L	1	7/8/2011 6:30:01 AM
n-Propylbenzene	ND	1.0		µg/L	1	7/8/2011 6:30:01 AM
sec-Butylbenzene	ND	1.0		µg/L	1	7/8/2011 6:30:01 AM
Styrene	ND	1.0		µg/L	1	7/8/2011 6:30:01 AM
tert-Butylbenzene	ND	1.0		µg/L	1	7/8/2011 6:30:01 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	7/8/2011 6:30:01 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	7/8/2011 6:30:01 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	7/8/2011 6:30:01 AM
trans-1,2-DCE	ND	1.0		µg/L	1	7/8/2011 6:30:01 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/8/2011 6:30:01 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/8/2011 6:30:01 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/8/2011 6:30:01 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/8/2011 6:30:01 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/8/2011 6:30:01 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	7/8/2011 6:30:01 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	7/8/2011 6:30:01 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/8/2011 6:30:01 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
- NC Non-Chlorinated
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitation Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *21-Jul-11*
Analytical Report

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	Effluent
Lab Order:	1107131	**Collection Date:**	7/5/2011 7:44:00 AM
Project:	GBR	**Date Received:**	7/6/2011
Lab ID:	1107131-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **NSB**
Vinyl chloride	ND	1.0		µg/L	1	7/8/2011 6:30:01 AM
Xylenes, Total	ND	1.5		µg/L	1	7/8/2011 6:30:01 AM
Surr: 1,2-Dichloroethane-d4	83.1	65.8-138		%REC	1	7/8/2011 6:30:01 AM
Surr: 4-Bromofluorobenzene	98.6	72.7-128		%REC	1	7/8/2011 6:30:01 AM
Surr: Dibromofluoromethane	75.0	69-135		%REC	1	7/8/2011 6:30:01 AM
Surr: Toluene-d8	103	86.1-134		%REC	1	7/8/2011 6:30:01 AM
SM 2320B: ALKALINITY						Analyst: **LJB**
Alkalinity, Total (As CaCO3)	280	20		mg/L CaCO3	1	7/6/2011 10:00:00 PM
Carbonate	ND	2.0		mg/L CaCO3	1	7/6/2011 10:00:00 PM
Bicarbonate	280	20		mg/L CaCO3	1	7/6/2011 10:00:00 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **LJB**
Specific Conductance	3300	0.010		µmhos/cm	1	7/6/2011 10:00:00 PM
SM4500-H+B: PH						Analyst: **LJB**
pH	7.75	0.100	H	pH units	1	7/6/2011 10:00:00 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **SNV**
Total Dissolved Solids	2820	20.0		mg/L	1	7/7/2011 2:28:00 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
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *21-Jul-11*
Analytical Report

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	Trip Blank
Lab Order:	1107131	**Collection Date:**	
Project:	GBR	**Date Received:**	7/6/2011
Lab ID:	1107131-03	**Matrix:**	TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		µg/L	1	7/8/2011 6:58:48 AM
Toluene	ND	1.0		µg/L	1	7/8/2011 6:58:48 AM
Ethylbenzene	ND	1.0		µg/L	1	7/8/2011 6:58:48 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	7/8/2011 6:58:48 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	7/8/2011 6:58:48 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	7/8/2011 6:58:48 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	7/8/2011 6:58:48 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/8/2011 6:58:48 AM
Naphthalene	ND	2.0		µg/L	1	7/8/2011 6:58:48 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	7/8/2011 6:58:48 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	7/8/2011 6:58:48 AM
Acetone	ND	10		µg/L	1	7/8/2011 6:58:48 AM
Bromobenzene	ND	1.0		µg/L	1	7/8/2011 6:58:48 AM
Bromodichloromethane	ND	1.0		µg/L	1	7/8/2011 6:58:48 AM
Bromoform	ND	1.0		µg/L	1	7/8/2011 6:58:48 AM
Bromomethane	ND	3.0		µg/L	1	7/8/2011 6:58:48 AM
2-Butanone	ND	10		µg/L	1	7/8/2011 6:58:48 AM
Carbon disulfide	ND	10		µg/L	1	7/8/2011 6:58:48 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	7/8/2011 6:58:48 AM
Chlorobenzene	ND	1.0		µg/L	1	7/8/2011 6:58:48 AM
Chloroethane	ND	2.0		µg/L	1	7/8/2011 6:58:48 AM
Chloroform	ND	1.0		µg/L	1	7/8/2011 6:58:48 AM
Chloromethane	ND	3.0		µg/L	1	7/8/2011 6:58:48 AM
2-Chlorotoluene	ND	1.0		µg/L	1	7/8/2011 6:58:48 AM
4-Chlorotoluene	ND	1.0		µg/L	1	7/8/2011 6:58:48 AM
cis-1,2-DCE	ND	1.0		µg/L	1	7/8/2011 6:58:48 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/8/2011 6:58:48 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/8/2011 6:58:48 AM
Dibromochloromethane	ND	1.0		µg/L	1	7/8/2011 6:58:48 AM
Dibromomethane	ND	1.0		µg/L	1	7/8/2011 6:58:48 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	7/8/2011 6:58:48 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	7/8/2011 6:58:48 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/8/2011 6:58:48 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/8/2011 6:58:48 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	7/8/2011 6:58:48 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	7/8/2011 6:58:48 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	7/8/2011 6:58:48 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	7/8/2011 6:58:48 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	7/8/2011 6:58:48 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	7/8/2011 6:58:48 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
- NC Non-Chlorinated
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitation Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *21-Jul-11*
Analytical Report

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	Trip Blank
Lab Order:	1107131	**Collection Date:**	
Project:	GBR	**Date Received:**	7/6/2011
Lab ID:	1107131-03	**Matrix:**	TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
Hexachlorobutadiene	ND	1.0		µg/L	1	7/8/2011 6:58:48 AM
2-Hexanone	ND	10		µg/L	1	7/8/2011 6:58:48 AM
Isopropylbenzene	ND	1.0		µg/L	1	7/8/2011 6:58:48 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	7/8/2011 6:58:48 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/8/2011 6:58:48 AM
Methylene Chloride	ND	3.0		µg/L	1	7/8/2011 6:58:48 AM
n-Butylbenzene	ND	1.0		µg/L	1	7/8/2011 6:58:48 AM
n-Propylbenzene	ND	1.0		µg/L	1	7/8/2011 6:58:48 AM
sec-Butylbenzene	ND	1.0		µg/L	1	7/8/2011 6:58:48 AM
Styrene	ND	1.0		µg/L	1	7/8/2011 6:58:48 AM
tert-Butylbenzene	ND	1.0		µg/L	1	7/8/2011 6:58:48 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	7/8/2011 6:58:48 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	7/8/2011 6:58:48 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	7/8/2011 6:58:48 AM
trans-1,2-DCE	ND	1.0		µg/L	1	7/8/2011 6:58:48 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/8/2011 6:58:48 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/8/2011 6:58:48 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/8/2011 6:58:48 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/8/2011 6:58:48 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/8/2011 6:58:48 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	7/8/2011 6:58:48 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	7/8/2011 6:58:48 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/8/2011 6:58:48 AM
Vinyl chloride	ND	1.0		µg/L	1	7/8/2011 6:58:48 AM
Xylenes, Total	ND	1.5		µg/L	1	7/8/2011 6:58:48 AM
Surr: 1,2-Dichloroethane-d4	81.3	65.8-138		%REC	1	7/8/2011 6:58:48 AM
Surr: 4-Bromofluorobenzene	97.5	72.7-128		%REC	1	7/8/2011 6:58:48 AM
Surr: Dibromofluoromethane	76.0	69-135		%REC	1	7/8/2011 6:58:48 AM
Surr: Toluene-d8	107	86.1-134		%REC	1	7/8/2011 6:58:48 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
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

t: Western Refining Southwest, Inc.
roject: GBR **Work Order:** 1107131

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 200.7: Metals											
Sample ID: MB-27637		*MBLK*				**Batch ID: 27537**		**Analysis Date: 7/12/2011 7:18:54 AM**			
Calcium	ND	mg/L	1.0								
Iron	ND	mg/L	0.020								
Magnesium	ND	mg/L	1.0								
Manganese	ND	mg/L	0.0020								
Potassium	ND	mg/L	1.0								
Sodium	ND	mg/L	1.0								
Sample ID: MB		*MBLK*				**Batch ID: R46612**		**Analysis Date: 7/19/2011 12:06:36 PM**			
Calcium	ND	mg/L	1.0								
Iron	ND	mg/L	0.020								
Magnesium	ND	mg/L	1.0								
Manganese	ND	mg/L	0.0020								
Potassium	ND	mg/L	1.0								
Sodium	ND	mg/L	1.0								
Sample ID: LCS-27637		*LCS*				**Batch ID: 27537**		**Analysis Date: 7/12/2011 7:22:10 AM**			
Calcium	52.54	mg/L	1.0	50	0	105	85	115			
Iron	0.5119	mg/L	0.020	0.5	0	102	85	115			
Magnesium	53.20	mg/L	1.0	50	0.0032	106	85	115			
·anese	0.5129	mg/L	0.0020	0.5	0	103	85	115			
ium	51.93	mg/L	1.0	50	0	104	85	115			
.um	52.57	mg/L	1.0	50	0	105	85	115			
Sample ID: LCS		*LCS*				**Batch ID: R46612**		**Analysis Date: 7/19/2011 12:10:22 PM**			
Calcium	49.09	mg/L	1.0	50	0.0306	98.1	85	115			
Iron	0.4868	mg/L	0.020	0.5	0	97.4	85	115			
Magnesium	49.93	mg/L	1.0	50	0.0321	99.8	85	115			
Manganese	0.5009	mg/L	0.0020	0.5	0	100	85	115			
Potassium	48.78	mg/L	1.0	50	0	97.6	85	115			
Sodium	49.17	mg/L	1.0	50	0	98.3	85	115			

lifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: GBR **Work Order:** 1107131

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: R46362**		**Analysis Date:**		**7/6/2011 11:24:39 AM**	
Fluoride	ND	mg/L	0.10								
Chloride	ND	mg/L	0.50								
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: R46406**		**Analysis Date:**		**7/7/2011 3:36:32 PM**	
Fluoride	ND	mg/L	0.10								
Chloride	ND	mg/L	0.50								
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: R46362**		**Analysis Date:**		**7/6/2011 11:35:54 AM**	
Fluoride	0.5046	mg/L	0.10	0.5	0	101	90	110			
Chloride	4.797	mg/L	0.50	5	0	95.9	90	110			
Nitrogen, Nitrite (As N)	0.9688	mg/L	0.10	1	0	96.9	90	110			
Bromide	2.418	mg/L	0.10	2.5	0	96.7	90	110			
Nitrogen, Nitrate (As N)	2.446	mg/L	0.10	2.5	0	97.8	90	110			
Phosphorus, Orthophosphate (As P)	4.599	mg/L	0.50	5	0	92.0	90	110			
Sulfate	9.622	mg/L	0.50	10	0	96.2	90	110			
Sample ID: LCS		*LCS*				**Batch ID: R46406**		**Analysis Date:**		**7/7/2011 3:53:56 PM**	
Fluoride	0.5134	mg/L	0.10	0.5	0	103	90	110			
Chloride	5.076	mg/L	0.50	5	0	102	90	110			
Nitrogen, Nitrite (As N)	1.044	mg/L	0.10	1	0	104	90	110			
Bromide	2.590	mg/L	0.10	2.5	0	104	90	110			
Nitrogen, Nitrate (As N)	2.592	mg/L	0.10	2.5	0	104	90	110			
Phosphorus, Orthophosphate (As P)	5.219	mg/L	0.50	5	0	104	90	110			
Sulfate	10.26	mg/L	0.50	10	0	103	90	110			
Method: SM 2320B: Alkalinity											
Sample ID: 1107131-02BMSD		*MSD*				**Batch ID: R46381**		**Analysis Date:**		**7/6/2011 10:28:00 PM**	
Alkalinity, Total (As CaCO3)	307.0	mg/L Ca	20	80	279.7	34.2	37.1	121	0.338	7.21	S
Sample ID: MB-1		*MBLK*				**Batch ID: R46381**		**Analysis Date:**		**7/6/2011 7:32:00 PM**	
Alkalinity, Total (As CaCO3)	ND	mg/L Ca	20								
Carbonate	ND	mg/L Ca	2.0								
Bicarbonate	ND	mg/L Ca	20								
Sample ID: LCS-1		*LCS*				**Batch ID: R46381**		**Analysis Date:**		**7/6/2011 7:39:00 PM**	
Alkalinity, Total (As CaCO3)	83.68	mg/L Ca	20	80	5.52	97.7	98.7	102			S
Sample ID: 1107131-02BMS		*MS*				**Batch ID: R46381**		**Analysis Date:**		**7/6/2011 10:14:00 PM**	
Alkalinity, Total (As CaCO3)	308.0	mg/L Ca	20	80	279.7	35.4	37.1	121			S

Qualifiers:

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

QA/QC SUMMARY REPORT

t: Western Refining Southwest, Inc.
Project: GBR **Work Order:** 1107131

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES											
Sample ID: 5ml rb-b		*MBLK*				**Batch ID: R46387**		**Analysis Date: 7/7/2011 1:18:03 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	3.0								
2-Butanone	ND	µg/L	10								
Carbon disulfide	ND	µg/L	10								
›n Tetrachloride	ND	µg/L	1.0								
.obenzene	ND	µg/L	1.0								
Chloroethane	ND	µg/L	2.0								
Chloroform	ND	µg/L	1.0								
Chloromethane	ND	µg/L	3.0								
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	NC	Non-Chlorinated
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: GBR **Work Order:** 1107131

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES											
Sample ID: 5ml rb-b		*MBLK*				**Batch ID: R46387**		**Analysis Date:**		**7/7/2011 1:18:03 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: 100ng lcs-b		*LCS*				**Batch ID: R46387**		**Analysis Date:**		**7/7/2011 2:44:47 PM**	
Benzene	22.32	µg/L	1.0	20	0	112	81.1	130			
Toluene	22.21	µg/L	1.0	20	0	111	82.3	122			
Chlorobenzene	21.67	µg/L	1.0	20	0	108	70	130			
1,1-Dichloroethene	22.34	µg/L	1.0	20	0	112	83.1	126			
Trichloroethene (TCE)	17.58	µg/L	1.0	20	0	87.9	67.4	137			
Method: SM2540C MOD: Total Dissolved Solids											
Sample ID: MB-27497		*MBLK*				**Batch ID: 27497**		**Analysis Date:**		**7/7/2011 2:28:00 PM**	
Total Dissolved Solids	ND	mg/L	20.0								
Sample ID: LCS-27497		*LCS*				**Batch ID: 27497**		**Analysis Date:**		**7/7/2011 2:28:00 PM**	
Total Dissolved Solids	1000	mg/L	20.0	1000	0	100	80	120			

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name WESTERN REFINING SOUT | Date Received: 7/6/2011

Work Order Number 1107131 | Received by: LNM

Checklist completed by: Michelle Garcia 7/6/11 (Signature / Date) | Sample ID labels checked by: (Initials)

Matrix: | Carrier name: Greyhound

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: 4
ter - 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 ☐	(<2) >12 unless noted below.
Container/Temp Blank temperature?	3.3°	<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

Mailing Address: 111 CR 4990
Bloomfield NM 87413

Phone #:

email or Fax#:

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

Accreditation
☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush

Project Name:
GBR

Project #:

Project Manager: Ashley Ager

Sampler: Troy Urban
On Ice: ☒ Yes ☐ No
Sample Temperature: 3.3

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 1107131	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)	8260 (VOC)	anions cations Fe,Mn	TDS, Alk, EC, pH	Air Bubbles (Y or N)
070511	0803	GW	Influent	6 total	various	-1												✓	✓	✓	
070511	0744	GW	Effluent	6 total	various	-2												✓	✓	✓	
070511	0700	GW	trip blank	2	HCl	-3												✓			

Date:	Time:	Relinquished by:	Received by:	Date	Time
7/5/11	1450		Martin Walter	7/5/11	1450
7/5/11	1600	Martin Walter			

Remarks: please e mail results to aager@Henv.com

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, October 17, 2011

Ashley Ager
Western Refining Southwest, Inc.
PO Box 159
Bloomfield, NM 87413

TEL: (970) 946-1093
FAX (505) 632-3911

RE: GBR

Order No.: 1110342

Dear Ashley Ager:

Hall Environmental Analysis Laboratory, Inc. received 3 sample(s) on 10/6/2011 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. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated.

Please do not hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901
AZ license # AZ0682

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Oct-11*
Analytical Report

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	Trip Blank
Lab Order:	1110342	**Collection Date:**	
Project:	GBR	**Date Received:**	10/6/2011
Lab ID:	1110342-01	**Matrix:**	TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **MMS**
Benzene	ND	1.0		µg/L	1	10/7/2011 7:07:56 AM
Toluene	ND	1.0		µg/L	1	10/7/2011 7:07:56 AM
Ethylbenzene	ND	1.0		µg/L	1	10/7/2011 7:07:56 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	10/7/2011 7:07:56 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	10/7/2011 7:07:56 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	10/7/2011 7:07:56 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	10/7/2011 7:07:56 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	10/7/2011 7:07:56 AM
Naphthalene	ND	2.0		µg/L	1	10/7/2011 7:07:56 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	10/7/2011 7:07:56 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	10/7/2011 7:07:56 AM
Acetone	ND	10		µg/L	1	10/7/2011 7:07:56 AM
Bromobenzene	ND	1.0		µg/L	1	10/7/2011 7:07:56 AM
Bromodichloromethane	ND	1.0		µg/L	1	10/7/2011 7:07:56 AM
Bromoform	ND	1.0		µg/L	1	10/7/2011 7:07:56 AM
Bromomethane	ND	3.0		µg/L	1	10/7/2011 7:07:56 AM
2-Butanone	ND	10		µg/L	1	10/7/2011 7:07:56 AM
Carbon disulfide	ND	10		µg/L	1	10/7/2011 7:07:56 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	10/7/2011 7:07:56 AM
Chlorobenzene	ND	1.0		µg/L	1	10/7/2011 7:07:56 AM
Chloroethane	ND	2.0		µg/L	1	10/7/2011 7:07:56 AM
Chloroform	ND	1.0		µg/L	1	10/7/2011 7:07:56 AM
Chloromethane	ND	3.0		µg/L	1	10/7/2011 7:07:56 AM
2-Chlorotoluene	ND	1.0		µg/L	1	10/7/2011 7:07:56 AM
4-Chlorotoluene	ND	1.0		µg/L	1	10/7/2011 7:07:56 AM
cis-1,2-DCE	ND	1.0		µg/L	1	10/7/2011 7:07:56 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	10/7/2011 7:07:56 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	10/7/2011 7:07:56 AM
Dibromochloromethane	ND	1.0		µg/L	1	10/7/2011 7:07:56 AM
Dibromomethane	ND	1.0		µg/L	1	10/7/2011 7:07:56 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	10/7/2011 7:07:56 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	10/7/2011 7:07:56 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	10/7/2011 7:07:56 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	10/7/2011 7:07:56 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	10/7/2011 7:07:56 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	10/7/2011 7:07:56 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	10/7/2011 7:07:56 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	10/7/2011 7:07:56 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	10/7/2011 7:07:56 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	10/7/2011 7:07:56 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
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Oct-11*
Analytical Report

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	Trip Blank
Lab Order:	1110342	**Collection Date:**	
Project:	GBR	**Date Received:**	10/6/2011
Lab ID:	1110342-01	**Matrix:**	TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **MMS**
Hexachlorobutadiene	ND	1.0		µg/L	1	10/7/2011 7:07:56 AM
2-Hexanone	ND	10		µg/L	1	10/7/2011 7:07:56 AM
Isopropylbenzene	ND	1.0		µg/L	1	10/7/2011 7:07:56 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	10/7/2011 7:07:56 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	10/7/2011 7:07:56 AM
Methylene Chloride	ND	3.0		µg/L	1	10/7/2011 7:07:56 AM
n-Butylbenzene	ND	1.0		µg/L	1	10/7/2011 7:07:56 AM
n-Propylbenzene	ND	1.0		µg/L	1	10/7/2011 7:07:56 AM
sec-Butylbenzene	ND	1.0		µg/L	1	10/7/2011 7:07:56 AM
Styrene	ND	1.0		µg/L	1	10/7/2011 7:07:56 AM
tert-Butylbenzene	ND	1.0		µg/L	1	10/7/2011 7:07:56 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	10/7/2011 7:07:56 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	10/7/2011 7:07:56 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	10/7/2011 7:07:56 AM
trans-1,2-DCE	ND	1.0		µg/L	1	10/7/2011 7:07:56 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	10/7/2011 7:07:56 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	10/7/2011 7:07:56 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	10/7/2011 7:07:56 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	10/7/2011 7:07:56 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	10/7/2011 7:07:56 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	10/7/2011 7:07:56 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	10/7/2011 7:07:56 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	10/7/2011 7:07:56 AM
Vinyl chloride	ND	1.0		µg/L	1	10/7/2011 7:07:56 AM
Xylenes, Total	ND	1.5		µg/L	1	10/7/2011 7:07:56 AM
Surr: 1,2-Dichloroethane-d4	98.7	70-130		%REC	1	10/7/2011 7:07:56 AM
Surr: 4-Bromofluorobenzene	102	73-131		%REC	1	10/7/2011 7:07:56 AM
Surr: Dibromofluoromethane	108	70-130		%REC	1	10/7/2011 7:07:56 AM
Surr: Toluene-d8	94.0	70-130		%REC	1	10/7/2011 7:07:56 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
- NC Non-Chlorinated
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitation Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Oct-11*
Analytical Report

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	Influent
Lab Order:	1110342	**Collection Date:**	10/5/2011 11:02:00 AM
Project:	GBR	**Date Received:**	10/6/2011
Lab ID:	1110342-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Fluoride	0.86	0.10		mg/L	1	10/6/2011 7:20:50 PM
Chloride	85	10		mg/L	20	10/6/2011 6:28:36 PM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	10/6/2011 7:20:50 PM
Bromide	0.50	0.10		mg/L	1	10/6/2011 7:20:50 PM
Nitrogen, Nitrate (As N)	1.5	0.10		mg/L	1	10/6/2011 7:20:50 PM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	10/6/2011 7:20:50 PM
Sulfate	1500	25		mg/L	50	10/11/2011 2:49:05 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **RAGS**
Calcium	370	10		mg/L	10	10/12/2011 4:54:29 PM
Iron	0.029	0.020		mg/L	1	10/11/2011 12:56:41 PM
Magnesium	29	1.0		mg/L	1	10/11/2011 12:56:41 PM
Manganese	0.17	0.0020		mg/L	1	10/11/2011 12:56:41 PM
Potassium	2.8	1.0		mg/L	1	10/11/2011 12:56:41 PM
Sodium	440	10		mg/L	10	10/12/2011 4:54:29 PM
EPA METHOD 8260B: VOLATILES						Analyst: **MMS**
Benzene	ND	1.0		µg/L	1	10/7/2011 7:34:12 AM
Toluene	ND	1.0		µg/L	1	10/7/2011 7:34:12 AM
Ethylbenzene	ND	1.0		µg/L	1	10/7/2011 7:34:12 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	10/7/2011 7:34:12 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	10/7/2011 7:34:12 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	10/7/2011 7:34:12 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	10/7/2011 7:34:12 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	10/7/2011 7:34:12 AM
Naphthalene	ND	2.0		µg/L	1	10/7/2011 7:34:12 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	10/7/2011 7:34:12 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	10/7/2011 7:34:12 AM
Acetone	ND	10		µg/L	1	10/7/2011 7:34:12 AM
Bromobenzene	ND	1.0		µg/L	1	10/7/2011 7:34:12 AM
Bromodichloromethane	ND	1.0		µg/L	1	10/7/2011 7:34:12 AM
Bromoform	ND	1.0		µg/L	1	10/7/2011 7:34:12 AM
Bromomethane	ND	3.0		µg/L	1	10/7/2011 7:34:12 AM
2-Butanone	ND	10		µg/L	1	10/7/2011 7:34:12 AM
Carbon disulfide	ND	10		µg/L	1	10/7/2011 7:34:12 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	10/7/2011 7:34:12 AM
Chlorobenzene	ND	1.0		µg/L	1	10/7/2011 7:34:12 AM
Chloroethane	ND	2.0		µg/L	1	10/7/2011 7:34:12 AM
Chloroform	ND	1.0		µg/L	1	10/7/2011 7:34:12 AM
Chloromethane	ND	3.0		µg/L	1	10/7/2011 7:34:12 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
- NC Non-Chlorinated
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitation Limit
- S Spike recovery outside accepted recovery limits

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	Influent
Lab Order:	1110342	**Collection Date:**	10/5/2011 11:02:00 AM
Project:	GBR	**Date Received:**	10/6/2011
Lab ID:	1110342-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **MMS**
2-Chlorotoluene	ND	1.0		µg/L	1	10/7/2011 7:34:12 AM
4-Chlorotoluene	ND	1.0		µg/L	1	10/7/2011 7:34:12 AM
cis-1,2-DCE	ND	1.0		µg/L	1	10/7/2011 7:34:12 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	10/7/2011 7:34:12 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	10/7/2011 7:34:12 AM
Dibromochloromethane	ND	1.0		µg/L	1	10/7/2011 7:34:12 AM
Dibromomethane	ND	1.0		µg/L	1	10/7/2011 7:34:12 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	10/7/2011 7:34:12 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	10/7/2011 7:34:12 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	10/7/2011 7:34:12 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	10/7/2011 7:34:12 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	10/7/2011 7:34:12 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	10/7/2011 7:34:12 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	10/7/2011 7:34:12 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	10/7/2011 7:34:12 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	10/7/2011 7:34:12 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	10/7/2011 7:34:12 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	10/7/2011 7:34:12 AM
2-Hexanone	ND	10		µg/L	1	10/7/2011 7:34:12 AM
Isopropylbenzene	ND	1.0		µg/L	1	10/7/2011 7:34:12 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	10/7/2011 7:34:12 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	10/7/2011 7:34:12 AM
Methylene Chloride	ND	3.0		µg/L	1	10/7/2011 7:34:12 AM
n-Butylbenzene	ND	1.0		µg/L	1	10/7/2011 7:34:12 AM
n-Propylbenzene	ND	1.0		µg/L	1	10/7/2011 7:34:12 AM
sec-Butylbenzene	ND	1.0		µg/L	1	10/7/2011 7:34:12 AM
Styrene	ND	1.0		µg/L	1	10/7/2011 7:34:12 AM
tert-Butylbenzene	ND	1.0		µg/L	1	10/7/2011 7:34:12 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	10/7/2011 7:34:12 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	10/7/2011 7:34:12 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	10/7/2011 7:34:12 AM
trans-1,2-DCE	ND	1.0		µg/L	1	10/7/2011 7:34:12 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	10/7/2011 7:34:12 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	10/7/2011 7:34:12 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	10/7/2011 7:34:12 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	10/7/2011 7:34:12 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	10/7/2011 7:34:12 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	10/7/2011 7:34:12 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	10/7/2011 7:34:12 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	10/7/2011 7:34:12 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Oct-11*
Analytical Report

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	Influent
Lab Order:	1110342	**Collection Date:**	10/5/2011 11:02:00 AM
Project:	GBR	**Date Received:**	10/6/2011
Lab ID:	1110342-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **MMS**
Vinyl chloride	ND	1.0		µg/L	1	10/7/2011 7:34:12 AM
Xylenes, Total	ND	1.5		µg/L	1	10/7/2011 7:34:12 AM
Surr: 1,2-Dichloroethane-d4	96.8	70-130		%REC	1	10/7/2011 7:34:12 AM
Surr: 4-Bromofluorobenzene	94.3	73-131		%REC	1	10/7/2011 7:34:12 AM
Surr: Dibromofluoromethane	106	70-130		%REC	1	10/7/2011 7:34:12 AM
Surr: Toluene-d8	94.2	70-130		%REC	1	10/7/2011 7:34:12 AM
SM 2320B: ALKALINITY						Analyst: **IC**
Alkalinity, Total (As CaCO3)	310	20		mg/L CaCO3	1	10/6/2011 11:13:00 PM
Carbonate	ND	2.0		mg/L CaCO3	1	10/6/2011 11:13:00 PM
Bicarbonate	310	20		mg/L CaCO3	1	10/6/2011 11:13:00 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **IC**
Specific Conductance	3200	0.010		µmhos/cm	1	10/6/2011 11:13:00 PM
SM4500-H+B: PH						Analyst: **IC**
pH	7.75	0.100	H	pH units	1	10/6/2011 11:13:00 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**
Total Dissolved Solids	2770	20.0		mg/L	1	10/11/2011 12:01:00 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
- NC Non-Chlorinated
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitation Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Oct-11*
Analytical Report

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	Effluent
Lab Order:	1110342	**Collection Date:**	10/5/2011 11:24:00 AM
Project:	GBR	**Date Received:**	10/6/2011
Lab ID:	1110342-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Fluoride	0.82	0.50		mg/L	5	10/11/2011 6:18:02 AM
Chloride	81	10		mg/L	20	10/6/2011 7:55:39 PM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	10/6/2011 7:38:15 PM
Bromide	0.32	0.10		mg/L	1	10/6/2011 7:38:15 PM
Nitrogen, Nitrate (As N)	1.6	0.10		mg/L	1	10/6/2011 7:38:15 PM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	10/6/2011 7:38:15 PM
Sulfate	1600	25		mg/L	50	10/11/2011 3:06:30 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **RAGS**
Calcium	370	10		mg/L	10	10/12/2011 4:57:34 PM
Iron	ND	0.020		mg/L	1	10/11/2011 12:59:53 PM
Magnesium	29	1.0		mg/L	1	10/11/2011 12:59:53 PM
Manganese	0.0044	0.0020		mg/L	1	10/11/2011 12:59:53 PM
Potassium	2.8	1.0		mg/L	1	10/11/2011 12:59:53 PM
Sodium	450	10		mg/L	10	10/12/2011 4:57:34 PM
EPA METHOD 8260B: VOLATILES						Analyst: **MMS**
Benzene	ND	1.0		µg/L	1	10/7/2011 8:00:12 AM
Toluene	ND	1.0		µg/L	1	10/7/2011 8:00:12 AM
Ethylbenzene	ND	1.0		µg/L	1	10/7/2011 8:00:12 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	10/7/2011 8:00:12 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	10/7/2011 8:00:12 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	10/7/2011 8:00:12 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	10/7/2011 8:00:12 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	10/7/2011 8:00:12 AM
Naphthalene	ND	2.0		µg/L	1	10/7/2011 8:00:12 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	10/7/2011 8:00:12 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	10/7/2011 8:00:12 AM
Acetone	ND	10		µg/L	1	10/7/2011 8:00:12 AM
Bromobenzene	ND	1.0		µg/L	1	10/7/2011 8:00:12 AM
Bromodichloromethane	ND	1.0		µg/L	1	10/7/2011 8:00:12 AM
Bromoform	ND	1.0		µg/L	1	10/7/2011 8:00:12 AM
Bromomethane	ND	3.0		µg/L	1	10/7/2011 8:00:12 AM
2-Butanone	ND	10		µg/L	1	10/7/2011 8:00:12 AM
Carbon disulfide	ND	10		µg/L	1	10/7/2011 8:00:12 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	10/7/2011 8:00:12 AM
Chlorobenzene	ND	1.0		µg/L	1	10/7/2011 8:00:12 AM
Chloroethane	ND	2.0		µg/L	1	10/7/2011 8:00:12 AM
Chloroform	ND	1.0		µg/L	1	10/7/2011 8:00:12 AM
Chloromethane	ND	3.0		µg/L	1	10/7/2011 8:00:12 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
- NC Non-Chlorinated
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitation Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Oct-11*
Analytical Report

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	Effluent
Lab Order:	1110342	**Collection Date:**	10/5/2011 11:24:00 AM
Project:	GBR	**Date Received:**	10/6/2011
Lab ID:	1110342-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **MMS**
2-Chlorotoluene	ND	1.0		µg/L	1	10/7/2011 8:00:12 AM
4-Chlorotoluene	ND	1.0		µg/L	1	10/7/2011 8:00:12 AM
cis-1,2-DCE	ND	1.0		µg/L	1	10/7/2011 8:00:12 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	10/7/2011 8:00:12 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	10/7/2011 8:00:12 AM
Dibromochloromethane	ND	1.0		µg/L	1	10/7/2011 8:00:12 AM
Dibromomethane	ND	1.0		µg/L	1	10/7/2011 8:00:12 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	10/7/2011 8:00:12 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	10/7/2011 8:00:12 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	10/7/2011 8:00:12 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	10/7/2011 8:00:12 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	10/7/2011 8:00:12 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	10/7/2011 8:00:12 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	10/7/2011 8:00:12 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	10/7/2011 8:00:12 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	10/7/2011 8:00:12 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	10/7/2011 8:00:12 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	10/7/2011 8:00:12 AM
2-Hexanone	ND	10		µg/L	1	10/7/2011 8:00:12 AM
Isopropylbenzene	ND	1.0		µg/L	1	10/7/2011 8:00:12 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	10/7/2011 8:00:12 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	10/7/2011 8:00:12 AM
Methylene Chloride	ND	3.0		µg/L	1	10/7/2011 8:00:12 AM
n-Butylbenzene	ND	1.0		µg/L	1	10/7/2011 8:00:12 AM
n-Propylbenzene	ND	1.0		µg/L	1	10/7/2011 8:00:12 AM
sec-Butylbenzene	ND	1.0		µg/L	1	10/7/2011 8:00:12 AM
Styrene	ND	1.0		µg/L	1	10/7/2011 8:00:12 AM
tert-Butylbenzene	ND	1.0		µg/L	1	10/7/2011 8:00:12 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	10/7/2011 8:00:12 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	10/7/2011 8:00:12 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	10/7/2011 8:00:12 AM
trans-1,2-DCE	ND	1.0		µg/L	1	10/7/2011 8:00:12 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	10/7/2011 8:00:12 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	10/7/2011 8:00:12 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	10/7/2011 8:00:12 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	10/7/2011 8:00:12 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	10/7/2011 8:00:12 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	10/7/2011 8:00:12 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	10/7/2011 8:00:12 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	10/7/2011 8:00:12 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
- NC Non-Chlorinated
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitation Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *17-Oct-11*
Analytical Report

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	Effluent
Lab Order:	1110342	**Collection Date:**	10/5/2011 11:24:00 AM
Project:	GBR	**Date Received:**	10/6/2011
Lab ID:	1110342-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: MMS
Vinyl chloride	ND	1.0		µg/L	1	10/7/2011 8:00:12 AM
Xylenes, Total	ND	1.5		µg/L	1	10/7/2011 8:00:12 AM
Surr: 1,2-Dichloroethane-d4	99.0	70-130		%REC	1	10/7/2011 8:00:12 AM
Surr: 4-Bromofluorobenzene	95.4	73-131		%REC	1	10/7/2011 8:00:12 AM
Surr: Dibromofluoromethane	105	70-130		%REC	1	10/7/2011 8:00:12 AM
Surr: Toluene-d8	95.0	70-130		%REC	1	10/7/2011 8:00:12 AM
SM 2320B: ALKALINITY						Analyst: IC
Alkalinity, Total (As CaCO3)	310	20		mg/L CaCO3	1	10/6/2011 11:28:00 PM
Carbonate	ND	2.0		mg/L CaCO3	1	10/6/2011 11:28:00 PM
Bicarbonate	310	20		mg/L CaCO3	1	10/6/2011 11:28:00 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: IC
Specific Conductance	3200	0.010		µmhos/cm	1	10/6/2011 11:28:00 PM
SM4500-H+B: PH						Analyst: IC
pH	7.71	0.100	H	pH units	1	10/6/2011 11:28:00 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: KS
Total Dissolved Solids	2750	20.0		mg/L	1	10/11/2011 12:01:00 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
- NC Non-Chlorinated
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitation Limit
- S Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: GBR **Work Order:** 1110342

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 200.7: Dissolved Metals											
Sample ID: MB		*MBLK*				Batch ID:	**R48314**	Analysis Date:	10/11/2011 11:19:48 AM		
Calcium	ND	mg/L	1.0								
Iron	ND	mg/L	0.020								
Magnesium	ND	mg/L	1.0								
Manganese	ND	mg/L	0.0020								
Potassium	ND	mg/L	1.0								
Sodium	ND	mg/L	1.0								
Sample ID: MB		*MBLK*				Batch ID:	**R48365**	Analysis Date:	10/12/2011 4:45:52 PM		
Calcium	ND	mg/L	1.0								
Iron	ND	mg/L	0.020								
Magnesium	ND	mg/L	1.0								
Potassium	ND	mg/L	1.0								
Sodium	ND	mg/L	1.0								
Sample ID: LCS		*LCS*				Batch ID:	**R48314**	Analysis Date:	10/11/2011 11:22:42 AM		
Calcium	50.05	mg/L	1.0	50	0	100	85	115			
Iron	0.4782	mg/L	0.020	0.5	0	95.6	85	115			
Magnesium	50.30	mg/L	1.0	50	0	101	85	115			
Manganese	0.4669	mg/L	0.0020	0.5	0	93.4	85	115			
Potassium	49.20	mg/L	1.0	50	0	98.4	85	115			
Sodium	49.15	mg/L	1.0	50	0	98.3	85	115			
Sample ID: LCS		*LCS*				Batch ID:	**R48365**	Analysis Date:	10/12/2011 4:51:25 PM		
Calcium	49.42	mg/L	1.0	50	0	98.8	85	115			
Iron	0.4993	mg/L	0.020	0.5	0	99.9	85	115			
Magnesium	48.89	mg/L	1.0	50	0	97.8	85	115			
Potassium	47.25	mg/L	1.0	50	0	94.5	85	115			
Sodium	47.40	mg/L	1.0	50	0	94.8	85	115			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: GBR **Work Order:** 1110342

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: R48241**		**Analysis Date: 10/6/2011 3:51:54 PM**			
Fluoride	ND	mg/L	0.10								
Chloride	ND	mg/L	0.50								
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: R48312**		**Analysis Date: 10/10/2011 11:43:50 AM**			
Fluoride	ND	mg/L	0.10								
Chloride	ND	mg/L	0.50								
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: R48241**		**Analysis Date: 10/6/2011 4:09:19 PM**			
Fluoride	0.5134	mg/L	0.10	0.5	0	103	90	110			
'e	5.014	mg/L	0.50	5	0	100	90	110			
), Nitrite (As N)	1.012	mg/L	0.10	1	0	101	90	110			
ide	2.496	mg/L	0.10	2.5	0	99.8	90	110			
Nitrogen, Nitrate (As N)	2.569	mg/L	0.10	2.5	0	103	90	110			
Phosphorus, Orthophosphate (As P)	5.095	mg/L	0.50	5	0	102	90	110			
Sulfate	10.23	mg/L	0.50	10	0	102	90	110			
Sample ID: LCS		*LCS*				**Batch ID: R48312**		**Analysis Date: 10/10/2011 12:01:14 PM**			
Fluoride	0.4946	mg/L	0.10	0.5	0	98.9	90	110			
Chloride	4.982	mg/L	0.50	5	0	99.6	90	110			
Nitrogen, Nitrite (As N)	1.026	mg/L	0.10	1	0	103	90	110			
Bromide	2.522	mg/L	0.10	2.5	0	101	90	110			
Nitrogen, Nitrate (As N)	2.552	mg/L	0.10	2.5	0	102	90	110			
Phosphorus, Orthophosphate (As P)	4.984	mg/L	0.50	5	0	99.7	90	110			
Sulfate	10.07	mg/L	0.50	10	0	101	90	110			
Sample ID: LCSD		*LCSD*				**Batch ID: R48241**		**Analysis Date: 10/6/2011 4:26:44 PM**			
Fluoride	0.5239	mg/L	0.10	0.5	0	105	90	110	2.04	20	
Chloride	4.977	mg/L	0.50	5	0	99.5	90	110	0.728	20	
Nitrogen, Nitrite (As N)	1.003	mg/L	0.10	1	0	100	90	110	0.835	20	
Bromide	2.514	mg/L	0.10	2.5	0	101	90	110	0.701	20	
Nitrogen, Nitrate (As N)	2.538	mg/L	0.10	2.5	0	102	90	110	1.19	20	
Phosphorus, Orthophosphate (As P)	5.144	mg/L	0.50	5	0	103	90	110	0.946	20	
Sulfate	10.07	mg/L	0.50	10	0	101	90	110	1.61	20	

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: GBR **Work Order:** 1110342

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: SM 2320B: Alkalinity											
Sample ID: MB-1		*MBLK*				**Batch ID:**	**R48261**	**Analysis Date:**		**10/6/2011 4:08:00 PM**	
Alkalinity, Total (As CaCO3)	ND	mg/L Ca	20								
Carbonate	ND	mg/L Ca	2.0								
Bicarbonate	ND	mg/L Ca	20								
Sample ID: LCS-1		*LCS*				**Batch ID:**	**R48261**	**Analysis Date:**		**10/6/2011 4:14:00 PM**	
Alkalinity, Total (As CaCO3)	79.76	mg/L Ca	20	80	3.56	95.2	90	110			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: GBR **Work Order:** 1110342

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: R48253**		**Analysis Date: 10/6/2011 11:49:17 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	3.0								
2-Butanone	ND	µg/L	10								
Carbon disulfide	ND	µg/L	10								
Tetrachloride	ND	µg/L	1.0								
Benzene	ND	µg/L	1.0								
Chloroethane	ND	µg/L	2.0								
Chloroform	ND	µg/L	1.0								
Chloromethane	ND	µg/L	3.0								
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								
p-Isopropyltoluene	ND	µg/L	1.0								

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: GBR **Work Order:** 1110342

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: R48253**		**Analysis Date: 10/6/2011 11:49:17 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: R48253**		**Analysis Date: 10/6/2011 12:41:29 PM**			
Benzene	22.00	µg/L	1.0	20	0	110	81.1	130			
Toluene	20.50	µg/L	1.0	20	0	102	82.3	122			
Chlorobenzene	20.30	µg/L	1.0	20	0	102	70	130			
1,1-Dichloroethene	20.18	µg/L	1.0	20	0	101	83.1	126			
Trichloroethene (TCE)	21.16	µg/L	1.0	20	0	106	67.4	137			
Method: SM2540C MOD: Total Dissolved Solids											
Sample ID: MB-28797		*MBLK*				**Batch ID: 28797**		**Analysis Date: 10/11/2011 12:01:00 PM**			
Total Dissolved Solids	ND	mg/L	20.0								
Sample ID: LCS-28797		*LCS*				**Batch ID: 28797**		**Analysis Date: 10/11/2011 12:01:00 PM**			
Total Dissolved Solids	1019	mg/L	20.0	1000	6	101	80	120			

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Name WESTERN REFINING SOUT — Date Received: 10/6/2011

Work Order Number 1110342 — Received by: LNM

Checklist completed by: [signature] Signature — 10/6/11 Date — Sample ID labels checked by: _____ Initials

Matrix: — Carrier name: Courier

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:
ter - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☑	No ☐	
r - 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?	**2.0°**	*<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

Mailing Address: 111 CR 4990
Bloomfield NM 87413

Phone #:

email or Fax#:

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

Accreditation
☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush

Project Name:
GBR

Project #:

Project Manager: Ashley Ager

Sampler: Troy Urban

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)	8260 (VOC)	anions, cations, Fe, Mn	TDS, Alk, EC, pH		Air Bubbles (Y or N)
10/05/11	0700	GW	Trip Blank	2	HCl	-1												✓				
10/05/11	1102	GW	Influent	6	various	-2												✓	✓	✓		
10/05/11	1124	GW	Effluent	6	various	-3												✓	✓	✓		

Date:	Time:	Relinquished by:	Received by:	Date	Time
10/5/11	1345		Christine Walters	10/5/11	1345
Date:	Time:	Relinquished by:	Received by:	Date	Time
10/5/11	1540	Christine Walters		10/	1005

Remarks: please copy results to aager@ltenv.com

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

WNR LISTED NYSE

RECEIVED OCD

2011 AUG 26 P 11:44

August 25, 2011

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

Certified Mail #: 7010 3090 0001 3450 2623

Re: Response to APPROVAL WITH MODIFICATION
2010 Groundwater Remediation and Monitoring Annual Report
Western Refining Southwest, Inc., Bloomfield Refinery
EPA ID# NMD089416416
HWB-WRB-11-003

Dear Mr. Kieling:

Western Refining Southwest, Inc. – Bloomfield Refinery (Western) has prepared the following response to your comment letter (dated June 29, 2011) on the referenced Annual Report.

NMED Comment

Western must submit a response that explains how the volume of SPH and water from the recovery system was estimated.

Western Response

Currently all the active recovery wells are equipped with pneumatic submersible pumps, with the exception of recovery well RW-1 which is equipped with an electric submersible pump. The pneumatic recovery pumps operate on a timer-cycle which allows the groundwater to recover in the well during off cycles so as to ensure the pumps do not run dry. The recovery well equipped with an electric pump runs continuously (no cycling).

The recovery wells are not equipped with in-line flow meters; therefore Western personnel collect field measurements to estimate the pumping rate of each well. These measurements are collected on three separate occasions throughout each year. The yearly average flowrate of each pump is extrapolated to estimate the total volume pumped in one year. The summation of total fluids pumped from each well is the value reported in the Annual Report.

The field measurements collected and calculations performed to determine total fluids pumped per calendar year are summarized below:

Step 1: Each recovery well is equipped with a sample port. For pneumatic pumps, discharge of total fluids is diverted to a graduated container during an active pumping cycle to estimate the total volume of fluids pumped during one pumping cycle. This step is repeated three times to develop an average volume pumped per cycle.

For the electric pump, the time required to fill the graduated container is measured using a stopwatch or equivalent. The collected volume of fluid divided by the time required to collect the fluids equates to an estimated flowrate.

Step 2: For the pneumatic pumps, Western personnel then verify in the field the number of pumping cycles per minute.

Final Calculations: For the pneumatic pumps, the estimated total volume pumped per well is calculated using the average volume of total fluids pumped per cycle times the number of cycles per minute. This total volume per minute is extrapolated over one year to estimate the total volume pumped per year. For the electric pump, the average flowrate is extrapolated over a year to estimate the total volume pumped over one year. The summation of total volume pumped per year for each recovery well is the value reported in each annual report.

An explanation of how much total fluids are recovered each year will be included in subsequent Groundwater Remediation and Monitoring Annual Reports.

If you have any additional questions or request additional clarification, please contact me at (505) 632-4171.

Sincerely,

James R. Schmaltz
Health, Safety, Environmental, and Regulatory Director
Western Refining Southwest, Inc.
Bloomfield Refinery

cc: D. Cobrain – NMED HWB
L. Tsinnajinnie – NMED HWB
C. Chavez – NMOCD
A. Hains – Western Refining

SUSANA MARTINEZ
Governor

JOHN A. SANCHEZ
Lieutenant Governor

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
www.nmenv.state.nm.us

DAVE MARTIN
Secretary

RAJ SOLOMON, P.E.
Deputy Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

June 29, 2011

Mr. Randy Schmaltz
Environmental Manager
Western Refining Southwest, Inc.
Bloomfield Refinery
P.O. Box 159
Bloomfield, New Mexico 87413

RE: APPROVAL WITH MODIFICATION
2010 GROUNDWATER REMEDIATION AND MONITORING ANNUAL REPORT
WESTERN REFINING COMPANY SOUTHWEST, INC.
BLOOMFIELD REFINERY
EPA ID# NMD089416416
HWB-WRB-11-003

Dear Mr. Schmaltz:

The New Mexico Environment Department (NMED) has completed its review of the Western Refining Southwest, Inc., Bloomfield Refinery (Western) *Annual Groundwater Remediation and Monitoring Annual Report* (Report) dated April 2011. NMED hereby approves this Report with the following modification.

Section 6.1 (Total Fluids Pumping), page 6-1 and Section 6.6 (East Outfall), page 6-2:

Western's Statements: Section 6.1 states "[i]n 2010 the estimated total gallons pumped (SPH and water) from the recovery wells was 1,232,649 gallons" and Section 6.6 states "[t]he east outfall is collected into a pipe, which flow to tank 38 and then is pumped to the API. The total gallons pumped in 2010 were 10,563, 144 gallons."

NMED Comment: Western must submit a response that explains how the volume of SPH and water from the recovery system was estimated. Future annual groundwater monitoring reports must include explanations of how total volumes of fluids pumped/recovered are estimated (e.g., flow meter). NMED notes that Section 11, page 3 indicates that recovery rates for Tk #38 (#1 East Outfall) are determined using flow meters; in future reports, include this information where the volumes are reported.

Western must submit a response to the comment above on or before **September 1, 2011**. If you have any questions regarding this letter, please contact Hope Petrie at (505) 476-6045.

Sincerely,

John E. Kieling
Acting Chief
Hazardous Waste Bureau

cc: D. Cobrain, NMED HWB
L. Tsinnajinnie, NMED HWB
C. Chavez, OCD
K. Robinson, Western Refining Company
A. Hains, Western Refining Company
File: WRB 2011 and Reading
HWB-WRB-11-003

Western Refining

WNR LISTED NYSE

April 14, 2011

RECEIVED OCD
2011 APR 15 P 1:14

Glen Von Gonten
Project Manager
Environmental Bureau
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

RE: Western Refining, Inc. 2010 Annual Report for the former Giant Bloomfield Refinery.

Dear Mr. Von Gonten;

Please fine enclosed, Western's 2010 Annual Report for the former Giant Bloomfield Refinery located in the NW ¼ of Section 27 and the SW ¼ of Section 22, Township 29 N, Range 12 W in San Juan County, New Mexico.

If you should have any questions or require additional information, please do not hesitate to contact me at 505-632-4171 or Randy.Schmaltz@wnr.com.

Sincerely,

James R. Schmaltz
Health, Safety, Environmental & Regulatory Director
Western Refining Southwest, Inc.

111 County Road 4990
Bloomfield, NM 87413

cc: Brandon Powell, NM OCD Aztec District Office
Allen Haines, Western Refining - El Paso
WNR File

ANNUAL REPORT

FORMER GIANT BLOOMFIELD REFINERY
BLOOMFIELD, NEW MEXICO
DISCHARGE PERMIT GW-040

APRIL 2011

WESTERN REFINING SOUTHWEST, INC.
111 CR 4990
Bloomfield, New Mexico 87413

ANNUAL REPORT

FORMER GIANT BLOOMFIELD REFINERY
BLOOMFIELD, NEW MEXICO

DISCHARGE PERMIT GW-040

APRIL 2011

Prepared for:

WESTERN REFINING SOUTHWEST, INC.
111 CR 4990
Bloomfield, New Mexico 87413

Prepared by:

LT ENVIRONMENTAL, INC.
2243 Main Avenue, Suite 3
Durango, Colorado 81301
(970) 385-1096

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EXECUTIVE SUMMARY

LT Environmental, Inc. (LTE) on behalf of Western Refining Southwest, Inc. (Western) has prepared this report detailing work completed from January through December 2010 at the former Giant Bloomfield Refinery (Site) in Bloomfield, New Mexico. The scope of work for this project was continued mitigation and monitoring of petroleum hydrocarbon impacts to groundwater, which were identified upon cessation of refinery operations. During the time period covered in this report, Western utilized a groundwater recovery and remediation system consisting of groundwater recovery wells, a carbon filtration unit, and a treated water infiltration trench.

LTE conducted weekly operations and maintenance on the remediation system and monitored groundwater quality throughout 2010. Quarterly activities in 2010 included sampling the remediation system influent and effluent for laboratory analysis of volatile organic compounds (VOCs), measuring depth to groundwater in groundwater monitoring and recovery wells, and recovering phase separated hydrocarbons (PSH) in groundwater monitoring wells. When PSH was detected in monitoring wells, oil absorbent socks were placed in the wells for product recovery. Annual activities in January 2010 included collecting groundwater samples from 17 monitoring wells and two recovery wells for laboratory analysis of VOCs. One collected groundwater sample was analyzed for polynuclear aromatic hydrocarbons (PAH).

Laboratory analysis results indicated no VOCs were detected in influent and effluent groundwater samples. Minor concentrations of VOC constituents were detected in the annual groundwater samples from monitoring wells GBR-24D, GBR-32, GBR-48, GBR-49, and GBR-50, and minor concentrations of PAH constituents were detected in monitoring well GBR-24D. However, concentrations of these constituents were below New Mexico Water Quality Control Commission standards. Thin accumulations of PSH exist in source areas identified during previous subsurface investigations. A total of 93.6 ounces of PSH were recovered from the Site in 2010.

A total of 1,121,363 gallons of groundwater was recovered and treated by the remediation system in 2010, representing a decrease from the 9,455,408 gallons treated during 2009. However, the lower recovery volume was sufficient to maintain a hydraulic barrier preventing migration of PSH offsite. Smaller thicknesses of PSH were observed in groundwater monitoring wells compared to 2009 and there was a decreased total number of groundwater monitoring wells containing measurable volumes of PSH in 2010. This suggests PSH recovery with oil absorbent socks was effective.

Based on the results presented in this report, Western should continue PSH recovery and operation of the remediation system. LTE recommends continued quarterly monitoring of groundwater flow behavior and presence of PSH, as well as influent and effluent sampling and laboratory analysis. Annual sampling of monitoring and recovery wells should continue.

1.0 INTRODUCTION

LT Environmental, Inc. (LTE) prepared this report for Western Refining Southwest, Inc. (Western) to summarize work completed from January through December 2010 at the former Giant Bloomfield Refinery (Site) in Bloomfield, New Mexico.

1.1 SITE DESCRIPTION

The Site is on the northeast corner of United States (U.S.) Highway 64 and County Road 350, approximately five miles west of Bloomfield, New Mexico, in the northwest quarter of Section 27 and the southwest quarter of Section 22, Township 29 North, Range 12 West in San Juan County (Figure 1). Facilities include a control building, aboveground storage tanks, a carbon filtration tank, groundwater monitoring wells, and groundwater recovery wells (Figure 2).

1.2 SITE HISTORY

The former refinery, under ownership of Giant Industries, Arizona (Giant), produced leaded and unleaded gasoline, diesel, kerosene, and other refined petroleum products from 1974 to 1982 but is presently inactive. The refining operations and subsequent truck loading and unloading activities impacted groundwater, which were identified and investigated as part of the site closure requirements prescribed by the New Mexico Oil Conservation Division (NMOCD) in 1986. Details of a subsurface investigation and initial remediation efforts are contained in a 1987 report entitled *Soil and Groundwater Investigations and Remedial Action Plan, Giant Industries, Inc. Bloomfield Refinery, Bloomfield, New Mexico.* The investigation identified three source areas (Figure 2):

- Northern Area (Diesel Spill Area): 10,000 to 15,000 gallons of diesel were released from a pipeline in 1985;
- Central Area (Truck Fueling Area): 15,000 gallons of diesel were released from a pipeline in 1986; and
- Southern Area: Historic releases from a former fire fighting drill area east and upgradient of the Site may have collected in a former seep and a stormwater catchment area.

Concurrent with refinery operations, the Lee Acres Landfill, formerly located up-gradient of the Site, operated as a San Juan County landfill from 1962 to 1986 (Figure 1). Solid wastes were disposed of in trenches, and a series of lagoons were used for disposal of a variety of liquid wastes. The NMOCD sampled the lagoons in 1985 and demonstrated that the liquids in the impoundments contained a variety of chlorinated solvents, petroleum hydrocarbon constituents, heavy metals, and salts. In April 1985, a breach in the dike retaining the lagoons released liquid wastes into an arroyo west of the Site. The arroyo drains south toward the Lee Acres Subdivision, where the NMOCD and the New Mexico Environment Department (NMED) identified contaminated water in domestic water wells in 1988. In response, the NMOCD required Giant to investigate petroleum hydrocarbon impacts to groundwater downgradient of the refinery in the Lee Acres Subdivision, and the NMED conducted a separate investigation to identify potential landfill impacts. The results of the subsurface investigation south of the refinery by Giant are contained in three volumes of the 1992 report, *Remedial Investigation*

Report for Lee Acres Landfill. The NMED, in conjunction with the Bureau of Land Management and the United States Geological Survey, published their results in three reports referenced in Section 6.0 of this report.

The investigations identified two separate plumes of impacted groundwater that commingled across the refinery and flowed downgradient into the Lee Acres Subdivision. Groundwater contaminants detected in the refinery plume included phase-separated hydrocarbons (PSH) and dissolved phase petroleum hydrocarbons. The dissolved-phase constituents included benzene, toluene, ethylbenzene and total xylenes (BTEX), naphthalene, and 1,2 dichloroethane (EDC). The landfill contaminant plume contained total dissolved solids, chloride, sulfate, manganese, BTEX, naphthalene, 1,1 dichloroethane, cis-1,2-dichloroethene, trans-1,2-dichloroethene, tetrachloroethene, 1,1,1-trichloroethane, and trichloroethene.

Beginning in 1988, Giant installed a groundwater recovery, treatment, and disposal system in stages at the Site to restrict migration of contaminants and to remediate groundwater impacts caused by their operations. A total of 45 monitoring wells were initially installed and designated GBR wells (Figure 2). Of these 45 monitoring wells, 11 were converted to recovery wells and re-named with GRW designations. An additional 17 monitoring wells were completed in the Lee Acres Subdivision and designated as SHS wells. Four SHS wells initially operated as recovery wells. Giant pumped groundwater from the recovery wells into storage tanks, then treated the groundwater with carbon filtration, and re-injected treated groundwater into the subsurface through two infiltration galleries.

As groundwater quality improved over time, the remediation system was gradually simplified. It currently consists of 10 active groundwater recovery wells that pump groundwater into a single storage tank (Tank 102). Groundwater from the tank is transferred to a carbon filtration tank, and then passes through a treated water infiltration gallery (Figure 2). Following initial contaminant reduction, the groundwater remediation system operated in an operation and maintenance mode. Concentrations of contaminates within the remediation system's influent and effluent were below laboratory detection limits for 18 years. In 2008, Western began a supplemental evaluation of the remedial operations, which included shutting down the remediation system and sampling groundwater wells under static conditions in an effort to redefine the area of impact and assess effectiveness of the remediation system. Existing equipment was inspected and repaired to optimize performance. Results from the sampling event were included in the 2008 annual report submitted to the NMOCD. Pumping and treating operations were resumed in February 2009 and have continued through 2010.

1.3 SITE HYDROLOGY

The Site is located on weathered outcrops of the Nacimiento Formation, which is comprised of shales, sandstones, and siltstones of Cretaceous-Teritary age. The San Juan River is approximately 2,000 feet south of the Site. Immediately west is a large unnamed arroyo, which is underlain by 30 feet to 60 feet of Quaternary alluvial sediments. Older Quaternary terrace deposits of cobbles and boulders were observed on the interfluvial ridges adjacent to the arroyo. These terrace deposits may have been utilized as fill on the Site. The outcropping surfaces of the Nacimiento Formation have been eroded to form a paleo-channel that appears to be similar in

morphology to the existing surface arroyo located to the west. The bedrock is overlain by recent alluvial deposits (gravel, sand, silt, and clay), which thicken toward the southwest.

The subsurface geology is a controlling feature for groundwater flow direction and contaminant migration. Shallow groundwater is generally unconfined with some local areas potentially under semi-confined conditions. There are two aquifers of concern that are in direct hydraulic communication: 1) a shallow aquifer composed of recent alluvial materials and 2) a bedrock aquifer that exists in the underlying Nacimiento Formation. The alluvial aquifer generally has the higher permeability of the two aquifers, and recovery wells completed within this aquifer have higher yields with larger radii of influence.

1.4 SCOPE OF WORK

The scope of work for this project included operating and maintaining the groundwater remediation system, monitoring groundwater quality and presence of PSH, and recovering PSH. A summary of field activities, results, conclusions, and recommendations are presented in the subsequent sections of this report.

2.0 METHODOLOGY

2.1 GROUNDWATER REMEDIATION SYSTEM

The groundwater remediation system at the Site was designed to pump impacted groundwater from local aquifers through a series of recovery wells, which prevent migration of impacted water beyond the influence of the wells as illustrated on Figure 3. The recovered groundwater is collected in a storage tank (Tank 102) and pumped to a second tank with a carbon matrix lining where it is treated by carbon adsorption. The treated water is then returned to the aquifer through an infiltration trench. The infiltration trench consists of a subsurface system of perforated polyvinyl chloride (PVC) pipes placed within gravel packs. Water infiltrates the surrounding strata and eventually makes its way back to the aquifer. The return of recovered water to the aquifer acts as a recharge mechanism. Figure 4 is a simplified diagram representation of groundwater recovery, treatment, and disposal system at the Site.

2.2 OPERATIONS AND MAINTENANCE

LTE conducted weekly inspections to ensure normal operation of the remediation system. A panel located in the control building controls operation of the remediation system and incorporates shutdown functions to safeguard against tank overflows and other undesirable events. The control panel was monitored weekly, as were water flow meters at each storage tank and recovery well. Weekly observations were recorded in a bound field logbook with the date, time and person recording the information noted. Water meter readings were entered into a spreadsheet to calculate flow volumes and monitor cumulative flow rates. All equipment at the Site was inspected for leaks and malfunctions. The inspector was familiar with the location of underground lines and noted any surface indication of underground leaks.

Maintenance included repair and replacement of well pumps, pump controllers, and flow meters. LTE also replaced filters in well houses on a regular basis, inspected the carbon pre-filter, and repaired any other hardware as necessary.

2.3 GROUNDWATER MONITORING

Quarterly groundwater monitoring included measurements of depth to groundwater at all monitoring wells with a Keck oil-water interface probe, and investigation for the presence of PSH. The interface probe was decontaminated with Alconox™ soap and rinsed with de-ionized water before each measurement. Depth to groundwater measurements were used to calculate quarterly groundwater elevations at the Site to determine direction of groundwater flow and hydraulic control achieved by the recovery wells. The recovery pumps were not turned off during quarterly monitoring events nor were the pumps removed from the recovery wells; therefore, calculated groundwater elevations do not represent static conditions.

Oil absorbent socks were used to passively recover PSH detected in groundwater monitoring wells at the Site. The socks were checked quarterly and replaced as necessary. Volumes of recovered PSH were estimated based on percent saturation observed in the socks and were recorded in a field log book.

Influent and effluent groundwater samples were collected quarterly and analyzed for volatile organic compounds (VOCs) using U.S. Environmental Protection Agency (EPA) Method 8260B. Influent groundwater was collected from a system valve before it entered Tank 102. Effluent groundwater was collected through a sample valve as treated water exited the carbon adsorption tank. Groundwater samples were collected in appropriate pre-cleaned and/or pre-preserved sample bottles or glass vials. Samples were labeled with the date and time of collection, sample designation, project name, collector's name, and parameters to be analyzed and immediately sealed and packed on ice. The samples were shipped to Hall Environmental Analysis Laboratory (HEAL) in Albuquerque, New Mexico before designated holding times expired following strict chain-of-custody procedures.

LTE collected annual groundwater samples from groundwater monitoring wells within and south of the Site. The sampling schedule in Table 1 represents the revised groundwater sampling schedule instituted in March 2009 following submittal of the April 2008 annual report. The volume of groundwater in the wells was calculated, and a minimum of three well casing volumes of groundwater was purged from each well using a disposable bailer. As groundwater was extracted, pH, electric conductivity and temperature were monitored. Wells were purged until these properties stabilized or the well bailed dry, indicating the purge water was representative of aquifer conditions. Stabilization was defined as three consecutive stable readings for each water property (±0.4 units for pH, ±10 percent for electric conductivity and ±2° Celsius for temperature). Once each monitoring well was properly purged, groundwater samples were collected in bottles or vials and shipped to HEAL. Groundwater sampling from recovery wells followed the same procedures as monitoring wells, except pumps installed in recovery wells were used to purge the appropriate volume of groundwater from each recovery well. The groundwater samples were analyzed for VOCs according to EPA method 8260B, and groundwater sample GBR-24D was also analyzed for polynuclear aromatic hydrocarbons (PAH) according to EPA Method 8310.

3.0 RESULTS

3.1 OPERATIONS AND MAINTENANCE

LTE addressed several maintenance problems at the Site. The groundwater pump in GRW-4 failed twice and had to be replaced, and groundwater pumps in GRW-3 and GRW-9 were repaired. The flow meters at four recovery wells were replaced, heaters in two well boxes were replaced, and frozen pipes were repaired during the winter.

The recovery pump in GRW-1 ceased working in 2009 and was not returned to service, making this well inactive during 2010. Recovery wells GRW-3, GRW-9, and GRW-10 pumped considerably lower volumes of groundwater as compared to 2009. Table 2 presents the total volume of groundwater pumped from each recovery well during 2010 and 2009. A total of 1,121,363 gallons of groundwater were recovered and treated by carbon filtration in 2010, representing a decrease from the 9,455,408 gallons treated during the 2009.

3.2 QUARTERLY GROUNDWATER MONITORING

Measured groundwater elevations and thickness of PSH in groundwater monitoring and recovery wells are presented in Table 3 and quarterly potentiometric surface maps are depicted in Figures 5 through 8. Groundwater flow direction was consistently toward the southwest throughout the year. Drawdown around recovery wells is evident each quarter.

Thin accumulations of PSH were measured in groundwater monitoring wells near each of the source areas identified in the preliminary subsurface investigation conducted by Giant. Near the Northern Area, 0.01 feet of PSH was measured in GBR-26 during October 2010. Near the Central Area, 0.31 feet of PSH were detected in GBR-22 in January 2010, and 0.35 feet were measured in GBR-34 in October 2010. Monitoring well GBR-22 was dry during the rest of the quarterly monitoring events. Near the Southern Area, 0.04 feet of PSH were measured in GBR-20 in July 2010, but at no other time during the year. No other wells in the Southern Area contained detectable PSH in 2010. The number of wells containing measureable PSH decreased and the overall thicknesses measured decreased in 2010 compared to 2009. The total volume of PSH recovered from monitoring wells during 2010 was 0.73 gallons (Table 4). The volume of PSH recovered during 2010 was less than the volume of PSH recovered during 2009.

3.3 GROUNDWATER SAMPLING

Laboratory analytical results from groundwater sampling are in Table 5 and the complete laboratory analytical reports are in Appendix A. Isopach maps and geologic cross sections illustrating the distribution of analytes are not included, because the sampling events do not include wells from all of the current source areas. Such a presentation of results would not be indicative of true conditions at the Site. Laboratory analytical results from 2010 are summarized below.

- No VOCs were detected exceeding laboratory detection limits in influent or effluent samples.

- VOCs were detected in the annual groundwater samples, but only in minor concentrations that do not exceed NMWQCC standards:
    - 1,2,4-trimethlybenzene, 1-methylnapthalene, and 2-methlynapthalene were detected in monitoring well GBR-24D.
    - Tetrachloroethene was detected in upgradient monitoring wells GBR-32, GBR-48, and GBR-49.
    - Acetone was detected in upgradient monitoring well GBR-50.
- Concentrations of the PAH constituents phenanthrene, fluorine, naphthalene, 1-methylnapthalene, and 2-methylnapthalene were detected in GBR-24D, but did not exceed NMWQCC standards.

4.0 CONCLUSIONS

Western successfully prevented migration of contaminants in groundwater during 2010 and reduced the total volume of PSH present at the Site. The influent and effluent groundwater associated with the remediation system at the Site did not contain detectable concentrations of VOCs during 2010 and groundwater samples collected from monitoring and recovery wells did not contain VOCs or PAHs exceeding NMWQCC standards. Groundwater observed and sampled in the Lee Acres Subdivision exhibited no PSH and contained no concentrations of VOCs. Thin accumulations of PSH were present near the previously identified sources near the Northern and Central Areas and occasionally present near the Southern Area; however, the remediation system created a sufficient hydraulic barrier to restrict migration of PSH offsite, even though the volume of groundwater pumped by the recovery wells decreased during 2010. Smaller thicknesses of PSH were observed in groundwater monitoring wells compared to 2009 and there was a decreased total number of groundwater monitoring wells containing measurable volumes of PSH in 2010. This suggests PSH recovery with oil absorbent socks was effective.

5.0 RECOMMENDATIONS

LTE presents the following recommendations at the Site:

1. Continue to operate and maintain the remediation system to prevent migration of PSH.
2. Continue passive PSH recovery using oil absorbent socks.
3. Continue quarterly monitoring of groundwater flow behavior and presence of PSH by measuring depth to groundwater.
4. Continue quarterly sampling and laboratory analysis of the remediation system influent and effluent.
5. Continue annual sampling and laboratory analysis of groundwater monitoring and recovery wells, including monitoring well SHS-8 on the south side of the Site.

6.0 REFERENCES

AEPCO, Inc. *Site Investigation Report for Lee Acres Site, San Juan County, New Mexico (Final Report),* BLM Contract NO. AA852-Ct5-26, U.S. Department of the Interior, BLM, Washing D.C., May 1986.

McQuillan, D. and Longmire, P. *Water Quality Investigations at the Lee Acres Landfill and Vicinity, San Juan County, New Mexico,* Environmental Division, Ground water/Hazardous Waste Bureau, Santa Fe, NM, February 1986.

Peter, K., Williams, R.A. and King, K.W. *Hydrogeologic Characteristics of the Lee Acres Landfill Area, San Juan County, New Mexico,* U.S. Geological Survey Water Resources Investigations Report 87-4246, Albuquerque, NM, 1987.

Roy F. Weston, Inc. *Remedial Investigation Report for Lee Acres Landfill, Volumes 1-3,* Albuquerque, NM, September 1992.

Roy F. Weston, Inc. *Proposed Emergency Action for Lee Acres Landfill,* Albuquerque, NM, November 1990.

Geoscience Consultants, LTD., *Soil and Groundwater Investigations and Remedial Action Plan, Giant Industries, Inc. Bloomfield Refinery, Bloomfield, New Mexico,* 1987.

Lodestar Services, Inc., *Annual Data Report Former Giant Bloomfield Refinery,* March 2009.

RPS JDC Consulting, *Review of Groundwater Remediation System, Old Giant Bloomfield Refinery, Bloomfield, New Mexico,* June 2009.

FIGURES

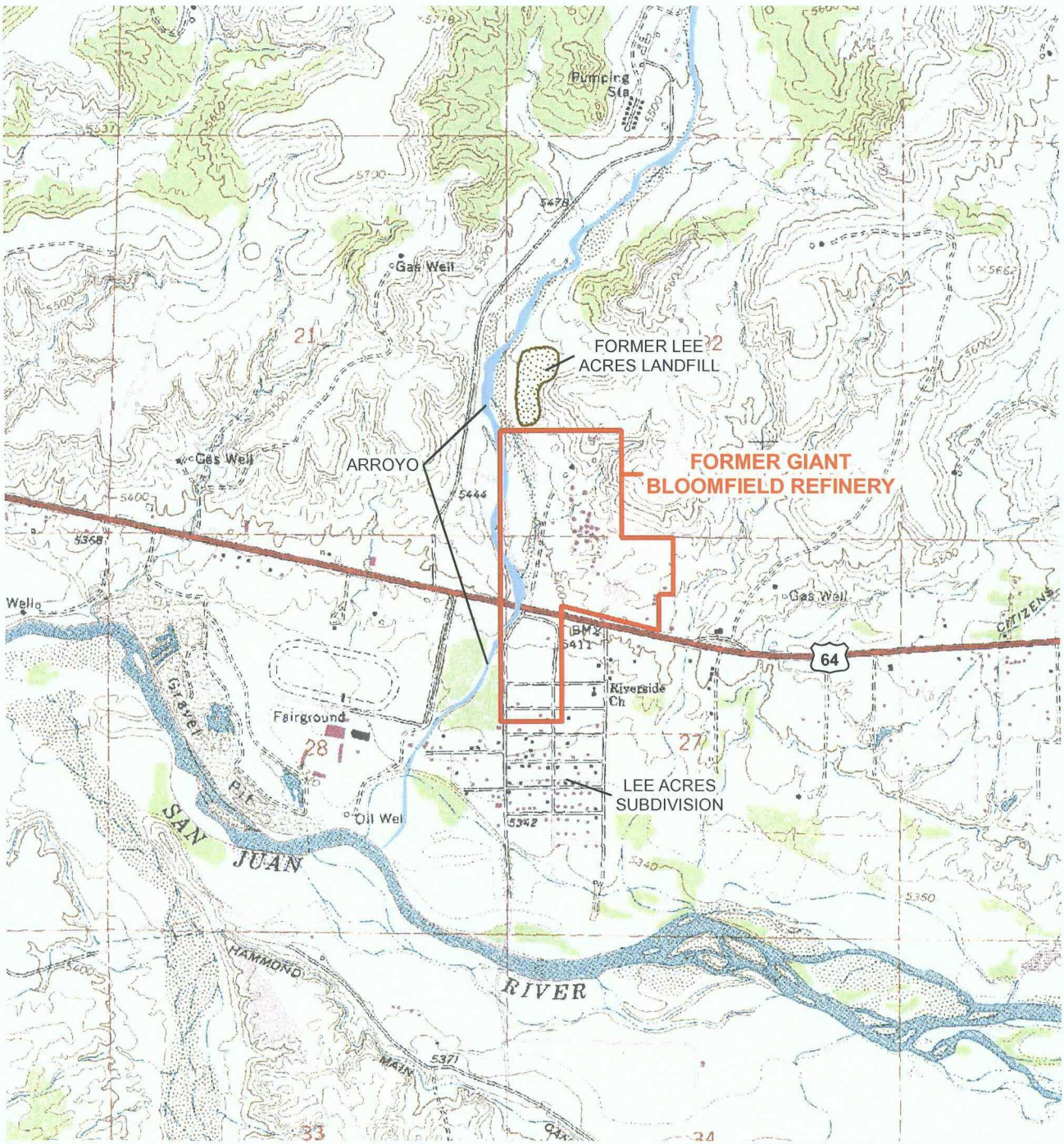


IMAGE COURTESY OF USDA/NRCS, VARIOUS DATES

0 2,000 4,000

Feet

N

LEGEND

- SITE LOCATION
- ARROYO
- FORMER LEE ACRES LANDFILL

FIGURE 1
REGIONAL MAP
FORMER GIANT BLOOMFIELD REFINERY
SWSW SEC 22 & WNW SEC 27 T29N R12W
SAN JUAN COUNTY, NEW MEXICO
WESTERN REFINING SOUTHWEST, INC.

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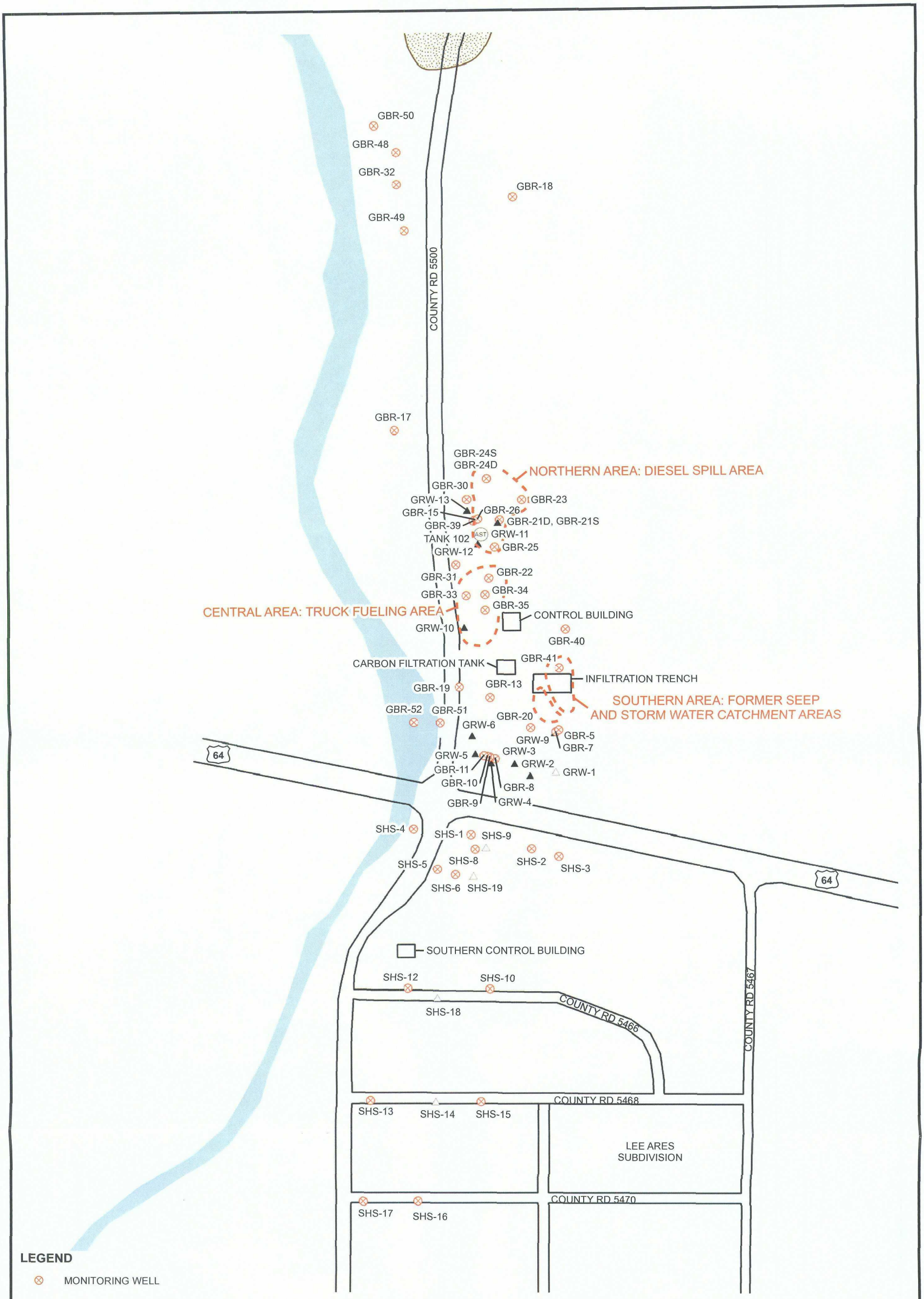


FIGURE 2
SITE MAP
FORMER GIANT BLOOMFIELD REFINERY
SWSW SEC 22 & WNW SEC 27 T29N R12W
SAN JUAN COUNTY, NEW MEXICO
WESTERN REFINING, SOUTHWEST, INC.

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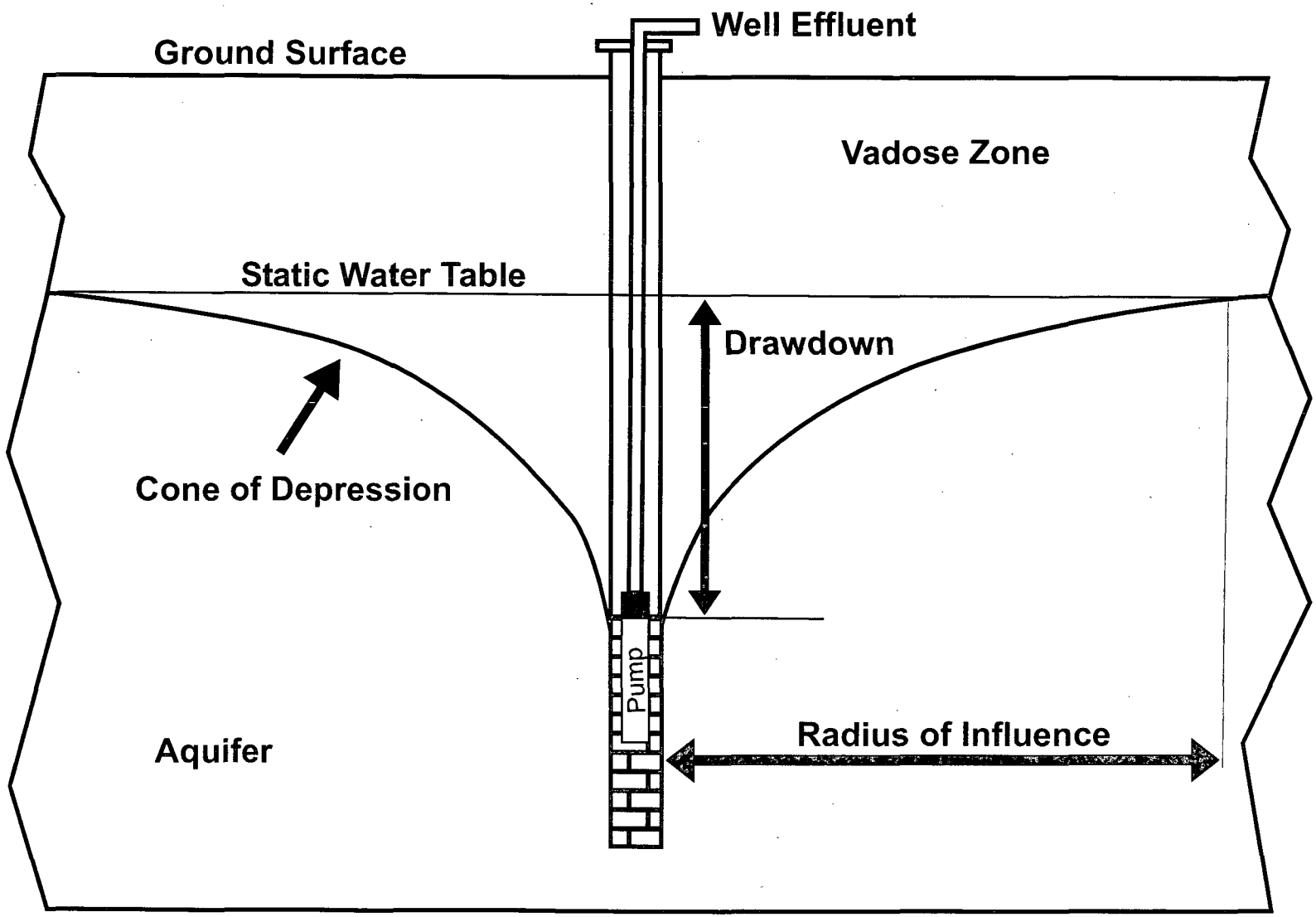


FIGURE 3
HYDRAULIC BARRIER
FORMER GIANT BLOOMFIELD REFINERY
SWSW SEC 22 & WNW SEC 27 T29N R12W
WESTERN REFINING SOUTHWEST, INC.

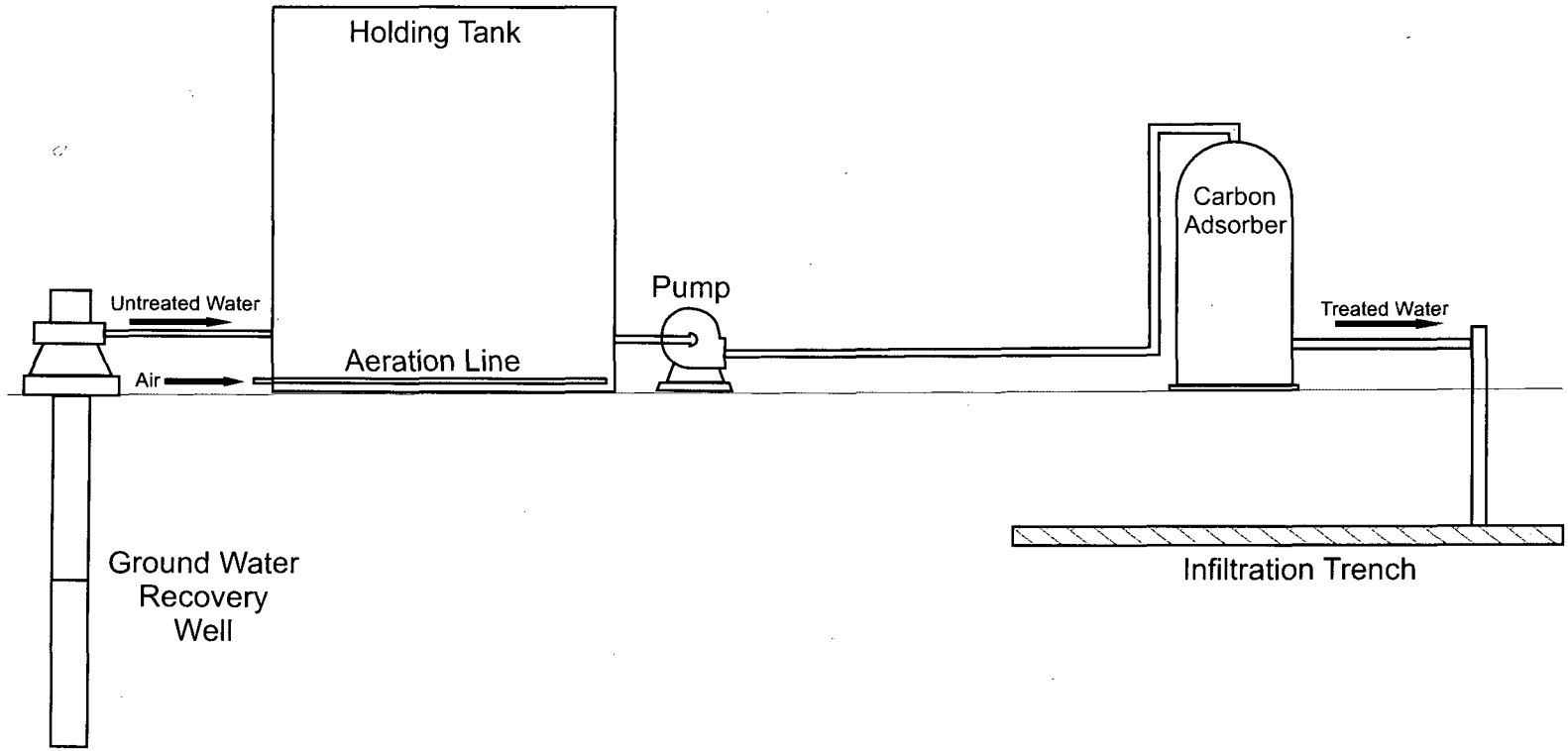
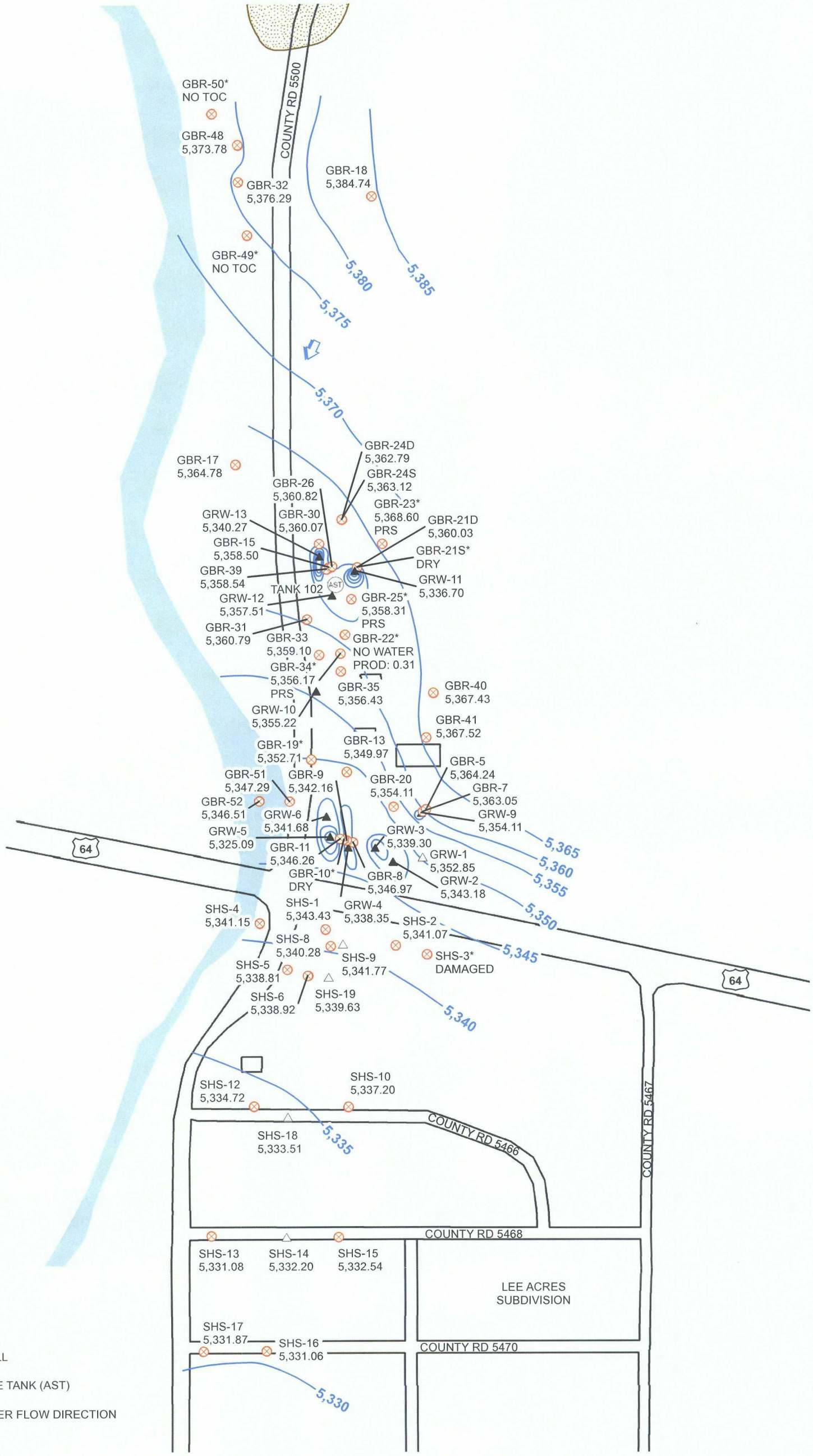


FIGURE 4
SIMPLIFIED REPRESENTATION OF THE GROUNDWATER RECOVERY, TREATMENT AND DISPOSAL SYSTEM
FORMER GIANT BLOOMFIELD REFINERY
SWSW SEC 22 & WNW SEC 27 T29N R12W
WESTERN REFINING SOUTHWEST, INC.



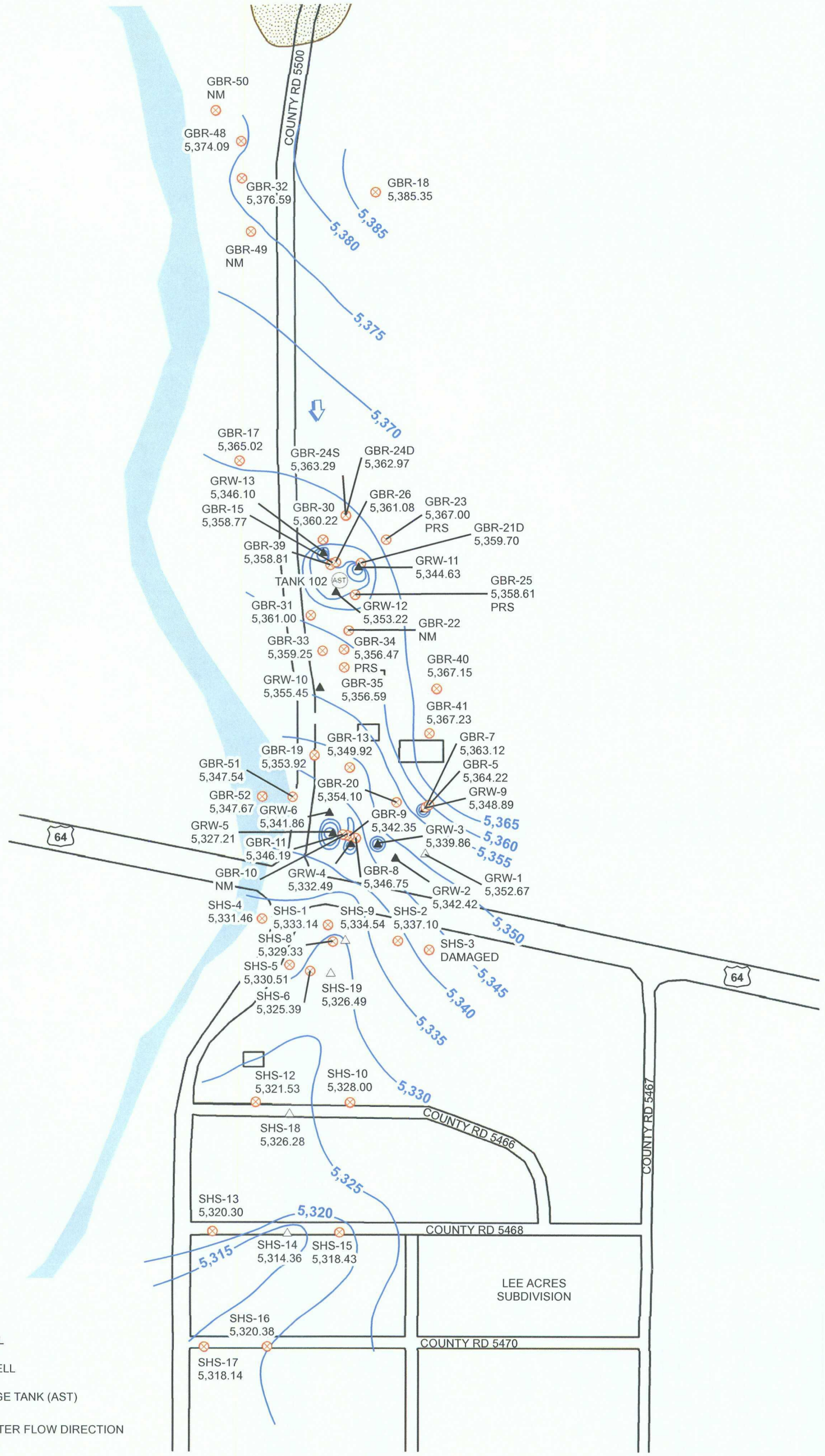
LEGEND

- MONITORING WELL
- ACTIVE RECOVERY WELL
- INACTIVE RECOVERY WELL
- ABOVEGROUND STORAGE TANK (AST)
- ESTIMATED GROUNDWATER FLOW DIRECTION
- ARROYO
- FORMER LEE ACRES LANDFILL
- GROUNDWATER ELEVATION CONTOUR
  CONTOUR INTERVAL = 5 FEET
  GROUNDWATER ELEVATIONS MEASURED IN FEET
  ABOVE MEAN SEA LEVEL IN JANUARY 2010

NO TOC: NO TOP OF CASING RECORDED
PRS: PRODUCT RECOVERY SOCKS IN WELL
* WELL NOT USED TO GENERATE CONTOURS

FIGURE 5
GROUNDWATER POTENTIOMETRIC SURFACE MAP (JANUARY 2010)
FORMER GIANT BLOOMFIELD REFINERY
SWSW SEC 22 & WNW SEC 27 T29N R12W
SAN JUAN COUNTY, NEW MEXICO
WESTERN REFINING, SOUTHWEST, INC.

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LEGEND

- MONITORING WELL
- ACTIVE RECOVERY WELL
- INACTIVE RECOVERY WELL
- ABOVEGROUND STORAGE TANK (AST)
- ESTIMATED GROUNDWATER FLOW DIRECTION
- ARROYO
- FORMER LEE ACRES LANDFILL
- GROUNDWATER ELEVATION CONTOUR
  CONTOUR INTERVAL = 5 FEET
  GROUNDWATER ELEVATIONS MEASURED IN FEET
  ABOVE MEAN SEA LEVEL IN APRIL 2010

NM: NOT MEASURED

PRS: PRODUCT RECOVERY SOCKS IN WELL

FIGURE 6
GROUNDWATER POTENTIOMETRIC SURFACE MAP (APRIL 2010)
FORMER GIANT BLOOMFIELD REFINERY
SWSW SEC 22 & WNW SEC 27 T29N R12W
SAN JUAN COUNTY, NEW MEXICO
WESTERN REFINING, SOUTHWEST, INC.

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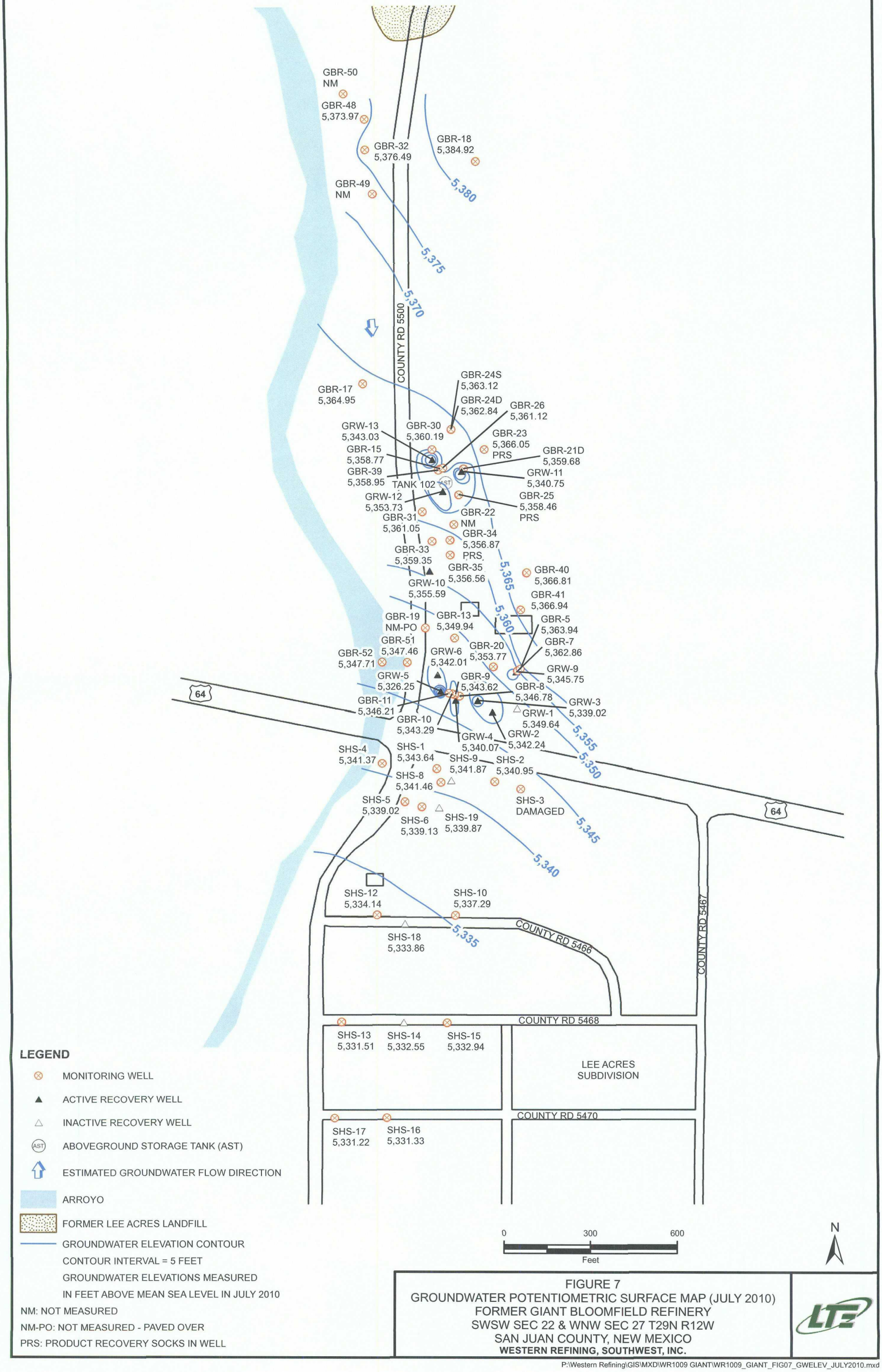
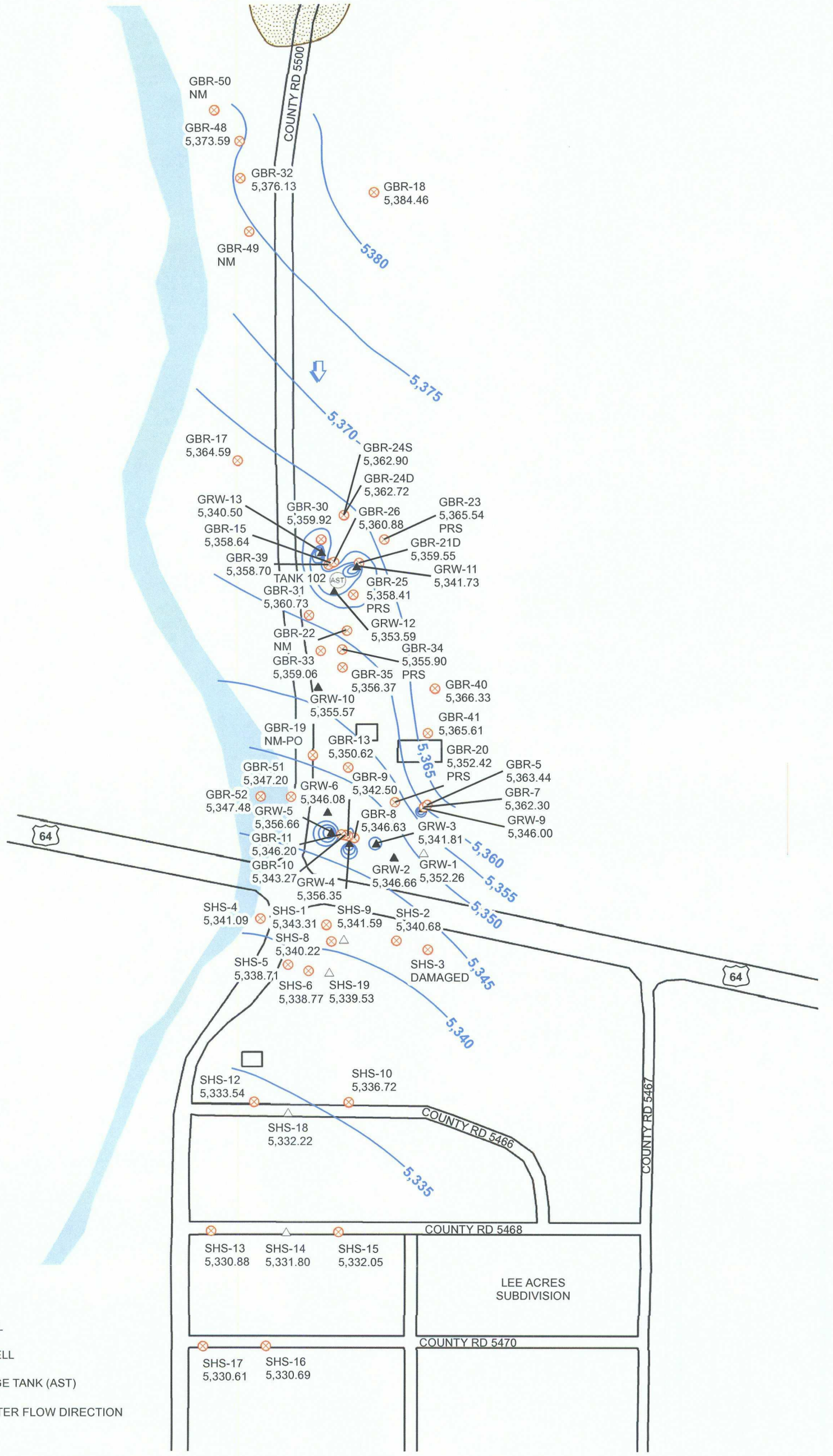


FIGURE 7
GROUNDWATER POTENTIOMETRIC SURFACE MAP (JULY 2010)
FORMER GIANT BLOOMFIELD REFINERY
SWSW SEC 22 & WNW SEC 27 T29N R12W
SAN JUAN COUNTY, NEW MEXICO
WESTERN REFINING, SOUTHWEST, INC.

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LEGEND

- MONITORING WELL
- ACTIVE RECOVERY WELL
- INACTIVE RECOVERY WELL
- ABOVEGROUND STORAGE TANK (AST)
- ESTIMATED GROUNDWATER FLOW DIRECTION
- ARROYO
- FORMER LEE ACRES LANDFILL
- GROUNDWATER ELEVATION CONTOUR
  CONTOUR INTERVAL = 5 FEET
  GROUNDWATER ELEVATIONS MEASURED
  IN FEET ABOVE MEAN SEA LEVEL IN OCTOBER 2010

NM: NOT MEASURED

NM-PO: NOT MEASURED - PAVED OVER

PRS: PRODUCT RECOVERY SOCKS IN WELL

FIGURE 8
GROUNDWATER POTENTIOMETRIC SURFACE MAP (OCTOBER 2010)
FORMER GIANT BLOOMFIELD REFINERY
SWSW SEC 22 & WNW SEC 27 T29N R12W
SAN JUAN COUNTY, NEW MEXICO
WESTERN REFINING, SOUTHWEST, INC.

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TABLES

TABLE 1

2010 SAMPLING SCHEDULE
FORMER GIANT BLOOMFIELD REFINERY
WESTERN REFINING SOUTHWEST, INC.

	Feb-10	Mar-10	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Jan-10
System Influent			VOCs			VOCs			VOCs			VOCs
System Effluent			VOCs			VOCs			VOCs			VOCs
GRW-3												VOCs
GRW-6												VOCs
GBR-17												VOCs
GBR-24D												VOCs PAH
GBR-30												VOCs
GBR-31												VOCs
GBR-32												VOCs
GBR-48												VOCs
GBR-49												VOCs
GBR-50												VOCs
GBR-51												VOCs
GBR-52												VOCs
SHS-8												VOCs

Notes:

VOCs - volatile organic compounds

PAH - polynuclear aromatic hydrocarbons

TABLE 2

GROUNDWATER RECOVERY WELL VOLUME TABULATION
FORMER GIANT BLOOMFIELD REFINERY
WESTERN REFINING SOUTHWEST, INC.

Well Number	Total Volume Pumped in 2009 (Gallons)	Total Volume Pumped in 2010 (Gallons)	Difference (Gallons)
GRW-1	208,668	0	-208,668
GRW-2	98,597	91,479	-7,118
GRW-3	130,001	85,084	-44,917
GRW-4	157,837	179,535	21,698
GRW-5	134,819	118,414	-16,405
GRW-6	127,499	136,921	9,422
GRW-9	64,779	36,723	-28,056
GRW-10	8,295,461	119,371	-8,176,090
GRW-11	191,523	292,763	101,240
GRW-12	6,329	16,722	10,393
GRW-13	39,895	44,351	4,456
Total Volume Pumped (Gallons)	**9,455,408**	**1,121,363**	**-8,334,045**

Notes:
GRW-1 Pump broke in August 2009 and was not returned to service.

TABLE 3

GROUNDWATER ELEVATIONS AND THICKNESS OF PHASE SEPARATED HYDROCARBONS
FORMER GIANT BLOOMFIELD REFINERY
WESTERN REFINING SOUTHWEST, INC.

Well Number	Wellhead Elevation (feet)	Total Depth (feet)	January 2010				April 2010				July 2010				October 2010			
			Depth to Water (feet BTOC)	Depth to Product (feet)	PSH Thickness (feet)	Adjusted GWEL (feet)	Depth to Water (feet BTOC)	Depth to Product (feet)	PSH Thickness (feet)	Adjusted GWEL (feet)	Depth to Water (feet BTOC)	Depth to Product (feet)	PSH Thickness (feet)	Adjusted GWEL (feet)	Depth to Water (feet BTOC)	Depth to Product (feet)	PSH Thickness (feet)	Adjusted GWEL (feet)
GRW-1	5,394.30	73.35	41.45	-	-	5,352.85	41.63	-	-	5,352.67	44.66	-	-	5,349.64	42.04	-	-	5,352.26
GRW-2	5,391.28	61.00	48.10	-	-	5,343.18	48.86	-	-	5,342.42	49.04	-	-	5,342.24	44.62	-	-	5,346.66
GRW-3	5,388.77	58.30	49.47	-	-	5,339.30	48.91	-	-	5,339.86	49.75	-	-	5,339.02	46.96	-	-	5,341.81
GRW-4	5,390.02	60.00	51.67	-	-	5,338.35	57.53	-	-	5,332.49	49.95	-	-	5,340.07	33.67	-	-	5,356.35
GRW-5	5,390.56	68.30	65.47	-	-	5,325.09	63.35	-	-	5,327.21	64.31	-	-	5,326.25	33.90	-	-	5,356.66
GRW-6	5,390.81	53.80	49.13	-	-	5,341.68	48.95	-	-	5,341.86	48.80	-	-	5,342.01	44.73	-	-	5,346.08
GRW-9	5,395.70	54.40	41.59	-	-	5,354.11	46.81	-	-	5,348.89	49.95	-	-	5,345.75	49.70	-	-	5,346.00
GRW-10	5,395.02	66.02	39.80	-	-	5,355.22	39.57	-	-	5,355.45	39.43	-	-	5,355.59	39.45	-	-	5,355.57
GRW-11	5,397.85	64.00	61.15	-	-	5,336.70	53.22	-	-	5,344.63	57.10	-	-	5,340.75	56.12	-	-	5,341.73
GRW-12	5,397.24	48.00	39.73	-	-	5,357.51	44.02	-	-	5,353.22	43.51	-	-	5,353.73	43.65	-	-	5,353.59
GRW-13	5,396.90	61.30	56.63	-	-	5,340.27	50.80	-	-	5,346.10	53.87	-	-	5,343.03	56.40	-	-	5,340.50
GBR-5	5,395.07	47.08	30.83	-	-	5,364.24	30.85	-	-	5,364.22	31.13	-	-	5,363.94	31.63	-	-	5,363.44
GBR-7	5,395.85	51.65	32.80	-	-	5,363.05	32.73	-	-	5,363.12	32.99	-	-	5,362.86	33.55	-	-	5,362.30
GBR-8	5,390.50	50.90	43.53	-	-	5,346.97	43.75	-	-	5,346.75	43.72	-	-	5,346.78	43.87	-	-	5,346.63
GBR-9	5,389.92	67.22	47.76	-	-	5,342.16	47.57	-	-	5,342.35	46.30	-	-	5,343.62	47.42	-	-	5,342.50
GBR-10	5,390.57	47.56	Dry	-	-	-	Dry	-	-	-	47.28	-	-	5,343.29	47.30	-	-	5,343.27
GBR-11	5,389.43	51.87	43.17	-	-	5,346.26	43.24	-	-	5,346.19	43.22	-	-	5,346.21	43.23	-	-	5,346.20
GBR-13	5,393.04	45.47	43.07	-	-	5,349.97	43.12	-	-	5,349.92	43.10	-	-	5,349.94	42.42	-	-	5,350.62
GBR-15	5,397.99	58.42	39.49	-	-	5,358.50	39.22	-	-	5,358.77	39.22	-	-	5,358.77	39.35	-	-	5,358.64
GBR-17	5,402.69	43.20	37.91	-	-	5,364.78	37.67	-	-	5,365.02	37.74	-	-	5,364.95	38.10	-	-	5,364.59
GBR-18	5,421.68	47.85	36.94	-	-	5,384.74	36.33	-	-	5,385.35	36.76	-	-	5,384.92	37.22	-	-	5,384.46
GBR-19**	5,393.83	46.23	41.12	-	-	5,352.71	39.91	-	-	5,353.92	-	-	-	-	-	-	-	-
GBR-20	5,393.47	54.57	39.36	-	-	5,354.11	39.37	-	-	5,354.10	39.73	39.69	0.04	5,353.77	41.05	-	-	5,352.42 †
GBR-21D	5,400.19	49.77	40.16	-	-	5,360.03	40.49	-	-	5,359.70	40.51	-	-	5,359.68	40.64	-	-	5,359.55
GBR-21S	5,400.65	49.77	Dry	-	-	-	Dry	-	-	-	Dry	-	-	-	Dry	-	-	-
GBR-22	5,395.91	38.73	No Water	38.42	0.31	-	Dry	-	-	- †	Dry	-	-	-	Dry	-	-	-
GBR-23	5,403.72	39.45	35.12	-	-	5,368.60 †	36.72	-	-	5,367.00 †	37.67	-	-	5,366.05 †	38.18	-	-	5,365.54 †
GBR-24D	5,396.77	51.40	33.98	-	-	5,362.79	33.80	-	-	5,362.97	33.93	-	-	5,362.84	34.05	-	-	5,362.72
GBR-24S	5,396.08	37.05	32.96	-	-	5,363.12	32.79	-	-	5,363.29	32.96	-	-	5,363.12	33.18	-	-	5,362.90
GBR-25	5,397.03	37.12	38.72	-	-	5,358.31 †	38.42	-	-	5,358.61 †	38.57	-	-	5,358.46 †	38.62	-	-	5,358.41 †
GBR-26	5,396.72	41.29	35.90	-	-	5,360.82	35.64	-	-	5,361.08	35.60	-	-	5,361.12	35.84	35.83	0.01	5,360.88
GBR-30	5,395.59	41.66	35.52	-	-	5,360.07	35.37	-	-	5,360.22	35.40	-	-	5,360.19	35.67	-	-	5,359.92
GBR-31	5,396.58	43.50	35.79	-	-	5,360.79	35.58	-	-	5,361.00	35.53	-	-	5,361.05	35.85	-	-	5,360.73
GBR-32	5,414.86	47.83	38.57	-	-	5,376.29	38.27	-	-	5,376.59	38.37	-	-	5,376.49	38.73	-	-	5,376.13
GBR-33	5,396.28	45.72	37.18	-	-	5,359.10	37.03	-	-	5,359.25	36.93	-	-	5,359.35	37.22	-	-	5,359.06
GBR-34	5,394.00	42.20	37.83	-	-	5,356.17 †	37.53	-	-	5,356.47 †	37.13	-	-	5,356.87 †	38.10	37.75	0.35	5,355.90 †
GBR-35	5,393.66	42.35	37.23	-	-	5,356.43	37.07	-	-	5,356.59	37.10	-	-	5,356.56	37.29	-	-	5,356.37
GBR-39	5,397.55	41.42	39.01	-	-	5,358.54	38.74	-	-	5,358.81	38.60	-	-	5,358.95	38.85	-	-	5,358.70
GBR-40	5,400.76	39.38	33.33	-	-	5,367.43	33.61	-	-	5,367.15	33.95	-	-	5,366.81	34.43	-	-	5,366.33
GBR-41	5,396.35	34.28	28.83	-	-	5,367.52	29.12	-	-	5,367.23	29.41	-	-	5,366.94	30.74	-	-	5,365.61
GBR-48	5,413.90	43.54	40.12	-	-	5,373.78	39.81	-	-	5,374.09	39.93	-	-	5,373.97	40.31	-	-	5,373.59
GBR-49	*	40.30	36.50	-	-	-	36.19	-	-	-	36.29	-	-	-	36.68	-	-	-
GBR-50	*	44.37	35.82	-	-	-	35.67	-	-	-	35.70	-	-	-	36.03	-	-	-
GBR-51	5,389.68	57.07	42.39	-	-	5,347.29	42.14	-	-	5,347.54	42.22	-	-	5,347.46	42.48	-	-	5,347.20
GBR-52	5,387.74	52.73	41.23	-	-	5,346.51	40.07	-	-	5,347.67	40.03	-	-	5,347.71	40.26	-	-	5,347.48

TABLE 3

GROUNDWATER ELEVATIONS AND THICKNESS OF PHASE SEPARATED HYDROCARBONS
FORMER GIANT BLOOMFIELD REFINERY
WESTERN REFINING SOUTHWEST, INC.

Well Number	Wellhead Elevation (feet)	Total Depth (feet)	January 2010				April 2010				July 2010				October 2010			
			Depth to Water (feet BTOC)	Depth to Product (feet)	PSH Thickness (feet)	Adjusted GWEL (feet)	Depth to Water (feet BTOC)	Depth to Product (feet)	PSH Thickness (feet)	Adjusted GWEL (feet)	Depth to Water (feet BTOC)	Depth to Product (feet)	PSH Thickness (feet)	Adjusted GWEL (feet)	Depth to Water (feet BTOC)	Depth to Product (feet)	PSH Thickness (feet)	Adjusted GWEL (feet)
SHS-1	5,383.54	50.40	40.11	-	-	5,343.43	39.91	-	-	5,333.14	39.90	-	-	5,343.64	40.23	-	-	5,343.31
SHS-2	5,381.66	44.56	40.59	-	-	5,341.07	40.82	-	-	5,337.10	40.71	-	-	5,340.95	40.98	-	-	5,340.68
SHS-3* **	5,383.33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SHS-4	5,383.62	52.16	42.47	-	-	5,341.15	42.30	-	-	5,331.46	42.25	-	-	5,341.37	42.53	-	-	5,341.09
SHS-5	5,378.36	47.85	39.55	-	-	5,338.81	39.33	-	-	5,330.51	39.34	-	-	5,339.02	39.65	-	-	5,338.71
SHS-6	5,378.17	52.78	39.25	-	-	5,338.92	39.02	-	-	5,325.39	39.04	-	-	5,339.13	39.40	-	-	5,338.77
SHS-8	5,380.25	50.92	39.97	-	-	5,340.28	39.77	-	-	5,329.33	38.79	-	-	5,341.46	40.03	-	-	5,340.22
SHS-9	5,380.79	46.25	39.02	-	-	5,341.77	38.93	-	-	5,334.54	38.92	-	-	5,341.87	39.20	-	-	5,341.59
SHS-10	5,373.80	45.80	36.60	-	-	5,337.20	36.23	-	-	5,328.00	36.51	-	-	5,337.29	37.08	-	-	5,336.72
SHS-12	5,373.94	52.41	39.22	-	-	5,334.72	39.71	-	-	5,321.53	39.80	-	-	5,334.14	40.40	-	-	5,333.54
SHS-13	5,367.81	47.51	36.73	-	-	5,331.08	36.18	-	-	5,320.30	36.30	-	-	5,331.51	36.93	-	-	5,330.88
SHS-14	5,367.07	52.71	34.87	-	-	5,332.20	34.28	-	-	5,314.36	34.52	-	-	5,332.55	35.27	-	-	5,331.80
SHS-15	5,366.21	47.78	33.67	-	-	5,332.54	33.05	-	-	5,318.43	33.27	-	-	5,332.94	34.16	-	-	5,332.05
SHS-16	5,362.58	42.20	31.52	-	-	5,331.06	30.97	-	-	5,320.38	31.25	-	-	5,331.33	31.89	-	-	5,330.69
SHS-17	5,364.35	46.21	32.48	-	-	5,331.87	33.89	-	-	5,318.14	33.13	-	-	5,331.22	33.74	-	-	5,330.61
SHS-18	5,373.64	47.36	40.13	-	-	5,333.51	39.65	-	-	5,326.28	39.78	-	-	5,333.86	41.42	-	-	5,332.22
SHS-19	5,378.89	52.40	39.26	-	-	5,339.63	39.00	-	-	5,326.49	39.02	-	-	5,339.87	39.36	-	-	5,339.53

Notes:
BTOC - below top of casing
D - designates the well is deep
GWEL - groundwater elevation
PSH - phase separated hydrocarbon
S - designates the well is shallow
* Top-of-casing elevation is unknown
** Well is damaged by a tree root
*** Well was paved over in June 2010
† Product Recovery socks in well, groundwater and product levels are not static
- indicates no GWEL or PSH measured

TABLE 4

ESTIMATED VOLUMES OF PHASE SEPARATED HYDROCARBONS RECOVERED FROM GROUNDWATER MONITORING WELLS FORMER GIANT BLOOMFIELD REFINERY WESTERN REFINING SOUTHWEST, INC.

Well Number	2009 Volume Removed (ounces)					Well Number	2010 Volume Removed (ounces)				
	Jan-09	Apr-09	Jul-09	Oct-09	Total		Jan-10	Apr-10	Jul-10	Oct-10	Total
GBR-7	0.0	9.0	0.0	0.0	0.1	GBR-7	0.0	0.0	0.0	0.0	0.0
GBR-22	16.6	6.4	0.0	0.0	0.2	GBR-22	0.0	0.0	0.0	0.0	0.0
GBR-23	12.8	6.4	12.8	6.4	38.4	GBR-23	18.0	14.4	0.0	0.0	32.4
GBR-25	0.0	0.0	0.0	9.0	9.0	GBR-25	18.0	7.2	0.0	0.0	25.2
GBR-26	9.0	0.0	9.0	0.0	17.9	GBR-26	0.0	0.0	0.0	0.0	0.0
GBR-34	0.0	0.0	6.4	6.4	12.8	GBR-34	18.0	18.0	0.0	0.0	36.0
Total Volume Removed (ounces)					110.1	Total Volume Removed (ounces)					93.6
Total Volume Removed (gallons)					0.9	Total Volume Removed (gallons)					0.7

TABLE 5

GROUNDWATER LABORATORY ANALYTICAL RESULTS
FORMER GIANT BLOOMFIELD REFINERY
WESTERN REFINING SOUTHWEST, INC.

Analyte	NMWQCC Standard	Unit	INFLUENT				EFFLUENT				GRW-3	GRW-6	GBR-17	GBR-24D	GBR-30	GBR-31	GBR-32	GBR-48	GBR-49	GBR-50	GBR-51	GBR-52	SHS-8
			Jan 2010	Apr 2010	Jul 2010	Oct 2010	Jan 2010	Apr 2010	Jul 2010	Oct 2010	Jan 2010	Jan 2010	Jan 2010	Jan 2010	Jan 2010	Jan 2010	Jan 2010	Jan 2010	Jan 2010	Jan 2010	Jan 2010	Jan 2010	Jan 2010
USEPA Method 8260B																							
benzene	10	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
toluene	750	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
ethylbenzene	750	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
methyl tert-butyl ether (MTBE)		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-trimethylbenzene	620	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,3,5-trimethylbenzene		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-dichloroethane (EDC)	10	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-dibromoethane (EDB)		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
naphthalene		ug/l	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1-methylnaphthalene		ug/l	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	8.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
2-methylnaphthalene		ug/l	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	7.4	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
acetone		ug/l	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	11	<10	<10	<10
bromobenzene		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
bromodichloromethane		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
bromoform		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
bromomethane		ug/l	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2-butanone		ug/l	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
carbon disulfide		ug/l	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
carbon tetrachloride	10	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
chlorobenzene		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
chloroethane		ug/l	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
chloroform	100	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2-chlorotoluene		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
4-chlorotoluene		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,2-DCE		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,3-dichloropropene		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-dibromo-3-chloropropane		ug/l	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
dibromochloromethane		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
dibromomethane		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-dichlorobenzene		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,3-dichlorobenzene		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,4-dichlorobenzene		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
dichlorodifluoromethane		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-dichloroethane	25	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-dichloroethene	5	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-dichloropropane		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,3-dichloropropane		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2,2-dichloropropane		ug/l	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,1-dichloropropene		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
hexachlorobutadene		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2-hexanone		ug/l	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
isopropylbenzene		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
4-isopropytoluene		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
4-methyl-2-pentanone		ug/l	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
methylene chloride	100	ug/l	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
n-butylbenzene		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
n-propylbenzene		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
sac-butylbenzene		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
styrene		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
tert-butylbenzene		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,1,2-tetrachloroethane		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2,2-tetrachloroethane	10	ug/l	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
tetrachloroethene (PCE)	20	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	1.3	1.6	<1.0	<1.0	<1.0	<1.0
trans-1,2-DCE		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,3-dichloropropene		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,3-trichlorobenzene		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-trichlorobenzene		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,1-trichloroethane	60	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2-trichloroethane	10	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trichloroethene (TCE)	100	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trichlorofluoromethane		ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,3-trichloropropane		ug/l	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
vinyl chloride	1	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
xylenes, total	620	ug/L	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5

TABLE 5

GROUNDWATER LABORATORY ANALYTICAL RESULTS
FORMER GIANT BLOOMFIELD REFINERY
WESTERN REFINING SOUTHWEST, INC.

Analyte	NMWQCC Standard	Unit	INFLUENT				EFFLUENT				GRW-3	GRW-6	GBR-17	GBR-24D	GBR-30	GBR-31	GBR-32	GBR-48	GBR-49	GBR-50	GBR-51	GBR-52	SHS-8
			Jan 2010	Apr 2010	Jul 2010	Oct 2010	Jan 2010	Apr 2010	Jul 2010	Oct 2010	Jan 2010	Jan 2010	Jan 2010	Jan 2010	Jan 2010	Jan 2010	Jan 2010	Jan 2010	Jan 2010	Jan 2010	Jan 2010	Jan 2010	Jan 2010
PAH - Method 8310																							
naphthalene	30	ug/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	5.8	NT	NT	NT	NT	NT	NT	NT	NT	NT
1-methylnaphthalene		ug/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	7.7	NT	NT	NT	NT	NT	NT	NT	NT	NT
2-methylnaphthalene		ug/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	4.9	NT	NT	NT	NT	NT	NT	NT	NT	NT
acenaphthylene		ug/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	<2.5	NT	NT	NT	NT	NT	NT	NT	NT	NT
acenaphthene		ug/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	<5.0	NT	NT	NT	NT	NT	NT	NT	NT	NT
fluorene		ug/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	1.0	NT	NT	NT	NT	NT	NT	NT	NT	NT
phenanthrene		ug/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.62	NT	NT	NT	NT	NT	NT	NT	NT	NT
anthracene		ug/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.60	NT	NT	NT	NT	NT	NT	NT	NT	NT
fluoranthene		ug/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.30	NT	NT	NT	NT	NT	NT	NT	NT	NT
pyrene		ug/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.30	NT	NT	NT	NT	NT	NT	NT	NT	NT
benz(a)anthracene		ug/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.070	NT	NT	NT	NT	NT	NT	NT	NT	NT
chrysene		ug/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.20	NT	NT	NT	NT	NT	NT	NT	NT	NT
benzo(b)fluoranthene		ug/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.10	NT	NT	NT	NT	NT	NT	NT	NT	NT
benzo(k)fluoranthene		ug/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.070	NT	NT	NT	NT	NT	NT	NT	NT	NT
benzo(a)pyrene	0.7	ug/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.070	NT	NT	NT	NT	NT	NT	NT	NT	NT
dibenz(a,h)anthracene		ug/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.070	NT	NT	NT	NT	NT	NT	NT	NT	NT
benzo(g,h,i)perylene		ug/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.080	NT	NT	NT	NT	NT	NT	NT	NT	NT
indeno(1,2,3-cd)pyrene		ug/l	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.080	NT	NT	NT	NT	NT	NT	NT	NT	NT

Notes:
NT - not tested
NMWQCC - New Mexico Water Quality Control Commission
ug/l - micrograms per liter

APPENDIX A

LABORATORY ANALYTICAL REPORTS

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Tuesday, January 26, 2010

Ashley Ager
Western Refining Southwest, Inc.
#50 CR 4990
Bloomfield, NM 87413

TEL: (970) 946-1093
FAX (505) 632-3911

RE: GBR

Order No.: 1001201

Dear Ashley Ager:

Hall Environmental Analysis Laboratory, Inc. received 16 sample(s) on 1/15/2010 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: *26-Jan-10*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	Trip Blank
Lab Order:	1001201	**Collection Date:**	
Project:	GBR	**Date Received:**	1/15/2010
Lab ID:	1001201-01	**Matrix:**	TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Benzene	ND	1.0		µg/L	1	1/16/2010 3:35:37 AM
Toluene	ND	1.0		µg/L	1	1/16/2010 3:35:37 AM
Ethylbenzene	ND	1.0		µg/L	1	1/16/2010 3:35:37 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	1/16/2010 3:35:37 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	1/16/2010 3:35:37 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	1/16/2010 3:35:37 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	1/16/2010 3:35:37 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	1/16/2010 3:35:37 AM
Naphthalene	ND	2.0		µg/L	1	1/16/2010 3:35:37 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	1/16/2010 3:35:37 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	1/16/2010 3:35:37 AM
Acetone	ND	10		µg/L	1	1/16/2010 3:35:37 AM
Bromobenzene	ND	1.0		µg/L	1	1/16/2010 3:35:37 AM
Bromodichloromethane	ND	1.0		µg/L	1	1/16/2010 3:35:37 AM
Bromoform	ND	1.0		µg/L	1	1/16/2010 3:35:37 AM
Bromomethane	ND	1.0		µg/L	1	1/16/2010 3:35:37 AM
2-Butanone	ND	10		µg/L	1	1/16/2010 3:35:37 AM
Carbon disulfide	ND	10		µg/L	1	1/16/2010 3:35:37 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	1/16/2010 3:35:37 AM
Chlorobenzene	ND	1.0		µg/L	1	1/16/2010 3:35:37 AM
Chloroethane	ND	2.0		µg/L	1	1/16/2010 3:35:37 AM
Chloroform	ND	1.0		µg/L	1	1/16/2010 3:35:37 AM
Chloromethane	ND	1.0		µg/L	1	1/16/2010 3:35:37 AM
2-Chlorotoluene	ND	1.0		µg/L	1	1/16/2010 3:35:37 AM
4-Chlorotoluene	ND	1.0		µg/L	1	1/16/2010 3:35:37 AM
cis-1,2-DCE	ND	1.0		µg/L	1	1/16/2010 3:35:37 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	1/16/2010 3:35:37 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	1/16/2010 3:35:37 AM
Dibromochloromethane	ND	1.0		µg/L	1	1/16/2010 3:35:37 AM
Dibromomethane	ND	1.0		µg/L	1	1/16/2010 3:35:37 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	1/16/2010 3:35:37 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	1/16/2010 3:35:37 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	1/16/2010 3:35:37 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	1/16/2010 3:35:37 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	1/16/2010 3:35:37 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	1/16/2010 3:35:37 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	1/16/2010 3:35:37 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	1/16/2010 3:35:37 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	1/16/2010 3:35:37 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	1/16/2010 3:35:37 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	1/16/2010 3:35:37 AM
2-Hexanone	ND	10		µg/L	1	1/16/2010 3:35:37 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: *26-Jan-10*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	Trip Blank
Lab Order:	1001201	**Collection Date:**	
Project:	GBR	**Date Received:**	1/15/2010
Lab ID:	1001201-01	**Matrix:**	TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Isopropylbenzene	ND	1.0		µg/L	1	1/16/2010 3:35:37 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	1/16/2010 3:35:37 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	1/16/2010 3:35:37 AM
Methylene Chloride	ND	3.0		µg/L	1	1/16/2010 3:35:37 AM
n-Butylbenzene	ND	1.0		µg/L	1	1/16/2010 3:35:37 AM
n-Propylbenzene	ND	1.0		µg/L	1	1/16/2010 3:35:37 AM
sec-Butylbenzene	ND	1.0		µg/L	1	1/16/2010 3:35:37 AM
Styrene	ND	1.0		µg/L	1	1/16/2010 3:35:37 AM
tert-Butylbenzene	ND	1.0		µg/L	1	1/16/2010 3:35:37 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	1/16/2010 3:35:37 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	1/16/2010 3:35:37 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	1/16/2010 3:35:37 AM
trans-1,2-DCE	ND	1.0		µg/L	1	1/16/2010 3:35:37 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	1/16/2010 3:35:37 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	1/16/2010 3:35:37 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	1/16/2010 3:35:37 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	1/16/2010 3:35:37 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	1/16/2010 3:35:37 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	1/16/2010 3:35:37 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	1/16/2010 3:35:37 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	1/16/2010 3:35:37 AM
Vinyl chloride	ND	1.0		µg/L	1	1/16/2010 3:35:37 AM
Xylenes, Total	ND	1.5		µg/L	1	1/16/2010 3:35:37 AM
Surr: 1,2-Dichloroethane-d4	95.6	54.6-141		%REC	1	1/16/2010 3:35:37 AM
Surr: 4-Bromofluorobenzene	108	60.1-133		%REC	1	1/16/2010 3:35:37 AM
Surr: Dibromofluoromethane	98.4	78.5-130		%REC	1	1/16/2010 3:35:37 AM
Surr: Toluene-d8	97.5	79.5-126		%REC	1	1/16/2010 3:35:37 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: *26-Jan-10*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	GBR-52
Lab Order:	1001201	**Collection Date:**	1/12/2010 1:42:00 PM
Project:	GBR	**Date Received:**	1/15/2010
Lab ID:	1001201-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Benzene	ND	1.0		µg/L	1	1/16/2010 4:03:04 AM
Toluene	ND	1.0		µg/L	1	1/16/2010 4:03:04 AM
Ethylbenzene	ND	1.0		µg/L	1	1/16/2010 4:03:04 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	1/16/2010 4:03:04 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	1/16/2010 4:03:04 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	1/16/2010 4:03:04 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	1/16/2010 4:03:04 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	1/16/2010 4:03:04 AM
Naphthalene	ND	2.0		µg/L	1	1/16/2010 4:03:04 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	1/16/2010 4:03:04 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	1/16/2010 4:03:04 AM
Acetone	ND	10		µg/L	1	1/16/2010 4:03:04 AM
Bromobenzene	ND	1.0		µg/L	1	1/16/2010 4:03:04 AM
Bromodichloromethane	ND	1.0		µg/L	1	1/16/2010 4:03:04 AM
Bromoform	ND	1.0		µg/L	1	1/16/2010 4:03:04 AM
Bromomethane	ND	1.0		µg/L	1	1/16/2010 4:03:04 AM
2-Butanone	ND	10		µg/L	1	1/16/2010 4:03:04 AM
Carbon disulfide	ND	10		µg/L	1	1/16/2010 4:03:04 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	1/16/2010 4:03:04 AM
Chlorobenzene	ND	1.0		µg/L	1	1/16/2010 4:03:04 AM
Chloroethane	ND	2.0		µg/L	1	1/16/2010 4:03:04 AM
Chloroform	ND	1.0		µg/L	1	1/16/2010 4:03:04 AM
Chloromethane	ND	1.0		µg/L	1	1/16/2010 4:03:04 AM
2-Chlorotoluene	ND	1.0		µg/L	1	1/16/2010 4:03:04 AM
4-Chlorotoluene	ND	1.0		µg/L	1	1/16/2010 4:03:04 AM
cis-1,2-DCE	ND	1.0		µg/L	1	1/16/2010 4:03:04 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	1/16/2010 4:03:04 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	1/16/2010 4:03:04 AM
Dibromochloromethane	ND	1.0		µg/L	1	1/16/2010 4:03:04 AM
Dibromomethane	ND	1.0		µg/L	1	1/16/2010 4:03:04 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	1/16/2010 4:03:04 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	1/16/2010 4:03:04 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	1/16/2010 4:03:04 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	1/16/2010 4:03:04 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	1/16/2010 4:03:04 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	1/16/2010 4:03:04 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	1/16/2010 4:03:04 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	1/16/2010 4:03:04 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	1/16/2010 4:03:04 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	1/16/2010 4:03:04 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	1/16/2010 4:03:04 AM
2-Hexanone	ND	10		µg/L	1	1/16/2010 4:03:04 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: *26-Jan-10*

CLIENT: Western Refining Southwest, Inc.
Lab Order: 1001201
Project: GBR
Lab ID: 1001201-02

Client Sample ID: GBR-52
Collection Date: 1/12/2010 1:42:00 PM
Date Received: 1/15/2010
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Isopropylbenzene	ND	1.0		µg/L	1	1/16/2010 4:03:04 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	1/16/2010 4:03:04 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	1/16/2010 4:03:04 AM
Methylene Chloride	ND	3.0		µg/L	1	1/16/2010 4:03:04 AM
n-Butylbenzene	ND	1.0		µg/L	1	1/16/2010 4:03:04 AM
n-Propylbenzene	ND	1.0		µg/L	1	1/16/2010 4:03:04 AM
sec-Butylbenzene	ND	1.0		µg/L	1	1/16/2010 4:03:04 AM
Styrene	ND	1.0		µg/L	1	1/16/2010 4:03:04 AM
tert-Butylbenzene	ND	1.0		µg/L	1	1/16/2010 4:03:04 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	1/16/2010 4:03:04 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	1/16/2010 4:03:04 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	1/16/2010 4:03:04 AM
trans-1,2-DCE	ND	1.0		µg/L	1	1/16/2010 4:03:04 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	1/16/2010 4:03:04 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	1/16/2010 4:03:04 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	1/16/2010 4:03:04 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	1/16/2010 4:03:04 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	1/16/2010 4:03:04 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	1/16/2010 4:03:04 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	1/16/2010 4:03:04 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	1/16/2010 4:03:04 AM
Vinyl chloride	ND	1.0		µg/L	1	1/16/2010 4:03:04 AM
Xylenes, Total	ND	1.5		µg/L	1	1/16/2010 4:03:04 AM
Surr: 1,2-Dichloroethane-d4	96.9	54.6-141		%REC	1	1/16/2010 4:03:04 AM
Surr: 4-Bromofluorobenzene	103	60.1-133		%REC	1	1/16/2010 4:03:04 AM
Surr: Dibromofluoromethane	95.9	78.5-130		%REC	1	1/16/2010 4:03:04 AM
Surr: Toluene-d8	96.1	79.5-126		%REC	1	1/16/2010 4:03:04 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: *26-Jan-10*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	GBR-51
Lab Order:	1001201	**Collection Date:**	1/12/2010 3:33:00 PM
Project:	GBR	**Date Received:**	1/15/2010
Lab ID:	1001201-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Benzene	ND	1.0		µg/L	1	1/16/2010 4:30:40 AM
Toluene	ND	1.0		µg/L	1	1/16/2010 4:30:40 AM
Ethylbenzene	ND	1.0		µg/L	1	1/16/2010 4:30:40 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	1/16/2010 4:30:40 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	1/16/2010 4:30:40 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	1/16/2010 4:30:40 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	1/16/2010 4:30:40 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	1/16/2010 4:30:40 AM
Naphthalene	ND	2.0		µg/L	1	1/16/2010 4:30:40 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	1/16/2010 4:30:40 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	1/16/2010 4:30:40 AM
Acetone	ND	10		µg/L	1	1/16/2010 4:30:40 AM
Bromobenzene	ND	1.0		µg/L	1	1/16/2010 4:30:40 AM
Bromodichloromethane	ND	1.0		µg/L	1	1/16/2010 4:30:40 AM
Bromoform	ND	1.0		µg/L	1	1/16/2010 4:30:40 AM
Bromomethane	ND	1.0		µg/L	1	1/16/2010 4:30:40 AM
2-Butanone	ND	10		µg/L	1	1/16/2010 4:30:40 AM
Carbon disulfide	ND	10		µg/L	1	1/16/2010 4:30:40 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	1/16/2010 4:30:40 AM
Chlorobenzene	ND	1.0		µg/L	1	1/16/2010 4:30:40 AM
Chloroethane	ND	2.0		µg/L	1	1/16/2010 4:30:40 AM
Chloroform	ND	1.0		µg/L	1	1/16/2010 4:30:40 AM
Chloromethane	ND	1.0		µg/L	1	1/16/2010 4:30:40 AM
2-Chlorotoluene	ND	1.0		µg/L	1	1/16/2010 4:30:40 AM
4-Chlorotoluene	ND	1.0		µg/L	1	1/16/2010 4:30:40 AM
cis-1,2-DCE	ND	1.0		µg/L	1	1/16/2010 4:30:40 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	1/16/2010 4:30:40 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	1/16/2010 4:30:40 AM
Dibromochloromethane	ND	1.0		µg/L	1	1/16/2010 4:30:40 AM
Dibromomethane	ND	1.0		µg/L	1	1/16/2010 4:30:40 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	1/16/2010 4:30:40 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	1/16/2010 4:30:40 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	1/16/2010 4:30:40 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	1/16/2010 4:30:40 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	1/16/2010 4:30:40 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	1/16/2010 4:30:40 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	1/16/2010 4:30:40 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	1/16/2010 4:30:40 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	1/16/2010 4:30:40 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	1/16/2010 4:30:40 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	1/16/2010 4:30:40 AM
2-Hexanone	ND	10		µg/L	1	1/16/2010 4:30:40 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: *26-Jan-10*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	GBR-51
Lab Order:	1001201	**Collection Date:**	1/12/2010 3:33:00 PM
Project:	GBR	**Date Received:**	1/15/2010
Lab ID:	1001201-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Isopropylbenzene	ND	1.0		µg/L	1	1/16/2010 4:30:40 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	1/16/2010 4:30:40 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	1/16/2010 4:30:40 AM
Methylene Chloride	ND	3.0		µg/L	1	1/16/2010 4:30:40 AM
n-Butylbenzene	ND	1.0		µg/L	1	1/16/2010 4:30:40 AM
n-Propylbenzene	ND	1.0		µg/L	1	1/16/2010 4:30:40 AM
sec-Butylbenzene	ND	1.0		µg/L	1	1/16/2010 4:30:40 AM
Styrene	ND	1.0		µg/L	1	1/16/2010 4:30:40 AM
tert-Butylbenzene	ND	1.0		µg/L	1	1/16/2010 4:30:40 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	1/16/2010 4:30:40 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	1/16/2010 4:30:40 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	1/16/2010 4:30:40 AM
trans-1,2-DCE	ND	1.0		µg/L	1	1/16/2010 4:30:40 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	1/16/2010 4:30:40 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	1/16/2010 4:30:40 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	1/16/2010 4:30:40 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	1/16/2010 4:30:40 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	1/16/2010 4:30:40 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	1/16/2010 4:30:40 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	1/16/2010 4:30:40 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	1/16/2010 4:30:40 AM
Vinyl chloride	ND	1.0		µg/L	1	1/16/2010 4:30:40 AM
Xylenes, Total	ND	1.5		µg/L	1	1/16/2010 4:30:40 AM
Surr: 1,2-Dichloroethane-d4	95.6	54.6-141		%REC	1	1/16/2010 4:30:40 AM
Surr: 4-Bromofluorobenzene	107	60.1-133		%REC	1	1/16/2010 4:30:40 AM
Surr: Dibromofluoromethane	97.0	78.5-130		%REC	1	1/16/2010 4:30:40 AM
Surr: Toluene-d8	94.7	79.5-126		%REC	1	1/16/2010 4:30:40 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: *26-Jan-10*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	SHS-8
Lab Order:	1001201	**Collection Date:**	1/12/2010 4:12:00 PM
Project:	GBR	**Date Received:**	1/15/2010
Lab ID:	1001201-04	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
Benzene	ND	1.0		µg/L	1	1/16/2010 5:53:42 AM
Toluene	ND	1.0		µg/L	1	1/16/2010 5:53:42 AM
Ethylbenzene	ND	1.0		µg/L	1	1/16/2010 5:53:42 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	1/16/2010 5:53:42 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	1/16/2010 5:53:42 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	1/16/2010 5:53:42 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	1/16/2010 5:53:42 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	1/16/2010 5:53:42 AM
Naphthalene	ND	2.0		µg/L	1	1/16/2010 5:53:42 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	1/16/2010 5:53:42 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	1/16/2010 5:53:42 AM
Acetone	ND	10		µg/L	1	1/16/2010 5:53:42 AM
Bromobenzene	ND	1.0		µg/L	1	1/16/2010 5:53:42 AM
Bromodichloromethane	ND	1.0		µg/L	1	1/16/2010 5:53:42 AM
Bromoform	ND	1.0		µg/L	1	1/16/2010 5:53:42 AM
Bromomethane	ND	1.0		µg/L	1	1/16/2010 5:53:42 AM
2-Butanone	ND	10		µg/L	1	1/16/2010 5:53:42 AM
Carbon disulfide	ND	10		µg/L	1	1/16/2010 5:53:42 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	1/16/2010 5:53:42 AM
Chlorobenzene	ND	1.0		µg/L	1	1/16/2010 5:53:42 AM
Chloroethane	ND	2.0		µg/L	1	1/16/2010 5:53:42 AM
Chloroform	ND	1.0		µg/L	1	1/16/2010 5:53:42 AM
Chloromethane	ND	1.0		µg/L	1	1/16/2010 5:53:42 AM
2-Chlorotoluene	ND	1.0		µg/L	1	1/16/2010 5:53:42 AM
4-Chlorotoluene	ND	1.0		µg/L	1	1/16/2010 5:53:42 AM
cis-1,2-DCE	ND	1.0		µg/L	1	1/16/2010 5:53:42 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	1/16/2010 5:53:42 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	1/16/2010 5:53:42 AM
Dibromochloromethane	ND	1.0		µg/L	1	1/16/2010 5:53:42 AM
Dibromomethane	ND	1.0		µg/L	1	1/16/2010 5:53:42 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	1/16/2010 5:53:42 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	1/16/2010 5:53:42 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	1/16/2010 5:53:42 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	1/16/2010 5:53:42 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	1/16/2010 5:53:42 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	1/16/2010 5:53:42 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	1/16/2010 5:53:42 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	1/16/2010 5:53:42 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	1/16/2010 5:53:42 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	1/16/2010 5:53:42 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	1/16/2010 5:53:42 AM
2-Hexanone	ND	10		µg/L	1	1/16/2010 5:53:42 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: *26-Jan-10*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	SHS-8
Lab Order:	1001201	**Collection Date:**	1/12/2010 4:12:00 PM
Project:	GBR	**Date Received:**	1/15/2010
Lab ID:	1001201-04	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Isopropylbenzene	ND	1.0		µg/L	1	1/16/2010 5:53:42 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	1/16/2010 5:53:42 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	1/16/2010 5:53:42 AM
Methylene Chloride	ND	3.0		µg/L	1	1/16/2010 5:53:42 AM
n-Butylbenzene	ND	1.0		µg/L	1	1/16/2010 5:53:42 AM
n-Propylbenzene	ND	1.0		µg/L	1	1/16/2010 5:53:42 AM
sec-Butylbenzene	ND	1.0		µg/L	1	1/16/2010 5:53:42 AM
Styrene	ND	1.0		µg/L	1	1/16/2010 5:53:42 AM
tert-Butylbenzene	ND	1.0		µg/L	1	1/16/2010 5:53:42 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	1/16/2010 5:53:42 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	1/16/2010 5:53:42 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	1/16/2010 5:53:42 AM
trans-1,2-DCE	ND	1.0		µg/L	1	1/16/2010 5:53:42 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	1/16/2010 5:53:42 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	1/16/2010 5:53:42 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	1/16/2010 5:53:42 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	1/16/2010 5:53:42 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	1/16/2010 5:53:42 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	1/16/2010 5:53:42 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	1/16/2010 5:53:42 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	1/16/2010 5:53:42 AM
Vinyl chloride	ND	1.0		µg/L	1	1/16/2010 5:53:42 AM
Xylenes, Total	ND	1.5		µg/L	1	1/16/2010 5:53:42 AM
Surr: 1,2-Dichloroethane-d4	94.6	54.6-141		%REC	1	1/16/2010 5:53:42 AM
Surr: 4-Bromofluorobenzene	111	60.1-133		%REC	1	1/16/2010 5:53:42 AM
Surr: Dibromofluoromethane	97.0	78.5-130		%REC	1	1/16/2010 5:53:42 AM
Surr: Toluene-d8	95.8	79.5-126		%REC	1	1/16/2010 5:53:42 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: *26-Jan-10*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	GBR-50
Lab Order:	1001201	**Collection Date:**	1/13/2010 9:31:00 AM
Project:	GBR	**Date Received:**	1/15/2010
Lab ID:	1001201-05	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Benzene	ND	1.0		µg/L	1	1/16/2010 6:21:14 AM
Toluene	ND	1.0		µg/L	1	1/16/2010 6:21:14 AM
Ethylbenzene	ND	1.0		µg/L	1	1/16/2010 6:21:14 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	1/16/2010 6:21:14 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	1/16/2010 6:21:14 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	1/16/2010 6:21:14 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	1/16/2010 6:21:14 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	1/16/2010 6:21:14 AM
Naphthalene	ND	2.0		µg/L	1	1/16/2010 6:21:14 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	1/16/2010 6:21:14 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	1/16/2010 6:21:14 AM
Acetone	11	10		µg/L	1	1/16/2010 6:21:14 AM
Bromobenzene	ND	1.0		µg/L	1	1/16/2010 6:21:14 AM
Bromodichloromethane	ND	1.0		µg/L	1	1/16/2010 6:21:14 AM
Bromoform	ND	1.0		µg/L	1	1/16/2010 6:21:14 AM
Bromomethane	ND	1.0		µg/L	1	1/16/2010 6:21:14 AM
2-Butanone	ND	10		µg/L	1	1/16/2010 6:21:14 AM
Carbon disulfide	ND	10		µg/L	1	1/16/2010 6:21:14 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	1/16/2010 6:21:14 AM
Chlorobenzene	ND	1.0		µg/L	1	1/16/2010 6:21:14 AM
Chloroethane	ND	2.0		µg/L	1	1/16/2010 6:21:14 AM
Chloroform	ND	1.0		µg/L	1	1/16/2010 6:21:14 AM
Chloromethane	ND	1.0		µg/L	1	1/16/2010 6:21:14 AM
2-Chlorotoluene	ND	1.0		µg/L	1	1/16/2010 6:21:14 AM
4-Chlorotoluene	ND	1.0		µg/L	1	1/16/2010 6:21:14 AM
cis-1,2-DCE	ND	1.0		µg/L	1	1/16/2010 6:21:14 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	1/16/2010 6:21:14 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	1/16/2010 6:21:14 AM
Dibromochloromethane	ND	1.0		µg/L	1	1/16/2010 6:21:14 AM
Dibromomethane	ND	1.0		µg/L	1	1/16/2010 6:21:14 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	1/16/2010 6:21:14 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	1/16/2010 6:21:14 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	1/16/2010 6:21:14 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	1/16/2010 6:21:14 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	1/16/2010 6:21:14 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	1/16/2010 6:21:14 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	1/16/2010 6:21:14 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	1/16/2010 6:21:14 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	1/16/2010 6:21:14 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	1/16/2010 6:21:14 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	1/16/2010 6:21:14 AM
2-Hexanone	ND	10		µg/L	1	1/16/2010 6:21:14 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: *26-Jan-10*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	GBR-50
Lab Order:	1001201	**Collection Date:**	1/13/2010 9:31:00 AM
Project:	GBR	**Date Received:**	1/15/2010
Lab ID:	1001201-05	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Isopropylbenzene	ND	1.0		µg/L	1	1/16/2010 6:21:14 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	1/16/2010 6:21:14 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	1/16/2010 6:21:14 AM
Methylene Chloride	ND	3.0		µg/L	1	1/16/2010 6:21:14 AM
n-Butylbenzene	ND	1.0		µg/L	1	1/16/2010 6:21:14 AM
n-Propylbenzene	ND	1.0		µg/L	1	1/16/2010 6:21:14 AM
sec-Butylbenzene	ND	1.0		µg/L	1	1/16/2010 6:21:14 AM
Styrene	ND	1.0		µg/L	1	1/16/2010 6:21:14 AM
tert-Butylbenzene	ND	1.0		µg/L	1	1/16/2010 6:21:14 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	1/16/2010 6:21:14 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	1/16/2010 6:21:14 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	1/16/2010 6:21:14 AM
trans-1,2-DCE	ND	1.0		µg/L	1	1/16/2010 6:21:14 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	1/16/2010 6:21:14 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	1/16/2010 6:21:14 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	1/16/2010 6:21:14 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	1/16/2010 6:21:14 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	1/16/2010 6:21:14 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	1/16/2010 6:21:14 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	1/16/2010 6:21:14 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	1/16/2010 6:21:14 AM
Vinyl chloride	ND	1.0		µg/L	1	1/16/2010 6:21:14 AM
Xylenes, Total	ND	1.5		µg/L	1	1/16/2010 6:21:14 AM
Surr: 1,2-Dichloroethane-d4	95.6	54.6-141		%REC	1	1/16/2010 6:21:14 AM
Surr: 4-Bromofluorobenzene	111	60.1-133		%REC	1	1/16/2010 6:21:14 AM
Surr: Dibromofluoromethane	95.4	78.5-130		%REC	1	1/16/2010 6:21:14 AM
Surr: Toluene-d8	94.4	79.5-126		%REC	1	1/16/2010 6:21:14 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: *26-Jan-10*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	GBR-48
Lab Order:	1001201	**Collection Date:**	1/13/2010 10:12:00 AM
Project:	GBR	**Date Received:**	1/15/2010
Lab ID:	1001201-06	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Benzene	ND	1.0		µg/L	1	1/16/2010 6:48:46 AM
Toluene	ND	1.0		µg/L	1	1/16/2010 6:48:46 AM
Ethylbenzene	ND	1.0		µg/L	1	1/16/2010 6:48:46 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	1/16/2010 6:48:46 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	1/16/2010 6:48:46 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	1/16/2010 6:48:46 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	1/16/2010 6:48:46 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	1/16/2010 6:48:46 AM
Naphthalene	ND	2.0		µg/L	1	1/16/2010 6:48:46 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	1/16/2010 6:48:46 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	1/16/2010 6:48:46 AM
Acetone	ND	10		µg/L	1	1/16/2010 6:48:46 AM
Bromobenzene	ND	1.0		µg/L	1	1/16/2010 6:48:46 AM
Bromodichloromethane	ND	1.0		µg/L	1	1/16/2010 6:48:46 AM
Bromoform	ND	1.0		µg/L	1	1/16/2010 6:48:46 AM
Bromomethane	ND	1.0		µg/L	1	1/16/2010 6:48:46 AM
2-Butanone	ND	10		µg/L	1	1/16/2010 6:48:46 AM
Carbon disulfide	ND	10		µg/L	1	1/16/2010 6:48:46 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	1/16/2010 6:48:46 AM
Chlorobenzene	ND	1.0		µg/L	1	1/16/2010 6:48:46 AM
Chloroethane	ND	2.0		µg/L	1	1/16/2010 6:48:46 AM
Chloroform	ND	1.0		µg/L	1	1/16/2010 6:48:46 AM
Chloromethane	ND	1.0		µg/L	1	1/16/2010 6:48:46 AM
2-Chlorotoluene	ND	1.0		µg/L	1	1/16/2010 6:48:46 AM
4-Chlorotoluene	ND	1.0		µg/L	1	1/16/2010 6:48:46 AM
cis-1,2-DCE	ND	1.0		µg/L	1	1/16/2010 6:48:46 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	1/16/2010 6:48:46 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	1/16/2010 6:48:46 AM
Dibromochloromethane	ND	1.0		µg/L	1	1/16/2010 6:48:46 AM
Dibromomethane	ND	1.0		µg/L	1	1/16/2010 6:48:46 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	1/16/2010 6:48:46 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	1/16/2010 6:48:46 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	1/16/2010 6:48:46 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	1/16/2010 6:48:46 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	1/16/2010 6:48:46 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	1/16/2010 6:48:46 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	1/16/2010 6:48:46 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	1/16/2010 6:48:46 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	1/16/2010 6:48:46 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	1/16/2010 6:48:46 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	1/16/2010 6:48:46 AM
2-Hexanone	ND	10		µg/L	1	1/16/2010 6:48:46 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: *26-Jan-10*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	GBR-48
Lab Order:	1001201	**Collection Date:**	1/13/2010 10:12:00 AM
Project:	GBR	**Date Received:**	1/15/2010
Lab ID:	1001201-06	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Isopropylbenzene	ND	1.0		µg/L	1	1/16/2010 6:48:46 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	1/16/2010 6:48:46 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	1/16/2010 6:48:46 AM
Methylene Chloride	ND	3.0		µg/L	1	1/16/2010 6:48:46 AM
n-Butylbenzene	ND	1.0		µg/L	1	1/16/2010 6:48:46 AM
n-Propylbenzene	ND	1.0		µg/L	1	1/16/2010 6:48:46 AM
sec-Butylbenzene	ND	1.0		µg/L	1	1/16/2010 6:48:46 AM
Styrene	ND	1.0		µg/L	1	1/16/2010 6:48:46 AM
tert-Butylbenzene	ND	1.0		µg/L	1	1/16/2010 6:48:46 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	1/16/2010 6:48:46 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	1/16/2010 6:48:46 AM
Tetrachloroethene (PCE)	1.3	1.0		µg/L	1	1/16/2010 6:48:46 AM
trans-1,2-DCE	ND	1.0		µg/L	1	1/16/2010 6:48:46 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	1/16/2010 6:48:46 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	1/16/2010 6:48:46 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	1/16/2010 6:48:46 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	1/16/2010 6:48:46 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	1/16/2010 6:48:46 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	1/16/2010 6:48:46 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	1/16/2010 6:48:46 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	1/16/2010 6:48:46 AM
Vinyl chloride	ND	1.0		µg/L	1	1/16/2010 6:48:46 AM
Xylenes, Total	ND	1.5		µg/L	1	1/16/2010 6:48:46 AM
Surr: 1,2-Dichloroethane-d4	96.3	54.6-141		%REC	1	1/16/2010 6:48:46 AM
Surr: 4-Bromofluorobenzene	108	60.1-133		%REC	1	1/16/2010 6:48:46 AM
Surr: Dibromofluoromethane	98.6	78.5-130		%REC	1	1/16/2010 6:48:46 AM
Surr: Toluene-d8	94.9	79.5-126		%REC	1	1/16/2010 6:48:46 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: *26-Jan-10*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	GBR-32
Lab Order:	1001201	**Collection Date:**	1/13/2010 10:54:00 AM
Project:	GBR	**Date Received:**	1/15/2010
Lab ID:	1001201-07	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Benzene	ND	1.0		µg/L	1	1/16/2010 7:16:13 AM
Toluene	ND	1.0		µg/L	1	1/16/2010 7:16:13 AM
Ethylbenzene	ND	1.0		µg/L	1	1/16/2010 7:16:13 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	1/16/2010 7:16:13 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	1/16/2010 7:16:13 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	1/16/2010 7:16:13 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	1/16/2010 7:16:13 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	1/16/2010 7:16:13 AM
Naphthalene	ND	2.0		µg/L	1	1/16/2010 7:16:13 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	1/16/2010 7:16:13 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	1/16/2010 7:16:13 AM
Acetone	ND	10		µg/L	1	1/16/2010 7:16:13 AM
Bromobenzene	ND	1.0		µg/L	1	1/16/2010 7:16:13 AM
Bromodichloromethane	ND	1.0		µg/L	1	1/16/2010 7:16:13 AM
Bromoform	ND	1.0		µg/L	1	1/16/2010 7:16:13 AM
Bromomethane	ND	1.0		µg/L	1	1/16/2010 7:16:13 AM
2-Butanone	ND	10		µg/L	1	1/16/2010 7:16:13 AM
Carbon disulfide	ND	10		µg/L	1	1/16/2010 7:16:13 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	1/16/2010 7:16:13 AM
Chlorobenzene	ND	1.0		µg/L	1	1/16/2010 7:16:13 AM
Chloroethane	ND	2.0		µg/L	1	1/16/2010 7:16:13 AM
Chloroform	ND	1.0		µg/L	1	1/16/2010 7:16:13 AM
Chloromethane	ND	1.0		µg/L	1	1/16/2010 7:16:13 AM
2-Chlorotoluene	ND	1.0		µg/L	1	1/16/2010 7:16:13 AM
4-Chlorotoluene	ND	1.0		µg/L	1	1/16/2010 7:16:13 AM
cis-1,2-DCE	ND	1.0		µg/L	1	1/16/2010 7:16:13 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	1/16/2010 7:16:13 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	1/16/2010 7:16:13 AM
Dibromochloromethane	ND	1.0		µg/L	1	1/16/2010 7:16:13 AM
Dibromomethane	ND	1.0		µg/L	1	1/16/2010 7:16:13 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	1/16/2010 7:16:13 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	1/16/2010 7:16:13 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	1/16/2010 7:16:13 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	1/16/2010 7:16:13 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	1/16/2010 7:16:13 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	1/16/2010 7:16:13 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	1/16/2010 7:16:13 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	1/16/2010 7:16:13 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	1/16/2010 7:16:13 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	1/16/2010 7:16:13 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	1/16/2010 7:16:13 AM
2-Hexanone	ND	10		µg/L	1	1/16/2010 7:16:13 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: *26-Jan-10*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	GBR-32
Lab Order:	1001201	**Collection Date:**	1/13/2010 10:54:00 AM
Project:	GBR	**Date Received:**	1/15/2010
Lab ID:	1001201-07	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Isopropylbenzene	ND	1.0		µg/L	1	1/16/2010 7:16:13 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	1/16/2010 7:16:13 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	1/16/2010 7:16:13 AM
Methylene Chloride	ND	3.0		µg/L	1	1/16/2010 7:16:13 AM
n-Butylbenzene	ND	1.0		µg/L	1	1/16/2010 7:16:13 AM
n-Propylbenzene	ND	1.0		µg/L	1	1/16/2010 7:16:13 AM
sec-Butylbenzene	ND	1.0		µg/L	1	1/16/2010 7:16:13 AM
Styrene	ND	1.0		µg/L	1	1/16/2010 7:16:13 AM
tert-Butylbenzene	ND	1.0		µg/L	1	1/16/2010 7:16:13 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	1/16/2010 7:16:13 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	1/16/2010 7:16:13 AM
Tetrachloroethene (PCE)	1.0	1.0		µg/L	1	1/16/2010 7:16:13 AM
trans-1,2-DCE	ND	1.0		µg/L	1	1/16/2010 7:16:13 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	1/16/2010 7:16:13 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	1/16/2010 7:16:13 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	1/16/2010 7:16:13 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	1/16/2010 7:16:13 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	1/16/2010 7:16:13 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	1/16/2010 7:16:13 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	1/16/2010 7:16:13 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	1/16/2010 7:16:13 AM
Vinyl chloride	ND	1.0		µg/L	1	1/16/2010 7:16:13 AM
Xylenes, Total	ND	1.5		µg/L	1	1/16/2010 7:16:13 AM
Surr: 1,2-Dichloroethane-d4	98.1	54.6-141		%REC	1	1/16/2010 7:16:13 AM
Surr: 4-Bromofluorobenzene	104	60.1-133		%REC	1	1/16/2010 7:16:13 AM
Surr: Dibromofluoromethane	98.9	78.5-130		%REC	1	1/16/2010 7:16:13 AM
Surr: Toluene-d8	96.4	79.5-126		%REC	1	1/16/2010 7:16:13 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: *26-Jan-10*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	GBR-49
Lab Order:	1001201	**Collection Date:**	1/13/2010 11:22:00 AM
Project:	GBR	**Date Received:**	1/15/2010
Lab ID:	1001201-08	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Benzene	ND	1.0		µg/L	1	1/16/2010 7:43:44 AM
Toluene	ND	1.0		µg/L	1	1/16/2010 7:43:44 AM
Ethylbenzene	ND	1.0		µg/L	1	1/16/2010 7:43:44 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	1/16/2010 7:43:44 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	1/16/2010 7:43:44 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	1/16/2010 7:43:44 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	1/16/2010 7:43:44 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	1/16/2010 7:43:44 AM
Naphthalene	ND	2.0		µg/L	1	1/16/2010 7:43:44 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	1/16/2010 7:43:44 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	1/16/2010 7:43:44 AM
Acetone	ND	10		µg/L	1	1/16/2010 7:43:44 AM
Bromobenzene	ND	1.0		µg/L	1	1/16/2010 7:43:44 AM
Bromodichloromethane	ND	1.0		µg/L	1	1/16/2010 7:43:44 AM
Bromoform	ND	1.0		µg/L	1	1/16/2010 7:43:44 AM
Bromomethane	ND	1.0		µg/L	1	1/16/2010 7:43:44 AM
2-Butanone	ND	10		µg/L	1	1/16/2010 7:43:44 AM
Carbon disulfide	ND	10		µg/L	1	1/16/2010 7:43:44 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	1/16/2010 7:43:44 AM
Chlorobenzene	ND	1.0		µg/L	1	1/16/2010 7:43:44 AM
Chloroethane	ND	2.0		µg/L	1	1/16/2010 7:43:44 AM
Chloroform	ND	1.0		µg/L	1	1/16/2010 7:43:44 AM
Chloromethane	ND	1.0		µg/L	1	1/16/2010 7:43:44 AM
2-Chlorotoluene	ND	1.0		µg/L	1	1/16/2010 7:43:44 AM
4-Chlorotoluene	ND	1.0		µg/L	1	1/16/2010 7:43:44 AM
cis-1,2-DCE	ND	1.0		µg/L	1	1/16/2010 7:43:44 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	1/16/2010 7:43:44 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	1/16/2010 7:43:44 AM
Dibromochloromethane	ND	1.0		µg/L	1	1/16/2010 7:43:44 AM
Dibromomethane	ND	1.0		µg/L	1	1/16/2010 7:43:44 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	1/16/2010 7:43:44 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	1/16/2010 7:43:44 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	1/16/2010 7:43:44 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	1/16/2010 7:43:44 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	1/16/2010 7:43:44 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	1/16/2010 7:43:44 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	1/16/2010 7:43:44 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	1/16/2010 7:43:44 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	1/16/2010 7:43:44 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	1/16/2010 7:43:44 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	1/16/2010 7:43:44 AM
2-Hexanone	ND	10		µg/L	1	1/16/2010 7:43:44 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: *26-Jan-10*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	GBR-49
Lab Order:	1001201	**Collection Date:**	1/13/2010 11:22:00 AM
Project:	GBR	**Date Received:**	1/15/2010
Lab ID:	1001201-08	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Isopropylbenzene	ND	1.0		µg/L	1	1/16/2010 7:43:44 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	1/16/2010 7:43:44 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	1/16/2010 7:43:44 AM
Methylene Chloride	ND	3.0		µg/L	1	1/16/2010 7:43:44 AM
n-Butylbenzene	ND	1.0		µg/L	1	1/16/2010 7:43:44 AM
n-Propylbenzene	ND	1.0		µg/L	1	1/16/2010 7:43:44 AM
sec-Butylbenzene	ND	1.0		µg/L	1	1/16/2010 7:43:44 AM
Styrene	ND	1.0		µg/L	1	1/16/2010 7:43:44 AM
tert-Butylbenzene	ND	1.0		µg/L	1	1/16/2010 7:43:44 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	1/16/2010 7:43:44 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	1/16/2010 7:43:44 AM
Tetrachloroethene (PCE)	1.6	1.0		µg/L	1	1/16/2010 7:43:44 AM
trans-1,2-DCE	ND	1.0		µg/L	1	1/16/2010 7:43:44 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	1/16/2010 7:43:44 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	1/16/2010 7:43:44 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	1/16/2010 7:43:44 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	1/16/2010 7:43:44 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	1/16/2010 7:43:44 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	1/16/2010 7:43:44 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	1/16/2010 7:43:44 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	1/16/2010 7:43:44 AM
Vinyl chloride	ND	1.0		µg/L	1	1/16/2010 7:43:44 AM
Xylenes, Total	ND	1.5		µg/L	1	1/16/2010 7:43:44 AM
Surr: 1,2-Dichloroethane-d4	97.5	54.6-141		%REC	1	1/16/2010 7:43:44 AM
Surr: 4-Bromofluorobenzene	108	60.1-133		%REC	1	1/16/2010 7:43:44 AM
Surr: Dibromofluoromethane	99.9	78.5-130		%REC	1	1/16/2010 7:43:44 AM
Surr: Toluene-d8	97.1	79.5-126		%REC	1	1/16/2010 7:43:44 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: *26-Jan-10*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	GBR-17
Lab Order:	1001201	**Collection Date:**	1/13/2010 12:12:00 PM
Project:	GBR	**Date Received:**	1/15/2010
Lab ID:	1001201-09	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Benzene	ND	1.0		µg/L	1	1/16/2010 8:11:16 AM
Toluene	ND	1.0		µg/L	1	1/16/2010 8:11:16 AM
Ethylbenzene	ND	1.0		µg/L	1	1/16/2010 8:11:16 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	1/16/2010 8:11:16 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	1/16/2010 8:11:16 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	1/16/2010 8:11:16 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	1/16/2010 8:11:16 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	1/16/2010 8:11:16 AM
Naphthalene	ND	2.0		µg/L	1	1/16/2010 8:11:16 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	1/16/2010 8:11:16 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	1/16/2010 8:11:16 AM
Acetone	ND	10		µg/L	1	1/16/2010 8:11:16 AM
Bromobenzene	ND	1.0		µg/L	1	1/16/2010 8:11:16 AM
Bromodichloromethane	ND	1.0		µg/L	1	1/16/2010 8:11:16 AM
Bromoform	ND	1.0		µg/L	1	1/16/2010 8:11:16 AM
Bromomethane	ND	1.0		µg/L	1	1/16/2010 8:11:16 AM
2-Butanone	ND	10		µg/L	1	1/16/2010 8:11:16 AM
Carbon disulfide	ND	10		µg/L	1	1/16/2010 8:11:16 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	1/16/2010 8:11:16 AM
Chlorobenzene	ND	1.0		µg/L	1	1/16/2010 8:11:16 AM
Chloroethane	ND	2.0		µg/L	1	1/16/2010 8:11:16 AM
Chloroform	ND	1.0		µg/L	1	1/16/2010 8:11:16 AM
Chloromethane	ND	1.0		µg/L	1	1/16/2010 8:11:16 AM
2-Chlorotoluene	ND	1.0		µg/L	1	1/16/2010 8:11:16 AM
4-Chlorotoluene	ND	1.0		µg/L	1	1/16/2010 8:11:16 AM
cis-1,2-DCE	ND	1.0		µg/L	1	1/16/2010 8:11:16 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	1/16/2010 8:11:16 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	1/16/2010 8:11:16 AM
Dibromochloromethane	ND	1.0		µg/L	1	1/16/2010 8:11:16 AM
Dibromomethane	ND	1.0		µg/L	1	1/16/2010 8:11:16 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	1/16/2010 8:11:16 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	1/16/2010 8:11:16 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	1/16/2010 8:11:16 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	1/16/2010 8:11:16 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	1/16/2010 8:11:16 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	1/16/2010 8:11:16 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	1/16/2010 8:11:16 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	1/16/2010 8:11:16 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	1/16/2010 8:11:16 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	1/16/2010 8:11:16 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	1/16/2010 8:11:16 AM
2-Hexanone	ND	10		µg/L	1	1/16/2010 8:11:16 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: *26-Jan-10*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	GBR-17
Lab Order:	1001201	**Collection Date:**	1/13/2010 12:12:00 PM
Project:	GBR	**Date Received:**	1/15/2010
Lab ID:	1001201-09	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Isopropylbenzene	ND	1.0		µg/L	1	1/16/2010 8:11:16 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	1/16/2010 8:11:16 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	1/16/2010 8:11:16 AM
Methylene Chloride	ND	3.0		µg/L	1	1/16/2010 8:11:16 AM
n-Butylbenzene	ND	1.0		µg/L	1	1/16/2010 8:11:16 AM
n-Propylbenzene	ND	1.0		µg/L	1	1/16/2010 8:11:16 AM
sec-Butylbenzene	ND	1.0		µg/L	1	1/16/2010 8:11:16 AM
Styrene	ND	1.0		µg/L	1	1/16/2010 8:11:16 AM
tert-Butylbenzene	ND	1.0		µg/L	1	1/16/2010 8:11:16 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	1/16/2010 8:11:16 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	1/16/2010 8:11:16 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	1/16/2010 8:11:16 AM
trans-1,2-DCE	ND	1.0		µg/L	1	1/16/2010 8:11:16 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	1/16/2010 8:11:16 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	1/16/2010 8:11:16 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	1/16/2010 8:11:16 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	1/16/2010 8:11:16 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	1/16/2010 8:11:16 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	1/16/2010 8:11:16 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	1/16/2010 8:11:16 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	1/16/2010 8:11:16 AM
Vinyl chloride	ND	1.0		µg/L	1	1/16/2010 8:11:16 AM
Xylenes, Total	ND	1.5		µg/L	1	1/16/2010 8:11:16 AM
Surr: 1,2-Dichloroethane-d4	96.7	54.6-141		%REC	1	1/16/2010 8:11:16 AM
Surr: 4-Bromofluorobenzene	106	60.1-133		%REC	1	1/16/2010 8:11:16 AM
Surr: Dibromofluoromethane	95.8	78.5-130		%REC	1	1/16/2010 8:11:16 AM
Surr: Toluene-d8	96.6	79.5-126		%REC	1	1/16/2010 8:11:16 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: *26-Jan-10*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	GRW-3
Lab Order:	1001201	**Collection Date:**	1/13/2010 12:52:00 PM
Project:	GBR	**Date Received:**	1/15/2010
Lab ID:	1001201-10	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Benzene	ND	1.0		µg/L	1	1/16/2010 8:38:52 AM
Toluene	ND	1.0		µg/L	1	1/16/2010 8:38:52 AM
Ethylbenzene	ND	1.0		µg/L	1	1/16/2010 8:38:52 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	1/16/2010 8:38:52 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	1/16/2010 8:38:52 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	1/16/2010 8:38:52 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	1/16/2010 8:38:52 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	1/16/2010 8:38:52 AM
Naphthalene	ND	2.0		µg/L	1	1/16/2010 8:38:52 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	1/16/2010 8:38:52 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	1/16/2010 8:38:52 AM
Acetone	ND	10		µg/L	1	1/16/2010 8:38:52 AM
Bromobenzene	ND	1.0		µg/L	1	1/16/2010 8:38:52 AM
Bromodichloromethane	ND	1.0		µg/L	1	1/16/2010 8:38:52 AM
Bromoform	ND	1.0		µg/L	1	1/16/2010 8:38:52 AM
Bromomethane	ND	1.0		µg/L	1	1/16/2010 8:38:52 AM
2-Butanone	ND	10		µg/L	1	1/16/2010 8:38:52 AM
Carbon disulfide	ND	10		µg/L	1	1/16/2010 8:38:52 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	1/16/2010 8:38:52 AM
Chlorobenzene	ND	1.0		µg/L	1	1/16/2010 8:38:52 AM
Chloroethane	ND	2.0		µg/L	1	1/16/2010 8:38:52 AM
Chloroform	ND	1.0		µg/L	1	1/16/2010 8:38:52 AM
Chloromethane	ND	1.0		µg/L	1	1/16/2010 8:38:52 AM
2-Chlorotoluene	ND	1.0		µg/L	1	1/16/2010 8:38:52 AM
4-Chlorotoluene	ND	1.0		µg/L	1	1/16/2010 8:38:52 AM
cis-1,2-DCE	ND	1.0		µg/L	1	1/16/2010 8:38:52 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	1/16/2010 8:38:52 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	1/16/2010 8:38:52 AM
Dibromochloromethane	ND	1.0		µg/L	1	1/16/2010 8:38:52 AM
Dibromomethane	ND	1.0		µg/L	1	1/16/2010 8:38:52 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	1/16/2010 8:38:52 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	1/16/2010 8:38:52 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	1/16/2010 8:38:52 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	1/16/2010 8:38:52 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	1/16/2010 8:38:52 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	1/16/2010 8:38:52 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	1/16/2010 8:38:52 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	1/16/2010 8:38:52 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	1/16/2010 8:38:52 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	1/16/2010 8:38:52 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	1/16/2010 8:38:52 AM
2-Hexanone	ND	10		µg/L	1	1/16/2010 8:38:52 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: *26-Jan-10*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	GRW-3
Lab Order:	1001201	**Collection Date:**	1/13/2010 12:52:00 PM
Project:	GBR	**Date Received:**	1/15/2010
Lab ID:	1001201-10	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Isopropylbenzene	ND	1.0		µg/L	1	1/16/2010 8:38:52 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	1/16/2010 8:38:52 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	1/16/2010 8:38:52 AM
Methylene Chloride	ND	3.0		µg/L	1	1/16/2010 8:38:52 AM
n-Butylbenzene	ND	1.0		µg/L	1	1/16/2010 8:38:52 AM
n-Propylbenzene	ND	1.0		µg/L	1	1/16/2010 8:38:52 AM
sec-Butylbenzene	ND	1.0		µg/L	1	1/16/2010 8:38:52 AM
Styrene	ND	1.0		µg/L	1	1/16/2010 8:38:52 AM
tert-Butylbenzene	ND	1.0		µg/L	1	1/16/2010 8:38:52 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	1/16/2010 8:38:52 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	1/16/2010 8:38:52 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	1/16/2010 8:38:52 AM
trans-1,2-DCE	ND	1.0		µg/L	1	1/16/2010 8:38:52 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	1/16/2010 8:38:52 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	1/16/2010 8:38:52 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	1/16/2010 8:38:52 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	1/16/2010 8:38:52 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	1/16/2010 8:38:52 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	1/16/2010 8:38:52 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	1/16/2010 8:38:52 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	1/16/2010 8:38:52 AM
Vinyl chloride	ND	1.0		µg/L	1	1/16/2010 8:38:52 AM
Xylenes, Total	ND	1.5		µg/L	1	1/16/2010 8:38:52 AM
Surr: 1,2-Dichloroethane-d4	95.9	54.6-141		%REC	1	1/16/2010 8:38:52 AM
Surr: 4-Bromofluorobenzene	104	60.1-133		%REC	1	1/16/2010 8:38:52 AM
Surr: Dibromofluoromethane	95.7	78.5-130		%REC	1	1/16/2010 8:38:52 AM
Surr: Toluene-d8	94.7	79.5-126		%REC	1	1/16/2010 8:38:52 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: *26-Jan-10*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	GRW-6
Lab Order:	1001201	**Collection Date:**	1/13/2010 1:04:00 PM
Project:	GBR	**Date Received:**	1/15/2010
Lab ID:	1001201-11	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Benzene	ND	1.0		µg/L	1	1/18/2010 1:40:10 PM
Toluene	ND	1.0		µg/L	1	1/18/2010 1:40:10 PM
Ethylbenzene	ND	1.0		µg/L	1	1/18/2010 1:40:10 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	1/18/2010 1:40:10 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	1/18/2010 1:40:10 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	1/18/2010 1:40:10 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	1/18/2010 1:40:10 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	1/18/2010 1:40:10 PM
Naphthalene	ND	2.0		µg/L	1	1/18/2010 1:40:10 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	1/18/2010 1:40:10 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	1/18/2010 1:40:10 PM
Acetone	ND	10		µg/L	1	1/18/2010 1:40:10 PM
Bromobenzene	ND	1.0		µg/L	1	1/18/2010 1:40:10 PM
Bromodichloromethane	ND	1.0		µg/L	1	1/18/2010 1:40:10 PM
Bromoform	ND	1.0		µg/L	1	1/18/2010 1:40:10 PM
Bromomethane	ND	1.0		µg/L	1	1/18/2010 1:40:10 PM
2-Butanone	ND	10		µg/L	1	1/18/2010 1:40:10 PM
Carbon disulfide	ND	10		µg/L	1	1/18/2010 1:40:10 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	1/18/2010 1:40:10 PM
Chlorobenzene	ND	1.0		µg/L	1	1/18/2010 1:40:10 PM
Chloroethane	ND	2.0		µg/L	1	1/18/2010 1:40:10 PM
Chloroform	ND	1.0		µg/L	1	1/18/2010 1:40:10 PM
Chloromethane	ND	1.0		µg/L	1	1/18/2010 1:40:10 PM
2-Chlorotoluene	ND	1.0		µg/L	1	1/18/2010 1:40:10 PM
4-Chlorotoluene	ND	1.0		µg/L	1	1/18/2010 1:40:10 PM
cis-1,2-DCE	ND	1.0		µg/L	1	1/18/2010 1:40:10 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	1/18/2010 1:40:10 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	1/18/2010 1:40:10 PM
Dibromochloromethane	ND	1.0		µg/L	1	1/18/2010 1:40:10 PM
Dibromomethane	ND	1.0		µg/L	1	1/18/2010 1:40:10 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	1/18/2010 1:40:10 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	1/18/2010 1:40:10 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	1/18/2010 1:40:10 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	1/18/2010 1:40:10 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	1/18/2010 1:40:10 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	1/18/2010 1:40:10 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	1/18/2010 1:40:10 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	1/18/2010 1:40:10 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	1/18/2010 1:40:10 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	1/18/2010 1:40:10 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	1/18/2010 1:40:10 PM
2-Hexanone	ND	10		µg/L	1	1/18/2010 1:40:10 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: *26-Jan-10*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	GRW-6
Lab Order:	1001201	**Collection Date:**	1/13/2010 1:04:00 PM
Project:	GBR	**Date Received:**	1/15/2010
Lab ID:	1001201-11	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Isopropylbenzene	ND	1.0		µg/L	1	1/18/2010 1:40:10 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	1/18/2010 1:40:10 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	1/18/2010 1:40:10 PM
Methylene Chloride	ND	3.0		µg/L	1	1/18/2010 1:40:10 PM
n-Butylbenzene	ND	1.0		µg/L	1	1/18/2010 1:40:10 PM
n-Propylbenzene	ND	1.0		µg/L	1	1/18/2010 1:40:10 PM
sec-Butylbenzene	ND	1.0		µg/L	1	1/18/2010 1:40:10 PM
Styrene	ND	1.0		µg/L	1	1/18/2010 1:40:10 PM
tert-Butylbenzene	ND	1.0		µg/L	1	1/18/2010 1:40:10 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	1/18/2010 1:40:10 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	1/18/2010 1:40:10 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	1/18/2010 1:40:10 PM
trans-1,2-DCE	ND	1.0		µg/L	1	1/18/2010 1:40:10 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	1/18/2010 1:40:10 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	1/18/2010 1:40:10 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	1/18/2010 1:40:10 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	1/18/2010 1:40:10 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	1/18/2010 1:40:10 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	1/18/2010 1:40:10 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	1/18/2010 1:40:10 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	1/18/2010 1:40:10 PM
Vinyl chloride	ND	1.0		µg/L	1	1/18/2010 1:40:10 PM
Xylenes, Total	ND	1.5		µg/L	1	1/18/2010 1:40:10 PM
Surr: 1,2-Dichloroethane-d4	97.0	54.6-141		%REC	1	1/18/2010 1:40:10 PM
Surr: 4-Bromofluorobenzene	110	60.1-133		%REC	1	1/18/2010 1:40:10 PM
Surr: Dibromofluoromethane	97.9	78.5-130		%REC	1	1/18/2010 1:40:10 PM
Surr: Toluene-d8	93.6	79.5-126		%REC	1	1/18/2010 1:40:10 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: *26-Jan-10*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	GBR-31
Lab Order:	1001201	**Collection Date:**	1/13/2010 1:48:00 PM
Project:	GBR	**Date Received:**	1/15/2010
Lab ID:	1001201-12	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Benzene	ND	1.0		µg/L	1	1/18/2010 2:07:55 PM
Toluene	ND	1.0		µg/L	1	1/18/2010 2:07:55 PM
Ethylbenzene	ND	1.0		µg/L	1	1/18/2010 2:07:55 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	1/18/2010 2:07:55 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	1/18/2010 2:07:55 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	1/18/2010 2:07:55 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	1/18/2010 2:07:55 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	1/18/2010 2:07:55 PM
Naphthalene	ND	2.0		µg/L	1	1/18/2010 2:07:55 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	1/18/2010 2:07:55 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	1/18/2010 2:07:55 PM
Acetone	ND	10		µg/L	1	1/18/2010 2:07:55 PM
Bromobenzene	ND	1.0		µg/L	1	1/18/2010 2:07:55 PM
Bromodichloromethane	ND	1.0		µg/L	1	1/18/2010 2:07:55 PM
Bromoform	ND	1.0		µg/L	1	1/18/2010 2:07:55 PM
Bromomethane	ND	1.0		µg/L	1	1/18/2010 2:07:55 PM
2-Butanone	ND	10		µg/L	1	1/18/2010 2:07:55 PM
Carbon disulfide	ND	10		µg/L	1	1/18/2010 2:07:55 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	1/18/2010 2:07:55 PM
Chlorobenzene	ND	1.0		µg/L	1	1/18/2010 2:07:55 PM
Chloroethane	ND	2.0		µg/L	1	1/18/2010 2:07:55 PM
Chloroform	ND	1.0		µg/L	1	1/18/2010 2:07:55 PM
Chloromethane	ND	1.0		µg/L	1	1/18/2010 2:07:55 PM
2-Chlorotoluene	ND	1.0		µg/L	1	1/18/2010 2:07:55 PM
4-Chlorotoluene	ND	1.0		µg/L	1	1/18/2010 2:07:55 PM
cis-1,2-DCE	ND	1.0		µg/L	1	1/18/2010 2:07:55 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	1/18/2010 2:07:55 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	1/18/2010 2:07:55 PM
Dibromochloromethane	ND	1.0		µg/L	1	1/18/2010 2:07:55 PM
Dibromomethane	ND	1.0		µg/L	1	1/18/2010 2:07:55 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	1/18/2010 2:07:55 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	1/18/2010 2:07:55 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	1/18/2010 2:07:55 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	1/18/2010 2:07:55 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	1/18/2010 2:07:55 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	1/18/2010 2:07:55 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	1/18/2010 2:07:55 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	1/18/2010 2:07:55 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	1/18/2010 2:07:55 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	1/18/2010 2:07:55 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	1/18/2010 2:07:55 PM
2-Hexanone	ND	10		µg/L	1	1/18/2010 2:07:55 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: *26-Jan-10*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	GBR-31
Lab Order:	1001201	**Collection Date:**	1/13/2010 1:48:00 PM
Project:	GBR	**Date Received:**	1/15/2010
Lab ID:	1001201-12	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Isopropylbenzene	ND	1.0		µg/L	1	1/18/2010 2:07:55 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	1/18/2010 2:07:55 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	1/18/2010 2:07:55 PM
Methylene Chloride	ND	3.0		µg/L	1	1/18/2010 2:07:55 PM
n-Butylbenzene	ND	1.0		µg/L	1	1/18/2010 2:07:55 PM
n-Propylbenzene	ND	1.0		µg/L	1	1/18/2010 2:07:55 PM
sec-Butylbenzene	ND	1.0		µg/L	1	1/18/2010 2:07:55 PM
Styrene	ND	1.0		µg/L	1	1/18/2010 2:07:55 PM
tert-Butylbenzene	ND	1.0		µg/L	1	1/18/2010 2:07:55 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	1/18/2010 2:07:55 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	1/18/2010 2:07:55 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	1/18/2010 2:07:55 PM
trans-1,2-DCE	ND	1.0		µg/L	1	1/18/2010 2:07:55 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	1/18/2010 2:07:55 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	1/18/2010 2:07:55 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	1/18/2010 2:07:55 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	1/18/2010 2:07:55 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	1/18/2010 2:07:55 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	1/18/2010 2:07:55 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	1/18/2010 2:07:55 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	1/18/2010 2:07:55 PM
Vinyl chloride	ND	1.0		µg/L	1	1/18/2010 2:07:55 PM
Xylenes, Total	ND	1.5		µg/L	1	1/18/2010 2:07:55 PM
Surr: 1,2-Dichloroethane-d4	97.4	54.6-141		%REC	1	1/18/2010 2:07:55 PM
Surr: 4-Bromofluorobenzene	109	60.1-133		%REC	1	1/18/2010 2:07:55 PM
Surr: Dibromofluoromethane	93.6	78.5-130		%REC	1	1/18/2010 2:07:55 PM
Surr: Toluene-d8	91.9	79.5-126		%REC	1	1/18/2010 2:07:55 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: *26-Jan-10*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	GBR-24D
Lab Order:	1001201	**Collection Date:**	1/13/2010 2:30:00 PM
Project:	GBR	**Date Received:**	1/15/2010
Lab ID:	1001201-13	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8310: PAHS						Analyst: JAT
Naphthalene	5.8	2.0		µg/L	1	1/24/2010 11:38:57 AM
1-Methylnaphthalene	7.7	2.0		µg/L	1	1/24/2010 11:38:57 AM
2-Methylnaphthalene	4.9	2.0		µg/L	1	1/24/2010 11:38:57 AM
Acenaphthylene	ND	2.5		µg/L	1	1/24/2010 11:38:57 AM
Acenaphthene	ND	5.0		µg/L	1	1/24/2010 11:38:57 AM
Fluorene	1.0	0.80		µg/L	1	1/24/2010 11:38:57 AM
Phenanthrene	0.62	0.60		µg/L	1	1/24/2010 11:38:57 AM
Anthracene	ND	0.60		µg/L	1	1/24/2010 11:38:57 AM
Fluoranthene	ND	0.30		µg/L	1	1/24/2010 11:38:57 AM
Pyrene	ND	0.30		µg/L	1	1/24/2010 11:38:57 AM
Benz(a)anthracene	ND	0.070		µg/L	1	1/24/2010 11:38:57 AM
Chrysene	ND	0.20		µg/L	1	1/24/2010 11:38:57 AM
Benzo(b)fluoranthene	ND	0.10		µg/L	1	1/24/2010 11:38:57 AM
Benzo(k)fluoranthene	ND	0.070		µg/L	1	1/24/2010 11:38:57 AM
Benzo(a)pyrene	ND	0.070		µg/L	1	1/24/2010 11:38:57 AM
Dibenz(a,h)anthracene	ND	0.070		µg/L	1	1/24/2010 11:38:57 AM
Benzo(g,h,i)perylene	ND	0.080		µg/L	1	1/24/2010 11:38:57 AM
Indeno(1,2,3-cd)pyrene	ND	0.080		µg/L	1	1/24/2010 11:38:57 AM
Surr: Benzo(e)pyrene	63.0	28.3-111		%REC	1	1/24/2010 11:38:57 AM
EPA METHOD 8260B: VOLATILES						Analyst: HL
Benzene	ND	1.0		µg/L	1	1/18/2010 2:35:46 PM
Toluene	ND	1.0		µg/L	1	1/18/2010 2:35:46 PM
Ethylbenzene	ND	1.0		µg/L	1	1/18/2010 2:35:46 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	1/18/2010 2:35:46 PM
1,2,4-Trimethylbenzene	3.5	1.0		µg/L	1	1/18/2010 2:35:46 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	1/18/2010 2:35:46 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	1/18/2010 2:35:46 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	1/18/2010 2:35:46 PM
Naphthalene	ND	2.0		µg/L	1	1/18/2010 2:35:46 PM
1-Methylnaphthalene	8.0	4.0		µg/L	1	1/18/2010 2:35:46 PM
2-Methylnaphthalene	7.4	4.0		µg/L	1	1/18/2010 2:35:46 PM
Acetone	ND	10		µg/L	1	1/18/2010 2:35:46 PM
Bromobenzene	ND	1.0		µg/L	1	1/18/2010 2:35:46 PM
Bromodichloromethane	ND	1.0		µg/L	1	1/18/2010 2:35:46 PM
Bromoform	ND	1.0		µg/L	1	1/18/2010 2:35:46 PM
Bromomethane	ND	1.0		µg/L	1	1/18/2010 2:35:46 PM
2-Butanone	ND	10		µg/L	1	1/18/2010 2:35:46 PM
Carbon disulfide	ND	10		µg/L	1	1/18/2010 2:35:46 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	1/18/2010 2:35:46 PM
Chlorobenzene	ND	1.0		µg/L	1	1/18/2010 2:35:46 PM
Chloroethane	ND	2.0		µg/L	1	1/18/2010 2:35:46 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: *26-Jan-10*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	GBR-24D
Lab Order:	1001201	**Collection Date:**	1/13/2010 2:30:00 PM
Project:	GBR	**Date Received:**	1/15/2010
Lab ID:	1001201-13	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Chloroform	ND	1.0		µg/L	1	1/18/2010 2:35:46 PM
Chloromethane	ND	1.0		µg/L	1	1/18/2010 2:35:46 PM
2-Chlorotoluene	ND	1.0		µg/L	1	1/18/2010 2:35:46 PM
4-Chlorotoluene	ND	1.0		µg/L	1	1/18/2010 2:35:46 PM
cis-1,2-DCE	ND	1.0		µg/L	1	1/18/2010 2:35:46 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	1/18/2010 2:35:46 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	1/18/2010 2:35:46 PM
Dibromochloromethane	ND	1.0		µg/L	1	1/18/2010 2:35:46 PM
Dibromomethane	ND	1.0		µg/L	1	1/18/2010 2:35:46 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	1/18/2010 2:35:46 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	1/18/2010 2:35:46 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	1/18/2010 2:35:46 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	1/18/2010 2:35:46 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	1/18/2010 2:35:46 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	1/18/2010 2:35:46 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	1/18/2010 2:35:46 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	1/18/2010 2:35:46 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	1/18/2010 2:35:46 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	1/18/2010 2:35:46 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	1/18/2010 2:35:46 PM
2-Hexanone	ND	10		µg/L	1	1/18/2010 2:35:46 PM
Isopropylbenzene	ND	1.0		µg/L	1	1/18/2010 2:35:46 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	1/18/2010 2:35:46 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	1/18/2010 2:35:46 PM
Methylene Chloride	ND	3.0		µg/L	1	1/18/2010 2:35:46 PM
n-Butylbenzene	ND	1.0		µg/L	1	1/18/2010 2:35:46 PM
n-Propylbenzene	ND	1.0		µg/L	1	1/18/2010 2:35:46 PM
sec-Butylbenzene	ND	1.0		µg/L	1	1/18/2010 2:35:46 PM
Styrene	ND	1.0		µg/L	1	1/18/2010 2:35:46 PM
tert-Butylbenzene	ND	1.0		µg/L	1	1/18/2010 2:35:46 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	1/18/2010 2:35:46 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	1/18/2010 2:35:46 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	1/18/2010 2:35:46 PM
trans-1,2-DCE	ND	1.0		µg/L	1	1/18/2010 2:35:46 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	1/18/2010 2:35:46 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	1/18/2010 2:35:46 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	1/18/2010 2:35:46 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	1/18/2010 2:35:46 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	1/18/2010 2:35:46 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	1/18/2010 2:35:46 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	1/18/2010 2:35:46 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	1/18/2010 2:35:46 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: *26-Jan-10*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	GBR-24D
Lab Order:	1001201	**Collection Date:**	1/13/2010 2:30:00 PM
Project:	GBR	**Date Received:**	1/15/2010
Lab ID:	1001201-13	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Vinyl chloride	ND	1.0		µg/L	1	1/18/2010 2:35:46 PM
Xylenes, Total	ND	1.5		µg/L	1	1/18/2010 2:35:46 PM
Surr: 1,2-Dichloroethane-d4	95.9	54.6-141		%REC	1	1/18/2010 2:35:46 PM
Surr: 4-Bromofluorobenzene	109	60.1-133		%REC	1	1/18/2010 2:35:46 PM
Surr: Dibromofluoromethane	95.9	78.5-130		%REC	1	1/18/2010 2:35:46 PM
Surr: Toluene-d8	94.5	79.5-126		%REC	1	1/18/2010 2:35:46 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: *26-Jan-10*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	GBR-30
Lab Order:	1001201	**Collection Date:**	1/13/2010 3:08:00 PM
Project:	GBR	**Date Received:**	1/15/2010
Lab ID:	1001201-14	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
Benzene	ND	1.0		µg/L	1	1/18/2010 3:03:27 PM
Toluene	ND	1.0		µg/L	1	1/18/2010 3:03:27 PM
Ethylbenzene	ND	1.0		µg/L	1	1/18/2010 3:03:27 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	1/18/2010 3:03:27 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	1/18/2010 3:03:27 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	1/18/2010 3:03:27 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	1/18/2010 3:03:27 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	1/18/2010 3:03:27 PM
Naphthalene	ND	2.0		µg/L	1	1/18/2010 3:03:27 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	1/18/2010 3:03:27 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	1/18/2010 3:03:27 PM
Acetone	ND	10		µg/L	1	1/18/2010 3:03:27 PM
Bromobenzene	ND	1.0		µg/L	1	1/18/2010 3:03:27 PM
Bromodichloromethane	ND	1.0		µg/L	1	1/18/2010 3:03:27 PM
Bromoform	ND	1.0		µg/L	1	1/18/2010 3:03:27 PM
Bromomethane	ND	1.0		µg/L	1	1/18/2010 3:03:27 PM
2-Butanone	ND	10		µg/L	1	1/18/2010 3:03:27 PM
Carbon disulfide	ND	10		µg/L	1	1/18/2010 3:03:27 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	1/18/2010 3:03:27 PM
Chlorobenzene	ND	1.0		µg/L	1	1/18/2010 3:03:27 PM
Chloroethane	ND	2.0		µg/L	1	1/18/2010 3:03:27 PM
Chloroform	ND	1.0		µg/L	1	1/18/2010 3:03:27 PM
Chloromethane	ND	1.0		µg/L	1	1/18/2010 3:03:27 PM
2-Chlorotoluene	ND	1.0		µg/L	1	1/18/2010 3:03:27 PM
4-Chlorotoluene	ND	1.0		µg/L	1	1/18/2010 3:03:27 PM
cis-1,2-DCE	ND	1.0		µg/L	1	1/18/2010 3:03:27 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	1/18/2010 3:03:27 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	1/18/2010 3:03:27 PM
Dibromochloromethane	ND	1.0		µg/L	1	1/18/2010 3:03:27 PM
Dibromomethane	ND	1.0		µg/L	1	1/18/2010 3:03:27 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	1/18/2010 3:03:27 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	1/18/2010 3:03:27 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	1/18/2010 3:03:27 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	1/18/2010 3:03:27 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	1/18/2010 3:03:27 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	1/18/2010 3:03:27 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	1/18/2010 3:03:27 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	1/18/2010 3:03:27 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	1/18/2010 3:03:27 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	1/18/2010 3:03:27 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	1/18/2010 3:03:27 PM
2-Hexanone	ND	10		µg/L	1	1/18/2010 3:03:27 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: *26-Jan-10*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	GBR-30
Lab Order:	1001201	**Collection Date:**	1/13/2010 3:08:00 PM
Project:	GBR	**Date Received:**	1/15/2010
Lab ID:	1001201-14	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Isopropylbenzene	ND	1.0		µg/L	1	1/18/2010 3:03:27 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	1/18/2010 3:03:27 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	1/18/2010 3:03:27 PM
Methylene Chloride	ND	3.0		µg/L	1	1/18/2010 3:03:27 PM
n-Butylbenzene	ND	1.0		µg/L	1	1/18/2010 3:03:27 PM
n-Propylbenzene	ND	1.0		µg/L	1	1/18/2010 3:03:27 PM
sec-Butylbenzene	ND	1.0		µg/L	1	1/18/2010 3:03:27 PM
Styrene	ND	1.0		µg/L	1	1/18/2010 3:03:27 PM
tert-Butylbenzene	ND	1.0		µg/L	1	1/18/2010 3:03:27 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	1/18/2010 3:03:27 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	1/18/2010 3:03:27 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	1/18/2010 3:03:27 PM
trans-1,2-DCE	ND	1.0		µg/L	1	1/18/2010 3:03:27 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	1/18/2010 3:03:27 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	1/18/2010 3:03:27 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	1/18/2010 3:03:27 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	1/18/2010 3:03:27 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	1/18/2010 3:03:27 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	1/18/2010 3:03:27 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	1/18/2010 3:03:27 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	1/18/2010 3:03:27 PM
Vinyl chloride	ND	1.0		µg/L	1	1/18/2010 3:03:27 PM
Xylenes, Total	ND	1.5		µg/L	1	1/18/2010 3:03:27 PM
Surr: 1,2-Dichloroethane-d4	97.4	54.6-141		%REC	1	1/18/2010 3:03:27 PM
Surr: 4-Bromofluorobenzene	109	60.1-133		%REC	1	1/18/2010 3:03:27 PM
Surr: Dibromofluoromethane	95.6	78.5-130		%REC	1	1/18/2010 3:03:27 PM
Surr: Toluene-d8	95.1	79.5-126		%REC	1	1/18/2010 3:03:27 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: *26-Jan-10*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	Influent
Lab Order:	1001201	**Collection Date:**	1/13/2010 3:23:00 PM
Project:	GBR	**Date Received:**	1/15/2010
Lab ID:	1001201-15	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Benzene	ND	1.0		µg/L	1	1/18/2010 3:31:06 PM
Toluene	ND	1.0		µg/L	1	1/18/2010 3:31:06 PM
Ethylbenzene	ND	1.0		µg/L	1	1/18/2010 3:31:06 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	1/18/2010 3:31:06 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	1/18/2010 3:31:06 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	1/18/2010 3:31:06 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	1/18/2010 3:31:06 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	1/18/2010 3:31:06 PM
Naphthalene	ND	2.0		µg/L	1	1/18/2010 3:31:06 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	1/18/2010 3:31:06 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	1/18/2010 3:31:06 PM
Acetone	ND	10		µg/L	1	1/18/2010 3:31:06 PM
Bromobenzene	ND	1.0		µg/L	1	1/18/2010 3:31:06 PM
Bromodichloromethane	ND	1.0		µg/L	1	1/18/2010 3:31:06 PM
Bromoform	ND	1.0		µg/L	1	1/18/2010 3:31:06 PM
Bromomethane	ND	1.0		µg/L	1	1/18/2010 3:31:06 PM
2-Butanone	ND	10		µg/L	1	1/18/2010 3:31:06 PM
Carbon disulfide	ND	10		µg/L	1	1/18/2010 3:31:06 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	1/18/2010 3:31:06 PM
Chlorobenzene	ND	1.0		µg/L	1	1/18/2010 3:31:06 PM
Chloroethane	ND	2.0		µg/L	1	1/18/2010 3:31:06 PM
Chloroform	ND	1.0		µg/L	1	1/18/2010 3:31:06 PM
Chloromethane	ND	1.0		µg/L	1	1/18/2010 3:31:06 PM
2-Chlorotoluene	ND	1.0		µg/L	1	1/18/2010 3:31:06 PM
4-Chlorotoluene	ND	1.0		µg/L	1	1/18/2010 3:31:06 PM
cis-1,2-DCE	ND	1.0		µg/L	1	1/18/2010 3:31:06 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	1/18/2010 3:31:06 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	1/18/2010 3:31:06 PM
Dibromochloromethane	ND	1.0		µg/L	1	1/18/2010 3:31:06 PM
Dibromomethane	ND	1.0		µg/L	1	1/18/2010 3:31:06 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	1/18/2010 3:31:06 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	1/18/2010 3:31:06 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	1/18/2010 3:31:06 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	1/18/2010 3:31:06 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	1/18/2010 3:31:06 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	1/18/2010 3:31:06 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	1/18/2010 3:31:06 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	1/18/2010 3:31:06 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	1/18/2010 3:31:06 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	1/18/2010 3:31:06 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	1/18/2010 3:31:06 PM
2-Hexanone	ND	10		µg/L	1	1/18/2010 3:31:06 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: *26-Jan-10*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	Influent
Lab Order:	1001201	**Collection Date:**	1/13/2010 3:23:00 PM
Project:	GBR	**Date Received:**	1/15/2010
Lab ID:	1001201-15	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Isopropylbenzene	ND	1.0		µg/L	1	1/18/2010 3:31:06 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	1/18/2010 3:31:06 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	1/18/2010 3:31:06 PM
Methylene Chloride	ND	3.0		µg/L	1	1/18/2010 3:31:06 PM
n-Butylbenzene	ND	1.0		µg/L	1	1/18/2010 3:31:06 PM
n-Propylbenzene	ND	1.0		µg/L	1	1/18/2010 3:31:06 PM
sec-Butylbenzene	ND	1.0		µg/L	1	1/18/2010 3:31:06 PM
Styrene	ND	1.0		µg/L	1	1/18/2010 3:31:06 PM
tert-Butylbenzene	ND	1.0		µg/L	1	1/18/2010 3:31:06 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	1/18/2010 3:31:06 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	1/18/2010 3:31:06 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	1/18/2010 3:31:06 PM
trans-1,2-DCE	ND	1.0		µg/L	1	1/18/2010 3:31:06 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	1/18/2010 3:31:06 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	1/18/2010 3:31:06 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	1/18/2010 3:31:06 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	1/18/2010 3:31:06 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	1/18/2010 3:31:06 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	1/18/2010 3:31:06 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	1/18/2010 3:31:06 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	1/18/2010 3:31:06 PM
Vinyl chloride	ND	1.0		µg/L	1	1/18/2010 3:31:06 PM
Xylenes, Total	ND	1.5		µg/L	1	1/18/2010 3:31:06 PM
Surr: 1,2-Dichloroethane-d4	97.4	54.6-141		%REC	1	1/18/2010 3:31:06 PM
Surr: 4-Bromofluorobenzene	105	60.1-133		%REC	1	1/18/2010 3:31:06 PM
Surr: Dibromofluoromethane	95.7	78.5-130		%REC	1	1/18/2010 3:31:06 PM
Surr: Toluene-d8	96.9	79.5-126		%REC	1	1/18/2010 3:31:06 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: *26-Jan-10*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	Effluent
Lab Order:	1001201	**Collection Date:**	1/13/2010 3:53:00 PM
Project:	GBR	**Date Received:**	1/15/2010
Lab ID:	1001201-16	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Benzene	ND	1.0		µg/L	1	1/18/2010 3:58:40 PM
Toluene	ND	1.0		µg/L	1	1/18/2010 3:58:40 PM
Ethylbenzene	ND	1.0		µg/L	1	1/18/2010 3:58:40 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	1/18/2010 3:58:40 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	1/18/2010 3:58:40 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	1/18/2010 3:58:40 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	1/18/2010 3:58:40 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	1/18/2010 3:58:40 PM
Naphthalene	ND	2.0		µg/L	1	1/18/2010 3:58:40 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	1/18/2010 3:58:40 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	1/18/2010 3:58:40 PM
Acetone	ND	10		µg/L	1	1/18/2010 3:58:40 PM
Bromobenzene	ND	1.0		µg/L	1	1/18/2010 3:58:40 PM
Bromodichloromethane	ND	1.0		µg/L	1	1/18/2010 3:58:40 PM
Bromoform	ND	1.0		µg/L	1	1/18/2010 3:58:40 PM
Bromomethane	ND	1.0		µg/L	1	1/18/2010 3:58:40 PM
2-Butanone	ND	10		µg/L	1	1/18/2010 3:58:40 PM
Carbon disulfide	ND	10		µg/L	1	1/18/2010 3:58:40 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	1/18/2010 3:58:40 PM
Chlorobenzene	ND	1.0		µg/L	1	1/18/2010 3:58:40 PM
Chloroethane	ND	2.0		µg/L	1	1/18/2010 3:58:40 PM
Chloroform	ND	1.0		µg/L	1	1/18/2010 3:58:40 PM
Chloromethane	ND	1.0		µg/L	1	1/18/2010 3:58:40 PM
2-Chlorotoluene	ND	1.0		µg/L	1	1/18/2010 3:58:40 PM
4-Chlorotoluene	ND	1.0		µg/L	1	1/18/2010 3:58:40 PM
cis-1,2-DCE	ND	1.0		µg/L	1	1/18/2010 3:58:40 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	1/18/2010 3:58:40 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	1/18/2010 3:58:40 PM
Dibromochloromethane	ND	1.0		µg/L	1	1/18/2010 3:58:40 PM
Dibromomethane	ND	1.0		µg/L	1	1/18/2010 3:58:40 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	1/18/2010 3:58:40 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	1/18/2010 3:58:40 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	1/18/2010 3:58:40 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	1/18/2010 3:58:40 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	1/18/2010 3:58:40 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	1/18/2010 3:58:40 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	1/18/2010 3:58:40 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	1/18/2010 3:58:40 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	1/18/2010 3:58:40 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	1/18/2010 3:58:40 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	1/18/2010 3:58:40 PM
2-Hexanone	ND	10		µg/L	1	1/18/2010 3:58:40 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: *26-Jan-10*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	Effluent
Lab Order:	1001201	**Collection Date:**	1/13/2010 3:53:00 PM
Project:	GBR	**Date Received:**	1/15/2010
Lab ID:	1001201-16	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Isopropylbenzene	ND	1.0		µg/L	1	1/18/2010 3:58:40 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	1/18/2010 3:58:40 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	1/18/2010 3:58:40 PM
Methylene Chloride	ND	3.0		µg/L	1	1/18/2010 3:58:40 PM
n-Butylbenzene	ND	1.0		µg/L	1	1/18/2010 3:58:40 PM
n-Propylbenzene	ND	1.0		µg/L	1	1/18/2010 3:58:40 PM
sec-Butylbenzene	ND	1.0		µg/L	1	1/18/2010 3:58:40 PM
Styrene	ND	1.0		µg/L	1	1/18/2010 3:58:40 PM
tert-Butylbenzene	ND	1.0		µg/L	1	1/18/2010 3:58:40 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	1/18/2010 3:58:40 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	1/18/2010 3:58:40 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	1/18/2010 3:58:40 PM
trans-1,2-DCE	ND	1.0		µg/L	1	1/18/2010 3:58:40 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	1/18/2010 3:58:40 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	1/18/2010 3:58:40 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	1/18/2010 3:58:40 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	1/18/2010 3:58:40 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	1/18/2010 3:58:40 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	1/18/2010 3:58:40 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	1/18/2010 3:58:40 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	1/18/2010 3:58:40 PM
Vinyl chloride	ND	1.0		µg/L	1	1/18/2010 3:58:40 PM
Xylenes, Total	ND	1.5		µg/L	1	1/18/2010 3:58:40 PM
Surr: 1,2-Dichloroethane-d4	95.3	54.6-141		%REC	1	1/18/2010 3:58:40 PM
Surr: 4-Bromofluorobenzene	108	60.1-133		%REC	1	1/18/2010 3:58:40 PM
Surr: Dibromofluoromethane	95.3	78.5-130		%REC	1	1/18/2010 3:58:40 PM
Surr: Toluene-d8	96.0	79.5-126		%REC	1	1/18/2010 3:58:40 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		

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: GBR **Work Order:** 1001201

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: R36991**		**Analysis Date: 1/15/2010 8:32:16 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, Inc.
Project: GBR **Work Order:** 1001201

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: **R36991**		Analysis Date:	1/15/2010 8:32:16 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: **R36991**		Analysis Date:	1/15/2010 9:08:41 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, Inc.
Project: GBR **Work Order:** 1001201

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: b3		*MBLK*									

Batch ID: **R36991** Analysis Date: 1/15/2010 9:08:41 PM

Batch ID: **R36999** Analysis Date: 1/18/2010 10:53:57 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, Inc.
Project: GBR **Work Order:** 1001201

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES											
Sample ID: b3		*MBLK*					**Batch ID: R36999**		**Analysis Date: 1/18/2010 10:53:57 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								
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, Inc.
Project: GBR **Work Order:** 1001201

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES											
Sample ID: b3		*MBLK*				Batch ID:	**R36999**	Analysis Date:	1/18/2010 10:53:57 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								
Vinyl chloride	ND	µg/L	1.0								
Xylenes, Total	ND	µg/L	1.5								
Sample ID: 100ng lcs		*LCS*				Batch ID:	**R36991**	Analysis Date:	1/15/2010 9:35:54 AM		
Benzene	21.38	µg/L	1.0	20	0	107	76.7	114			
Toluene	20.12	µg/L	1.0	20	0	101	78.4	117			
Chlorobenzene	20.20	µg/L	1.0	20	0	101	80.7	127			
1,1-Dichloroethene	24.60	µg/L	1.0	20	0	123	80.2	128			
Trichloroethene (TCE)	18.81	µg/L	1.0	20	0	94.0	77.4	115			
Sample ID: 100ng lcs-b		*LCS*				Batch ID:	**R36991**	Analysis Date:	1/15/2010 10:04:03 PM		
Benzene	19.49	µg/L	1.0	20	0	97.5	76.7	114			
Toluene	19.98	µg/L	1.0	20	0	99.9	78.4	117			
Chlorobenzene	20.33	µg/L	1.0	20	0	102	80.7	127			
1,1-Dichloroethene	22.21	µg/L	1.0	20	0	111	80.2	128			
Trichloroethene (TCE)	17.05	µg/L	1.0	20	0	85.3	77.4	115			
Sample ID: 100ng lcs		*LCS*				Batch ID:	**R36999**	Analysis Date:	1/18/2010 11:49:21 AM		
Benzene	19.91	µg/L	1.0	20	0	99.6	76.7	114			
Toluene	20.31	µg/L	1.0	20	0	102	78.4	117			
Chlorobenzene	20.14	µg/L	1.0	20	0	101	80.7	127			
1,1-Dichloroethene	23.38	µg/L	1.0	20	0	117	80.2	128			
Trichloroethene (TCE)	18.48	µg/L	1.0	20	0	92.4	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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: GBR **Work Order:** 1001201

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8310: PAHs											
Sample ID: MB-21184		*MBLK*				Batch ID:	**21184**	Analysis Date:	1/24/2010 10:34:47 AM		
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-21184		*LCS*				Batch ID:	**21184**	Analysis Date:	1/24/2010 10:56:12 AM		
Naphthalene	62.34	µg/L	2.0	80	0	77.9	20.5	109			
1-Methylnaphthalene	69.51	µg/L	2.0	80.2	0	86.7	23.1	116			
2-Methylnaphthalene	62.69	µg/L	2.0	80	0	78.4	19.5	112			
Acenaphthylene	61.25	µg/L	2.5	80.2	0	76.4	27.5	119			
Acenaphthene	63.27	µg/L	5.0	80	0	79.1	31	117			
Fluorene	4.320	µg/L	0.80	8.02	0	53.9	17.1	109			
Phenanthrene	1.500	µg/L	0.60	4.02	0	37.3	25.5	112			
Anthracene	2.210	µg/L	0.60	4.02	0	55.0	25.8	119			
Fluoranthene	5.330	µg/L	0.30	8.02	0	66.5	27.2	122			
Pyrene	4.550	µg/L	0.30	8.02	0	56.7	24.1	118			
Benz(a)anthracene	0.5200	µg/L	0.070	0.802	0	64.8	31.1	125			
Chrysene	2.760	µg/L	0.20	4.02	0	68.7	32.8	119			
Benzo(b)fluoranthene	0.5000	µg/L	0.10	1.002	0	49.9	24.4	117			
Benzo(k)fluoranthene	0.4000	µg/L	0.070	0.5	0	80.0	28.4	132			
Benzo(a)pyrene	0.4000	µg/L	0.070	0.502	0	79.7	32.4	119			
Dibenz(a,h)anthracene	0.8000	µg/L	0.070	1.002	0	79.8	33.9	120			
Benzo(g,h,i)perylene	0.7700	µg/L	0.080	1	0.04	73.0	35.2	113			
Indeno(1,2,3-cd)pyrene	1.620	µg/L	0.080	2.004	0	80.8	33.6	115			

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name **WESTERN REFINING SOUT** Date Received: **1/15/2010**

Work Order Number **1001201** Received by: **ARS**

Checklist completed by: _____ 1/15/10 Sample ID labels checked by: AS

Signature Date Initials

Matrix: Carrier name: Greyhound

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?	**1.9°**	*<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

Mailing Address: 111 CR 4990
Bloomfield NM 87413

Phone #:

email or Fax#:

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

Accreditation
☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush

Project Name: GBR

Project #:

Project Manager: Ashley Ager

Sampler: TROY URBAN

On Ice: ☒ 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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1001201	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)
01/12/10	0700	GW	trip blank	2 voa	HCl	1										X		
01/12/10	1342	GW	GBR-52	3 voa	HCl	2										X		
01/12/10	1533	GW	GBR-51	3 voa	HCl	3										X		
01/12/10	1612	GW	SHS-8	3 voa	HCl	4										X		
01/13/10	0931	GW	GBR-50	3	HCl	5										X		
01/13/10	1012	GW	GBR-48	3	HCl	6										X		
01/13/10	1054	GW	GBR-32	3	HCl	7										X		
01/13/10	1122	GW	GBR-49	3	HCl	8										X		
01/13/10	1212	GW	GBR-17	3	HCl	9										X		
01/13/10	1252	GW	~~GBR-TU~~ GRW-3	3	HCl	10										X		
01/13/10	1304	GW	GRW-6	3	HCl	11										X		
01/13/10	1348	GW	GBR-31	3	HCl	12										X		

Date: 1/14/10 Time: ~~1455~~ 1455 Relinquished by: Troy Urban

Received by: 9:45 Date 1/15/10 Time

Date: Time: Relinquished by:

Received by: Date Time

Remarks: please copy results to aager@ltenv.com

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: 111CR 4990
Bloomfield NM 87413

Phone #:

email or Fax#:

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

Accreditation
☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush

Project Name: GBR

Project #:

Project Manager: Ashley Ager

Sampler: Troy Urban

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	Container Type and #	Preservative Type	HEAL No. 1001201	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)
011310	1430	GW	GBR-24D	4	HCl/none	13										X	X PAH					
011310	1508	GW	GBR-30	3 VOA	HCl	14										X						
011310	1523	GW	Influent	3 VOA	HCl	15										X						
011310	1553	GW	Effluent	3 VOA	HCl	16										X						

Analysis Request

Date:	Time:	Relinquished by:	Received by:	Date	Time
1/14/10	1455			9:45 1/15/10	
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks: Please copy results to aager@ltenv.com

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 13, 2010

Bill Robertson
Western Refining Southwest, Inc.
#50 CR 4990
Bloomfield, NM 87413

TEL: (505) 632-4161
FAX (505) 632-3911

RE: GBR

Order No.: 1004184

Dear Bill Robertson:

Hall Environmental Analysis Laboratory, Inc. received 3 sample(s) on 4/9/2010 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.

Please do not 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

Hall Environmental Analysis Laboratory, Inc.

Date: *13-Apr-10*

CLIENT: Western Refining Southwest, Inc.
Lab Order: 1004184
Project: GBR
Lab ID: 1004184-01

Client Sample ID: Influent
Collection Date: 4/8/2010 11:38:00 AM
Date Received: 4/9/2010
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DAM
Benzene	ND	1.0		µg/L	1	4/13/2010 12:45:42 AM
Toluene	ND	1.0		µg/L	1	4/13/2010 12:45:42 AM
Ethylbenzene	ND	1.0		µg/L	1	4/13/2010 12:45:42 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	4/13/2010 12:45:42 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	4/13/2010 12:45:42 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	4/13/2010 12:45:42 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	4/13/2010 12:45:42 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	4/13/2010 12:45:42 AM
Naphthalene	ND	2.0		µg/L	1	4/13/2010 12:45:42 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	4/13/2010 12:45:42 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	4/13/2010 12:45:42 AM
Acetone	ND	10		µg/L	1	4/13/2010 12:45:42 AM
Bromobenzene	ND	1.0		µg/L	1	4/13/2010 12:45:42 AM
Bromodichloromethane	ND	1.0		µg/L	1	4/13/2010 12:45:42 AM
Bromoform	ND	1.0		µg/L	1	4/13/2010 12:45:42 AM
Bromomethane	ND	1.0		µg/L	1	4/13/2010 12:45:42 AM
2-Butanone	ND	10		µg/L	1	4/13/2010 12:45:42 AM
Carbon disulfide	ND	10		µg/L	1	4/13/2010 12:45:42 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	4/13/2010 12:45:42 AM
Chlorobenzene	ND	1.0		µg/L	1	4/13/2010 12:45:42 AM
Chloroethane	ND	2.0		µg/L	1	4/13/2010 12:45:42 AM
Chloroform	ND	1.0		µg/L	1	4/13/2010 12:45:42 AM
Chloromethane	ND	1.0		µg/L	1	4/13/2010 12:45:42 AM
2-Chlorotoluene	ND	1.0		µg/L	1	4/13/2010 12:45:42 AM
4-Chlorotoluene	ND	1.0		µg/L	1	4/13/2010 12:45:42 AM
cis-1,2-DCE	ND	1.0		µg/L	1	4/13/2010 12:45:42 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	4/13/2010 12:45:42 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	4/13/2010 12:45:42 AM
Dibromochloromethane	ND	1.0		µg/L	1	4/13/2010 12:45:42 AM
Dibromomethane	ND	1.0		µg/L	1	4/13/2010 12:45:42 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	4/13/2010 12:45:42 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	4/13/2010 12:45:42 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	4/13/2010 12:45:42 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	4/13/2010 12:45:42 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	4/13/2010 12:45:42 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	4/13/2010 12:45:42 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	4/13/2010 12:45:42 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	4/13/2010 12:45:42 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	4/13/2010 12:45:42 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	4/13/2010 12:45:42 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	4/13/2010 12:45:42 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *13-Apr-10*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	Influent
Lab Order:	1004184	**Collection Date:**	4/8/2010 11:38:00 AM
Project:	GBR	**Date Received:**	4/9/2010
Lab ID:	1004184-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DAM**
2-Hexanone	ND	10		µg/L	1	4/13/2010 12:45:42 AM
Isopropylbenzene	ND	1.0		µg/L	1	4/13/2010 12:45:42 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	4/13/2010 12:45:42 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	4/13/2010 12:45:42 AM
Methylene Chloride	ND	3.0		µg/L	1	4/13/2010 12:45:42 AM
n-Butylbenzene	ND	1.0		µg/L	1	4/13/2010 12:45:42 AM
n-Propylbenzene	ND	1.0		µg/L	1	4/13/2010 12:45:42 AM
sec-Butylbenzene	ND	1.0		µg/L	1	4/13/2010 12:45:42 AM
Styrene	ND	1.0		µg/L	1	4/13/2010 12:45:42 AM
tert-Butylbenzene	ND	1.0		µg/L	1	4/13/2010 12:45:42 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	4/13/2010 12:45:42 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	4/13/2010 12:45:42 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	4/13/2010 12:45:42 AM
trans-1,2-DCE	ND	1.0		µg/L	1	4/13/2010 12:45:42 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	4/13/2010 12:45:42 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	4/13/2010 12:45:42 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	4/13/2010 12:45:42 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	4/13/2010 12:45:42 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	4/13/2010 12:45:42 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	4/13/2010 12:45:42 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	4/13/2010 12:45:42 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	4/13/2010 12:45:42 AM
Vinyl chloride	ND	1.0		µg/L	1	4/13/2010 12:45:42 AM
Xylenes, Total	ND	1.5		µg/L	1	4/13/2010 12:45:42 AM
Surr: 1,2-Dichloroethane-d4	78.2	54.6-141		%REC	1	4/13/2010 12:45:42 AM
Surr: 4-Bromofluorobenzene	106	60.1-133		%REC	1	4/13/2010 12:45:42 AM
Surr: Dibromofluoromethane	109	78.5-130		%REC	1	4/13/2010 12:45:42 AM
Surr: Toluene-d8	101	79.5-126		%REC	1	4/13/2010 12:45:42 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
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *13-Apr-10*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	Effluent
Lab Order:	1004184	**Collection Date:**	4/8/2010 12:00:00 PM
Project:	GBR	**Date Received:**	4/9/2010
Lab ID:	1004184-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DAM**
Benzene	ND	1.0		µg/L	1	4/13/2010 1:13:46 AM
Toluene	ND	1.0		µg/L	1	4/13/2010 1:13:46 AM
Ethylbenzene	ND	1.0		µg/L	1	4/13/2010 1:13:46 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	4/13/2010 1:13:46 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	4/13/2010 1:13:46 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	4/13/2010 1:13:46 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	4/13/2010 1:13:46 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	4/13/2010 1:13:46 AM
Naphthalene	ND	2.0		µg/L	1	4/13/2010 1:13:46 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	4/13/2010 1:13:46 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	4/13/2010 1:13:46 AM
Acetone	ND	10		µg/L	1	4/13/2010 1:13:46 AM
Bromobenzene	ND	1.0		µg/L	1	4/13/2010 1:13:46 AM
Bromodichloromethane	ND	1.0		µg/L	1	4/13/2010 1:13:46 AM
Bromoform	ND	1.0		µg/L	1	4/13/2010 1:13:46 AM
Bromomethane	ND	1.0		µg/L	1	4/13/2010 1:13:46 AM
2-Butanone	ND	10		µg/L	1	4/13/2010 1:13:46 AM
Carbon disulfide	ND	10		µg/L	1	4/13/2010 1:13:46 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	4/13/2010 1:13:46 AM
Chlorobenzene	ND	1.0		µg/L	1	4/13/2010 1:13:46 AM
Chloroethane	ND	2.0		µg/L	1	4/13/2010 1:13:46 AM
Chloroform	ND	1.0		µg/L	1	4/13/2010 1:13:46 AM
Chloromethane	ND	1.0		µg/L	1	4/13/2010 1:13:46 AM
2-Chlorotoluene	ND	1.0		µg/L	1	4/13/2010 1:13:46 AM
4-Chlorotoluene	ND	1.0		µg/L	1	4/13/2010 1:13:46 AM
cis-1,2-DCE	ND	1.0		µg/L	1	4/13/2010 1:13:46 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	4/13/2010 1:13:46 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	4/13/2010 1:13:46 AM
Dibromochloromethane	ND	1.0		µg/L	1	4/13/2010 1:13:46 AM
Dibromomethane	ND	1.0		µg/L	1	4/13/2010 1:13:46 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	4/13/2010 1:13:46 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	4/13/2010 1:13:46 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	4/13/2010 1:13:46 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	4/13/2010 1:13:46 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	4/13/2010 1:13:46 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	4/13/2010 1:13:46 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	4/13/2010 1:13:46 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	4/13/2010 1:13:46 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	4/13/2010 1:13:46 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	4/13/2010 1:13:46 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	4/13/2010 1:13:46 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
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *13-Apr-10*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	Effluent
Lab Order:	1004184	**Collection Date:**	4/8/2010 12:00:00 PM
Project:	GBR	**Date Received:**	4/9/2010
Lab ID:	1004184-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DAM**
2-Hexanone	ND	10		µg/L	1	4/13/2010 1:13:46 AM
Isopropylbenzene	ND	1.0		µg/L	1	4/13/2010 1:13:46 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	4/13/2010 1:13:46 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	4/13/2010 1:13:46 AM
Methylene Chloride	ND	3.0		µg/L	1	4/13/2010 1:13:46 AM
n-Butylbenzene	ND	1.0		µg/L	1	4/13/2010 1:13:46 AM
n-Propylbenzene	ND	1.0		µg/L	1	4/13/2010 1:13:46 AM
sec-Butylbenzene	ND	1.0		µg/L	1	4/13/2010 1:13:46 AM
Styrene	ND	1.0		µg/L	1	4/13/2010 1:13:46 AM
tert-Butylbenzene	ND	1.0		µg/L	1	4/13/2010 1:13:46 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	4/13/2010 1:13:46 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	4/13/2010 1:13:46 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	4/13/2010 1:13:46 AM
trans-1,2-DCE	ND	1.0		µg/L	1	4/13/2010 1:13:46 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	4/13/2010 1:13:46 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	4/13/2010 1:13:46 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	4/13/2010 1:13:46 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	4/13/2010 1:13:46 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	4/13/2010 1:13:46 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	4/13/2010 1:13:46 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	4/13/2010 1:13:46 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	4/13/2010 1:13:46 AM
Vinyl chloride	ND	1.0		µg/L	1	4/13/2010 1:13:46 AM
Xylenes, Total	ND	1.5		µg/L	1	4/13/2010 1:13:46 AM
Surr: 1,2-Dichloroethane-d4	89.6	54.6-141		%REC	1	4/13/2010 1:13:46 AM
Surr: 4-Bromofluorobenzene	103	60.1-133		%REC	1	4/13/2010 1:13:46 AM
Surr: Dibromofluoromethane	115	78.5-130		%REC	1	4/13/2010 1:13:46 AM
Surr: Toluene-d8	104	79.5-126		%REC	1	4/13/2010 1:13:46 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
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *13-Apr-10*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	TRIP BLANK
Lab Order:	1004184	**Collection Date:**	
Project:	GBR	**Date Received:**	4/9/2010
Lab ID:	1004184-03	**Matrix:**	TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DAM**
Benzene	ND	1.0		µg/L	1	4/13/2010 1:41:50 AM
Toluene	ND	1.0		µg/L	1	4/13/2010 1:41:50 AM
Ethylbenzene	ND	1.0		µg/L	1	4/13/2010 1:41:50 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	4/13/2010 1:41:50 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	4/13/2010 1:41:50 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	4/13/2010 1:41:50 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	4/13/2010 1:41:50 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	4/13/2010 1:41:50 AM
Naphthalene	ND	2.0		µg/L	1	4/13/2010 1:41:50 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	4/13/2010 1:41:50 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	4/13/2010 1:41:50 AM
Acetone	ND	10		µg/L	1	4/13/2010 1:41:50 AM
Bromobenzene	ND	1.0		µg/L	1	4/13/2010 1:41:50 AM
Bromodichloromethane	ND	1.0		µg/L	1	4/13/2010 1:41:50 AM
Bromoform	ND	1.0		µg/L	1	4/13/2010 1:41:50 AM
Bromomethane	ND	1.0		µg/L	1	4/13/2010 1:41:50 AM
2-Butanone	ND	10		µg/L	1	4/13/2010 1:41:50 AM
Carbon disulfide	ND	10		µg/L	1	4/13/2010 1:41:50 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	4/13/2010 1:41:50 AM
Chlorobenzene	ND	1.0		µg/L	1	4/13/2010 1:41:50 AM
Chloroethane	ND	2.0		µg/L	1	4/13/2010 1:41:50 AM
Chloroform	ND	1.0		µg/L	1	4/13/2010 1:41:50 AM
Chloromethane	ND	1.0		µg/L	1	4/13/2010 1:41:50 AM
2-Chlorotoluene	ND	1.0		µg/L	1	4/13/2010 1:41:50 AM
4-Chlorotoluene	ND	1.0		µg/L	1	4/13/2010 1:41:50 AM
cis-1,2-DCE	ND	1.0		µg/L	1	4/13/2010 1:41:50 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	4/13/2010 1:41:50 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	4/13/2010 1:41:50 AM
Dibromochloromethane	ND	1.0		µg/L	1	4/13/2010 1:41:50 AM
Dibromomethane	ND	1.0		µg/L	1	4/13/2010 1:41:50 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	4/13/2010 1:41:50 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	4/13/2010 1:41:50 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	4/13/2010 1:41:50 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	4/13/2010 1:41:50 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	4/13/2010 1:41:50 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	4/13/2010 1:41:50 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	4/13/2010 1:41:50 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	4/13/2010 1:41:50 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	4/13/2010 1:41:50 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	4/13/2010 1:41:50 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	4/13/2010 1:41:50 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
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *13-Apr-10*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	TRIP BLANK
Lab Order:	1004184	**Collection Date:**	
Project:	GBR	**Date Received:**	4/9/2010
Lab ID:	1004184-03	**Matrix:**	TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DAM
2-Hexanone	ND	10		µg/L	1	4/13/2010 1:41:50 AM
Isopropylbenzene	ND	1.0		µg/L	1	4/13/2010 1:41:50 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	4/13/2010 1:41:50 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	4/13/2010 1:41:50 AM
Methylene Chloride	ND	3.0		µg/L	1	4/13/2010 1:41:50 AM
n-Butylbenzene	ND	1.0		µg/L	1	4/13/2010 1:41:50 AM
n-Propylbenzene	ND	1.0		µg/L	1	4/13/2010 1:41:50 AM
sec-Butylbenzene	ND	1.0		µg/L	1	4/13/2010 1:41:50 AM
Styrene	ND	1.0		µg/L	1	4/13/2010 1:41:50 AM
tert-Butylbenzene	ND	1.0		µg/L	1	4/13/2010 1:41:50 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	4/13/2010 1:41:50 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	4/13/2010 1:41:50 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	4/13/2010 1:41:50 AM
trans-1,2-DCE	ND	1.0		µg/L	1	4/13/2010 1:41:50 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	4/13/2010 1:41:50 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	4/13/2010 1:41:50 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	4/13/2010 1:41:50 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	4/13/2010 1:41:50 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	4/13/2010 1:41:50 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	4/13/2010 1:41:50 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	4/13/2010 1:41:50 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	4/13/2010 1:41:50 AM
Vinyl chloride	ND	1.0		µg/L	1	4/13/2010 1:41:50 AM
Xylenes, Total	ND	1.5		µg/L	1	4/13/2010 1:41:50 AM
Surr: 1,2-Dichloroethane-d4	90.3	54.6-141		%REC	1	4/13/2010 1:41:50 AM
Surr: 4-Bromofluorobenzene	95.7	60.1-133		%REC	1	4/13/2010 1:41:50 AM
Surr: Dibromofluoromethane	111	78.5-130		%REC	1	4/13/2010 1:41:50 AM
Surr: Toluene-d8	102	79.5-126		%REC	1	4/13/2010 1:41:50 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
NC	Non-Chlorinated
ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit
S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: GBR **Work Order:** 1004184

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES											
Sample ID: b1		*MBLK*				Batch ID: **R38161**		Analysis Date:	4/12/2010 8:42:54 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	NC	Non-Chlorinated
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: GBR **Work Order:** 1004184

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES											
Sample ID: b1		*MBLK*				Batch ID: **R38161**		Analysis Date:	4/12/2010 8:42:54 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: **R38161**		Analysis Date:	4/12/2010 11:09:19 AM		
Benzene	19.10	µg/L	1.0	20	0	95.5	82.4	116			
Toluene	20.21	µg/L	1.0	20	0	101	89.5	123			
Chlorobenzene	18.99	µg/L	1.0	20	0	94.9	87.8	120			
1,1-Dichloroethene	20.22	µg/L	1.0	20	0	101	90.3	138			
Trichloroethene (TCE)	20.11	µg/L	1.0	20	0	101	64	129			

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name **WESTERN REFINING SOUT** Date Received: **4/9/2010**

Work Order Number **1004184** Received by: TLS

Checklist completed by: _____ 4/9/10 Sample ID labels checked by: _____
Signature Date Initials

Matrix: Carrier name: Greyhound

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?	**4.6°**	*<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
Bill Robertson

Mailing Address: 111 CR 4990
Bloomfield, NM

Phone #: 505-632-4077

email or Fax#:

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

Accreditation
☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush

Project Name:
GBR

Project #:

Project Manager:
Ashley Ager

Sampler: Ashley Ager
On Ice: ☒ Yes ☐ No
Sample Temperature: 4.0

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. 1003134	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)
4-8-10	1138	GW	influent	40ml/3	HgCl2	1										✓		
4-8-10	1200	GW	Effluent	40ml/3	HgCl2	2										✓		
4-8-10	0700	water	TRIP BLANK	40ml/2	HgCl2	3										✓		

Date	Time	Relinquished by:	Received by:	Date	Time
4-8-10	20:30	Ashley L Ager		4/9/10	94
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

Thursday, July 22, 2010

Bill Robertson
Western Refining Southwest, Inc.
#50 CR 4990
Bloomfield, NM 87413

TEL: (505) 632-4161
FAX (505) 632-3911

RE: GBR

Order No.: 1007591

Dear Bill Robertson:

Hall Environmental Analysis Laboratory, Inc. received 3 sample(s) on 7/16/2010 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.

Please do not 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: *22-Jul-10*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	Influent
Lab Order:	1007591	**Collection Date:**	7/15/2010 1:09:00 PM
Project:	GBR	**Date Received:**	7/16/2010
Lab ID:	1007591-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Benzene	ND	1.0		µg/L	1	7/17/2010 1:14:25 PM
Toluene	ND	1.0		µg/L	1	7/17/2010 1:14:25 PM
Ethylbenzene	ND	1.0		µg/L	1	7/17/2010 1:14:25 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	7/17/2010 1:14:25 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	7/17/2010 1:14:25 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	7/17/2010 1:14:25 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	7/17/2010 1:14:25 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/17/2010 1:14:25 PM
Naphthalene	ND	2.0		µg/L	1	7/17/2010 1:14:25 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	7/17/2010 1:14:25 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	7/17/2010 1:14:25 PM
Acetone	ND	10		µg/L	1	7/17/2010 1:14:25 PM
Bromobenzene	ND	1.0		µg/L	1	7/17/2010 1:14:25 PM
Bromodichloromethane	ND	1.0		µg/L	1	7/17/2010 1:14:25 PM
Bromoform	ND	1.0		µg/L	1	7/17/2010 1:14:25 PM
Bromomethane	ND	1.0		µg/L	1	7/17/2010 1:14:25 PM
2-Butanone	ND	10		µg/L	1	7/17/2010 1:14:25 PM
Carbon disulfide	ND	10		µg/L	1	7/17/2010 1:14:25 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	7/17/2010 1:14:25 PM
Chlorobenzene	ND	1.0		µg/L	1	7/17/2010 1:14:25 PM
Chloroethane	ND	2.0		µg/L	1	7/17/2010 1:14:25 PM
Chloroform	ND	1.0		µg/L	1	7/17/2010 1:14:25 PM
Chloromethane	ND	1.0		µg/L	1	7/17/2010 1:14:25 PM
2-Chlorotoluene	ND	1.0		µg/L	1	7/17/2010 1:14:25 PM
4-Chlorotoluene	ND	1.0		µg/L	1	7/17/2010 1:14:25 PM
cis-1,2-DCE	ND	1.0		µg/L	1	7/17/2010 1:14:25 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/17/2010 1:14:25 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/17/2010 1:14:25 PM
Dibromochloromethane	ND	1.0		µg/L	1	7/17/2010 1:14:25 PM
Dibromomethane	ND	1.0		µg/L	1	7/17/2010 1:14:25 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	7/17/2010 1:14:25 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	7/17/2010 1:14:25 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/17/2010 1:14:25 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/17/2010 1:14:25 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	7/17/2010 1:14:25 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	7/17/2010 1:14:25 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	7/17/2010 1:14:25 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	7/17/2010 1:14:25 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	7/17/2010 1:14:25 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	7/17/2010 1:14:25 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	7/17/2010 1:14:25 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
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *22-Jul-10*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	Influent
Lab Order:	1007591	**Collection Date:**	7/15/2010 1:09:00 PM
Project:	GBR	**Date Received:**	7/16/2010
Lab ID:	1007591-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
2-Hexanone	ND	10		µg/L	1	7/17/2010 1:14:25 PM
Isopropylbenzene	ND	1.0		µg/L	1	7/17/2010 1:14:25 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	7/17/2010 1:14:25 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/17/2010 1:14:25 PM
Methylene Chloride	ND	3.0		µg/L	1	7/17/2010 1:14:25 PM
n-Butylbenzene	ND	1.0		µg/L	1	7/17/2010 1:14:25 PM
n-Propylbenzene	ND	1.0		µg/L	1	7/17/2010 1:14:25 PM
sec-Butylbenzene	ND	1.0		µg/L	1	7/17/2010 1:14:25 PM
Styrene	ND	1.0		µg/L	1	7/17/2010 1:14:25 PM
tert-Butylbenzene	ND	1.0		µg/L	1	7/17/2010 1:14:25 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	7/17/2010 1:14:25 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	7/17/2010 1:14:25 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	7/17/2010 1:14:25 PM
trans-1,2-DCE	ND	1.0		µg/L	1	7/17/2010 1:14:25 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/17/2010 1:14:25 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/17/2010 1:14:25 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/17/2010 1:14:25 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/17/2010 1:14:25 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/17/2010 1:14:25 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	7/17/2010 1:14:25 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	7/17/2010 1:14:25 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/17/2010 1:14:25 PM
Vinyl chloride	ND	1.0		µg/L	1	7/17/2010 1:14:25 PM
Xylenes, Total	ND	1.5		µg/L	1	7/17/2010 1:14:25 PM
Surr: 1,2-Dichloroethane-d4	101	54.6-141		%REC	1	7/17/2010 1:14:25 PM
Surr: 4-Bromofluorobenzene	120	60.1-133		%REC	1	7/17/2010 1:14:25 PM
Surr: Dibromofluoromethane	101	78.5-130		%REC	1	7/17/2010 1:14:25 PM
Surr: Toluene-d8	105	79.5-126		%REC	1	7/17/2010 1:14:25 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
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *22-Jul-10*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	Effluent
Lab Order:	1007591	**Collection Date:**	7/15/2010 1:27:00 PM
Project:	GBR	**Date Received:**	7/16/2010
Lab ID:	1007591-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
Benzene	ND	1.0		µg/L	1	7/17/2010 1:42:06 PM
Toluene	ND	1.0		µg/L	1	7/17/2010 1:42:06 PM
Ethylbenzene	ND	1.0		µg/L	1	7/17/2010 1:42:06 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	7/17/2010 1:42:06 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	7/17/2010 1:42:06 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	7/17/2010 1:42:06 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	7/17/2010 1:42:06 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/17/2010 1:42:06 PM
Naphthalene	ND	2.0		µg/L	1	7/17/2010 1:42:06 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	7/17/2010 1:42:06 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	7/17/2010 1:42:06 PM
Acetone	ND	10		µg/L	1	7/17/2010 1:42:06 PM
Bromobenzene	ND	1.0		µg/L	1	7/17/2010 1:42:06 PM
Bromodichloromethane	ND	1.0		µg/L	1	7/17/2010 1:42:06 PM
Bromoform	ND	1.0		µg/L	1	7/17/2010 1:42:06 PM
Bromomethane	ND	1.0		µg/L	1	7/17/2010 1:42:06 PM
2-Butanone	ND	10		µg/L	1	7/17/2010 1:42:06 PM
Carbon disulfide	ND	10		µg/L	1	7/17/2010 1:42:06 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	7/17/2010 1:42:06 PM
Chlorobenzene	ND	1.0		µg/L	1	7/17/2010 1:42:06 PM
Chloroethane	ND	2.0		µg/L	1	7/17/2010 1:42:06 PM
Chloroform	ND	1.0		µg/L	1	7/17/2010 1:42:06 PM
Chloromethane	ND	1.0		µg/L	1	7/17/2010 1:42:06 PM
2-Chlorotoluene	ND	1.0		µg/L	1	7/17/2010 1:42:06 PM
4-Chlorotoluene	ND	1.0		µg/L	1	7/17/2010 1:42:06 PM
cis-1,2-DCE	ND	1.0		µg/L	1	7/17/2010 1:42:06 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/17/2010 1:42:06 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/17/2010 1:42:06 PM
Dibromochloromethane	ND	1.0		µg/L	1	7/17/2010 1:42:06 PM
Dibromomethane	ND	1.0		µg/L	1	7/17/2010 1:42:06 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	7/17/2010 1:42:06 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	7/17/2010 1:42:06 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/17/2010 1:42:06 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/17/2010 1:42:06 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	7/17/2010 1:42:06 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	7/17/2010 1:42:06 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	7/17/2010 1:42:06 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	7/17/2010 1:42:06 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	7/17/2010 1:42:06 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	7/17/2010 1:42:06 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	7/17/2010 1:42:06 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
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *22-Jul-10*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	Effluent
Lab Order:	1007591	**Collection Date:**	7/15/2010 1:27:00 PM
Project:	GBR	**Date Received:**	7/16/2010
Lab ID:	1007591-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
2-Hexanone	ND	10		µg/L	1	7/17/2010 1:42:06 PM
Isopropylbenzene	ND	1.0		µg/L	1	7/17/2010 1:42:06 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	7/17/2010 1:42:06 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/17/2010 1:42:06 PM
Methylene Chloride	ND	3.0		µg/L	1	7/17/2010 1:42:06 PM
n-Butylbenzene	ND	1.0		µg/L	1	7/17/2010 1:42:06 PM
n-Propylbenzene	ND	1.0		µg/L	1	7/17/2010 1:42:06 PM
sec-Butylbenzene	ND	1.0		µg/L	1	7/17/2010 1:42:06 PM
Styrene	ND	1.0		µg/L	1	7/17/2010 1:42:06 PM
tert-Butylbenzene	ND	1.0		µg/L	1	7/17/2010 1:42:06 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	7/17/2010 1:42:06 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	7/17/2010 1:42:06 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	7/17/2010 1:42:06 PM
trans-1,2-DCE	ND	1.0		µg/L	1	7/17/2010 1:42:06 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/17/2010 1:42:06 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/17/2010 1:42:06 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/17/2010 1:42:06 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/17/2010 1:42:06 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/17/2010 1:42:06 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	7/17/2010 1:42:06 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	7/17/2010 1:42:06 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/17/2010 1:42:06 PM
Vinyl chloride	ND	1.0		µg/L	1	7/17/2010 1:42:06 PM
Xylenes, Total	ND	1.5		µg/L	1	7/17/2010 1:42:06 PM
Surr: 1,2-Dichloroethane-d4	104	54.6-141		%REC	1	7/17/2010 1:42:06 PM
Surr: 4-Bromofluorobenzene	118	60.1-133		%REC	1	7/17/2010 1:42:06 PM
Surr: Dibromofluoromethane	104	78.5-130		%REC	1	7/17/2010 1:42:06 PM
Surr: Toluene-d8	105	79.5-126		%REC	1	7/17/2010 1:42:06 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
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *22-Jul-10*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	TRIP BLANK
Lab Order:	1007591	**Collection Date:**	
Project:	GBR	**Date Received:**	7/16/2010
Lab ID:	1007591-03	**Matrix:**	TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **HL**
Benzene	ND	1.0		µg/L	1	7/17/2010 2:09:47 PM
Toluene	ND	1.0		µg/L	1	7/17/2010 2:09:47 PM
Ethylbenzene	ND	1.0		µg/L	1	7/17/2010 2:09:47 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	7/17/2010 2:09:47 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	7/17/2010 2:09:47 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	7/17/2010 2:09:47 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	7/17/2010 2:09:47 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/17/2010 2:09:47 PM
Naphthalene	ND	2.0		µg/L	1	7/17/2010 2:09:47 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	7/17/2010 2:09:47 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	7/17/2010 2:09:47 PM
Acetone	ND	10		µg/L	1	7/17/2010 2:09:47 PM
Bromobenzene	ND	1.0		µg/L	1	7/17/2010 2:09:47 PM
Bromodichloromethane	ND	1.0		µg/L	1	7/17/2010 2:09:47 PM
Bromoform	ND	1.0		µg/L	1	7/17/2010 2:09:47 PM
Bromomethane	ND	1.0		µg/L	1	7/17/2010 2:09:47 PM
2-Butanone	ND	10		µg/L	1	7/17/2010 2:09:47 PM
Carbon disulfide	ND	10		µg/L	1	7/17/2010 2:09:47 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	7/17/2010 2:09:47 PM
Chlorobenzene	ND	1.0		µg/L	1	7/17/2010 2:09:47 PM
Chloroethane	ND	2.0		µg/L	1	7/17/2010 2:09:47 PM
Chloroform	ND	1.0		µg/L	1	7/17/2010 2:09:47 PM
Chloromethane	ND	1.0		µg/L	1	7/17/2010 2:09:47 PM
2-Chlorotoluene	ND	1.0		µg/L	1	7/17/2010 2:09:47 PM
4-Chlorotoluene	ND	1.0		µg/L	1	7/17/2010 2:09:47 PM
cis-1,2-DCE	ND	1.0		µg/L	1	7/17/2010 2:09:47 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/17/2010 2:09:47 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/17/2010 2:09:47 PM
Dibromochloromethane	ND	1.0		µg/L	1	7/17/2010 2:09:47 PM
Dibromomethane	ND	1.0		µg/L	1	7/17/2010 2:09:47 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	7/17/2010 2:09:47 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	7/17/2010 2:09:47 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/17/2010 2:09:47 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/17/2010 2:09:47 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	7/17/2010 2:09:47 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	7/17/2010 2:09:47 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	7/17/2010 2:09:47 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	7/17/2010 2:09:47 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	7/17/2010 2:09:47 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	7/17/2010 2:09:47 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	7/17/2010 2:09:47 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
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *22-Jul-10*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	TRIP BLANK
Lab Order:	1007591	**Collection Date:**	
Project:	GBR	**Date Received:**	7/16/2010
Lab ID:	1007591-03	**Matrix:**	TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: HL
2-Hexanone	ND	10		µg/L	1	7/17/2010 2:09:47 PM
Isopropylbenzene	ND	1.0		µg/L	1	7/17/2010 2:09:47 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	7/17/2010 2:09:47 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/17/2010 2:09:47 PM
Methylene Chloride	ND	3.0		µg/L	1	7/17/2010 2:09:47 PM
n-Butylbenzene	ND	1.0		µg/L	1	7/17/2010 2:09:47 PM
n-Propylbenzene	ND	1.0		µg/L	1	7/17/2010 2:09:47 PM
sec-Butylbenzene	ND	1.0		µg/L	1	7/17/2010 2:09:47 PM
Styrene	ND	1.0		µg/L	1	7/17/2010 2:09:47 PM
tert-Butylbenzene	ND	1.0		µg/L	1	7/17/2010 2:09:47 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	7/17/2010 2:09:47 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	7/17/2010 2:09:47 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	7/17/2010 2:09:47 PM
trans-1,2-DCE	ND	1.0		µg/L	1	7/17/2010 2:09:47 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/17/2010 2:09:47 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/17/2010 2:09:47 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/17/2010 2:09:47 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/17/2010 2:09:47 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/17/2010 2:09:47 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	7/17/2010 2:09:47 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	7/17/2010 2:09:47 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/17/2010 2:09:47 PM
Vinyl chloride	ND	1.0		µg/L	1	7/17/2010 2:09:47 PM
Xylenes, Total	ND	1.5		µg/L	1	7/17/2010 2:09:47 PM
Surr: 1,2-Dichloroethane-d4	106	54.6-141		%REC	1	7/17/2010 2:09:47 PM
Surr: 4-Bromofluorobenzene	115	60.1-133		%REC	1	7/17/2010 2:09:47 PM
Surr: Dibromofluoromethane	106	78.5-130		%REC	1	7/17/2010 2:09:47 PM
Surr: Toluene-d8	104	79.5-126		%REC	1	7/17/2010 2:09:47 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
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: GBR **Work Order:** 1007591

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: R39884**		**Analysis Date: 7/16/2010 8:44:26 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								
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	NC	Non-Chlorinated
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: GBR **Work Order:** 1007591

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:	**R39884**	Analysis Date:	7/16/2010 8:44:26 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: b8		*MBLK*				Batch ID:	**R39884**	Analysis Date:	7/16/2010 9:39:36 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
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- H Holding times for preparation or analysis exceeded
- NC Non-Chlorinated
- R RPD outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: GBR **Work Order:** 1007591

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES											
Sample ID: b8		*MBLK*							Batch ID: **R39884**	Analysis Date:	7/16/2010 9:39:36 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: b13		*MBLK*							Batch ID: **R39884**	Analysis Date:	7/17/2010 10:01:25 AM

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: GBR **Work Order:** 1007591

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES											
Sample ID: b13		*MBLK*					**Batch ID: R39884**		**Analysis Date:**	7/17/2010 10:01:25 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								
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	NC	Non-Chlorinated
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: GBR **Work Order:** 1007591

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES											
Sample ID: b13		*MBLK*				Batch ID:	**R39884**	Analysis Date:	7/17/2010 10:01:25 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:	**R39884**	Analysis Date:	7/16/2010 10:07:10 AM		
Benzene	20.22	µg/L	1.0	20	0	101	82.4	116			
Toluene	23.09	µg/L	1.0	20	0	115	89.5	123			
Chlorobenzene	21.99	µg/L	1.0	20	0	110	87.8	120			
1,1-Dichloroethene	26.79	µg/L	1.0	20	0	134	90.3	138			
Trichloroethene (TCE)	18.19	µg/L	1.0	20	0	90.9	64	129			
Sample ID: 100ng lcs_b		*LCS*				Batch ID:	**R39884**	Analysis Date:	7/16/2010 10:34:37 PM		
Benzene	19.49	µg/L	1.0	20	0	97.4	82.4	116			
Toluene	21.68	µg/L	1.0	20	0	108	89.5	123			
Chlorobenzene	20.53	µg/L	1.0	20	0	103	87.8	120			
1,1-Dichloroethene	25.31	µg/L	1.0	20	0	127	90.3	138			
Trichloroethene (TCE)	17.80	µg/L	1.0	20	0	89.0	64	129			

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name **WESTERN REFINING SOUT** Date Received: **7/16/2010**

Work Order Number **1007591** Received by: **ARS**

Checklist completed by: _____ 7/16/10 Sample ID labels checked by: JB
Signature Date Initials

Matrix: Carrier name: Greyhound

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?	**2.1°**	*<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
Bill Robertson
Address: 111 CR 4990
Bloomfield NM
Phone #: 505-632-4077
email or Fax#:
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
☐ Other
☐ EDD (Type)

Turn-Around Time:
☑ Standard ☐ Rush
Project Name: GBR
Project #:
Project Manager: Ashley Ager
Sampler: Troy URBAN
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	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1007591	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8260)	8310 (PNA or PAH)	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)
071510	1309	Influent	40ml/3	$HgCl_2$	1										✓		
	1327	Effluent	40ml/3	$HgCl_2$	2										✓		
			40ml/2	$HgCl_2$	3										✓		

Date: 7/15/10 Time: 1430 Relinquished by: Troy
Date: Time: Relinquished by:
Received by: 8:45 7/16/10
Received by:

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, October 13, 2010

Bill Robertson
Western Refining Southwest, Inc.
#50 CR 4990
Bloomfield, NM 87413

TEL: (505) 632-4161
FAX (505) 632-3911

RE: GBR

Order No.: 1010364

Dear Bill Robertson:

Hall Environmental Analysis Laboratory, Inc. received 3 sample(s) on 10/7/2010 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.

Please do not 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

Hall Environmental Analysis Laboratory, Inc.

Date: *13-Oct-10*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	GBR Effluent
Lab Order:	1010364	**Collection Date:**	10/6/2010 11:52:00 AM
Project:	GBR	**Date Received:**	10/7/2010
Lab ID:	1010364-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: MMS
Benzene	ND	1.0		µg/L	1	10/11/2010 6:41:17 PM
Toluene	ND	1.0		µg/L	1	10/11/2010 6:41:17 PM
Ethylbenzene	ND	1.0		µg/L	1	10/11/2010 6:41:17 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	10/11/2010 6:41:17 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	10/11/2010 6:41:17 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	10/11/2010 6:41:17 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	10/11/2010 6:41:17 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	10/11/2010 6:41:17 PM
Naphthalene	ND	2.0		µg/L	1	10/11/2010 6:41:17 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	10/11/2010 6:41:17 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	10/11/2010 6:41:17 PM
Acetone	ND	10		µg/L	1	10/11/2010 6:41:17 PM
Bromobenzene	ND	1.0		µg/L	1	10/11/2010 6:41:17 PM
Bromodichloromethane	ND	1.0		µg/L	1	10/11/2010 6:41:17 PM
Bromoform	ND	1.0		µg/L	1	10/11/2010 6:41:17 PM
Bromomethane	ND	3.0		µg/L	1	10/11/2010 6:41:17 PM
2-Butanone	ND	10		µg/L	1	10/11/2010 6:41:17 PM
Carbon disulfide	ND	10		µg/L	1	10/11/2010 6:41:17 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	10/11/2010 6:41:17 PM
Chlorobenzene	ND	1.0		µg/L	1	10/11/2010 6:41:17 PM
Chloroethane	ND	2.0		µg/L	1	10/11/2010 6:41:17 PM
Chloroform	ND	1.0		µg/L	1	10/11/2010 6:41:17 PM
Chloromethane	ND	3.0		µg/L	1	10/11/2010 6:41:17 PM
2-Chlorotoluene	ND	1.0		µg/L	1	10/11/2010 6:41:17 PM
4-Chlorotoluene	ND	1.0		µg/L	1	10/11/2010 6:41:17 PM
cis-1,2-DCE	ND	1.0		µg/L	1	10/11/2010 6:41:17 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	10/11/2010 6:41:17 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	10/11/2010 6:41:17 PM
Dibromochloromethane	ND	1.0		µg/L	1	10/11/2010 6:41:17 PM
Dibromomethane	ND	1.0		µg/L	1	10/11/2010 6:41:17 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	10/11/2010 6:41:17 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	10/11/2010 6:41:17 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	10/11/2010 6:41:17 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	10/11/2010 6:41:17 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	10/11/2010 6:41:17 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	10/11/2010 6:41:17 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	10/11/2010 6:41:17 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	10/11/2010 6:41:17 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	10/11/2010 6:41:17 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	10/11/2010 6:41:17 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	10/11/2010 6:41:17 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
- NC Non-Chlorinated
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitation Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *13-Oct-10*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	GBR Effluent
Lab Order:	1010364	**Collection Date:**	10/6/2010 11:52:00 AM
Project:	GBR	**Date Received:**	10/7/2010
Lab ID:	1010364-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **MMS**
2-Hexanone	ND	10		µg/L	1	10/11/2010 6:41:17 PM
Isopropylbenzene	ND	1.0		µg/L	1	10/11/2010 6:41:17 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	10/11/2010 6:41:17 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	10/11/2010 6:41:17 PM
Methylene Chloride	ND	3.0		µg/L	1	10/11/2010 6:41:17 PM
n-Butylbenzene	ND	1.0		µg/L	1	10/11/2010 6:41:17 PM
n-Propylbenzene	ND	1.0		µg/L	1	10/11/2010 6:41:17 PM
sec-Butylbenzene	ND	1.0		µg/L	1	10/11/2010 6:41:17 PM
Styrene	ND	1.0		µg/L	1	10/11/2010 6:41:17 PM
tert-Butylbenzene	ND	1.0		µg/L	1	10/11/2010 6:41:17 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	10/11/2010 6:41:17 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	10/11/2010 6:41:17 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	10/11/2010 6:41:17 PM
trans-1,2-DCE	ND	1.0		µg/L	1	10/11/2010 6:41:17 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	10/11/2010 6:41:17 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	10/11/2010 6:41:17 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	10/11/2010 6:41:17 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	10/11/2010 6:41:17 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	10/11/2010 6:41:17 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	10/11/2010 6:41:17 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	10/11/2010 6:41:17 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	10/11/2010 6:41:17 PM
Vinyl chloride	ND	1.0		µg/L	1	10/11/2010 6:41:17 PM
Xylenes, Total	ND	1.5		µg/L	1	10/11/2010 6:41:17 PM
Surr: 1,2-Dichloroethane-d4	84.2	54.6-141		%REC	1	10/11/2010 6:41:17 PM
Surr: 4-Bromofluorobenzene	103	60.1-133		%REC	1	10/11/2010 6:41:17 PM
Surr: Dibromofluoromethane	106	78.5-130		%REC	1	10/11/2010 6:41:17 PM
Surr: Toluene-d8	98.1	79.5-126		%REC	1	10/11/2010 6:41:17 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
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *13-Oct-10*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	GBR Influent
Lab Order:	1010364	**Collection Date:**	10/6/2010 12:18:00 PM
Project:	GBR	**Date Received:**	10/7/2010
Lab ID:	1010364-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **MMS**
Benzene	ND	1.0		µg/L	1	10/11/2010 7:09:39 PM
Toluene	ND	1.0		µg/L	1	10/11/2010 7:09:39 PM
Ethylbenzene	ND	1.0		µg/L	1	10/11/2010 7:09:39 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	10/11/2010 7:09:39 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	10/11/2010 7:09:39 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	10/11/2010 7:09:39 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	10/11/2010 7:09:39 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	10/11/2010 7:09:39 PM
Naphthalene	ND	2.0		µg/L	1	10/11/2010 7:09:39 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	10/11/2010 7:09:39 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	10/11/2010 7:09:39 PM
Acetone	ND	10		µg/L	1	10/11/2010 7:09:39 PM
Bromobenzene	ND	1.0		µg/L	1	10/11/2010 7:09:39 PM
Bromodichloromethane	ND	1.0		µg/L	1	10/11/2010 7:09:39 PM
Bromoform	ND	1.0		µg/L	1	10/11/2010 7:09:39 PM
Bromomethane	ND	3.0		µg/L	1	10/11/2010 7:09:39 PM
2-Butanone	ND	10		µg/L	1	10/11/2010 7:09:39 PM
Carbon disulfide	ND	10		µg/L	1	10/11/2010 7:09:39 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	10/11/2010 7:09:39 PM
Chlorobenzene	ND	1.0		µg/L	1	10/11/2010 7:09:39 PM
Chloroethane	ND	2.0		µg/L	1	10/11/2010 7:09:39 PM
Chloroform	ND	1.0		µg/L	1	10/11/2010 7:09:39 PM
Chloromethane	ND	3.0		µg/L	1	10/11/2010 7:09:39 PM
2-Chlorotoluene	ND	1.0		µg/L	1	10/11/2010 7:09:39 PM
4-Chlorotoluene	ND	1.0		µg/L	1	10/11/2010 7:09:39 PM
cis-1,2-DCE	ND	1.0		µg/L	1	10/11/2010 7:09:39 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	10/11/2010 7:09:39 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	10/11/2010 7:09:39 PM
Dibromochloromethane	ND	1.0		µg/L	1	10/11/2010 7:09:39 PM
Dibromomethane	ND	1.0		µg/L	1	10/11/2010 7:09:39 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	10/11/2010 7:09:39 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	10/11/2010 7:09:39 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	10/11/2010 7:09:39 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	10/11/2010 7:09:39 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	10/11/2010 7:09:39 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	10/11/2010 7:09:39 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	10/11/2010 7:09:39 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	10/11/2010 7:09:39 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	10/11/2010 7:09:39 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	10/11/2010 7:09:39 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	10/11/2010 7:09:39 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
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *13-Oct-10*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	GBR Influent
Lab Order:	1010364	**Collection Date:**	10/6/2010 12:18:00 PM
Project:	GBR	**Date Received:**	10/7/2010
Lab ID:	1010364-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **MMS**
2-Hexanone	ND	10		µg/L	1	10/11/2010 7:09:39 PM
Isopropylbenzene	ND	1.0		µg/L	1	10/11/2010 7:09:39 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	10/11/2010 7:09:39 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	10/11/2010 7:09:39 PM
Methylene Chloride	ND	3.0		µg/L	1	10/11/2010 7:09:39 PM
n-Butylbenzene	ND	1.0		µg/L	1	10/11/2010 7:09:39 PM
n-Propylbenzene	ND	1.0		µg/L	1	10/11/2010 7:09:39 PM
sec-Butylbenzene	ND	1.0		µg/L	1	10/11/2010 7:09:39 PM
Styrene	ND	1.0		µg/L	1	10/11/2010 7:09:39 PM
tert-Butylbenzene	ND	1.0		µg/L	1	10/11/2010 7:09:39 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	10/11/2010 7:09:39 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	10/11/2010 7:09:39 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	10/11/2010 7:09:39 PM
trans-1,2-DCE	ND	1.0		µg/L	1	10/11/2010 7:09:39 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	10/11/2010 7:09:39 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	10/11/2010 7:09:39 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	10/11/2010 7:09:39 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	10/11/2010 7:09:39 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	10/11/2010 7:09:39 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	10/11/2010 7:09:39 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	10/11/2010 7:09:39 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	10/11/2010 7:09:39 PM
Vinyl chloride	ND	1.0		µg/L	1	10/11/2010 7:09:39 PM
Xylenes, Total	ND	1.5		µg/L	1	10/11/2010 7:09:39 PM
Surr: 1,2-Dichloroethane-d4	85.5	54.6-141		%REC	1	10/11/2010 7:09:39 PM
Surr: 4-Bromofluorobenzene	98.3	60.1-133		%REC	1	10/11/2010 7:09:39 PM
Surr: Dibromofluoromethane	107	78.6-130		%REC	1	10/11/2010 7:09:39 PM
Surr: Toluene-d8	97.7	79.5-126		%REC	1	10/11/2010 7:09:39 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
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *13-Oct-10*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	Trip Blank
Lab Order:	1010364	**Collection Date:**	
Project:	GBR	**Date Received:**	10/7/2010
Lab ID:	1010364-03	**Matrix:**	TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **MMS**
Benzene	ND	1.0		µg/L	1	10/11/2010 7:38:02 PM
Toluene	ND	1.0		µg/L	1	10/11/2010 7:38:02 PM
Ethylbenzene	ND	1.0		µg/L	1	10/11/2010 7:38:02 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	10/11/2010 7:38:02 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	10/11/2010 7:38:02 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	10/11/2010 7:38:02 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	10/11/2010 7:38:02 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	10/11/2010 7:38:02 PM
Naphthalene	ND	2.0		µg/L	1	10/11/2010 7:38:02 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	10/11/2010 7:38:02 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	10/11/2010 7:38:02 PM
Acetone	ND	10		µg/L	1	10/11/2010 7:38:02 PM
Bromobenzene	ND	1.0		µg/L	1	10/11/2010 7:38:02 PM
Bromodichloromethane	ND	1.0		µg/L	1	10/11/2010 7:38:02 PM
Bromoform	ND	1.0		µg/L	1	10/11/2010 7:38:02 PM
Bromomethane	ND	3.0		µg/L	1	10/11/2010 7:38:02 PM
2-Butanone	ND	10		µg/L	1	10/11/2010 7:38:02 PM
Carbon disulfide	ND	10		µg/L	1	10/11/2010 7:38:02 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	10/11/2010 7:38:02 PM
Chlorobenzene	ND	1.0		µg/L	1	10/11/2010 7:38:02 PM
Chloroethane	ND	2.0		µg/L	1	10/11/2010 7:38:02 PM
Chloroform	ND	1.0		µg/L	1	10/11/2010 7:38:02 PM
Chloromethane	ND	3.0		µg/L	1	10/11/2010 7:38:02 PM
2-Chlorotoluene	ND	1.0		µg/L	1	10/11/2010 7:38:02 PM
4-Chlorotoluene	ND	1.0		µg/L	1	10/11/2010 7:38:02 PM
cis-1,2-DCE	ND	1.0		µg/L	1	10/11/2010 7:38:02 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	10/11/2010 7:38:02 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	10/11/2010 7:38:02 PM
Dibromochloromethane	ND	1.0		µg/L	1	10/11/2010 7:38:02 PM
Dibromomethane	ND	1.0		µg/L	1	10/11/2010 7:38:02 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	10/11/2010 7:38:02 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	10/11/2010 7:38:02 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	10/11/2010 7:38:02 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	10/11/2010 7:38:02 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	10/11/2010 7:38:02 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	10/11/2010 7:38:02 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	10/11/2010 7:38:02 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	10/11/2010 7:38:02 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	10/11/2010 7:38:02 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	10/11/2010 7:38:02 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	10/11/2010 7:38:02 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
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *13-Oct-10*

CLIENT: Western Refining Southwest, Inc.
Lab Order: 1010364
Project: GBR
Lab ID: 1010364-03

Client Sample ID: Trip Blank
Collection Date:
Date Received: 10/7/2010
Matrix: TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **MMS**
2-Hexanone	ND	10		µg/L	1	10/11/2010 7:38:02 PM
Isopropylbenzene	ND	1.0		µg/L	1	10/11/2010 7:38:02 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	10/11/2010 7:38:02 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	10/11/2010 7:38:02 PM
Methylene Chloride	ND	3.0		µg/L	1	10/11/2010 7:38:02 PM
n-Butylbenzene	ND	1.0		µg/L	1	10/11/2010 7:38:02 PM
n-Propylbenzene	ND	1.0		µg/L	1	10/11/2010 7:38:02 PM
sec-Butylbenzene	ND	1.0		µg/L	1	10/11/2010 7:38:02 PM
Styrene	ND	1.0		µg/L	1	10/11/2010 7:38:02 PM
tert-Butylbenzene	ND	1.0		µg/L	1	10/11/2010 7:38:02 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	10/11/2010 7:38:02 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	10/11/2010 7:38:02 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	10/11/2010 7:38:02 PM
trans-1,2-DCE	ND	1.0		µg/L	1	10/11/2010 7:38:02 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	10/11/2010 7:38:02 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	10/11/2010 7:38:02 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	10/11/2010 7:38:02 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	10/11/2010 7:38:02 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	10/11/2010 7:38:02 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	10/11/2010 7:38:02 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	10/11/2010 7:38:02 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	10/11/2010 7:38:02 PM
Vinyl chloride	ND	1.0		µg/L	1	10/11/2010 7:38:02 PM
Xylenes, Total	ND	1.5		µg/L	1	10/11/2010 7:38:02 PM
Surr: 1,2-Dichloroethane-d4	101	54.6-141		%REC	1	10/11/2010 7:38:02 PM
Surr: 4-Bromofluorobenzene	94.2	60.1-133		%REC	1	10/11/2010 7:38:02 PM
Surr: Dibromofluoromethane	121	78.5-130		%REC	1	10/11/2010 7:38:02 PM
Surr: Toluene-d8	98.6	79.5-126		%REC	1	10/11/2010 7:38:02 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
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: GBR **Work Order:** 1010364

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: R41488**		**Analysis Date: 10/11/2010 9:17:47 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	3.0								
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	3.0								
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	NC	Non-Chlorinated
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: GBR **Work Order:** 1010364

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: R41488**		**Analysis Date: 10/11/2010 9:17:47 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: R41488**		**Analysis Date: 10/11/2010 10:29:54 AM**			
Benzene	20.15	µg/L	1.0	20	0	101	82.4	116			
Toluene	21.22	µg/L	1.0	20	0	106	89.5	123			
Chlorobenzene	20.97	µg/L	1.0	20	0	105	87.8	120			
1,1-Dichloroethene	21.06	µg/L	1.0	20	0	105	90.3	138			
Trichloroethene (TCE)	18.19	µg/L	1.0	20	0	91.0	64	129			
Sample ID: 100ng lcs-2		*LCSD*				**Batch ID: R41488**		**Analysis Date: 10/11/2010 5:44:43 PM**			
Benzene	17.86	µg/L	1.0	20	0	89.3	82.4	116	12.0	11	R
Toluene	19.65	µg/L	1.0	20	0	98.2	89.5	123	7.70	12.2	
Chlorobenzene	20.46	µg/L	1.0	20	0	102	87.8	120	2.43	12	
1,1-Dichloroethene	18.17	µg/L	1.0	20	0	90.9	90.3	138	14.7	19.3	
Trichloroethene (TCE)	16.71	µg/L	1.0	20	0	83.6	64	129	8.47	15.5	

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name WESTERN REFINING SOUT | Date Received: 10/7/2010

Work Order Number 1010364 | Received by: MLW

Sample ID labels checked by: _____ (initials)

Checklist completed by: Michelle Garcia, 10/7/10 (Signature, Date)

Matrix: | Carrier name Courier

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: Western Refining Made Trip Blank

Corrective Action _____

Chain-of-Custody Record

Client: Western Refining
Bill Robertson
Mailing Address: 111 CR 4990

Phone #: 505-632-4077
email or Fax#:
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: GBR
Project #:
Project Manager: Ashley Ager
Sampler: Troy Urban
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. 1004084	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)
10/6/10	1152	GW	GBR Effluent	40ml/3	HCl	-1										X		
10/6/10	1030	GW	trip blank	40ml/2	HCl	-3										X		
10/6/10	1218	GW	GBR Influent	40ml/3	HCl	-2										X		

Analysis Request

Date:	Time:	Relinquished by:	Received by:	Date	Time
10/6/10	1325		Melissa Wrotenbery	10/7/10	200
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks: please email results to aager@ltenv.com

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

WNR LISTED NYSE

RECEIVED OCD

2011 APR 15 P 1:14

April 14, 2011

Glen Von Gonten
Project Manager
Environmental Bureau
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

RE: Western Refining, Inc. 2010 Annual Report for the former Bloomfield Crude Station.

Dear Mr. Von Gonten;

Please fine enclosed, Western's 2010 Annual Report for the former Bloomfield Crude Station located in the NW ¼ of the NW ¼ of Section 22, Township 29 N, Range 11 W in Bloomfield, New Mexico.

If you should have any questions or require additional information, please do not hesitate to contact me at 505-632-4171 or Randy.Schmaltz@wnr.com.

Sincerely,

James R. Schmaltz
Health, Safety, Environmental & Regulatory Director
Western Refining Southwest, Inc.

111 County Road 4990
Bloomfield, NM 87413

Cc: Brandon Powell, NM OCD Aztec District Office
Allen Haines, Western Refining - El Paso
WNR File

ANNUAL REPORT

BLOOMFIELD CRUDE STATION
BLOOMFIELD, NEW MEXICO

APRIL 2011

WESTERN REFINING SOUTHWEST, INC.
111 County Road 4990
Bloomfield, New Mexico 87413

ANNUAL REPORT

BLOOMFIELD CRUDE STATION
BLOOMFIELD, NEW MEXICO

APRIL 2011

Prepared for:

WESTERN REFINING SOUTHWEST, INC.
111 COUNTY ROAD 4990
BLOOMFIELD, NEW MEXICO 87413

Prepared by:

LT ENVIRONMENTAL, INC.
2243 Main Avenue, Suite 3
Durango, Colorado 81301
(970) 385-1096

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EXECUTIVE SUMMARY

LT Environmental, Inc. (LTE) on behalf of Western Refining Southwest, Inc. (Western) has prepared this report detailing work completed since the previous annual report submitted April 2010 at the former Bloomfield Crude Station (Site) in Bloomfield, New Mexico.

The Site is located on the southwest corner of Blanco Boulevard and Fifth Street in the city of Bloomfield, New Mexico. The legal description of the Site is the northwest quarter of the northwest quarter of Section 22, Township 29 North, Range 11 West in San Juan County, New Mexico.

The scope of work includes mitigation of subsurface hydrocarbon impacts identified following removal of a 55,000 barrel crude oil storage tank in late 1995. Historical releases from this tank are believed to be the source for impacted soil and groundwater. During the time period covered by this report, Western utilized a bioventing system to reduce concentrations of hydrocarbons in the subsurface soil. LTE conducted regular operations and maintenance on the system hardware, and monitored subsurface airflow quarterly by measuring concentrations of oxygen and carbon dioxide gas. Soil samples were collected quarterly to examine effectiveness of the system. LTE monitored groundwater quality by sampling six monitoring wells in January 2011.

Bioventing is effectively reducing the concentrations of hydrocarbons in the subsurface soil. Progress for reduction of total petroleum hydrocarbons (TPH) in the soil has slowed, most likely due to the presence of clay in the subsurface. Concentrations of benzene, toluene, ethylbenzene, and total xylenes (BTEX) in the groundwater have diminished except in monitoring wells MW-6 and MW-7. These wells are located cross-gradient of the source areas and are not likely related to Western's activities. BTEX concentrations in groundwater from other monitoring wells have been below New Mexico Water Quality Control Commission standards since January of 2007.

Western should continue bioventing to reduce TPH concentrations remaining in the soil. Consider removing analysis of BTEX and gasoline range organics from the soil sampling program based on nine years of analytical results demonstrating that these constituents have been successfully remediated to below NMOCD soil standards. Western should continue annual sampling of groundwater wells for laboratory analysis to monitor groundwater quality at the Site.

1.0 INTRODUCTION

LT Environmental, Inc. (LTE), on behalf of Western Refining Southwest, Inc. (Western), has prepared this report detailing work completed from February 2010 through February 2011 to mitigate hydrocarbon-impacted soil and groundwater at the former Bloomfield Crude Station (Site) in Bloomfield, New Mexico.

1.1 SITE DESCRIPTION

The Site is located on the southwest corner of West Blanco Boulevard and North Fifth Street in Bloomfield, New Mexico. It occupies approximately 5.5 acres within the northwest quarter of the northwest quarter of Section 22, Township 29 North, Range 11 West in San Juan County (Figure 1).

A 55,000 barrel crude oil storage tank (Tank 967-D) constructed in 1956 was previously located within an earthen berm at the Site (Figure 2). Tank 967-D and the earthen berm were removed between late 1995 and early 1996. Currently, the former tank location is unoccupied.

West of the Site is a City of Bloomfield electrical substation and two natural gas well sites owned and operated by Mañana Gas. West of the electrical substation and the Mañana well sites, on the corner of North Frontier Street and West Blanco Boulevard, is a vacant lot. There appears to be a well monument located on the lot and may indicate a previous well site that has been plugged and abandoned. Historical research of this area indicates that several oil wells, and possibly gas wells with associated unlined pits, were operational on this lot, such as the Bishop #1, Bishop #3, Hare #1 and Kittell #1 (Figure 2).

Site lithology consists of a coarse to very coarse, well sorted and dry sand extending from the surface to depths between 4 feet to 11 feet below ground surface (bgs). The sand grades into clayey sands and sandy clays. These fine-grained layers consist of low plasticity clay that is medium dense or stiff and moist. Within the fine-grained clay layers are occasional coarse to very coarse well-graded sand layers ranging from 2 inches to 8 inches thick and saturated. These sand layers are discontinuous, but appear to transport shallow groundwater beneath the Site. A sandy clay layer, which retards downward movement of perched water, occurs from 8 feet to 19 feet bgs. Depth to groundwater in the shallow saturated zone is approximately 15 feet bgs. The direction of groundwater flow varies from southwest to south-southeast. Recharge to this perched zone is most likely from direct infiltration of rainfall or from seasonal up-gradient irrigation. Groundwater quality, as measured in up-gradient and source area wells over time, consistently exhibits high naturally occurring total dissolved solids (TDS) and sulfate contents. Specific details on Site geography, hydrogeology, and geology are described in the report *Site Assessment for the Bloomfield Crude Station*, May 1995, previously submitted to the New Mexico Oil Conservation Division (NMOCD).

1.2 SITE HISTORY

When Tank 967-D and the earthern berm were removed, approximately 12,924 cubic yards of hydrocarbon-impacted soil were excavated and disposed of at Western's Bisti landfarm. The excavation began on the east side of the tank pad and proceeded to the west. Midway across the

tank pad, phase-separated hydrocarbons (PSH) were observed on the groundwater along the southern edge of the excavation. This portion of the excavation was left open until 2001 to allow for recovery of PSH. Numerous subsurface investigations were conducted to define the limits of hydrocarbon migration and to design appropriate remedial systems. Historical accounts of soil boring and groundwater well installation activities are detailed in reports previously submitted to the NMOCD, including *Comprehensive Report for the Bloomfield Crude Station*, January 2000, and *Monitoring Well Installation, Groundwater Sampling and Bioventing Pilot Test*, July 2001.

In 1994, seven groundwater monitoring wells were installed, six of which are currently still in use (Figure 2). Monitoring well MW-1 was completed above the groundwater table and never produced sufficient volumes of water for sampling and was abandoned during excavation of the tank pad. Results from early sampling indicated that MW-2 was located in a PSH plume and monitoring wells MW-3, MW-4, MW-5, and MW-6 were outside of the plume. In addition, presence of dissolved phase hydrocarbons was confirmed in MW-2 and MW-7. It has been argued that MW-7, located cross-gradient of the Site, exhibits a different groundwater quality signature than other monitoring well data and may be related to a separate source area. Monitoring well MW-7 is not considered part of the contaminant plume at the Site.

Historic soil borings indicated that significant amounts of overburden would have to be removed to excavate additional hydrocarbon-impacted soil. Alternate remedial activities resulting from subsurface investigations have included manual removal of PSH from the water table, bioventing, air sparging, and groundwater monitoring. Details of these activities can be found in previous annual reports submitted by Western to the NMOCD.

1.2.1 Bioventing

Following a successful pilot test on June 20, 2001, bioventing was initiated at the Site on February 17, 2003. System installation included boring 3-inch diameter holes with a hand auger, collecting soil samples every 3 feet and screening the samples using NMOCD headspace techniques. Eight soil samples with the highest headspace readings were submitted for laboratory analysis of benzene, toluene, ethylbenzene, and total xylenes (BTEX), as well as total petroleum hydrocarbons (TPH).

One foot of 1-inch diameter polyvinyl chloride (PVC) 0.01-inch slotted well screen was set in each hole at approximately 12 feet bgs at 39 locations. The air was injected where field screening and laboratory analyses indicated elevated concentrations of hydrocarbons existed in the subsurface. Injection points have varied over time, in an effort to target problem areas. Twenty two points are currently used for monitoring subsurface gases, and seventeen points are used to inject air. Monitoring and injection point locations are depicted on Figure 3.

Injection air is supplied by a Gast™ oil-less rotary vane compressor that supplies approximately 90 standard cubic feet per minute air. The compressor is housed in a former office building at the Site and travels through 1 ½-inch PVC pipe to each injection point. The compressor operates from 0600 hours to 1800 hours Monday through Friday.

1.2.2 Groundwater Remediation

From 1999 through 2004, Giant Industries, Arizona (former owner of the Site) regularly monitored PSH concentrations and manually purged water and PSH from MW-2, as necessary, using a disposable bailer. PSH was also removed from the portion of the excavation left open from 1996 through 2001. After 2004, product was no longer observed in MW-2, but high concentrations of BTEX were persistently detected in groundwater samples from MW-2. To address the BTEX concentrations, a sparge system was installed adjacent to MW-2 on October 9, 2006. BTEX concentrations from groundwater samples in MW-2 dropped below New Mexico Water Quality Control Commission (NMWQCC) standards by January 2007. Quarterly sampling was initiated in 2007 to more closely monitor BTEX concentrations in MW-2. The sparge system was turned off in March 2008 after 5 consecutive clean quarters to ascertain whether BTEX concentrations in the groundwater would remain below standards or rebound. By February 2010, 8 consecutive quarters of samples from MW-2 were below NMWQCC BTEX standards and MW-2 was placed on the same annual sampling schedule as other monitoring wells at the Site.

1.3 SCOPE OF WORK

The scope of work for this project included operations and maintenance of the bioventing system. Oxygen and carbon dioxide gases were monitored quarterly in the subsurface airflow system, and quarterly soil samples were collected to evaluate the effectiveness of the system. Annual groundwater sampling was conducted to monitor groundwater quality at the Site. A summary of field activities, subsurface airflow data, analytical results from soil and groundwater sampling, and conclusions are presented in the subsequent sections of this report.

2.0 METHODOLOGY

During the period covered in this report, bioventing continued as described in the *Bioventing Plan*, dated July 2002. Soil was sampled from monitoring and injection points associated with the bioventing system, and oxygen and carbon dioxide were measured in subsurface air flow. All groundwater monitoring wells were sampled to monitor overall groundwater quality.

2.1 BIOVENTING

Operations and maintenance were conducted bi-monthly on the bioventing system to ensure that the system was functioning properly. A technician conducts a site visit and inspects the compressor and timer. The technician then walks the Site visually inspecting PVC piping and valves for damages or problems, and addressing general housekeeping needs as required.

Oxygen and carbon dioxide concentrations in subsurface air flow were measured quarterly. Gases were measured through valves at each monitoring and injection point with a GEM 500 Gas Monitor. Each monitoring and injection point was evacuated until the gas reading stabilized, at which time gas concentrations were recorded.

2.2 SOIL SAMPLING

Soil samples were collected quarterly using a hand powered auger. Samples were collected from a location approximately 1 foot or less away from where the initial 8 soil samples were collected during system installation, and at the same depths as the original samples. Samples were collected in 1-quart plastic bags and split for headspace and laboratory analysis. The soil samples were immediately placed in 4-ounce glass jars, sealed, labeled, stored on ice, and shipped under strict chain-of-custody procedures to Hall Environmental Analysis Laboratory (HEAL) in Albuquerque, New Mexico. HEAL analyzed the soil samples for BTEX and TPH by United States Environmental Protection Agency (USEPA) Methods 8021B and 8015B, respectively.

2.3 GROUNDWATER SAMPLING

LTE personnel sampled groundwater from MW-2 through MW-7 on January 13, 2011. MW-7 was sampled at the request of NMOCD; although, as discussed in previous reports, Western does not believe groundwater impact at this location is related to their operations.

Prior to sampling, depth to groundwater and total depth of each well were measured with a Keck oil-water interface probe. The presence of PSH was also investigated using the interface probe. The interface probe was decontaminated with Alconox™ soap and rinsed with de-ionized water prior to each measurement. The volume of water in the wells was calculated, and a minimum of three casing volumes of water was purged from each well using a disposable bailer. As water was extracted, pH, electric conductivity, and temperature were monitored. The wells were purged until these properties stabilized, indicating that the purge water was representative of aquifer conditions.

Once each monitoring well was purged, groundwater samples were collected by filling three 40-mililiter glass vials to be analyzed for BTEX by USEPA Method 8021 and TPH by USEPA

Method 8015B. The pre-cleaned and pre-preserved vials were filled and capped with no air inside to prevent degradation of the sample. Additional groundwater was collected in plastic bottles with appropriate preservative for analysis of general chemistry, including major cations, anions, TDS, pH, specific conductance, recoverable metals, hardness, and alkalinity. All groundwater samples were labeled with the time and date of collection, as well as the origin of the sample. They were immediately sealed and packed on ice and shipped to HEAL under proper chain-of-custody procedures.

3.0 ANALYTICAL RESULTS

3.1 BIOVENTING

Table 1 shows the average yearly carbon dioxide and oxygen concentrations measured in subsurface air from the bioventing system. Monitoring was conducted at all injection and monitoring points since the bioventing system configuration has changed over the years to target areas of highest hydrocarbon concentrations. The actual quarterly measurements are shown in Appendix A. Oxygen and carbon dioxide measurements have been fairly consistent since 2007. However, changes are evident in IP-6, IP-9, IP-10, IP-13, MP-4, and MP-15. Oxygen is decreasing and carbon dioxide is correspondingly increasing.

3.2 SOIL ANALYTICAL RESULTS

Laboratory analytical results from soil sampling are in Table 2. Laboratory analytical reports and chain-of-custody documentation are found in Appendix B. Historical results can be found in Appendix C. TPH concentrations in soil samples have generally decreased during bioventing operations, as depicted on Figure 4. Significant decreases occurred between 2002 and 2006. Since 2006, results have been variable, and the soil around MP-7, IP-12, and IP-16 contain TPH concentrations exceeding NMOCD standards. BTEX concentrations in soil samples have been below NMOCD standards in all samples since 2006 (Figure 5).

3.3 GROUNDWATER ANALYTICAL RESULTS

Depth to groundwater measured in groundwater monitoring wells in January 2011 and corresponding groundwater elevations are presented in Table 3. Groundwater elevations ranged from 5,468.21 feet above mean seal level (amsl) in MW-5 to 5,475.56 feet amsl in MW-2. An inferred potentiometric surface and groundwater elevation map is presented as Figure 6. Based on the contours in Figure 6, groundwater flow direction appears to be toward the south. This represents a slight easterly shift as compared to historical data, which presented a south-southwest flow direction.

Laboratory analytical results for BTEX concentrations in groundwater samples collected in January 2011 are presented in Table 4 and on Figure 7. Complete laboratory reports are presented as Appendix D. During January 2011, BTEX concentrations were below NMWQCC standards in groundwater from all monitoring wells except MW-6 and MW-7. Monitoring well MW-6 exceeds the NMWQCC standards for total xylenes with 960 micrograms per liter (µg/l) present. MW-7 continues to exceed the NMWQCC standards with 140 µg/l of benzene and 2,400 µg/l of total xylenes. Historical results for groundwater sampling (1994-January 2011) are presented in Appendix E.

Results of the general chemistry and metals analyses of groundwater samples are detailed in Table 5. Consistent with historic results, monitoring wells MW-2 through MW-6 continue to exhibit elevated TDS concentrations exceeding NMWQCC standards. MW-2 through MW-5 exhibit elevated sulfate concentrations. The sample from MW-5 also exceeds the standard for chloride. In contrast, MW-7 shows significantly lower values for these parameters. Compared to the other monitoring well data, samples from MW-7 exhibit a different chemical signature.

4.0 CONCLUSIONS

Based on the overall decrease in concentrations of TPH and BTEX following almost eight years of operations, bioventing is effectively reducing concentrations of hydrocarbons in the subsurface soil. Prior to bioventing in 2002, seven of eight soil samples exceeded NMOCD standards for TPH and four exceeded the NMOCD standard for total BTEX. TPH concentrations in soil decreased significantly through 2006, but remain above NMOCD standards in MP-7, IP12, and IP-16. BTEX concentrations have diminished and have been below NMOCD standards since 2002.

Soil type may be affecting progress for TPH concentration reductions in soil. Based on original core logs, the areas with TPH concentrations exceeding NMOCD standards include areas southeast (MP-7 and IP-10) and southwest of the excavation (IP-12 and IP-7) and the northwest corner of the excavation (IP-16). The depths from which samples are taken in these areas are in or surrounded by sand containing a portion of clay within its matrix. The bioventing system quickly facilitated biodegradation of hydrocarbons within the pure sand layers; but hydrocarbon concentrations within the units that contain clay are harder to reduce, as clay impedes efficient airflow. The bioventing system continues to reduce the overall TPH concentrations, but it is expected that decreases in these subsurface units will require additional time.

Concentrations of oxygen and carbon dioxide recorded through January 2011 indicate active biologic activity at the Site since bioventing began. Oxygen concentrations from the 2002 installation through 2004 decreased, representing enhanced biologic activity during startup of operations. Oxygen concentrations began to rise in 2005, indicating that less oxygen was being consumed as less hydrocarbon mass was available. A similar trend is apparent in carbon dioxide concentrations. The peak concentration occurred in 2004, when biologic activity was at its highest. Concentrations have since decreased as less hydrocarbon mass is available.

Air sparging operations were successful in reducing BTEX concentrations in groundwater from MW-2. The sparging system was shut down in March 2008, and MW-2 was placed on a quarterly sampling schedule for closure. Eight clean quarters of groundwater sampling were documented and included in last year's annual report. The absence of PSH on the groundwater table and the reduction in concentrations of BTEX in the groundwater from MW-2 indicates that contaminants have been removed from the groundwater at the Site.

Groundwater samples from MW-6 contained xylene concentrations in excess of NMWQCC standards for the first time since 2008. The January 2011 potentiometric surface map indicates groundwater flow direction is toward the south, indicating that MW-6 is downgradient of MW-7. Historical data have shown a more southwesterly flow. Fluctuations in BTEX concentrations in MW-6 may be related to groundwater flow direction, and thus increase when flow is to the south. MW-6 is also directly downgradient of existing gas well operations and a new source from these operations cannot be excluded. Groundwater from MW-7 contains concentrations of benzene and xylenes that exceed NMWQCC standards. These concentrations are not likely related to

Western's activities at the Site due to MW-7's proximity to former off-site oil and gas wells and its location west of and cross-gradient to the Site.

Groundwater quality and metals analyses, including those reported from an upgradient monitoring well (MW-3), indicate that the groundwater is not suitable for domestic use. Historical analytical sampling records indicate that TDS and sulfate concentrations in groundwater at the Site have always been elevated. Groundwater results from MW-7 exhibit a different water quality signature that may further suggest the source for elevated BTEX concentrations in MW-7 are likely not from the Tank 967-D release at the Site.

5.0 RECOMMENDATIONS

Based on the data collected during 2010, the following actions are recommended:

- Continue to monitor groundwater in all monitoring wells annually.
- Continue bioventing to reduce the hydrocarbon concentrations in soil to below NMOCD standards.
- Since nine years of sampling results indicate that BTEX concentrations in soil have been remediated to below NMOCD standards, Western should consider removing analysis of BTEX and gasoline range organics from the soil monitoring program.

FIGURES



IMAGE COURTESY OF USDA/NRCS, VARIOUS DATES

LEGEND

SITE LOCATION

0 2,000 4,000

Feet

N

FIGURE 1
SITE LOCATION MAP
BLOOMFIELD CRUDE STATION
NWNW SEC 22 T29N R11W
SAN JUAN COUNTY, NEW MEXICO
WESTERN REFINING, SOUTHWEST, INC.

P:\Western Refining\GIS\MXD\WR1007 BLOOMFIELD CRUDE\WR1007_BLOOMFIELD_FIG01_SL.mxd

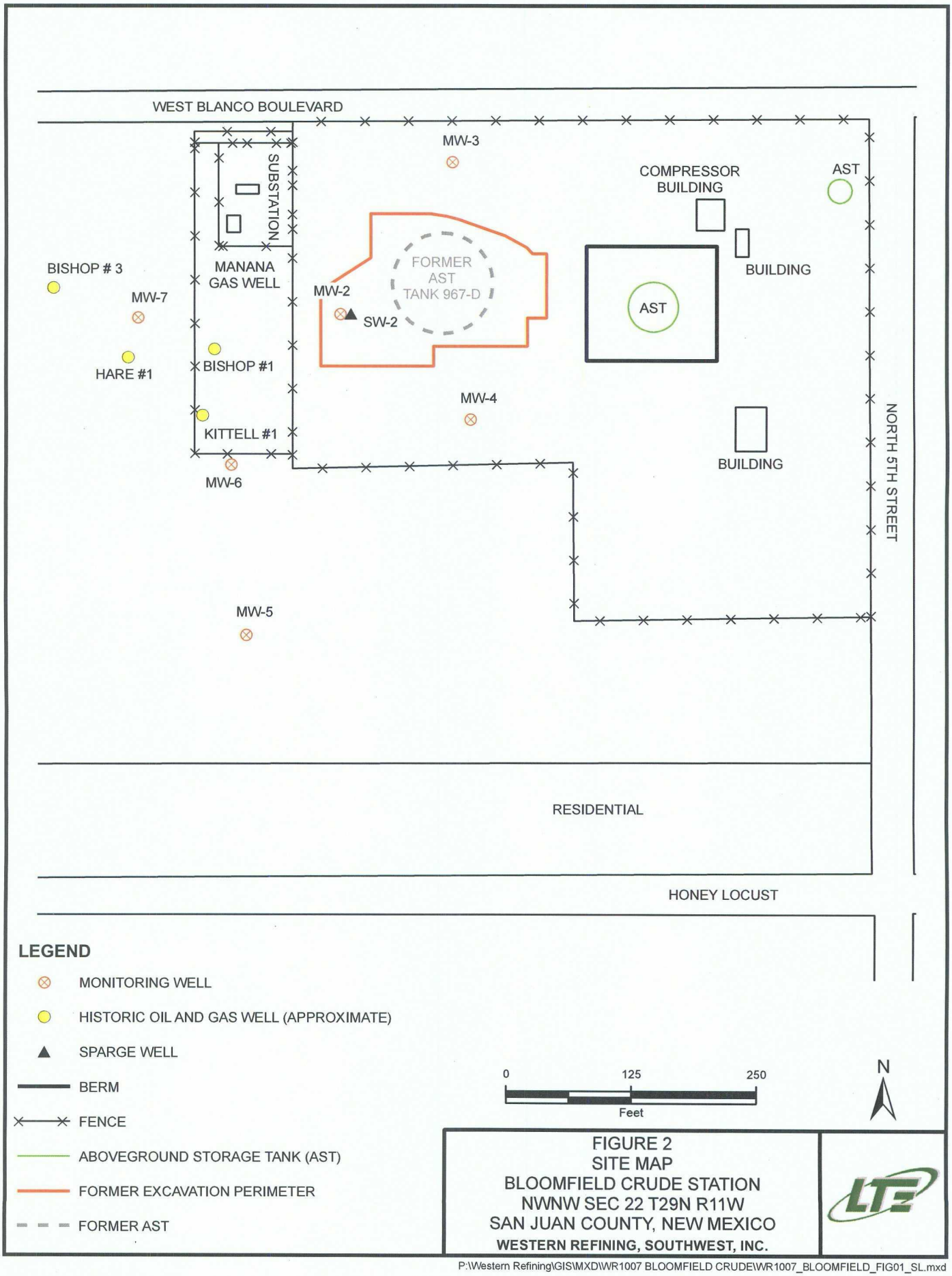
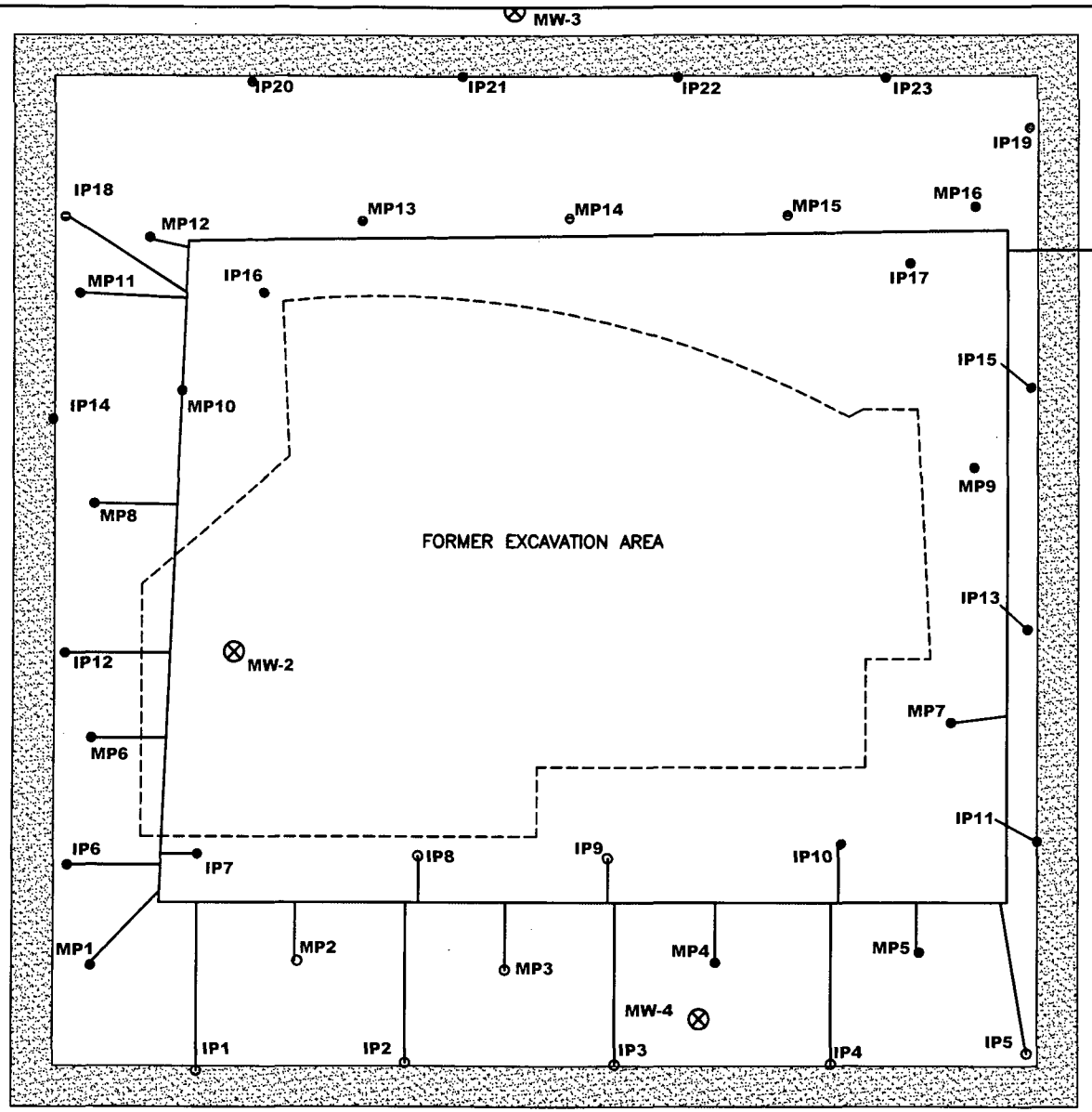


FIGURE 2
SITE MAP
BLOOMFIELD CRUDE STATION
NWNW SEC 22 T29N R11W
SAN JUAN COUNTY, NEW MEXICO
WESTERN REFINING, SOUTHWEST, INC.

P:\Western Refining\GIS\MXD\WR1007 BLOOMFIELD CRUDE\WR1007_BLOOMFIELD_FIG01_SL.mxd



NOT TO SCALE

LEGEND

- MONITORING WELL
- INJECTION POINT
- MONITORING POINT
- FORMER BERM
- FORMER EXCAVATION PERIMETER
- AIR SUPPLY LINE

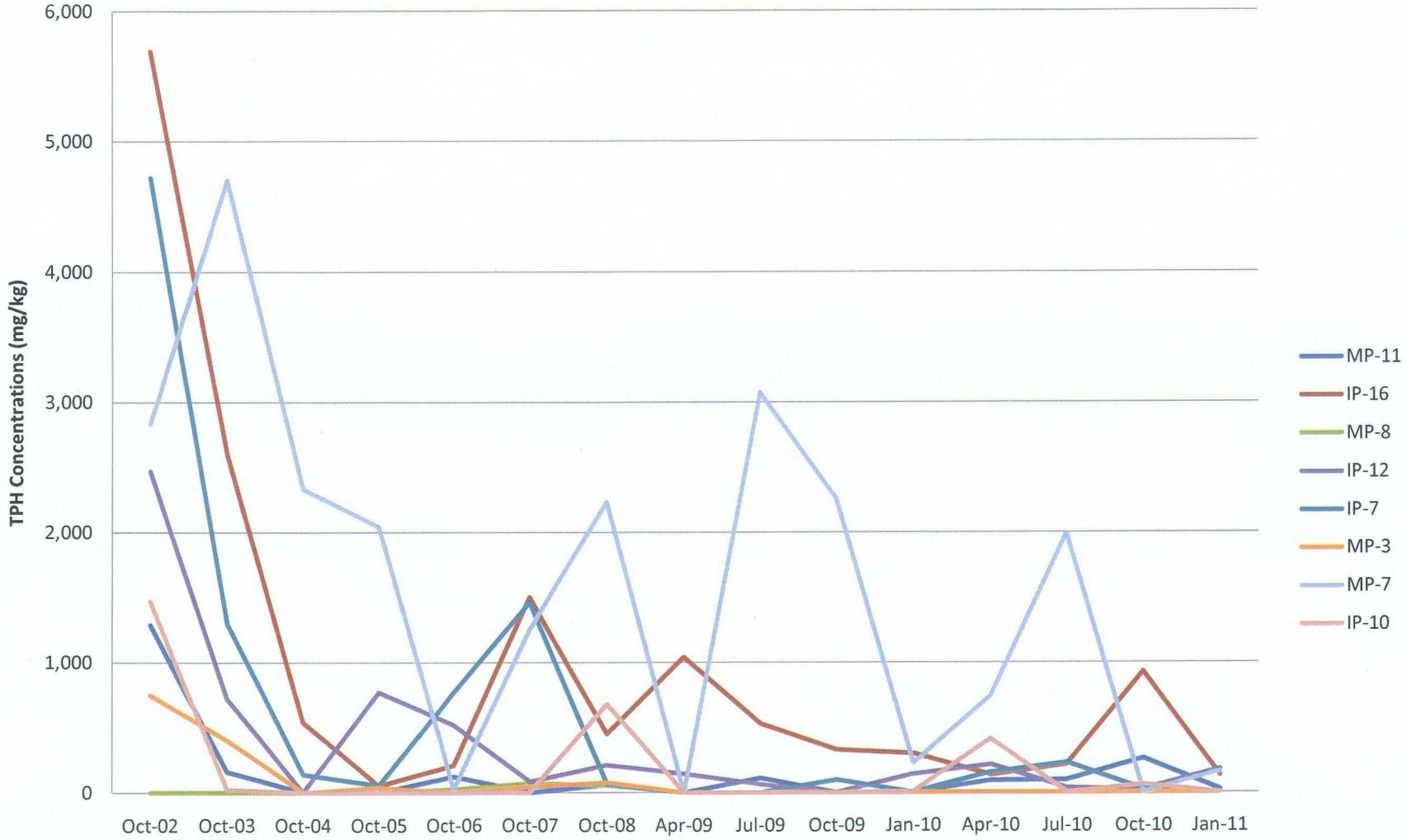
FIGURE 3
BIOVENT SYSTEM LAYOUT
BLOOMFIELD CRUDE STATION
NWNW SEC 22 T29 R11W
SAN JUAN COUNTY, NEW MEXICO
WESTERN REFINING, SOUTHWEST, INC.

LTE

WR100702 2/11

Figure 4

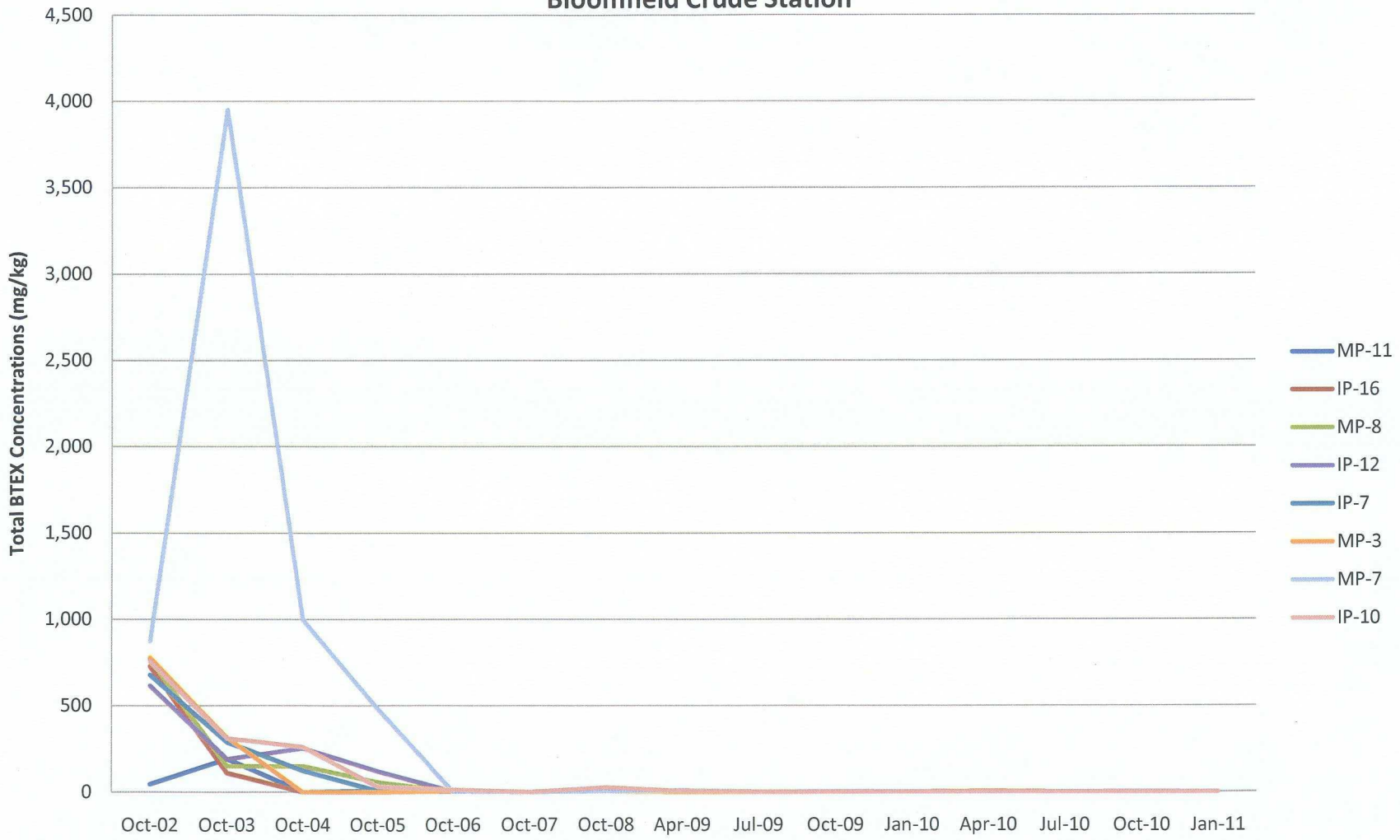
Laboratory TPH Results at Monitoring and Injection Points
Bloomfield Crude Station



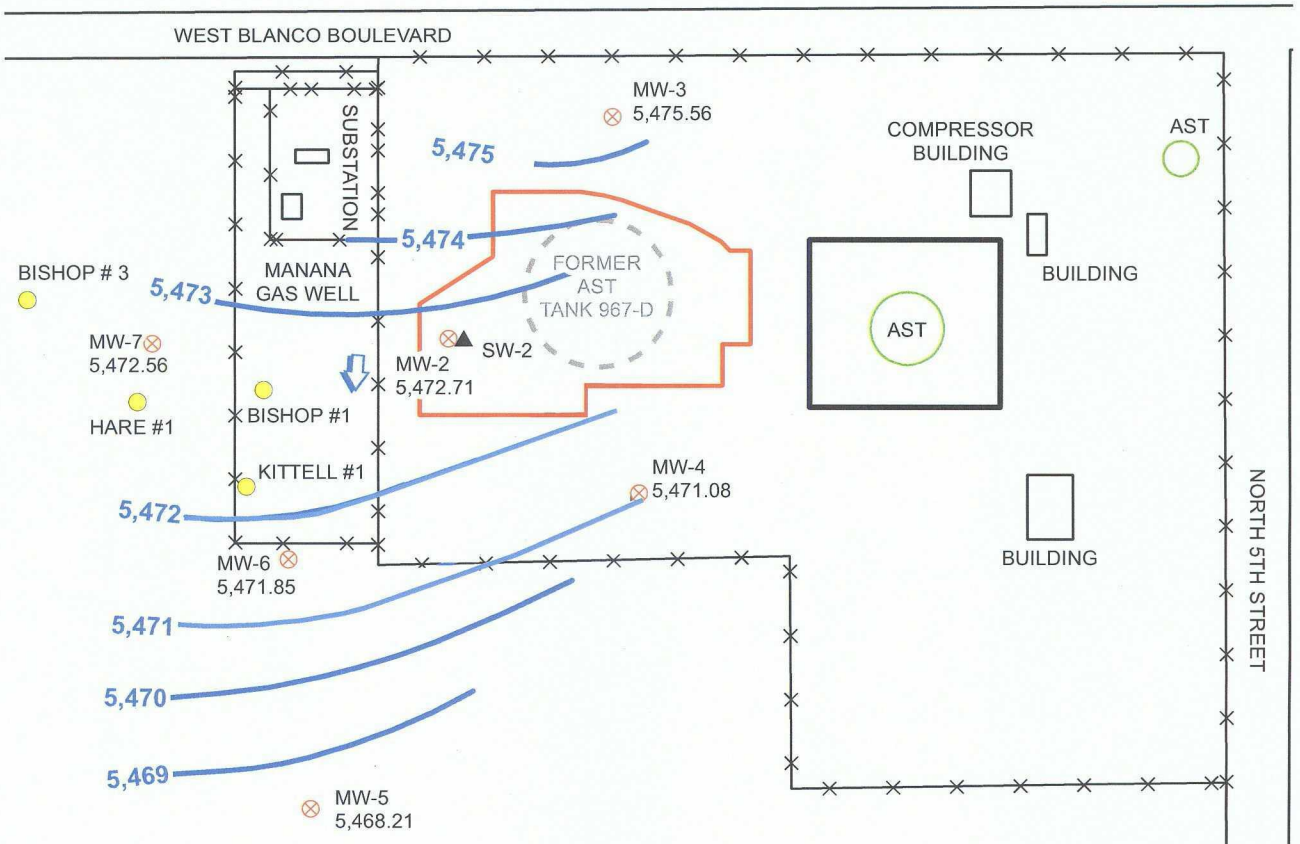
TPH - total petroleum hydrocarbons
mg/kg - milligrams per kilogram

Figure 5

Laboratory Total BTEX Results at Monitoring and Injection Points
Bloomfield Crude Station



BTEX - benzene, toluene, ethylbenzene, and total xylenes
mg/kg - milligrams per kilogram



LEGEND

- MONITORING WELL
  GROUNDWATER ELEVATIONS MEASURED IN FEET
  ABOVE MEAN SEA LEVEL ON JANUARY 13, 2011
- HISTORIC OIL AND GAS WELL (APPROXIMATE)
- SPARGE WELL
- ESTIMATED GROUNDWATER FLOW DIRECTION
- BERM
- FENCE
- ABOVEGROUND STORAGE TANK (AST)
- FORMER EXCAVATION PERIMETER
- FORMER AST
- GROUNDWATER ELEVATION CONTOUR
  CONTOUR INTERVAL = 1 FOOT

0 125 250
Feet

N

FIGURE 6
GROUNDWATER ELEVATION MAP
BLOOMFIELD CRUDE STATION
NWNW SEC 22 T29N R11W
SAN JUAN COUNTY, NEW MEXICO
WESTERN REFINING, SOUTHWEST, INC.

P:\Western Refining\GIS\MXD\WR1007 BLOOMFIELD CRUDE\WR1007_BLOOMFIELD_FIG01_SL.mxd

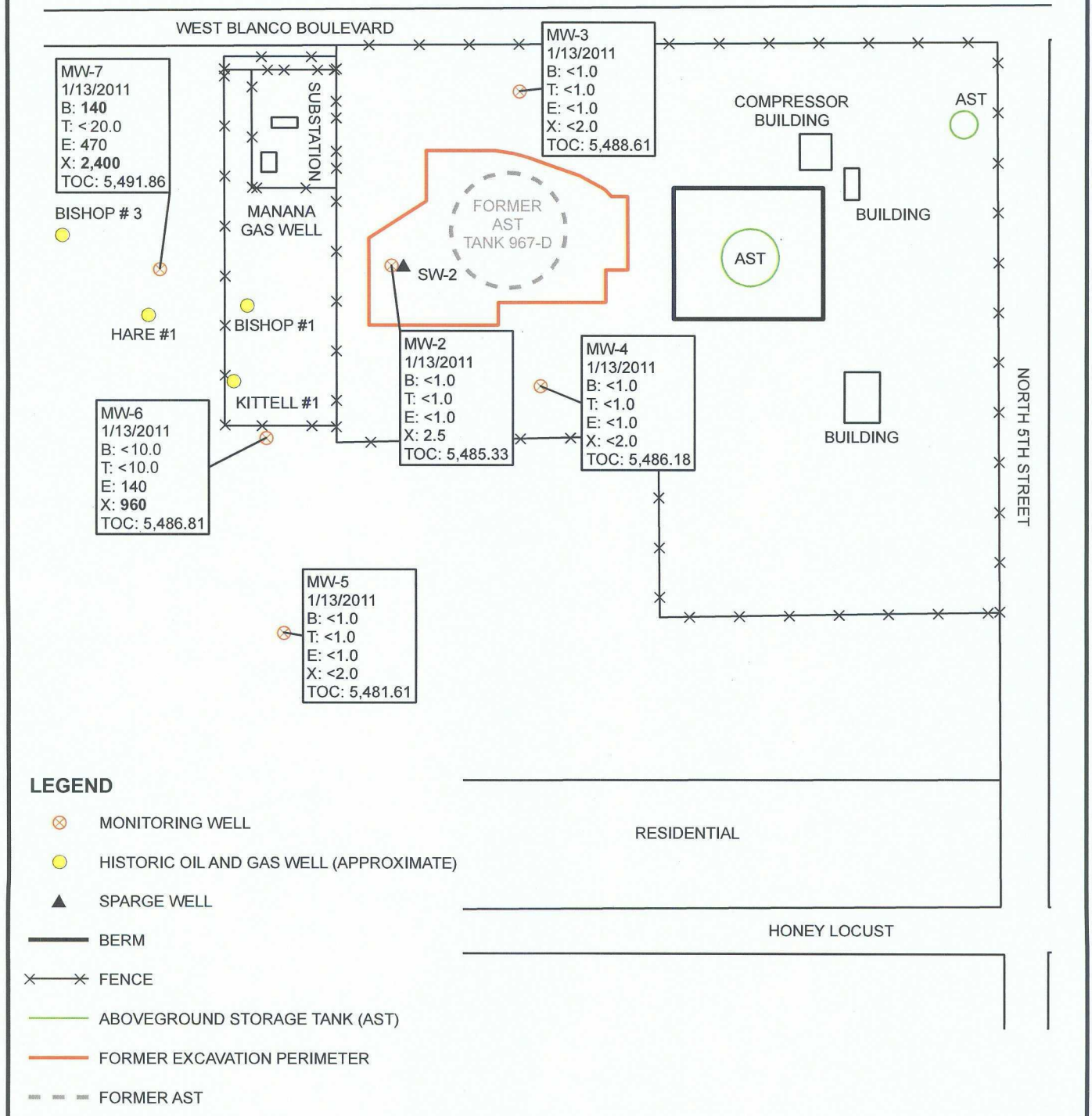


FIGURE 7
GROUNDWATER ANALYTICAL RESULTS
BLOOMFIELD CRUDE STATION
NWNW SEC 22 T29N R11W
SAN JUAN COUNTY, NEW MEXICO
WESTERN REFINING, SOUTHWEST, INC.

P:\Western Refining\GIS\MXD\WR1007 BLOOMFIELD CRUDE\WR1007_BLOOMFIELD_FIG01_SL.mxd

TABLES

TABLE 1

AIR MONITORING RESULTS
BLOOMFIELD CRUDE STATION
WESTERN REFINING SOUTHWEST, INC.

Monitoring Point	Oxygen Percentage								
	Pre-test	2003 avg	2004 avg	2005 avg	2006 avg	2007 avg	2008 avg	2009 avg	2010 avg
IP1						17.1	19.1	18.9	19.5
IP2						20.5	12.4	20.7	20.7
IP3						20.2	20.2	18.0	20.5
IP4						20.5	20.3	20.5	20.2
IP5						19.2	20.3	19.9	19.3
IP6						15.1	19.6	15.3	12.4
IP7						18.0	20.0	20.6	20.9
IP8	20.2	3.3	4.8	0.0	0.0	20.5	10.8	20.7	20.9
IP9						18.1	20.2	20.0	17.0
IP10	17.2	3.2	12.4	4.8	7.2	14.5	14.6	13.8	5.1
IP11	20.9	9.5	8.6	13.5	19.6	20.4	20.4	18.2	21.0
IP12						18.4	18.8	20.8	20.8
IP13	20.9	8.6	19.0	18.3	17.9	19.5	18.9	18.5	14.1
IP14	19.9	5.8	4.5	3.4	15.6	18.5	14.4	14.3	13.4
IP15	20.9	0.1	19.9	20.3	20.0	20.3	20.2	20.4	20.3
IP16						20.5	14.3	21.2	21.0
IP17	20.9	0.4	19.2	19.0	19.4	17.6	20.4	20.0	19.8
IP18						17.6	19.2	21.2	21.0
IP19	20.9	9.3	16.2	18.1	19.4	19.1	19.7	20.2	19.0
IP20	20.5	5.9	7.2	13.5	17.8	19.0	19.7	19.4	19.9
IP21	20.9	8.3	18.1	19.7	18.7	20.0	20.2	20.1	19.9
IP22	20.9	0.1	17.5	18.3	19.2	20.0	20.3	19.7	19.2
IP23	20.9	0.7	19.3	18.7	19.4	20.2	20.7	19.9	19.8
MP1						17.9	19.5	20.7	20.9
MP2						20.4	20.2	15.9	17.8
MP3						17.0	18.2	18.1	19.0
MP4	19.0	1.9	6.2	2.0	0.0	20.5	13.4	17.9	11.1
MP5						20.5	18.7	20.4	21.0
MP6						15.7	19.9	20.8	20.9
MP7	18.6	6.6	7.9	14.2	18.5	20.5	14.1	20.7	21.1
MP8						18.1	20.1	20.7	20.7
MP9	20.5	13.1	18.9	19.3	18.9	19.6	20.1	19.6	18.5
MP10						16.8	20.5	21.4	20.7
MP11						17.2	16.0	21.4	20.8
MP12						19.7	15.7	21.4	20.9
MP13						17.3	19.0	17.6	19.8
MP14	19.2	14.2	8.3	14.1	15.9	19.1	18.8	19.8	17.4
MP15	20.9	18.4	14.9	14.2	18.4	19.2	20.5	20.0	16.4
MP16	20.9	20.1	19.0	19.5	19.3	19.3	19.7	20.2	18.3
Average	**20.2**	**13.9**	**13.4**	**13.9**	**15.8**	**19.1**	**18.4**	**19.5**	**18.7**

TABLE 1

AIR MONITORING RESULTS
BLOOMFIELD CRUDE STATION
WESTERN REFINING SOUTHWEST, INC.

Monitoring Point	Carbon Dioxide Percentage								
	Pre-test	2003	2004	2005	2006	2007	2008	2009	2010
IP1						2.8		1.8	1.1
IP2						0.0	1.9	0.0	0.2
IP3						0.0	0.4	1.5	0.7
IP4						0.0	0.1	0.0	0.2
IP5						1.1	0.1	0.9	1.7
IP6						5.4	0.2	3.2	6.3
IP7						2.5	0.1	0.0	0.1
IP8	0.8	13.4	10.6	3.5	14.4	0.0	1.5	0.0	0.1
IP9						0.2	0.1	0.7	4.7
IP10	1.8	6.5	11.0	4.9	14.1	6.5	5.7	3.8	14.5
IP11	0.0	1.0	11.9	4.5	1.3	0.0	0.2	0.1	0.1
IP12						1.4	0.2	0.0	0.1
IP13	0.2	1.7	1.4	2.1	2.2	0.5	1.4	1.1	2.8
IP14	1.0	6.8	10.1	13.7	4.8	2.0	4.0	5.4	5.5
IP15	0.8	1.2	0.3	0.5	0.6	0.1	0.1	0.5	0.6
IP16						0.0	0.4	0.0	0.1
IP17	1.0	1.1	1.3	2.1	1.0	0.2	0.3	0.8	1.2
IP18						2.9	0.2	0.0	0.1
IP19	0.4	1.2	3.5	2.4	0.9	1.4	1.0	1.5	1.9
IP20	0.6	6.4	8.4	5.8	1.8	1.0	0.9	1.4	1.3
IP21	1.4	1.2	2.2	4.1	0.9	0.2	0.4	0.8	1.4
IP22	0.4	0.9	1.9	2.3	1.1	0.4	0.2	1.0	1.5
IP23	0.6	0.7	0.8	2.0	0.9	0.2	0.2	0.3	1.1
MP1						2.1	0.3	0.0	0.1
MP2						0.2	0.1	0.0	0.5
MP3						0.5	1.6	2.2	1.6
MP4	1.2	12.1	14.5	6.3	14.9	0.0	1.7	3.0	8.2
MP5						0.0	0.2	0.0	0.1
MP6						4.6	0.2	0.0	0.1
MP7	1.4	5.6	8.3	4.2	0.7	0.0	0.3	0.0	0.1
MP8						2.2	0.2	0.0	0.1
MP9	1.0	1.9	1.0	1.5	1.3	0.3	0.3	1.1	1.8
MP10						3.2	0.0	0.0	0.1
MP11						3.3	0.5	0.0	0.1
MP12						0.3	0.6	0.0	0.1
MP13						2.1	0.2	0.5	1.0
MP14	1.0	3.3	8.0	5.3	3.5	1.1	1.2	1.8	3.0
MP15	0.6	1.8	3.7	3.4	1.5	1.5	0.2	0.5	3.3
MP16	0.1	1.0	1.4	1.4	1.2	1.2	1.0	0.4	2.4
Average	**0.8**	**3.8**	**5.6**	**3.5**	**3.7**	**1.3**	**0.7**	**0.9**	**1.8**

Notes:

2003 includes data from 2/03, 3/03, 10/03 and 1/ 04

2004 includes quarterly data from 4/04, 7/04, 10/04 and 1/05

2005 includes data from 4/05, 7/05, 10/05.

(The pump that injects air into the subsurface was being reparied during the 4th quarter monitoring event

2006 includes data from 4/06, 7/06, 10/06 and 1/07

2007 includes data from 4/07, 7/07, 10/07, and 1/08

2008 includes data from 4/08, 7/08, 10/08 and 1/09

2009 includes data from 4/09, 7/09, 10/09 and 1/10

2010 includes data from 4/10, 7/10, 10/10 and 1/11

avg - average

TABLE 2
SOIL ANALYTICAL RESULTS
BLOOMFIELD CRUDE STATION
WESTERN REFINING SOUTHWEST, INC.

Sample ID	Sample Depth (ft)	Date Sampled	Field Headspace for VOCs (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	DRO (mg/kg)	MRO (mg/kg)	GRO (mg/kg)
MP-11	12	April 2010	0.3	<0.05	<0.05	<0.05	<0.10	<10.0	89	<5.0
		July 2010	0.2	<0.05	<0.05	<0.05	<0.10	28	67	<5.0
		October 2010	0.1	<0.05	<0.05	<0.05	<0.10	**110**	**150**	<5.0
		January 11, 2011	1.4	<0.05	<0.05	<0.05	<0.10	21	<50.0	<5.0
IP-16	9	April 2010	2.7	<0.05	<0.05	<0.05	<0.10	**25**	**110**	<5.0
		July 2010	0.0	<0.05	<0.05	<0.05	<0.10	**95**	**120**	<5.0
		October 2010	0.0	<0.05	<0.05	<0.05	<0.10	**360**	**570**	<5.0
		January 11, 2011	0.3	<0.05	<0.05	<0.05	<0.10	**58**	**75**	<5.0
MP-8	9	April 2010	0.2	<0.05	<0.05	<0.05	<0.10	<10.0	<50.0	<5.0
		July 2010	0.2	<0.05	<0.05	<0.05	<0.10	<10.0	<50.0	<5.0
		October 2010	0.4	<0.05	<0.05	<0.05	<0.10	<10.0	<50.0	<5.0
		January 11, 2011	1.3	<0.05	<0.05	<0.05	<0.10	<10.0	<50.0	<5.0
IP-12	12	April 2010	0.1	<0.05	<0.05	<0.05	<0.10	**52**	**160**	<5.0
		July 2010	0.0	<0.05	<0.05	<0.05	<0.10	35	<50.0	<5.0
		October 2010	0.0	<0.05	<0.05	<0.05	<0.10	**100**	**160**	<5.0
		January 11, 2011	1.8	<0.05	<0.05	<0.05	<0.10	**81**	**97**	<5.0
IP-7	12	April 2010	0.1	<0.05	<0.05	<0.05	<0.10	**32**	**120**	<5.0
		July 2010	0.0	<0.05	<0.05	<0.05	<0.10	**110**	**120**	<5.0
		October 2010	0.0	<0.05	<0.05	<0.05	<0.10	21	<50.0	<5.0
		January 11, 2011	1.4	<0.05	<0.05	<0.05	<0.10	<10.0	<50.0	<5.0
MP-3	6	April 2010	1.9	<0.05	<0.05	<0.05	<0.10	<10.0	<50.0	<5.0
		July 2010	0.4	<0.05	<0.05	<0.05	<0.10	<10.0	<50.0	<5.0
		October 2010	1.3	<0.05	<0.05	<0.05	<0.10	<10.0	<50.0	<5.0
		January 11, 2011	0.9	<0.05	<0.05	<0.05	<0.10	<10.0	<50.0	<5.0
MP-7	6	April 2010	0.6	<0.05	<0.05	<0.05	<0.10	**400**	**340**	<5.0
		July 2010	0.0	<0.05	<0.05	<0.05	<0.10	**890**	**1,100**	<5.0
		October 2010	1.4	<0.05	<0.05	<0.05	<0.10	28	<50.0	<5.0
		January 11, 2011	1.3	<0.05	<0.05	<0.05	<0.10	**62**	**99**	<5.0
IP-10	6	April 2010	0.1	<0.05	<0.05	<0.05	<0.10	**200**	**210**	<5.0
		July 2010	0.5	<0.05	<0.05	<0.05	<0.10	<10.0	<50.0	<5.0
		October 2010	0.0	<0.05	<0.05	<0.05	<0.10	60	<50.0	<5.0
		January 11, 2011	1.9	<0.05	<0.05	<0.05	<0.10	<10.0	<50.0	<5.0
NMOCD Standard				**10**					**Combined to 100**	

Notes:
BTEX - benzene, toluene, ethylenzene, and total xylenes analyzed by EPA Method 8021.
DRO - Diesel Range Organics
ft - feet
GRO - Gasoline Range Organics
mg/kg - milligrams per kilogram
MRO - Motor Oil Range Organics
NMOCD - New Mexico Oil Conservation Commission
ppm - parts per million
< indicates result is less than the stated laboratory method detection limit.
Bold indicates a value exceeds NMOCD standard.

TABLE 3

GROUNDWATER ELEVATION DATA
BLOOMFIELD CURDE STATION
WESTERN REFINING SOUTHWEST, INC.

Well Number	Date	Casing Elevation (feet amsl)	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet amsl)
MW-2	1/13/2011	5485.33	12.62	5472.71
MW-3	1/13/2011	5488.61	13.05	5475.56
MW-4	1/13/2011	5486.18	15.10	5471.08
MW-5	1/13/2011	5481.61	13.40	5468.21
MW-6	1/13/2011	5486.81	14.96	5471.85
MW-7	1/13/2011	5491.86	19.30	5472.56

Notes:

amsl - above mean sea level

BTOC - below top of casing

Monitoring of MW-1 was abandoned in 2000.

TABLE 4

GROUNDWATER ANALYTICAL RESULTS - BTEX
BLOOMFIELD CRUDE STATION
WESTERN REFINING SOUTHWEST, INC.

Well Number	Date Sampled	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)
MW-2	1/13/2011	<1.0	<1.0	<1.0	2.5
MW-3	1/13/2011	<1.0	<1.0	<1.0	<2.0
MW-4	1/13/2011	<1.0	<1.0	<1.0	<2.0
MW-5	1/13/2011	<1.0	<1.0	<1.0	<2.0
MW-6	1/13/2011	<10.0	<10.0	140	**960**
MW-7	1/13/2011	**140**	<20.0	470	**2,400**
NMWQCC STANDARD		**10**	**750**	**750**	**620**

Notes:

BTEX analyzed by EPA Method 8021b

NMWQCC - New Mexico Water Quality Control Commission

ug/L - micrograms per liter

< indicates result is less than the stated laboratory method detection limit

Bold values indicates value exceedes NMWQCC standard

TABLE 5

GROUNDWATER ANALYTICAL RESULTS - GENERAL CHEMISTRY AND METALS
BLOOMFIELD CRUDE STATION
WESTERN REFINING SOUTHWEST, INC.

Well Number	Date	Lab pH (su)	Conductivity (mmhos/cm)	TDS (mg/L)	Alkalinity (CaCO3) (mg/L)	Hardness (CaCO3) (mg/L)	Bicarbonate (HCO3) (mg/L)	Carbonate (CO3) (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Sodium (mg/L)	Calcium (mg/L)	Potassium (mg/L)
MW-2	1/13/2011	7.49	3,700	**2,750**	1,300	880	1,300	< 5.0	52	**920**	740	290	6.9
MW-3	1/13/2011	7.39	4,100	**3,400**	560	1,300	560	< 2.0	39	**2,000**	660	450	4.2
MW-4	1/13/2011	7.33	4,600	**4,010**	460	1,600	460	< 2.0	36	**2,600**	760	540	5.4
MW-5	1/13/2011	7.18	5,800	**4,370**	780	1,600	780	< 2.0	**350**	**900**	850	570	5.6
MW-6	1/13/2011	7.50	3,100	**1,890**	1,100	980	1,100	< 2.0	150	490	570	320	12
MW-7	1/13/2011	7.50	1,300	734	670	460	670	< 2.0	26	7.8	130	150	3.6
NMWQCC Standard		**6-9**		**1,000**					**250**	**600**			

TABLE 5

GROUNDWATER ANALYTICAL RESULTS - GENERAL CHEMISTRY AND METALS
BLOOMFIELD CRUDE STATION
WESTERN REFINING SOUTHWEST, INC.

Well Number	Date	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Mercury (mg/L)
MW-2	1/13/2011	<0.020	0.21	<0.0020	0.011	**32.0**	0.017	34	**6.1**	<0.050	<0.0050	<0.0002
MW-3	1/13/2011	<0.020	0.075	<0.0020	<0.0060	**7.0**	<0.0050	39	**1.2**	<0.050	<0.0050	<0.0002
MW-4	1/13/2011	<0.020	0.026	<0.0020	<0.0060	**1.8**	<0.0050	55	**8.2**	<0.050	<0.0050	<0.0002
MW-5	1/13/2011	<0.020	0.038	<0.0020	<0.0060	**1.7**	<0.0050	48	**9.4**	<0.050	<0.0050	0.00079
MW-6	1/13/2011	0.039	**4.9**	0.0054	0.042	**99.0**	0.023	46	**5.1**	<0.050	<0.0050	<0.0002
MW-7	1/13/2011	<0.020	**2.7**	0.0029	<0.0060	**47.0**	0.0072	19	**1.3**	<0.050	<0.0050	<0.0002
NMWQCC Standard		**0.1**	**1.0**	**0.01**	**0.05**	**1.0**	**0.05**		**0.2**	**0.05**	**0.05**	**0.002**

Notes:
mg/L - milligrams per liter
NMWQCC - New Mexico Water Quality Control Commission
SU - standard units
umhos/cm - microhms per centimeter
Bold indicates value exceeds NMOCD standard

APPENDIX A
QUARTERLY GAS MONITORING DATA

QUARTERLY GAS MONITORING DATA
BLOOMFIELD CRUDE STATION
WESTERN REFINING SOUTHWEST, INC.

	Oxygen Percentage				Carbon Dioxide Percentage			
Monitoring Point	4/20/10	7/21/10	10/5/2010	1/11/2011	4/20/10	7/21/10	10/5/2010	1/11/2011
IP1	18.6	19.0	18.9	21.6	1.2	1.3	1.7	0.2
IP2	20.5	20.4	19.9	21.9	0.0	0.0	0.7	0.2
IP3	20.1	19.6	20.2	21.9	0.8	1.3	0.5	0.2
IP4	20.5	19.6	18.7	22	0.0	0.0	0.6	0.2
IP5	18.6	18.5	18	22.2	2.5	2.0	2.2	0.2
IP6	20.5	2.8	4.7	21.7	0.0	11.8	13.2	0.2
IP7	20.8	20.7	20.3	21.6	0.0	0.0	0.2	0.2
IP8	20.7	20.7	20.4	21.9	0.0	0.0	0.2	0.2
IP9	13.7	15.6	16.6	21.9	6.1	6.2	6.1	0.2
IP10	16.1	0.0	0	4.1	1.2	20.2	23.6	13.1
IP11	20.7	20.8	20.4	22.1	0.0	0.0	0.2	0.2
IP12	20.6	20.5	20.4	21.7	0.0	0.0	0.2	0.2
IP13	16.2	17.7	0.9	21.7	2.6	2.5	5.7	0.5
IP14	11.0	13.7	13.4	15.6	5.3	6.3	4.7	5.6
IP15	20.4	19.7	18.9	22	0.0	0.6	1.4	0.3
IP16	20.7	21.1	20.5	21.6	0.0	0.0	0.1	0.2
IP17	20.1	19.7	18.6	20.9	0.7	1.0	1.5	1.7
IP18	20.9	20.6	20.5	21.9	0.0	0.0	0.2	0.2
IP19	17.9	17.2	19.4	21.6	2.1	3.0	2.2	0.3
IP20	19.5	20.0	19.5	20.7	1.5	1.0	1.3	1.3
IP21	19.7	19.1	19.2	21.4	0.7	1.8	1.8	1.1
IP22	19.6	18.2	17.3	21.7	1.3	1.6	2.6	0.4
IP23	20.4	18.9	18	21.8	0.6	1.4	2.2	0.3
MP1	20.7	20.7	20.5	21.7	0.0	0.0	0.2	0.2
MP2	20.6	13.3	15.5	21.8	0.0	0.3	1.3	0.2
MP3	17.2	17.7	19	21.9	2.9	2.3	1.1	0.2
MP4	15.7	5.3	1.5	21.8	4.0	10.4	18	0.2
MP5	20.7	20.7	20.2	22.2	0.0	0.0	0.3	0.2
MP6	20.6	20.7	20.6	21.7	0.0	0.0	0.2	0.2
MP7	20.7	20.9	20.7	22.1	0.0	0.0	0.1	0.2
MP8	20.6	20.5	20.1	21.7	0.0	0.0	0.2	0.2
MP9	18.9	17.2	16.2	21.8	0.8	2.6	3.3	0.6
MP10	20.5	20.5	20.4	21.5	0.0	0.0	0.2	0.2
MP11	20.6	20.6	20.3	21.6	0.0	0.0	0.2	0.2
MP12	20.9	20.5	20.3	21.9	0.0	0.0	0.2	0.2
MP13	16.3	20.7	20.4	21.9	3.6	0.0	0.2	0.2
MP14	17.1	17.8	14.5	20.1	2.6	2.2	5.4	1.7
MP15	17.1	13.2	13.3	21.9	3.0	4.8	5	0.3
MP16	18.6	16.4	16.4	21.8	1.8	3.5	3.8	0.5
Average	**19.1**	**17.7**	**17.0**	**21.1**	**1.2**	**2.3**	**2.9**	**0.84**

APPENDIX B
SOIL SAMPLING LABORATORY REPORTS

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Tuesday, April 12, 2011

Bill Robertson
Western Refining Southwest, Inc.
#50 CR 4990
Bloomfield, NM 87413

TEL: (505) 632-4161
FAX (505) 632-3911

RE: Bloomfield Crude Station

Order No.: 1004458

Dear Bill Robertson:

Hall Environmental Analysis Laboratory, Inc. received 8 sample(s) on 4/21/2010 for the analyses presented in the following report.

This report is corrected, replacing the report dated April 27, 2010.

No determination of compounds below these (denoted by the ND or < sign) has been made.

Reporting limits are determined by EPA methodology.

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: *12-Apr-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	IP-16 9'
Lab Order:	1004458	**Collection Date:**	4/20/2010 11:22:00 AM
Project:	Bloomfield Crude Station	**Date Received:**	4/21/2010
Lab ID:	1004458-01	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	25	10		mg/Kg	1	4/26/2010 5:59:07 PM
Motor Oil Range Organics (MRO)	110	50		mg/Kg	1	4/26/2010 5:59:07 PM
Surr: DNOP	98.4	61.7-135		%REC	1	4/26/2010 5:59:07 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/23/2010 3:18:02 AM
Surr: BFB	94.1	65.9-118		%REC	1	4/23/2010 3:18:02 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	4/23/2010 3:18:02 AM
Toluene	ND	0.050		mg/Kg	1	4/23/2010 3:18:02 AM
Ethylbenzene	ND	0.050		mg/Kg	1	4/23/2010 3:18:02 AM
Xylenes, Total	ND	0.10		mg/Kg	1	4/23/2010 3:18:02 AM
Surr: 4-Bromofluorobenzene	94.5	64.7-120		%REC	1	4/23/2010 3:18:02 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
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *12-Apr-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	IP-10 6'
Lab Order:	1004458	**Collection Date:**	4/20/2010 11:32:00 AM
Project:	Bloomfield Crude Station	**Date Received:**	4/21/2010
Lab ID:	1004458-02	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	200	10		mg/Kg	1	4/26/2010 6:35:33 PM
Motor Oil Range Organics (MRO)	210	50		mg/Kg	1	4/26/2010 6:35:33 PM
Surr: DNOP	98.9	61.7-135		%REC	1	4/26/2010 6:35:33 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/23/2010 10:40:27 PM
Surr: BFB	94.1	65.9-118		%REC	1	4/23/2010 10:40:27 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	4/23/2010 10:40:27 PM
Toluene	ND	0.050		mg/Kg	1	4/23/2010 10:40:27 PM
Ethylbenzene	ND	0.050		mg/Kg	1	4/23/2010 10:40:27 PM
Xylenes, Total	ND	0.10		mg/Kg	1	4/23/2010 10:40:27 PM
Surr: 4-Bromofluorobenzene	93.7	64.7-120		%REC	1	4/23/2010 10:40:27 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
- NC Non-Chlorinated
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitation Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *12-Apr-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	MP-3 6'
Lab Order:	1004458	**Collection Date:**	4/20/2010 11:30:00 AM
Project:	Bloomfield Crude Station	**Date Received:**	4/21/2010
Lab ID:	1004458-03	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JB**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/25/2010 8:42:59 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	4/25/2010 8:42:59 AM
Surr: DNOP	94.8	61.7-135		%REC	1	4/25/2010 8:42:59 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/23/2010 11:10:33 PM
Surr: BFB	93.8	65.9-118		%REC	1	4/23/2010 11:10:33 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	4/23/2010 11:10:33 PM
Toluene	ND	0.050		mg/Kg	1	4/23/2010 11:10:33 PM
Ethylbenzene	ND	0.050		mg/Kg	1	4/23/2010 11:10:33 PM
Xylenes, Total	ND	0.10		mg/Kg	1	4/23/2010 11:10:33 PM
Surr: 4-Bromofluorobenzene	95.0	64.7-120		%REC	1	4/23/2010 11:10:33 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
- NC Non-Chlorinated
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitation Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *12-Apr-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	MP-7 6'
Lab Order:	1004458	**Collection Date:**	4/20/2010 11:36:00 AM
Project:	Bloomfield Crude Station	**Date Received:**	4/21/2010
Lab ID:	1004458-04	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	400	10		mg/Kg	1	4/26/2010 7:12:02 PM
Motor Oil Range Organics (MRO)	340	50		mg/Kg	1	4/26/2010 7:12:02 PM
Surr: DNOP	103	61.7-135		%REC	1	4/26/2010 7:12:02 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/23/2010 11:43:07 PM
Surr: BFB	92.5	65.9-118		%REC	1	4/23/2010 11:43:07 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	4/23/2010 11:43:07 PM
Toluene	ND	0.050		mg/Kg	1	4/23/2010 11:43:07 PM
Ethylbenzene	ND	0.050		mg/Kg	1	4/23/2010 11:43:07 PM
Xylenes, Total	ND	0.10		mg/Kg	1	4/23/2010 11:43:07 PM
Surr: 4-Bromofluorobenzene	93.5	64.7-120		%REC	1	4/23/2010 11:43:07 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *12-Apr-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	MP-8 9'
Lab Order:	1004458	**Collection Date:**	4/20/2010 11:26:00 AM
Project:	Bloomfield Crude Station	**Date Received:**	4/21/2010
Lab ID:	1004458-05	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JB**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/25/2010 9:18:20 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	4/25/2010 9:18:20 AM
Surr: DNOP	95.6	61.7-135		%REC	1	4/25/2010 9:18:20 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/23/2010 3:48:21 AM
Surr: BFB	94.5	65.9-118		%REC	1	4/23/2010 3:48:21 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	4/23/2010 3:48:21 AM
Toluene	ND	0.050		mg/Kg	1	4/23/2010 3:48:21 AM
Ethylbenzene	ND	0.050		mg/Kg	1	4/23/2010 3:48:21 AM
Xylenes, Total	ND	0.10		mg/Kg	1	4/23/2010 3:48:21 AM
Surr: 4-Bromofluorobenzene	95.9	64.7-120		%REC	1	4/23/2010 3:48:21 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
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *12-Apr-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	MP-11 12'
Lab Order:	1004458	**Collection Date:**	4/20/2010 11:54:00 AM
Project:	Bloomfield Crude Station	**Date Received:**	4/21/2010
Lab ID:	1004458-06	**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	4/27/2010 6:41:07 AM
Motor Oil Range Organics (MRO)	89	50		mg/Kg	1	4/27/2010 6:41:07 AM
Surr: DNOP	102	61.7-135		%REC	1	4/27/2010 6:41:07 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/24/2010 12:13:31 AM
Surr: BFB	94.1	65.9-118		%REC	1	4/24/2010 12:13:31 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	4/24/2010 12:13:31 AM
Toluene	ND	0.050		mg/Kg	1	4/24/2010 12:13:31 AM
Ethylbenzene	ND	0.050		mg/Kg	1	4/24/2010 12:13:31 AM
Xylenes, Total	ND	0.10		mg/Kg	1	4/24/2010 12:13:31 AM
Surr: 4-Bromofluorobenzene	95.8	64.7-120		%REC	1	4/24/2010 12:13:31 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
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *12-Apr-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	IP-12 12'
Lab Order:	1004458	**Collection Date:**	4/20/2010 12:13:00 PM
Project:	Bloomfield Crude Station	**Date Received:**	4/21/2010
Lab ID:	1004458-07	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	52	10		mg/Kg	1	4/26/2010 8:24:58 PM
Motor Oil Range Organics (MRO)	160	50		mg/Kg	1	4/26/2010 8:24:58 PM
Surr: DNOP	101	61.7-135		%REC	1	4/26/2010 8:24:58 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/24/2010 12:43:52 AM
Surr: BFB	94.6	65.9-118		%REC	1	4/24/2010 12:43:52 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	4/24/2010 12:43:52 AM
Toluene	ND	0.050		mg/Kg	1	4/24/2010 12:43:52 AM
Ethylbenzene	ND	0.050		mg/Kg	1	4/24/2010 12:43:52 AM
Xylenes, Total	ND	0.10		mg/Kg	1	4/24/2010 12:43:52 AM
Surr: 4-Bromofluorobenzene	94.8	64.7-120		%REC	1	4/24/2010 12:43:52 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
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *12-Apr-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	IP-7 12'
Lab Order:	1004458	**Collection Date:**	4/20/2010 12:23:00 PM
Project:	Bloomfield Crude Station	**Date Received:**	4/21/2010
Lab ID:	1004458-08	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	32	10		mg/Kg	1	4/26/2010 9:00:57 PM
Motor Oil Range Organics (MRO)	120	50		mg/Kg	1	4/26/2010 9:00:57 PM
Surr: DNOP	102	61.7-135		%REC	1	4/26/2010 9:00:57 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/24/2010 1:14:11 AM
Surr: BFB	88.5	65.9-118		%REC	1	4/24/2010 1:14:11 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	4/24/2010 1:14:11 AM
Toluene	ND	0.050		mg/Kg	1	4/24/2010 1:14:11 AM
Ethylbenzene	ND	0.050		mg/Kg	1	4/24/2010 1:14:11 AM
Xylenes, Total	ND	0.10		mg/Kg	1	4/24/2010 1:14:11 AM
Surr: 4-Bromofluorobenzene	88.5	64.7-120		%REC	1	4/24/2010 1:14:11 AM

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: Bloomfield Crude Station **Work Order:** 1004458

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8015B: Diesel Range Organics											
Sample ID: MB-22017		*MBLK*				Batch ID:	**22017**	Analysis Date:		4/25/2010 6:57:42 AM	
Diesel Range Organics (DRO)	ND	mg/Kg	10								
Motor Oil Range Organics (MRO)	ND	mg/Kg	50								
Sample ID: LCS-22017		*LCS*				Batch ID:	**22017**	Analysis Date:		4/25/2010 7:32:52 AM	
Diesel Range Organics (DRO)	39.06	mg/Kg	10	50	0	78.1	64.6	116			
Sample ID: LCSD-22017		*LCSD*				Batch ID:	**22017**	Analysis Date:		4/25/2010 8:07:55 AM	
Diesel Range Organics (DRO)	32.85	mg/Kg	10	50	0	65.7	64.6	116	17.3	17.4	
Method: EPA Method 8015B: Gasoline Range											
Sample ID: 1004458-05A MSD		*MSD*				Batch ID:	**22009**	Analysis Date:		4/23/2010 4:36:16 PM	
Gasoline Range Organics (GRO)	23.45	mg/Kg	5.0	25	0	93.8	69.5	120	16.8	11.6	R
Sample ID: MB-22009		*MBLK*				Batch ID:	**22009**	Analysis Date:		4/23/2010 4:48:58 AM	
Gasoline Range Organics (GRO)	ND	mg/Kg	5.0								
Sample ID: LCS-22009		*LCS*				Batch ID:	**22009**	Analysis Date:		4/23/2010 4:18:37 AM	
Gasoline Range Organics (GRO)	24.67	mg/Kg	5.0	25	2.53	88.6	77.7	135			
Sample ID: 1004458-05A MS		*MS*				Batch ID:	**22009**	Analysis Date:		4/22/2010 8:11:50 PM	
Gasoline Range Organics (GRO)	27.74	mg/Kg	5.0	25	0	111	69.5	120			
Method: EPA Method 8021B: Volatiles											
Sample ID: 1004458-05A MSD		*MSD*				Batch ID:	**22009**	Analysis Date:		4/23/2010 5:36:47 PM	
Methyl tert-butyl ether (MTBE)	1.395	mg/Kg	0.10	1	0	140	67.9	135	6.32	28	S
Benzene	0.8411	mg/Kg	0.050	1	0	84.1	78.8	132	0.776	27	
Toluene	0.8332	mg/Kg	0.050	1	0	83.3	78.9	112	0.0720	19	
Ethylbenzene	0.9060	mg/Kg	0.050	1	0	90.6	69.3	125	0.387	10	
Xylenes, Total	2.807	mg/Kg	0.10	3	0	93.6	73	128	0.318	13	
Sample ID: MB-22009		*MBLK*				Batch ID:	**22009**	Analysis Date:		4/23/2010 4:48:58 AM	
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: LCS-22009		*LCS*				Batch ID:	**22009**	Analysis Date:		4/23/2010 6:06:59 PM	
Methyl tert-butyl ether (MTBE)	1.428	mg/Kg	0.10	1	0	143	67.9	135			S
Benzene	0.8652	mg/Kg	0.050	1	0	86.5	78.8	132			
Toluene	0.8426	mg/Kg	0.050	1	0	84.3	78.9	112			
Ethylbenzene	0.9155	mg/Kg	0.050	1	0	91.6	69.3	125			
Xylenes, Total	2.849	mg/Kg	0.10	3	0	95.0	73	128			
Sample ID: 1004458-05A MS		*MS*				Batch ID:	**22009**	Analysis Date:		4/23/2010 5:06:35 PM	
Methyl tert-butyl ether (MTBE)	1.310	mg/Kg	0.10	1	0	131	67.9	135			
Benzene	0.8346	mg/Kg	0.050	1	0	83.5	78.8	132			
Toluene	0.8326	mg/Kg	0.050	1	0	83.3	78.9	112			
Ethylbenzene	0.9025	mg/Kg	0.050	1	0	90.3	69.3	125			
Xylenes, Total	2.798	mg/Kg	0.10	3	0	93.3	73	128			

Qualifiers:

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

Chain-of-Custody Record

Client: Western Refining
Bill Robertson
Mailing Address: 111 CR 4990
Bloomfield NM 87413
Phone #:
email or Fax#:
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush
Project Name:
Bloomfield Crude Station
Project #:
wr1007.02
Project Manager:
Ashley Ager
Sampler: Trans Laverty & Brooke Herb
On Ice: ☒ Yes ☐ No
Sample Temperature: 4

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. 1004358	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)
4-20-10	1122	Soil	IP-16 9'	4oz/2	NONE	1	X		X													
4-20-10	1132	Soil	IP-10 6'	4oz/2	NONE	2	X		X													
4-20-10	1130	Soil	MP-3 6'	4oz/2	NONE	3	X		X													
4-20-10	1136	Soil	MP-7 10'	4oz/2	NONE	4	X		X													
4-20-10	1126	Soil	MP-8 9'	4oz/2	NONE	5	X		X													
4-20-10	1154	Soil	MP-11 12'	4oz/2	NONE	6	X		X													
4-20-10	1213	Soil	IP-12 12'	4oz/2	NONE	7	X		X													
4-20-10	1223	Soil	IP-7 12'	4oz/2	NONE	8	X		X													

Analysis Request

Date	Time	Relinquished by:	Received by:	Date	Time
4/20/10	2030			4/21/10	930
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:
Please copy results to aager@ltenv.com

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 29, 2010

Bill Robertson
Western Refining Southwest, Inc.
#50 CR 4990
Bloomfield, NM 87413

TEL: (505) 632-4161
FAX (505) 632-3911

RE: Bloomfield Crude Station

Order No.: 1007847

Dear Bill Robertson:

Hall Environmental Analysis Laboratory, Inc. received 8 sample(s) on 7/23/2010 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.

Please do not 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

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Jul-10*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	IP-10
Lab Order:	1007847	**Collection Date:**	7/21/2010 2:17:00 PM
Project:	Bloomfield Crude Station	**Date Received:**	7/23/2010
Lab ID:	1007847-01	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JB**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/27/2010 1:05:17 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/27/2010 1:05:17 PM
Surr: DNOP	109	61.7-135		%REC	1	7/27/2010 1:05:17 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/27/2010 12:57:22 PM
Surr: BFB	102	55.2-107		%REC	1	7/27/2010 12:57:22 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	7/27/2010 12:57:22 PM
Toluene	ND	0.050		mg/Kg	1	7/27/2010 12:57:22 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/27/2010 12:57:22 PM
Xylenes, Total	ND	0.10		mg/Kg	1	7/27/2010 12:57:22 PM
Surr: 4-Bromofluorobenzene	112	64.7-120		%REC	1	7/27/2010 12:57:22 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
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Jul-10*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	MP-3
Lab Order:	1007847	**Collection Date:**	7/21/2010 2:34:00 PM
Project:	Bloomfield Crude Station	**Date Received:**	7/23/2010
Lab ID:	1007847-02	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JB**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/27/2010 2:47:37 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/27/2010 2:47:37 PM
Surr: DNOP	110	61.7-135		%REC	1	7/27/2010 2:47:37 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/27/2010 1:27:39 PM
Surr: BFB	109	55.2-107	S	%REC	1	7/27/2010 1:27:39 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	7/27/2010 1:27:39 PM
Toluene	ND	0.050		mg/Kg	1	7/27/2010 1:27:39 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/27/2010 1:27:39 PM
Xylenes, Total	ND	0.10		mg/Kg	1	7/27/2010 1:27:39 PM
Surr: 4-Bromofluorobenzene	116	64.7-120		%REC	1	7/27/2010 1:27:39 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Jul-10*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	MP-8
Lab Order:	1007847	**Collection Date:**	7/21/2010 3:37:00 PM
Project:	Bloomfield Crude Station	**Date Received:**	7/23/2010
Lab ID:	1007847-03	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JB**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/27/2010 3:21:43 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/27/2010 3:21:43 PM
Surr: DNOP	108	61.7-135		%REC	1	7/27/2010 3:21:43 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/27/2010 1:58:01 PM
Surr: BFB	102	55.2-107		%REC	1	7/27/2010 1:58:01 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	7/27/2010 1:58:01 PM
Toluene	ND	0.050		mg/Kg	1	7/27/2010 1:58:01 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/27/2010 1:58:01 PM
Xylenes, Total	ND	0.10		mg/Kg	1	7/27/2010 1:58:01 PM
Surr: 4-Bromofluorobenzene	109	64.7-120		%REC	1	7/27/2010 1:58:01 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Jul-10*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	IP-16
Lab Order:	1007847	**Collection Date:**	7/21/2010 4:01:00 PM
Project:	Bloomfield Crude Station	**Date Received:**	7/23/2010
Lab ID:	1007847-04	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JB**
Diesel Range Organics (DRO)	95	10		mg/Kg	1	7/27/2010 3:55:49 PM
Motor Oil Range Organics (MRO)	120	50		mg/Kg	1	7/27/2010 3:55:49 PM
Surr: DNOP	117	61.7-135		%REC	1	7/27/2010 3:55:49 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/27/2010 2:28:22 PM
Surr: BFB	114	55.2-107	S	%REC	1	7/27/2010 2:28:22 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	7/27/2010 2:28:22 PM
Toluene	ND	0.050		mg/Kg	1	7/27/2010 2:28:22 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/27/2010 2:28:22 PM
Xylenes, Total	ND	0.10		mg/Kg	1	7/27/2010 2:28:22 PM
Surr: 4-Bromofluorobenzene	121	64.7-120	S	%REC	1	7/27/2010 2:28:22 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
- NC Non-Chlorinated
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitation Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Jul-10*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	MP-7
Lab Order:	1007847	**Collection Date:**	7/21/2010 4:08:00 PM
Project:	Bloomfield Crude Station	**Date Received:**	7/23/2010
Lab ID:	1007847-05	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JB**
Diesel Range Organics (DRO)	890	200		mg/Kg	20	7/28/2010 12:27:29 AM
Motor Oil Range Organics (MRO)	1100	1000		mg/Kg	20	7/28/2010 12:27:29 AM
Surr: DNOP	0	61.7-135	S	%REC	20	7/28/2010 12:27:29 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/27/2010 3:00:20 PM
Surr: BFB	122	55.2-107	S	%REC	1	7/27/2010 3:00:20 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	7/27/2010 3:00:20 PM
Toluene	ND	0.050		mg/Kg	1	7/27/2010 3:00:20 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/27/2010 3:00:20 PM
Xylenes, Total	ND	0.10		mg/Kg	1	7/27/2010 3:00:20 PM
Surr: 4-Bromofluorobenzene	132	64.7-120	S	%REC	1	7/27/2010 3:00:20 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
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Jul-10*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	IP-7
Lab Order:	1007847	**Collection Date:**	7/21/2010 4:42:00 PM
Project:	Bloomfield Crude Station	**Date Received:**	7/23/2010
Lab ID:	1007847-06	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JB**
Diesel Range Organics (DRO)	110	10		mg/Kg	1	7/28/2010 7:06:26 AM
Motor Oil Range Organics (MRO)	120	50		mg/Kg	1	7/28/2010 7:06:26 AM
Surr: DNOP	122	61.7-135		%REC	1	7/28/2010 7:06:26 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/27/2010 3:30:41 PM
Surr: BFB	117	55.2-107	S	%REC	1	7/27/2010 3:30:41 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	7/27/2010 3:30:41 PM
Toluene	ND	0.050		mg/Kg	1	7/27/2010 3:30:41 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/27/2010 3:30:41 PM
Xylenes, Total	ND	0.10		mg/Kg	1	7/27/2010 3:30:41 PM
Surr: 4-Bromofluorobenzene	125	64.7-120	S	%REC	1	7/27/2010 3:30:41 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
- NC Non-Chlorinated
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitation Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Jul-10*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	IP-12
Lab Order:	1007847	**Collection Date:**	7/21/2010 5:07:00 PM
Project:	Bloomfield Crude Station	**Date Received:**	7/23/2010
Lab ID:	1007847-07	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JB**
Diesel Range Organics (DRO)	35	10		mg/Kg	1	7/27/2010 5:04:03 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/27/2010 5:04:03 PM
Surr: DNOP	110	61.7-135		%REC	1	7/27/2010 5:04:03 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/27/2010 4:00:58 PM
Surr: BFB	119	55.2-107	S	%REC	1	7/27/2010 4:00:58 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	7/27/2010 4:00:58 PM
Toluene	ND	0.050		mg/Kg	1	7/27/2010 4:00:58 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/27/2010 4:00:58 PM
Xylenes, Total	ND	0.10		mg/Kg	1	7/27/2010 4:00:58 PM
Surr: 4-Bromofluorobenzene	127	64.7-120	S	%REC	1	7/27/2010 4:00:58 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
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Jul-10*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	MP-11
Lab Order:	1007847	**Collection Date:**	7/21/2010 5:28:00 PM
Project:	Bloomfield Crude Station	**Date Received:**	7/23/2010
Lab ID:	1007847-08	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JB**
Diesel Range Organics (DRO)	28	10		mg/Kg	1	7/28/2010 7:40:17 AM
Motor Oil Range Organics (MRO)	67	50		mg/Kg	1	7/28/2010 7:40:17 AM
Surr: DNOP	109	61.7-135		%REC	1	7/28/2010 7:40:17 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/27/2010 4:31:19 PM
Surr: BFB	110	55.2-107	S	%REC	1	7/27/2010 4:31:19 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	7/27/2010 4:31:19 PM
Toluene	ND	0.050		mg/Kg	1	7/27/2010 4:31:19 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/27/2010 4:31:19 PM
Xylenes, Total	ND	0.10		mg/Kg	1	7/27/2010 4:31:19 PM
Surr: 4-Bromofluorobenzene	120	64.7-120		%REC	1	7/27/2010 4:31:19 PM

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: Bloomfield Crude Station **Work Order:** 1007847

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8015B: Diesel Range Organics											
Sample ID: 1007847-01AMSD		*MSD*				Batch ID:	**23151**	Analysis Date:		7/27/2010 2:13:31 PM	
Diesel Range Organics (DRO)	45.01	mg/Kg	10	50	0	90.0	67.4	117	8.75	17.4	
Sample ID: MB-23151		*MBLK*				Batch ID:	**23151**	Analysis Date:		7/27/2010 11:22:58 AM	
Diesel Range Organics (DRO)	ND	mg/Kg	10								
Motor Oil Range Organics (MRO)	ND	mg/Kg	50								
Sample ID: LCS-23151		*LCS*				Batch ID:	**23151**	Analysis Date:		7/27/2010 11:57:04 AM	
Diesel Range Organics (DRO)	46.27	mg/Kg	10	50	0	92.5	64.6	116			
Sample ID: LCSD-23151		*LCSD*				Batch ID:	**23151**	Analysis Date:		7/27/2010 12:31:10 PM	
Diesel Range Organics (DRO)	43.65	mg/Kg	10	50	0	87.3	64.6	116	5.83	17.4	
Sample ID: 1007847-01AMS		*MS*				Batch ID:	**23151**	Analysis Date:		7/27/2010 1:39:23 PM	
Diesel Range Organics (DRO)	49.13	mg/Kg	10	50	0	98.3	67.4	117			
Method: EPA Method 8015B: Gasoline Range											
Sample ID: 1007847-04A MSD		*MSD*				Batch ID:	**23133**	Analysis Date:		7/27/2010 6:32:23 PM	
Gasoline Range Organics (GRO)	28.10	mg/Kg	5.0	25	0	112	80	115	3.73	11.6	
Sample ID: MB-23133		*MBLK*				Batch ID:	**23133**	Analysis Date:		7/27/2010 9:04:08 PM	
Gasoline Range Organics (GRO)	ND	mg/Kg	5.0								
Sample ID: LCS-23133		*LCS*				Batch ID:	**23133**	Analysis Date:		7/27/2010 7:02:47 PM	
Gasoline Range Organics (GRO)	25.47	mg/Kg	5.0	25	0	102	77.8	124			
Sample ID: 1007847-04A MS		*MS*				Batch ID:	**23133**	Analysis Date:		7/27/2010 6:02:00 PM	
Gasoline Range Organics (GRO)	27.07	mg/Kg	5.0	25	0	108	80	115			
Method: EPA Method 8021B: Volatiles											
Sample ID: 1007847-04A MSD		*MSD*				Batch ID:	**23133**	Analysis Date:		7/27/2010 8:03:25 PM	
Benzene	0.8834	mg/Kg	0.050	1	0	88.3	78.8	132	0.613	27	
Toluene	0.8989	mg/Kg	0.050	1	0	89.9	78.9	112	1.05	19	
Ethylbenzene	1.010	mg/Kg	0.050	1	0	101	69.3	125	1.13	10	
Xylenes, Total	3.092	mg/Kg	0.10	3	0	103	73	128	1.37	13	
Sample ID: MB-23133		*MBLK*				Batch ID:	**23133**	Analysis Date:		7/27/2010 9:04:08 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-23133		*LCS*				Batch ID:	**23133**	Analysis Date:		7/27/2010 8:33:43 PM	
Benzene	0.9599	mg/Kg	0.050	1	0	96.0	78.8	132			
Toluene	0.9164	mg/Kg	0.050	1	0	91.6	78.9	112			
Ethylbenzene	1.025	mg/Kg	0.050	1	0.0126	101	69.3	125			
Xylenes, Total	3.112	mg/Kg	0.10	3	0	104	73	128			
Sample ID: 1007847-04A MS		*MS*				Batch ID:	**23133**	Analysis Date:		7/27/2010 7:32:57 PM	
Benzene	0.8780	mg/Kg	0.050	1	0	87.8	78.8	132			
Toluene	0.9084	mg/Kg	0.050	1	0	90.8	78.9	112			
Ethylbenzene	0.9985	mg/Kg	0.050	1	0	99.9	69.3	125			
Xylenes, Total	3.050	mg/Kg	0.10	3	0	102	73	128			

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name **WESTERN REFINING SOUT** Date Received: **7/23/2010**

Work Order Number **1007847** Received by: TLS

Checklist completed by: Signature 7/23/10 Date Sample ID labels checked by: Initials

Matrix: Carrier name: Courier

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?	**4.9°**	*<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

BILL ROBERTSON

Mailing Address: 111 CR 4990

BLOOMFIELD, NM

Phone #:

email or Fax#:

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:

☒ Standard ☐ Rush

Project Name:

BLOOMFIELD CRUDE STATION

Project #:

WR1007

Project Manager:

ASHLEY AGER

Sampler: BROOKE HERB & DEVIN HENCHMAN

On Ice: ☒ Yes ☐ No

Sample Temperature: 4.9

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. 1008184	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)					Air Bubbles (Y or N)
7/21/10	14:17	SOIL	IP-10	4oz/2	NONE	1	X		X													
7/21/10	14:34	SOIL	MP-3			2	X		X													
7/21/10	15:37	SOIL	MP-8			3	X		X													
7/21/10	16:01	SOIL	IP-11O			4	X		X													
7/21/10	16:08	SOIL	MP-7			5	X		X													
7/21/10	16:42	SOIL	IP-7			6	X		X													
7/21/10	17:07	SOIL	IP-12			7	X		X													
7/21/10	17:28	SOIL	MP-11			8	X		X													

Date	Time	Relinquished by:	Received by:	Date	Time
7/22/10	2000			7/23/10	735
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

PLEASE COPY RESULTS TO:

aager@ltenv.com

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 12, 2011

Bill Robertson
Western Refining Southwest, Inc.
#50 CR 4990
Bloomfield, NM 87413

TEL: (505) 632-4161
FAX (505) 632-3911

RE: Bloomfield Crude Station

Order No.: 1010365

Dear Bill Robertson:

Hall Environmental Analysis Laboratory, Inc. received 8 sample(s) on 10/7/2010 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued October 28, 2010.

No determination of compounds below these (denoted by the ND or < sign) has been made.

Reporting limits are determined by EPA methodology.

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:** *12-Apr-11*

CLIENT: Western Refining Southwest, Inc.
Project: Bloomfield Crude Station
Lab Order: 1010365

CASE NARRATIVE

Analytical Comments for METHOD 8015DRO_S, SAMPLE 1010365-01A: DNOP not recovered due to dilution

Hall Environmental Analysis Laboratory, Inc.

Date: *12-Apr-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	IP 16
Lab Order:	1010365	**Collection Date:**	10/5/2010 10:51:00 AM
Project:	Bloomfield Crude Station	**Date Received:**	10/7/2010
Lab ID:	1010365-01	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JB**
Diesel Range Organics (DRO)	360	100		mg/Kg	10	10/11/2010 12:36:10 AM
Motor Oil Range Organics (MRO)	570	500		mg/Kg	10	10/11/2010 12:36:10 AM
Surr: DNOP	0	61.7-135	S	%REC	10	10/11/2010 12:36:10 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/12/2010 11:30:52 PM
Surr: BFB	110	60.2-161		%REC	1	10/12/2010 11:30:52 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	10/12/2010 11:30:52 PM
Toluene	ND	0.050		mg/Kg	1	10/12/2010 11:30:52 PM
Ethylbenzene	ND	0.050		mg/Kg	1	10/12/2010 11:30:52 PM
Xylenes, Total	ND	0.10		mg/Kg	1	10/12/2010 11:30:52 PM
Surr: 4-Bromofluorobenzene	136	88.9-151		%REC	1	10/12/2010 11:30:52 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *12-Apr-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	MP 11
Lab Order:	1010365	**Collection Date:**	10/5/2010 11:20:00 AM
Project:	Bloomfield Crude Station	**Date Received:**	10/7/2010
Lab ID:	1010365-02	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JB**
Diesel Range Organics (DRO)	110	10		mg/Kg	1	10/11/2010 8:14:26 AM
Motor Oil Range Organics (MRO)	150	50		mg/Kg	1	10/11/2010 8:14:26 AM
Surr: DNOP	122	61.7-135		%REC	1	10/11/2010 8:14:26 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/13/2010 12:01:22 AM
Surr: BFB	96.1	60.2-161		%REC	1	10/13/2010 12:01:22 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	10/13/2010 12:01:22 AM
Toluene	ND	0.050		mg/Kg	1	10/13/2010 12:01:22 AM
Ethylbenzene	ND	0.050		mg/Kg	1	10/13/2010 12:01:22 AM
Xylenes, Total	ND	0.10		mg/Kg	1	10/13/2010 12:01:22 AM
Surr: 4-Bromofluorobenzene	115	88.9-151		%REC	1	10/13/2010 12:01:22 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
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *12-Apr-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	MP 8
Lab Order:	1010365	**Collection Date:**	10/5/2010 10:55:00 AM
Project:	Bloomfield Crude Station	**Date Received:**	10/7/2010
Lab ID:	1010365-03	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JB**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/11/2010 8:48:20 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/11/2010 8:48:20 AM
Surr: DNOP	115	61.7-135		%REC	1	10/11/2010 8:48:20 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/13/2010 12:31:43 AM
Surr: BFB	103	60.2-161		%REC	1	10/13/2010 12:31:43 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	10/13/2010 12:31:43 AM
Toluene	ND	0.050		mg/Kg	1	10/13/2010 12:31:43 AM
Ethylbenzene	ND	0.050		mg/Kg	1	10/13/2010 12:31:43 AM
Xylenes, Total	ND	0.10		mg/Kg	1	10/13/2010 12:31:43 AM
Surr: 4-Bromofluorobenzene	127	88.9-151		%REC	1	10/13/2010 12:31:43 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
- NC Non-Chlorinated
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitation Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *12-Apr-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	IP 12
Lab Order:	1010365	**Collection Date:**	10/5/2010 11:32:00 AM
Project:	Bloomfield Crude Station	**Date Received:**	10/7/2010
Lab ID:	1010365-04	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JB**
Diesel Range Organics (DRO)	100	10		mg/Kg	1	10/11/2010 9:22:12 AM
Motor Oil Range Organics (MRO)	160	50		mg/Kg	1	10/11/2010 9:22:12 AM
Surr: DNOP	131	61.7-135		%REC	1	10/11/2010 9:22:12 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/13/2010 1:02:11 AM
Surr: BFB	100	60.2-161		%REC	1	10/13/2010 1:02:11 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	10/13/2010 1:02:11 AM
Toluene	ND	0.050		mg/Kg	1	10/13/2010 1:02:11 AM
Ethylbenzene	ND	0.050		mg/Kg	1	10/13/2010 1:02:11 AM
Xylenes, Total	ND	0.10		mg/Kg	1	10/13/2010 1:02:11 AM
Surr: 4-Bromofluorobenzene	121	88.9-151		%REC	1	10/13/2010 1:02:11 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
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *12-Apr-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	IP 7
Lab Order:	1010365	**Collection Date:**	10/5/2010 11:57:00 AM
Project:	Bloomfield Crude Station	**Date Received:**	10/7/2010
Lab ID:	1010365-05	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JB**
Diesel Range Organics (DRO)	21	10		mg/Kg	1	10/10/2010 9:47:39 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/10/2010 9:47:39 PM
Surr: DNOP	110	61.7-135		%REC	1	10/10/2010 9:47:39 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/13/2010 1:32:41 AM
Surr: BFB	107	60.2-161		%REC	1	10/13/2010 1:32:41 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	10/13/2010 1:32:41 AM
Toluene	ND	0.050		mg/Kg	1	10/13/2010 1:32:41 AM
Ethylbenzene	ND	0.050		mg/Kg	1	10/13/2010 1:32:41 AM
Xylenes, Total	ND	0.10		mg/Kg	1	10/13/2010 1:32:41 AM
Surr: 4-Bromofluorobenzene	134	88.9-151		%REC	1	10/13/2010 1:32:41 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *12-Apr-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	MP 3
Lab Order:	1010365	**Collection Date:**	10/5/2010 10:35:00 AM
Project:	Bloomfield Crude Station	**Date Received:**	10/7/2010
Lab ID:	1010365-06	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JB**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/10/2010 10:21:15 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/10/2010 10:21:15 PM
Surr: DNOP	115	61.7-135		%REC	1	10/10/2010 10:21:15 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/13/2010 2:03:01 AM
Surr: BFB	104	60.2-161		%REC	1	10/13/2010 2:03:01 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	10/13/2010 2:03:01 AM
Toluene	ND	0.050		mg/Kg	1	10/13/2010 2:03:01 AM
Ethylbenzene	ND	0.050		mg/Kg	1	10/13/2010 2:03:01 AM
Xylenes, Total	ND	0.10		mg/Kg	1	10/13/2010 2:03:01 AM
Surr: 4-Bromofluorobenzene	128	88.9-151		%REC	1	10/13/2010 2:03:01 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *12-Apr-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	IP 10
Lab Order:	1010365	**Collection Date:**	10/5/2010 10:40:00 AM
Project:	Bloomfield Crude Station	**Date Received:**	10/7/2010
Lab ID:	1010365-07	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: JB
Diesel Range Organics (DRO)	60	10		mg/Kg	1	10/10/2010 10:54:50 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/10/2010 10:54:50 PM
Surr: DNOP	112	61.7-135		%REC	1	10/10/2010 10:54:50 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/13/2010 2:33:24 AM
Surr: BFB	102	60.2-161		%REC	1	10/13/2010 2:33:24 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	10/13/2010 2:33:24 AM
Toluene	ND	0.050		mg/Kg	1	10/13/2010 2:33:24 AM
Ethylbenzene	ND	0.050		mg/Kg	1	10/13/2010 2:33:24 AM
Xylenes, Total	ND	0.10		mg/Kg	1	10/13/2010 2:33:24 AM
Surr: 4-Bromofluorobenzene	126	88.9-151		%REC	1	10/13/2010 2:33:24 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
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *12-Apr-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	MP 7
Lab Order:	1010365	**Collection Date:**	10/5/2010 10:45:00 AM
Project:	Bloomfield Crude Station	**Date Received:**	10/7/2010
Lab ID:	1010365-08	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JB**
Diesel Range Organics (DRO)	28	10		mg/Kg	1	10/10/2010 11:28:41 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/10/2010 11:28:41 PM
Surr: DNOP	118	61.7-135		%REC	1	10/10/2010 11:28:41 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/13/2010 3:03:56 AM
Surr: BFB	100	60.2-161		%REC	1	10/13/2010 3:03:56 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	10/13/2010 3:03:56 AM
Toluene	ND	0.050		mg/Kg	1	10/13/2010 3:03:56 AM
Ethylbenzene	ND	0.050		mg/Kg	1	10/13/2010 3:03:56 AM
Xylenes, Total	ND	0.10		mg/Kg	1	10/13/2010 3:03:56 AM
Surr: 4-Bromofluorobenzene	121	88.9-151		%REC	1	10/13/2010 3:03:56 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
- NC Non-Chlorinated
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitation Limit
- S Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: Bloomfield Crude Station **Work Order:** 1010365

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8015B: Diesel Range Organics											
Sample ID: MB-24053		*MBLK*				Batch ID:	**24053**	Analysis Date:		10/10/2010 3:32:49 PM	
Diesel Range Organics (DRO)	ND	mg/Kg	10								
Motor Oil Range Organics (MRO)	ND	mg/Kg	50								
Surr: DNOP	10.79	mg/Kg	0	10	0	108	61.7	135			
Sample ID: LCS-24053		*LCS*				Batch ID:	**24053**	Analysis Date:		10/10/2010 4:07:13 PM	
Diesel Range Organics (DRO)	42.11	mg/Kg	10	50	0	84.2	64.6	116			
Surr: DNOP	5.433	mg/Kg	0	5	0	109	61.7	135			
Sample ID: LCSD-24053		*LCSD*				Batch ID:	**24053**	Analysis Date:		10/10/2010 4:41:19 PM	
Diesel Range Organics (DRO)	44.51	mg/Kg	10	50	0	89.0	64.6	116	5.56	17.4	
Surr: DNOP	5.746	mg/Kg	0	5	0	115	61.7	135	0	0	
Method: EPA Method 8015B: Gasoline Range											
Sample ID: 1010365-07A MSD		*MSD*				Batch ID:	**24050**	Analysis Date:		10/12/2010 5:24:47 PM	
Gasoline Range Organics (GRO)	25.12	mg/Kg	5.0	25	0	100	69.2	147	0.839	25.9	
Surr: BFB	886.1	mg/Kg	0	1000	0	88.5	60.2	161	0	0	
Sample ID: MB-24050		*MBLK*				Batch ID:	**24050**	Analysis Date:		10/12/2010 7:57:31 PM	
Gasoline Range Organics (GRO)	ND	mg/Kg	5.0								
Surr: BFB	1048	mg/Kg	0	1000	0	105	60.2	161			
Sample ID: LCS-24050		*LCS*				Batch ID:	**24050**	Analysis Date:		10/12/2010 5:55:23 PM	
Gasoline Range Organics (GRO)	27.34	mg/Kg	5.0	25	1.66	103	74.2	136			
Surr: BFB	1027	mg/Kg	0	1000	0	103	60.2	161			
Sample ID: 1010365-07A MS		*MS*				Batch ID:	**24050**	Analysis Date:		10/12/2010 4:54:17 PM	
Gasoline Range Organics (GRO)	24.91	mg/Kg	5.0	25	0	99.6	69.2	147			
Surr: BFB	893.0	mg/Kg	0	1000	0	89.3	60.2	161			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: Bloomfield Crude Station **Work Order:** *1010365*

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8021B: Volatiles											
Sample ID: 1010365-07A MSD		*MSD*				Batch ID:	**24050**	Analysis Date:		10/12/2010 6:56:29 PM	
Methyl tert-butyl ether (MTBE)	1.640	mg/Kg	0.10	1	0	164	61.3	215	10.0	19.6	
Benzene	1.098	mg/Kg	0.050	1	0	110	67.2	113	10.7	14.3	
Toluene	1.080	mg/Kg	0.050	1	0	108	62.1	116	9.73	15.9	
Ethylbenzene	1.224	mg/Kg	0.050	1	0	122	67.9	127	10.4	14.4	
Xylenes, Total	3.715	mg/Kg	0.10	3	0	124	60.6	134	7.44	12.6	
Surr: 4-Bromofluorobenzene	1.191	mg/Kg	0	1	0	119	88.9	151	0	0	
Sample ID: MB-24050		*MBLK*				Batch ID:	**24050**	Analysis Date:		10/12/2010 7:57:31 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								
Surr: 4-Bromofluorobenzene	1.274	mg/Kg	0	1	0	127	88.9	151			
Sample ID: 1010365-07A MS		*MS*				Batch ID:	**24050**	Analysis Date:		10/12/2010 6:26:00 PM	
Methyl tert-butyl ether (MTBE)	1.483	mg/Kg	0.10	1	0	148	61.3	215			
Benzene	0.9868	mg/Kg	0.050	1	0	98.7	67.2	113			
Toluene	0.9795	mg/Kg	0.050	1	0	98.0	62.1	116			
Ethylbenzene	1.103	mg/Kg	0.050	1	0	110	67.9	127			
Xylenes, Total	3.448	mg/Kg	0.10	3	0	115	60.6	134			
Surr: 4-Bromofluorobenzene	1.238	mg/Kg	0	1	0	124	88.9	151			

Qualifiers:

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

Chain-of-Custody Record

Client: Western Refining
Bill Robertson
Mailing Address: 111 CR 4990
Bloomfield, NM 87413
Phone #:
email or Fax#:
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: Bloomfield Crude Station
Project #: WR1007
Project Manager: Ashley Ager
Sampler: Travis Lavrity
On Ice: Y N
Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1005385	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)
10/5/10	1051	Soil	TP16	4oz/2	None	-1	X		X									
	11:20		~~MP12~~ MP11			-2	X		X									
	10:55		MP8			-3	X		X									
	11:32		TP12			-4	X		X									
	11:57		TP7			-5	X		X									
	1025		MP3			-6	X		X									
	1030		TP10			-7	X		X									
	1045		MP7			-8	X		X									

Date:	Time:	Relinquished by:	Received by:	Date	Time
10/5/10	1400		Melissa Walters	10/7/10	200
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks: Please copy results to aager@ltenv.com

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.

APPENDIX C
HISTORICAL SOIL SAMPLING DATA

HISTORICAL SOIL ANALYTICAL RESULTS
BLOOMFIELD CRUDE STATION
WESTERN REFINING, INC.

Sample ID	Sample Depth (ft)	Date Sampled	Field Headspace Reading (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	DRO * (mg/kg)	MRO* (mg/kg)	GRO * (mg/kg)	TPH * (mg/kg)
MP-11	12	October 2002	732	2.9	<0.05	5.8	36	-	-	-	**1,290**
		October 2003	191	<0.05	<0.05	<0.05	<0.1	-	-	-	**157**
		October 2004	0	<0.05	<0.05	<0.05	<0.1	-	-	-	ND
		October 2005	7.49	<0.05	<0.05	<0.05	<0.1	-	-	-	ND
		October 2006	3.2	<0.05	<0.05	<0.05	<0.1	-	-	-	**124**
		October 2007	0.1	<0.05	<0.05	<0.05	<0.1	-	-	-	ND
		October 2008	17.1	<0.05	<0.05	<0.05	<0.1	<10	60	<5.0	60
		April 2009	0	<0.05	<0.05	<0.05	<0.1	<10	<50	<5.0	ND
		July 2009	0.7	<0.05	<0.05	<0.05	<0.1	<10	110	<5.0	**110**
		October 2009	0.3	<0.05	<0.05	<0.05	<0.1	<10	<50	<5.0	ND
		January 2010	0.2	<0.05	<0.05	<0.05	<0.1	<10	<50	<5.0	ND
		April 2010	0.3	<0.05	<0.05	<0.05	<0.1	<10	89	<5.0	89
		July 2010	0.2	<0.05	<0.05	<0.05	<0.1	28	67	<5.0	95
		October 2010	0.1	<0.05	<0.05	<0.05	<0.1	110	150	<5.0	**260**
		January 2011	1.4	<0.05	<0.05	<0.05	<0.1	21	<50	<5.0	21
IP-16	9	October 2002	728	0.85	<0.05	<0.05	<0.1	-	-	-	**5,690**
		October 2003	110	<0.05	<0.05	<0.05	<0.1	-	-	-	**2,600**
		October 2004	0	<0.05	<0.05	<0.05	<0.1	-	-	-	**540**
		October 2005	0	<0.05	<0.05	<0.05	<0.1	-	-	-	52
		October 2006	5	<0.05	<0.05	<0.05	<0.1	-	-	-	**210**
		October 2007	0.2	<0.05	<0.05	<0.05	<0.1	-	-	-	**1,500**
		October 2008	4.2	<0.05	<0.05	<0.05	<0.1	140	310	<5.0	**450**
		April 2009	3.8	0.10	<0.05	<0.05	<0.1	380	660	<5.0	**1,040**
		July 2009	1.6	<0.05	<0.05	<0.05	<0.1	220	310	<5.0	**530**
		October 2009	0.9	<0.05	<0.05	<0.05	<0.1	130	200	<5.0	**330**
		January 2010	0.5	<0.05	<0.05	<0.05	<0.1	100	200	<5.0	**300**
		April 2010	2.7	<0.05	<0.05	<0.05	<0.1	25	110	<5.0	**135**
		July 2010	0	<0.05	<0.05	<0.05	<0.1	95	120	<5.0	**215**
		October 2010	0	<0.05	<0.05	<0.05	<0.1	360	570	<5.0	**930**
		January 2011	0.3	>0.05	>0.05	>0.05	<0.1	58	75	<5.0	**133**
MP-8	9	October 2002	772	<0.05	<0.05	<0.05	<0.1	-	-	-	ND
		October 2003	149	<0.05	<0.05	<0.05	<0.1	-	-	-	ND
		October 2004	149	<0.05	<0.05	<0.05	<0.1	-	-	-	ND
		October 2005	56.2	<0.05	<0.05	<0.05	<0.1	-	-	-	ND
		October 2006	4.6	<0.05	<0.05	<0.05	<0.1	-	-	-	28
		October 2007	0.6	<0.05	<0.05	<0.05	<0.1	-	-	-	70
		October 2008	3.7	<0.05	<0.05	<0.05	<0.1	<10	55	<5.0	55
		April 2009	0	<0.05	<0.05	<0.05	<0.1	<10	<50	<5.0	ND
		July 2009	0.4	<0.05	<0.05	<0.05	<0.1	<10	<50	<5.0	ND
		October 2009	0.1	<0.05	<0.05	<0.05	<0.1	<10	<50	<5.0	ND
		January 2010	0.2	<0.05	<0.05	<0.05	<0.1	<10	<50	<5.0	ND
		April 2010	0.2	<0.05	<0.05	<0.05	<0.1	<10	<50	<5.0	ND
		July 2010	0.2	<0.05	<0.05	<0.05	<0.1	<10	<50	<5.0	ND
		October 2010	0.4	<0.05	<0.05	<0.05	<0.1	<10	<50	<5.0	ND
		January 2011	1.3	<0.05	<0.05	<0.05	<0.1	<10	<50	<5.0	ND

HISTORICAL SOIL ANALYTICAL RESULTS
BLOOMFIELD CRUDE STATION
WESTERN REFINING, INC.

Sample ID	Sample Depth (ft)	Date Sampled	Field Headspace Reading (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	DRO * (mg/kg)	MRO* (mg/kg)	GRO * (mg/kg)	TPH * (mg/kg)
IP-12	12	October 2002	616	<0.05	<0.05	<0.05	<0.1	-	-	-	**2,470**
		October 2003	190	<0.05	<0.05	<0.05	<0.1	-	-	-	**720**
		October 2004	253	<0.05	<0.05	<0.05	<0.1	-	-	-	ND
		October 2005	120	<0.05	<0.05	<0.05	<0.1	-	-	-	**770**
		October 2006	3.3	<0.05	<0.05	<0.05	<0.1	-	-	-	**520**
		October 2007	0.3	<0.05	<0.05	<0.05	<0.1	-	-	-	84
		October 2008	3.3	<0.05	<0.05	<0.05	<0.1	49	160	<5.0	**209**
		April 2009	0	<0.05	<0.05	<0.05	<0.1	55	80	<5.0	**143**
		July 2009	0.2	<0.05	<0.05	<0.05	<0.1	<10	62	<5.0	62
		October 2009	0.2	<0.05	<0.05	<0.05	<0.1	<10	<50	<5.0	ND
		January 2010	0.2	<0.05	<0.05	<0.05	<0.1	45	94	<5.0	**139**
		April 2010	0.1	<0.05	<0.05	<0.05	<0.1	52	160	<5.0	**212**
		July 2010	0	<0.05	<0.05	<0.05	<0.1	35	<50	<5.0	35
		October 2010	0	<0.05	<0.05	<0.05	<0.1	100	160	<5.0	260
		January 2011	1.8	<0.05	<0.05	<0.05	<0.1	81	97	<5.0	**178**
IP-7	12	October 2002	676	2.9	<0.05	<0.05	<0.1	-	-	-	**4,720**
		October 2003	287	<0.05	<0.05	<0.05	<0.1	-	-	-	**1,299**
		October 2004	123	<0.05	<0.05	<0.05	<0.1	-	-	-	**139**
		October 2005	6.2	<0.05	<0.05	<0.05	<0.1	-	-	-	55
		October 2006	7.4	<0.05	<0.05	<0.05	<0.1	-	-	-	**770**
		October 2007	0.5	<0.05	<0.05	<0.05	<0.1	-	-	-	**1,460**
		October 2008	3.1	<0.05	<0.05	<0.05	<0.1	<10	64	<5.0	64
		April 2009	0	<0.05	<0.05	<0.05	<0.1	<10	<50	<5.0	ND
		July 2009	0.2	<0.05	<0.05	<0.05	<0.1	<10	<50	<5.0	ND
		October 2009	0.1	<0.05	<0.05	<0.05	<0.1	16	81	<5.0	97
		January 2010	0.2	<0.05	<0.05	<0.05	<0.1	<10	<50	<5.0	ND
		April 2010	0.1	<0.05	<0.05	<0.05	<0.1	32	120	<5.0	**152**
		July 2010	0	<0.05	<0.05	<0.05	<0.1	110	120	<5.0	**230**
		October 2010	0	<0.05	<0.05	<0.05	<0.1	21	<50	<5.0	21
		January 2011	1.4	<0.05	<0.05	<0.05	<0.1	<10	<50	<5.0	ND
MP-3	6	October 2002	777	2	<0.05	<0.05	<0.1	-	-	-	**750**
		October 2003	314	<0.05	<0.05	<0.05	<0.1	-	-	-	**400**
		October 2004	0	<0.05	<0.05	<0.05	<0.1	-	-	-	ND
		October 2005	0	<0.05	<0.05	<0.05	<0.1	-	-	-	39
		October 2006	4.7	<0.05	<0.05	<0.05	<0.1	-	-	-	ND
		October 2007	0.4	<0.05	<0.05	<0.05	<0.1	-	-	-	45
		October 2008	3.9	<0.05	<0.05	<0.05	<0.1	<10	78	<5.0	78
		April 2009	0.9	<0.05	<0.05	<0.05	<0.1	<10	<50	<5.0	ND
		July 2009	0.5	<0.05	<0.05	<0.05	<0.1	<10	<50	<5.0	ND
		October 2009	0.5	<0.05	<0.05	<0.05	<0.1	<10	<50	<5.0	ND
		January 2010	0.4	<0.05	<0.05	<0.05	<0.1	<10	<50	<5.0	ND
		April 2010	1.9	<0.05	<0.05	<0.05	<0.1	<10	<50	<5.0	ND
		July 2010	0.4	<0.05	<0.05	<0.05	<0.1	<10	<50	<5.0	ND
		October 2010	1.3	<0.05	<0.05	<0.05	<0.1	<10	<50	<5.0	ND
		January 2011	0.9	<0.05	<0.05	<0.05	<0.1	<10	<50	<5.0	ND

HISTORICAL SOIL ANALYTICAL RESULTS
BLOOMFIELD CRUDE STATION
WESTERN REFINING, INC.

Sample ID	Sample Depth (ft)	Date Sampled	Field Headspace Reading (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	DRO * (mg/kg)	MRO* (mg/kg)	GRO * (mg/kg)	TPH * (mg/kg)
MP-7	6	October 2002	872	2	<0.05	<0.05	<0.1	-	-	-	**2,830**
		October 2003	3946	3.5	<0.05	<0.05	<0.1	-	-	-	**4,700**
		October 2004	994	3.5	<0.05	<0.05	<0.1	-	-	-	**2,330**
		October 2005	443	< 0.13	< 0.13	6	32	-	-	-	**2,040**
		October 2006	4.9	<0.05	<0.05	<0.05	<0.1	-	-	-	22
		October 2007	0.5	<0.05	<0.05	<0.05	<0.1	-	-	-	**1,250**
		October 2008	4.1	<0.05	<0.05	<0.05	<0.1	730	1,500	<5.0	**2,230**
		April 2009	9.2	<0.05	<0.05	<0.05	<0.1	<10	<50	<5.0	ND
		July 2009	2	<0.05	<0.05	<0.05	<0.1	460	350	<5.0	**810**
		October 2009	1.3	<0.05	<0.05	<0.05	<0.1	960	1,300	<5.0	**2,260**
		January 2010	0.3	<0.05	<0.05	<0.05	<0.1	91	130	<5.0	**221**
		April 2010	0.6	<0.05	<0.05	<0.05	<0.1	400	340	<5.0	**740**
		July 2010	0	<0.05	<0.05	<0.05	<0.1	890	1,100	<5.0	**1,990**
		October 2010	1.4	<0.05	<0.05	<0.05	<0.1	28	<50	<5.0	28
		January 2011	1.3	<0.05	<0.05	<0.05	<0.1	62	99	<5.0	**161**
IP-10	6	October 2002	756	0.42	<0.05	<0.05	<0.1	-	-	-	**1,470**
		October 2003	311	<0.05	<0.05	<0.05	<0.1	-	-	-	21
		October 2004	262	<0.05	<0.05	<0.05	<0.1	-	-	-	ND
		October 2005	30.3	<0.05	<0.05	<0.05	<0.1	-	-	-	ND
		October 2006	13.8	<0.05	<0.05	<0.05	<0.1	-	-	-	ND
		October 2007	0.5	<0.05	<0.05	<0.05	<0.1	-	-	-	ND
		October 2008	25.1	<0.05	<0.05	<0.05	<0.1	240	440	<5.0	**680**
		April 2009	6	<0.05	<0.05	<0.05	<0.1	<10	<50	<5.0	ND
		July 2009	2.4	<0.05	<0.05	<0.05	<0.1	<10	<50	<5.0	ND
		October 2009	0.9	<0.05	<0.05	<0.05	<0.1	<10	<50	<5.0	ND
		January 2010	0.2	<0.05	<0.05	<0.05	<0.1	<10	<50	5.2	5.2
		April 2010	0.1	<0.05	<0.05	<0.05	<0.1	200	210	<5.0	410
		July 2010	0.5	<0.05	<0.05	<0.05	<0.1	<10	<50	<5.0	ND
		October 2010	0	<0.05	<0.05	<0.05	<0.1	60	<50	<5.0	60
		January 2011	1.9	<0.05	<0.05	<0.05	<0.1	<10	<50	<5.0	ND
NMOCD Standard				**10**							**100**

Notes:
BTEX analyzed by EPA Method 8021.
DRO - Diesel Range Organics
ft - feet
GRO - Gasoline Range Organics
mg/kg - milligrams per kilogram
MRO - Motor Oil Range Organics
ND - not detected
NMOCD - New Mexico Oil Conservation Commission
ppm - parts per million
TPH - total petroleum hydrocarbons
< indicates result is less than the stated laboratory method detection limit
* - only TPH results are available prior to October 2008

APPENDIX D
GROUNDWATER SAMPLING LABORATORY REPORTS

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Tuesday, April 12, 2011

Ashley Ager
Western Refining Southwest, Inc.
#50 CR 4990
Bloomfield, NM 87413
TEL: (970) 946-1093
FAX (505) 632-3911

RE: Bloomfield Crude Station

Order No.: 1101446

Dear Ashley Ager:

Hall Environmental Analysis Laboratory, Inc. received 6 sample(s) on 1/14/2011 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued January 21, 2011.

No determination of compounds below these (denoted by the ND or < sign) has been made.

Reporting limits are determined by EPA methodology.

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: *12-Apr-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	MW-4
Lab Order:	1101446	**Collection Date:**	1/13/2011 11:00:00 AM
Project:	Bloomfield Crude Station	**Date Received:**	1/14/2011
Lab ID:	1101446-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	1.0		µg/L	1	1/17/2011 11:47:48 PM
Toluene	ND	1.0		µg/L	1	1/17/2011 11:47:48 PM
Ethylbenzene	ND	1.0		µg/L	1	1/17/2011 11:47:48 PM
Xylenes, Total	ND	2.0		µg/L	1	1/17/2011 11:47:48 PM
Surr: 4-Bromofluorobenzene	119	81.3-151		%REC	1	1/17/2011 11:47:48 PM
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Chloride	36	10		mg/L	20	1/14/2011 7:29:28 PM
Sulfate	2600	50		mg/L	100	1/17/2011 7:37:19 PM
EPA 200.7: HARDNESS						Analyst: **RAGS**
Hardness (As CaCO3)	1600	1.0		mg/L	1	1/19/2011
EPA METHOD 7470: MERCURY						Analyst: **ELS**
Mercury	ND	0.00020		mg/L	1	1/20/2011 1:49:25 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **RAGS**
Arsenic	ND	0.020		mg/L	1	1/19/2011 10:05:20 AM
Barium	0.026	0.020		mg/L	1	1/19/2011 10:05:20 AM
Cadmium	ND	0.0020		mg/L	1	1/19/2011 10:05:20 AM
Calcium	540	10		mg/L	10	1/19/2011 11:22:50 AM
Chromium	ND	0.0060		mg/L	1	1/19/2011 10:05:20 AM
Iron	1.8	0.25		mg/L	5	1/20/2011 10:46:02 AM
Lead	ND	0.0050		mg/L	1	1/19/2011 10:05:20 AM
Magnesium	55	1.0		mg/L	1	1/19/2011 10:05:20 AM
Manganese	8.2	0.020		mg/L	10	1/19/2011 11:22:50 AM
Potassium	5.4	1.0		mg/L	1	1/19/2011 10:05:20 AM
Selenium	ND	0.050		mg/L	1	1/19/2011 10:05:20 AM
Silver	ND	0.0050		mg/L	1	1/19/2011 10:05:20 AM
Sodium	760	10		mg/L	10	1/19/2011 11:22:50 AM
SM 2320B: ALKALINITY						Analyst: **IC**
Alkalinity, Total (As CaCO3)	460	20		mg/L CaCO3	1	1/17/2011 10:29:00 AM
Carbonate	ND	2.0		mg/L CaCO3	1	1/17/2011 10:29:00 AM
Bicarbonate	460	20		mg/L CaCO3	1	1/17/2011 10:29:00 AM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **IC**
Specific Conductance	4600	0.010		µmhos/cm	1	1/17/2011 10:29:00 AM
SM4500-H+B: PH						Analyst: **IC**

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
- NC Non-Chlorinated
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitation Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *12-Apr-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	MW-4
Lab Order:	1101446	**Collection Date:**	1/13/2011 11:00:00 AM
Project:	Bloomfield Crude Station	**Date Received:**	1/14/2011
Lab ID:	1101446-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
SM4500-H+B: PH						Analyst: **IC**
pH	7.33	0.100		pH units	1	1/17/2011 10:29:00 AM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**
Total Dissolved Solids	4010	20.0		mg/L	1	1/18/2011 4:26:00 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
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *12-Apr-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	MW-2
Lab Order:	1101446	**Collection Date:**	1/13/2011 11:40:00 AM
Project:	Bloomfield Crude Station	**Date Received:**	1/14/2011
Lab ID:	1101446-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	1.0		µg/L	1	1/18/2011 3:21:23 PM
Toluene	ND	1.0		µg/L	1	1/18/2011 3:21:23 PM
Ethylbenzene	ND	1.0		µg/L	1	1/18/2011 3:21:23 PM
Xylenes, Total	2.5	2.0		µg/L	1	1/18/2011 3:21:23 PM
Surr: 4-Bromofluorobenzene	135	81.3-151		%REC	1	1/18/2011 3:21:23 PM
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Chloride	52	10		mg/L	20	1/14/2011 7:40:42 PM
Sulfate	920	10		mg/L	20	1/14/2011 7:40:42 PM
EPA 200.7: HARDNESS						Analyst: **RAGS**
Hardness (As CaCO3)	880	1.0		mg/L	1	1/19/2011
EPA METHOD 7470: MERCURY						Analyst: **ELS**
Mercury	ND	0.00020		mg/L	1	1/20/2011 1:51:13 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **RAGS**
Arsenic	ND	0.020		mg/L	1	1/19/2011 10:14:21 AM
Barium	0.21	0.020		mg/L	1	1/19/2011 10:14:21 AM
Cadmium	ND	0.0020		mg/L	1	1/19/2011 10:14:21 AM
Calcium	290	5.0		mg/L	5	1/19/2011 10:18:32 AM
Chromium	0.011	0.0060		mg/L	1	1/19/2011 10:14:21 AM
Iron	32	2.5		mg/L	50	1/20/2011 10:48:36 AM
Lead	0.017	0.0050		mg/L	1	1/19/2011 10:14:21 AM
Magnesium	34	1.0		mg/L	1	1/19/2011 10:14:21 AM
Manganese	6.1	0.10		mg/L	50	1/19/2011 11:25:57 AM
Potassium	6.9	1.0		mg/L	1	1/19/2011 10:14:21 AM
Selenium	ND	0.050		mg/L	1	1/19/2011 10:14:21 AM
Silver	ND	0.0050		mg/L	1	1/19/2011 10:14:21 AM
Sodium	740	50		mg/L	50	1/19/2011 11:25:57 AM
SM 2320B: ALKALINITY						Analyst: **IC**
Alkalinity, Total (As CaCO3)	1300	50		mg/L CaCO3	2.5	1/17/2011 6:00:00 PM
Carbonate	ND	5.0		mg/L CaCO3	2.5	1/17/2011 6:00:00 PM
Bicarbonate	1300	50		mg/L CaCO3	2.5	1/17/2011 6:00:00 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **IC**
Specific Conductance	3700	0.010		µmhos/cm	1	1/17/2011 11:47:00 AM
SM4500-H+B: PH						Analyst: **IC**

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
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *12-Apr-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	MW-2
Lab Order:	1101446	**Collection Date:**	1/13/2011 11:40:00 AM
Project:	Bloomfield Crude Station	**Date Received:**	1/14/2011
Lab ID:	1101446-02	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
SM4500-H+B: PH						Analyst: **IC**
pH	7.49	0.100		pH units	1	1/17/2011 11:47:00 AM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**
Total Dissolved Solids	2750	40.0		mg/L	1	1/18/2011 4:26:00 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *12-Apr-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	MW-3
Lab Order:	1101446	**Collection Date:**	1/13/2011 12:20:00 PM
Project:	Bloomfield Crude Station	**Date Received:**	1/14/2011
Lab ID:	1101446-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						**Analyst: NSB**
Benzene	ND	1.0		µg/L	1	1/18/2011 12:47:56 AM
Toluene	ND	1.0		µg/L	1	1/18/2011 12:47:56 AM
Ethylbenzene	ND	1.0		µg/L	1	1/18/2011 12:47:56 AM
Xylenes, Total	ND	2.0		µg/L	1	1/18/2011 12:47:56 AM
Surr: 4-Bromofluorobenzene	127	81.3-151		%REC	1	1/18/2011 12:47:56 AM
EPA METHOD 300.0: ANIONS						**Analyst: SRM**
Chloride	39	10		mg/L	20	1/14/2011 8:36:51 PM
Sulfate	2000	50		mg/L	100	1/17/2011 7:48:33 PM
EPA 200.7: HARDNESS						**Analyst: RAGS**
Hardness (As CaCO3)	1300	1.0		mg/L	1	1/19/2011
EPA METHOD 7470: MERCURY						**Analyst: ELS**
Mercury	ND	0.00020		mg/L	1	1/20/2011 1:53:02 PM
EPA 6010B: TOTAL RECOVERABLE METALS						**Analyst: RAGS**
Arsenic	ND	0.020		mg/L	1	1/19/2011 10:21:48 AM
Barium	0.075	0.020		mg/L	1	1/19/2011 10:21:48 AM
Cadmium	ND	0.0020		mg/L	1	1/19/2011 10:21:48 AM
Calcium	450	5.0		mg/L	5	1/19/2011 10:26:05 AM
Chromium	ND	0.0060		mg/L	1	1/19/2011 10:21:48 AM
Iron	7.0	0.50		mg/L	10	1/19/2011 11:48:49 AM
Lead	ND	0.0050		mg/L	1	1/19/2011 10:21:48 AM
Magnesium	39	1.0		mg/L	1	1/19/2011 10:21:48 AM
Manganese	1.2	0.020		mg/L	10	1/19/2011 11:48:49 AM
Potassium	4.2	1.0		mg/L	1	1/19/2011 10:21:48 AM
Selenium	ND	0.050		mg/L	1	1/19/2011 10:21:48 AM
Silver	ND	0.0050		mg/L	1	1/19/2011 10:21:48 AM
Sodium	660	10		mg/L	10	1/19/2011 11:48:49 AM
SM 2320B: ALKALINITY						**Analyst: IC**
Alkalinity, Total (As CaCO3)	560	20		mg/L CaCO3	1	1/17/2011 12:21:00 PM
Carbonate	ND	2.0		mg/L CaCO3	1	1/17/2011 12:21:00 PM
Bicarbonate	560	20		mg/L CaCO3	1	1/17/2011 12:21:00 PM
EPA 120.1: SPECIFIC CONDUCTANCE						**Analyst: IC**
Specific Conductance	4100	0.010		µmhos/cm	1	1/17/2011 12:21:00 PM
SM4500-H+B: PH						**Analyst: IC**

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
- NC Non-Chlorinated
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitation Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *12-Apr-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	MW-3
Lab Order:	1101446	**Collection Date:**	1/13/2011 12:20:00 PM
Project:	Bloomfield Crude Station	**Date Received:**	1/14/2011
Lab ID:	1101446-03	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
SM4500-H+B: PH						Analyst: **IC**
pH	7.39	0.100		pH units	1	1/17/2011 12:21:00 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**
Total Dissolved Solids	3400	20.0		mg/L	1	1/18/2011 4:26:00 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
- NC Non-Chlorinated
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitation Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *12-Apr-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	MW-7
Lab Order:	1101446	**Collection Date:**	1/13/2011 1:15:00 PM
Project:	Bloomfield Crude Station	**Date Received:**	1/14/2011
Lab ID:	1101446-04	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	140	20		µg/L	20	1/18/2011 4:18:10 AM
Toluene	ND	20		µg/L	20	1/18/2011 4:18:10 AM
Ethylbenzene	470	20		µg/L	20	1/18/2011 4:18:10 AM
Xylenes, Total	2400	40		µg/L	20	1/18/2011 4:18:10 AM
Surr: 4-Bromofluorobenzene	124	81.3-151		%REC	20	1/18/2011 4:18:10 AM
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Chloride	26	10		mg/L	20	1/14/2011 8:59:19 PM
Sulfate	7.8	0.50		mg/L	1	1/14/2011 8:48:05 PM
EPA 200.7: HARDNESS						Analyst: **RAGS**
Hardness (As CaCO3)	460	1.0		mg/L	1	1/19/2011
EPA METHOD 7470: MERCURY						Analyst: **ELS**
Mercury	ND	0.00020		mg/L	1	1/20/2011 1:54:51 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **RAGS**
Arsenic	ND	0.020		mg/L	1	1/19/2011 10:29:10 AM
Barium	2.7	0.10		mg/L	5	1/19/2011 10:32:11 AM
Cadmium	0.0029	0.0020		mg/L	1	1/19/2011 10:29:10 AM
Calcium	150	5.0		mg/L	5	1/19/2011 10:32:11 AM
Chromium	ND	0.0060		mg/L	1	1/19/2011 10:29:10 AM
Iron	47	5.0		mg/L	100	1/19/2011 11:51:57 AM
Lead	0.0072	0.0050		mg/L	1	1/19/2011 10:29:10 AM
Magnesium	19	1.0		mg/L	1	1/19/2011 10:29:10 AM
Manganese	1.3	0.010		mg/L	5	1/19/2011 10:32:11 AM
Potassium	3.6	1.0		mg/L	1	1/19/2011 10:29:10 AM
Selenium	ND	0.050		mg/L	1	1/19/2011 10:29:10 AM
Silver	ND	0.0050		mg/L	1	1/19/2011 10:29:10 AM
Sodium	130	5.0		mg/L	5	1/19/2011 10:32:11 AM
SM 2320B: ALKALINITY						Analyst: **IC**
Alkalinity, Total (As CaCO3)	670	20		mg/L CaCO3	1	1/17/2011 12:43:00 PM
Carbonate	ND	2.0		mg/L CaCO3	1	1/17/2011 12:43:00 PM
Bicarbonate	670	20		mg/L CaCO3	1	1/17/2011 12:43:00 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **IC**
Specific Conductance	1300	0.010		µmhos/cm	1	1/17/2011 12:43:00 PM
SM4500-H+B: PH						Analyst: **IC**

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
- NC Non-Chlorinated
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitation Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *12-Apr-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	MW-7
Lab Order:	1101446	**Collection Date:**	1/13/2011 1:15:00 PM
Project:	Bloomfield Crude Station	**Date Received:**	1/14/2011
Lab ID:	1101446-04	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
SM4500-H+B: PH						Analyst: **IC**
pH	7.50	0.100		pH units	1	1/17/2011 12:43:00 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**
Total Dissolved Solids	734	40.0		mg/L	1	1/18/2011 4:26:00 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
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *12-Apr-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	MW-6
Lab Order:	1101446	**Collection Date:**	1/13/2011 2:05:00 PM
Project:	Bloomfield Crude Station	**Date Received:**	1/14/2011
Lab ID:	1101446-05	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	10		µg/L	10	1/18/2011 4:21:21 PM
Toluene	ND	10		µg/L	10	1/18/2011 4:21:21 PM
Ethylbenzene	140	10		µg/L	10	1/18/2011 4:21:21 PM
Xylenes, Total	960	20		µg/L	10	1/18/2011 4:21:21 PM
Surr: 4-Bromofluorobenzene	125	81.3-151		%REC	10	1/18/2011 4:21:21 PM
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Chloride	150	10		mg/L	20	1/14/2011 9:21:46 PM
Sulfate	490	10		mg/L	20	1/14/2011 9:21:46 PM
EPA 200.7: HARDNESS						Analyst: **RAGS**
Hardness (As CaCO3)	980	1.0		mg/L	1	1/19/2011
EPA METHOD 7470: MERCURY						Analyst: **ELS**
Mercury	ND	0.00020		mg/L	1	1/20/2011 1:56:41 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **RAGS**
Arsenic	0.039	0.020		mg/L	1	1/19/2011 10:35:25 AM
Barium	4.9	0.20		mg/L	10	1/19/2011 11:56:47 AM
Cadmium	0.0054	0.0020		mg/L	1	1/19/2011 10:35:25 AM
Calcium	320	5.0		mg/L	5	1/19/2011 10:53:14 AM
Chromium	0.042	0.0060		mg/L	1	1/19/2011 10:35:25 AM
Iron	99	5.0		mg/L	100	1/19/2011 11:59:51 AM
Lead	0.023	0.0050		mg/L	1	1/19/2011 10:35:25 AM
Magnesium	46	1.0		mg/L	1	1/19/2011 10:35:25 AM
Manganese	5.1	0.020		mg/L	10	1/19/2011 11:56:47 AM
Potassium	12	1.0		mg/L	1	1/19/2011 10:35:25 AM
Selenium	ND	0.050		mg/L	1	1/19/2011 10:35:25 AM
Silver	ND	0.0050		mg/L	1	1/19/2011 10:35:25 AM
Sodium	570	10		mg/L	10	1/19/2011 11:56:47 AM
SM 2320B: ALKALINITY						Analyst: **IC**
Alkalinity, Total (As CaCO3)	1100	20		mg/L CaCO3	1	1/17/2011 1:07:00 PM
Carbonate	ND	2.0		mg/L CaCO3	1	1/17/2011 1:07:00 PM
Bicarbonate	1100	20		mg/L CaCO3	1	1/17/2011 1:07:00 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **IC**
Specific Conductance	3100	0.010		µmhos/cm	1	1/17/2011 1:07:00 PM
SM4500-H+B: PH						Analyst: **IC**

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
- NC Non-Chlorinated
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitation Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *12-Apr-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	MW-6
Lab Order:	1101446	**Collection Date:**	1/13/2011 2:05:00 PM
Project:	Bloomfield Crude Station	**Date Received:**	1/14/2011
Lab ID:	1101446-05	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
SM4500-H+B: PH						Analyst: **IC**
pH	7.50	0.100		pH units	1	1/17/2011 1:07:00 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**
Total Dissolved Solids	1890	200		mg/L	1	1/18/2011 4:26:00 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
NC	Non-Chlorinated	ND	Not Detected at the Reporting Limit
PQL	Practical Quantitation Limit	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *12-Apr-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	MW-5
Lab Order:	1101446	**Collection Date:**	1/13/2011 3:03:00 PM
Project:	Bloomfield Crude Station	**Date Received:**	1/14/2011
Lab ID:	1101446-06	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	1.0		µg/L	1	1/18/2011 5:18:17 AM
Toluene	ND	1.0		µg/L	1	1/18/2011 5:18:17 AM
Ethylbenzene	ND	1.0		µg/L	1	1/18/2011 5:18:17 AM
Xylenes, Total	ND	2.0		µg/L	1	1/18/2011 5:18:17 AM
Surr: 4-Bromofluorobenzene	128	81.3-151		%REC	1	1/18/2011 5:18:17 AM
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Chloride	350	25		mg/L	50	1/17/2011 8:22:15 PM
Sulfate	900	25		mg/L	50	1/17/2011 8:22:15 PM
EPA 200.7: HARDNESS						Analyst: **RAGS**
Hardness (As CaCO3)	1600	1.0		mg/L	1	1/19/2011
EPA METHOD 7470: MERCURY						Analyst: **ELS**
Mercury	0.00079	0.00020		mg/L	1	1/20/2011 2:02:12 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **RAGS**
Arsenic	ND	0.020		mg/L	1	1/19/2011 10:56:21 AM
Barium	0.038	0.020		mg/L	1	1/19/2011 10:56:21 AM
Cadmium	ND	0.0020		mg/L	1	1/19/2011 10:56:21 AM
Calcium	570	20		mg/L	20	1/19/2011 12:03:05 PM
Chromium	ND	0.0060		mg/L	1	1/19/2011 10:56:21 AM
Iron	1.7	0.25		mg/L	5	1/20/2011 10:51:10 AM
Lead	ND	0.0050		mg/L	1	1/19/2011 10:56:21 AM
Magnesium	48	1.0		mg/L	1	1/19/2011 10:56:21 AM
Manganese	9.4	0.040		mg/L	20	1/19/2011 12:03:05 PM
Potassium	5.6	1.0		mg/L	1	1/19/2011 10:56:21 AM
Selenium	ND	0.050		mg/L	1	1/19/2011 10:56:21 AM
Silver	ND	0.0050		mg/L	1	1/19/2011 10:56:21 AM
Sodium	850	20		mg/L	20	1/19/2011 12:03:05 PM
SM 2320B: ALKALINITY						Analyst: **IC**
Alkalinity, Total (As CaCO3)	780	20		mg/L CaCO3	1	1/17/2011 1:44:00 PM
Carbonate	ND	2.0		mg/L CaCO3	1	1/17/2011 1:44:00 PM
Bicarbonate	780	20		mg/L CaCO3	1	1/17/2011 1:44:00 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **IC**
Specific Conductance	5800	0.010		µmhos/cm	1	1/17/2011 1:44:00 PM
SM4500-H+B: PH						Analyst: **IC**

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *12-Apr-11*

CLIENT:	Western Refining Southwest, Inc.	**Client Sample ID:**	MW-5
Lab Order:	1101446	**Collection Date:**	1/13/2011 3:03:00 PM
Project:	Bloomfield Crude Station	**Date Received:**	1/14/2011
Lab ID:	1101446-06	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
SM4500-H+B: PH						Analyst: **IC**
pH	7.18	0.100		pH units	1	1/17/2011 1:44:00 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**
Total Dissolved Solids	4370	20.0		mg/L	1	1/18/2011 4:26:00 PM

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: Bloomfield Crude Station **Work Order:** 1101446

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: **R43160**		Analysis Date:		1/14/2011 11:15:21 AM	
Chloride	ND	mg/L	0.50								
Sulfate	ND	mg/L	0.50								
Sample ID: MB		*MBLK*				Batch ID: **R43183**		Analysis Date:		1/17/2011 3:52:42 PM	
Chloride	ND	mg/L	0.50								
Sulfate	ND	mg/L	0.50								
Sample ID: LCS		*LCS*				Batch ID: **R43160**		Analysis Date:		1/14/2011 11:26:34 AM	
Chloride	4.921	mg/L	0.50	5	0	98.4	90	110			
Sulfate	9.942	mg/L	0.50	10	0	99.4	90	110			
Sample ID: LCS		*LCS*				Batch ID: **R43183**		Analysis Date:		1/17/2011 4:03:56 PM	
Chloride	4.961	mg/L	0.50	5	0	99.2	90	110			
Sulfate	10.01	mg/L	0.50	10	0	100	90	110			
Method: SM 2320B: Alkalinity											
Sample ID: 1101446-01CMSD		*MSD*				Batch ID: **R43182**		Analysis Date:		1/17/2011 11:27:00 AM	
Alkalinity, Total (As CaCO3)	518.2	mg/L Ca	20	80	456.2	77.4	32.8	119	0.822	7.36	
Sample ID: MB-1		*MBLK*				Batch ID: **R43182**		Analysis Date:		1/17/2011 8:25:00 AM	
Alkalinity, Total (As CaCO3)	ND	mg/L Ca	20								
Carbonate	ND	mg/L Ca	2.0								
Bicarbonate	ND	mg/L Ca	20								
Sample ID: MB-2		*MBLK*				Batch ID: **R43182**		Analysis Date:		1/17/2011 3:44:00 PM	
Alkalinity, Total (As CaCO3)	ND	mg/L Ca	20								
Carbonate	ND	mg/L Ca	2.0								
Bicarbonate	ND	mg/L Ca	20								
Sample ID: LCS-1		*LCS*				Batch ID: **R43182**		Analysis Date:		1/17/2011 8:31:00 AM	
Alkalinity, Total (As CaCO3)	80.48	mg/L Ca	20	80	0	101	96.5	104			
Sample ID: LCS-2		*LCS*				Batch ID: **R43182**		Analysis Date:		1/17/2011 3:50:00 PM	
Alkalinity, Total (As CaCO3)	80.24	mg/L Ca	20	80	0	100	96.5	104			
Sample ID: 1101446-01CMS		*MS*				Batch ID: **R43182**		Analysis Date:		1/17/2011 11:07:00 AM	
Alkalinity, Total (As CaCO3)	514.0	mg/L Ca	20	80	456.2	72.1	32.8	119			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: Bloomfield Crude Station **Work Order:** 1101446

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8021B: Volatiles											
Sample ID: 1101446-01A MSD		*MSD*				**Batch ID:**	**R43188**	**Analysis Date:**		**1/18/2011 1:48:07 AM**	
Methyl tert-butyl ether (MTBE)	21.30	µg/L	2.5	20	0	107	55.6	139	0.851	20.9	
Benzene	20.18	µg/L	1.0	20	0	101	87.7	108	0.898	13.8	
Toluene	20.07	µg/L	1.0	20	0	100	84.2	116	4.29	17.1	
Ethylbenzene	19.76	µg/L	1.0	20	0	98.8	81.3	115	5.07	15.3	
Xylenes, Total	60.79	µg/L	2.0	60	0	101	83	118	4.95	13	
1,2,4-Trimethylbenzene	18.53	µg/L	1.0	20	0	92.6	77.1	114	3.37	6.57	
1,3,5-Trimethylbenzene	20.39	µg/L	1.0	20	0	102	88.4	115	3.40	7.92	
Sample ID: 5ML RB		*MBLK*				**Batch ID:**	**R43188**	**Analysis Date:**		**1/17/2011 9:24:03 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 22		*MBLK*				**Batch ID:**	**R43188**	**Analysis Date:**		**1/17/2011 7:46:46 PM**	
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:**	**R43201**	**Analysis Date:**		**1/18/2011 9:23:55 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:**	**R43188**	**Analysis Date:**		**1/17/2011 4:46:15 PM**	
Methyl tert-butyl ether (MTBE)	23.15	µg/L	2.5	20	0	116	75.5	124			
Benzene	21.71	µg/L	1.0	20	0	109	84.7	118			
Toluene	22.24	µg/L	1.0	20	0	111	82	123			
Ethylbenzene	22.60	µg/L	1.0	20	0	113	83	118			
Xylenes, Total	69.18	µg/L	2.0	60	0	115	85.4	119			
1,2,4-Trimethylbenzene	20.67	µg/L	1.0	20	0	103	82.1	113			
1,3,5-Trimethylbenzene	22.98	µg/L	1.0	20	0	115	89.6	119			
Sample ID: 100NG BTEX LCS		*LCS*				**Batch ID:**	**R43188**	**Analysis Date:**		**1/18/2011 2:18:05 AM**	
Methyl tert-butyl ether (MTBE)	22.58	µg/L	2.5	20	0	113	75.5	124			
Benzene	21.05	µg/L	1.0	20	0	105	84.7	118			
Toluene	21.65	µg/L	1.0	20	0	108	82	123			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: Bloomfield Crude Station **Work Order:** 1101446

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8021B: Volatiles											
Sample ID: 100NG BTEX LCS		*LCS*				Batch ID:	**R43188**	Analysis Date:		1/18/2011 2:18:05 AM	
Ethylbenzene	21.81	µg/L	1.0	20	0	109	83	118			
Xylenes, Total	66.34	µg/L	2.0	60	0	111	85.4	119			
1,2,4-Trimethylbenzene	19.91	µg/L	1.0	20	0	99.6	82.1	113			
1;3,5-Trimethylbenzene	21.98	µg/L	1.0	20	0	110	89.6	119			
Sample ID: 100NG BTEX LCS		*LCS*				Batch ID:	**R43201**	Analysis Date:		1/18/2011 8:52:23 PM	
Methyl tert-butyl ether (MTBE)	23.39	µg/L	2.5	20	0	117	75.5	124			
Benzene	21.28	µg/L	1.0	20	0	106	84.7	118			
Toluene	21.36	µg/L	1.0	20	0	107	82	123			
Ethylbenzene	20.86	µg/L	1.0	20	0	104	83	118			
Xylenes, Total	64.07	µg/L	2.0	60	0	107	85.4	119			
1,2,4-Trimethylbenzene	19.14	µg/L	1.0	20	0	95.7	82.1	113			
1,3,5-Trimethylbenzene	20.96	µg/L	1.0	20	0	105	89.6	119			
Sample ID: 100NG BTEX LCSD		*LCSD*				Batch ID:	**R43188**	Analysis Date:		1/17/2011 5:16:22 PM	
Methyl tert-butyl ether (MTBE)	23.04	µg/L	2.5	20	0	115	75.5	124	0.476	15.7	
Benzene	21.19	µg/L	1.0	20	0	106	84.7	118	2.42	17.7	
Toluene	22.27	µg/L	1.0	20	0	111	82	123	0.135	21.1	
Ethylbenzene	22.16	µg/L	1.0	20	0	111	83	118	1.97	19	
Xylenes, Total	68.05	µg/L	2.0	60	0	113	85.4	119	1.65	16.5	
1,2,4-Trimethylbenzene	20.41	µg/L	1.0	20	0	102	82.1	113	1.25	8.83	
1,3,5-Trimethylbenzene	22.42	µg/L	1.0	20	0	112	89.6	119	2.45	11.3	
Sample ID: 1101446-01A MS		*MS*				Batch ID:	**R43188**	Analysis Date:		1/18/2011 1:18:00 AM	
Methyl tert-butyl ether (MTBE)	21.48	µg/L	2.5	20	0	107	55.6	139			
Benzene	20.36	µg/L	1.0	20	0	102	87.7	108			
Toluene	20.95	µg/L	1.0	20	0	105	84.2	115			
Ethylbenzene	20.79	µg/L	1.0	20	0	104	81.3	115			
Xylenes, Total	63.87	µg/L	2.0	60	0	106	83	118			
1,2,4-Trimethylbenzene	19.16	µg/L	1.0	20	0	95.8	77.1	114			
1,3,5-Trimethylbenzene	21.10	µg/L	1.0	20	0	105	88.4	115			
Method: EPA Method 7470: Mercury											
Sample ID: MB-25313		*MBLK*				Batch ID:	**25313**	Analysis Date:		1/20/2011 1:40:30 PM	
Mercury	ND	mg/L	0.00020								
Sample ID: LCS-25313		*LCS*				Batch ID:	**25313**	Analysis Date:		1/20/2011 1:42:17 PM	
Mercury	0.005020	mg/L	0.00020	0.005	0	100	80	120			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: Bloomfield Crude Station **Work Order:** 1101446

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA 6010B: Total Recoverable Metals											
Sample ID: MB-25277		*MBLK*				Batch ID:	**25277**	Analysis Date:	1/19/2011 9:16:11 AM		
Arsenic	ND	mg/L	0.020								
Barium	ND	mg/L	0.020								
Cadmium	ND	mg/L	0.0020								
Calcium	ND	mg/L	1.0								
Chromium	ND	mg/L	0.0060								
Iron	ND	mg/L	0.050								
Lead	ND	mg/L	0.0050								
Magnesium	ND	mg/L	1.0								
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	1.0								
Sample ID: LCS-25277		*LCS*				Batch ID:	**25277**	Analysis Date:	1/19/2011 9:19:33 AM		
Arsenic	0.6095	mg/L	0.020	0.5	0.0077	120	80	120			S
Barium	0.5443	mg/L	0.020	0.5	0	109	80	120			
Cadmium	0.5660	mg/L	0.0020	0.5	0.0006	113	80	120			
Calcium	51.88	mg/L	1.0	50	0	104	80	120			
Chromium	0.5494	mg/L	0.0060	0.5	0	110	80	120			
Iron	0.5424	mg/L	0.050	0.5	0	108	80	120			
Lead	0.5674	mg/L	0.0050	0.5	0	113	80	120			
Magnesium	50.70	mg/L	1.0	50	0	101	80	120			
Manganese	0.5410	mg/L	0.0020	0.5	0	108	80	120			
Potassium	53.11	mg/L	1.0	50	0	106	80	120			
Selenium	0.6154	mg/L	0.050	0.5	0	123	80	120			S
Silver	0.5444	mg/L	0.0050	0.5	0.0010	109	80	120			
Sodium	49.70	mg/L	1.0	50	0	99.4	80	120			
Method: SM2540C MOD: Total Dissolved Solids											
Sample ID: MB-25251		*MBLK*				Batch ID:	**25251**	Analysis Date:	1/18/2011 4:26:00 PM		
Total Dissolved Solids	ND	mg/L	20.0								
Sample ID: LCS-25251		*LCS*				Batch ID:	**25251**	Analysis Date:	1/18/2011 4:26:00 PM		
Total Dissolved Solids	1024	mg/L	20.0	1000	0	102	80	120			

Qualifiers:

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

Chain-of-Custody Record

Client: Western Refining
Randy Schmaltz
Mailing Address: 111 CR 4990
Bloomfield, NM 87413
Phone #:
email or Fax#:
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: Bloomfield Crude Station
Project #:
Project Manager: Ashley Ager
Sampler: Chris Roy
On Ice: ☒ Yes ☐ No
Sample Temperature: 4°

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. 1201440	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)	pH, SO_4, Cl, Alk, Gwc	TDS, EC, Cations	Ca, Mg, K, Na, Fe, Mn	Hardness	Air Bubbles (Y or N)
1-13-10	1100	AQ	MW-4	7 total	various	-1	X						X					X	X	X	X	
1-13-10	1140	AQ	MW-2	7 total	various	-2	X						X					X	X	X	X	
1-13-10	1220	AQ	MW-3	7 total	various	-3	X						X					X	X	X	X	
1-13-10	1315	AQ	MW-7	7 total	various	-4	X						X					X	X	X	X	
1-13-10	1405	AQ	MW-6	7 total	various	-5	X						X					X	X	X	X	
1-13-10	1503	AQ	MW-5	7 total	various	-6	X						X					X	X	X	X	

Date:	Time:	Relinquished by:	Received by:	Date	Time
1-13-10	1600		Christie Wade	1/13/11	1600
1/13/11	1700	Christie Wade		1/14/11	1030

Remarks: Please copy results to aager@ltenv.com

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.

APPENDIX E
HISTORICAL GROUNDWATER SAMPLING DATA

HISTORICAL GROUNDWATER ANALYTICAL RESULTS - BTEX
BLOOMFIELD CRUDE STATION
WESTERN REFINING SOUTHWEST, INC

Well Number	Date Sampled	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Total Xylenes (ug/l)
MW-2	Sep-94	**640**	600	82	**690**
	Apr-95	**220**	280	53	430
	Sep-99	NSP	NSP	NSP	NSP
	Dec-99	NSP	NSP	NSP	NSP
	May-01	NSP	NSP	NSP	NSP
	May-02	NSP	NSP	NSP	NSP
	Jan-03	**1700**	ND	650	**3200**
	Jan-04	**1100**	ND	340	**1800**
	Jan-05	**430**	ND	360	**1000**
	Jan-06	**250**	ND	410	**790**
	Sep-06	**230**	50	290	**640**
	Jan-07	8.7	9.7	16	55
	Apr-07	7.8	6	61	110
	Jul-07	4.2	20	30	68
	Oct-07	0.87	18	120	180
	Jan-08	4.4	45	24	100
	May-08	0.86	12.3	<0.5	16.6
	Aug-08	1.1	7.3	14	28
	Nov-08	1.7	2	7.3	15
	Jan-09	1.6	ND	2.1	6.9
	Feb-09	<1.0	<1.0	2.3	7.7
	May-09	1.1	2.1	1.0	6.8
	Aug-09	1.2	<1.0	<1.0	2.0
	Nov-09	<1.0	<1.0	<1.0	<2.0
	Jan-10	<1.0	<1.0	<1.0	<2.0
	Feb-10	<1.0	<1.0	<1.0	<2.0
	Jan-11	<1.0	<1.0	<1.0	2.5
MW-3	Sep-94	ND	ND	ND	ND
	Apr-95	ND	ND	ND	ND
	Sep-99	ND	ND	ND	ND
	Dec-99	ND	ND	ND	ND
	May-01	ND	ND	ND	ND
	May-02	ND	ND	ND	ND
	Jan-03	ND	ND	ND	ND
	Jan-04	ND	ND	ND	ND
	Jan-05	ND	ND	ND	ND
	Jan-06	ND	ND	ND	ND
	Jan-07	0.8	ND	ND	ND
	Jan-08	ND	ND	ND	ND
	Jan-09	ND	ND	ND	ND
	Jan-10	<1.0	<1.0	<1.0	<2.0
	Jan-11	<1.0	<1.0	<1.0	<2.0
MW-4	Sep-94	2.1	ND	ND	1.2
	Apr-95	ND	ND	ND	ND
	Sep-99	ND	ND	ND	ND
	Dec-99	ND	ND	ND	ND
	May-01	ND	ND	ND	ND
	May-02	ND	ND	ND	ND
	Jan-03	ND	ND	ND	ND
	Jan-04	ND	ND	ND	ND
	Jan-05	ND	ND	ND	ND
	Jan-06	ND	ND	ND	ND
	Jan-07	ND	ND	ND	ND
	Jan-08	ND	ND	ND	ND
	Jan-09	ND	ND	ND	ND
	Jan-10	<1.0	<1.0	<1.0	<2.0
	Jan-11	<1.0	<1.0	<1.0	<2.0

HISTORICAL GROUNDWATER ANALYTICAL RESULTS - BTEX
BLOOMFIELD CRUDE STATION
WESTERN REFINING SOUTHWEST, INC

Well Number	Date Sampled	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Total Xylenes (ug/l)
MW-5	Sep-94	NS	NS	NS	NS
	Apr-95	ND	ND	ND	ND
	Sep-99	ND	ND	ND	ND
	Dec-99	ND	ND	ND	ND
	May-01	ND	ND	ND	ND
	May-02	ND	ND	ND	ND
	Jan-03	ND	ND	ND	ND
	Jan-04	ND	ND	ND	1.1
	Jan-05	ND	ND	ND	ND
	Jan-06	ND	ND	ND	ND
	Jan-07	ND	ND	ND	ND
	Jan-08	ND	ND	ND	ND
	Jan-09	ND	ND	ND	ND
	Jan-10	<1.0	<1.0	<1.0	<2.0
	Jan-11	<1.0	<1.0	<1.0	<2.0
MW-6	May-01	**12**	15	13	83
	May-02	ND	ND	0.53	1.4
	Oct-02	ND	ND	ND	3.2
	Jan-03	6	20	87	350
	Jul-03	ND	2.7	3.2	16
	Sep-03	0.8	3.7	4	24
	Jan-04	0.9	0.6	2.9	16
	Jan-05	ND	ND	ND	ND
	Jan-06	ND	ND	14	32
	Jan-07	ND	ND	3.6	9.1
	Jan-08	0.9	11	130	**930**
	Jan-09	ND	ND	66	510
	Jan-10	<5.0	<5.0	<5.0	<10
	Jan-11	<10.0	<10.0	140	**960**
MW-7	May-01	**2,400**	ND	380	**2,800**
	Jun-02	**2,000**	ND	140	**1,100**
	Oct-02	**1,100**	ND	79	490
	Jan-03	**3,200**	ND	400	**3,100**
	Jan-04	**3,300**	ND	460	**3,300**
	Jan-05	**1,600**	ND	220	**1,500**
	Jan-06	**1,400**	ND	280	**1,500**
	Jan-07	**1,200**	ND	450	**2,500**
	Jan-08	**750**	ND	520	**3,100**
	Jan-09	**570**	ND	450	**2,800**
	Jan-10	**270**	<20	460	**2500**
	Jan-11	**140**	<20	470	**2,400**
NMWQCC Standard		**10**	**750**	**750**	**620**

Notes:

ug/L - micrograms per liter

NSP - not sampled due to product in well

NS - not sampled

ND - not detected

< indicates result is less than the stated laboratory method detection limit

NMWQCC - New Mexico Water Quality Control Commission

BTEX analyzed by EPA Method 8021.

Bold indicates value exceeds NMWQCC standard

HISTORICAL GROUNDWATER ANALYTICAL RESULTS - GENERAL CHEMISTRY
BLOOMFIELD CRUDE STATION
WESTERN REFINING SOUTHWEST, INC

Well Number	YEAR	Lab pH (su)	Conductivity (umhos/cm)	TDS (mg/l)	Alkalinity (CaCO3) (mg/l)	Hardness (CaCO3) (mg/l)	Sodium Absorption Ratio	Bicarbonate (HCO3) (mg/l)	Carbonate (CO3) (mg/l)	Hydroxide (mg/l)	Chloride (mg/l)	Sulfate (mg/l)	Calcium (mg/l)	Magnesium (mg/l)	Potassium (mg/l)	Sodium (mg/l)	Iron (mg/l)	Manganese (mg/l)	Nitrate/ Nitrite (mg/l)
MW-2	1994	6.6	4,920	**3,049**	957	NT	11.78	1,170	0	0	**1,050**	24	325	30	1.4	828	NT	NT	NT
	2001	NSP	NSP	NSP	NSP	NSP	NSP	NSP	NSP	NSP	NSP	NSP	NSP	NSP	NSP	NSP	NSP	NSP	NSP
	2002	NSP	NSP	NSP	NSP	NSP	NSP	NSP	NSP	NSP	NSP	NSP	NSP	NSP	NSP	NSP	NSP	NSP	NSP
	2003	7	3,230	**3,220**	1,520	416	NT	1,850	<1	<1	51	369	133	20	1	660	NT	NT	NT
	2004	7	3,100	**2,000**	1,500	420	NT	1,500	<1	<1	85	130	140	18	3	680	**11**	**3.1**	<0.10
	2005	7.6	3,000	**2,000**	1,300	430	NT	1,300	7	<1	110	58	140	19	3.8	620	**11**	**3.1**	<0.10
	2006	7.4	3,400	**2,000**	1,400	440	NT	1,400	4.3	<1	130	150	150	18	2.4	610	**4**	**1.3**	<0.10
	2007	7.4	5,490	**4,580**	726	1,190	NT	724	2.57	<1	43.5	**2,460**	476	59.5	12.5	869	**16.3**	**5**	NT
	2008	7.5	5,100	**4,350**	543	1,220	NT	534	<1	<1	42.3	**2,468**	463	49.5	2.93	739	**10.7**	**6.76**	ND
	2009	7.34	4,300	**3,900**	760	NT	NT	760	ND	NT	42	**2,000**	380	42	2.3	720	BDL	**0.25**	ND
	2010	7.39	3,700	**3,160**	900	870	NT	900	ND	NT	60	**1,500**	290	34	1.8	690	**1.2**	**7.4**	ND
	2011	7.49	3,700	**2,750**	1,300	880	NT	1,300	<5.0	NT	52	**920**	290	34	6.9	740	**32**	**6.1**	NT
MW-3	1994	7.1	4,250	**3,413**	521	NT	8.14	635	0	0	48	**1,920**	439	37	1.4	661	NT	NT	NT
	2001	7.3	4,500	**3,960**	459	1,220	NT	559	<1	<1	78	**2,250**	423	40.4	2.5	711	NT	NT	NT
	2002	7	4,440	**3,820**	358	1,290	NT	437	<1	<1	46	**2,520**	446	43	0.6	705	NT	NT	NT
	2003	7	4,320	**3,660**	560	1,230	NT	683	<1	<1	56	**2,330**	428	39.4	1.6	671	NT	NT	NT
	2004	7.3	4,500	**4,000**	560	1,400	NT	560	1	<1	44	**2,300**	320	44	3.6	780	**3.9**	**0.79**	<0.10
	2005	7.4	4,700	**2,000**	560	1,400	NT	560	1	<1	37	**2,100**	450	47	3.9	690	**3.9**	**0.79**	<0.10
	2006	7.5	5,400	**3,600**	580	1,300	NT	580	1.5	<1	37	**2,200**	450	47	3.7	680	**4.4**	**0.38**	0.36
	2007	7.5	4,780	**3,750**	565	1,120	NT	563	1.92	<1	36.2	**1,920**	449	43	10.36	649	**1.28**	**0.41**	NT
	2008	7.5	4,330	**3,600**	627	1,090	NT	626	1.32	<1	34.8	**1,690**	419	39.8	2.36	594	**1.91**	**0.394**	ND
	2009	7.33	4,000	**3,700**	580	NT	NT	580	ND	NT	37	**2,000**	390	37	2.2	600	**3.2**	**6.6**	3.1
	2010	7.47	3,500	**3,430**	530	1,100	NT	530	ND	NT	35	**1,800**	370	36	1.5	600	ND	**0.15**	5.8
	2011	7.39	4,100	**3,400**	560	1,300	NT	560	<2.0	NT	39	**2,000**	450	39	4.2	660	7	**1.2**	NT
MW-4	1994	7	5,420	**4,389**	576	NT	10.88	703	0	0	175	**2,470**	439	53	3.5	907	NT	NT	NT
	2001	7.1	5,090	**4,630**	490	1,460	NT	597	<1	<1	77	**2,680**	500	52.5	4.2	900	NT	NT	NT
	2002	6.9	5,140	**4,420**	358	1,310	NT	437	<1	<1	47	**2,930**	449	47	2.6	873	NT	NT	NT
	2003	7	4,460	**3,850**	400	1,070	NT	488	<1	<1	40	**2,570**	361	40.8	2.8	667	NT	NT	NT
	2004	7.3	4,500	**3,900**	400	1,200	NT	400	3	<1	27	**2,500**	390	44	6.7	810	**18**	**5.2**	<0.10
	2005	7.3	4,900	**4,000**	420	1,300	NT	420	1	<1	30	**2,200**	450	49	10	740	**18**	NT	<0.10
	2006	7.4	5,400	**3,700**	450	1,200	NT	450	5.9	<1	31	**2,500**	410	47	7	790	**3.8**	**5.4**	<0.10
	2007	7.2	4,700	**3,690**	455	1,020	NT	454	1.17	<1	54.5	**1,730**	410	43.3	12.1	678	**0.56**	**5.73**	NT
	2008	7.6	4,500	**3,710**	458	1,040	NT	457	<1	<1	<5	**1,790**	394	41.2	3.55	637	**2.72**	**5.41**	ND
	2009	7.19	4,400	**4,000**	450	NT	NT	450	ND	NT	36	**2,400**	400	42	3.7	670	ND	**4.7**	ND
	2010	7.49	4,300	**4,060**	490	1,200	NT	490	ND	NT	50	**2,400**	420	45	3.2	740	ND	**4.9**	ND
	2011	7.33	4,600	**4,010**	460	1,600	NT	460	<2.0	NT	36	**2,600**	540	55	5.4	760	**1.8**	**8.2**	NT

HISTORICAL GROUNDWATER ANALYTICAL RESULTS - GENERAL CHEMISTRY
BLOOMFIELD CRUDE STATION
WESTERN REFINING SOUTHWEST, INC

Well Number	YEAR	Lab pH (su)	Conductivity (umhos/cm)	TDS (mg/l)	Alkalinity (CaCO3) (mg/l)	Hardness (CaCO3) (mg/l)	Sodium Absorption Ratio	Bicarbonate (HCO3) (mg/l)	Carbonate (CO3) (mg/l)	Hydroxide (mg/l)	Chloride (mg/l)	Sulfate (mg/l)	Calcium (mg/l)	Magnesium (mg/l)	Potassium (mg/l)	Sodium (mg/l)	Iron (mg/l)	Manganese (mg/l)	Nitrate/ Nitrite (mg/l)
MW-5	1994	6.9	6,000	**4,410**	775	NT	8.84	945	0	0	**996**	**1,390**	634	51	6.6	861	NT	NT	NT
	2001	6.7	7,000	**5,230**	757	2,010	NT	923	<1	<1	**1,320**	**1,230**	700	63.2	5.6	924	NT	NT	NT
	2002	6.5	6,880	**4,810**	567	1,880	NT	692	<1	<1	**1,200**	**1,230**	661	55.3	4.9	855	NT	NT	NT
	2003	6.6	6,910	**5,080**	830	1,780	NT	1,010	<1	<1	**1,090**	**1,330**	616	58.1	4.8	829	NT	NT	NT
	2004	6.8	6,700	**4,600**	840	2,000	NT	840	1	<1	**1,300**	**1,400**	690	57	11	1,000	**4.3**	**11**	<0.10
	2005	7	6,800	**4,800**	870	1,900	NT	870	<1	<1	**1,100**	**1,200**	670	60	10	910	**4.3**	**11**	<0.10
	2006	7.1	8,000	**4,300**	990	1,800	NT	990	<1	<1	**1,000**	**1,200**	630	58	12	920	**11**	**58**	<0.10
	2007	7.3	6,630	**4,750**	915	1,320	NT	914	1.11	<1	**884**	**1,800**	621	57.6	16.6	896	**0.5**	**10.8**	NT
	2008	7.1	6,750	**4,780**	933	1,510	NT	932	<1	<1	109	**1,310**	585	51.5	5.11	834	**1.32**	**10.7**	ND
	2009	6.8	6,200	**5,700**	840	NT	NT	840	ND	840	**1,000**	**1,900**	570	50	5.6	860	NT	**10**	ND
	2010	7.26	5,600	**4,760**	770	1,600	NT	770	ND	NT	**880**	**1,900**	560	52	4.9	850	**0.22**	**9.7**	ND
	2011	7.18	5,800	**4,370**	780	1,600	NT	780	<2.0	NT	**350**	**900**	570	48	5.6	850	**1.7**	**9.4**	NT
MW-6	2001	6.9	5,470	**4,508**	740	1,550	NT	903	<1	<1	80	**2,780**	534	53.3	6.3	1,030	NT	NT	NT
	2002	6.8	4,460	**3,560**	669	932	NT	816	<1	<1	55	**1,900**	319	33	2.5	830	NT	NT	NT
	2003	7	3,070	**2,180**	1,140	602	NT	1,390	<1	<1	79	540	203	23.1	2.1	514	NT	NT	NT
	2004	7.2	4,100	**3,000**	1,000	1,100	NT	1,000	<1	<1	96	**1,400**	390	63	29	870	**23**	**4**	<0.10
	2005	7.2	4,100	**3,000**	1,100	670	NT	1,100	2	<1	93	**940**	220	28	6.7	670	**23**	**4**	<0.10
	2006	7.2	7,000	**4,500**	800	1,400	NT	800	3.6	<1	82	**2,600**	440	68	24	1,200	**87**	**11**	<0.10
	2007	7.1	7,460	**6,070**	678	1,320	NT	676	2.23	<1	57.5	**3,140**	529	65.1	17.3	1,500	**17.7**	**13.8**	NT
	2008	7.5	2,840	**1,920**	1,140	533	NT	1,140	1.25	1.25	<1	312	195	25.6	2.83	442	**24.5**	**2.62**	ND
	2009	7.14	2,800	**1,900**	1,100	NT	NT	1,100	ND	NT	180	260	180	23	2.2	430	**9.1**	**1.9**	ND
	2010	7.53	2,900	**2,130**	1,000	630	NT	1,000	ND	NT	170	500	210	26	1.6	510	**6.8**	**3.1**	ND
	2011	7.5	3,100	**1,890**	1,100	980	NT	1,100	<2.0	NT	150	490	320	46	12	570	**99**	**5.1**	NT
MW-7	2001	6.7	2,160	**1,710**	600	843	NT	732	<1	<1	52	642	296	25.6	1.6	234	NT	NT	NT
	2002	6.8	1,870	**1,570**	432	758	NT	527	<1	<1	20	700	258	27.8	2.2	151	NT	NT	NT
	2003	6.7	1,310	810	696	531	NT	849	<1	<1	35	57	152	36.8	1	126	NT	NT	NT
	2004	6.8	1,400	920	720	520	NT	720	<1	<1	13	120	170	23	7	170	**27**	**3**	<0.10
	2005	7	1,500	930	740	540	NT	740	1	<1	15	190	180	20	3.3	150	**27**	**0.3**	<0.10
	2006	7.4	1,800	**1,200**	750	660	NT	750	3.2	<1	16	310	220	23	3.3	170	**49**	**2.9**	<0.10
	2007	7.1	1,460	858	638	402	NT	636	1.8	<1	22.4	127	161	20.2	8.84	124	**32.7**	**2.34**	NT
	2008	7.3	1,320	810	748	369	NT	747	<1	<1	18.1	50.9	139	15.4	1.2	120	**14.4**	**1.6**	ND
	2009	7.03	1,200	750	680	NT	NT	680	ND	NT	22	6.8	150	17	0.9	140	**11**	**1.5**	ND
	2010	7.63	1,200	762	650	390	NT	650	ND	NT	24	6.5	130	15	ND	130	**8.4**	**1.2**	ND
	2011	7.5	1,300	734	670	460	NT	670	<2.0	NT	26	7.8	150	19	1.3	130	**47**	**1.3**	NT
NMWQCC Standard		**6-9**		**1,000**							**250**	**600**					**1**	**0.2**	

Notes:
mg/l - milligrams per liter
ND - not detected
NMWQCC - New Mexico Water Quality Control Commission
NT - not tested
NSP - not sampled due to product in the well
SU - standard units
umhos/cm - microhms per centimeter
Bold indicates value exceed NMWQCC standard

HISTORICAL GROUNDWATER ANALYTICAL RESULTS - METALS
BLOOMFIELD CRUDE STATION
WESTERN REFINING SOUTHWEST, INC.

Well Number	Year	Silver (mg/l)	Arsenic (mg/l)	Beryllium (mg/l)	Cadmium (mg/l)	Chromium (mg/l)	Copper (mg/l)	Mercury (mg/l)	Nickel (mg/l)	Lead (mg/l)	Antimony (mg/l)	Selenium (mg/l)	Thallium (mg/l)	Zinc (mg/l)
MW-2	1994	<0.01	<0.005	<0.004	<0.0005	0.01	0.012	<0.0002	<0.02	<0.002	<0.05	<0.005	<0.005	0.032
	2011	<0.0050	<0.020	NT	<0.0020	0.011	NT	<0.0002	NT	0.017	NT	<0.050	NT	NT
MW-3	1994	<0.01	<0.005	<0.004	<0.0005	<0.01	<0.01	<0.0002	<0.02	<0.002	<0.05	<0.005	<0.005	0.023
	2011	<0.0050	<0.020	NT	<0.0020	<0.0060	NT	<0.0002	NT	<0.0050	NT	<0.050	NT	NT
MW-4	1994	<0.01	<0.005	<0.004	<0.0005	<0.01	<0.01	<0.0002	<0.02	<0.002	<0.05	<0.005	<0.005	0.026
	2011	<0.0050	<0.020	NT	<0.0020	<0.0060	NT	<0.0002	NT	<0.0050	NT	<0.050	NT	NT
MW-5	1994	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
	2011	<0.0050	<0.020	NT	<0.0020	<0.0060	NT	<0.0002	NT	<0.0050	NT	<0.050	NT	NT
MW-6	1994	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
	2011	<0.0050	0.039	NT	<0.0020	0.042	NT	<0.0002	NT	0.023	NT	<0.050	NT	NT
MW-7	1994	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
	2011	<0.0050	<0.020	NT	<0.0020	<0.0060	NT	<0.0002	NT	0.0072	NT	<0.050	NT	NT
NMWQCC		**0.05**	**0.1**		**0.01**	**0.05**	**1**	**0.002**	**0.2**	**0.05**		**0.05**		**10**

Notes:
mg/l - milligrams per liter
NMWQCC - New Mexico Water Quality Control Commission
NT- not tested
< - indicates value is less than laboratory detection limit.
Bold indicates value exceeds NMWQCC standard.

HISTORICAL GROUNDWATER ANALYTICAL RESULTS - SEMI VOLATILE ORGANICS
BLOOMFIELD CRUDE STATION
WESTERN REFINING SOUTHWEST, INC

Well Number	YEAR	Indeno(1,2,3-cd) Pyrene (ug/l)	Acenaphthylene (ug/l)	Acenaphthene (ug/l)	Fluorene (ug/l)	Phenanthrene (ug/l)	Anthracene (ug/l)	Fluoranthene (ug/l)	Pyrene (ug/l)	Benzo(a)Anthracene (ug/l)	Chrysene (ug/l)	Benzo(b)Fluoranthene (ug/l)
MW-2	1994	<0.10	<1.0	<0.5	1.2	1.8	<0.05	1.2	<0.10	<0.10	0.17	<0.10
MW-3	1994	<0.10	<1.0	<0.5	<1.0	<0.05	<0.05	<0.10	<0.10	<0.10	<0.10	<0.10
MW-4	1994	<0.10	<1.0	<0.5	<1.0	<0.05	<0.05	<0.10	<0.10	<0.10	<0.10	<0.10
NMWQCC Standard												

Notes:

NMWQCC - New Mexico Water Quality Control Commission

ug/l - micrograms per liter

< - inidicates value is less than laboratory detection limit.

Bold indicates value exceed NMWQCC standard.

GROUNDWATER ANALYTICAL RESULTS - SEMI VOLATILE ORGANICS
BLOOMFIELD CRUDE STATION
WESTERN REFINING SOUTHWEST, INC

Well Number	YEAR	Benzo(k)Fluoranthene (ug/l)	Benzo(a)Pyrene (ug/l)	Di-benzo(a,h)Anthracene (ug/l)	Benzo(g,h,l)Perylene (ug/l)	Naphthalene (ug/l)	1-Methylnaphthalene (ug/l)	1-Methylnaphthalene (ug/l)
MW-2	1994	<0.10	<0.10	<0.20	<0.10	8.9	5.9	5.8
MW-3	1994	<0.10	<0.10	<0.20	<0.10	<0.50	<0.30	<0.30
MW-4	1994	<0.10	<0.10	<0.20	<0.10	<0.50	<0.30	<0.30
NMWQCC Standard			**0.7**			**Combined to 30**		